TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 180-44203-1

Job Description: Harley Davidson

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

Attention: Allan Miller

Approved for release.
Carrie L Gamber
Senior Project Manager
5/31/2015 6:25 PM

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05/31/2015

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Qualifiers

GC/MS VOA

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

HPLC/IC

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

Metals

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

General Chemistry

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

Glossary

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

CASE NARRATIVE

Client: Groundwater Sciences Corporation

Project: Harley Davidson

Report Number: 180-44203-1

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 05/19/2015; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 1.8 C.

VOLATILES
The following samples was diluted to bring the concentration of target analytes within the calibration range: HD-MW-93S-0/1-0 (180-44203-7) and HD-MW-93D-0/1-0 (180-44203-8). Elevated reporting limits (RLs) are provided.

cis-1,2-Dichloroethene and Trichloroethene failed the recovery criteria low for the MS/MSD of sample HD-MW-99S-0/1-0 (180-44203-3) in batch 180-142745.

METALS
Calcium failed the recovery criteria low for the MS of sample HD-MW-99S-0/1-0 (180-44203-3) in batch 180-142993.

The serial dilution performed for the following sample associated with batch 142245 was outside control limits for magnesium.: HD-MW-99S-0/1-0 (180-44203-3)

ALKALINITY
Bicarbonate Alkalinity as CaCO3 and Total Alkalinity as CaCO3 to pH 4.5 were detected in method blank MB 180-142343/2 at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

IC
Nitrate as N was detected in method blank MB 180-142093/6 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Chloride failed the recovery criteria low for the MS of sample HD-MW-99S-0/1-0 (180-44203-3) in batch 180-142093. The presence of the '4' qualifier indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Detection Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-44203-1

Client Sample ID: HD-MW-98S-0/1-0 — Lab Sample ID: 180-44203-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.68	J	1.0	0.30	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	0.43	J	1.0	0.12	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	9.2		1.0	0.24	ug/L	1		8260C	Total/NA
1,1,1-Trichloroethane	1.6		1.0	0.29	ug/L	1		8260C	Total/NA
Trichloroethene	9.1		1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	10		1.0	0.15	ug/L	1		8260C	Total/NA
Nitrate as N	3.0	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	60		1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	44		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	110000		500	2.8	ug/L	1		6020A	Total/NA
Potassium	2800		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	11000		500	1.2	ug/L	1		6020A	Total/NA
Sodium	23000		500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	290	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	290	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-MW-98I-0/1-0 — Lab Sample ID: 180-44203-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.83	J	1.0	0.30	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	0.45	J	1.0	0.12	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	13		1.0	0.24	ug/L	1		8260C	Total/NA
1,1,1-Trichloroethane	2.1		1.0	0.29	ug/L	1		8260C	Total/NA
Trichloroethene	12		1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	13		1.0	0.15	ug/L	1		8260C	Total/NA
Nitrate as N	2.8	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	54		1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	42		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	100000		500	2.8	ug/L	1		6020A	Total/NA
Potassium	2700		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	11000		500	1.2	ug/L	1		6020A	Total/NA
Sodium	21000		500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	300	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	300	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-MW-99S-0/1-0 — Lab Sample ID: 180-44203-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	2.1		1.0	0.30	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	1.1		1.0	0.12	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	29	F1	1.0	0.24	ug/L	1		8260C	Total/NA
Chloroform	0.21	J	1.0	0.17	ug/L	1		8260C	Total/NA
1,1,1-Trichloroethane	3.9		1.0	0.29	ug/L	1		8260C	Total/NA
Trichloroethene	27	F1	1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	20		1.0	0.15	ug/L	1		8260C	Total/NA
Nitrate as N	3.0	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	100		1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	32		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	95000		500	2.8	ug/L	1		6020A	Total/NA
Potassium	3500		500	5.8	ug/L	1		6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: HD-MW-99S-0/1-0 (Continued) — Lab Sample ID: 180-44203-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Magnesium	13000		500	1.2	ug/L	1		6020A	Total/NA
Sodium	34000		500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	260	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	260	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-MW-145A-0/1-0 — Lab Sample ID: 180-44203-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.48	J	1.0	0.30	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	10		1.0	0.24	ug/L	1		8260C	Total/NA
Chloroform	0.28	J	1.0	0.17	ug/L	1		8260C	Total/NA
1,1,1-Trichloroethane	0.58	J	1.0	0.29	ug/L	1		8260C	Total/NA
Trichloroethene	13		1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	9.2		1.0	0.15	ug/L	1		8260C	Total/NA
Nitrate as N	3.6	B	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	84000		500	2.8	ug/L	1		6020A	Total/NA
Potassium	4700		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	16000		500	1.2	ug/L	1		6020A	Total/NA
Sodium	49000		500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	250	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	250	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-QC1-0/1-1 — Lab Sample ID: 180-44203-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.68	J	1.0	0.30	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	0.24	J	1.0	0.12	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	10		1.0	0.24	ug/L	1		8260C	Total/NA
Chloroform	0.30	J	1.0	0.17	ug/L	1		8260C	Total/NA
1,1,1-Trichloroethane	0.61	J	1.0	0.29	ug/L	1		8260C	Total/NA
Trichloroethene	13		1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	9.5		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	130		1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	35		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	84000		500	2.8	ug/L	1		6020A	Total/NA
Potassium	4700		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	16000		500	1.2	ug/L	1		6020A	Total/NA
Sodium	51000		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	240	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-QC1-0/1-2 — Lab Sample ID: 180-44203-6

No Detections.

Client Sample ID: HD-MW-93S-0/1-0 — Lab Sample ID: 180-44203-7

This Detection Summary does not include radiochemical test results.

Client Sample ID: HD-MW-93S-0/1-0 (Continued)

Lab Sample ID: 180-44203-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	1.5	J	5.0	1.5	ug/L	5		8260C	Total/NA
Methylene Chloride	2.8	J	5.0	0.63	ug/L	5		8260C	Total/NA
1,1-Dichloroethane	1.7	J	5.0	0.58	ug/L	5		8260C	Total/NA
cis-1,2-Dichloroethene	56		5.0	1.2	ug/L	5		8260C	Total/NA
1,1,1-Trichloroethane	7.9		5.0	1.4	ug/L	5		8260C	Total/NA
Trichloroethene	47		5.0	0.72	ug/L	5		8260C	Total/NA
Tetrachloroethene	130		5.0	0.74	ug/L	5		8260C	Total/NA
Nitrate as N	1.2	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	150		1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	36		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	61000		500	2.8	ug/L	1		6020A	Total/NA
Potassium	9300		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	15000		500	1.2	ug/L	1		6020A	Total/NA
Sodium	61000		500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	180	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	180	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

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

Lab Sample ID: 180-44203-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	5.6	J	10	3.0	ug/L	10		8260C	Total/NA
Methylene Chloride	6.9	J	10	1.3	ug/L	10		8260C	Total/NA
1,1-Dichloroethane	3.9	J	10	1.2	ug/L	10		8260C	Total/NA
cis-1,2-Dichloroethene	75		10	2.4	ug/L	10		8260C	Total/NA
1,1,1-Trichloroethane	8.5	J	10	2.9	ug/L	10		8260C	Total/NA
Trichloroethene	140		10	1.4	ug/L	10		8260C	Total/NA
Tetrachloroethene	150		10	1.5	ug/L	10		8260C	Total/NA
Nitrate as N	0.51	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	100		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	63000		500	2.8	ug/L	1		6020A	Total/NA
Potassium	4500		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	13000		500	1.2	ug/L	1		6020A	Total/NA
Sodium	35000		500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	180	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	180	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

This Detection Summary does not include radiochemical test results.

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

Client Sample ID: HD-MW-98S-0/1-0
Date Collected: 05/18/15 12:50
Date Received: 05/19/15 08:50

Lab Sample ID: 180-44203-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			05/26/15 16:30	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			05/26/15 16:30	1
Bromomethane	1.0	U	1.0	0.31	ug/L			05/26/15 16:30	1
Chloroethane	1.0	U	1.0	0.21	ug/L			05/26/15 16:30	1
1,1-Dichloroethene	**0.68**	**J**	1.0	0.30	ug/L			05/26/15 16:30	1
Acetone	5.0	U	5.0	2.5	ug/L			05/26/15 16:30	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			05/26/15 16:30	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			05/26/15 16:30	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			05/26/15 16:30	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			05/26/15 16:30	1
1,1-Dichloroethane	**0.43**	**J**	1.0	0.12	ug/L			05/26/15 16:30	1
cis-1,2-Dichloroethene	**9.2**		1.0	0.24	ug/L			05/26/15 16:30	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			05/26/15 16:30	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			05/26/15 16:30	1
Chloroform	1.0	U	1.0	0.17	ug/L			05/26/15 16:30	1
1,1,1-Trichloroethane	**1.6**		1.0	0.29	ug/L			05/26/15 16:30	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			05/26/15 16:30	1
Benzene	1.0	U	1.0	0.11	ug/L			05/26/15 16:30	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/26/15 16:30	1
Trichloroethene	**9.1**		1.0	0.14	ug/L			05/26/15 16:30	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			05/26/15 16:30	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			05/26/15 16:30	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			05/26/15 16:30	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			05/26/15 16:30	1
Toluene	1.0	U	1.0	0.15	ug/L			05/26/15 16:30	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			05/26/15 16:30	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/26/15 16:30	1
Tetrachloroethene	**10**		1.0	0.15	ug/L			05/26/15 16:30	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			05/26/15 16:30	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			05/26/15 16:30	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			05/26/15 16:30	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			05/26/15 16:30	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			05/26/15 16:30	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			05/26/15 16:30	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			05/26/15 16:30	1
Styrene	1.0	U	1.0	0.097	ug/L			05/26/15 16:30	1
Bromoform	1.0	U	1.0	0.19	ug/L			05/26/15 16:30	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			05/26/15 16:30	1
Acrylonitrile	20	U	20	0.55	ug/L			05/26/15 16:30	1
1,4-Dioxane	200	U	200	34	ug/L			05/26/15 16:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*115*		*64 - 135*		*05/26/15 16:30*	*1*
Toluene-d8 (Surr)	*98*		*71 - 118*		*05/26/15 16:30*	*1*
4-Bromofluorobenzene (Surr)	*89*		*70 - 118*		*05/26/15 16:30*	*1*
Dibromofluoromethane (Surr)	*113*		*70 - 128*		*05/26/15 16:30*	*1*

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

Client Sample ID: HD-MW-98I-0/1-0
Date Collected: 05/18/15 13:45
Date Received: 05/19/15 08:50

Lab Sample ID: 180-44203-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			05/24/15 23:35	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			05/24/15 23:35	1
Bromomethane	1.0	U	1.0	0.31	ug/L			05/24/15 23:35	1
Chloroethane	1.0	U	1.0	0.21	ug/L			05/24/15 23:35	1
1,1-Dichloroethene	**0.83**	**J**	1.0	0.30	ug/L			05/24/15 23:35	1
Acetone	5.0	U	5.0	2.5	ug/L			05/24/15 23:35	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			05/24/15 23:35	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			05/24/15 23:35	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			05/24/15 23:35	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			05/24/15 23:35	1
1,1-Dichloroethane	**0.45**	**J**	1.0	0.12	ug/L			05/24/15 23:35	1
cis-1,2-Dichloroethene	**13**		1.0	0.24	ug/L			05/24/15 23:35	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			05/24/15 23:35	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			05/24/15 23:35	1
Chloroform	1.0	U	1.0	0.17	ug/L			05/24/15 23:35	1
1,1,1-Trichloroethane	**2.1**		1.0	0.29	ug/L			05/24/15 23:35	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			05/24/15 23:35	1
Benzene	1.0	U	1.0	0.11	ug/L			05/24/15 23:35	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/24/15 23:35	1
Trichloroethene	**12**		1.0	0.14	ug/L			05/24/15 23:35	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			05/24/15 23:35	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			05/24/15 23:35	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			05/24/15 23:35	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			05/24/15 23:35	1
Toluene	1.0	U	1.0	0.15	ug/L			05/24/15 23:35	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			05/24/15 23:35	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/24/15 23:35	1
Tetrachloroethene	**13**		1.0	0.15	ug/L			05/24/15 23:35	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			05/24/15 23:35	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			05/24/15 23:35	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			05/24/15 23:35	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			05/24/15 23:35	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			05/24/15 23:35	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			05/24/15 23:35	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			05/24/15 23:35	1
Styrene	1.0	U	1.0	0.097	ug/L			05/24/15 23:35	1
Bromoform	1.0	U	1.0	0.19	ug/L			05/24/15 23:35	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			05/24/15 23:35	1
Acrylonitrile	20	U	20	0.55	ug/L			05/24/15 23:35	1
1,4-Dioxane	200	U	200	34	ug/L			05/24/15 23:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*122*		*64 - 135*		*05/24/15 23:35*	*1*
Toluene-d8 (Surr)	*101*		*71 - 118*		*05/24/15 23:35*	*1*
4-Bromofluorobenzene (Surr)	*92*		*70 - 118*		*05/24/15 23:35*	*1*
Dibromofluoromethane (Surr)	*120*		*70 - 128*		*05/24/15 23:35*	*1*

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

Client Sample ID: HD-MW-99S-0/1-0
Date Collected: 05/18/15 09:55
Date Received: 05/19/15 08:50

Lab Sample ID: 180-44203-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			05/26/15 14:07	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			05/26/15 14:07	1
Bromomethane	1.0	U	1.0	0.31	ug/L			05/26/15 14:07	1
Chloroethane	1.0	U	1.0	0.21	ug/L			05/26/15 14:07	1
1,1-Dichloroethene	**2.1**		1.0	0.30	ug/L			05/26/15 14:07	1
Acetone	5.0	U	5.0	2.5	ug/L			05/26/15 14:07	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			05/26/15 14:07	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			05/26/15 14:07	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			05/26/15 14:07	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			05/26/15 14:07	1
1,1-Dichloroethane	**1.1**		1.0	0.12	ug/L			05/26/15 14:07	1
cis-1,2-Dichloroethene	**29**	**F1**	1.0	0.24	ug/L			05/26/15 14:07	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			05/26/15 14:07	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			05/26/15 14:07	1
Chloroform	**0.21**	**J**	1.0	0.17	ug/L			05/26/15 14:07	1
1,1,1-Trichloroethane	**3.9**		1.0	0.29	ug/L			05/26/15 14:07	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			05/26/15 14:07	1
Benzene	1.0	U	1.0	0.11	ug/L			05/26/15 14:07	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/26/15 14:07	1
Trichloroethene	**27**	**F1**	1.0	0.14	ug/L			05/26/15 14:07	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			05/26/15 14:07	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			05/26/15 14:07	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			05/26/15 14:07	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			05/26/15 14:07	1
Toluene	1.0	U	1.0	0.15	ug/L			05/26/15 14:07	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			05/26/15 14:07	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/26/15 14:07	1
Tetrachloroethene	**20**		1.0	0.15	ug/L			05/26/15 14:07	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			05/26/15 14:07	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			05/26/15 14:07	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			05/26/15 14:07	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			05/26/15 14:07	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			05/26/15 14:07	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			05/26/15 14:07	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			05/26/15 14:07	1
Styrene	1.0	U	1.0	0.097	ug/L			05/26/15 14:07	1
Bromoform	1.0	U	1.0	0.19	ug/L			05/26/15 14:07	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			05/26/15 14:07	1
Acrylonitrile	20	U	20	0.55	ug/L			05/26/15 14:07	1
1,4-Dioxane	200	U	200	34	ug/L			05/26/15 14:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*112*		*64 - 135*		*05/26/15 14:07*	*1*
Toluene-d8 (Surr)	*101*		*71 - 118*		*05/26/15 14:07*	*1*
4-Bromofluorobenzene (Surr)	*90*		*70 - 118*		*05/26/15 14:07*	*1*
Dibromofluoromethane (Surr)	*111*		*70 - 128*		*05/26/15 14:07*	*1*

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

Client Sample ID: HD-MW-145A-0/1-0
Date Collected: 05/18/15 11:25
Date Received: 05/19/15 08:50

Lab Sample ID: 180-44203-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			05/27/15 16:26	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			05/27/15 16:26	1
Bromomethane	1.0	U	1.0	0.31	ug/L			05/27/15 16:26	1
Chloroethane	1.0	U	1.0	0.21	ug/L			05/27/15 16:26	1
1,1-Dichloroethene	**0.48**	**J**	1.0	0.30	ug/L			05/27/15 16:26	1
Acetone	5.0	U	5.0	2.5	ug/L			05/27/15 16:26	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			05/27/15 16:26	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			05/27/15 16:26	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			05/27/15 16:26	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			05/27/15 16:26	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			05/27/15 16:26	1
cis-1,2-Dichloroethene	**10**		1.0	0.24	ug/L			05/27/15 16:26	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			05/27/15 16:26	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			05/27/15 16:26	1
Chloroform	**0.28**	**J**	1.0	0.17	ug/L			05/27/15 16:26	1
1,1,1-Trichloroethane	**0.58**	**J**	1.0	0.29	ug/L			05/27/15 16:26	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			05/27/15 16:26	1
Benzene	1.0	U	1.0	0.11	ug/L			05/27/15 16:26	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/27/15 16:26	1
Trichloroethene	**13**		1.0	0.14	ug/L			05/27/15 16:26	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			05/27/15 16:26	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			05/27/15 16:26	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			05/27/15 16:26	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			05/27/15 16:26	1
Toluene	1.0	U	1.0	0.15	ug/L			05/27/15 16:26	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			05/27/15 16:26	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/27/15 16:26	1
Tetrachloroethene	**9.2**		1.0	0.15	ug/L			05/27/15 16:26	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			05/27/15 16:26	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			05/27/15 16:26	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			05/27/15 16:26	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			05/27/15 16:26	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			05/27/15 16:26	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			05/27/15 16:26	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			05/27/15 16:26	1
Styrene	1.0	U	1.0	0.097	ug/L			05/27/15 16:26	1
Bromoform	1.0	U	1.0	0.19	ug/L			05/27/15 16:26	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			05/27/15 16:26	1
Acrylonitrile	20	U	20	0.55	ug/L			05/27/15 16:26	1
1,4-Dioxane	200	U	200	34	ug/L			05/27/15 16:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*64 - 135*		*05/27/15 16:26*	*1*
Toluene-d8 (Surr)	*102*		*71 - 118*		*05/27/15 16:26*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 118*		*05/27/15 16:26*	*1*
Dibromofluoromethane (Surr)	*106*		*70 - 128*		*05/27/15 16:26*	*1*

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

Client Sample ID: HD-QC1-0/1-1
Date Collected: 05/18/15 08:00
Date Received: 05/19/15 08:50

Lab Sample ID: 180-44203-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			05/26/15 17:18	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			05/26/15 17:18	1
Bromomethane	1.0	U	1.0	0.31	ug/L			05/26/15 17:18	1
Chloroethane	1.0	U	1.0	0.21	ug/L			05/26/15 17:18	1
1,1-Dichloroethene	**0.68**	**J**	1.0	0.30	ug/L			05/26/15 17:18	1
Acetone	5.0	U	5.0	2.5	ug/L			05/26/15 17:18	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			05/26/15 17:18	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			05/26/15 17:18	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			05/26/15 17:18	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			05/26/15 17:18	1
1,1-Dichloroethane	**0.24**	**J**	1.0	0.12	ug/L			05/26/15 17:18	1
cis-1,2-Dichloroethene	**10**		1.0	0.24	ug/L			05/26/15 17:18	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			05/26/15 17:18	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			05/26/15 17:18	1
Chloroform	**0.30**	**J**	1.0	0.17	ug/L			05/26/15 17:18	1
1,1,1-Trichloroethane	**0.61**	**J**	1.0	0.29	ug/L			05/26/15 17:18	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			05/26/15 17:18	1
Benzene	1.0	U	1.0	0.11	ug/L			05/26/15 17:18	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/26/15 17:18	1
Trichloroethene	**13**		1.0	0.14	ug/L			05/26/15 17:18	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			05/26/15 17:18	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			05/26/15 17:18	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			05/26/15 17:18	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			05/26/15 17:18	1
Toluene	1.0	U	1.0	0.15	ug/L			05/26/15 17:18	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			05/26/15 17:18	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/26/15 17:18	1
Tetrachloroethene	**9.5**		1.0	0.15	ug/L			05/26/15 17:18	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			05/26/15 17:18	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			05/26/15 17:18	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			05/26/15 17:18	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			05/26/15 17:18	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			05/26/15 17:18	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			05/26/15 17:18	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			05/26/15 17:18	1
Styrene	1.0	U	1.0	0.097	ug/L			05/26/15 17:18	1
Bromoform	1.0	U	1.0	0.19	ug/L			05/26/15 17:18	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			05/26/15 17:18	1
Acrylonitrile	20	U	20	0.55	ug/L			05/26/15 17:18	1
1,4-Dioxane	200	U	200	34	ug/L			05/26/15 17:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*120*		*64 - 135*		*05/26/15 17:18*	*1*
Toluene-d8 (Surr)	*101*		*71 - 118*		*05/26/15 17:18*	*1*
4-Bromofluorobenzene (Surr)	*90*		*70 - 118*		*05/26/15 17:18*	*1*
Dibromofluoromethane (Surr)	*117*		*70 - 128*		*05/26/15 17:18*	*1*

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

Client Sample ID: HD-QC1-0/1-2
Date Collected: 05/18/15 12:00
Date Received: 05/19/15 08:50

Lab Sample ID: 180-44203-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			05/26/15 13:05	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			05/26/15 13:05	1
Bromomethane	1.0	U	1.0	0.31	ug/L			05/26/15 13:05	1
Chloroethane	1.0	U	1.0	0.21	ug/L			05/26/15 13:05	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			05/26/15 13:05	1
Acetone	5.0	U	5.0	2.5	ug/L			05/26/15 13:05	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			05/26/15 13:05	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			05/26/15 13:05	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			05/26/15 13:05	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			05/26/15 13:05	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			05/26/15 13:05	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			05/26/15 13:05	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			05/26/15 13:05	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			05/26/15 13:05	1
Chloroform	1.0	U	1.0	0.17	ug/L			05/26/15 13:05	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			05/26/15 13:05	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			05/26/15 13:05	1
Benzene	1.0	U	1.0	0.11	ug/L			05/26/15 13:05	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/26/15 13:05	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			05/26/15 13:05	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			05/26/15 13:05	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			05/26/15 13:05	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			05/26/15 13:05	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			05/26/15 13:05	1
Toluene	1.0	U	1.0	0.15	ug/L			05/26/15 13:05	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			05/26/15 13:05	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/26/15 13:05	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			05/26/15 13:05	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			05/26/15 13:05	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			05/26/15 13:05	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			05/26/15 13:05	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			05/26/15 13:05	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			05/26/15 13:05	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			05/26/15 13:05	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			05/26/15 13:05	1
Styrene	1.0	U	1.0	0.097	ug/L			05/26/15 13:05	1
Bromoform	1.0	U	1.0	0.19	ug/L			05/26/15 13:05	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			05/26/15 13:05	1
Acrylonitrile	20	U	20	0.55	ug/L			05/26/15 13:05	1
1,4-Dioxane	200	U	200	34	ug/L			05/26/15 13:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*116*		*64 - 135*		*05/26/15 13:05*	*1*
Toluene-d8 (Surr)	*101*		*71 - 118*		*05/26/15 13:05*	*1*
4-Bromofluorobenzene (Surr)	*91*		*70 - 118*		*05/26/15 13:05*	*1*
Dibromofluoromethane (Surr)	*112*		*70 - 128*		*05/26/15 13:05*	*1*

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

Client Sample ID: HD-MW-93S-0/1-0
Date Collected: 05/18/15 12:27
Date Received: 05/19/15 08:50

Lab Sample ID: 180-44203-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	5.0	U	5.0	1.4	ug/L			05/26/15 18:05	5
Vinyl chloride	5.0	U	5.0	1.1	ug/L			05/26/15 18:05	5
Bromomethane	5.0	U	5.0	1.6	ug/L			05/26/15 18:05	5
Chloroethane	5.0	U	5.0	1.1	ug/L			05/26/15 18:05	5
1,1-Dichloroethene	**1.5**	**J**	5.0	1.5	ug/L			05/26/15 18:05	5
Acetone	25	U	25	13	ug/L			05/26/15 18:05	5
Carbon disulfide	5.0	U	5.0	1.1	ug/L			05/26/15 18:05	5
Methylene Chloride	**2.8**	**J**	5.0	0.63	ug/L			05/26/15 18:05	5
trans-1,2-Dichloroethene	5.0	U	5.0	0.85	ug/L			05/26/15 18:05	5
Methyl tert-butyl ether	5.0	U	5.0	0.92	ug/L			05/26/15 18:05	5
1,1-Dichloroethane	**1.7**	**J**	5.0	0.58	ug/L			05/26/15 18:05	5
cis-1,2-Dichloroethene	**56**		5.0	1.2	ug/L			05/26/15 18:05	5
Bromochloromethane	5.0	U	5.0	0.90	ug/L			05/26/15 18:05	5
2-Butanone (MEK)	25	U	25	2.7	ug/L			05/26/15 18:05	5
Chloroform	5.0	U	5.0	0.85	ug/L			05/26/15 18:05	5
1,1,1-Trichloroethane	**7.9**		5.0	1.4	ug/L			05/26/15 18:05	5
Carbon tetrachloride	5.0	U	5.0	0.68	ug/L			05/26/15 18:05	5
Benzene	5.0	U	5.0	0.53	ug/L			05/26/15 18:05	5
1,2-Dichloroethane	5.0	U	5.0	1.1	ug/L			05/26/15 18:05	5
Trichloroethene	**47**		5.0	0.72	ug/L			05/26/15 18:05	5
1,2-Dichloropropane	5.0	U	5.0	0.47	ug/L			05/26/15 18:05	5
Bromodichloromethane	5.0	U	5.0	0.65	ug/L			05/26/15 18:05	5
cis-1,3-Dichloropropene	5.0	U	5.0	0.93	ug/L			05/26/15 18:05	5
4-Methyl-2-pentanone (MIBK)	25	U	25	2.6	ug/L			05/26/15 18:05	5
Toluene	5.0	U	5.0	0.75	ug/L			05/26/15 18:05	5
trans-1,3-Dichloropropene	5.0	U	5.0	0.74	ug/L			05/26/15 18:05	5
1,1,2-Trichloroethane	5.0	U	5.0	1.0	ug/L			05/26/15 18:05	5
Tetrachloroethene	**130**		5.0	0.74	ug/L			05/26/15 18:05	5
2-Hexanone	25	U	25	0.80	ug/L			05/26/15 18:05	5
Dibromochloromethane	5.0	U	5.0	0.68	ug/L			05/26/15 18:05	5
1,2-Dibromoethane (EDB)	5.0	U	5.0	0.90	ug/L			05/26/15 18:05	5
Chlorobenzene	5.0	U	5.0	0.68	ug/L			05/26/15 18:05	5
1,1,1,2-Tetrachloroethane	5.0	U	5.0	1.4	ug/L			05/26/15 18:05	5
Ethylbenzene	5.0	U	5.0	1.1	ug/L			05/26/15 18:05	5
Xylenes, Total	15	U	15	2.4	ug/L			05/26/15 18:05	5
Styrene	5.0	U	5.0	0.48	ug/L			05/26/15 18:05	5
Bromoform	5.0	U	5.0	0.96	ug/L			05/26/15 18:05	5
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1.0	ug/L			05/26/15 18:05	5
Acrylonitrile	100	U	100	2.7	ug/L			05/26/15 18:05	5
1,4-Dioxane	1000	U	1000	170	ug/L			05/26/15 18:05	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*120*		*64 - 135*		*05/26/15 18:05*	*5*
Toluene-d8 (Surr)	*100*		*71 - 118*		*05/26/15 18:05*	*5*
4-Bromofluorobenzene (Surr)	*92*		*70 - 118*		*05/26/15 18:05*	*5*
Dibromofluoromethane (Surr)	*114*		*70 - 128*		*05/26/15 18:05*	*5*

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

Client Sample ID: HD-MW-93D-0/1-0
Date Collected: 05/18/15 10:22
Date Received: 05/19/15 08:50

Lab Sample ID: 180-44203-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	10	U	10	2.8	ug/L			05/26/15 19:18	10
Vinyl chloride	10	U	10	2.3	ug/L			05/26/15 19:18	10
Bromomethane	10	U	10	3.1	ug/L			05/26/15 19:18	10
Chloroethane	10	U	10	2.1	ug/L			05/26/15 19:18	10
1,1-Dichloroethene	**5.6**	**J**	10	3.0	ug/L			05/26/15 19:18	10
Acetone	50	U	50	25	ug/L			05/26/15 19:18	10
Carbon disulfide	10	U	10	2.1	ug/L			05/26/15 19:18	10
Methylene Chloride	**6.9**	**J**	10	1.3	ug/L			05/26/15 19:18	10
trans-1,2-Dichloroethene	10	U	10	1.7	ug/L			05/26/15 19:18	10
Methyl tert-butyl ether	10	U	10	1.8	ug/L			05/26/15 19:18	10
1,1-Dichloroethane	**3.9**	**J**	10	1.2	ug/L			05/26/15 19:18	10
cis-1,2-Dichloroethene	**75**		10	2.4	ug/L			05/26/15 19:18	10
Bromochloromethane	10	U	10	1.8	ug/L			05/26/15 19:18	10
2-Butanone (MEK)	50	U	50	5.5	ug/L			05/26/15 19:18	10
Chloroform	10	U	10	1.7	ug/L			05/26/15 19:18	10
1,1,1-Trichloroethane	**8.5**	**J**	10	2.9	ug/L			05/26/15 19:18	10
Carbon tetrachloride	10	U	10	1.4	ug/L			05/26/15 19:18	10
Benzene	10	U	10	1.1	ug/L			05/26/15 19:18	10
1,2-Dichloroethane	10	U	10	2.1	ug/L			05/26/15 19:18	10
Trichloroethene	**140**		10	1.4	ug/L			05/26/15 19:18	10
1,2-Dichloropropane	10	U	10	0.95	ug/L			05/26/15 19:18	10
Bromodichloromethane	10	U	10	1.3	ug/L			05/26/15 19:18	10
cis-1,3-Dichloropropene	10	U	10	1.9	ug/L			05/26/15 19:18	10
4-Methyl-2-pentanone (MIBK)	50	U	50	5.3	ug/L			05/26/15 19:18	10
Toluene	10	U	10	1.5	ug/L			05/26/15 19:18	10
trans-1,3-Dichloropropene	10	U	10	1.5	ug/L			05/26/15 19:18	10
1,1,2-Trichloroethane	10	U	10	2.0	ug/L			05/26/15 19:18	10
Tetrachloroethene	**150**		10	1.5	ug/L			05/26/15 19:18	10
2-Hexanone	50	U	50	1.6	ug/L			05/26/15 19:18	10
Dibromochloromethane	10	U	10	1.4	ug/L			05/26/15 19:18	10
1,2-Dibromoethane (EDB)	10	U	10	1.8	ug/L			05/26/15 19:18	10
Chlorobenzene	10	U	10	1.4	ug/L			05/26/15 19:18	10
1,1,1,2-Tetrachloroethane	10	U	10	2.8	ug/L			05/26/15 19:18	10
Ethylbenzene	10	U	10	2.3	ug/L			05/26/15 19:18	10
Xylenes, Total	30	U	30	4.9	ug/L			05/26/15 19:18	10
Styrene	10	U	10	0.97	ug/L			05/26/15 19:18	10
Bromoform	10	U	10	1.9	ug/L			05/26/15 19:18	10
1,1,2,2-Tetrachloroethane	10	U	10	2.0	ug/L			05/26/15 19:18	10
Acrylonitrile	200	U	200	5.5	ug/L			05/26/15 19:18	10
1,4-Dioxane	2000	U	2000	340	ug/L			05/26/15 19:18	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*120*		*64 - 135*		*05/26/15 19:18*	*10*
Toluene-d8 (Surr)	*106*		*71 - 118*		*05/26/15 19:18*	*10*
4-Bromofluorobenzene (Surr)	*94*		*70 - 118*		*05/26/15 19:18*	*10*
Dibromofluoromethane (Surr)	*118*		*70 - 128*		*05/26/15 19:18*	*10*

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-98S-0/1-0
Date Collected: 05/18/15 12:50
Date Received: 05/19/15 08:50

Lab Sample ID: 180-44203-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	3.0	B	0.10	0.0062	mg/L			05/19/15 13:50	1
Chloride	60		1.0	0.20	mg/L			05/19/15 13:50	1
Sulfate	44		1.0	0.21	mg/L			05/19/15 13:50	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-44203-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-98I-0/1-0
Date Collected: 05/18/15 13:45
Date Received: 05/19/15 08:50

Lab Sample ID: 180-44203-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.8	B	0.10	0.0062	mg/L			05/19/15 14:08	1
Chloride	54		1.0	0.20	mg/L			05/19/15 14:08	1
Sulfate	42		1.0	0.21	mg/L			05/19/15 14:08	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-44203-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-99S-0/1-0
Date Collected: 05/18/15 09:55
Date Received: 05/19/15 08:50

Lab Sample ID: 180-44203-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	3.0	B	0.10	0.0062	mg/L			05/19/15 14:25	1
Chloride	100		1.0	0.20	mg/L			05/19/15 14:25	1
Sulfate	32		1.0	0.21	mg/L			05/19/15 14:25	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-145A-0/1-0
Date Collected: 05/18/15 11:25
Date Received: 05/19/15 08:50

Lab Sample ID: 180-44203-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	3.6	B	0.10	0.0062	mg/L			05/19/15 15:17	1
Chloride	140		1.0	0.20	mg/L			05/19/15 15:17	1
Sulfate	37		1.0	0.21	mg/L			05/19/15 15:17	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-QC1-0/1-1
Date Collected: 05/18/15 08:00
Date Received: 05/19/15 08:50

Lab Sample ID: 180-44203-5
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			05/19/15 15:34	1
Chloride	130		1.0	0.20	mg/L			05/19/15 15:34	1
Sulfate	35		1.0	0.21	mg/L			05/19/15 15:34	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-93S-0/1-0
Date Collected: 05/18/15 12:27
Date Received: 05/19/15 08:50

Lab Sample ID: 180-44203-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	1.2	B	0.10	0.0062	mg/L			05/19/15 16:26	1
Chloride	150		1.0	0.20	mg/L			05/19/15 16:26	1
Sulfate	36		1.0	0.21	mg/L			05/19/15 16:26	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-93D-0/1-0
Date Collected: 05/18/15 10:22
Date Received: 05/19/15 08:50

Lab Sample ID: 180-44203-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.51	B	0.10	0.0062	mg/L			05/19/15 16:44	1
Chloride	100		1.0	0.20	mg/L			05/19/15 16:44	1
Sulfate	31		1.0	0.21	mg/L			05/19/15 16:44	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-44203-1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-98S-0/1-0
Date Collected: 05/18/15 12:50
Date Received: 05/19/15 08:50

Lab Sample ID: 180-44203-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	110000		500	2.8	ug/L		05/20/15 12:06	05/27/15 15:13	1
Potassium	2800		500	5.8	ug/L		05/20/15 12:06	05/27/15 15:13	1
Magnesium	11000		500	1.2	ug/L		05/20/15 12:06	05/27/15 15:13	1
Sodium	23000		500	3.8	ug/L		05/20/15 12:06	05/27/15 15:13	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-98I-0/1-0
Date Collected: 05/18/15 13:45
Date Received: 05/19/15 08:50

Lab Sample ID: 180-44203-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	100000		500	2.8	ug/L		05/20/15 12:06	05/27/15 15:17	1
Potassium	2700		500	5.8	ug/L		05/20/15 12:06	05/27/15 15:17	1
Magnesium	11000		500	1.2	ug/L		05/20/15 12:06	05/27/15 15:17	1
Sodium	21000		500	3.8	ug/L		05/20/15 12:06	05/27/15 15:17	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-99S-0/1-0
Date Collected: 05/18/15 09:55
Date Received: 05/19/15 08:50

Lab Sample ID: 180-44203-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	95000		500	2.8	ug/L		05/20/15 12:06	05/27/15 15:21	1
Potassium	3500		500	5.8	ug/L		05/20/15 12:06	05/27/15 15:21	1
Magnesium	13000		500	1.2	ug/L		05/20/15 12:06	05/27/15 15:21	1
Sodium	34000		500	3.8	ug/L		05/20/15 12:06	05/27/15 15:21	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-145A-0/1-0
Date Collected: 05/18/15 11:25
Date Received: 05/19/15 08:50

Lab Sample ID: 180-44203-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	84000		500	2.8	ug/L		05/20/15 12:06	05/27/15 15:50	1
Potassium	4700		500	5.8	ug/L		05/20/15 12:06	05/27/15 15:50	1
Magnesium	16000		500	1.2	ug/L		05/20/15 12:06	05/27/15 15:50	1
Sodium	49000		500	3.8	ug/L		05/20/15 12:06	05/27/15 15:50	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-QC1-0/1-1
Date Collected: 05/18/15 08:00
Date Received: 05/19/15 08:50

Lab Sample ID: 180-44203-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	84000		500	2.8	ug/L		05/20/15 12:06	05/27/15 15:54	1
Potassium	4700		500	5.8	ug/L		05/20/15 12:06	05/27/15 15:54	1
Magnesium	16000		500	1.2	ug/L		05/20/15 12:06	05/27/15 15:54	1
Sodium	51000		500	3.8	ug/L		05/20/15 12:06	05/27/15 15:54	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-93S-0/1-0
Date Collected: 05/18/15 12:27
Date Received: 05/19/15 08:50

Lab Sample ID: 180-44203-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	61000		500	2.8	ug/L		05/20/15 12:06	05/27/15 15:59	1
Potassium	9300		500	5.8	ug/L		05/20/15 12:06	05/27/15 15:59	1
Magnesium	15000		500	1.2	ug/L		05/20/15 12:06	05/27/15 15:59	1
Sodium	61000		500	3.8	ug/L		05/20/15 12:06	05/27/15 15:59	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-93D-0/1-0
Date Collected: 05/18/15 10:22
Date Received: 05/19/15 08:50

Lab Sample ID: 180-44203-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	63000		500	2.8	ug/L		05/20/15 12:06	05/27/15 16:03	1
Potassium	4500		500	5.8	ug/L		05/20/15 12:06	05/27/15 16:03	1
Magnesium	13000		500	1.2	ug/L		05/20/15 12:06	05/27/15 16:03	1
Sodium	35000		500	3.8	ug/L		05/20/15 12:06	05/27/15 16:03	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-44203-1

General Chemistry

Client Sample ID: HD-MW-98S-0/1-0
Date Collected: 05/18/15 12:50
Date Received: 05/19/15 08:50

Lab Sample ID: 180-44203-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**290**	**B**	5.0	0.41	mg/L			05/21/15 05:36	1
Bicarbonate Alkalinity as CaCO3	**290**	**B**	5.0	0.41	mg/L			05/21/15 05:36	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			05/21/15 05:36	1

General Chemistry

Client Sample ID: HD-MW-98I-0/1-0
Date Collected: 05/18/15 13:45
Date Received: 05/19/15 08:50

Lab Sample ID: 180-44203-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**300**	**B**	5.0	0.41	mg/L			05/21/15 05:36	1
Bicarbonate Alkalinity as CaCO3	**300**	**B**	5.0	0.41	mg/L			05/21/15 05:36	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			05/21/15 05:36	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-44203-1

General Chemistry

Client Sample ID: HD-MW-99S-0/1-0
Date Collected: 05/18/15 09:55
Date Received: 05/19/15 08:50

Lab Sample ID: 180-44203-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**260**	**B**	5.0	0.41	mg/L			05/21/15 05:36	1
Bicarbonate Alkalinity as CaCO3	**260**	**B**	5.0	0.41	mg/L			05/21/15 05:36	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			05/21/15 05:36	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-44203-1

General Chemistry

Client Sample ID: HD-MW-145A-0/1-0
Date Collected: 05/18/15 11:25
Date Received: 05/19/15 08:50

Lab Sample ID: 180-44203-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**250**	**B**	5.0	0.41	mg/L			05/21/15 05:36	1
Bicarbonate Alkalinity as CaCO3	**250**	**B**	5.0	0.41	mg/L			05/21/15 05:36	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			05/21/15 05:36	1

General Chemistry

Client Sample ID: HD-QC1-0/1-1
Date Collected: 05/18/15 08:00
Date Received: 05/19/15 08:50

Lab Sample ID: 180-44203-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**240**	**B**	5.0	0.41	mg/L			05/21/15 05:36	1
Bicarbonate Alkalinity as CaCO3	**240**	**B**	5.0	0.41	mg/L			05/21/15 05:36	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			05/21/15 05:36	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-44203-1

General Chemistry

Client Sample ID: HD-MW-93S-0/1-0
Date Collected: 05/18/15 12:27
Date Received: 05/19/15 08:50

Lab Sample ID: 180-44203-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**180**	**B**	5.0	0.41	mg/L			05/21/15 05:36	1
Bicarbonate Alkalinity as CaCO3	**180**	**B**	5.0	0.41	mg/L			05/21/15 05:36	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			05/21/15 05:36	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-44203-1

General Chemistry

Client Sample ID: HD-MW-93D-0/1-0
Date Collected: 05/18/15 10:22
Date Received: 05/19/15 08:50

Lab Sample ID: 180-44203-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**180**	**B**	5.0	0.41	mg/L			05/21/15 05:36	1
Bicarbonate Alkalinity as CaCO3	**180**	**B**	5.0	0.41	mg/L			05/21/15 05:36	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			05/21/15 05:36	1

Default Detection Limits

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-44203-1

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: 180-44203-1

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: 180-44203-1

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)
180-44203-1	HD-MW-98S-0/1-0	115	98	89	113
180-44203-2	HD-MW-98I-0/1-0	122	101	92	120
180-44203-3	HD-MW-99S-0/1-0	112	101	90	111
180-44203-3 MS	HD-MW-99S-0/1-0	98	104	100	98
180-44203-3 MSD	HD-MW-99S-0/1-0	97	103	97	94
180-44203-4	HD-MW-145A-0/1-0	111	102	93	106
180-44203-5	HD-QC1-0/1-1	120	101	90	117
180-44203-6	HD-QC1-0/1-2	116	101	91	112
180-44203-7	HD-MW-93S-0/1-0	120	100	92	114
180-44203-8	HD-MW-93D-0/1-0	120	106	94	118
LCS 180-142676/9	Lab Control Sample	99	107	96	100
LCS 180-142745/8	Lab Control Sample	91	102	99	96
LCS 180-142864/12	Lab Control Sample	93	101	93	90
MB 180-142676/6	Method Blank	116	106	95	110
MB 180-142745/5	Method Blank	115	107	96	112
MB 180-142864/9	Method Blank	111	105	93	105

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 180-142676/6
Matrix: Water
Analysis Batch: 142676

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			05/24/15 13:29	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			05/24/15 13:29	1
Bromomethane	1.0	U	1.0	0.31	ug/L			05/24/15 13:29	1
Chloroethane	1.0	U	1.0	0.21	ug/L			05/24/15 13:29	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			05/24/15 13:29	1
Acetone	5.0	U	5.0	2.5	ug/L			05/24/15 13:29	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			05/24/15 13:29	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			05/24/15 13:29	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			05/24/15 13:29	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			05/24/15 13:29	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			05/24/15 13:29	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			05/24/15 13:29	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			05/24/15 13:29	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			05/24/15 13:29	1
Chloroform	1.0	U	1.0	0.17	ug/L			05/24/15 13:29	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			05/24/15 13:29	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			05/24/15 13:29	1
Benzene	1.0	U	1.0	0.11	ug/L			05/24/15 13:29	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/24/15 13:29	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			05/24/15 13:29	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			05/24/15 13:29	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			05/24/15 13:29	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			05/24/15 13:29	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			05/24/15 13:29	1
Toluene	1.0	U	1.0	0.15	ug/L			05/24/15 13:29	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			05/24/15 13:29	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/24/15 13:29	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			05/24/15 13:29	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			05/24/15 13:29	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			05/24/15 13:29	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			05/24/15 13:29	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			05/24/15 13:29	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			05/24/15 13:29	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			05/24/15 13:29	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			05/24/15 13:29	1
Styrene	1.0	U	1.0	0.097	ug/L			05/24/15 13:29	1
Bromoform	1.0	U	1.0	0.19	ug/L			05/24/15 13:29	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			05/24/15 13:29	1
Acrylonitrile	20	U	20	0.55	ug/L			05/24/15 13:29	1
1,4-Dioxane	200	U	200	34	ug/L			05/24/15 13:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*116*		*64 - 135*		*05/24/15 13:29*	*1*
Toluene-d8 (Surr)	*106*		*71 - 118*		*05/24/15 13:29*	*1*
4-Bromofluorobenzene (Surr)	*95*		*70 - 118*		*05/24/15 13:29*	*1*
Dibromofluoromethane (Surr)	*110*		*70 - 128*		*05/24/15 13:29*	*1*

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

Lab Sample ID: LCS 180-142676/9
Matrix: Water
Analysis Batch: 142676

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	10.0	7.35		ug/L		73	50 - 139
Vinyl chloride	10.0	7.63		ug/L		76	53 - 138
Bromomethane	10.0	10.1		ug/L		101	33 - 150
Chloroethane	10.0	9.99		ug/L		100	36 - 142
1,1-Dichloroethene	10.0	10.8		ug/L		108	65 - 136
Acetone	20.0	18.3		ug/L		92	22 - 150
Carbon disulfide	10.0	7.98		ug/L		80	54 - 132
Methylene Chloride	10.0	11.2		ug/L		112	63 - 129
trans-1,2-Dichloroethene	10.0	10.8		ug/L		108	73 - 126
Methyl tert-butyl ether	10.0	8.20		ug/L		82	64 - 123
1,1-Dichloroethane	10.0	10.5		ug/L		105	73 - 126
cis-1,2-Dichloroethene	10.0	10.0		ug/L		100	70 - 120
Bromochloromethane	10.0	9.23		ug/L		92	70 - 127
2-Butanone (MEK)	20.0	17.2		ug/L		86	39 - 138
Chloroform	10.0	10.1		ug/L		101	72 - 127
1,1,1-Trichloroethane	10.0	9.72		ug/L		97	63 - 133
Carbon tetrachloride	10.0	9.18		ug/L		92	55 - 150
Benzene	10.0	10.7		ug/L		107	80 - 120
1,2-Dichloroethane	10.0	10.1		ug/L		101	68 - 132
Trichloroethene	10.0	9.00		ug/L		90	73 - 120
1,2-Dichloropropane	10.0	9.70		ug/L		97	76 - 124
Bromodichloromethane	10.0	8.32		ug/L		83	66 - 130
cis-1,3-Dichloropropene	10.0	7.53		ug/L		75	66 - 120
4-Methyl-2-pentanone (MIBK)	20.0	15.6		ug/L		78	45 - 145
Toluene	10.0	11.3		ug/L		113	80 - 123
trans-1,3-Dichloropropene	10.0	7.93		ug/L		79	65 - 125
1,1,2-Trichloroethane	10.0	10.4		ug/L		104	77 - 127
Tetrachloroethene	10.0	11.1		ug/L		111	70 - 135
2-Hexanone	20.0	15.1		ug/L		75	25 - 132
Dibromochloromethane	10.0	7.84		ug/L		78	60 - 140
1,2-Dibromoethane (EDB)	10.0	9.02		ug/L		90	74 - 123
Chlorobenzene	10.0	10.3		ug/L		103	80 - 120
1,1,1,2-Tetrachloroethane	10.0	9.67		ug/L		97	63 - 140
Ethylbenzene	10.0	9.80		ug/L		98	72 - 126
Xylenes, Total	20.0	19.0		ug/L		95	76 - 128
Styrene	10.0	9.88		ug/L		99	71 - 127
Bromoform	10.0	6.79		ug/L		68	46 - 150
1,1,2,2-Tetrachloroethane	10.0	9.97		ug/L		100	62 - 125
Acrylonitrile	100	97.6		ug/L		98	30 - 140
1,4-Dioxane	200	172	J	ug/L		86	10 - 160

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*64 - 135*
Toluene-d8 (Surr)	*107*		*71 - 118*
4-Bromofluorobenzene (Surr)	*96*		*70 - 118*
Dibromofluoromethane (Surr)	*100*		*70 - 128*

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

Lab Sample ID: MB 180-142745/5
Matrix: Water
Analysis Batch: 142745

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			05/26/15 12:00	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			05/26/15 12:00	1
Bromomethane	1.0	U	1.0	0.31	ug/L			05/26/15 12:00	1
Chloroethane	1.0	U	1.0	0.21	ug/L			05/26/15 12:00	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			05/26/15 12:00	1
Acetone	5.0	U	5.0	2.5	ug/L			05/26/15 12:00	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			05/26/15 12:00	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			05/26/15 12:00	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			05/26/15 12:00	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			05/26/15 12:00	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			05/26/15 12:00	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			05/26/15 12:00	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			05/26/15 12:00	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			05/26/15 12:00	1
Chloroform	1.0	U	1.0	0.17	ug/L			05/26/15 12:00	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			05/26/15 12:00	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			05/26/15 12:00	1
Benzene	1.0	U	1.0	0.11	ug/L			05/26/15 12:00	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/26/15 12:00	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			05/26/15 12:00	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			05/26/15 12:00	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			05/26/15 12:00	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			05/26/15 12:00	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			05/26/15 12:00	1
Toluene	1.0	U	1.0	0.15	ug/L			05/26/15 12:00	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			05/26/15 12:00	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/26/15 12:00	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			05/26/15 12:00	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			05/26/15 12:00	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			05/26/15 12:00	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			05/26/15 12:00	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			05/26/15 12:00	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			05/26/15 12:00	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			05/26/15 12:00	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			05/26/15 12:00	1
Styrene	1.0	U	1.0	0.097	ug/L			05/26/15 12:00	1
Bromoform	1.0	U	1.0	0.19	ug/L			05/26/15 12:00	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			05/26/15 12:00	1
Acrylonitrile	20	U	20	0.55	ug/L			05/26/15 12:00	1
1,4-Dioxane	200	U	200	34	ug/L			05/26/15 12:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*115*		*64 - 135*		*05/26/15 12:00*	*1*
Toluene-d8 (Surr)	*107*		*71 - 118*		*05/26/15 12:00*	*1*
4-Bromofluorobenzene (Surr)	*96*		*70 - 118*		*05/26/15 12:00*	*1*
Dibromofluoromethane (Surr)	*112*		*70 - 128*		*05/26/15 12:00*	*1*

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

Lab Sample ID: LCS 180-142745/8
Matrix: Water
Analysis Batch: 142745

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	6.57		ug/L		66	50 - 139
Vinyl chloride	10.0	7.37		ug/L		74	53 - 138
Bromomethane	10.0	9.67		ug/L		97	33 - 150
Chloroethane	10.0	10.1		ug/L		101	36 - 142
1,1-Dichloroethene	10.0	9.82		ug/L		98	65 - 136
Acetone	20.0	17.6		ug/L		88	22 - 150
Carbon disulfide	10.0	8.10		ug/L		81	54 - 132
Methylene Chloride	10.0	10.5		ug/L		105	63 - 129
trans-1,2-Dichloroethene	10.0	10.3		ug/L		103	73 - 126
Methyl tert-butyl ether	10.0	7.89		ug/L		79	64 - 123
1,1-Dichloroethane	10.0	9.52		ug/L		95	73 - 126
cis-1,2-Dichloroethene	10.0	9.41		ug/L		94	70 - 120
Bromochloromethane	10.0	9.06		ug/L		91	70 - 127
2-Butanone (MEK)	20.0	16.9		ug/L		85	39 - 138
Chloroform	10.0	9.59		ug/L		96	72 - 127
1,1,1-Trichloroethane	10.0	9.28		ug/L		93	63 - 133
Carbon tetrachloride	10.0	9.49		ug/L		95	55 - 150
Benzene	10.0	9.87		ug/L		99	80 - 120
1,2-Dichloroethane	10.0	10.1		ug/L		101	68 - 132
Trichloroethene	10.0	9.15		ug/L		92	73 - 120
1,2-Dichloropropane	10.0	9.55		ug/L		95	76 - 124
Bromodichloromethane	10.0	8.40		ug/L		84	66 - 130
cis-1,3-Dichloropropene	10.0	8.06		ug/L		81	66 - 120
4-Methyl-2-pentanone (MIBK)	20.0	17.0		ug/L		85	45 - 145
Toluene	10.0	10.7		ug/L		107	80 - 123
trans-1,3-Dichloropropene	10.0	7.80		ug/L		78	65 - 125
1,1,2-Trichloroethane	10.0	10.9		ug/L		109	77 - 127
Tetrachloroethene	10.0	10.6		ug/L		106	70 - 135
2-Hexanone	20.0	15.6		ug/L		78	25 - 132
Dibromochloromethane	10.0	8.30		ug/L		83	60 - 140
1,2-Dibromoethane (EDB)	10.0	9.35		ug/L		94	74 - 123
Chlorobenzene	10.0	10.2		ug/L		102	80 - 120
1,1,1,2-Tetrachloroethane	10.0	9.31		ug/L		93	63 - 140
Ethylbenzene	10.0	9.58		ug/L		96	72 - 126
Xylenes, Total	20.0	19.0		ug/L		95	76 - 128
Styrene	10.0	9.85		ug/L		99	71 - 127
Bromoform	10.0	7.85		ug/L		78	46 - 150
1,1,2,2-Tetrachloroethane	10.0	10.2		ug/L		102	62 - 125
Acrylonitrile	100	93.9		ug/L		94	30 - 140
1,4-Dioxane	200	144	J	ug/L		72	10 - 160

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*91*		*64 - 135*
Toluene-d8 (Surr)	*102*		*71 - 118*
4-Bromofluorobenzene (Surr)	*99*		*70 - 118*
Dibromofluoromethane (Surr)	*96*		*70 - 128*

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

Lab Sample ID: 180-44203-3 MS
Matrix: Water
Analysis Batch: 142745

Client Sample ID: HD-MW-99S-0/1-0
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	1.0	U	10.0	6.51		ug/L		65	50 - 139
Vinyl chloride	1.0	U	10.0	7.60		ug/L		76	53 - 138
Bromomethane	1.0	U	10.0	9.60		ug/L		96	33 - 150
Chloroethane	1.0	U	10.0	10.1		ug/L		101	36 - 142
1,1-Dichloroethene	2.1		10.0	12.1		ug/L		99	65 - 136
Acetone	5.0	U	20.0	20.1		ug/L		100	22 - 150
Carbon disulfide	1.0	U	10.0	8.26		ug/L		83	54 - 132
Methylene Chloride	1.0	U	10.0	11.0		ug/L		110	63 - 129
trans-1,2-Dichloroethene	1.0	U	10.0	10.7		ug/L		107	73 - 126
Methyl tert-butyl ether	1.0	U	10.0	8.23		ug/L		82	64 - 123
1,1-Dichloroethane	1.1		10.0	10.6		ug/L		96	73 - 126
cis-1,2-Dichloroethene	29	F1	10.0	34.5	F1	ug/L		59	70 - 120
Bromochloromethane	1.0	U	10.0	9.73		ug/L		97	70 - 127
2-Butanone (MEK)	5.0	U	20.0	18.7		ug/L		93	39 - 138
Chloroform	0.21	J	10.0	10.2		ug/L		99	72 - 127
1,1,1-Trichloroethane	3.9		10.0	12.9		ug/L		90	63 - 133
Carbon tetrachloride	1.0	U	10.0	9.45		ug/L		94	55 - 150
Benzene	1.0	U	10.0	10.4		ug/L		104	80 - 120
1,2-Dichloroethane	1.0	U	10.0	10.3		ug/L		103	68 - 132
Trichloroethene	27	F1	10.0	31.2	F1	ug/L		47	73 - 120
1,2-Dichloropropane	1.0	U	10.0	9.89		ug/L		99	76 - 124
Bromodichloromethane	1.0	U	10.0	9.10		ug/L		91	66 - 130
cis-1,3-Dichloropropene	1.0	U	10.0	7.66		ug/L		77	66 - 120
4-Methyl-2-pentanone (MIBK)	5.0	U	20.0	17.5		ug/L		87	45 - 145
Toluene	1.0	U	10.0	11.3		ug/L		113	80 - 123
trans-1,3-Dichloropropene	1.0	U	10.0	8.30		ug/L		83	65 - 125
1,1,2-Trichloroethane	1.0	U	10.0	11.2		ug/L		112	77 - 127
Tetrachloroethene	20		10.0	29.7		ug/L		98	70 - 135
2-Hexanone	5.0	U	20.0	16.5		ug/L		83	25 - 132
Dibromochloromethane	1.0	U	10.0	8.80		ug/L		88	60 - 140
1,2-Dibromoethane (EDB)	1.0	U	10.0	9.94		ug/L		99	74 - 123
Chlorobenzene	1.0	U	10.0	10.7		ug/L		107	80 - 120
1,1,1,2-Tetrachloroethane	1.0	U	10.0	10.1		ug/L		101	63 - 140
Ethylbenzene	1.0	U	10.0	9.99		ug/L		100	72 - 126
Xylenes, Total	3.0	U	20.0	20.0		ug/L		100	76 - 128
Styrene	1.0	U	10.0	10.1		ug/L		101	71 - 127
Bromoform	1.0	U	10.0	7.97		ug/L		80	46 - 150
1,1,2,2-Tetrachloroethane	1.0	U	10.0	10.3		ug/L		103	62 - 125
Acrylonitrile	20	U	100	96.9		ug/L		97	30 - 140
1,4-Dioxane	200	U	200	161	J	ug/L		81	10 - 160

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*98*		*64 - 135*
Toluene-d8 (Surr)	*104*		*71 - 118*
4-Bromofluorobenzene (Surr)	*100*		*70 - 118*
Dibromofluoromethane (Surr)	*98*		*70 - 128*

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

Lab Sample ID: 180-44203-3 MSD
Matrix: Water
Analysis Batch: 142745

Client Sample ID: HD-MW-99S-0/1-0
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloromethane	1.0	U	10.0	6.24		ug/L		62	50 - 139	4	35
Vinyl chloride	1.0	U	10.0	7.43		ug/L		74	53 - 138	2	35
Bromomethane	1.0	U	10.0	9.32		ug/L		93	33 - 150	3	35
Chloroethane	1.0	U	10.0	9.84		ug/L		98	36 - 142	3	35
1,1-Dichloroethene	2.1		10.0	11.6		ug/L		95	65 - 136	4	35
Acetone	5.0	U	20.0	19.5		ug/L		98	22 - 150	3	35
Carbon disulfide	1.0	U	10.0	7.95		ug/L		79	54 - 132	4	35
Methylene Chloride	1.0	U	10.0	11.4		ug/L		114	63 - 129	3	35
trans-1,2-Dichloroethene	1.0	U	10.0	10.6		ug/L		106	73 - 126	2	35
Methyl tert-butyl ether	1.0	U	10.0	8.67		ug/L		87	64 - 123	5	35
1,1-Dichloroethane	1.1		10.0	10.7		ug/L		96	73 - 126	1	35
cis-1,2-Dichloroethene	29	F1	10.0	34.4	F1	ug/L		58	70 - 120	0	35
Bromochloromethane	1.0	U	10.0	9.39		ug/L		94	70 - 127	4	35
2-Butanone (MEK)	5.0	U	20.0	18.7		ug/L		94	39 - 138	0	35
Chloroform	0.21	J	10.0	10.5		ug/L		103	72 - 127	3	35
1,1,1-Trichloroethane	3.9		10.0	12.3		ug/L		85	63 - 133	4	35
Carbon tetrachloride	1.0	U	10.0	9.18		ug/L		92	55 - 150	3	35
Benzene	1.0	U	10.0	10.4		ug/L		104	80 - 120	1	32
1,2-Dichloroethane	1.0	U	10.0	10.3		ug/L		103	68 - 132	1	32
Trichloroethene	27	F1	10.0	30.8	F1	ug/L		42	73 - 120	1	35
1,2-Dichloropropane	1.0	U	10.0	10.0		ug/L		100	76 - 124	1	34
Bromodichloromethane	1.0	U	10.0	8.86		ug/L		89	66 - 130	3	35
cis-1,3-Dichloropropene	1.0	U	10.0	8.10		ug/L		81	66 - 120	6	35
4-Methyl-2-pentanone (MIBK)	5.0	U	20.0	18.9		ug/L		94	45 - 145	8	35
Toluene	1.0	U	10.0	11.6		ug/L		116	80 - 123	3	35
trans-1,3-Dichloropropene	1.0	U	10.0	8.63		ug/L		86	65 - 125	4	35
1,1,2-Trichloroethane	1.0	U	10.0	11.5		ug/L		115	77 - 127	3	35
Tetrachloroethene	20		10.0	29.2		ug/L		93	70 - 135	2	35
2-Hexanone	5.0	U	20.0	18.0		ug/L		90	25 - 132	9	35
Dibromochloromethane	1.0	U	10.0	9.06		ug/L		91	60 - 140	3	35
1,2-Dibromoethane (EDB)	1.0	U	10.0	10.7		ug/L		107	74 - 123	8	35
Chlorobenzene	1.0	U	10.0	11.1		ug/L		111	80 - 120	4	29
1,1,1,2-Tetrachloroethane	1.0	U	10.0	10.1		ug/L		101	63 - 140	0	34
Ethylbenzene	1.0	U	10.0	10.1		ug/L		101	72 - 126	1	33
Xylenes, Total	3.0	U	20.0	20.3		ug/L		101	76 - 128	2	32
Styrene	1.0	U	10.0	10.5		ug/L		105	71 - 127	3	34
Bromoform	1.0	U	10.0	8.51		ug/L		85	46 - 150	7	35
1,1,2,2-Tetrachloroethane	1.0	U	10.0	11.1		ug/L		111	62 - 125	7	35
Acrylonitrile	20	U	100	104		ug/L		104	30 - 140	7	35
1,4-Dioxane	200	U	200	157	J	ug/L		79	10 - 160	3	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*97*		*64 - 135*
Toluene-d8 (Surr)	*103*		*71 - 118*
4-Bromofluorobenzene (Surr)	*97*		*70 - 118*
Dibromofluoromethane (Surr)	*94*		*70 - 128*

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

Lab Sample ID: MB 180-142864/9
Matrix: Water
Analysis Batch: 142864

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			05/27/15 13:22	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			05/27/15 13:22	1
Bromomethane	1.0	U	1.0	0.31	ug/L			05/27/15 13:22	1
Chloroethane	1.0	U	1.0	0.21	ug/L			05/27/15 13:22	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			05/27/15 13:22	1
Acetone	5.0	U	5.0	2.5	ug/L			05/27/15 13:22	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			05/27/15 13:22	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			05/27/15 13:22	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			05/27/15 13:22	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			05/27/15 13:22	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			05/27/15 13:22	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			05/27/15 13:22	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			05/27/15 13:22	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			05/27/15 13:22	1
Chloroform	1.0	U	1.0	0.17	ug/L			05/27/15 13:22	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			05/27/15 13:22	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			05/27/15 13:22	1
Benzene	1.0	U	1.0	0.11	ug/L			05/27/15 13:22	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/27/15 13:22	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			05/27/15 13:22	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			05/27/15 13:22	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			05/27/15 13:22	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			05/27/15 13:22	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			05/27/15 13:22	1
Toluene	1.0	U	1.0	0.15	ug/L			05/27/15 13:22	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			05/27/15 13:22	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/27/15 13:22	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			05/27/15 13:22	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			05/27/15 13:22	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			05/27/15 13:22	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			05/27/15 13:22	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			05/27/15 13:22	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			05/27/15 13:22	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			05/27/15 13:22	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			05/27/15 13:22	1
Styrene	1.0	U	1.0	0.097	ug/L			05/27/15 13:22	1
Bromoform	1.0	U	1.0	0.19	ug/L			05/27/15 13:22	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			05/27/15 13:22	1
Acrylonitrile	20	U	20	0.55	ug/L			05/27/15 13:22	1
1,4-Dioxane	200	U	200	34	ug/L			05/27/15 13:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*111*		*64 - 135*		*05/27/15 13:22*	*1*
Toluene-d8 (Surr)	*105*		*71 - 118*		*05/27/15 13:22*	*1*
4-Bromofluorobenzene (Surr)	*93*		*70 - 118*		*05/27/15 13:22*	*1*
Dibromofluoromethane (Surr)	*105*		*70 - 128*		*05/27/15 13:22*	*1*

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

Lab Sample ID: LCS 180-142864/12
Matrix: Water
Analysis Batch: 142864

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	10.0	7.14		ug/L		71	50 - 139
Vinyl chloride	10.0	7.78		ug/L		78	53 - 138
Bromomethane	10.0	9.36		ug/L		94	33 - 150
Chloroethane	10.0	10.1		ug/L		101	36 - 142
1,1-Dichloroethene	10.0	11.3		ug/L		113	65 - 136
Acetone	20.0	18.7		ug/L		94	22 - 150
Carbon disulfide	10.0	8.26		ug/L		83	54 - 132
Methylene Chloride	10.0	11.8		ug/L		118	63 - 129
trans-1,2-Dichloroethene	10.0	10.8		ug/L		108	73 - 126
Methyl tert-butyl ether	10.0	8.31		ug/L		83	64 - 123
1,1-Dichloroethane	10.0	10.3		ug/L		103	73 - 126
cis-1,2-Dichloroethene	10.0	10.1		ug/L		101	70 - 120
Bromochloromethane	10.0	9.62		ug/L		96	70 - 127
2-Butanone (MEK)	20.0	17.8		ug/L		89	39 - 138
Chloroform	10.0	10.1		ug/L		101	72 - 127
1,1,1-Trichloroethane	10.0	9.92		ug/L		99	63 - 133
Carbon tetrachloride	10.0	9.16		ug/L		92	55 - 150
Benzene	10.0	10.7		ug/L		107	80 - 120
1,2-Dichloroethane	10.0	10.2		ug/L		102	68 - 132
Trichloroethene	10.0	9.05		ug/L		91	73 - 120
1,2-Dichloropropane	10.0	9.65		ug/L		97	76 - 124
Bromodichloromethane	10.0	8.44		ug/L		84	66 - 130
cis-1,3-Dichloropropene	10.0	7.99		ug/L		80	66 - 120
4-Methyl-2-pentanone (MIBK)	20.0	16.7		ug/L		84	45 - 145
Toluene	10.0	11.5		ug/L		115	80 - 123
trans-1,3-Dichloropropene	10.0	8.12		ug/L		81	65 - 125
1,1,2-Trichloroethane	10.0	10.8		ug/L		108	77 - 127
Tetrachloroethene	10.0	11.6		ug/L		116	70 - 135
2-Hexanone	20.0	16.5		ug/L		82	25 - 132
Dibromochloromethane	10.0	7.98		ug/L		80	60 - 140
1,2-Dibromoethane (EDB)	10.0	9.96		ug/L		100	74 - 123
Chlorobenzene	10.0	10.6		ug/L		106	80 - 120
1,1,1,2-Tetrachloroethane	10.0	9.46		ug/L		95	63 - 140
Ethylbenzene	10.0	9.93		ug/L		99	72 - 126
Xylenes, Total	20.0	19.4		ug/L		97	76 - 128
Styrene	10.0	10.2		ug/L		102	71 - 127
Bromoform	10.0	6.67		ug/L		67	46 - 150
1,1,2,2-Tetrachloroethane	10.0	10.4		ug/L		104	62 - 125
Acrylonitrile	100	99.9		ug/L		100	30 - 140
1,4-Dioxane	200	167	J	ug/L		84	10 - 160

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*93*		*64 - 135*
Toluene-d8 (Surr)	*101*		*71 - 118*
4-Bromofluorobenzene (Surr)	*93*		*70 - 118*
Dibromofluoromethane (Surr)	*90*		*70 - 128*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 180-142093/6
Matrix: Water
Analysis Batch: 142093

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	0.00946	J	0.10	0.0062	mg/L			05/19/15 12:51	1
Chloride	1.0	U	1.0	0.20	mg/L			05/19/15 12:51	1
Sulfate	1.0	U	1.0	0.21	mg/L			05/19/15 12:51	1

Lab Sample ID: LCS 180-142093/5
Matrix: Water
Analysis Batch: 142093

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	2.44		mg/L		98	90 - 110
Chloride	50.0	48.8		mg/L		98	90 - 110
Sulfate	50.0	48.0		mg/L		96	90 - 110

Lab Sample ID: 180-44203-3 MS
Matrix: Water
Analysis Batch: 142093

Client Sample ID: HD-MW-99S-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	3.0	B	1.25	4.02		mg/L		83	80 - 120
Chloride	100		25.0	119	4	mg/L		67	80 - 120
Sulfate	32		25.0	53.6		mg/L		87	80 - 120

Lab Sample ID: 180-44203-3 MSD
Matrix: Water
Analysis Batch: 142093

Client Sample ID: HD-MW-99S-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	3.0	B	1.25	4.31		mg/L		106	80 - 120	7	20
Chloride	100		25.0	128	4	mg/L		101	80 - 120	7	20
Sulfate	32		25.0	57.4		mg/L		102	80 - 120	7	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: 180-44203-3 MS
Matrix: Water
Analysis Batch: 142993

Client Sample ID: HD-MW-99S-0/1-0
Prep Type: Total/NA
Prep Batch: 142245

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	95000		50000	131000	F1	ug/L		72	75 - 125
Potassium	3500		50000	44700		ug/L		82	75 - 125
Magnesium	13000		50000	50500		ug/L		75	75 - 125
Sodium	34000		50000	71800		ug/L		76	75 - 125

Lab Sample ID: 180-44203-3 MSD
Matrix: Water
Analysis Batch: 142993

Client Sample ID: HD-MW-99S-0/1-0
Prep Type: Total/NA
Prep Batch: 142245

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Calcium	95000		50000	136000		ug/L		81	75 - 125	4	20

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

Lab Sample ID: 180-44203-3 MSD — **Client Sample ID: HD-MW-99S-0/1-0**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 142993 — **Prep Batch: 142245**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Potassium	3500		50000	46400		ug/L		86	75 - 125	4	20
Magnesium	13000		50000	53200		ug/L		81	75 - 125	5	20
Sodium	34000		50000	74100		ug/L		80	75 - 125	3	20

Lab Sample ID: MB 180-142245/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 142993 — **Prep Batch: 142245**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	500	U	500	2.8	ug/L		05/20/15 12:06	05/27/15 15:05	1
Potassium	500	U	500	5.8	ug/L		05/20/15 12:06	05/27/15 15:05	1
Magnesium	500	U	500	1.2	ug/L		05/20/15 12:06	05/27/15 15:05	1
Sodium	500	U	500	3.8	ug/L		05/20/15 12:06	05/27/15 15:05	1

Lab Sample ID: LCS 180-142245/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total Recoverable**
Analysis Batch: 142993 — **Prep Batch: 142245**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	50000	45900		ug/L		92	80 - 120
Potassium	50000	43300		ug/L		87	80 - 120
Magnesium	50000	42800		ug/L		86	80 - 120
Sodium	50000	41600		ug/L		83	80 - 120

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 180-142343/2 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 142343

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	2.01	J	5.0	0.41	mg/L			05/21/15 05:36	1
Bicarbonate Alkalinity as CaCO3	2.01	J	5.0	0.41	mg/L			05/21/15 05:36	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			05/21/15 05:36	1

Lab Sample ID: LCS 180-142343/1 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 142343

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	250	259		mg/L		104	80 - 120

Lab Sample ID: 180-44203-3 DU — **Client Sample ID: HD-MW-99S-0/1-0**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 142343

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	260	B	261		mg/L		2	20

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: 180-44203-3 DU
Matrix: Water
Analysis Batch: 142343

Client Sample ID: HD-MW-99S-0/1-0
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Bicarbonate Alkalinity as CaCO3	260	B		261		mg/L				2	20
Carbonate Alkalinity as CaCO3	5.0	U		5.0	U	mg/L				NC	20

GC/MS VOA

Analysis Batch: 142676

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-44203-2	HD-MW-98I-0/1-0	Total/NA	Water	8260C	
LCS 180-142676/9	Lab Control Sample	Total/NA	Water	8260C	
MB 180-142676/6	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 142745

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-44203-1	HD-MW-98S-0/1-0	Total/NA	Water	8260C	
180-44203-3	HD-MW-99S-0/1-0	Total/NA	Water	8260C	
180-44203-3 MS	HD-MW-99S-0/1-0	Total/NA	Water	8260C	
180-44203-3 MSD	HD-MW-99S-0/1-0	Total/NA	Water	8260C	
180-44203-5	HD-QC1-0/1-1	Total/NA	Water	8260C	
180-44203-6	HD-QC1-0/1-2	Total/NA	Water	8260C	
180-44203-7	HD-MW-93S-0/1-0	Total/NA	Water	8260C	
180-44203-8	HD-MW-93D-0/1-0	Total/NA	Water	8260C	
LCS 180-142745/8	Lab Control Sample	Total/NA	Water	8260C	
MB 180-142745/5	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 142864

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-44203-4	HD-MW-145A-0/1-0	Total/NA	Water	8260C	
LCS 180-142864/12	Lab Control Sample	Total/NA	Water	8260C	
MB 180-142864/9	Method Blank	Total/NA	Water	8260C	

HPLC/IC

Analysis Batch: 142093

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-44203-1	HD-MW-98S-0/1-0	Total/NA	Water	300.0	
180-44203-2	HD-MW-98I-0/1-0	Total/NA	Water	300.0	
180-44203-3	HD-MW-99S-0/1-0	Total/NA	Water	300.0	
180-44203-3 MS	HD-MW-99S-0/1-0	Total/NA	Water	300.0	
180-44203-3 MSD	HD-MW-99S-0/1-0	Total/NA	Water	300.0	
180-44203-4	HD-MW-145A-0/1-0	Total/NA	Water	300.0	
180-44203-5	HD-QC1-0/1-1	Total/NA	Water	300.0	
180-44203-7	HD-MW-93S-0/1-0	Total/NA	Water	300.0	
180-44203-8	HD-MW-93D-0/1-0	Total/NA	Water	300.0	
LCS 180-142093/5	Lab Control Sample	Total/NA	Water	300.0	
MB 180-142093/6	Method Blank	Total/NA	Water	300.0	

Metals

Prep Batch: 142245

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-44203-1	HD-MW-98S-0/1-0	Total/NA	Water	3005A	
180-44203-2	HD-MW-98I-0/1-0	Total/NA	Water	3005A	
180-44203-3	HD-MW-99S-0/1-0	Total/NA	Water	3005A	
180-44203-3 MS	HD-MW-99S-0/1-0	Total/NA	Water	3005A	
180-44203-3 MSD	HD-MW-99S-0/1-0	Total/NA	Water	3005A	
180-44203-4	HD-MW-145A-0/1-0	Total/NA	Water	3005A	
180-44203-5	HD-QC1-0/1-1	Total/NA	Water	3005A	

Metals (Continued)

Prep Batch: 142245 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-44203-7	HD-MW-93S-0/1-0	Total/NA	Water	3005A	
180-44203-8	HD-MW-93D-0/1-0	Total/NA	Water	3005A	
LCS 180-142245/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
MB 180-142245/1-A	Method Blank	Total Recoverable	Water	3005A	

Analysis Batch: 142993

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-44203-1	HD-MW-98S-0/1-0	Total/NA	Water	6020A	142245
180-44203-2	HD-MW-98I-0/1-0	Total/NA	Water	6020A	142245
180-44203-3	HD-MW-99S-0/1-0	Total/NA	Water	6020A	142245
180-44203-3 MS	HD-MW-99S-0/1-0	Total/NA	Water	6020A	142245
180-44203-3 MSD	HD-MW-99S-0/1-0	Total/NA	Water	6020A	142245
180-44203-4	HD-MW-145A-0/1-0	Total/NA	Water	6020A	142245
180-44203-5	HD-QC1-0/1-1	Total/NA	Water	6020A	142245
180-44203-7	HD-MW-93S-0/1-0	Total/NA	Water	6020A	142245
180-44203-8	HD-MW-93D-0/1-0	Total/NA	Water	6020A	142245
CRI 180-142993/124	DL		Water	6020A	
CRI 180-142993/7	DL		Water	6020A	
ICSA 180-142993/8	ICS		Water	6020A	
ICSAB 180-142993/9	ICS		Water	6020A	
LCS 180-142245/2-A	Lab Control Sample	Total Recoverable	Water	6020A	142245
MB 180-142245/1-A	Method Blank	Total Recoverable	Water	6020A	142245

General Chemistry

Analysis Batch: 142343

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-44203-1	HD-MW-98S-0/1-0	Total/NA	Water	SM 2320B	
180-44203-2	HD-MW-98I-0/1-0	Total/NA	Water	SM 2320B	
180-44203-3	HD-MW-99S-0/1-0	Total/NA	Water	SM 2320B	
180-44203-3 DU	HD-MW-99S-0/1-0	Total/NA	Water	SM 2320B	
180-44203-4	HD-MW-145A-0/1-0	Total/NA	Water	SM 2320B	
180-44203-5	HD-QC1-0/1-1	Total/NA	Water	SM 2320B	
180-44203-7	HD-MW-93S-0/1-0	Total/NA	Water	SM 2320B	
180-44203-8	HD-MW-93D-0/1-0	Total/NA	Water	SM 2320B	
LCS 180-142343/1	Lab Control Sample	Total/NA	Water	SM 2320B	
MB 180-142343/2	Method Blank	Total/NA	Water	SM 2320B	

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

Lab Sample ID: 180-44203-1

Date Collected: 05/18/15 12:50

Matrix: Water

Date Received: 05/19/15 08:50

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	142745	05/26/15 16:30	DLF	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL		142093	05/19/15 13:50	MJH	TAL PIT
	Instrument ID: CHICS2100B									
Total/NA	Prep	3005A			50 mL	50 mL	142245	05/20/15 12:06	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	142993	05/27/15 15:13	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	142343	05/21/15 05:36	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-44203-2

Date Collected: 05/18/15 13:45

Matrix: Water

Date Received: 05/19/15 08:50

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	142676	05/24/15 23:35	DLF	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL		142093	05/19/15 14:08	MJH	TAL PIT
	Instrument ID: CHICS2100B									
Total/NA	Prep	3005A			50 mL	50 mL	142245	05/20/15 12:06	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	142993	05/27/15 15:17	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	142343	05/21/15 05:36	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-44203-3

Date Collected: 05/18/15 09:55

Matrix: Water

Date Received: 05/19/15 08:50

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	142745	05/26/15 14:07	DLF	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL		142093	05/19/15 14:25	MJH	TAL PIT
	Instrument ID: CHICS2100B									
Total/NA	Prep	3005A			50 mL	50 mL	142245	05/20/15 12:06	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	142993	05/27/15 15:21	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	142343	05/21/15 05:36	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-44203-4

Date Collected: 05/18/15 11:25

Matrix: Water

Date Received: 05/19/15 08:50

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	142864	05/27/15 16:26	DLF	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL		142093	05/19/15 15:17	MJH	TAL PIT
	Instrument ID: CHICS2100B									
Total/NA	Prep	3005A			50 mL	50 mL	142245	05/20/15 12:06	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	142993	05/27/15 15:50	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	142343	05/21/15 05:36	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-44203-5

Date Collected: 05/18/15 08:00

Matrix: Water

Date Received: 05/19/15 08:50

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	142745	05/26/15 17:18	DLF	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL		142093	05/19/15 15:34	MJH	TAL PIT
	Instrument ID: CHICS2100B									
Total/NA	Prep	3005A			50 mL	50 mL	142245	05/20/15 12:06	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	142993	05/27/15 15:54	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	142343	05/21/15 05:36	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-44203-6

Date Collected: 05/18/15 12:00

Matrix: Water

Date Received: 05/19/15 08:50

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	142745	05/26/15 13:05	DLF	TAL PIT
	Instrument ID: CHHP5									

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

Lab Sample ID: 180-44203-7

Date Collected: 05/18/15 12:27

Matrix: Water

Date Received: 05/19/15 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		5	5 mL	5 mL	142745	05/26/15 18:05	DLF	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL		142093	05/19/15 16:26	MJH	TAL PIT
	Instrument ID: CHICS2100B									
Total/NA	Prep	3005A			50 mL	50 mL	142245	05/20/15 12:06	AB1	TAL PIT

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

Lab Sample ID: 180-44203-7

Date Collected: 05/18/15 12:27

Matrix: Water

Date Received: 05/19/15 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	6020A		1	50 mL	50 mL	142993	05/27/15 15:59	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	142343	05/21/15 05:36	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-44203-8

Date Collected: 05/18/15 10:22

Matrix: Water

Date Received: 05/19/15 08:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	5 mL	5 mL	142745	05/26/15 19:18	DLF	TAL PIT
	Instrument ID: CHHP5									
Total/NA	Analysis	300.0		1	1 mL		142093	05/19/15 16:44	MJH	TAL PIT
	Instrument ID: CHICS2100B									
Total/NA	Prep	3005A			50 mL	50 mL	142245	05/20/15 12:06	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	142993	05/27/15 16:03	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	142343	05/21/15 05:36	CLL	TAL PIT
	Instrument ID: NOEQUIP									

Laboratory References:

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

Analyst References:

Lab: TAL PIT

Batch Type: Prep

AB1 = Ashwin Baikadi

Batch Type: Analysis

CLL = Cheryl Loheyde

CNF = Caitlin Ferguson

DLF = Donald Ferguson

MJH = Matthew Hartman

Certification Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-44203-1

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: 180-44203-1

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: 180-44203-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-44203-1	HD-MW-98S-0/1-0	Water	05/18/15 12:50	05/19/15 08:50
180-44203-2	HD-MW-98I-0/1-0	Water	05/18/15 13:45	05/19/15 08:50
180-44203-3	HD-MW-99S-0/1-0	Water	05/18/15 09:55	05/19/15 08:50
180-44203-4	HD-MW-145A-0/1-0	Water	05/18/15 11:25	05/19/15 08:50
180-44203-5	HD-QC1-0/1-1	Water	05/18/15 08:00	05/19/15 08:50
180-44203-6	HD-QC1-0/1-2	Water	05/18/15 12:00	05/19/15 08:50
180-44203-7	HD-MW-93S-0/1-0	Water	05/18/15 12:27	05/19/15 08:50
180-44203-8	HD-MW-93D-0/1-0	Water	05/18/15 10:22	05/19/15 08:50

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Instrument ID: CHHP5 Analysis Batch Number: 141828

Lab Sample ID: ICIS 180-141828/7 Client Sample ID:

Date Analyzed: 05/16/15 14:49 Lab File ID: 50516007.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.03	Peak Tail	fergusond	05/17/15 09:57

Lab Sample ID: IC 180-141828/16 Client Sample ID:

Date Analyzed: 05/16/15 18:25 Lab File ID: 50516016.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Trichlorofluoromethane	2.69	Split Peak	fergusond	05/17/15 10:13
Isobutyl alcohol	6.94	Peak Tail	fergusond	05/17/15 10:13
1,4-Dioxane	8.05	Peak Tail	fergusond	05/17/15 10:13

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Instrument ID: CHHP5 Analysis Batch Number: 142676

Lab Sample ID: CCVIS 180-142676/2 Client Sample ID:

Date Analyzed: 05/24/15 12:15 Lab File ID: 50524002.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.03	Peak Tail	fergusond	05/24/15 12:57

Lab Sample ID: LCS 180-142676/9 Client Sample ID:

Date Analyzed: 05/24/15 14:55 Lab File ID: 50524009.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.03	Peak Tail	fergusond	05/24/15 15:15

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Instrument ID: CHHP5 Analysis Batch Number: 142745

Lab Sample ID: CCVIS 180-142745/2 Client Sample ID:

Date Analyzed: 05/26/15 10:48 Lab File ID: 50526002.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Trichlorofluoromethane	2.70	Poor chromatography	fergusond	05/26/15 11:08
1,4-Dioxane	8.03	Peak Tail	fergusond	05/26/15 11:08

Lab Sample ID: 180-44203-3 MSD Client Sample ID: HD-MW-99S-0/1-0 MSD

Date Analyzed: 05/26/15 14:55 Lab File ID: 50526011.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.03	Peak Tail	fergusond	05/26/15 15:40

Lab Sample ID: 180-44203-1 Client Sample ID: HD-MW-98S-0/1-0

Date Analyzed: 05/26/15 16:30 Lab File ID: 50526015.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.47	Poor chromatography	fergusond	05/27/15 07:46
Chloroform	6.38	Poor chromatography	fergusond	05/27/15 07:46

Lab Sample ID: 180-44203-5 Client Sample ID: HD-QC1-0/1-1

Date Analyzed: 05/26/15 17:18 Lab File ID: 50526017.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methyl tert-butyl ether	4.57	Poor chromatography	fergusond	05/27/15 07:49

Lab Sample ID: 180-44203-7 Client Sample ID: HD-MW-93S-0/1-0

Date Analyzed: 05/26/15 18:05 Lab File ID: 50526019.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.45	Poor chromatography	fergusond	05/27/15 07:53

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Instrument ID: CHHP5 Analysis Batch Number: 142864

Lab Sample ID: CCVIS 180-142864/7 Client Sample ID:

Date Analyzed: 05/27/15 12:33 Lab File ID: 50527007.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.03	Peak Tail	fergusond	05/27/15 13:17

Lab Sample ID: LCS 180-142864/12 Client Sample ID:

Date Analyzed: 05/27/15 14:50 Lab File ID: 50527012.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,4-Dioxane	8.03	Peak Tail	fergusond	05/27/15 15:09

Lab Sample ID: 180-44203-4 Client Sample ID: HD-MW-145A-0/1-0

Date Analyzed: 05/27/15 16:26 Lab File ID: 50527016.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloroform	6.39	Poor chromatography	fergusond	05/28/15 07:36

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
icccv_01242	05/19/15	05/18/15	DI Water, Lot 0	15 mL	ICPRIMARYSTA_00007	0.3 mL	Chloride	50 ug/mL
							Nitrate as N	2.5 ug/mL
							Sulfate	50 ug/mL
.ICPRIMARYSTA_00007	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_01274	05/19/15	05/18/15	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
							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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Nitrate as N	2.5 ug/mL
							Orthophosphate as P	2.5 ug/mL
							Sulfate	50 ug/mL
					ICPRIMARYSTDB_00008	0.1 mL	Nitrite as N	2.5 ug/mL
..ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Orthophosphate as P	125 ug/mL
							Sulfate	2500 ug/mL
..ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL4_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
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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL9_00115	04/16/15	04/15/15	DI Water, Lot SUPER Q	10 mL	ICPRIMARYSTA_00006	0.8 mL	Bromide	40 ug/mL
							Chloride	200 ug/mL
							Fluoride	10 ug/mL
							Nitrate as N	10 ug/mL
							Orthophosphate as P	10 ug/mL
							Sulfate	200 ug/mL
					ICPRIMARYSTDB_00008	0.8 mL	Nitrite as N	10 ug/mL
.ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Orthophosphate as P	125 ug/mL
							Sulfate	2500 ug/mL
.ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
MCCV1X_00075	06/01/15	05/01/15	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_00071	06/19/15	05/19/15	2% Nitric Acid, Lot J38N82	100 mL	M6020ICS-0A_00005	10 mL	Al	100 ppm
							Calcium	100 ppm
							Fe	100 ppm
							Magnesium	100 ppm
							Mo	2 ppm
							Potassium	100 ppm
							Sodium	100 ppm
							Ti	2 ppm
					M6020ICS-0B_00006	1 mL	Ag	0.02 ppm
							As	0.02 ppm
							Cd	0.02 ppm
							Co	0.02 ppm
							Cr	0.02 ppm
							Cu	0.02 ppm

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Mn	0.0225 ppm
							Ni	0.02 ppm
							Zn	0.025 ppm
					MMSICSAB-1_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
							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_00067	06/19/15	05/19/15	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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Potassium	100 ppm
							Sodium	100 ppm
							Ti	2 ppm
.M6020ICS-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_00032	06/19/15	05/19/15	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_00046	06/01/15	05/01/15	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_00020	07/01/15	INORGANIC VENTURES, Lot H2-MEB532047			(Purchased Reagent)		Ag	5 ug/mL
							Al	200 ug/mL
							As	4 ug/mL
							B	100 ug/mL
							Ba	200 ug/mL
							Be	5 ug/mL
							Cd	5 ug/mL
							Co	50 ug/mL
							Cr	20 ug/mL
							Cu	25 ug/mL
							Fe	100 ug/mL
							Mn	50 ug/mL
							Ni	50 ug/mL
							Pb	2 ug/mL
							Se	1 ug/mL
							Sr	100 ug/mL
							Tl	5 ug/mL
							V	50 ug/mL
							Zn	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
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_00036	06/13/15	05/13/15	Methanol, Lot 85233	10 mL	VOA8260INTRES_00064	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_00064	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_00036	06/13/15	05/13/15	Methanol, Lot 85233	100 mL	VOA8260SURRES_00090	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_00090	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_00123	05/24/15	05/17/15	Methanol, Lot 85233	10 mL	VOA8260GAS2ND_00097	0.1 mL	Bromomethane	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOA2ND_00121	1.25 mL	1,1,1,2-Tetrachloroethane	25 ug/mL
							1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,2-Dibromoethane (EDB)	25 ug/mL
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							1,4-Dioxane	500 ug/mL
							Acrylonitrile	250 ug/mL
							Benzene	25 ug/mL
							Bromochloromethane	25 ug/mL
							Bromodichloromethane	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00097	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_00121	06/15/16	05/15/15	Methanol, Lot 85233	10 mL	VOA8260MEGA2_00031	0.8 mL	1,1,1,2-Tetrachloroethane	200 ug/mL
							1,1,1-Trichloroethane	200 ug/mL
							1,1,2,2-Tetrachloroethane	200 ug/mL
							1,1,2-Trichloroethane	200 ug/mL
							1,1-Dichloroethane	200 ug/mL
							1,1-Dichloroethene	200 ug/mL
							1,2-Dibromoethane (EDB)	200 ug/mL
							1,2-Dichloroethane	200 ug/mL
							1,2-Dichloropropane	200 ug/mL
							1,4-Dioxane	4000 ug/mL
							Acrylonitrile	2000 ug/mL
							Benzene	200 ug/mL
							Bromochloromethane	200 ug/mL
							Bromodichloromethane	200 ug/mL
							Bromoform	200 ug/mL
							Carbon disulfide	200 ug/mL
							Carbon tetrachloride	200 ug/mL
							Chlorobenzene	200 ug/mL
							Chloroform	200 ug/mL
							cis-1,2-Dichloroethene	200 ug/mL
							cis-1,3-Dichloropropene	200 ug/mL
							Dibromochloromethane	200 ug/mL
							Ethylbenzene	200 ug/mL
							Methyl tert-butyl ether	200 ug/mL
							Methylene Chloride	200 ug/mL
							Styrene	200 ug/mL
							Tetrachloroethene	200 ug/mL
							Toluene	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							trans-1,2-Dichloroethene	200 ug/mL
							trans-1,3-Dichloropropene	200 ug/mL
							Trichloroethene	200 ug/mL
							Xylenes, Total	400 ug/mL
..VOA8260MEGA2_00031	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
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
VOA8260VOA2ND_00124	06/02/15	05/26/15	Methanol, Lot 85233	10 mL	VOA8260GAS2ND_00102	0.1 mL	Bromomethane	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOA2ND_00121	1.25 mL	1,1,1,2-Tetrachloroethane	25 ug/mL
							1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,2-Dibromoethane (EDB)	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00102	04/30/18		Restek, Lot A0110106		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.VOA8260VOA2ND_00121	06/15/16	05/15/15	Methanol, Lot 85233	10 mL	VOA8260MEGA2_00031	0.8 mL	1,1,1,2-Tetrachloroethane	200 ug/mL
							1,1,1-Trichloroethane	200 ug/mL
							1,1,2,2-Tetrachloroethane	200 ug/mL
							1,1,2-Trichloroethane	200 ug/mL
							1,1-Dichloroethane	200 ug/mL
							1,1-Dichloroethene	200 ug/mL
							1,2-Dibromoethane (EDB)	200 ug/mL
							1,2-Dichloroethane	200 ug/mL
							1,2-Dichloropropane	200 ug/mL
							1,4-Dioxane	4000 ug/mL
							Acrylonitrile	2000 ug/mL
							Benzene	200 ug/mL
							Bromochloromethane	200 ug/mL
							Bromodichloromethane	200 ug/mL
							Bromoform	200 ug/mL
							Carbon disulfide	200 ug/mL
							Carbon tetrachloride	200 ug/mL
							Chlorobenzene	200 ug/mL
							Chloroform	200 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							cis-1,2-Dichloroethene	200 ug/mL
							cis-1,3-Dichloropropene	200 ug/mL
							Dibromochloromethane	200 ug/mL
							Ethylbenzene	200 ug/mL
							Methyl tert-butyl ether	200 ug/mL
							Methylene Chloride	200 ug/mL
							Styrene	200 ug/mL
							Tetrachloroethene	200 ug/mL
							Toluene	200 ug/mL
							trans-1,2-Dichloroethene	200 ug/mL
							trans-1,3-Dichloropropene	200 ug/mL
							Trichloroethene	200 ug/mL
							Xylenes, Total	400 ug/mL
..VOA8260MEGA2_00031	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
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
VOA8260VOAPRI_00115	05/16/15	05/09/15	Methanol, Lot 85233	10 mL	VOA8260GAS1ST_00098	0.1 mL	Bromomethane	25 ug/mL
							Butadiene	25 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Dichlorodifluoromethane	25 ug/mL
							Dichlorofluoromethane	25 ug/mL
							Trichlorofluoromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOAPRI_00111	1.25 mL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
							1,1,1,2-Tetrachloroethane	25 ug/mL
							1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,1-Dichloropropene	25 ug/mL
							1,2,3-Trichlorobenzene	25 ug/mL
							1,2,3-Trichloropropane	25 ug/mL
							1,2,4-Trichlorobenzene	25 ug/mL
							1,2,4-Trimethylbenzene	25 ug/mL
							1,2-Dibromo-3-Chloropropane	25 ug/mL
							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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Chloroform	25 ug/mL
							cis-1,2-Dichloroethene	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							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_00098	04/30/18		Restek, Lot A011070		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Butadiene	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Dichlorofluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.VOA8260VOAPRI_00111	05/17/15	04/17/15	Methanol, Lot 85233	10 mL	VOA8260KET1ST_00042	0.16 mL	2-Butanone (MEK)	200 ug/mL
							2-Hexanone	200 ug/mL
							4-Methyl-2-pentanone (MIBK)	200 ug/mL
							Acetone	200 ug/mL
					VOA8260MEGA1_00031	1 mL	1,1,1,2-Tetrachloroethane	200 ug/mL
							1,1,1-Trichloroethane	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1,2,2-Tetrachloroethane	200 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	200 ug/mL
							1,1,2-Trichloroethane	200 ug/mL
							1,1-Dichloroethane	200 ug/mL
							1,1-Dichloroethene	200 ug/mL
							1,1-Dichloropropene	200 ug/mL
							1,2,3-Trichlorobenzene	200 ug/mL
							1,2,3-Trichloropropane	200 ug/mL
							1,2,4-Trichlorobenzene	200 ug/mL
							1,2,4-Trimethylbenzene	200 ug/mL
							1,2-Dibromo-3-Chloropropane	200 ug/mL
							1,2-Dibromoethane (EDB)	200 ug/mL
							1,2-Dichlorobenzene	200 ug/mL
							1,2-Dichloroethane	200 ug/mL
							1,2-Dichloropropane	200 ug/mL
							1,3,5-Trimethylbenzene	200 ug/mL
							1,3-Dichlorobenzene	200 ug/mL
							1,3-Dichloropropane	200 ug/mL
							1,4-Dichlorobenzene	200 ug/mL
							1,4-Dioxane	4000 ug/mL
							2,2-Dichloropropane	200 ug/mL
							2-Chlorotoluene	200 ug/mL
							2-Methyl-2-propanol	2000 ug/mL
							3-Chloro-1-propene	200 ug/mL
							4-Chlorotoluene	200 ug/mL
							4-Isopropyltoluene	200 ug/mL
							Acrylonitrile	2000 ug/mL
							Benzene	200 ug/mL
							Bromobenzene	200 ug/mL
							Bromochloromethane	200 ug/mL
							Bromodichloromethane	200 ug/mL
							Bromoform	200 ug/mL
							Carbon disulfide	200 ug/mL
							Carbon tetrachloride	200 ug/mL
							Chlorobenzene	200 ug/mL
							Chloroform	200 ug/mL
							cis-1,2-Dichloroethene	200 ug/mL
							cis-1,3-Dichloropropene	200 ug/mL
							Cyclohexane	200 ug/mL
							Dibromochloromethane	200 ug/mL
							Dibromomethane	200 ug/mL
							Ethyl ether	200 ug/mL
							Ethyl methacrylate	200 ug/mL
							Ethylbenzene	200 ug/mL
							Hexachlorobutadiene	200 ug/mL
							Hexane	200 ug/mL
							Iodomethane	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Isobutyl alcohol	5000 ug/mL
							Isopropylbenzene	200 ug/mL
							m-Xylene & p-Xylene	200 ug/mL
							Methyl acetate	1000 ug/mL
							Methyl tert-butyl ether	200 ug/mL
							Methylcyclohexane	200 ug/mL
							Methylene Chloride	200 ug/mL
							n-Butylbenzene	200 ug/mL
							n-Heptane	200 ug/mL
							N-Propylbenzene	200 ug/mL
							Naphthalene	200 ug/mL
							o-Xylene	200 ug/mL
							sec-Butylbenzene	200 ug/mL
							Styrene	200 ug/mL
							tert-Butylbenzene	200 ug/mL
							Tetrachloroethene	200 ug/mL
							Tetrahydrofuran	400 ug/mL
							Toluene	200 ug/mL
							trans-1,2-Dichloroethene	200 ug/mL
							trans-1,3-Dichloropropene	200 ug/mL
							trans-1,4-Dichloro-2-butene	200 ug/mL
							Trichloroethene	200 ug/mL
..VOA8260KET1ST_00042	01/31/18		Restek, Lot A0108151		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
..VOA8260MEGA1_00031	02/28/16		Restek, Lot A093581		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2000 ug/mL
							1,1,1-Trichloroethane	2000 ug/mL
							1,1,2,2-Tetrachloroethane	2000 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2000 ug/mL
							1,1,2-Trichloroethane	2000 ug/mL
							1,1-Dichloroethane	2000 ug/mL
							1,1-Dichloroethene	2000 ug/mL
							1,1-Dichloropropene	2000 ug/mL
							1,2,3-Trichlorobenzene	2000 ug/mL
							1,2,3-Trichloropropane	2000 ug/mL
							1,2,4-Trichlorobenzene	2000 ug/mL
							1,2,4-Trimethylbenzene	2000 ug/mL
							1,2-Dibromo-3-Chloropropane	2000 ug/mL
							1,2-Dibromoethane (EDB)	2000 ug/mL
							1,2-Dichlorobenzene	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL
							1,2-Dichloropropane	2000 ug/mL
							1,3,5-Trimethylbenzene	2000 ug/mL
							1,3-Dichlorobenzene	2000 ug/mL
							1,3-Dichloropropane	2000 ug/mL
							1,4-Dichlorobenzene	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,4-Dioxane	40000 ug/mL
							2,2-Dichloropropane	2000 ug/mL
							2-Chlorotoluene	2000 ug/mL
							2-Methyl-2-propanol	20000 ug/mL
							3-Chloro-1-propene	2000 ug/mL
							4-Chlorotoluene	2000 ug/mL
							4-Isopropyltoluene	2000 ug/mL
							Acrylonitrile	20000 ug/mL
							Benzene	2000 ug/mL
							Bromobenzene	2000 ug/mL
							Bromochloromethane	2000 ug/mL
							Bromodichloromethane	2000 ug/mL
							Bromoform	2000 ug/mL
							Carbon disulfide	2000 ug/mL
							Carbon tetrachloride	2000 ug/mL
							Chlorobenzene	2000 ug/mL
							Chloroform	2000 ug/mL
							cis-1,2-Dichloroethene	2000 ug/mL
							cis-1,3-Dichloropropene	2000 ug/mL
							Cyclohexane	2000 ug/mL
							Dibromochloromethane	2000 ug/mL
							Dibromomethane	2000 ug/mL
							Ethyl ether	2000 ug/mL
							Ethyl methacrylate	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Hexachlorobutadiene	2000 ug/mL
							Hexane	2000 ug/mL
							Iodomethane	2000 ug/mL
							Isobutyl alcohol	50000 ug/mL
							Isopropylbenzene	2000 ug/mL
							m-Xylene & p-Xylene	2000 ug/mL
							Methyl acetate	10000 ug/mL
							Methyl tert-butyl ether	2000 ug/mL
							Methylcyclohexane	2000 ug/mL
							Methylene Chloride	2000 ug/mL
							n-Butylbenzene	2000 ug/mL
							n-Heptane	2000 ug/mL
							N-Propylbenzene	2000 ug/mL
							Naphthalene	2000 ug/mL
							o-Xylene	2000 ug/mL
							sec-Butylbenzene	2000 ug/mL
							Styrene	2000 ug/mL
							tert-Butylbenzene	2000 ug/mL
							Tetrachloroethene	2000 ug/mL
							Tetrahydrofuran	4000 ug/mL
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							trans-1,4-Dichloro-2-butene	2000 ug/mL
							Trichloroethene	2000 ug/mL
VOA8260VOAPRI_00120	05/24/15	05/17/15	Methanol, Lot 85233	10 mL	VOA8260GAS1ST_00099	0.1 mL	Bromomethane	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOAPRI_00117	1.25 mL	1,1,1,2-Tetrachloroethane	25 ug/mL
							1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,2-Dibromoethane (EDB)	25 ug/mL
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							1,4-Dioxane	500 ug/mL
							Acrylonitrile	250 ug/mL
							Benzene	25 ug/mL
							Bromochloromethane	25 ug/mL
							Bromodichloromethane	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,2-Dichloroethene	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Dibromochloromethane	25 ug/mL
							Ethylbenzene	25 ug/mL
							Methyl tert-butyl ether	25 ug/mL
							Methylene Chloride	25 ug/mL
							Styrene	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Toluene	25 ug/mL
							trans-1,2-Dichloroethene	25 ug/mL
							trans-1,3-Dichloropropene	25 ug/mL
							Trichloroethene	25 ug/mL
							Xylenes, Total	50 ug/mL
.VOA8260GAS1ST_00099	04/30/18		Restek, Lot A011070		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.VOA8260VOAPRI_00117	06/15/15	05/15/15	Methanol, Lot 85233	10 mL	VOA8260MEGA1_00028	0.8 mL	1,1,1,2-Tetrachloroethane	200 ug/mL
							1,1,1-Trichloroethane	200 ug/mL
							1,1,2,2-Tetrachloroethane	200 ug/mL
							1,1,2-Trichloroethane	200 ug/mL
							1,1-Dichloroethane	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,1-Dichloroethene	200 ug/mL
							1,2-Dibromoethane (EDB)	200 ug/mL
							1,2-Dichloroethane	200 ug/mL
							1,2-Dichloropropane	200 ug/mL
							1,4-Dioxane	4000 ug/mL
							Acrylonitrile	2000 ug/mL
							Benzene	200 ug/mL
							Bromochloromethane	200 ug/mL
							Bromodichloromethane	200 ug/mL
							Bromoform	200 ug/mL
							Carbon disulfide	200 ug/mL
							Carbon tetrachloride	200 ug/mL
							Chlorobenzene	200 ug/mL
							Chloroform	200 ug/mL
							cis-1,2-Dichloroethene	200 ug/mL
							cis-1,3-Dichloropropene	200 ug/mL
							Dibromochloromethane	200 ug/mL
							Ethylbenzene	200 ug/mL
							Methyl tert-butyl ether	200 ug/mL
							Methylene Chloride	200 ug/mL
							Styrene	200 ug/mL
							Tetrachloroethene	200 ug/mL
							Toluene	200 ug/mL
							trans-1,2-Dichloroethene	200 ug/mL
							trans-1,3-Dichloropropene	200 ug/mL
							Trichloroethene	200 ug/mL
							Xylenes, Total	400 ug/mL
..VOA8260MEGA1_00028	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-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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
VOA8260VOAPRI_00121	06/02/15	05/26/15	Methanol, Lot 85233	10 mL	VOA8260GAS1ST_00100	0.1 mL	Bromomethane	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOAPRI_00117	1.25 mL	1,1,1,2-Tetrachloroethane	25 ug/mL
							1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,2-Dibromoethane (EDB)	25 ug/mL
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							1,4-Dioxane	500 ug/mL
							Acrylonitrile	250 ug/mL
							Benzene	25 ug/mL
							Bromochloromethane	25 ug/mL
							Bromodichloromethane	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chloroform	25 ug/mL
							cis-1,2-Dichloroethene	25 ug/mL
							cis-1,3-Dichloropropene	25 ug/mL
							Dibromochloromethane	25 ug/mL
							Ethylbenzene	25 ug/mL
							Methyl tert-butyl ether	25 ug/mL
							Methylene Chloride	25 ug/mL
							Styrene	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Toluene	25 ug/mL
							trans-1,2-Dichloroethene	25 ug/mL
							trans-1,3-Dichloropropene	25 ug/mL
							Trichloroethene	25 ug/mL
							Xylenes, Total	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.VOA8260GAS1ST_00100	04/30/18		Restek, Lot A011070		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.VOA8260VOAPRI_00117	06/15/15	05/15/15	Methanol, Lot 85233	10 mL	VOA8260MEGA1_00028	0.8 mL	1,1,1,2-Tetrachloroethane	200 ug/mL
							1,1,1-Trichloroethane	200 ug/mL
							1,1,2,2-Tetrachloroethane	200 ug/mL
							1,1,2-Trichloroethane	200 ug/mL
							1,1-Dichloroethane	200 ug/mL
							1,1-Dichloroethene	200 ug/mL
							1,2-Dibromoethane (EDB)	200 ug/mL
							1,2-Dichloroethane	200 ug/mL
							1,2-Dichloropropane	200 ug/mL
							1,4-Dioxane	4000 ug/mL
							Acrylonitrile	2000 ug/mL
							Benzene	200 ug/mL
							Bromochloromethane	200 ug/mL
							Bromodichloromethane	200 ug/mL
							Bromoform	200 ug/mL
							Carbon disulfide	200 ug/mL
							Carbon tetrachloride	200 ug/mL
							Chlorobenzene	200 ug/mL
							Chloroform	200 ug/mL
							cis-1,2-Dichloroethene	200 ug/mL
							cis-1,3-Dichloropropene	200 ug/mL
							Dibromochloromethane	200 ug/mL
							Ethylbenzene	200 ug/mL
							Methyl tert-butyl ether	200 ug/mL
							Methylene Chloride	200 ug/mL
							Styrene	200 ug/mL
							Tetrachloroethene	200 ug/mL
							Toluene	200 ug/mL
							trans-1,2-Dichloroethene	200 ug/mL
							trans-1,3-Dichloropropene	200 ug/mL
							Trichloroethene	200 ug/mL
							Xylenes, Total	400 ug/mL
..VOA8260MEGA1_00028	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-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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
VOAACROPRI_00005	05/31/15	05/01/15	Methanol, Lot 85233	100 mL	VOAACRORES_00067	0.125 mL	Acrolein	25 ug/mL
.VOAACRORES_00067	05/31/15		Restek, Lot A0108734		(Purchased Reagent)		Acrolein	20000 ug/mL
voaWEEmix1st_00001	06/15/15	05/15/15	Methanol, Lot 85233	25 mL	VOARESEE1ST_00024	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_00024	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
voaWKet2n Res_00001	05/25/15	04/25/15	Methanol, Lot 85233	50 mL	VOA8260KET2ND_00045	0.1 mL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Acetone	25 ug/mL
.VOA8260KET2ND_00045	01/31/18	Restek, Lot A0108157			(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
voaWketPri Re_00005	06/01/15	05/01/15	Methanol, Lot 85233	50 mL	VOA8260KET1ST_00041	0.1 mL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
.VOA8260KET1ST_00041	01/31/18	Restek, Lot A0108151			(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
voaWVA1st Res_00001	06/16/15	05/16/15	Methanol, Lot 85233	25 mL	VOA8260VARES_00051	0.125 mL	Vinyl acetate	25 ug/mL
.VOA8260VARES_00051	07/31/15	Restek, Lot A0108225			(Purchased Reagent)		Vinyl acetate	5000 ug/mL
WALK125PPMCCV_00085	11/14/15	05/14/15	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_00094	11/14/15	05/14/15	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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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

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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

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inorganicventures.com

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-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

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

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

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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 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_00020

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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

2.0 PRODUCT DESCRIPTION

Rec'd 6/17/14 RJR

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

3.0 CERTIFIED VALUES AND UNCERTAINTIES

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

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

Assay Information:

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

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

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

x_i = individual results

n = number of measurements

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

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

4.0 TRACEABILITY TO NIST

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

4.1 Thermometer Calibration

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

4.2 Balance Calibration

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

4.3 Glassware Calibration

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

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

N/A

6.0 INTENDED USE

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

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

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

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

8.0 HAZARDOUS INFORMATION

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

9.0 HOMOGENEITY

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

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

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

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

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

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 06, 2014

11.2 Expiration Date

11.3 Period of Validity

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

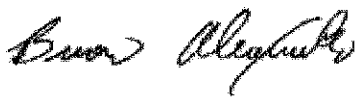
12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Donna Senn
Product Documentation Technician

Certificate Approved By:

Brian Alexander
PhD., Technical Process Director



Certifying Officer:

Paul Gaines
PhD., Senior Technical Director

Reagent

MTAPITTMSA_00024

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fax: 540.585.3012
info@inorganicventures.com

1507790, 1507791

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

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 (±) = $2 [\Sigma(s_i)^2]^{1/2}$ 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.

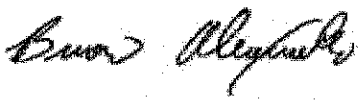
12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Donna Senn
Product Documentation Technician

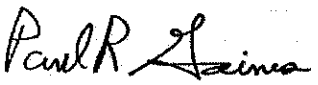
Certificate Approved By:

Brian Alexander
PhD., Technical Process Director



Certifying Officer:

Paul Gaines
PhD., Senior Technical Director



Reagent

MTAPITTMSC_00030

ISO 7793, ISO 7794

CERTIFICATE OF ANALYSIS

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

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

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_00098

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. : 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 +/- 30.0934 +/- 34.1055	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	Chloromethane (methyl chloride) **CAS #** 74-87-3 (Lot SHBC8470V) **Purity** 99%	2,500.1 µg/mL	+/- 17.2963 +/- 29.7101 +/- 33.7686	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	Vinyl chloride **CAS #** 75-01-4 (Lot 17542) **Purity** 99%	2,500.2 µg/mL	+/- 16.5642 +/- 29.2906 +/- 33.4004	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	1,3-Butadiene **CAS #** 106-99-0 (Lot SHBF3387V) **Purity** 99%	2,500.0 µg/mL	+/- 17.0072 +/- 29.5416 +/- 33.6200	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
5	Bromomethane (methyl bromide) **CAS #** 74-83-9 (Lot 101604) **Purity** 99%	2,499.8 µg/mL	+/- 18.9451 +/- 30.6969 +/- 34.6391	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
6	Chloroethane (ethyl chloride) **CAS #** 75-00-3 (Lot SHBD1717V) **Purity** 99%	2,500.3 µg/mL	+/- 17.6395 +/- 29.9122 +/- 33.9470	µg/mL µg/mL 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 +/- 29.3854 +/- 33.4835	µg/mL µg/mL 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)

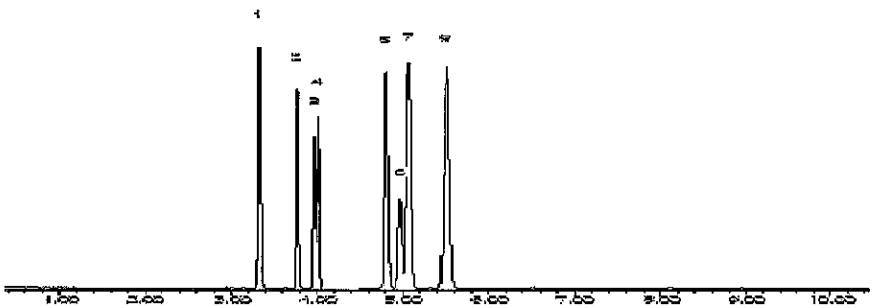
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

VOA8260GAS1ST_00099

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. : 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 +/- 30.0934 +/- 34.1055	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	Chloromethane (methyl chloride) **CAS #** 74-87-3 (Lot SHBC8470V) **Purity** 99%	2,500.1 µg/mL	+/- 17.2963 +/- 29.7101 +/- 33.7686	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	Vinyl chloride **CAS #** 75-01-4 (Lot 17542) **Purity** 99%	2,500.2 µg/mL	+/- 16.5642 +/- 29.2906 +/- 33.4004	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	1,3-Butadiene **CAS #** 106-99-0 (Lot SHBF3387V) **Purity** 99%	2,500.0 µg/mL	+/- 17.0072 +/- 29.5416 +/- 33.6200	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
5	Bromomethane (methyl bromide) **CAS #** 74-83-9 (Lot 101604) **Purity** 99%	2,499.8 µg/mL	+/- 18.9451 +/- 30.6969 +/- 34.6391	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
6	Chloroethane (ethyl chloride) **CAS #** 75-00-3 (Lot SHBD1717V) **Purity** 99%	2,500.3 µg/mL	+/- 17.6395 +/- 29.9122 +/- 33.9470	µg/mL µg/mL 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 +/- 29.3854 +/- 33.4835	µg/mL µg/mL 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)

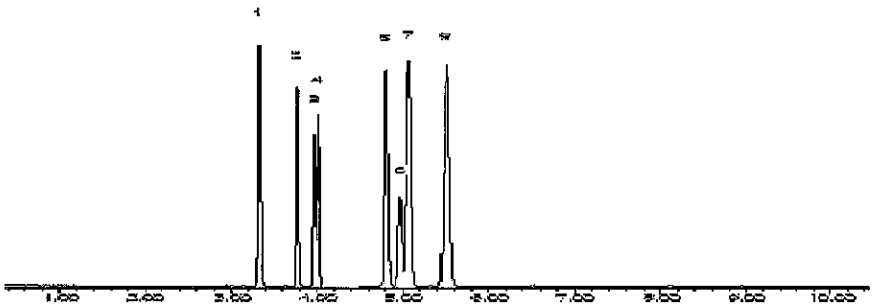
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

VOA8260GAS1ST_00100

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 569722 **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)

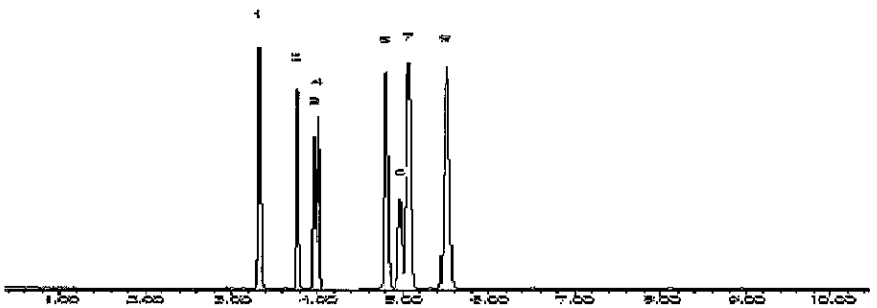
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

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

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

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

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

CERTIFIED VALUES

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

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

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

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

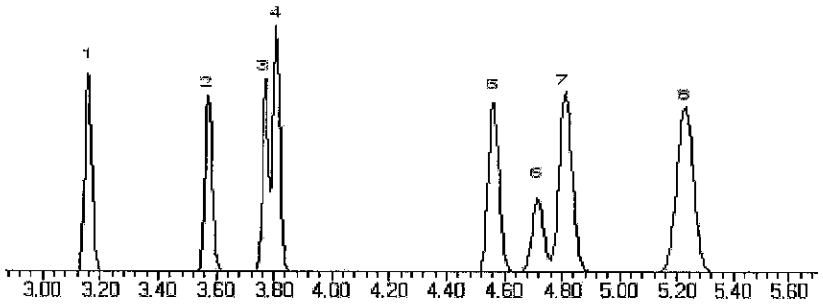
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

Michael J Maye

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

Jennifer L Pollino

Jennifer L. Pollino - QC Analyst

Date Passed: 14-Jan-2015

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

Reagent

VOA8260GAS2ND_00102

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

Catalog No. : 569722.sec **Lot No.:** A0110106

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.SEC (Lot 19630) **Purity** 99%	2,509.4 µg/mL	+/- 20.9236 µg/mL +/- 32.0257 µg/mL +/- 35.8494 µg/mL	Gravimetric Unstressed Stressed
2	Chloromethane (methyl chloride) **CAS #** 74-87-3.SEC (Lot 18343) **Purity** 99%	2,502.7 µg/mL	+/- 23.6266 µg/mL +/- 33.8074 µg/mL +/- 37.4313 µg/mL	Gravimetric Unstressed Stressed
3	Vinyl chloride **CAS #** 75-01-4.SEC (Lot MKBK6872V) **Purity** 99%	2,491.5 µg/mL	+/- 17.2880 µg/mL +/- 29.6375 µg/mL +/- 33.6784 µg/mL	Gravimetric Unstressed Stressed
4	1,3-Butadiene **CAS #** 106-99-0.SEC (Lot 18349) **Purity** 99%	2,507.8 µg/mL	+/- 22.8524 µg/mL +/- 33.3069 µg/mL +/- 36.9941 µg/mL	Gravimetric Unstressed Stressed
5	Bromomethane (methyl bromide) **CAS #** 74-83-9.SEC (Lot Q119-46) **Purity** 99%	2,506.8 µg/mL	+/- 26.3554 µg/mL +/- 35.7944 µg/mL +/- 39.2459 µg/mL	Gravimetric Unstressed Stressed
6	Chloroethane (ethyl chloride) **CAS #** 75-00-3.SEC (Lot Q18B-13) **Purity** 99%	2,509.1 µg/mL	+/- 21.2389 µg/mL +/- 32.2303 µg/mL +/- 36.0315 µg/mL	Gravimetric Unstressed Stressed
7	Dichlorofluoromethane (CFC-21) **CAS #** 75-43-4.SEC (Lot SHBC0858V) **Purity** 99%	2,500.4 µg/mL	+/- 21.7500 µg/mL +/- 32.5072 µg/mL +/- 36.2547 µg/mL	Gravimetric Unstressed Stressed

8	Trichlorofluoromethane (CFC-11)		2,504.6	µg/mL	+/-	24.2951	µg/mL	Gravimetric
	CAS # 75-69-4.SEC	(Lot Q158-102)			+/-	34.2908	µg/mL	Unstressed
	Purity 99%				+/-	37.8735	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)

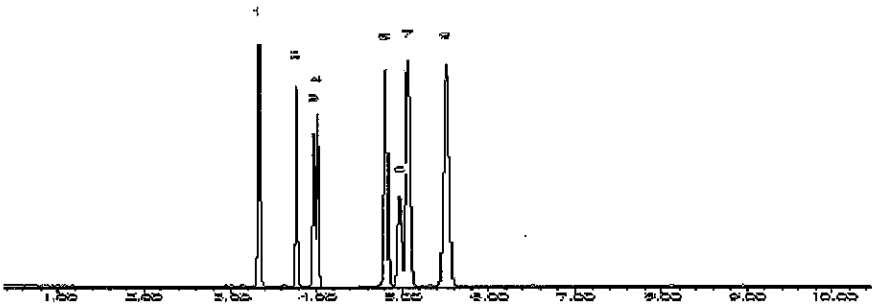
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

Tyler Brown - QA Analyst

Date Mixed: 06-Apr-2015 **Balance:** 1127510105

Date Passed: 08-Apr-2015

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

Reagent

VOA8260INTRES_00064

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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_00041

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 569721 **Lot No.:** A0108151

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

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

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

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

CERTIFIED VALUES

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

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

Reagent

VOA8260KET2ND_00045

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 569721.SEC **Lot No.:** A0108157

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

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

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

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

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)		Expanded Uncertainty (95% C.L.; K=2)			
1	Acetone		12,504.0	µg/mL	+/- 73.2137	µg/mL	Gravimetric
	CAS # 67-64-1.SEC	(Lot 0902033)			+/- 665.4917	µg/mL	Unstressed
	Purity 99%				+/- 666.2255	µg/mL	Stressed
2	2-Butanone (MEK)		12,506.0	µg/mL	+/- 73.2254	µg/mL	Gravimetric
	CAS # 78-93-3.SEC	(Lot VEGGI)			+/- 665.5981	µg/mL	Unstressed
	Purity 99%				+/- 666.3320	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)		12,537.3	µg/mL	+/- 73.4088	µg/mL	Gravimetric
	CAS # 108-10-1.SEC	(Lot E29T040)			+/- 667.2658	µg/mL	Unstressed
	Purity 99%				+/- 668.0015	µg/mL	Stressed
4	2-Hexanone		12,508.7	µg/mL	+/- 73.2410	µg/mL	Gravimetric
	CAS # 591-78-6.SEC	(Lot ZSVCD-FF)			+/- 665.7401	µg/mL	Unstressed
	Purity 99%				+/- 666.4741	µg/mL	Stressed

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

Reagent

VOA8260MEGA1_00028

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

Catalog No. : 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)

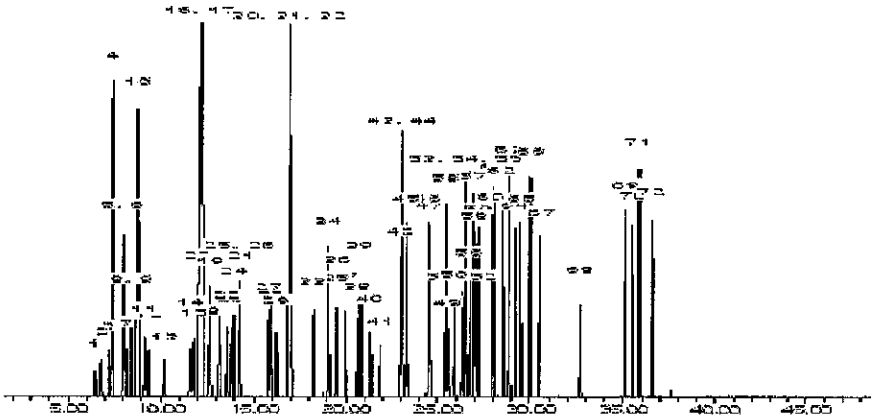
Carrier Gas:
helium-constant pressure 30 psi

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_00031

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 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)

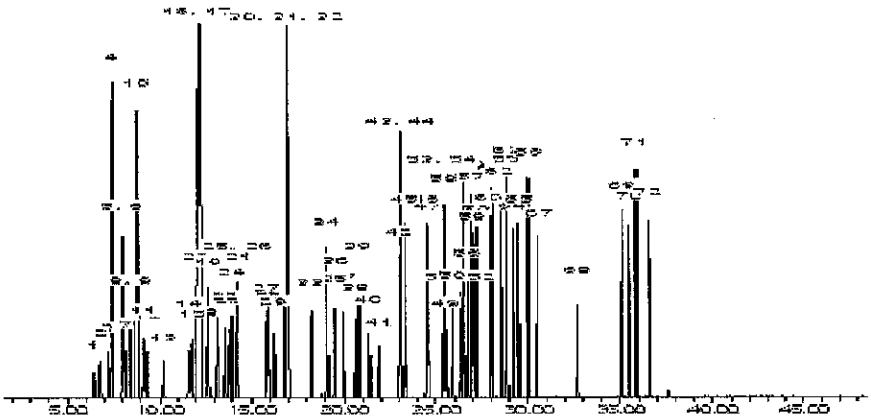
Carrier Gas:
helium-constant pressure 30 psi

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_00090

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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

VOA8260VARES_00051

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

Catalog No. : 569724 **Lot No.:** A0108225

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

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

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

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

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Vinyl acetate	5,000.0 µg/mL	+/- 29.3428	µg/mL	Gravimetric
	CAS # 108-05-4 (Lot STBC8935V)		+/- 266.1189	µg/mL	Unstressed
	Purity 99%		+/- 266.4123	µg/mL	Stressed

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

Tech Tips:

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

Reagent

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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. : 568720 **Lot No.:** A0108734

Description : 8260 List 1/Std #5 Acrolein High

8260 List 1/Std #5 Acrolein High 19,750 µg/mL, Water, 1 mL/ampul

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

Expiration Date : May 31, 2015 **Storage:** 10°C or colder

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Acrolein	19,890.0 µg/mL	+/- 116.4603	µg/mL	Gravimetric
	CAS # 107-02-8 (Lot 150115JLM)		+/- 637.7359	µg/mL	Unstressed
	Purity 99%		+/- 741.2982	µg/mL	Stressed

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

Reagent

VOARESEE1ST_00024

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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. : 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

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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.: 180-44203-1

SDG No.:

Matrix: Water Level: Low

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

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
HD-MW-98S-0/1-0	180-44203-1	113	115	98	89
HD-MW-98I-0/1-0	180-44203-2	120	122	101	92
HD-MW-99S-0/1-0	180-44203-3	111	112	101	90
HD-MW-145A-0/1-0	180-44203-4	106	111	102	93
HD-QC1-0/1-1	180-44203-5	117	120	101	90
HD-QC1-0/1-2	180-44203-6	112	116	101	91
HD-MW-93S-0/1-0	180-44203-7	114	120	100	92
HD-MW-93D-0/1-0	180-44203-8	118	120	106	94
	MB 180-142676/6	110	116	106	95
	MB 180-142745/5	112	115	107	96
	MB 180-142864/9	105	111	105	93
	LCS 180-142676/9	100	99	107	96
	LCS 180-142745/8	96	91	102	99
	LCS 180-142864/12	90	93	101	93
HD-MW-99S-0/1-0 MS	180-44203-3 MS	98	98	104	100
HD-MW-99S-0/1-0 MSD	180-44203-3 MSD	94	97	103	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.: 180-44203-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 50524009.D

Lab ID: LCS 180-142676/9 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	7.35	73	50-139	
Vinyl chloride	10.0	7.63	76	53-138	
Bromomethane	10.0	10.1	101	33-150	
Chloroethane	10.0	9.99	100	36-142	
1,1-Dichloroethene	10.0	10.8	108	65-136	
Acetone	20.0	18.3	92	22-150	
Carbon disulfide	10.0	7.98	80	54-132	
Methylene Chloride	10.0	11.2	112	63-129	
trans-1,2-Dichloroethene	10.0	10.8	108	73-126	
Methyl tert-butyl ether	10.0	8.20	82	64-123	
1,1-Dichloroethane	10.0	10.5	105	73-126	
cis-1,2-Dichloroethene	10.0	10.0	100	70-120	
Bromochloromethane	10.0	9.23	92	70-127	
2-Butanone (MEK)	20.0	17.2	86	39-138	
Chloroform	10.0	10.1	101	72-127	
1,1,1-Trichloroethane	10.0	9.72	97	63-133	
Carbon tetrachloride	10.0	9.18	92	55-150	
Benzene	10.0	10.7	107	80-120	
1,2-Dichloroethane	10.0	10.1	101	68-132	
Trichloroethene	10.0	9.00	90	73-120	
1,2-Dichloropropane	10.0	9.70	97	76-124	
Bromodichloromethane	10.0	8.32	83	66-130	
cis-1,3-Dichloropropene	10.0	7.53	75	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	15.6	78	45-145	
Toluene	10.0	11.3	113	80-123	
trans-1,3-Dichloropropene	10.0	7.93	79	65-125	
1,1,2-Trichloroethane	10.0	10.4	104	77-127	
Tetrachloroethene	10.0	11.1	111	70-135	
2-Hexanone	20.0	15.1	75	25-132	
Dibromochloromethane	10.0	7.84	78	60-140	
1,2-Dibromoethane (EDB)	10.0	9.02	90	74-123	
Chlorobenzene	10.0	10.3	103	80-120	
1,1,1,2-Tetrachloroethane	10.0	9.67	97	63-140	
Ethylbenzene	10.0	9.80	98	72-126	
Xylenes, Total	20.0	19.0	95	76-128	
Styrene	10.0	9.88	99	71-127	
Bromoform	10.0	6.79	68	46-150	
1,1,2,2-Tetrachloroethane	10.0	9.97	100	62-125	
Acrylonitrile	100	97.6	98	30-140	
1,4-Dioxane	200	172 J	86	10-160	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 50526008.D

Lab ID: LCS 180-142745/8 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	6.57	66	50-139	
Vinyl chloride	10.0	7.37	74	53-138	
Bromomethane	10.0	9.67	97	33-150	
Chloroethane	10.0	10.1	101	36-142	
1,1-Dichloroethene	10.0	9.82	98	65-136	
Acetone	20.0	17.6	88	22-150	
Carbon disulfide	10.0	8.10	81	54-132	
Methylene Chloride	10.0	10.5	105	63-129	
trans-1,2-Dichloroethene	10.0	10.3	103	73-126	
Methyl tert-butyl ether	10.0	7.89	79	64-123	
1,1-Dichloroethane	10.0	9.52	95	73-126	
cis-1,2-Dichloroethene	10.0	9.41	94	70-120	
Bromochloromethane	10.0	9.06	91	70-127	
2-Butanone (MEK)	20.0	16.9	85	39-138	
Chloroform	10.0	9.59	96	72-127	
1,1,1-Trichloroethane	10.0	9.28	93	63-133	
Carbon tetrachloride	10.0	9.49	95	55-150	
Benzene	10.0	9.87	99	80-120	
1,2-Dichloroethane	10.0	10.1	101	68-132	
Trichloroethene	10.0	9.15	92	73-120	
1,2-Dichloropropane	10.0	9.55	95	76-124	
Bromodichloromethane	10.0	8.40	84	66-130	
cis-1,3-Dichloropropene	10.0	8.06	81	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	17.0	85	45-145	
Toluene	10.0	10.7	107	80-123	
trans-1,3-Dichloropropene	10.0	7.80	78	65-125	
1,1,2-Trichloroethane	10.0	10.9	109	77-127	
Tetrachloroethene	10.0	10.6	106	70-135	
2-Hexanone	20.0	15.6	78	25-132	
Dibromochloromethane	10.0	8.30	83	60-140	
1,2-Dibromoethane (EDB)	10.0	9.35	94	74-123	
Chlorobenzene	10.0	10.2	102	80-120	
1,1,1,2-Tetrachloroethane	10.0	9.31	93	63-140	
Ethylbenzene	10.0	9.58	96	72-126	
Xylenes, Total	20.0	19.0	95	76-128	
Styrene	10.0	9.85	99	71-127	
Bromoform	10.0	7.85	78	46-150	
1,1,2,2-Tetrachloroethane	10.0	10.2	102	62-125	
Acrylonitrile	100	93.9	94	30-140	
1,4-Dioxane	200	144 J	72	10-160	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 50527012.D

Lab ID: LCS 180-142864/12 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	7.14	71	50-139	
Vinyl chloride	10.0	7.78	78	53-138	
Bromomethane	10.0	9.36	94	33-150	
Chloroethane	10.0	10.1	101	36-142	
1,1-Dichloroethene	10.0	11.3	113	65-136	
Acetone	20.0	18.7	94	22-150	
Carbon disulfide	10.0	8.26	83	54-132	
Methylene Chloride	10.0	11.8	118	63-129	
trans-1,2-Dichloroethene	10.0	10.8	108	73-126	
Methyl tert-butyl ether	10.0	8.31	83	64-123	
1,1-Dichloroethane	10.0	10.3	103	73-126	
cis-1,2-Dichloroethene	10.0	10.1	101	70-120	
Bromochloromethane	10.0	9.62	96	70-127	
2-Butanone (MEK)	20.0	17.8	89	39-138	
Chloroform	10.0	10.1	101	72-127	
1,1,1-Trichloroethane	10.0	9.92	99	63-133	
Carbon tetrachloride	10.0	9.16	92	55-150	
Benzene	10.0	10.7	107	80-120	
1,2-Dichloroethane	10.0	10.2	102	68-132	
Trichloroethene	10.0	9.05	91	73-120	
1,2-Dichloropropane	10.0	9.65	97	76-124	
Bromodichloromethane	10.0	8.44	84	66-130	
cis-1,3-Dichloropropene	10.0	7.99	80	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	16.7	84	45-145	
Toluene	10.0	11.5	115	80-123	
trans-1,3-Dichloropropene	10.0	8.12	81	65-125	
1,1,2-Trichloroethane	10.0	10.8	108	77-127	
Tetrachloroethene	10.0	11.6	116	70-135	
2-Hexanone	20.0	16.5	82	25-132	
Dibromochloromethane	10.0	7.98	80	60-140	
1,2-Dibromoethane (EDB)	10.0	9.96	100	74-123	
Chlorobenzene	10.0	10.6	106	80-120	
1,1,1,2-Tetrachloroethane	10.0	9.46	95	63-140	
Ethylbenzene	10.0	9.93	99	72-126	
Xylenes, Total	20.0	19.4	97	76-128	
Styrene	10.0	10.2	102	71-127	
Bromoform	10.0	6.67	67	46-150	
1,1,2,2-Tetrachloroethane	10.0	10.4	104	62-125	
Acrylonitrile	100	99.9	100	30-140	
1,4-Dioxane	200	167 J	84	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.: 180-44203-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 50526010.D

Lab ID: 180-44203-3 MS Client ID: HD-MW-99S-0/1-0 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Chloromethane	10.0	1.0 U	6.51	65	50-139	
Vinyl chloride	10.0	1.0 U	7.60	76	53-138	
Bromomethane	10.0	1.0 U	9.60	96	33-150	
Chloroethane	10.0	1.0 U	10.1	101	36-142	
1,1-Dichloroethene	10.0	2.1	12.1	99	65-136	
Acetone	20.0	5.0 U	20.1	100	22-150	
Carbon disulfide	10.0	1.0 U	8.26	83	54-132	
Methylene Chloride	10.0	1.0 U	11.0	110	63-129	
trans-1,2-Dichloroethene	10.0	1.0 U	10.7	107	73-126	
Methyl tert-butyl ether	10.0	1.0 U	8.23	82	64-123	
1,1-Dichloroethane	10.0	1.1	10.6	96	73-126	
cis-1,2-Dichloroethene	10.0	29	34.5	59	70-120	F1
Bromochloromethane	10.0	1.0 U	9.73	97	70-127	
2-Butanone (MEK)	20.0	5.0 U	18.7	93	39-138	
Chloroform	10.0	0.21 J	10.2	99	72-127	
1,1,1-Trichloroethane	10.0	3.9	12.9	90	63-133	
Carbon tetrachloride	10.0	1.0 U	9.45	94	55-150	
Benzene	10.0	1.0 U	10.4	104	80-120	
1,2-Dichloroethane	10.0	1.0 U	10.3	103	68-132	
Trichloroethene	10.0	27	31.2	47	73-120	F1
1,2-Dichloropropane	10.0	1.0 U	9.89	99	76-124	
Bromodichloromethane	10.0	1.0 U	9.10	91	66-130	
cis-1,3-Dichloropropene	10.0	1.0 U	7.66	77	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	5.0 U	17.5	87	45-145	
Toluene	10.0	1.0 U	11.3	113	80-123	
trans-1,3-Dichloropropene	10.0	1.0 U	8.30	83	65-125	
1,1,2-Trichloroethane	10.0	1.0 U	11.2	112	77-127	
Tetrachloroethene	10.0	20	29.7	98	70-135	
2-Hexanone	20.0	5.0 U	16.5	83	25-132	
Dibromochloromethane	10.0	1.0 U	8.80	88	60-140	
1,2-Dibromoethane (EDB)	10.0	1.0 U	9.94	99	74-123	
Chlorobenzene	10.0	1.0 U	10.7	107	80-120	
1,1,1,2-Tetrachloroethane	10.0	1.0 U	10.1	101	63-140	
Ethylbenzene	10.0	1.0 U	9.99	100	72-126	
Xylenes, Total	20.0	3.0 U	20.0	100	76-128	
Styrene	10.0	1.0 U	10.1	101	71-127	
Bromoform	10.0	1.0 U	7.97	80	46-150	
1,1,2,2-Tetrachloroethane	10.0	1.0 U	10.3	103	62-125	
Acrylonitrile	100	20 U	96.9	97	30-140	
1,4-Dioxane	200	200 U	161 J	81	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.: 180-44203-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 50526011.D

Lab ID: 180-44203-3 MSD Client ID: HD-MW-99S-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	6.24	62	4	35	50-139	
Vinyl chloride	10.0	7.43	74	2	35	53-138	
Bromomethane	10.0	9.32	93	3	35	33-150	
Chloroethane	10.0	9.84	98	3	35	36-142	
1,1-Dichloroethene	10.0	11.6	95	4	35	65-136	
Acetone	20.0	19.5	98	3	35	22-150	
Carbon disulfide	10.0	7.95	79	4	35	54-132	
Methylene Chloride	10.0	11.4	114	3	35	63-129	
trans-1,2-Dichloroethene	10.0	10.6	106	2	35	73-126	
Methyl tert-butyl ether	10.0	8.67	87	5	35	64-123	
1,1-Dichloroethane	10.0	10.7	96	1	35	73-126	
cis-1,2-Dichloroethene	10.0	34.4	58	0	35	70-120	F1
Bromochloromethane	10.0	9.39	94	4	35	70-127	
2-Butanone (MEK)	20.0	18.7	94	0	35	39-138	
Chloroform	10.0	10.5	103	3	35	72-127	
1,1,1-Trichloroethane	10.0	12.3	85	4	35	63-133	
Carbon tetrachloride	10.0	9.18	92	3	35	55-150	
Benzene	10.0	10.4	104	1	32	80-120	
1,2-Dichloroethane	10.0	10.3	103	1	32	68-132	
Trichloroethene	10.0	30.8	42	1	35	73-120	F1
1,2-Dichloropropane	10.0	10.0	100	1	34	76-124	
Bromodichloromethane	10.0	8.86	89	3	35	66-130	
cis-1,3-Dichloropropene	10.0	8.10	81	6	35	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	18.9	94	8	35	45-145	
Toluene	10.0	11.6	116	3	35	80-123	
trans-1,3-Dichloropropene	10.0	8.63	86	4	35	65-125	
1,1,2-Trichloroethane	10.0	11.5	115	3	35	77-127	
Tetrachloroethene	10.0	29.2	93	2	35	70-135	
2-Hexanone	20.0	18.0	90	9	35	25-132	
Dibromochloromethane	10.0	9.06	91	3	35	60-140	
1,2-Dibromoethane (EDB)	10.0	10.7	107	8	35	74-123	
Chlorobenzene	10.0	11.1	111	4	29	80-120	
1,1,1,2-Tetrachloroethane	10.0	10.1	101	0	34	63-140	
Ethylbenzene	10.0	10.1	101	1	33	72-126	
Xylenes, Total	20.0	20.3	101	2	32	76-128	
Styrene	10.0	10.5	105	3	34	71-127	
Bromoform	10.0	8.51	85	7	35	46-150	
1,1,2,2-Tetrachloroethane	10.0	11.1	111	7	35	62-125	
Acrylonitrile	100	104	104	7	35	30-140	
1,4-Dioxane	200	157 J	79	3	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.: 180-44203-1

SDG No.:

Lab File ID: 50524006.D Lab Sample ID: MB 180-142676/6

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

Instrument ID: CHHP5 Date Analyzed: 05/24/2015 13:29

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 180-142676/9	50524009.D	05/24/2015 14:55
HD-MW-98I-0/1-0	180-44203-2	50524030.D	05/24/2015 23:35

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Lab File ID: 50526005.D Lab Sample ID: MB 180-142745/5

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

Instrument ID: CHHP5 Date Analyzed: 05/26/2015 12:00

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	180-44203-6	50526007.D	05/26/2015 13:05
	LCS 180-142745/8	50526008.D	05/26/2015 13:29
HD-MW-99S-0/1-0	180-44203-3	50526009.D	05/26/2015 14:07
HD-MW-99S-0/1-0 MS	180-44203-3 MS	50526010.D	05/26/2015 14:31
HD-MW-99S-0/1-0 MSD	180-44203-3 MSD	50526011.D	05/26/2015 14:55
HD-MW-98S-0/1-0	180-44203-1	50526015.D	05/26/2015 16:30
HD-QC1-0/1-1	180-44203-5	50526017.D	05/26/2015 17:18
HD-MW-93S-0/1-0	180-44203-7	50526019.D	05/26/2015 18:05
HD-MW-93D-0/1-0	180-44203-8	50526022.D	05/26/2015 19:18

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Lab File ID: 50527009.D Lab Sample ID: MB 180-142864/9

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

Instrument ID: CHHP5 Date Analyzed: 05/27/2015 13:22

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 180-142864/12	50527012.D	05/27/2015 14:50
HD-MW-145A-0/1-0	180-44203-4	50527016.D	05/27/2015 16:26

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Lab File ID: 50516003.D BFB Injection Date: 05/16/2015

Instrument ID: CHHP5 BFB Injection Time: 10:39

Analysis Batch No.: 141828

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.1	
75	30.0 - 60.0 % of mass 95	49.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.3	
173	Less than 2.0 % of mass 174	0.6	(0.7)1
174	50.0 - 120.00 % of mass 95	81.8	
175	5.0 - 9.0 % of mass 174	7.2	(8.7)1
176	95.0 - 101.0 % of mass 174	80.5	(98.4)1
177	5.0 - 9.0 % of mass 176	5.2	(6.5)2

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

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 180-141828/6	50516006.D	05/16/2015	14:25
	ICIS 180-141828/7	50516007.D	05/16/2015	14:49
	IC 180-141828/8	50516008.D	05/16/2015	15:13
	IC 180-141828/9	50516009.D	05/16/2015	15:37
	IC 180-141828/10	50516010.D	05/16/2015	16:01
	IC 180-141828/11	50516011.D	05/16/2015	16:25
	IC 180-141828/12	50516012.D	05/16/2015	16:49
	IC 180-141828/16	50516016.D	05/16/2015	18:25

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Lab File ID: 50524004.D BFB Injection Date: 05/24/2015

Instrument ID: CHHP5 BFB Injection Time: 11:37

Analysis Batch No.: 142676

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.4	
75	30.0 - 60.0 % of mass 95	51.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	8.5	
173	Less than 2.0 % of mass 174	0.6	(0.8)1
174	50.0 - 120.00 % of mass 95	80.8	
175	5.0 - 9.0 % of mass 174	5.9	(7.3)1
176	95.0 - 101.0 % of mass 174	80.9	(100.2)1
177	5.0 - 9.0 % of mass 176	5.1	(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
	CCVIS 180-142676/2	50524002.D	05/24/2015	12:15
	CCV 180-142676/3	50524003.D	05/24/2015	12:39
	MB 180-142676/6	50524006.D	05/24/2015	13:29
	LCS 180-142676/9	50524009.D	05/24/2015	14:55
HD-MW-98I-0/1-0	180-44203-2	50524030.D	05/24/2015	23:35

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Lab File ID: 50526001.D BFB Injection Date: 05/26/2015

Instrument ID: CHHP5 BFB Injection Time: 10:08

Analysis Batch No.: 142745

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	18.8	
75	30.0 - 60.0 % of mass 95	47.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.8	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	78.7	
175	5.0 - 9.0 % of mass 174	5.5	(7.0)1
176	95.0 - 101.0 % of mass 174	78.7	(100.0)1
177	5.0 - 9.0 % of mass 176	5.2	(6.6)2

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

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-142745/2	50526002.D	05/26/2015	10:48
	CCV 180-142745/3	50526003.D	05/26/2015	11:12
	MB 180-142745/5	50526005.D	05/26/2015	12:00
HD-QC1-0/1-2	180-44203-6	50526007.D	05/26/2015	13:05
	LCS 180-142745/8	50526008.D	05/26/2015	13:29
HD-MW-99S-0/1-0	180-44203-3	50526009.D	05/26/2015	14:07
HD-MW-99S-0/1-0 MS	180-44203-3 MS	50526010.D	05/26/2015	14:31
HD-MW-99S-0/1-0 MSD	180-44203-3 MSD	50526011.D	05/26/2015	14:55
HD-MW-98S-0/1-0	180-44203-1	50526015.D	05/26/2015	16:30
HD-QC1-0/1-1	180-44203-5	50526017.D	05/26/2015	17:18
HD-MW-93S-0/1-0	180-44203-7	50526019.D	05/26/2015	18:05
HD-MW-93D-0/1-0	180-44203-8	50526022.D	05/26/2015	19:18

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Lab File ID: 50527006.D BFB Injection Date: 05/27/2015

Instrument ID: CHHP5 BFB Injection Time: 11:07

Analysis Batch No.: 142864

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.6	
75	30.0 - 60.0 % of mass 95	48.3	
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	0.4	(0.5)1
174	50.0 - 120.00 % of mass 95	82.7	
175	5.0 - 9.0 % of mass 174	6.6	(8.0)1
176	95.0 - 101.0 % of mass 174	83.4	(100.8)1
177	5.0 - 9.0 % of mass 176	5.7	(6.8)2

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

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-142864/7	50527007.D	05/27/2015	12:33
	MB 180-142864/9	50527009.D	05/27/2015	13:22
	LCS 180-142864/12	50527012.D	05/27/2015	14:50
HD-MW-145A-0/1-0	180-44203-4	50527016.D	05/27/2015	16:26

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Sample No.: CCVIS 180-142676/2 Date Analyzed: 05/24/2015 12:15

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

Lab File ID (Standard): 50524002.D Heated Purge: (Y/N) N

Calibration ID: 23908

		TBA		FB		CBZ	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		126654	4.27	439325	7.29	91750	10.39
UPPER LIMIT		253308	4.77	878650	7.79	183500	10.89
LOWER LIMIT		63327	3.77	219663	6.79	45875	9.89
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 180-142676/3		132380	4.27	408440	7.29	86308	10.39
MB 180-142676/6		132716	4.28	364047	7.29	80339	10.39
LCS 180-142676/9		110799	4.28	428648	7.29	91511	10.39
180-44203-2	HD-MW-98I-0/1-0	129799	4.27	343597	7.29	78320	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.: 180-44203-1

SDG No.:

Sample No.: CCVIS 180-142676/2 Date Analyzed: 05/24/2015 12:15

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

Lab File ID (Standard): 50524002.D Heated Purge: (Y/N) N

Calibration ID: 23908

		DCB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		132471	12.73				
UPPER LIMIT		264942	13.23				
LOWER LIMIT		66236	12.23				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 180-142676/3		98877	12.73				
MB 180-142676/6		105153	12.73				
LCS 180-142676/9		136632	12.73				
180-44203-2	HD-MW-98I-0/1-0	107521	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.: 180-44203-1

SDG No.:

Sample No.: CCVIS 180-142745/2 Date Analyzed: 05/26/2015 10:48

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

Lab File ID (Standard): 50526002.D Heated Purge: (Y/N) N

Calibration ID: 23908

		TBA		FB		CBZ	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		130784	4.27	434095	7.29	92571	10.39
UPPER LIMIT		261568	4.77	868190	7.79	185142	10.89
LOWER LIMIT		65392	3.77	217048	6.79	46286	9.89
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 180-142745/3		132511	4.26	443804	7.30	91146	10.39
MB 180-142745/5		152497	4.27	392612	7.30	88527	10.39
180-44203-6	HD-QC1-0/1-2	127793	4.28	340705	7.29	80369	10.39
LCS 180-142745/8		107920	4.28	440272	7.29	94474	10.39
180-44203-3	HD-MW-99S-0/1-0	154132	4.27	404614	7.29	94577	10.39
180-44203-3 MS	HD-MW-99S-0/1-0 MS	112220	4.28	443165	7.29	96264	10.39
180-44203-3 MSD	HD-MW-99S-0/1-0 MSD	131189	4.27	428783	7.29	89941	10.39
180-44203-1	HD-MW-98S-0/1-0	134336	4.28	358111	7.29	83333	10.39
180-44203-5	HD-QC1-0/1-1	132944	4.27	339367	7.29	80157	10.39
180-44203-7	HD-MW-93S-0/1-0	115629	4.27	336729	7.29	77714	10.39
180-44203-8	HD-MW-93D-0/1-0	107752	4.27	318341	7.29	71303	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.: 180-44203-1

SDG No.:

Sample No.: CCVIS 180-142745/2 Date Analyzed: 05/26/2015 10:48

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

Lab File ID (Standard): 50526002.D Heated Purge: (Y/N) N

Calibration ID: 23908

		DCB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		134489	12.74				
UPPER LIMIT		268978	13.24				
LOWER LIMIT		67245	12.24				
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 180-142745/3		101890	12.73				
MB 180-142745/5		125788	12.73				
180-44203-6	HD-QC1-0/1-2	106326	12.73				
LCS 180-142745/8		137994	12.73				
180-44203-3	HD-MW-99S-0/1-0	121567	12.73				
180-44203-3 MS	HD-MW-99S-0/1-0 MS	133551	12.73				
180-44203-3 MSD	HD-MW-99S-0/1-0 MSD	124705	12.74				
180-44203-1	HD-MW-98S-0/1-0	106784	12.73				
180-44203-5	HD-QC1-0/1-1	103215	12.74				
180-44203-7	HD-MW-93S-0/1-0	98349	12.73				
180-44203-8	HD-MW-93D-0/1-0	96388	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.: 180-44203-1

SDG No.:

Sample No.: CCVIS 180-142864/7 Date Analyzed: 05/27/2015 12:33

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

Lab File ID (Standard): 50527007.D Heated Purge: (Y/N) N

Calibration ID: 23908

		TBA		FB		CBZ	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		142779	4.27	435254	7.29	94901	10.39
UPPER LIMIT		285558	4.77	870508	7.79	189802	10.89
LOWER LIMIT		71390	3.77	217627	6.79	47451	9.89
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-142864/9		149220	4.27	412288	7.29	90639	10.39
LCS 180-142864/12		124287	4.28	449752	7.29	97252	10.39
180-44203-4	HD-MW-145A-0/1-0	145550	4.27	372789	7.29	85302	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.: 180-44203-1

SDG No.:

Sample No.: CCVIS 180-142864/7 Date Analyzed: 05/27/2015 12:33

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

Lab File ID (Standard): 50527007.D Heated Purge: (Y/N) N

Calibration ID: 23908

		DCB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		135191	12.73				
UPPER LIMIT		270382	13.23				
LOWER LIMIT		67596	12.23				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-142864/9		111995	12.73				
LCS 180-142864/12		138873	12.73				
180-44203-4	HD-MW-145A-0/1-0	111285	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.: 180-44203-1

SDG No.:

Client Sample ID: HD-MW-98S-0/1-0 | Lab Sample ID: 180-44203-1

Matrix: Water | Lab File ID: 50526015.D

Analysis Method: 8260C | Date Collected: 05/18/2015 12:50

Sample wt/vol: 5(mL) | Date Analyzed: 05/26/2015 16:30

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.: 142745 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.28
75-01-4	Vinyl chloride	1.0	U	1.0	0.23
74-83-9	Bromomethane	1.0	U	1.0	0.31
75-00-3	Chloroethane	1.0	U	1.0	0.21
75-35-4	1,1-Dichloroethene	0.68	J	1.0	0.30
67-64-1	Acetone	5.0	U	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.21
75-09-2	Methylene Chloride	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	0.43	J	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	9.2		1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	1.0	U	1.0	0.17
71-55-6	1,1,1-Trichloroethane	1.6		1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	9.1		1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	10		1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.16
124-48-1	Dibromochloromethane	1.0	U	1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28
100-41-4	Ethylbenzene	1.0	U	1.0	0.23
1330-20-7	Xylenes, Total	3.0	U	3.0	0.49
100-42-5	Styrene	1.0	U	1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44203-1

SDG No.:

Client Sample ID: HD-MW-98S-0/1-0 | Lab Sample ID: 180-44203-1

Matrix: Water | Lab File ID: 50526015.D

Analysis Method: 8260C | Date Collected: 05/18/2015 12:50

Sample wt/vol: 5(mL) | Date Analyzed: 05/26/2015 16:30

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.: 142745 | Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	115		64-135
2037-26-5	Toluene-d8 (Surr)	98		71-118
460-00-4	4-Bromofluorobenzene (Surr)	89		70-118
1868-53-7	Dibromofluoromethane (Surr)	113		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526015.D
Lims ID: 180-44203-D-1 Lab Sample ID: 180-44203-1
Client ID: HD-MW-98S-0/1-0
Sample Type: Client
Inject. Date: 26-May-2015 16:30:30 ALS Bottle#: 15 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-44203-D-1
Misc. Info.: 180-0007112-015
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 27-May-2015 07:46:48 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: fergusond Date: 27-May-2015 07:46:48

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.277	4.259	0.018	0	134336	1000.0	
* 2 Fluorobenzene (IS)	96	7.294	7.295	-0.001	99	358111	50.0	
* 3 Chlorobenzene-d5	119	10.391	10.391	0.000	88	83333	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.733	12.733	0.000	95	106784	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.564	6.560	0.004	91	86892	56.3	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.942	6.937	0.005	0	110889	57.6	
$ 7 Toluene-d8 (Surr)	98	8.937	8.939	-0.002	94	304780	49.2	
$ 8 4-Bromofluorobenzene (Surr	95	11.571	11.573	-0.002	88	99022	44.6	
12 Chloromethane	50		1.766				ND	
13 Vinyl chloride	62		1.900				ND	
15 Bromomethane	94		2.247				ND	
16 Chloroethane	64		2.399				ND	
22 1,1-Dichloroethene	96	3.389	3.348	0.041	21	5824	3.39	
24 Acetone	43	3.468	3.439	0.029	20	3311	4.69	M
26 Carbon disulfide	76		3.628				ND	
31 Methylene Chloride	84		4.139				ND	
33 Acrylonitrile	53		4.522				ND	
34 trans-1,2-Dichloroethene	96		4.565				ND	
35 Methyl tert-butyl ether	73		4.577				ND	
37 1,1-Dichloroethane	63	5.214	5.197	0.017	64	7746	2.16	
45 cis-1,2-Dichloroethene	96	5.956	5.946	0.010	85	96099	45.8	
46 2-Butanone (MEK)	43		5.964				ND	
49 Chlorobromomethane	128		6.238				ND	
52 Chloroform	83	6.382	6.384	-0.002	10	1671	0.5200	M
53 1,1,1-Trichloroethane	97	6.546	6.542	0.004	96	20125	8.09	
56 Carbon tetrachloride	117		6.712				ND	
58 Benzene	78		6.943				ND	
59 1,2-Dichloroethane	62		7.023				ND	
64 Trichloroethene	130	7.684	7.680	0.004	98	93098	45.5	
67 1,2-Dichloropropane	63		7.947				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		8.233				ND	
74 cis-1,3-Dichloropropene	75		8.677				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.829				ND	
76 Toluene	91		9.006				ND	
77 trans-1,3-Dichloropropene	75		9.255				ND	
79 1,1,2-Trichloroethane	97		9.450				ND	
80 Tetrachloroethene	164	9.515	9.517	-0.002	94	76823	51.4	
82 2-Hexanone	43		9.657				ND	
84 Chlorodibromomethane	129		9.815				ND	
85 Ethylene Dibromide	107		9.930				ND	
87 Chlorobenzene	112		10.423				ND	
89 1,1,1,2-Tetrachloroethane	131		10.514				ND	
90 Ethylbenzene	106		10.521				ND	
91 m-Xylene & p-Xylene	106		10.654				ND	
92 o-Xylene	106		11.032				ND	
93 Styrene	104		11.050				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	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

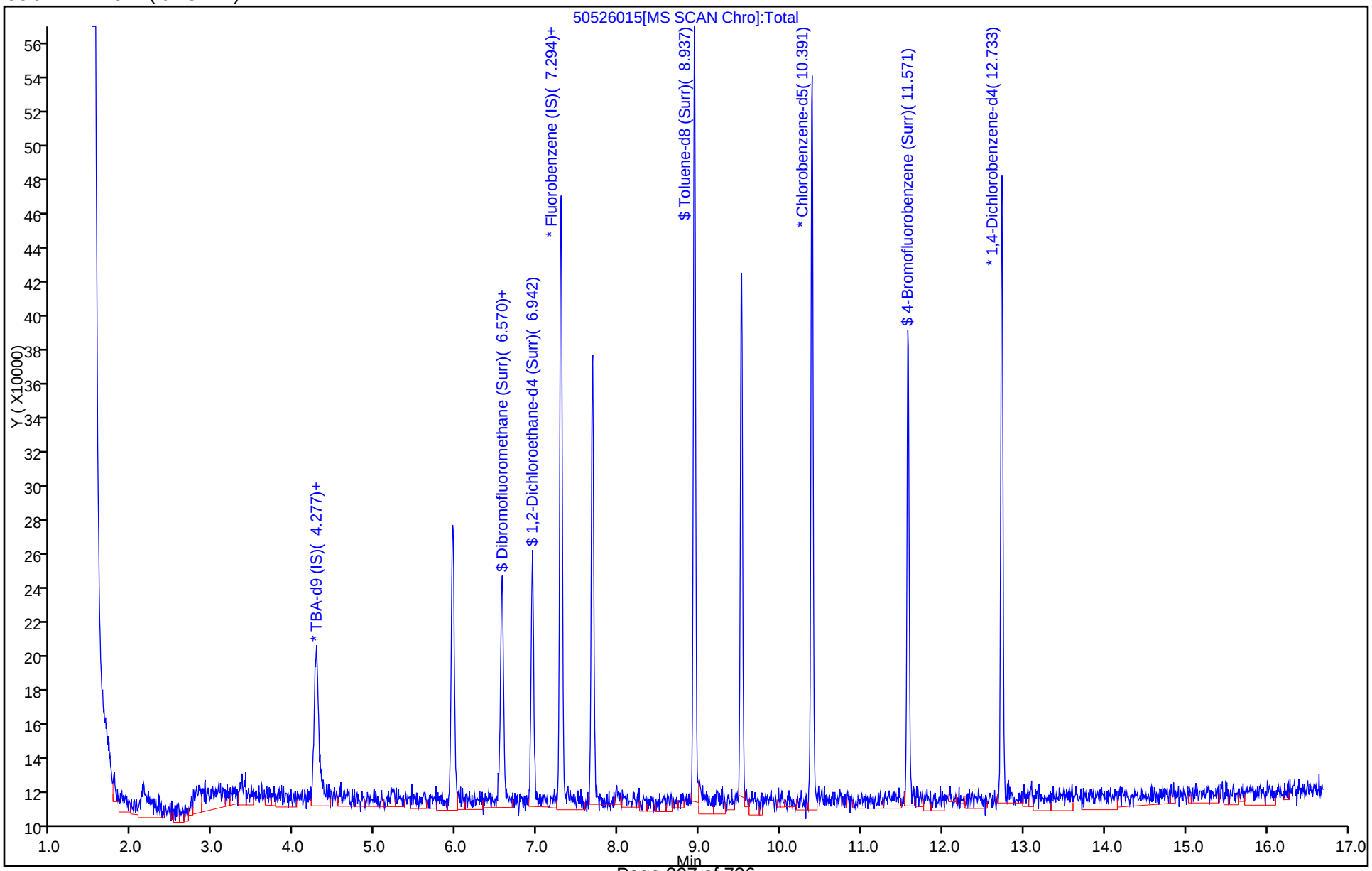
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 27-May-2015 07:46:48 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526015.D				
Injection Date:	26-May-2015 16:30:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-44203-D-1	Lab Sample ID:	180-44203-1	Worklist Smp#:	15
Client ID:	HD-MW-98S-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Report Date: 27-May-2015 07:46:48 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526015.D

Injection Date: 26-May-2015 16:30:30 Instrument ID: CHHP5

Lims ID: 180-44203-D-1 Lab Sample ID: 180-44203-1

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

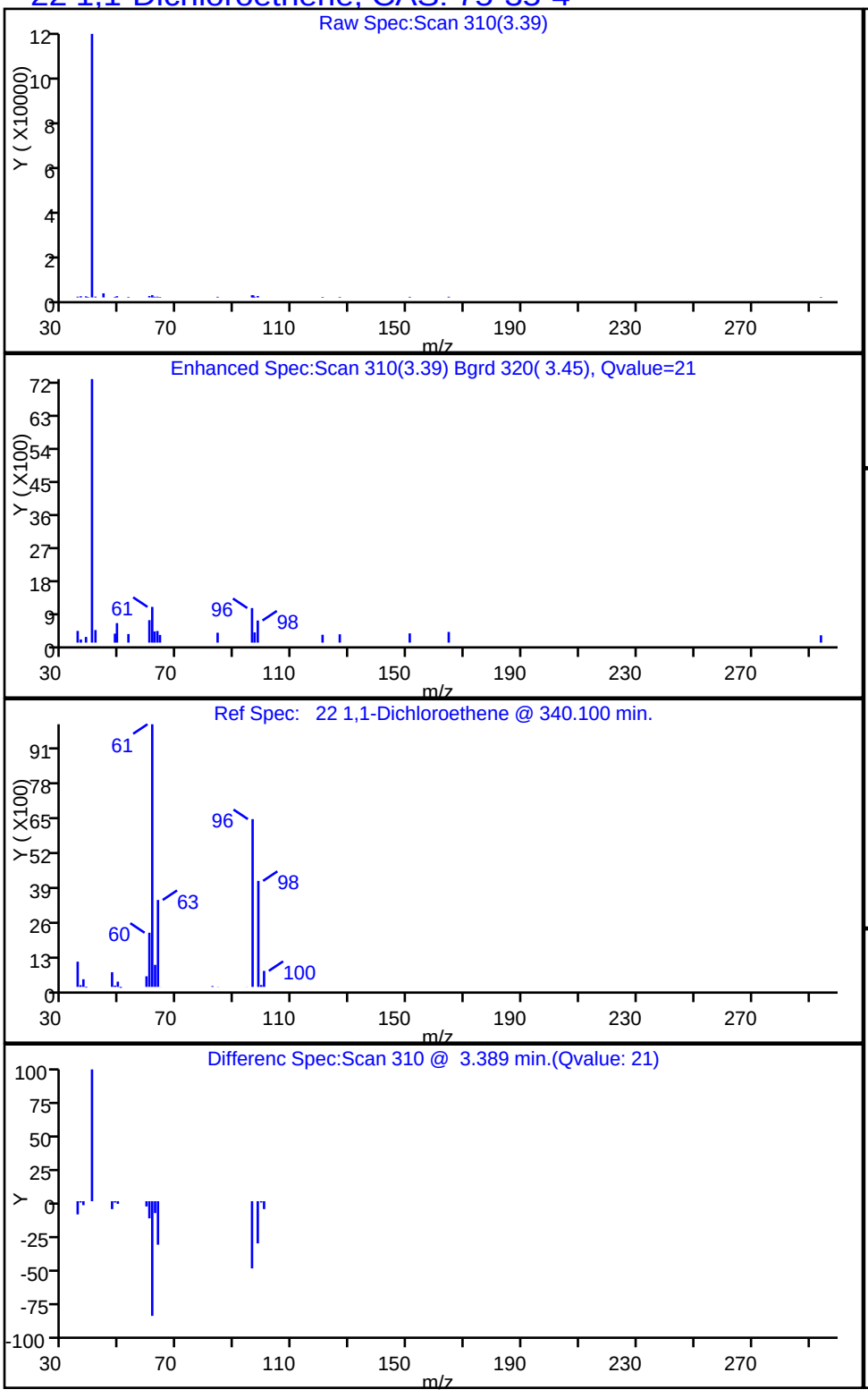
Operator ID: 001562 ALS Bottle#: 15 Worklist Smp#: 15

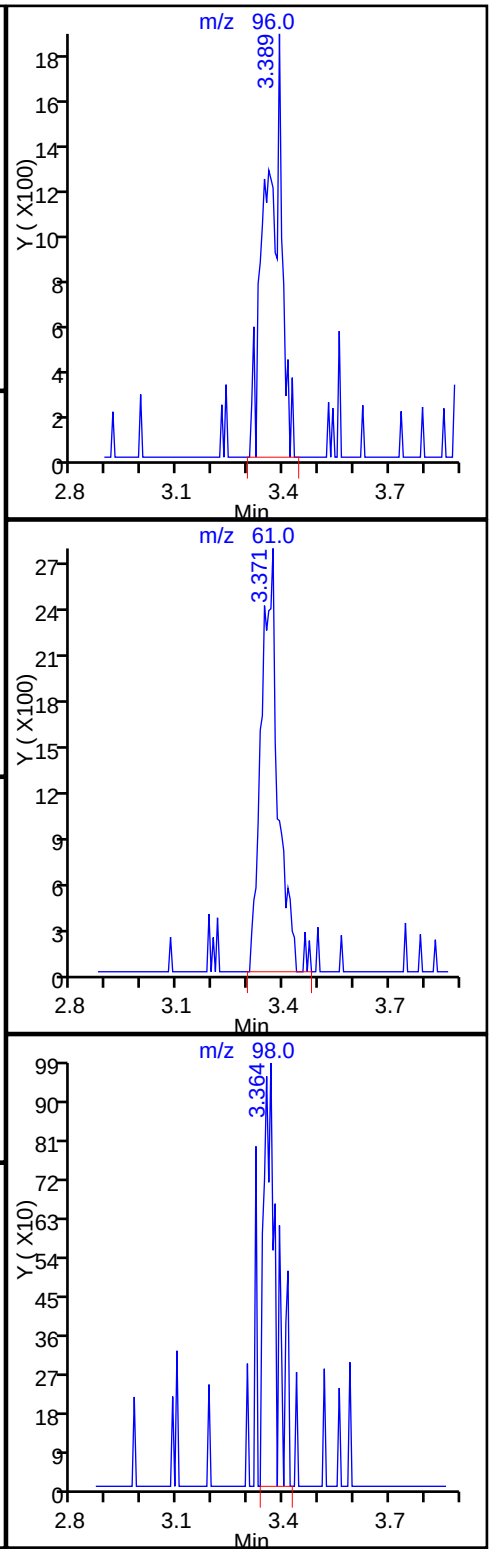
Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm) Detector MS SCAN

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





Report Date: 27-May-2015 07:46:48 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526015.D

Injection Date: 26-May-2015 16:30:30 Instrument ID: CHHP5

Lims ID: 180-44203-D-1 Lab Sample ID: 180-44203-1

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

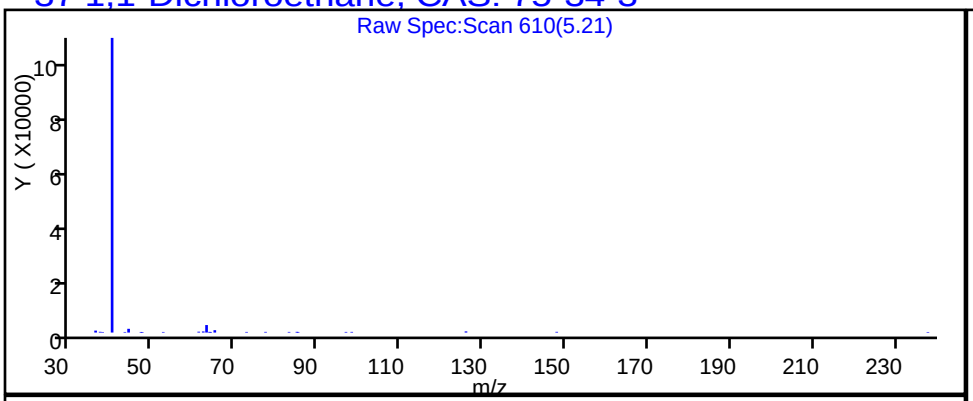
Operator ID: 001562 ALS Bottle#: 15 Worklist Smp#: 15

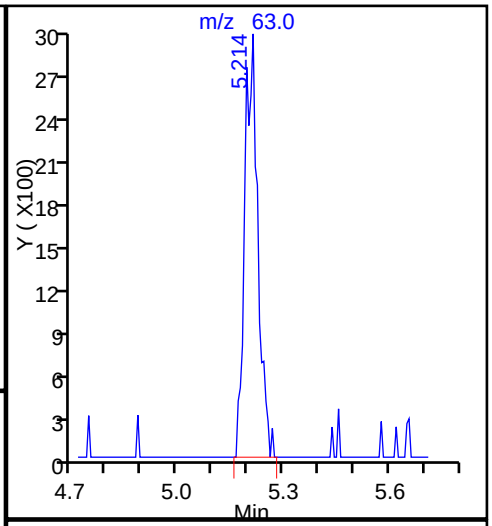
Purge Vol: 5.000 mL Dil. Factor: 1.0000

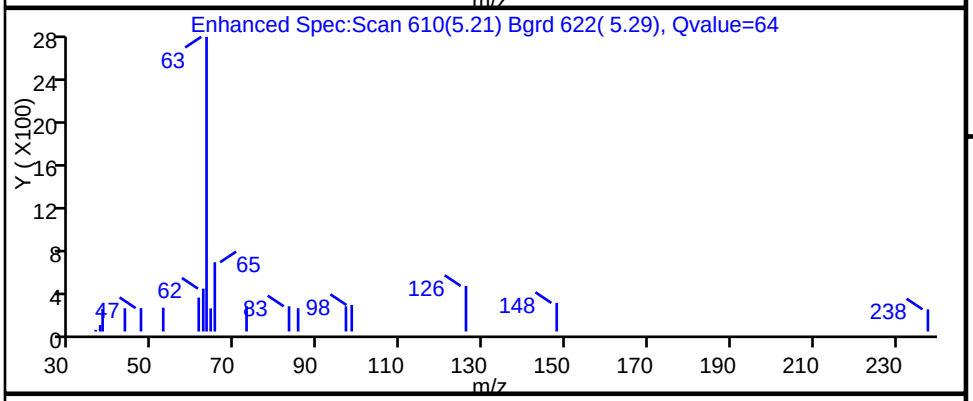
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL

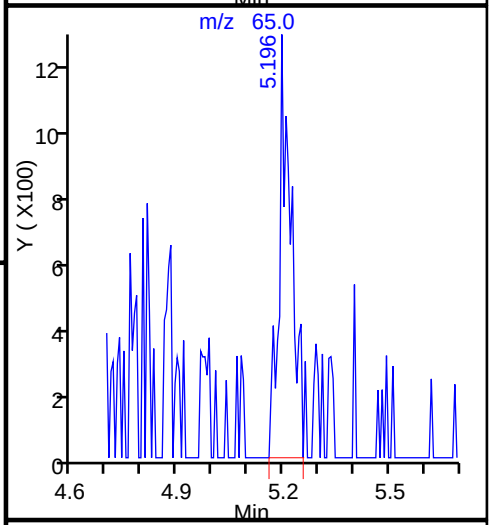
Column: DB-624 (0.18 mm) Detector MS SCAN

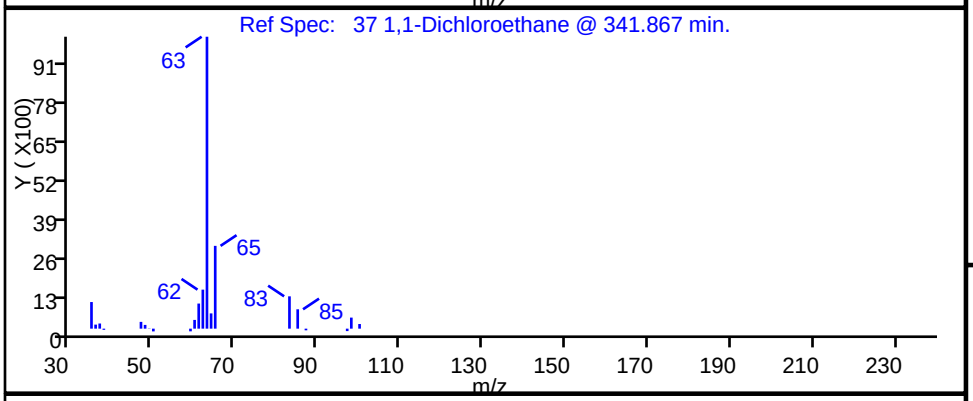
37 1,1-Dichloroethane, CAS: 75-34-3

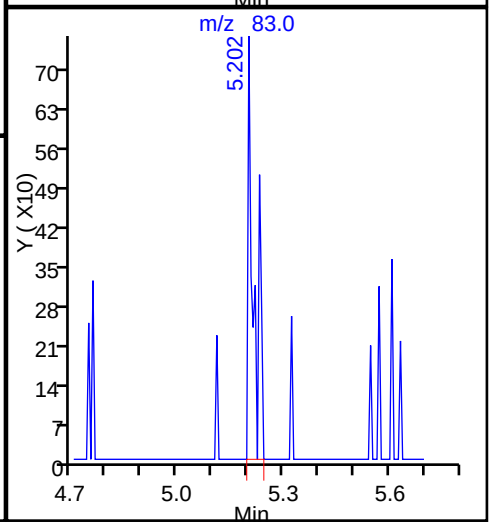


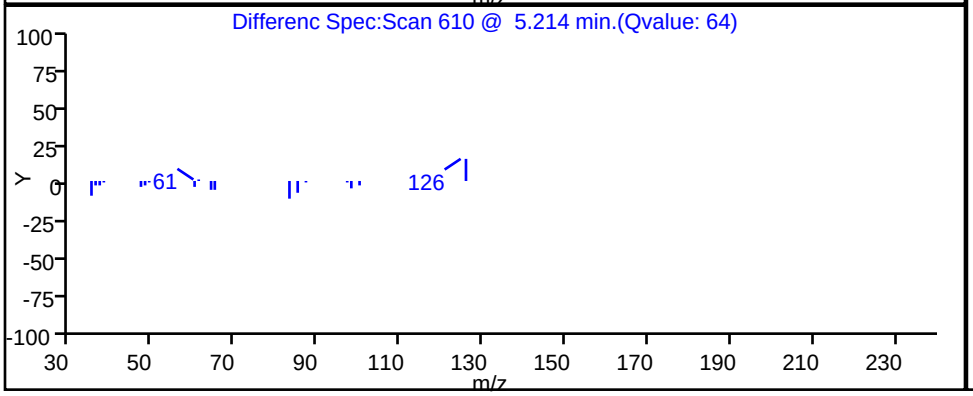










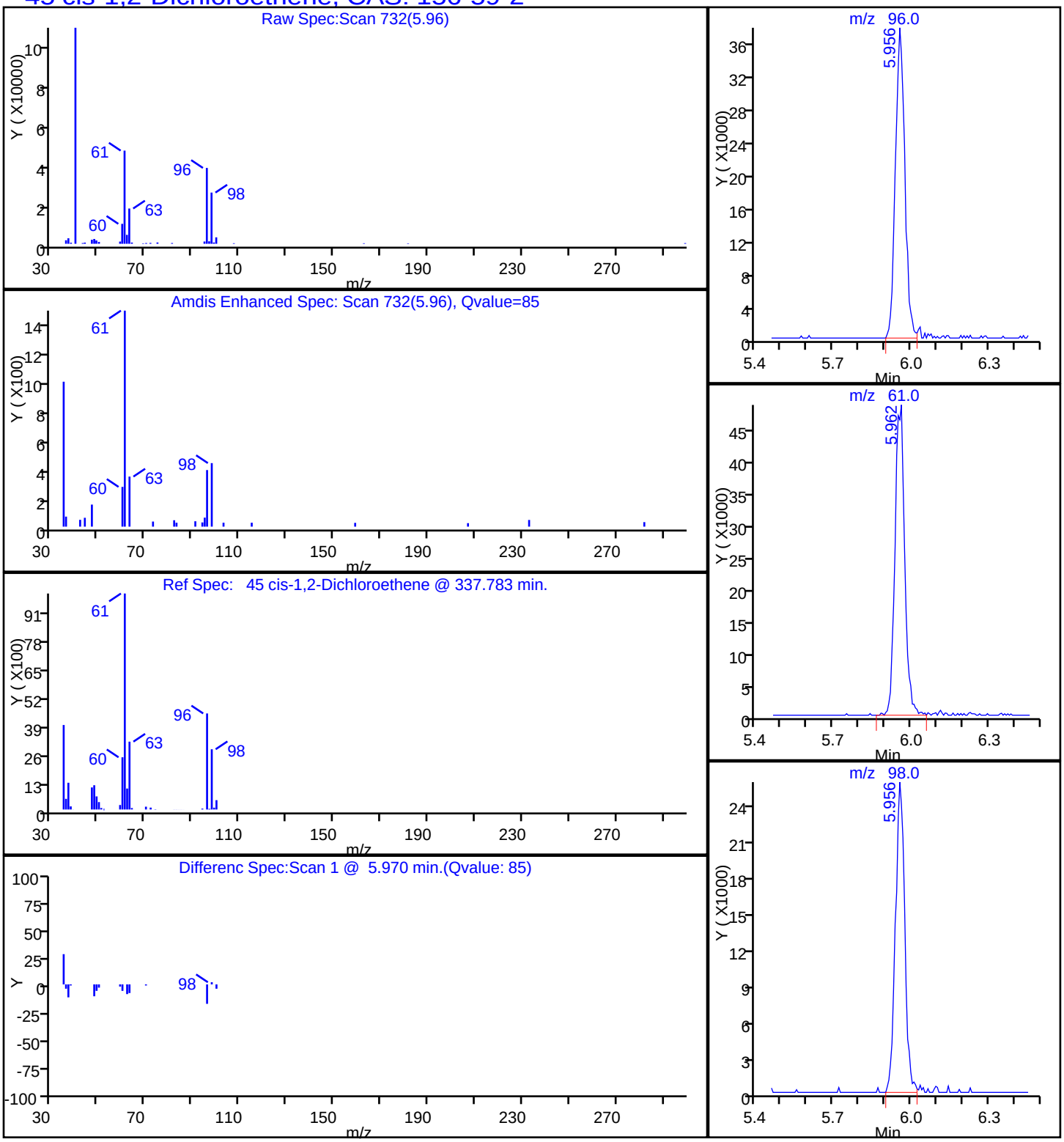


Report Date: 27-May-2015 07:46:48 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526015.D				
Injection Date:	26-May-2015 16:30:30	Instrument ID:	CHHP5		
Lims ID:	180-44203-D-1	Lab Sample ID:	180-44203-1		
Client ID:	HD-MW-98S-0/1-0				
Operator ID:	001562	ALS Bottle#:	15	Worklist Smp#:	15
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

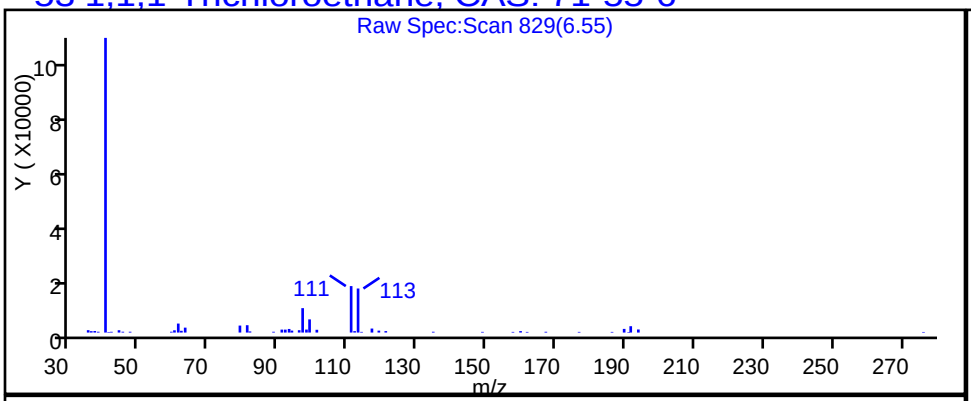


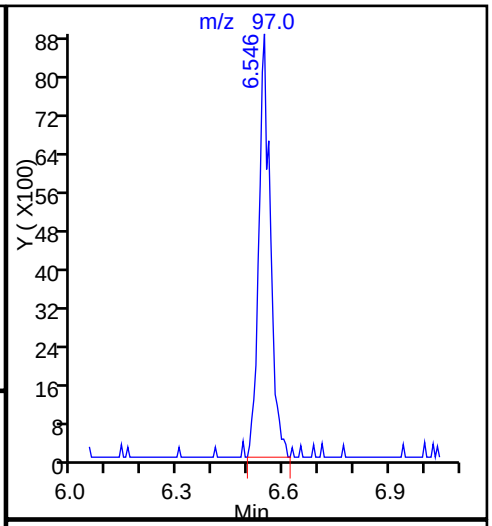
Report Date: 27-May-2015 07:46:49 Chrom Revision: 2.2 05-May-2015 11:39:10

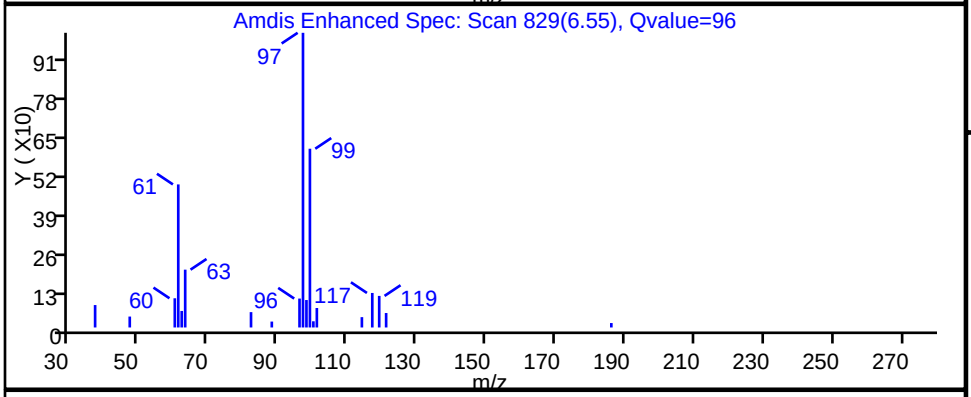
TestAmerica Pittsburgh

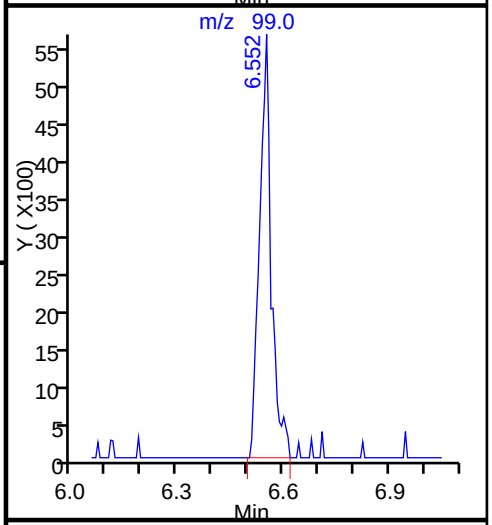
Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526015.D		
Injection Date:	26-May-2015 16:30:30	Instrument ID:	CHHP5
Lims ID:	180-44203-D-1	Lab Sample ID:	180-44203-1
Client ID:	HD-MW-98S-0/1-0		
Operator ID:	001562	ALS Bottle#:	15 Worklist Smp#: 15
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

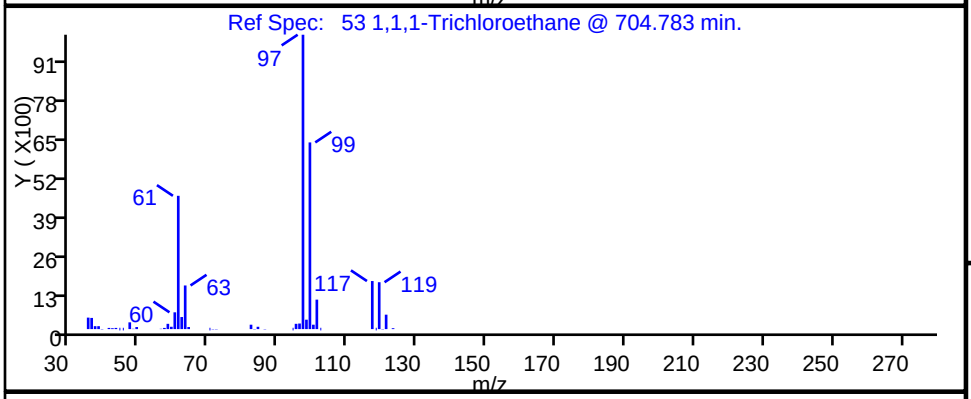
53 1,1,1-Trichloroethane, CAS: 71-55-6

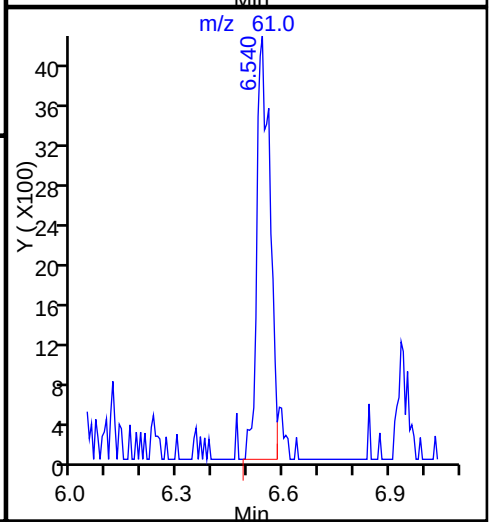


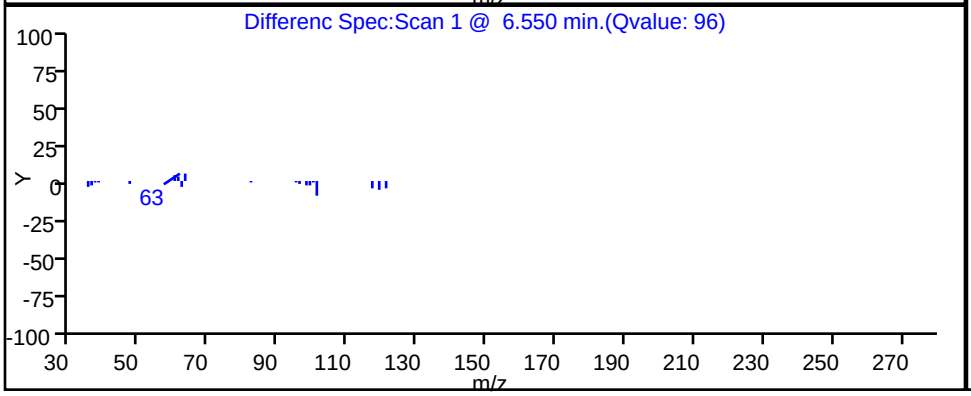










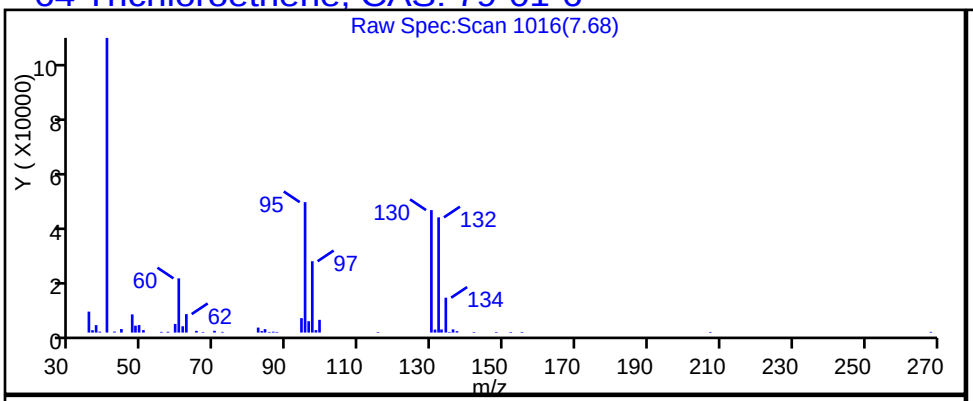


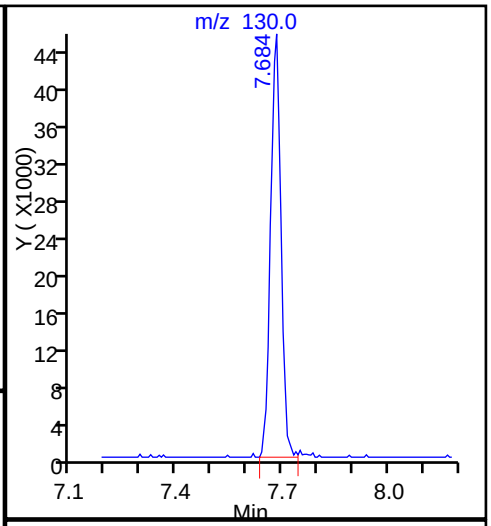
Report Date: 27-May-2015 07:46:49 Chrom Revision: 2.2 05-May-2015 11:39:10

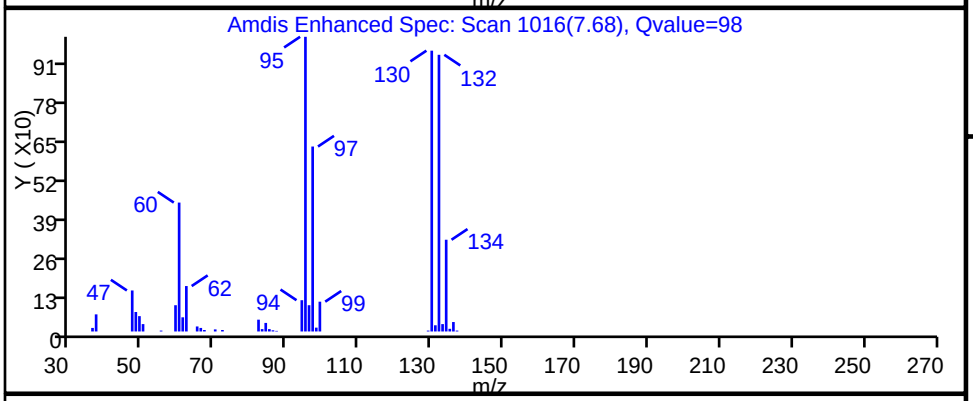
TestAmerica Pittsburgh

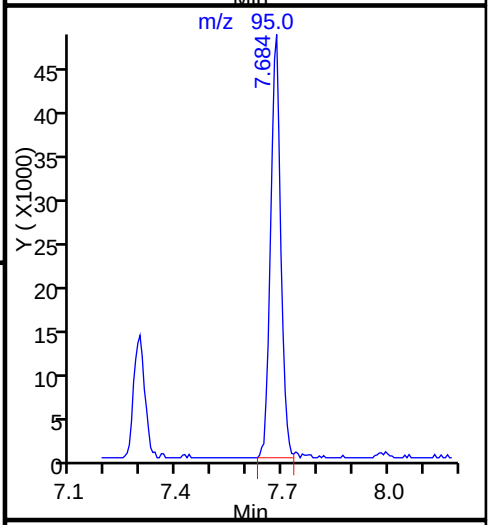
Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526015.D		
Injection Date:	26-May-2015 16:30:30	Instrument ID:	CHHP5
Lims ID:	180-44203-D-1	Lab Sample ID:	180-44203-1
Client ID:	HD-MW-98S-0/1-0		
Operator ID:	001562	ALS Bottle#:	15 Worklist Smp#: 15
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

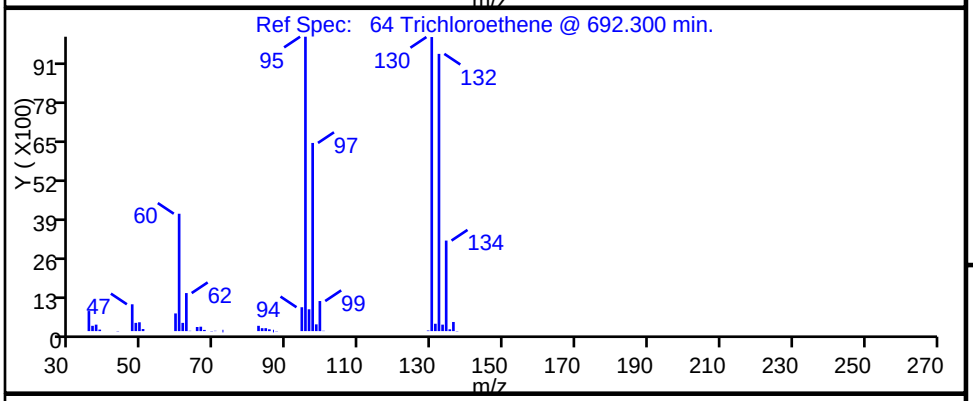
64 Trichloroethene, CAS: 79-01-6

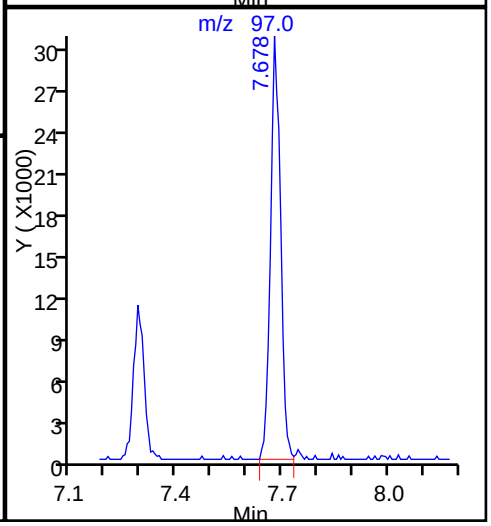


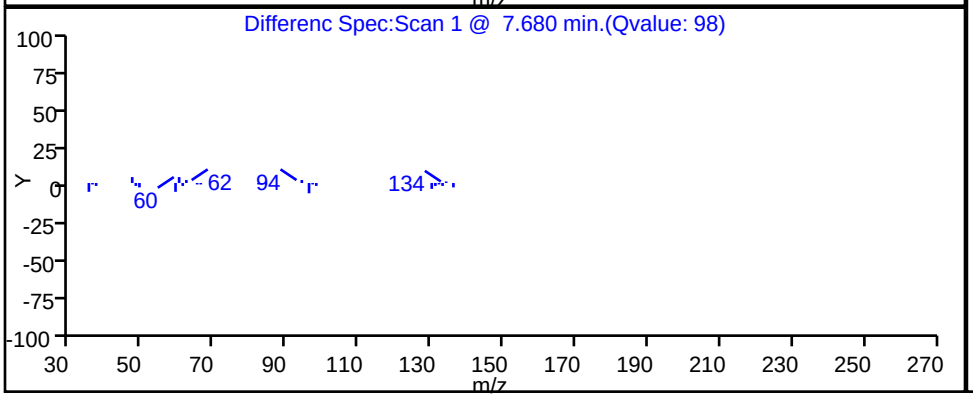










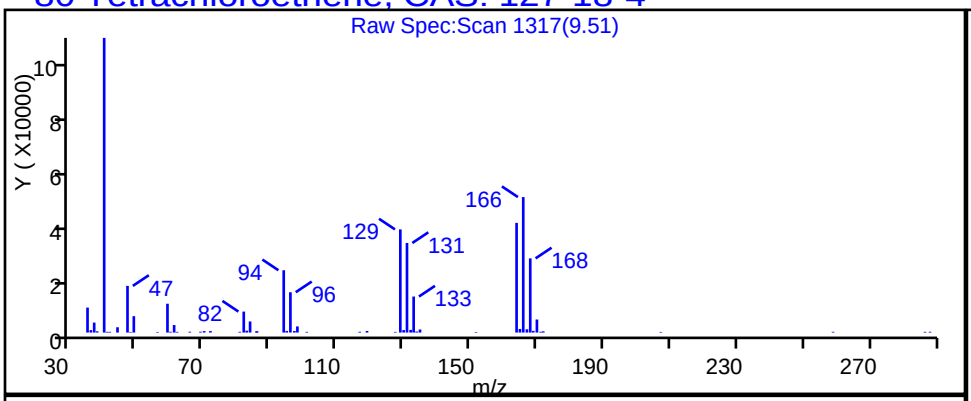


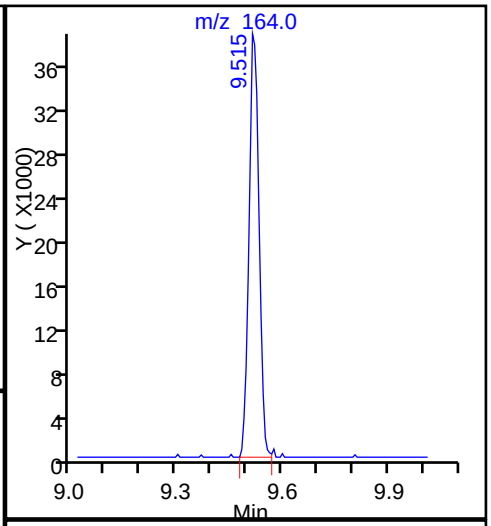
Report Date: 27-May-2015 07:46:49 Chrom Revision: 2.2 05-May-2015 11:39:10

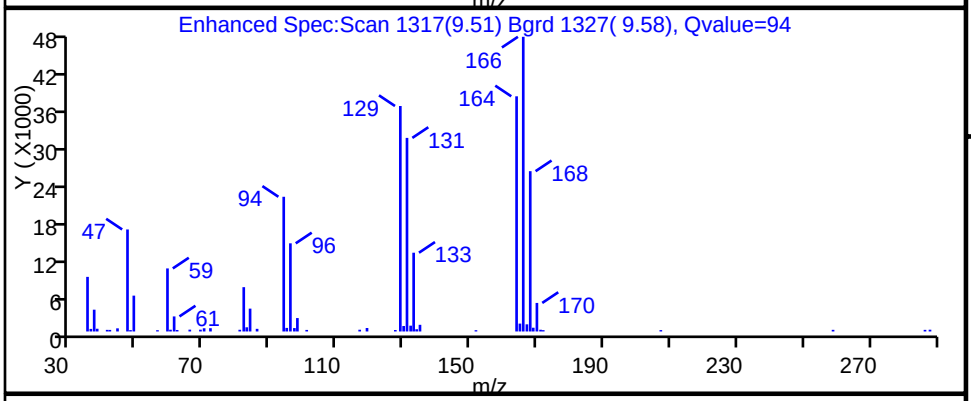
TestAmerica Pittsburgh

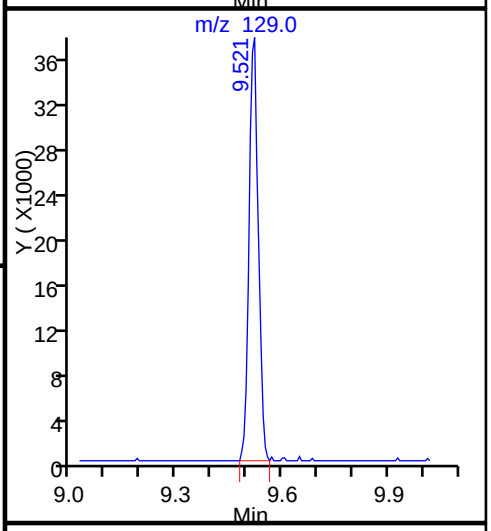
Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526015.D		
Injection Date:	26-May-2015 16:30:30	Instrument ID:	CHHP5
Lims ID:	180-44203-D-1	Lab Sample ID:	180-44203-1
Client ID:	HD-MW-98S-0/1-0		
Operator ID:	001562	ALS Bottle#:	15 Worklist Smp#: 15
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

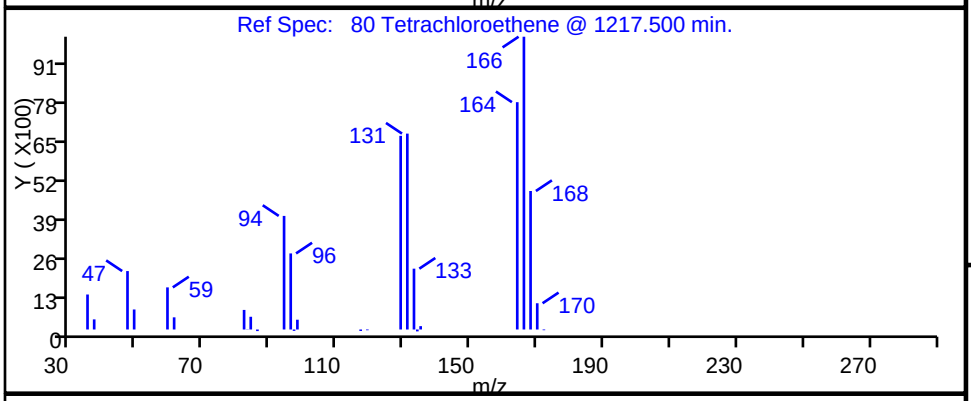
80 Tetrachloroethene, CAS: 127-18-4

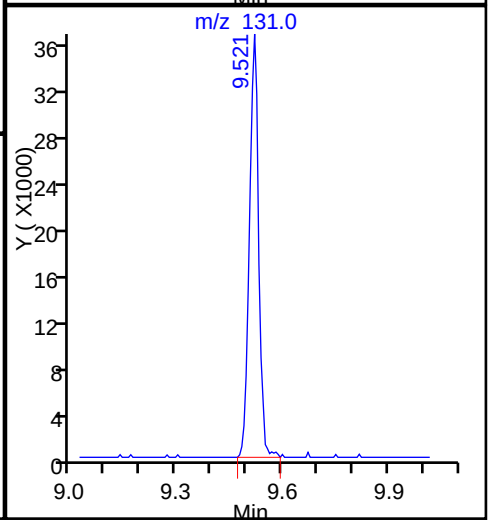


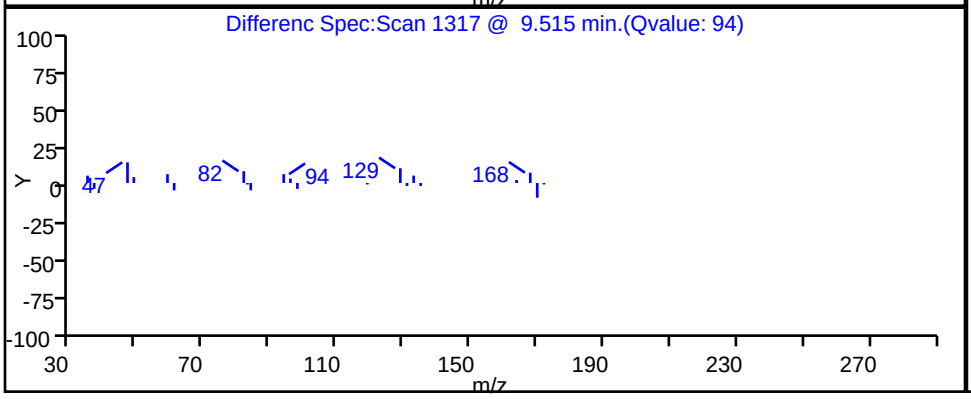












Manual Integration/User Assign Peak Report

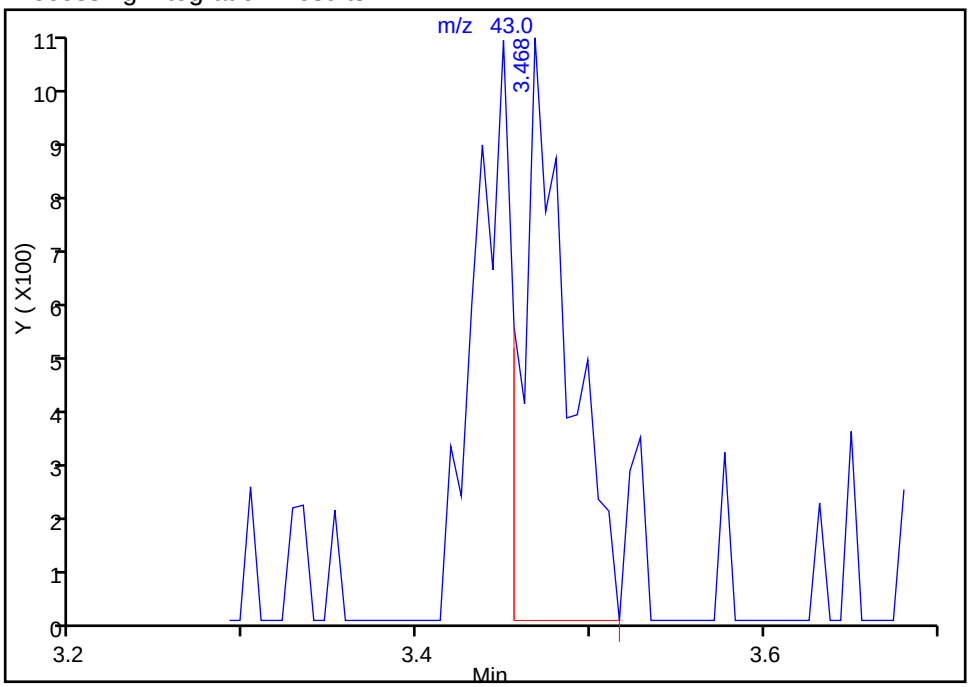
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526015.D				
Injection Date:	26-May-2015 16:30:30	Instrument ID:	CHHP5		
Lims ID:	180-44203-D-1	Lab Sample ID:	180-44203-1		
Client ID:	HD-MW-98S-0/1-0				
Operator ID:	001562	ALS Bottle#:	15	Worklist Smp#:	15
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

24 Acetone, CAS: 67-64-1

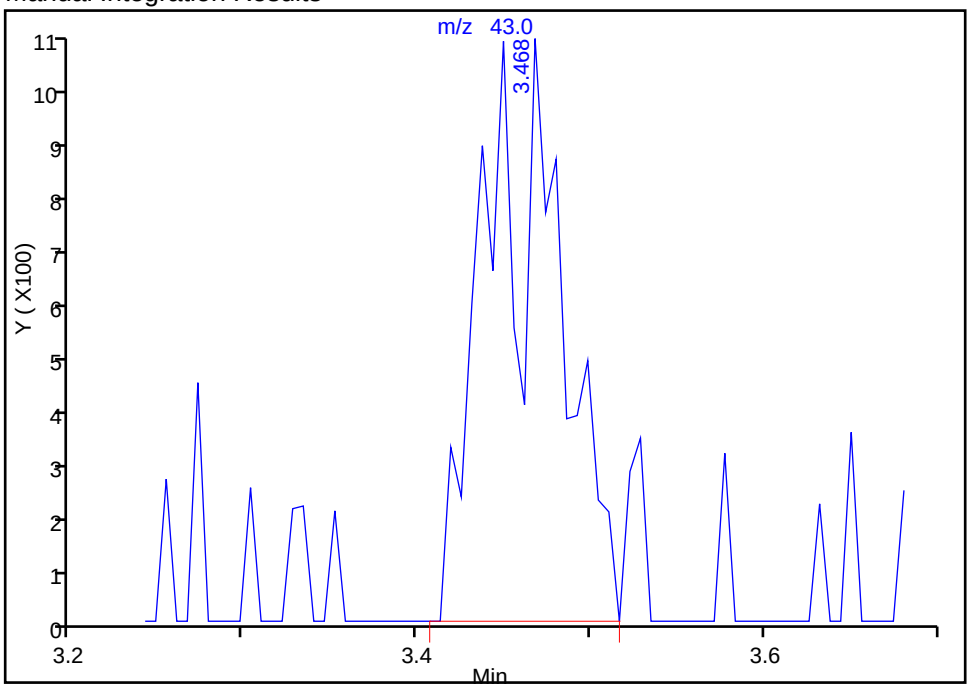
Processing Integration Results

RT: 3.47
Area: 1940
Amount: 2.746537
Amount Units: ng



Manual Integration Results

RT: 3.47
Area: 3311
Amount: 4.687518
Amount Units: ng



Reviewer: fergusond, 27-May-2015 07:46:48
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

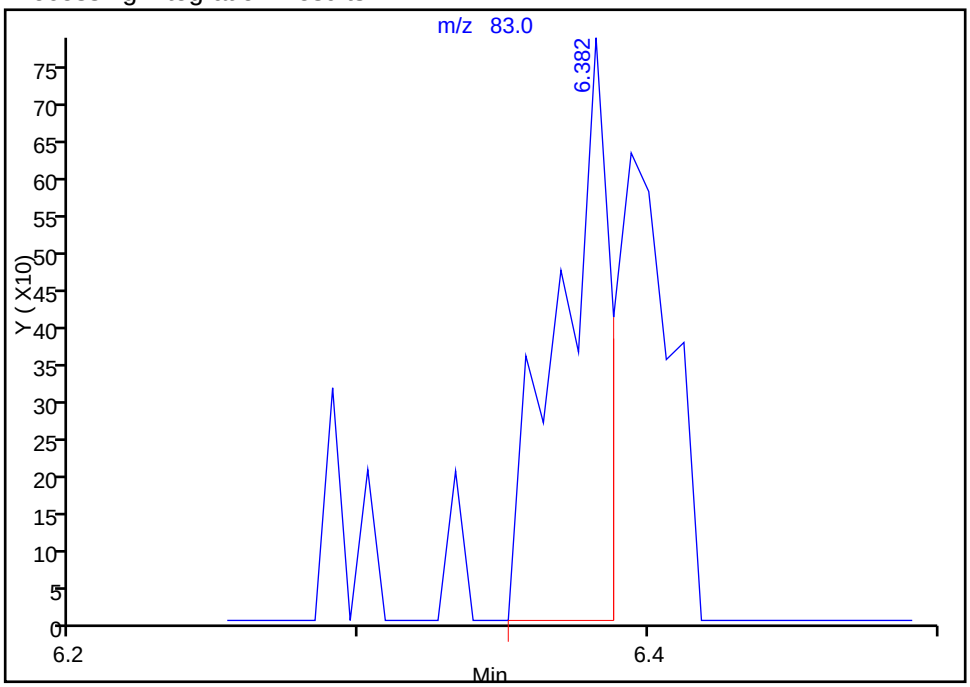
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526015.D				
Injection Date:	26-May-2015 16:30:30	Instrument ID:	CHHP5		
Lims ID:	180-44203-D-1	Lab Sample ID:	180-44203-1		
Client ID:	HD-MW-98S-0/1-0				
Operator ID:	001562	ALS Bottle#:	15	Worklist Smp#:	15
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

52 Chloroform, CAS: 67-66-3

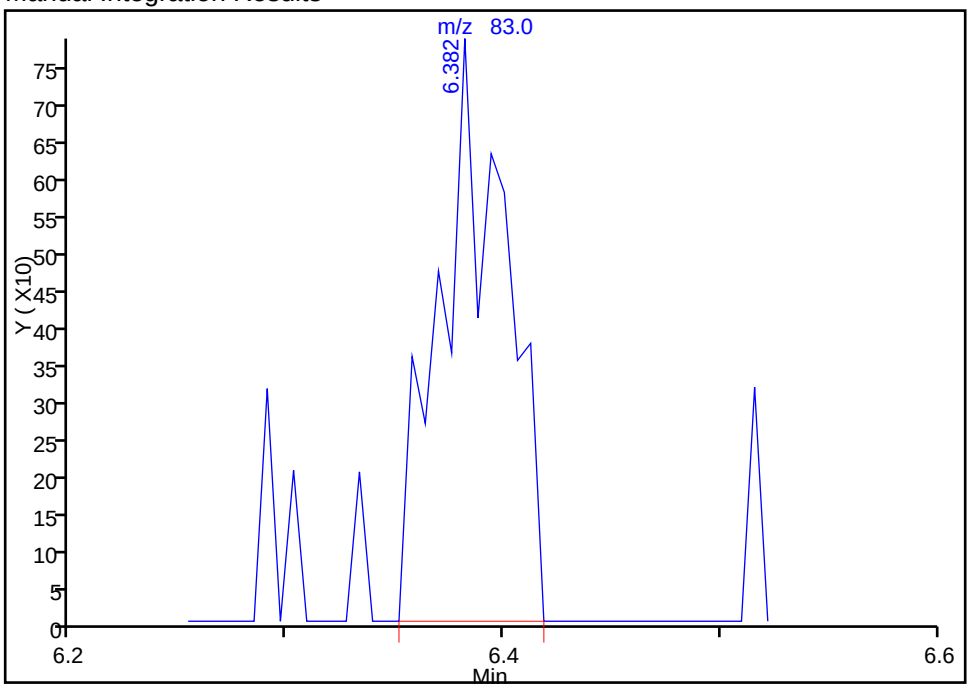
Processing Integration Results

RT: 6.38
Area: 966
Amount: 0.300582
Amount Units: ng



Manual Integration Results

RT: 6.38
Area: 1671
Amount: 0.519950
Amount Units: ng



Reviewer: fergusond, 27-May-2015 07:46:48
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44203-1

SDG No.:

Client Sample ID: HD-MW-98I-0/1-0 | Lab Sample ID: 180-44203-2

Matrix: Water | Lab File ID: 50524030.D

Analysis Method: 8260C | Date Collected: 05/18/2015 13:45

Sample wt/vol: 5(mL) | Date Analyzed: 05/24/2015 23:35

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 142676 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.28
75-01-4	Vinyl chloride	1.0	U	1.0	0.23
74-83-9	Bromomethane	1.0	U	1.0	0.31
75-00-3	Chloroethane	1.0	U	1.0	0.21
75-35-4	1,1-Dichloroethene	0.83	J	1.0	0.30
67-64-1	Acetone	5.0	U	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.21
75-09-2	Methylene Chloride	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	0.45	J	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	13		1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	1.0	U	1.0	0.17
71-55-6	1,1,1-Trichloroethane	2.1		1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	12		1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	13		1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.16
124-48-1	Dibromochloromethane	1.0	U	1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28
100-41-4	Ethylbenzene	1.0	U	1.0	0.23
1330-20-7	Xylenes, Total	3.0	U	3.0	0.49
100-42-5	Styrene	1.0	U	1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44203-1

SDG No.:

Client Sample ID: HD-MW-98I-0/1-0 | Lab Sample ID: 180-44203-2

Matrix: Water | Lab File ID: 50524030.D

Analysis Method: 8260C | Date Collected: 05/18/2015 13:45

Sample wt/vol: 5(mL) | Date Analyzed: 05/24/2015 23:35

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 142676 | Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	122		64-135
2037-26-5	Toluene-d8 (Surr)	101		71-118
460-00-4	4-Bromofluorobenzene (Surr)	92		70-118
1868-53-7	Dibromofluoromethane (Surr)	120		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150524-7097.b\50524030.D
Lims ID: 180-44203-C-2 Lab Sample ID: 180-44203-2
Client ID: HD-MW-98I-0/1-0
Sample Type: Client
Inject. Date: 24-May-2015 23:35:30 ALS Bottle#: 29 Worklist Smp#: 30
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-44203-C-2
Misc. Info.: 180-0007097-030
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150524-7097.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 26-May-2015 08:50:42 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: fergusond Date: 26-May-2015 08:50:42

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.266	4.272	-0.006	0	129799	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.289	0.000	98	343597	50.0	
* 3 Chlorobenzene-d5	119	10.392	10.386	0.006	88	78320	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.728	12.734	-0.006	97	107521	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.565	6.560	0.005	93	89109	60.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.936	6.931	0.005	0	112396	60.9	
$ 7 Toluene-d8 (Surr)	98	8.938	8.938	0.000	94	292422	50.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.572	0.000	90	96447	46.2	
12 Chloromethane	50		1.766				ND	
13 Vinyl chloride	62		1.900				ND	
15 Bromomethane	94		2.240				ND	
16 Chloroethane	64		2.398				ND	
22 1,1-Dichloroethene	96	3.353	3.341	0.012	51	6791	4.13	
24 Acetone	43		3.439				ND	
26 Carbon disulfide	76		3.627				ND	
31 Methylene Chloride	84		4.132				ND	
33 Acrylonitrile	53		4.522				ND	
34 trans-1,2-Dichloroethene	96		4.558				ND	
35 Methyl tert-butyl ether	73		4.576				ND	
37 1,1-Dichloroethane	63	5.196	5.203	-0.007	91	7737	2.25	
45 cis-1,2-Dichloroethene	96	5.951	5.951	0.000	81	132757	65.9	
46 2-Butanone (MEK)	43		5.957				ND	
49 Chlorobromomethane	128		6.237				ND	
52 Chloroform	83	6.383	6.383	0.000	1	1221	0.3960	
53 1,1,1-Trichloroethane	97	6.547	6.535	0.012	57	25129	10.5	
56 Carbon tetrachloride	117		6.712				ND	
58 Benzene	78		6.943				ND	
59 1,2-Dichloroethane	62		7.022				ND	
64 Trichloroethene	130	7.678	7.673	0.005	97	121070	61.7	
67 1,2-Dichloropropane	63		7.947				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		8.226				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	9.516	0.000	97	92151	65.6	
82 2-Hexanone	43		9.662				ND	
84 Chlorodibromomethane	129		9.820				ND	
85 Ethylene Dibromide	107		9.924				ND	
87 Chlorobenzene	112		10.416				ND	
89 1,1,1,2-Tetrachloroethane	131		10.514				ND	
90 Ethylbenzene	106		10.520				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:

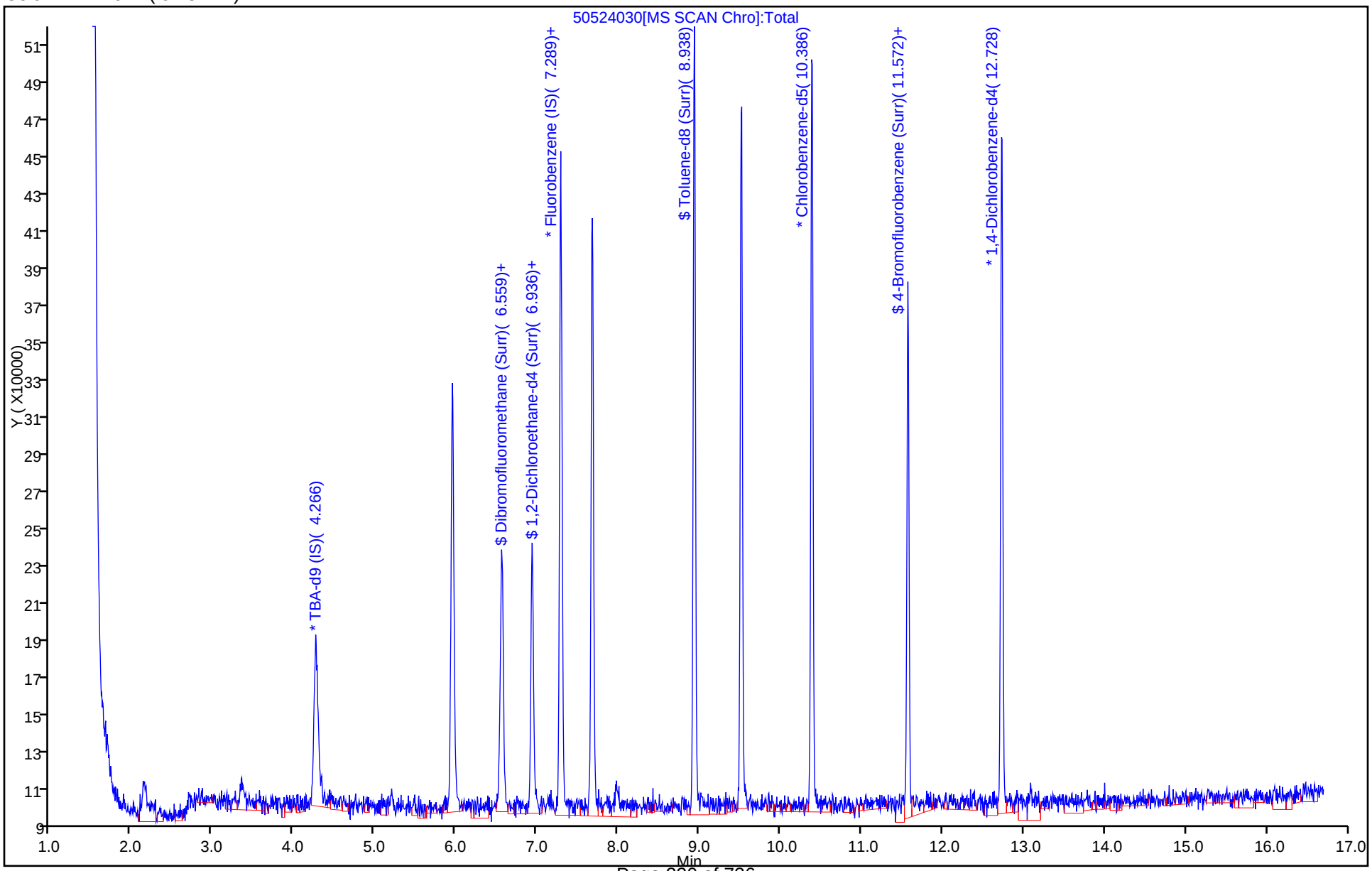
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 26-May-2015 08:50:42 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150524-7097.b\50524030.D				
Injection Date:	24-May-2015 23:35:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-44203-C-2	Lab Sample ID:	180-44203-2	Worklist Smp#:	30
Client ID:	HD-MW-98I-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	29
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

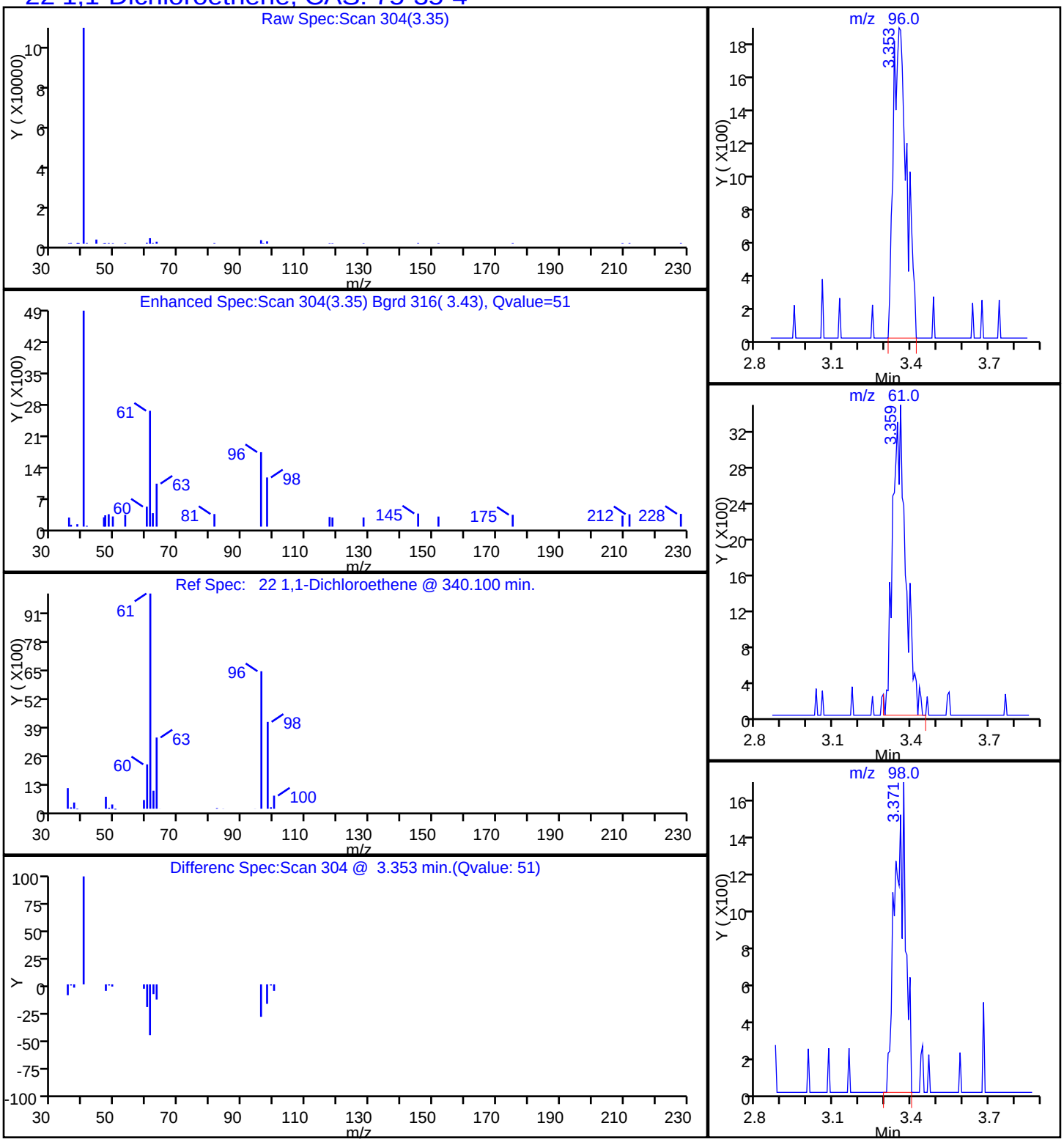


Report Date: 26-May-2015 08:50:42 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150524-7097.b\50524030.D				
Injection Date:	24-May-2015 23:35:30	Instrument ID:	CHHP5		
Lims ID:	180-44203-C-2	Lab Sample ID:	180-44203-2		
Client ID:	HD-MW-98I-0/1-0				
Operator ID:	001562	ALS Bottle#:	29	Worklist Smp#:	30
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

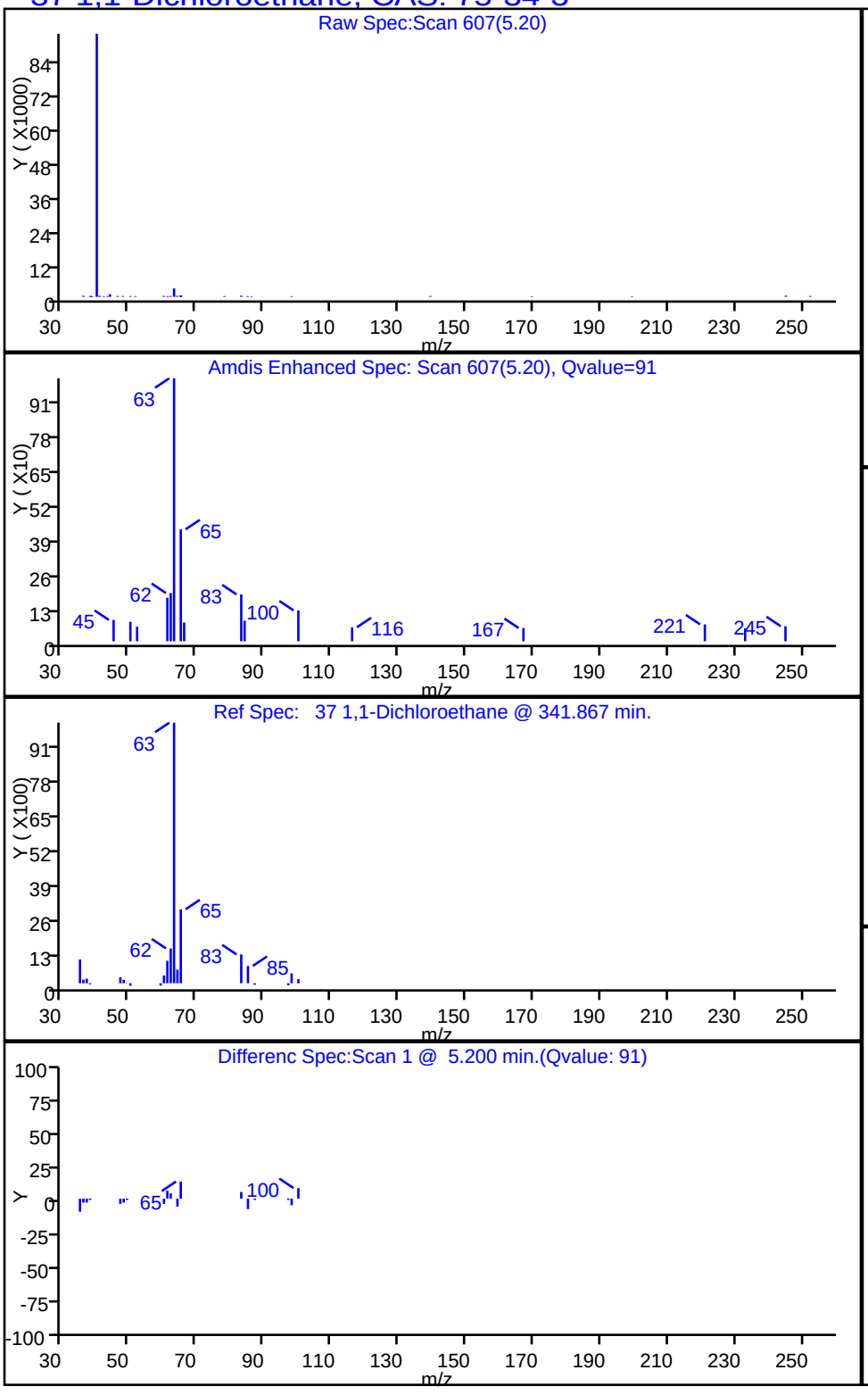


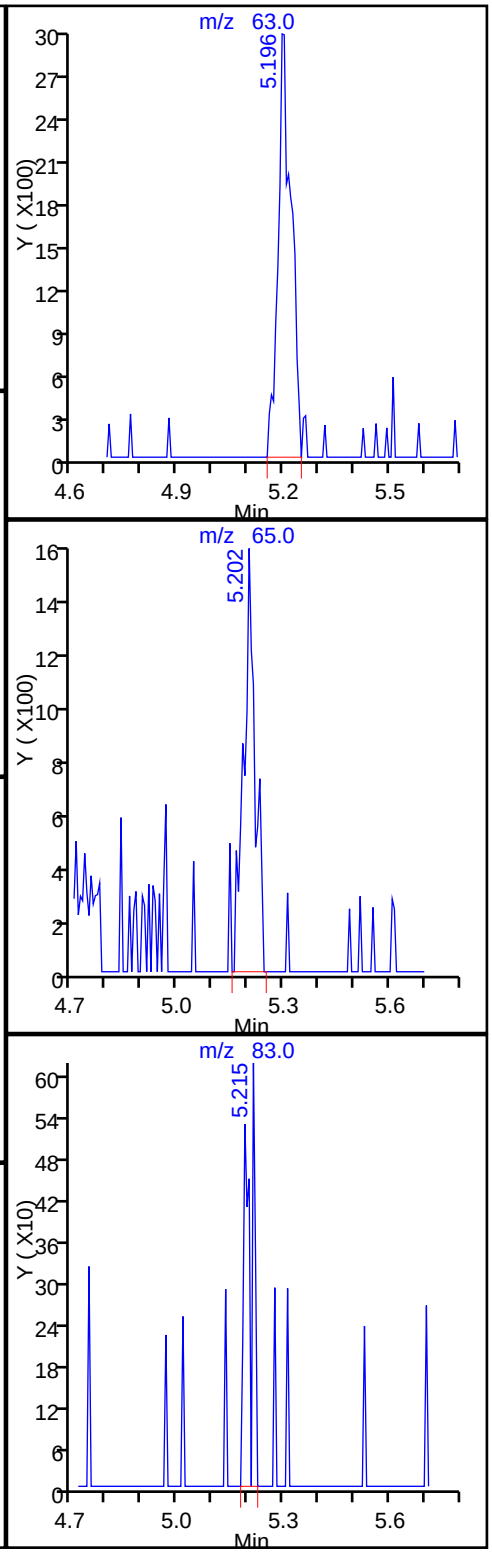
Report Date: 26-May-2015 08:50:42 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150524-7097.b\50524030.D				
Injection Date:	24-May-2015 23:35:30	Instrument ID:	CHHP5		
Lims ID:	180-44203-C-2	Lab Sample ID:	180-44203-2		
Client ID:	HD-MW-98I-0/1-0				
Operator ID:	001562	ALS Bottle#:	29	Worklist Smp#:	30
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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



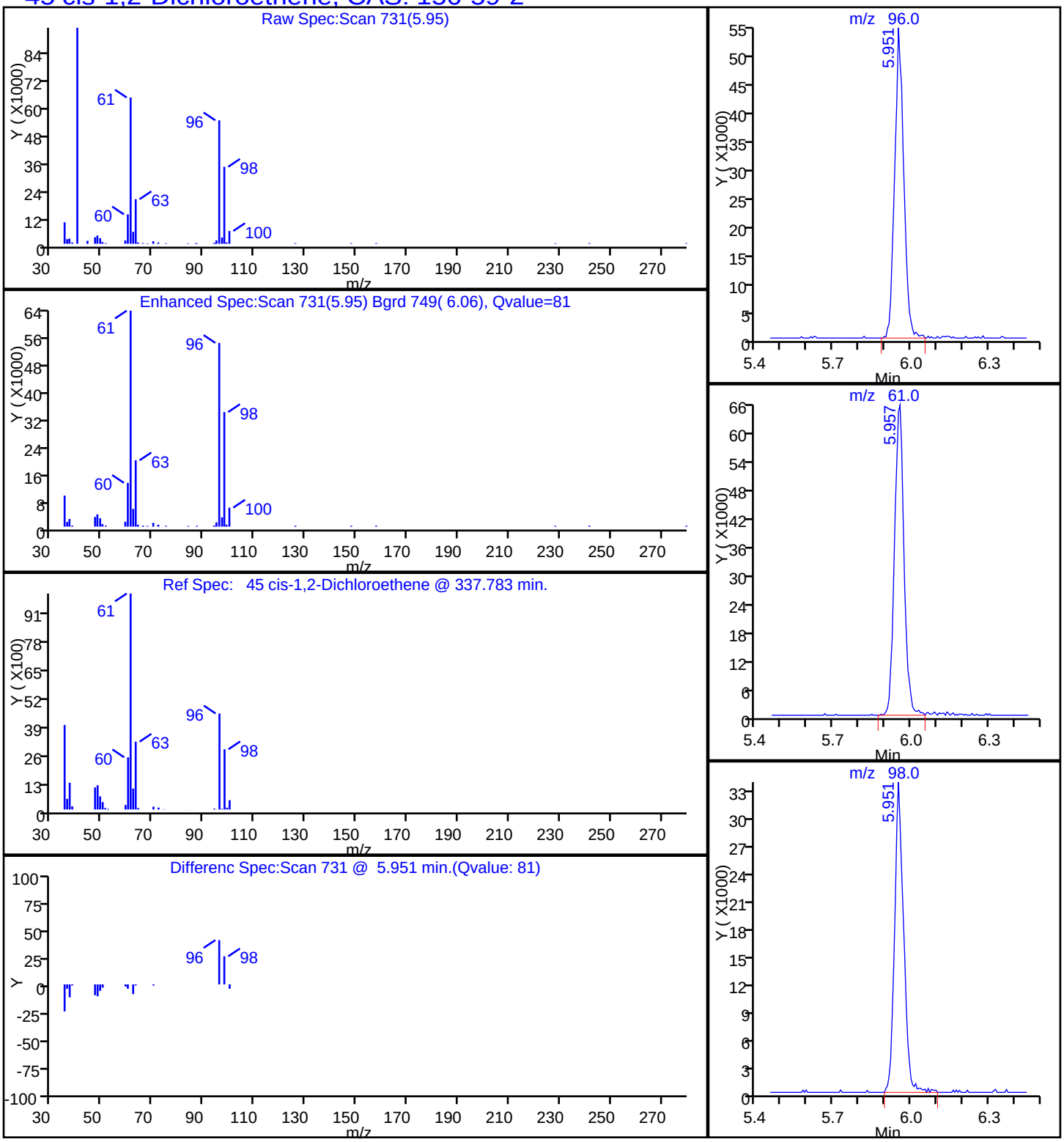


Report Date: 26-May-2015 08:50:42 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150524-7097.b\50524030.D		
Injection Date:	24-May-2015 23:35:30	Instrument ID:	CHHP5
Lims ID:	180-44203-C-2	Lab Sample ID:	180-44203-2
Client ID:	HD-MW-98I-0/1-0		
Operator ID:	001562	ALS Bottle#:	29 Worklist Smp#: 30
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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

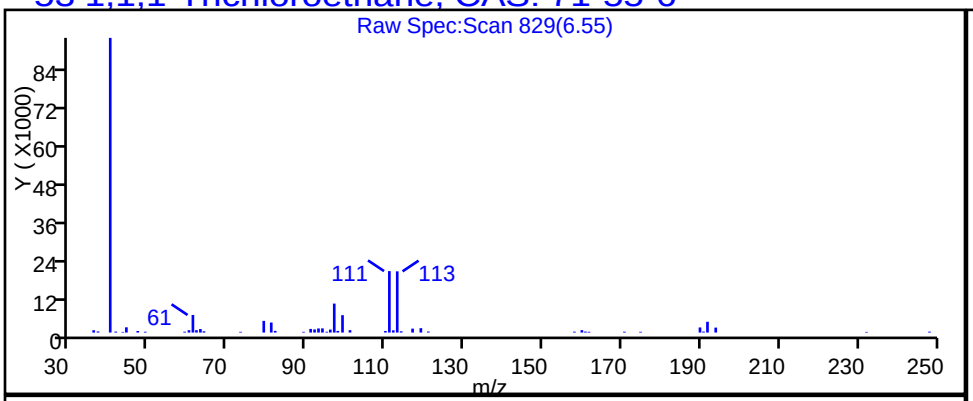


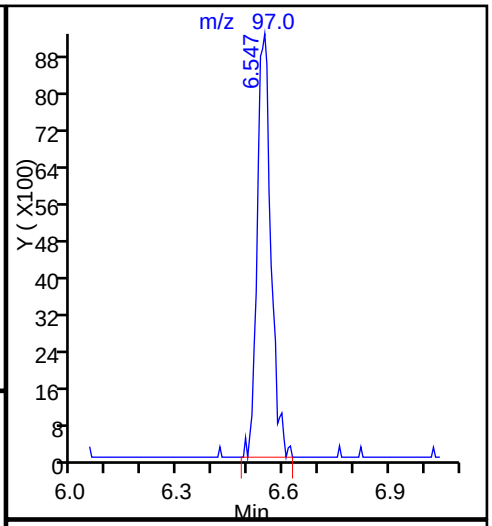
Report Date: 26-May-2015 08:50:42 Chrom Revision: 2.2 05-May-2015 11:39:10

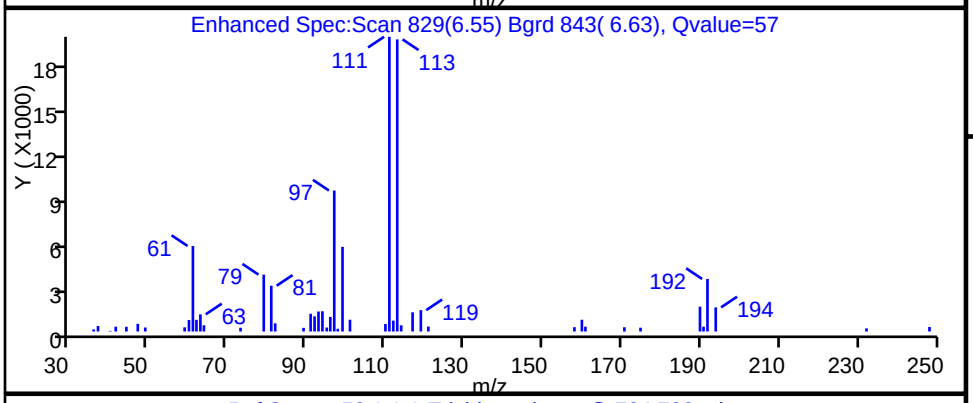
TestAmerica Pittsburgh

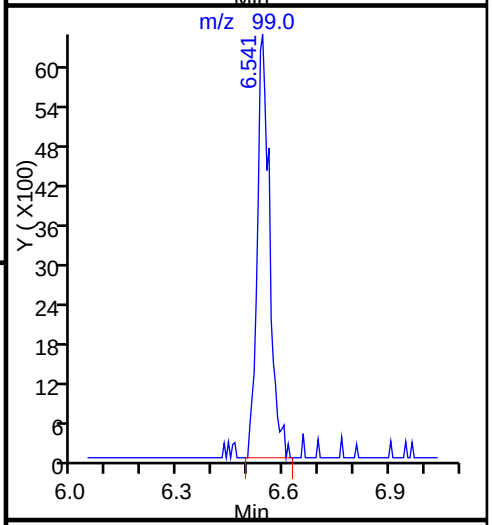
Data File:	\\PITCHROM\ChromData\CHHP5\20150524-7097.b\50524030.D				
Injection Date:	24-May-2015 23:35:30	Instrument ID:	CHHP5		
Lims ID:	180-44203-C-2	Lab Sample ID:	180-44203-2		
Client ID:	HD-MW-98I-0/1-0				
Operator ID:	001562	ALS Bottle#:	29	Worklist Smp#:	30
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

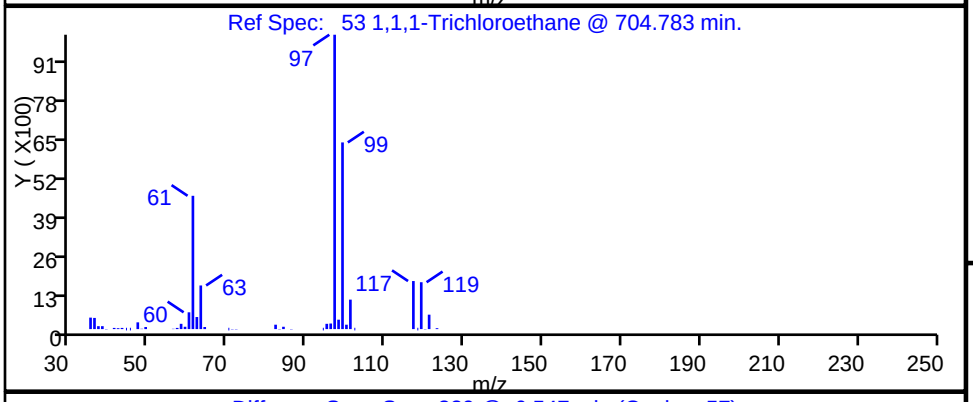
53 1,1,1-Trichloroethane, CAS: 71-55-6

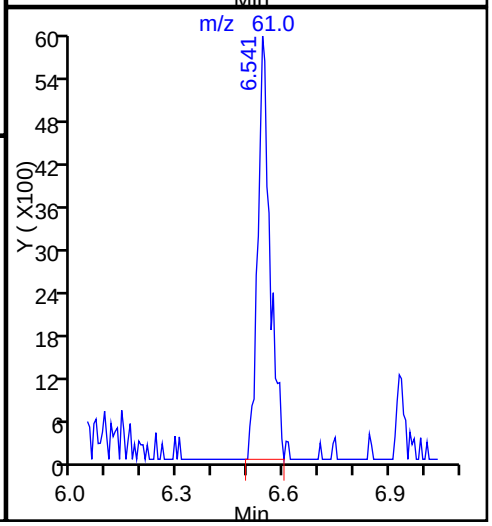


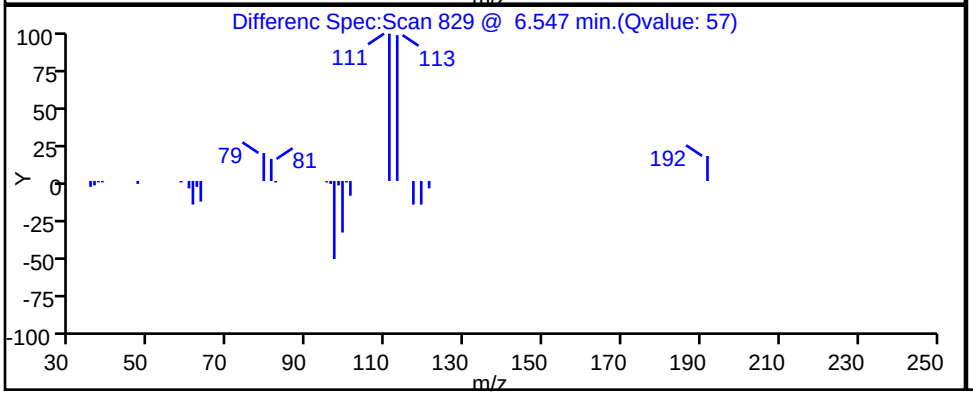










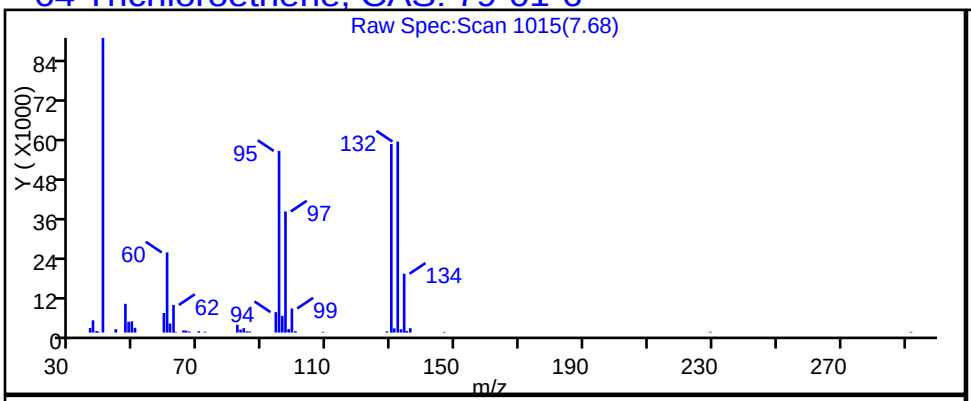


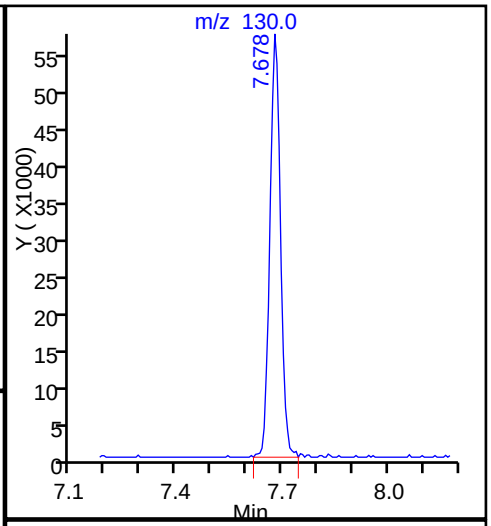
Report Date: 26-May-2015 08:50:42 Chrom Revision: 2.2 05-May-2015 11:39:10

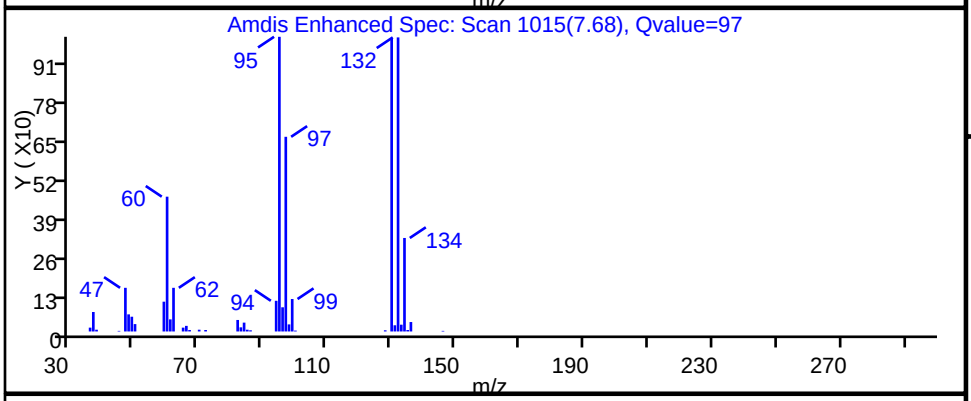
TestAmerica Pittsburgh

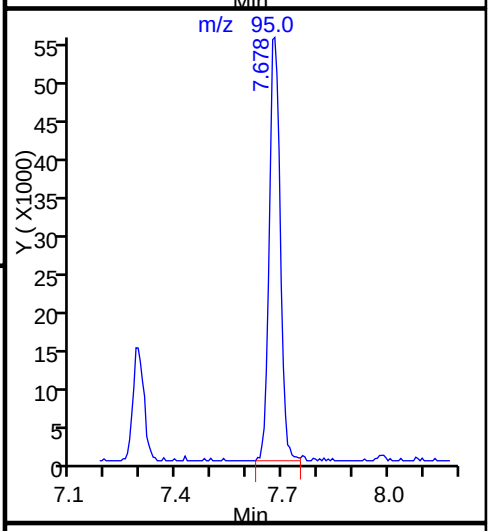
Data File:	\\PITCHROM\ChromData\CHHP5\20150524-7097.b\50524030.D		
Injection Date:	24-May-2015 23:35:30	Instrument ID:	CHHP5
Lims ID:	180-44203-C-2	Lab Sample ID:	180-44203-2
Client ID:	HD-MW-98I-0/1-0		
Operator ID:	001562	ALS Bottle#:	29 Worklist Smp#: 30
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

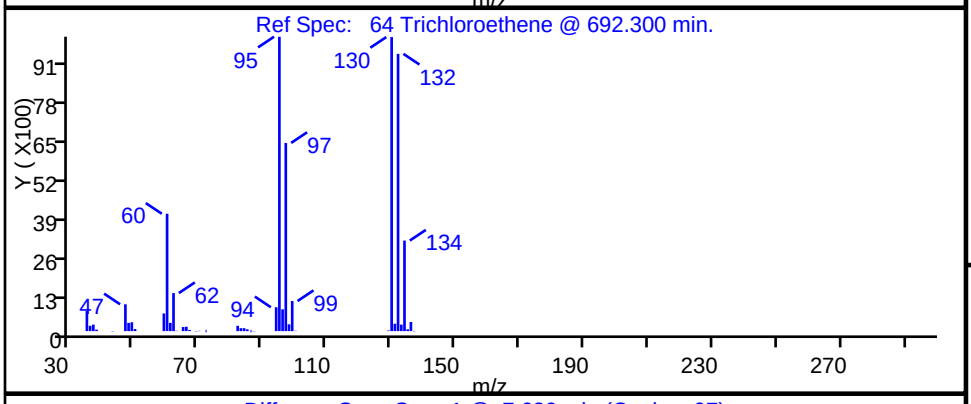
64 Trichloroethene, CAS: 79-01-6

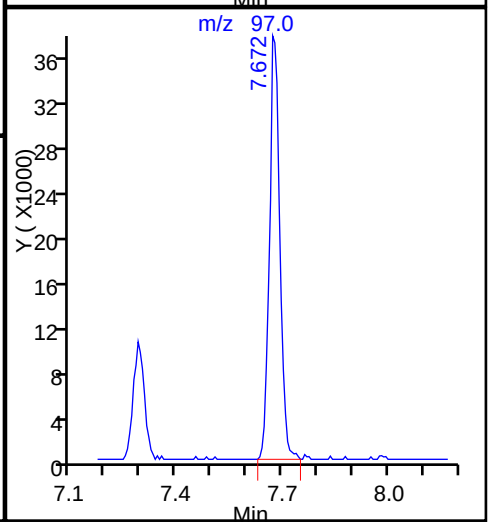


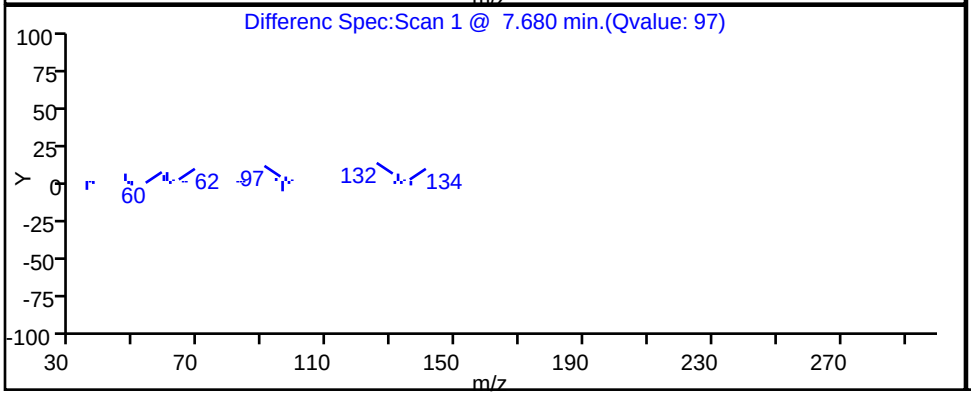












Report Date: 26-May-2015 08:50:42 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150524-7097.b\50524030.D

Injection Date: 24-May-2015 23:35:30 Instrument ID: CHHP5

Lims ID: 180-44203-C-2 Lab Sample ID: 180-44203-2

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

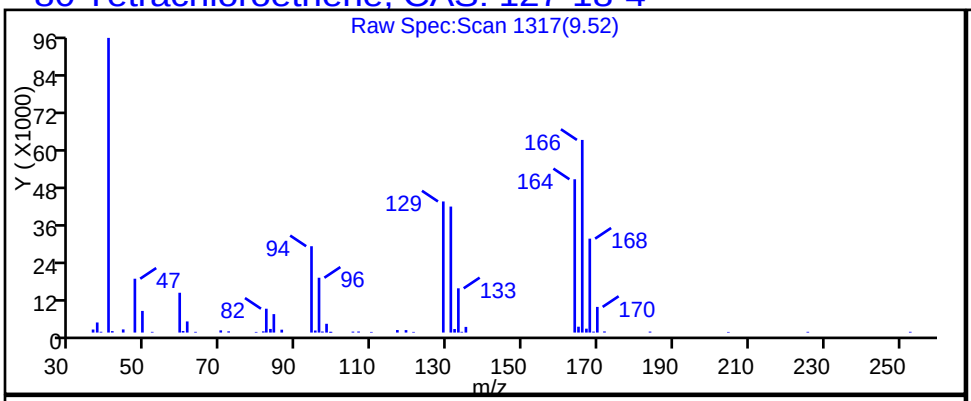
Operator ID: 001562 ALS Bottle#: 29 Worklist Smp#: 30

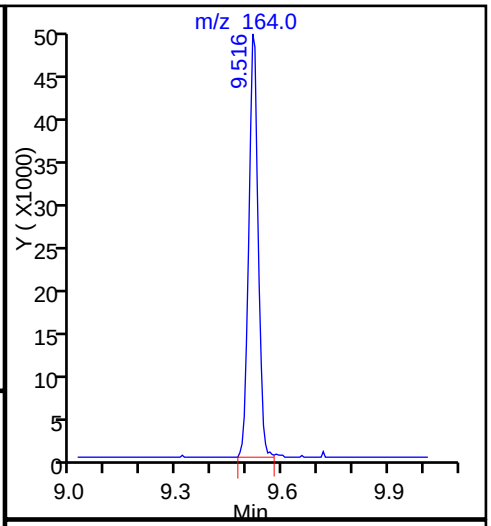
Purge Vol: 5.000 mL Dil. Factor: 1.0000

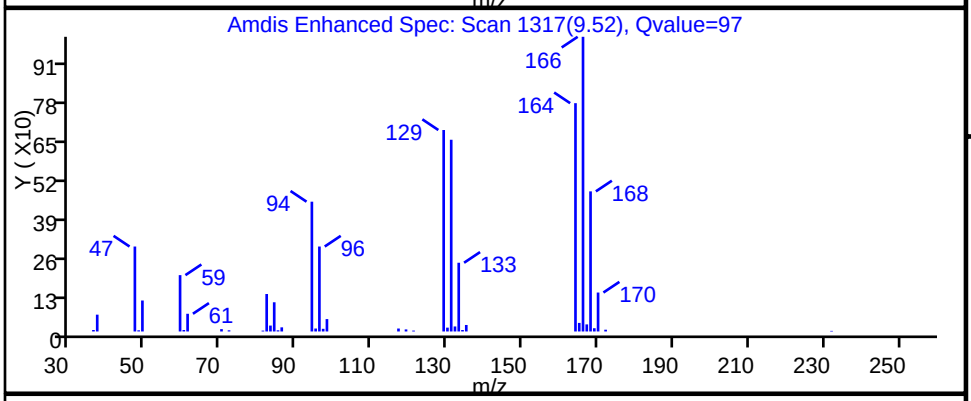
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL

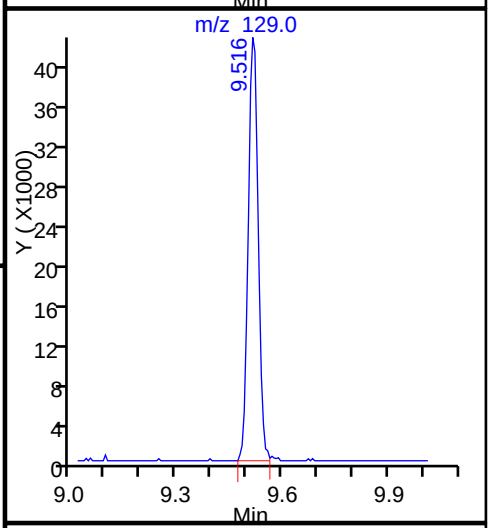
Column: DB-624 (0.18 mm) Detector MS SCAN

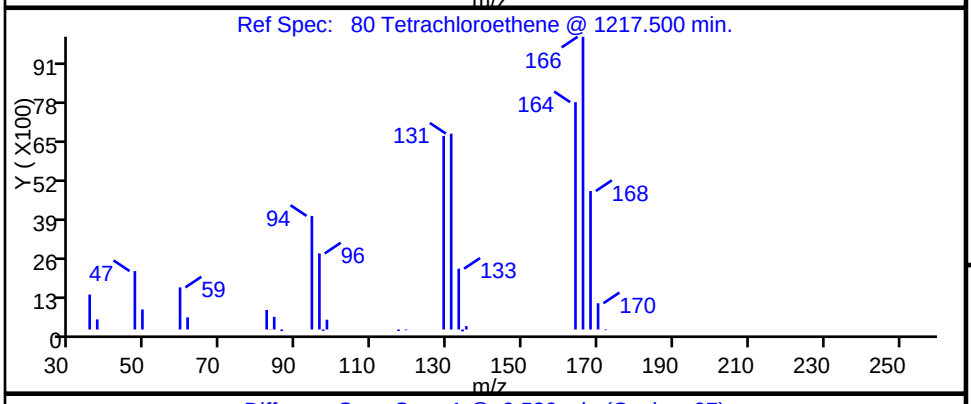
80 Tetrachloroethene, CAS: 127-18-4

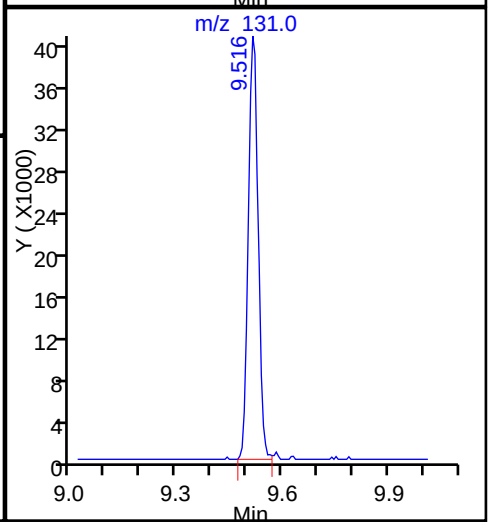


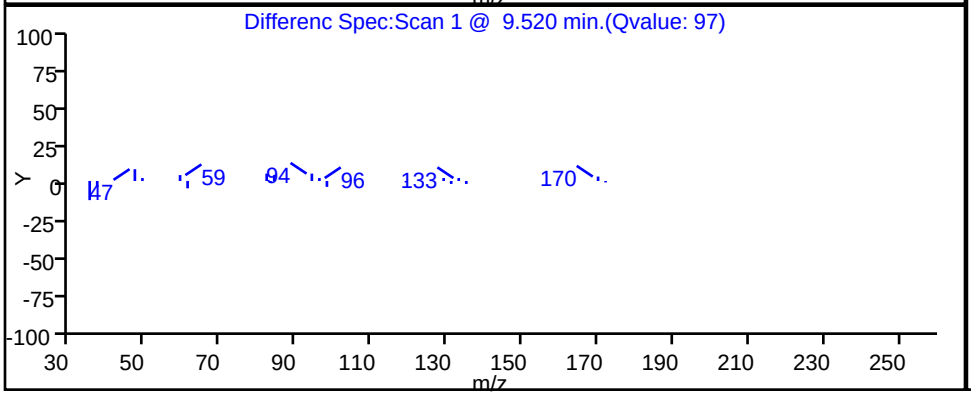












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44203-1

SDG No.:

Client Sample ID: HD-MW-99S-0/1-0 | Lab Sample ID: 180-44203-3

Matrix: Water | Lab File ID: 50526009.D

Analysis Method: 8260C | Date Collected: 05/18/2015 09:55

Sample wt/vol: 5(mL) | Date Analyzed: 05/26/2015 14:07

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 142745 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.28
75-01-4	Vinyl chloride	1.0	U	1.0	0.23
74-83-9	Bromomethane	1.0	U	1.0	0.31
75-00-3	Chloroethane	1.0	U	1.0	0.21
75-35-4	1,1-Dichloroethene	2.1		1.0	0.30
67-64-1	Acetone	5.0	U	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.21
75-09-2	Methylene Chloride	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	1.1		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	29	F1	1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	0.21	J	1.0	0.17
71-55-6	1,1,1-Trichloroethane	3.9		1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	27	F1	1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	20		1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.16
124-48-1	Dibromochloromethane	1.0	U	1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28
100-41-4	Ethylbenzene	1.0	U	1.0	0.23
1330-20-7	Xylenes, Total	3.0	U	3.0	0.49
100-42-5	Styrene	1.0	U	1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44203-1

SDG No.:

Client Sample ID: HD-MW-99S-0/1-0 | Lab Sample ID: 180-44203-3

Matrix: Water | Lab File ID: 50526009.D

Analysis Method: 8260C | Date Collected: 05/18/2015 09:55

Sample wt/vol: 5(mL) | Date Analyzed: 05/26/2015 14:07

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 142745 | Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	112		64-135
2037-26-5	Toluene-d8 (Surr)	101		71-118
460-00-4	4-Bromofluorobenzene (Surr)	90		70-118
1868-53-7	Dibromofluoromethane (Surr)	111		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526009.D
Lims ID: 180-44203-E-3 Lab Sample ID: 180-44203-3
Client ID: HD-MW-99S-0/1-0
Sample Type: Client
Inject. Date: 26-May-2015 14:07:30 ALS Bottle#: 9 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-44203-E-3
Misc. Info.: 180-0007112-009
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 26-May-2015 15:00:58 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: fergusond Date: 26-May-2015 15:00:58

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
*	1 TBA-d9 (IS)	65	4.272	4.259	0.013	0	154132	1000.0	
*	2 Fluorobenzene (IS)	96	7.290	7.295	-0.005	98	404614	50.0	
*	3 Chlorobenzene-d5	119	10.392	10.391	0.001	87	94577	50.0	
*	4 1,4-Dichlorobenzene-d4	152	12.734	12.733	0.001	96	121567	50.0	
$	5 Dibromofluoromethane (Surr	113	6.566	6.560	0.006	93	96934	55.5	
$	6 1,2-Dichloroethane-d4 (Sur	65	6.937	6.937	0.000	0	122081	56.1	
$	7 Toluene-d8 (Surr)	98	8.938	8.939	-0.001	94	354897	50.5	
$	8 4-Bromofluorobenzene (Surr	95	11.572	11.573	-0.001	89	113633	45.1	
	11 Dichlorodifluoromethane	85		1.608				ND	
	12 Chloromethane	50		1.766				ND	
	13 Vinyl chloride	62		1.900				ND	
	14 Butadiene	39		1.937				ND	
	15 Bromomethane	94		2.247				ND	
	16 Chloroethane	64		2.399				ND	
	17 Dichlorofluoromethane	67		2.667				ND	
	18 Trichlorofluoromethane	101		2.703				ND	
	19 Ethanol	45		2.957				ND	
	20 Ethyl ether	59		3.050				ND	
	21 Acrolein	56		3.226				ND	
	22 1,1-Dichloroethene	96	3.342	3.348	-0.006	98	20636	10.6	
	23 1,1,2-Trichloro-1,2,2-trif	101		3.421				ND	
	24 Acetone	43	3.445	3.439	0.006	5	2475	3.10	
	25 Iodomethane	142		3.537				ND	
	26 Carbon disulfide	76		3.628				ND	
	27 Isopropyl alcohol	45		3.712				ND	
	29 Acetonitrile	40		3.876				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		4.413				ND	
	33 Acrylonitrile	53		4.522				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
34 trans-1,2-Dichloroethene	96		4.565				ND	
35 Methyl tert-butyl ether	73		4.577				ND	
36 Hexane	57		4.991				ND	
37 1,1-Dichloroethane	63	5.203	5.197	0.006	95	22053	5.45	
38 Vinyl acetate	43		5.246				ND	
41 Isopropyl ether	45		5.299				ND	
39 2-Chloro-1,3-butadiene	53		5.299				ND	
40 Isopropyl ether TIC	45		5.409				ND	
42 Tert-butyl ethyl ether	59		5.774				ND	
44 2,2-Dichloropropane	77		5.946				ND	
45 cis-1,2-Dichloroethene	96	5.957	5.946	0.011	82	339171	143.0	
43 Tert-butyl ethyl ether (TI	59		5.961				ND	
46 2-Butanone (MEK)	43		5.964				ND	
47 Propionitrile	54		6.036				ND	
48 Ethyl acetate	43		6.042				ND	
50 Methacrylonitrile	41		6.212				ND	
49 Chlorobromomethane	128		6.238				ND	
51 Tetrahydrofuran	42		6.256				ND	
52 Chloroform	83	6.371	6.384	-0.013	38	3734	1.03	
53 1,1,1-Trichloroethane	97	6.541	6.542	-0.001	93	54141	19.3	
54 Cyclohexane	56		6.615				ND	
56 Carbon tetrachloride	117		6.712				ND	
55 1,1-Dichloropropene	75		6.731				ND	
57 Isobutyl alcohol	41		6.931				ND	
58 Benzene	78		6.943				ND	
59 1,2-Dichloroethane	62		7.023				ND	
61 Tert-amyl methyl ether	73		7.125				ND	
60 Tert-amyl methyl ether (TI	73		7.262				ND	
62 n-Heptane	43		7.308				ND	
63 n-Butanol	56		7.636				ND	
64 Trichloroethene	130	7.679	7.680	-0.001	97	306681	132.7	
65 Ethyl acrylate	55		7.800				ND	
66 Methylcyclohexane	83		7.917				ND	
67 1,2-Dichloropropane	63		7.947				ND	
68 Dibromomethane	93		8.032				ND	
70 1,4-Dioxane	88		8.032				ND	
69 Methyl methacrylate	69		8.037				ND	
71 Dichlorobromomethane	83		8.233				ND	
72 2-Nitropropane	41		8.451				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		9.006				ND	
77 trans-1,3-Dichloropropene	75		9.255				ND	
78 Ethyl methacrylate	69		9.310				ND	
79 1,1,2-Trichloroethane	97		9.450				ND	
80 Tetrachloroethene	164	9.522	9.517	0.005	96	168765	99.5	
81 1,3-Dichloropropane	76		9.608				ND	
82 2-Hexanone	43		9.657				ND	
83 n-Butyl acetate	43		9.783				ND	
84 Chlorodibromomethane	129		9.815				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		10.393				ND	
87 Chlorobenzene	112		10.423				ND	
88 4-Chlorobenzotrifluoride	180		10.478				ND	
89 1,1,1,2-Tetrachloroethane	131		10.514				ND	
90 Ethylbenzene	106		10.521				ND	
91 m-Xylene & p-Xylene	106		10.654				ND	
92 o-Xylene	106		11.032				ND	
93 Styrene	104		11.050				ND	
95 Cyclohexanol	57		11.231				ND	
94 Bromoform	173		11.232				ND	
96 2-Chlorobenzotrifluoride	180		11.299				ND	
97 Isopropylbenzene	105		11.403				ND	
98 Cyclohexanone	55		11.486				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		11.768				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		11.999				ND	
107 4-Chlorotoluene	126		12.023				ND	
108 tert-Butylbenzene	119		12.315				ND	
109 Pentachloroethane	167		12.344				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		12.656				ND	
114 4-Isopropyltoluene	119		12.692				ND	
115 1,4-Dichlorobenzene	146		12.759				ND	
117 1,2,3-Trimethylbenzene	105		12.782				ND	
116 2,4-Dichloro-1-(triflourom	214		12.784				ND	
118 2,5-Dichlorobenzotrifluori	214		12.826				ND	
119 Benzyl chloride	91		12.867				ND	
120 n-Butylbenzene	91		13.100				ND	
121 1,2-Dichlorobenzene	146		13.112				ND	
122 1,2-Dibromo-3-Chloropropan	75		13.909				ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.049				ND	
124 1,3,5-Trichlorobenzene	180		14.090				ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.463				ND	
126 1,2,4-Trichlorobenzene	180		14.724				ND	
127 Hexachlorobutadiene	225		14.876				ND	
128 Naphthalene	128		14.992				ND	
129 1,2,3-Trichlorobenzene	180		15.217				ND	
131 2,4,5-Trichlorotoluene	159		15.990				ND	
130 2,3,6-Trichlorotoluene	159		16.093				ND	
132 2-Methylnaphthalene	142		16.134				ND	
146 2,5-Dichlorotoluene	1		0.000				ND	
150 2,6-Dichlorotoluene	1		0.000				ND	
151 Isooctane	57		0.000				ND	
149 3,4-Dichlorotoluene	1		0.000				ND	
152 Formaldehyde TIC	1		0.000				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
148 2,3-Dichlorotoluene	1		0.000				ND	
147 2,4-Dichlorotoluene	1		0.000				ND	
S 133 Xylenes, Total	106		1.000				ND	
S 134 1,2-Dichloroethene, Total	96				0		143.0	
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_00036	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent

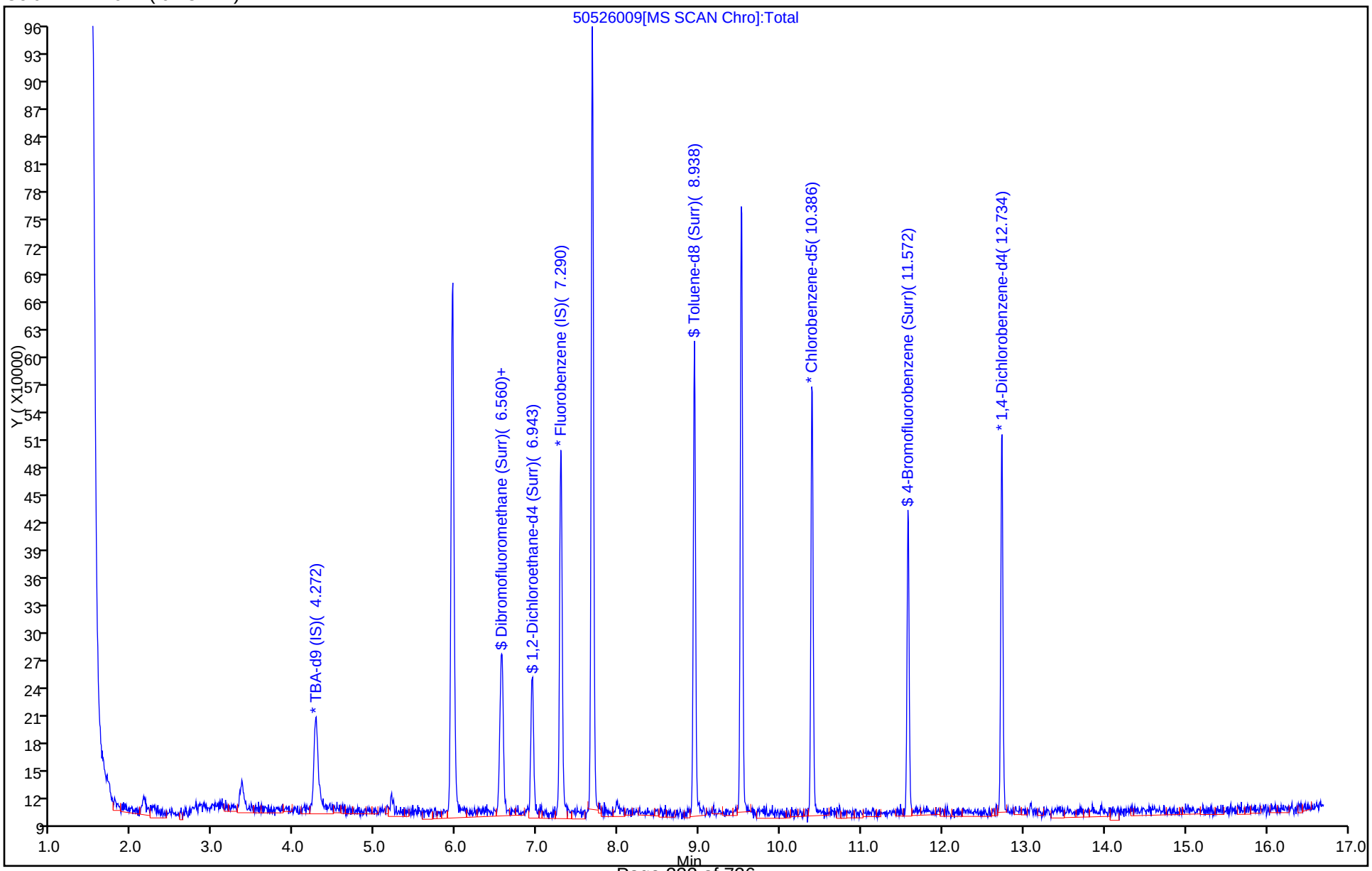
Report Date: 26-May-2015 15:00:59 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526009.D

Injection Date:	26-May-2015 14:07:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-44203-E-3	Lab Sample ID:	180-44203-3	Worklist Smp#:	9
Client ID:	HD-MW-99S-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

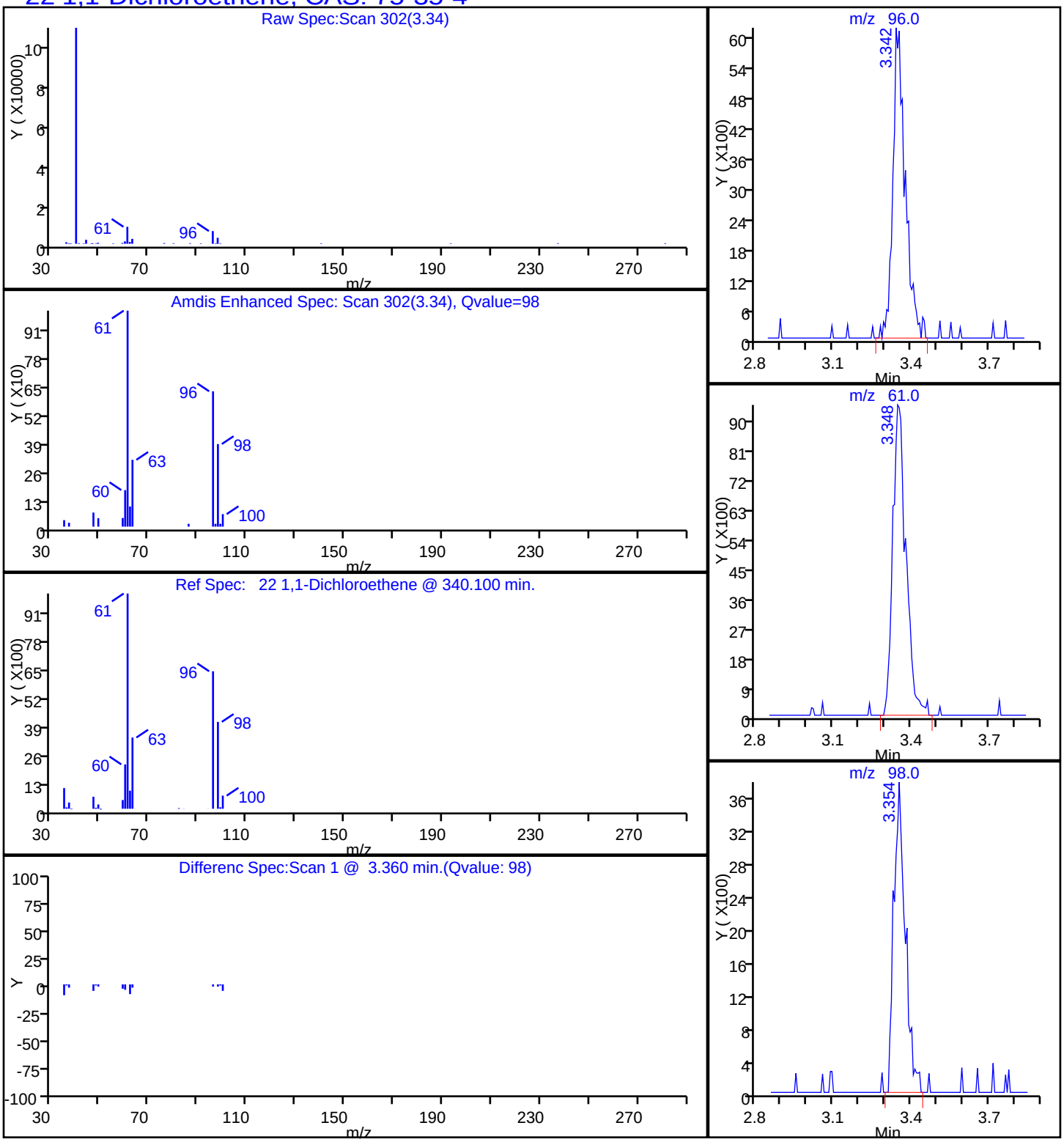


Report Date: 26-May-2015 15:00:59 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526009.D		
Injection Date:	26-May-2015 14:07:30	Instrument ID:	CHHP5
Lims ID:	180-44203-E-3	Lab Sample ID:	180-44203-3
Client ID:	HD-MW-99S-0/1-0		
Operator ID:	001562	ALS Bottle#:	9 Worklist Smp#: 9
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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

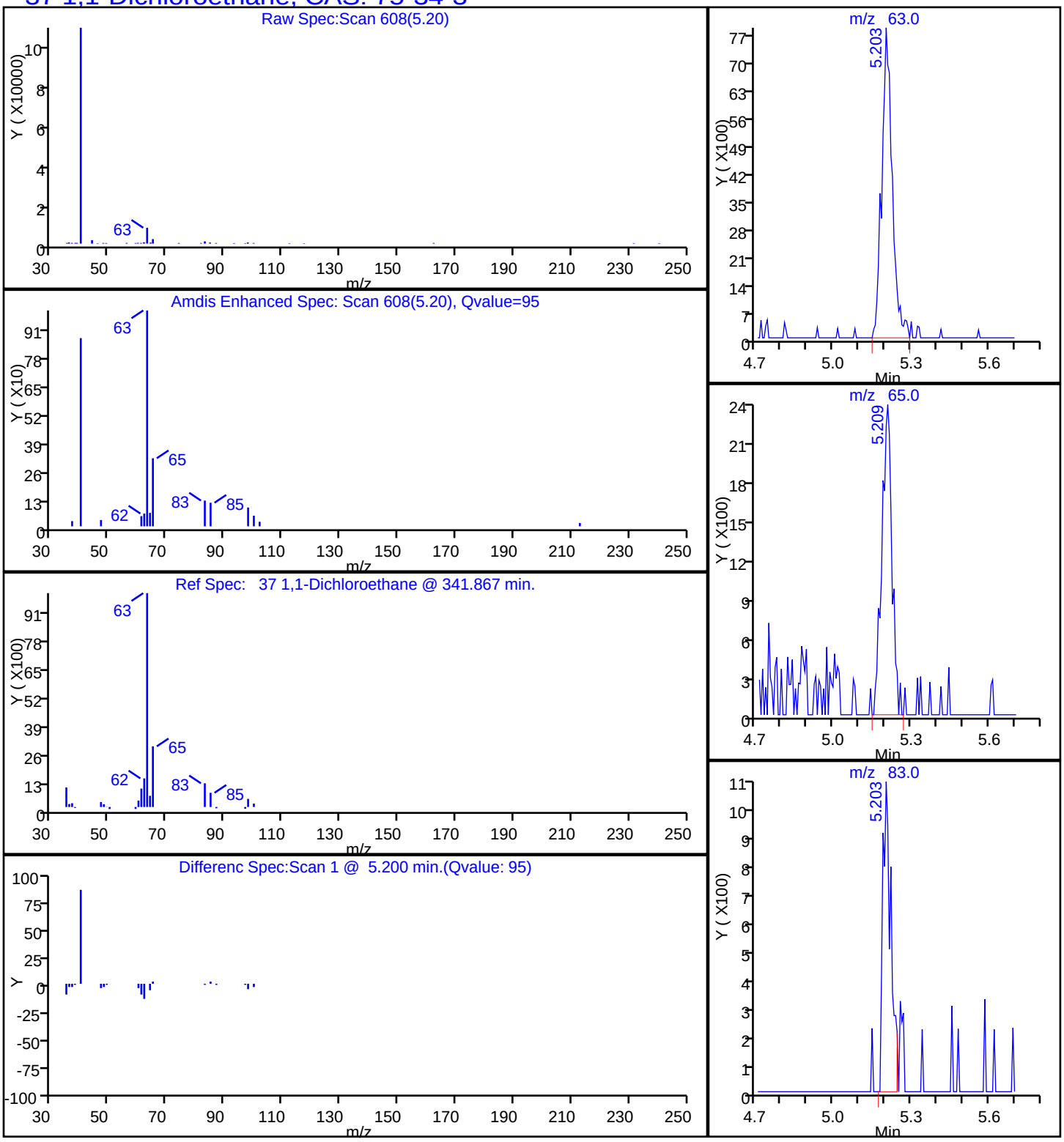


Report Date: 26-May-2015 15:00:59 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526009.D		
Injection Date:	26-May-2015 14:07:30	Instrument ID:	CHHP5
Lims ID:	180-44203-E-3	Lab Sample ID:	180-44203-3
Client ID:	HD-MW-99S-0/1-0		
Operator ID:	001562	ALS Bottle#:	9 Worklist Smp#: 9
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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

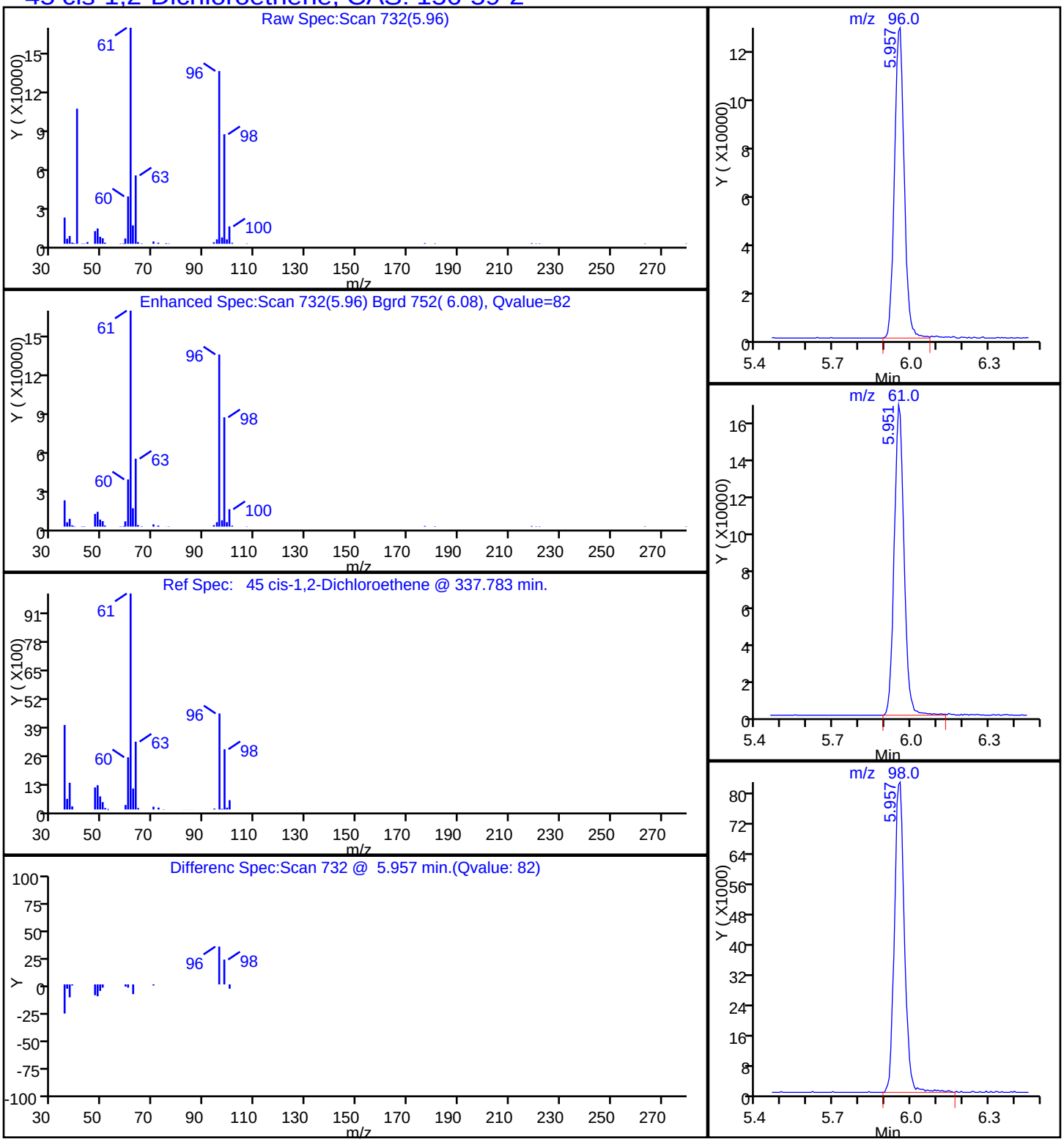


Report Date: 26-May-2015 15:00:59 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526009.D		
Injection Date:	26-May-2015 14:07:30	Instrument ID:	CHHP5
Lims ID:	180-44203-E-3	Lab Sample ID:	180-44203-3
Client ID:	HD-MW-99S-0/1-0		
Operator ID:	001562	ALS Bottle#:	9 Worklist Smp#: 9
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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

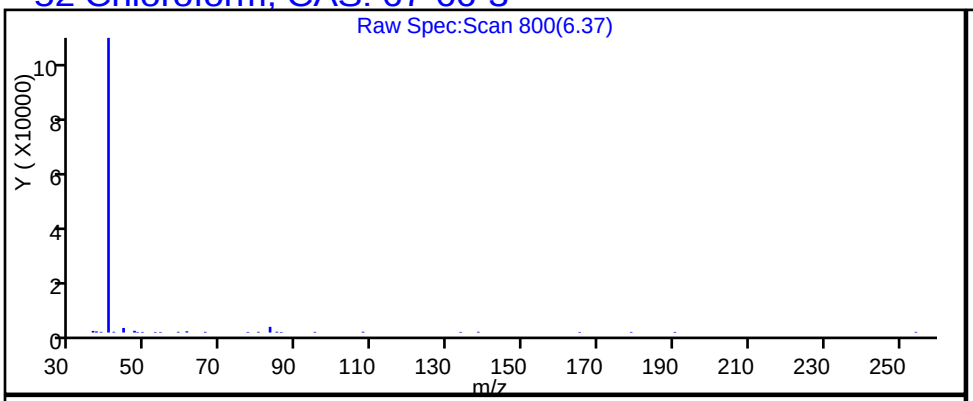


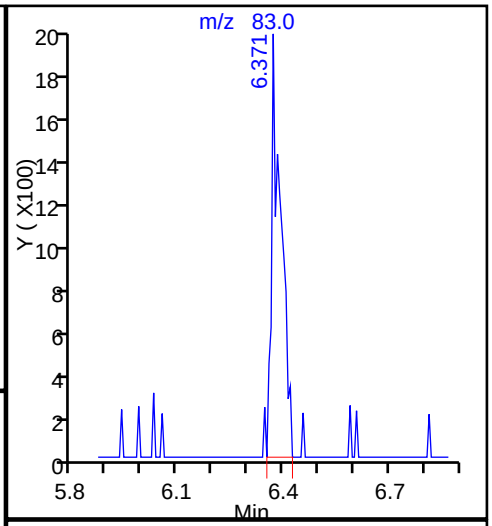
Report Date: 26-May-2015 15:00:59 Chrom Revision: 2.2 05-May-2015 11:39:10

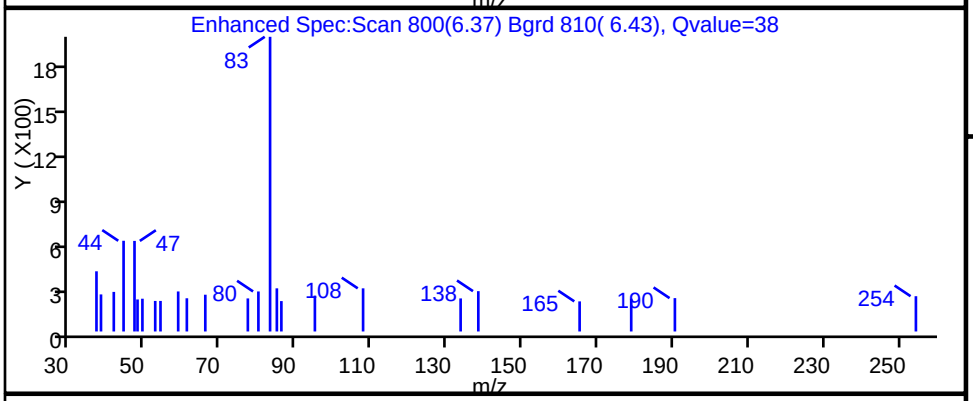
TestAmerica Pittsburgh

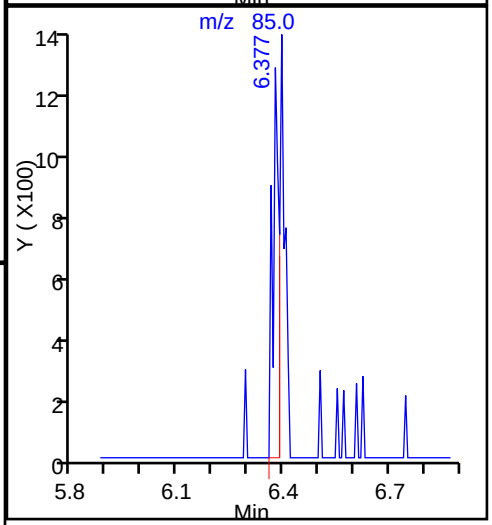
Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526009.D				
Injection Date:	26-May-2015 14:07:30	Instrument ID:	CHHP5		
Lims ID:	180-44203-E-3	Lab Sample ID:	180-44203-3		
Client ID:	HD-MW-99S-0/1-0				
Operator ID:	001562	ALS Bottle#:	9	Worklist Smp#:	9
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

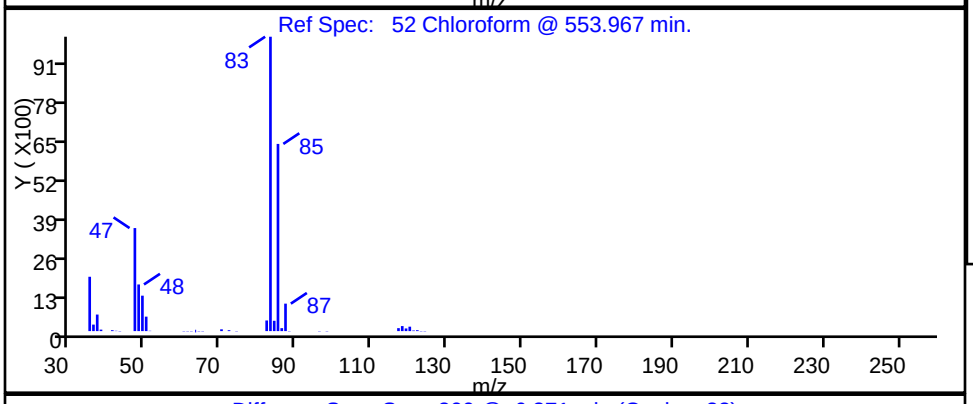
52 Chloroform, CAS: 67-66-3

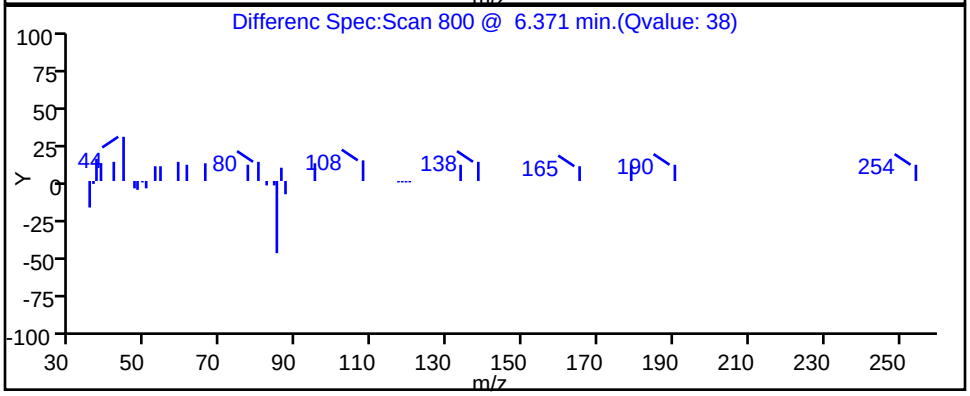










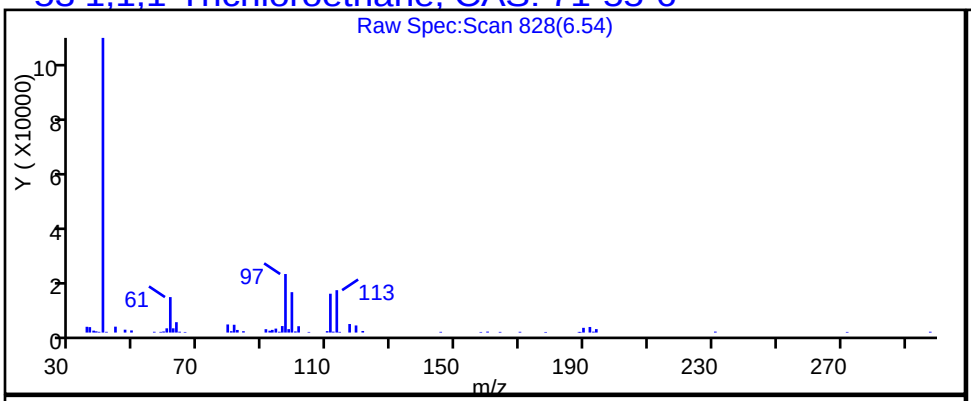


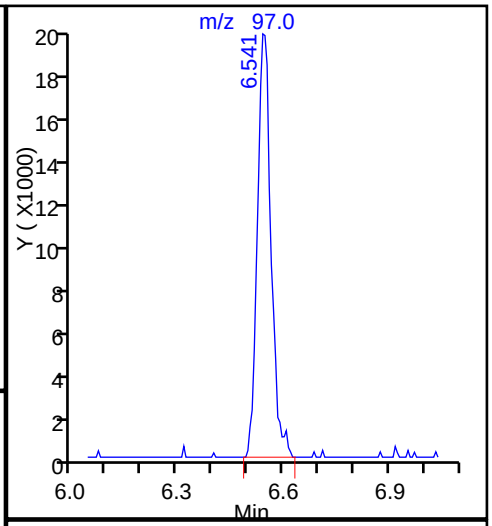
Report Date: 26-May-2015 15:00:59 Chrom Revision: 2.2 05-May-2015 11:39:10

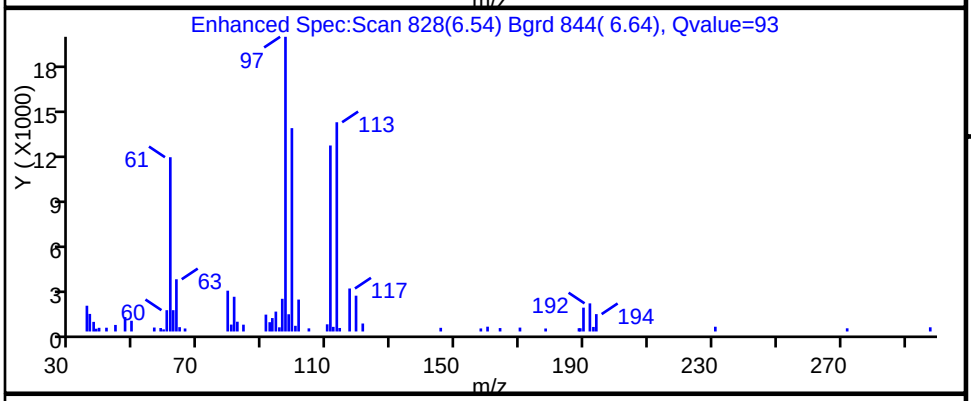
TestAmerica Pittsburgh

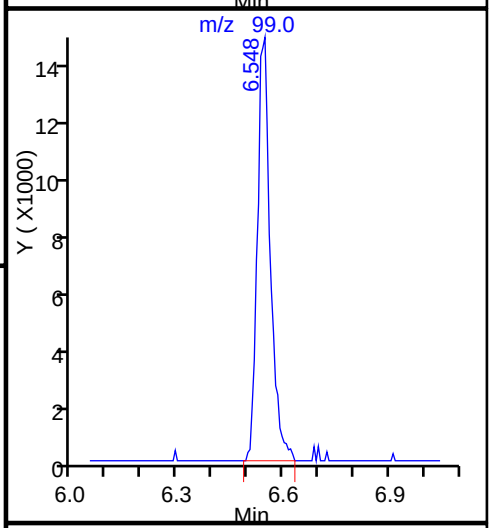
Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526009.D				
Injection Date:	26-May-2015 14:07:30	Instrument ID:	CHHP5		
Lims ID:	180-44203-E-3	Lab Sample ID:	180-44203-3		
Client ID:	HD-MW-99S-0/1-0				
Operator ID:	001562	ALS Bottle#:	9	Worklist Smp#:	9
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

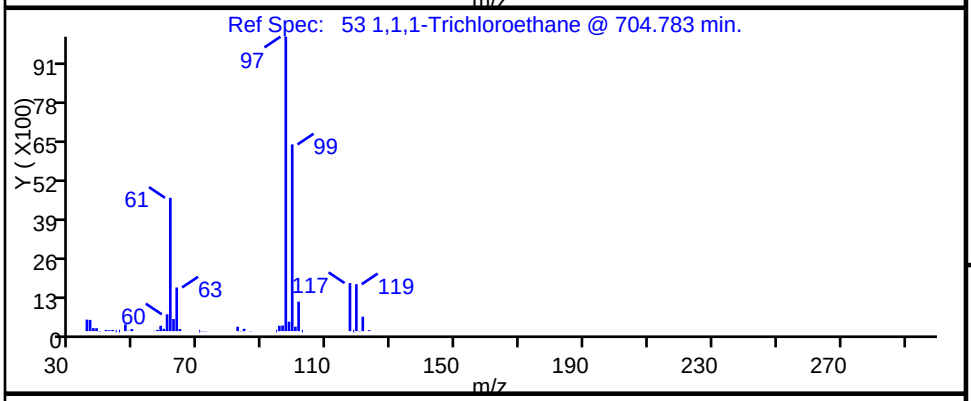
53 1,1,1-Trichloroethane, CAS: 71-55-6

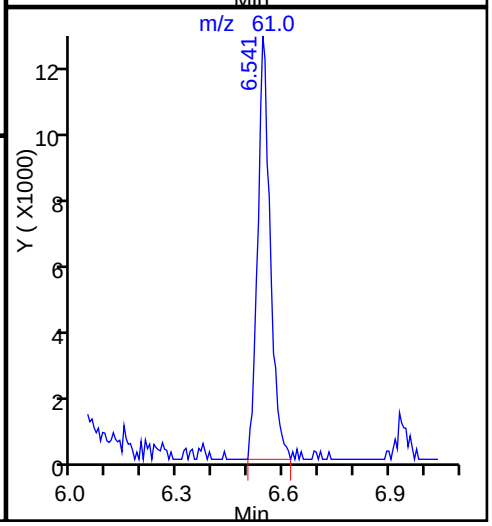


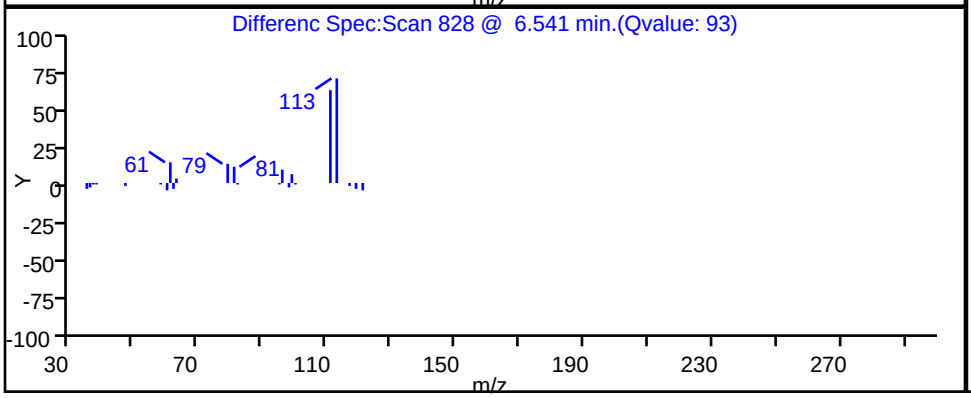










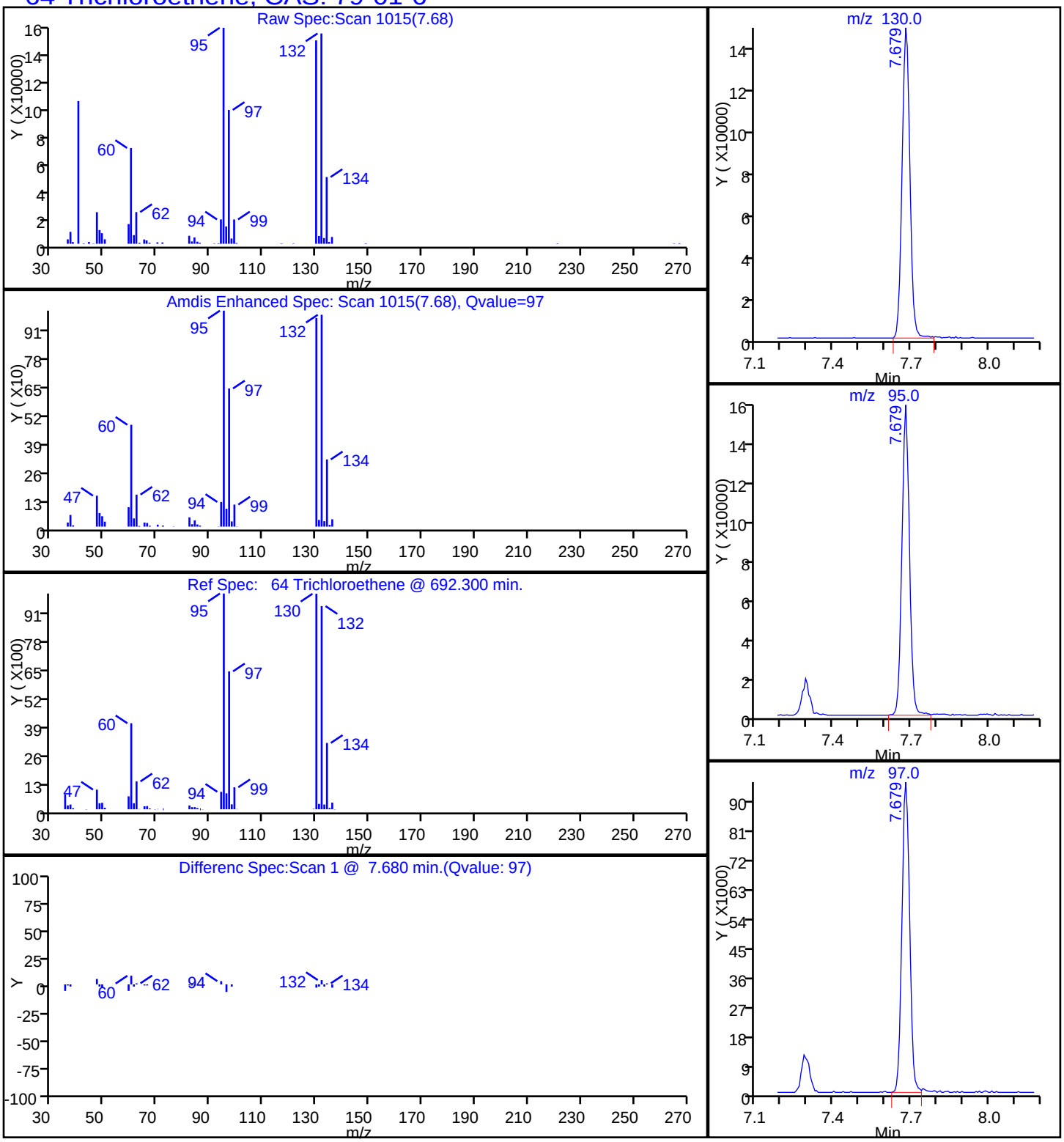


Report Date: 26-May-2015 15:00:59 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526009.D		
Injection Date:	26-May-2015 14:07:30	Instrument ID:	CHHP5
Lims ID:	180-44203-E-3	Lab Sample ID:	180-44203-3
Client ID:	HD-MW-99S-0/1-0		
Operator ID:	001562	ALS Bottle#:	9 Worklist Smp#: 9
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

64 Trichloroethene, CAS: 79-01-6



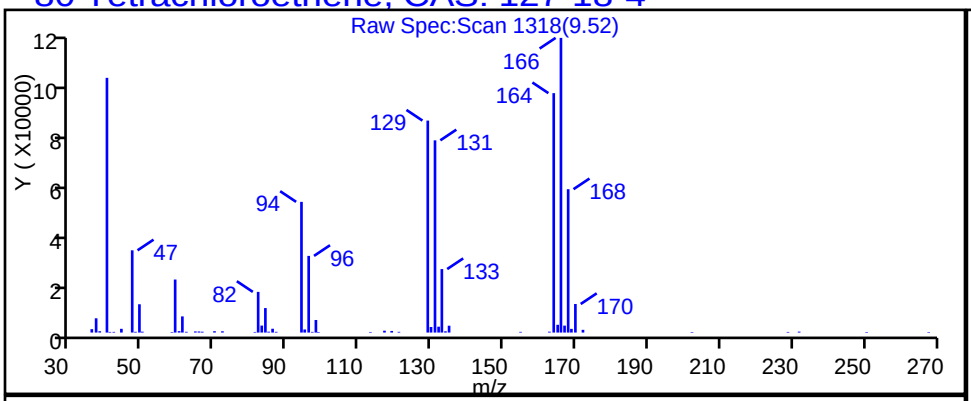
Report Date: 26-May-2015 15:00:59 Chrom Revision: 2.2 05-May-2015 11:39:10

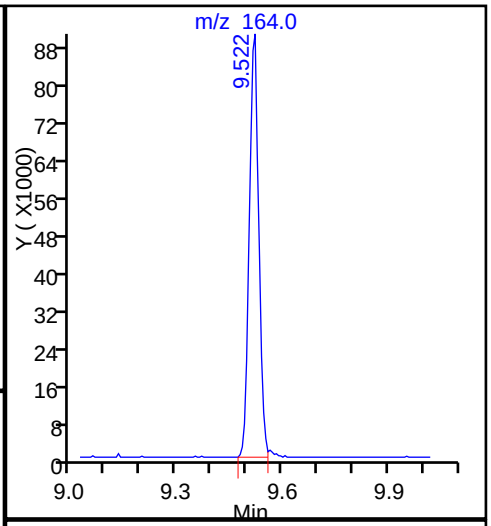
TestAmerica Pittsburgh

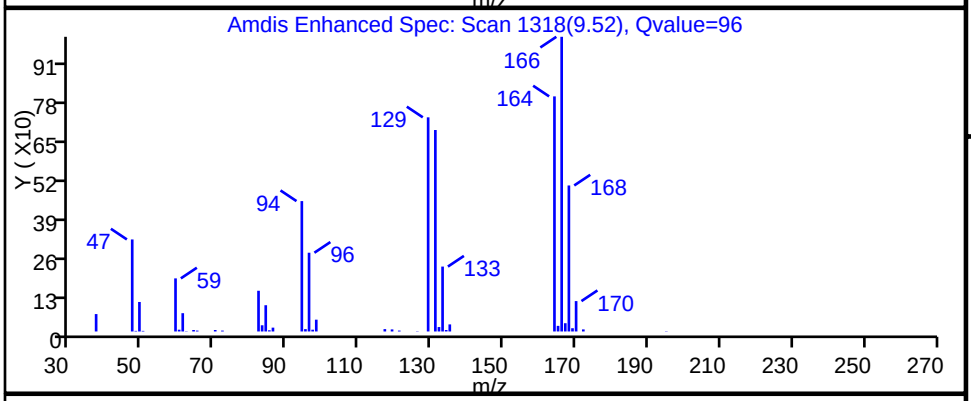
Data File: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526009.D

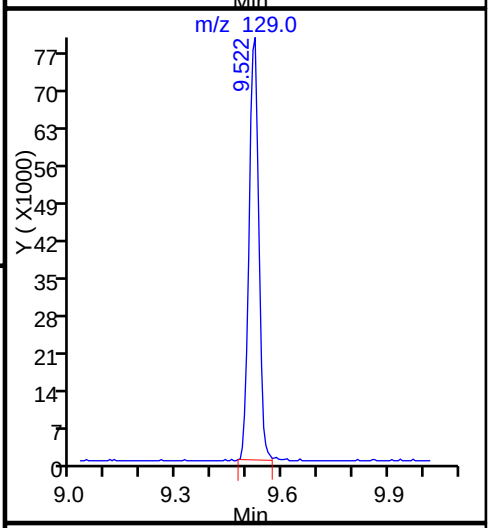
Injection Date:	26-May-2015 14:07:30	Instrument ID:	CHHP5
Lims ID:	180-44203-E-3	Lab Sample ID:	180-44203-3
Client ID:	HD-MW-99S-0/1-0		
Operator ID:	001562	ALS Bottle#:	9 Worklist Smp#: 9
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

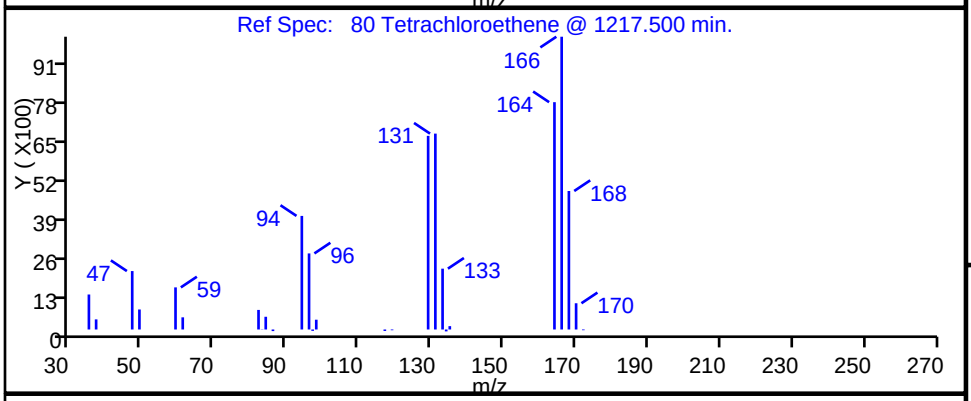
80 Tetrachloroethene, CAS: 127-18-4

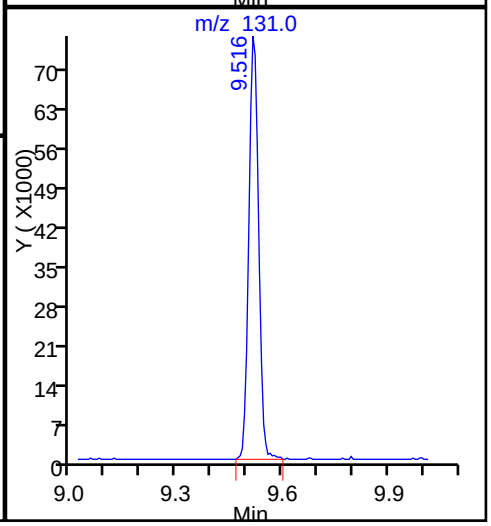


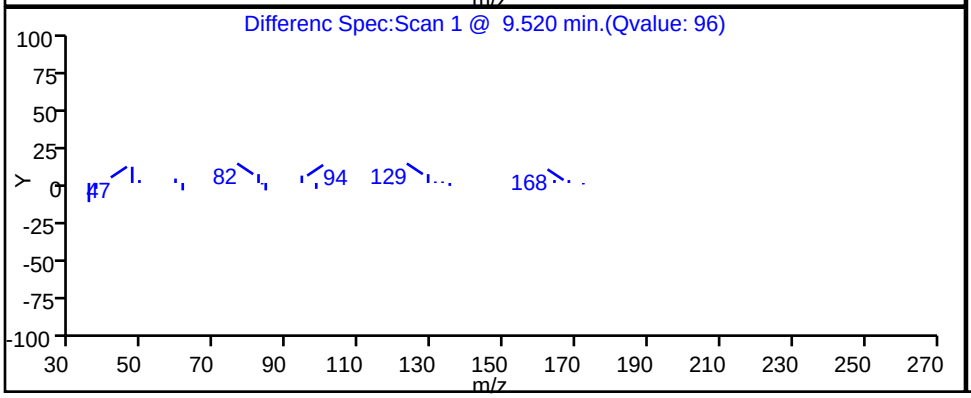












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44203-1

SDG No.:

Client Sample ID: HD-MW-145A-0/1-0 | Lab Sample ID: 180-44203-4

Matrix: Water | Lab File ID: 50527016.D

Analysis Method: 8260C | Date Collected: 05/18/2015 11:25

Sample wt/vol: 5(mL) | Date Analyzed: 05/27/2015 16:26

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 142864 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.28
75-01-4	Vinyl chloride	1.0	U	1.0	0.23
74-83-9	Bromomethane	1.0	U	1.0	0.31
75-00-3	Chloroethane	1.0	U	1.0	0.21
75-35-4	1,1-Dichloroethene	0.48	J	1.0	0.30
67-64-1	Acetone	5.0	U	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.21
75-09-2	Methylene Chloride	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	10		1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	0.28	J	1.0	0.17
71-55-6	1,1,1-Trichloroethane	0.58	J	1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	13		1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	9.2		1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.16
124-48-1	Dibromochloromethane	1.0	U	1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28
100-41-4	Ethylbenzene	1.0	U	1.0	0.23
1330-20-7	Xylenes, Total	3.0	U	3.0	0.49
100-42-5	Styrene	1.0	U	1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44203-1

SDG No.:

Client Sample ID: HD-MW-145A-0/1-0 | Lab Sample ID: 180-44203-4

Matrix: Water | Lab File ID: 50527016.D

Analysis Method: 8260C | Date Collected: 05/18/2015 11:25

Sample wt/vol: 5(mL) | Date Analyzed: 05/27/2015 16:26

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 142864 | Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	111		64-135
2037-26-5	Toluene-d8 (Surr)	102		71-118
460-00-4	4-Bromofluorobenzene (Surr)	93		70-118
1868-53-7	Dibromofluoromethane (Surr)	106		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527016.D
Lims ID: 180-44203-D-4 Lab Sample ID: 180-44203-4
Client ID: HD-MW-145A-0/1-0
Sample Type: Client
Inject. Date: 27-May-2015 16:26:30 ALS Bottle#: 13 Worklist Smp#: 16
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-44203-D-4
Misc. Info.: 180-0007136-016
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 28-May-2015 07:36:24 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK029

First Level Reviewer: fergusond Date: 28-May-2015 07:36:24

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.268	4.274	-0.006	0	145550	1000.0	
* 2 Fluorobenzene (IS)	96	7.291	7.292	-0.001	99	372789	50.0	
* 3 Chlorobenzene-d5	119	10.388	10.388	0.000	88	85302	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.730	12.730	0.000	97	111285	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.567	6.561	0.006	92	85530	53.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.938	6.933	0.005	0	110796	55.3	
$ 7 Toluene-d8 (Surr)	98	8.940	8.934	0.006	94	323478	51.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.574	11.574	0.000	88	105934	46.6	
12 Chloromethane	50		1.768				ND	
13 Vinyl chloride	62		1.908				ND	
15 Bromomethane	94		2.273				ND	
16 Chloroethane	64		2.413				ND	
22 1,1-Dichloroethene	96	3.355	3.343	0.012	39	4280	2.40	
24 Acetone	43		3.441				ND	
26 Carbon disulfide	76		3.629				ND	
31 Methylene Chloride	84		4.140				ND	
33 Acrylonitrile	53		4.524				ND	
34 trans-1,2-Dichloroethene	96		4.566				ND	
35 Methyl tert-butyl ether	73		4.584				ND	
37 1,1-Dichloroethane	63		5.205				ND	
45 cis-1,2-Dichloroethene	96	5.953	5.953	0.000	81	111979	51.2	
46 2-Butanone (MEK)	43		5.959				ND	
49 Chlorobromomethane	128		6.233				ND	
52 Chloroform	83	6.385	6.379	0.006	91	4613	1.38	M
53 1,1,1-Trichloroethane	97	6.543	6.543	0.000	85	7496	2.89	
56 Carbon tetrachloride	117		6.714				ND	
58 Benzene	78		6.945				ND	
59 1,2-Dichloroethane	62		7.024				ND	
64 Trichloroethene	130	7.681	7.681	0.000	97	134987	63.4	
67 1,2-Dichloropropane	63		7.949				ND	
70 1,4-Dioxane	88		8.034				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.234				ND	
74 cis-1,3-Dichloropropene	75		8.672				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.825				ND	
76 Toluene	91	8.995	9.007	-0.012	1	2333	0.2868	
77 trans-1,3-Dichloropropene	75		9.250				ND	
79 1,1,2-Trichloroethane	97		9.445				ND	
80 Tetrachloroethene	164	9.518	9.518	0.000	97	70359	46.0	
82 2-Hexanone	43		9.658				ND	
84 Chlorodibromomethane	129		9.822				ND	
85 Ethylene Dibromide	107		9.932				ND	
87 Chlorobenzene	112		10.418				ND	
89 1,1,1,2-Tetrachloroethane	131		10.510				ND	
90 Ethylbenzene	106		10.516				ND	
91 m-Xylene & p-Xylene	106		10.650				ND	
92 o-Xylene	106		11.027				ND	
93 Styrene	104		11.051				ND	
94 Bromoform	173		11.234				ND	
99 1,1,2,2-Tetrachloroethane	83		11.708				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

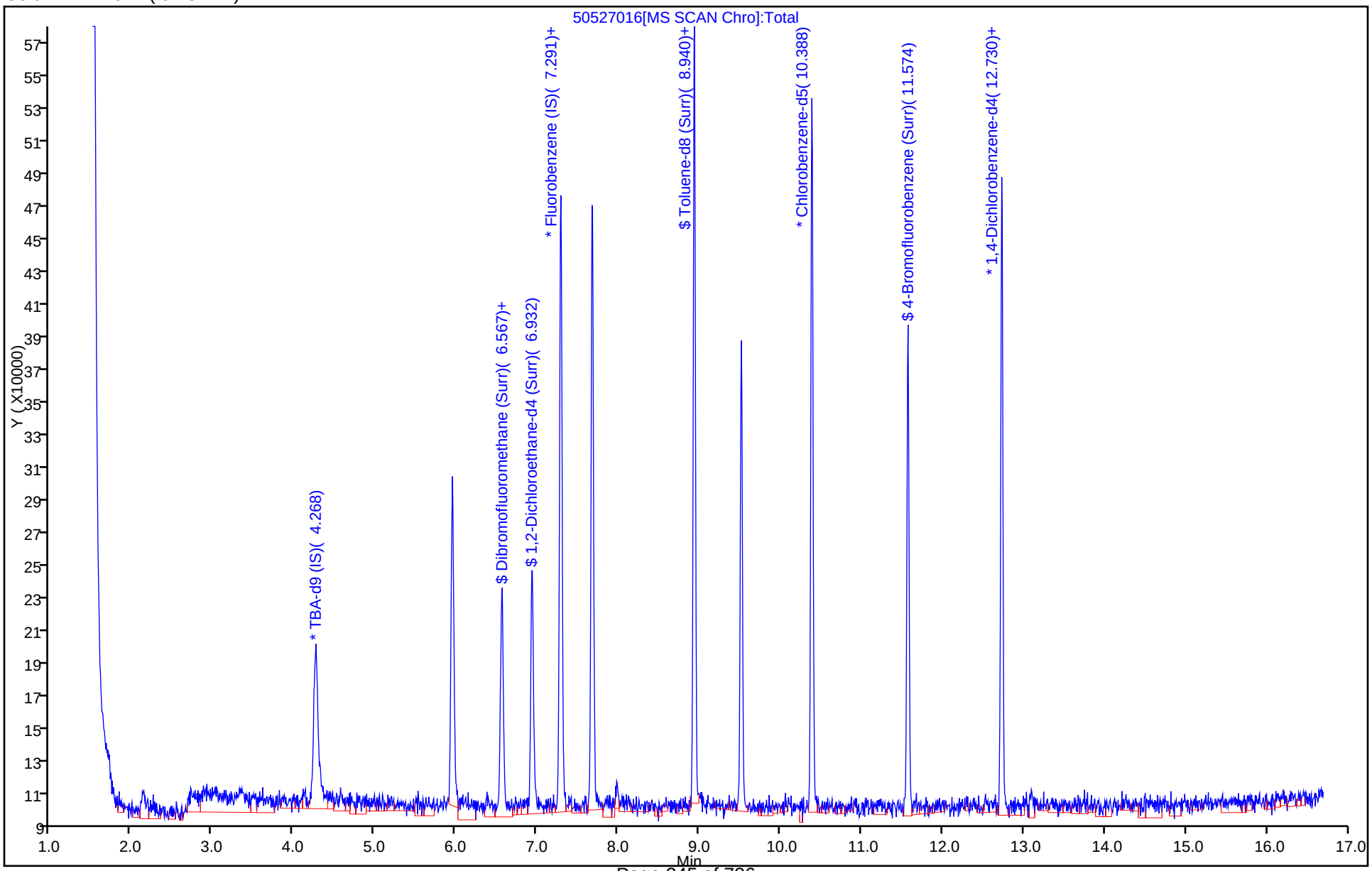
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 28-May-2015 07:36:25 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527016.D				
Injection Date:	27-May-2015 16:26:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-44203-D-4	Lab Sample ID:	180-44203-4	Worklist Smp#:	16
Client ID:	HD-MW-145A-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Report Date: 28-May-2015 07:36:25 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527016.D

Injection Date: 27-May-2015 16:26:30 Instrument ID: CHHP5

Lims ID: 180-44203-D-4 Lab Sample ID: 180-44203-4

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

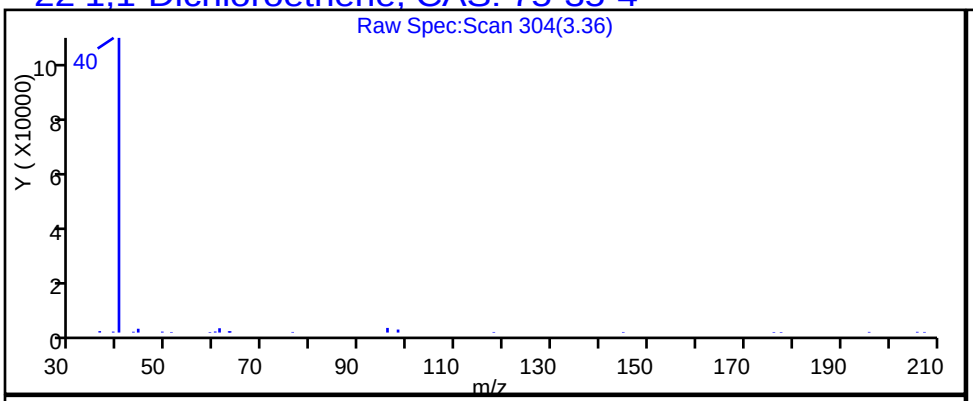
Operator ID: 001562 ALS Bottle#: 13 Worklist Smp#: 16

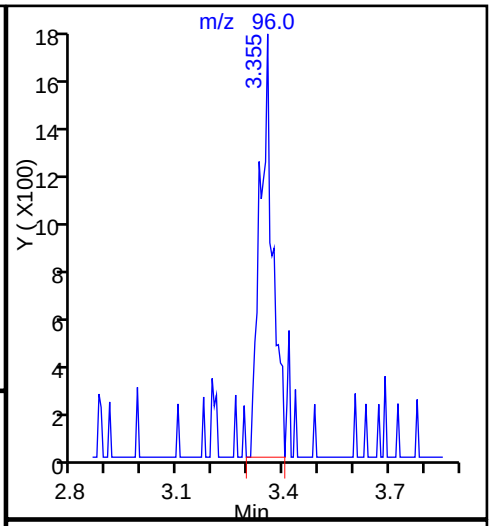
Purge Vol: 5.000 mL Dil. Factor: 1.0000

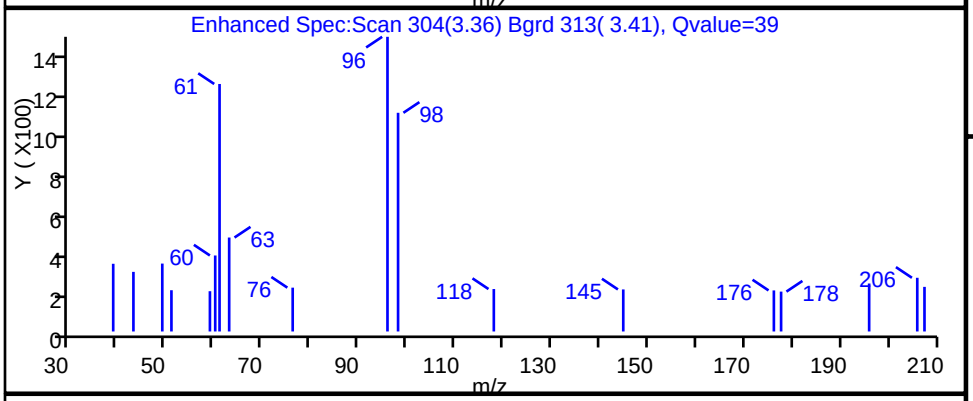
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL

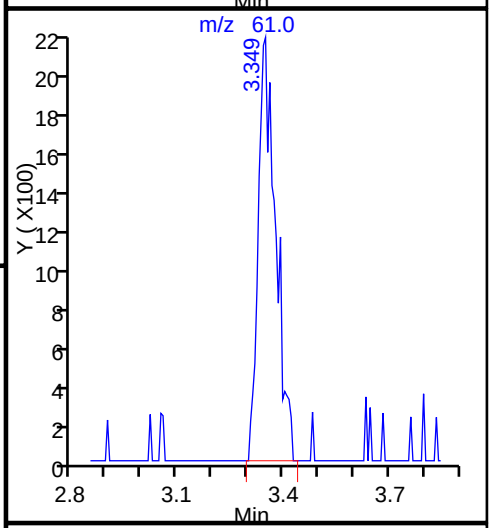
Column: DB-624 (0.18 mm) Detector MS SCAN

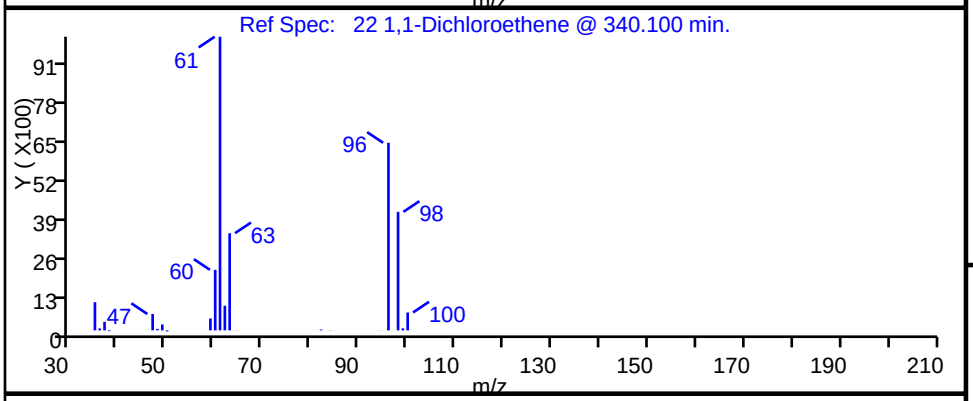
22 1,1-Dichloroethene, CAS: 75-35-4

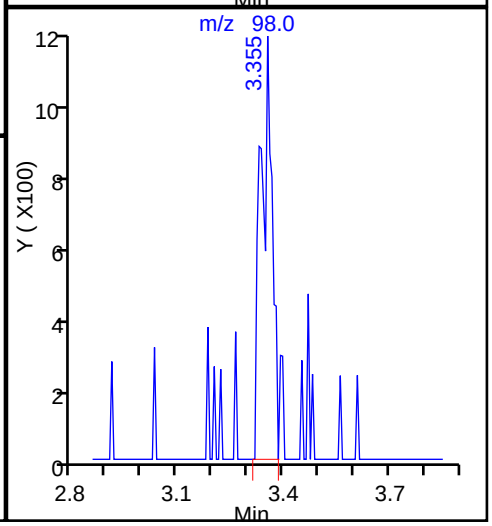


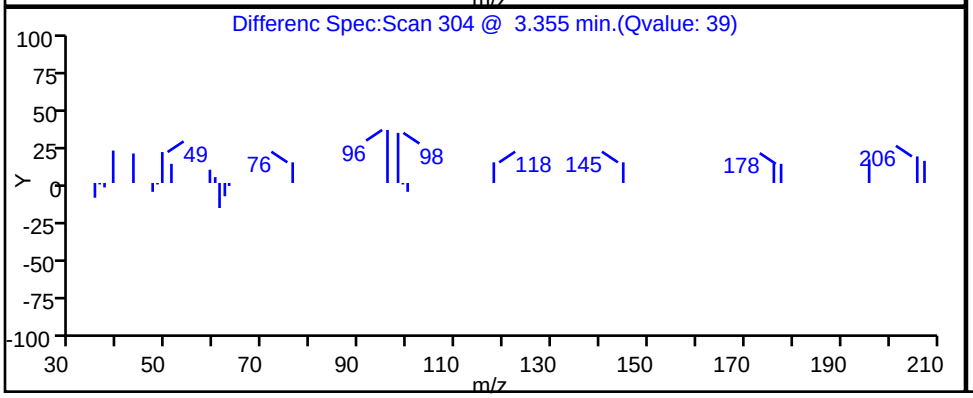










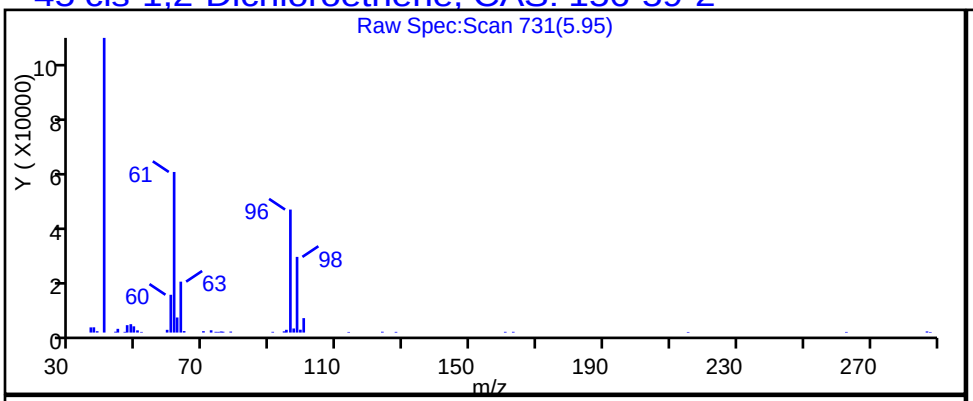


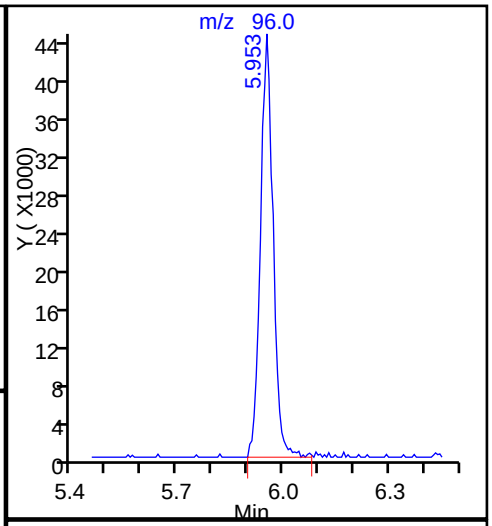
Report Date: 28-May-2015 07:36:25 Chrom Revision: 2.2 05-May-2015 11:39:10

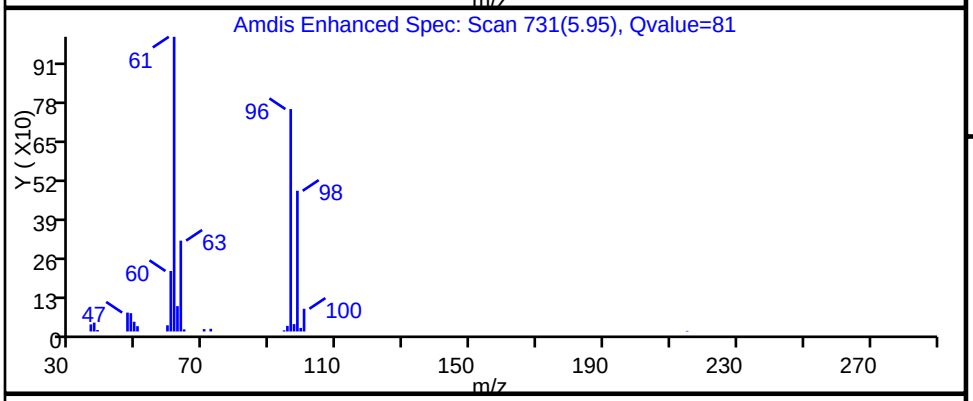
TestAmerica Pittsburgh

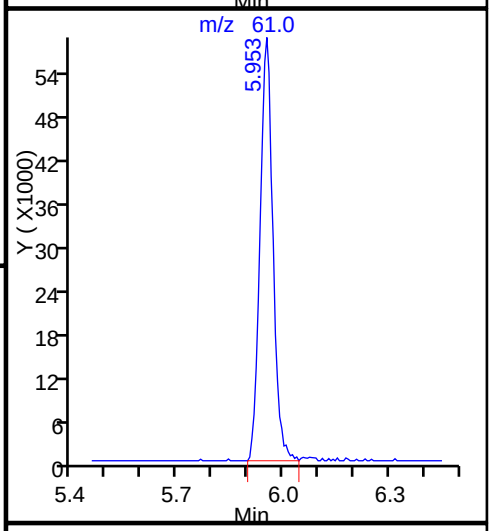
Data File:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527016.D				
Injection Date:	27-May-2015 16:26:30	Instrument ID:	CHHP5		
Lims ID:	180-44203-D-4	Lab Sample ID:	180-44203-4		
Client ID:	HD-MW-145A-0/1-0				
Operator ID:	001562	ALS Bottle#:	13	Worklist Smp#:	16
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

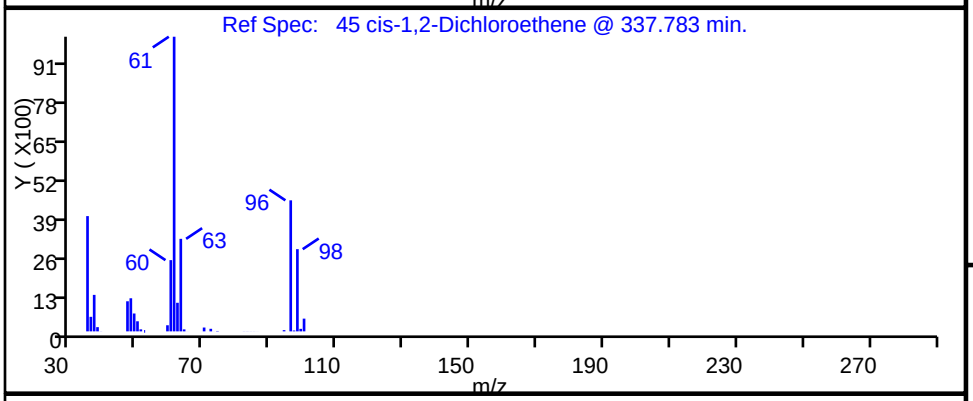
45 cis-1,2-Dichloroethene, CAS: 156-59-2

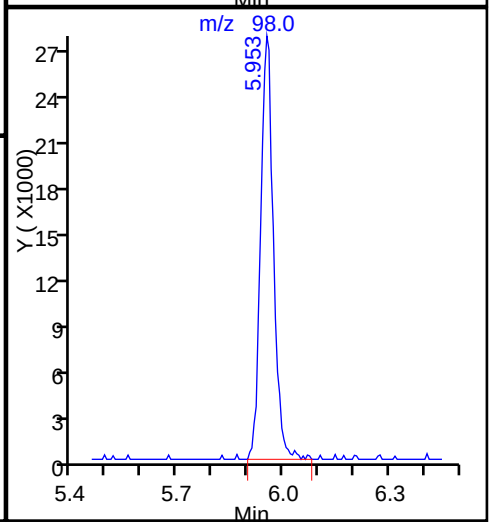


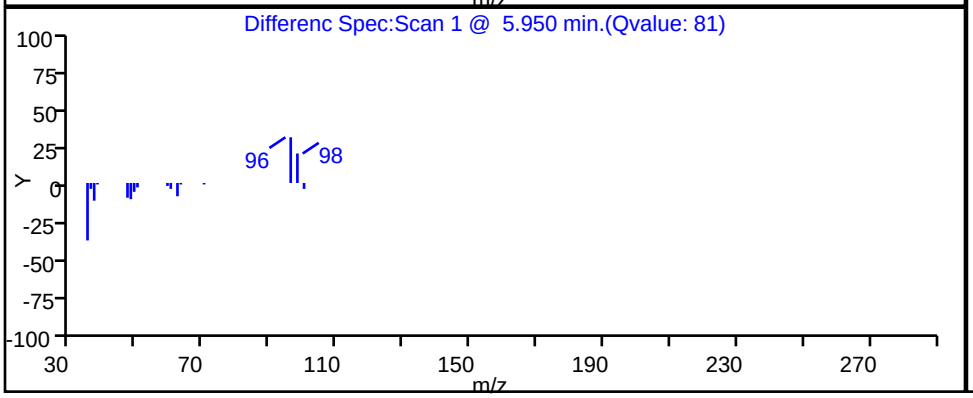










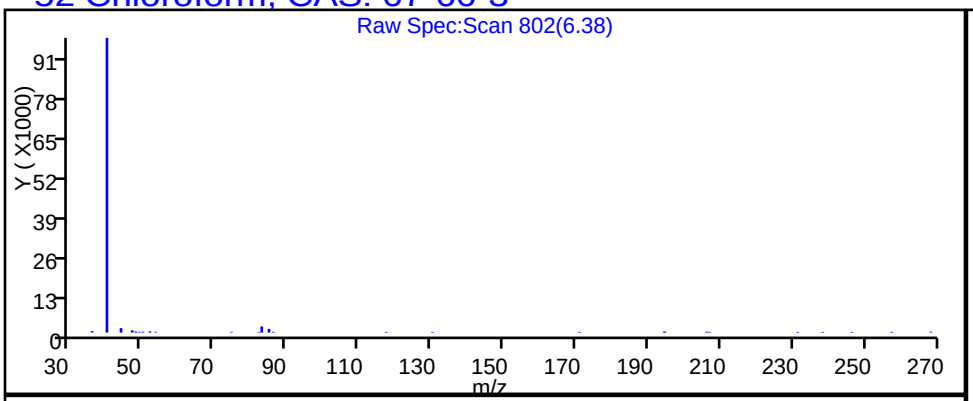


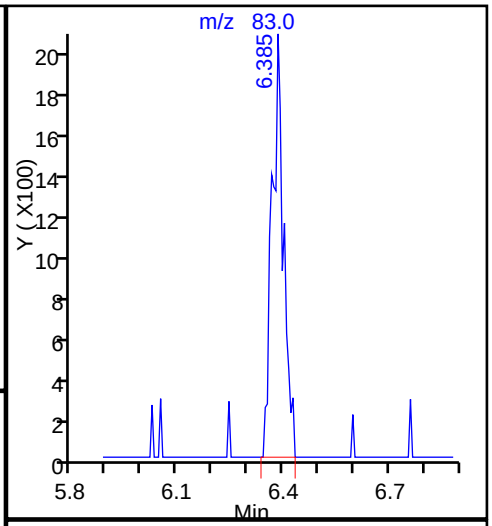
Report Date: 28-May-2015 07:36:25 Chrom Revision: 2.2 05-May-2015 11:39:10

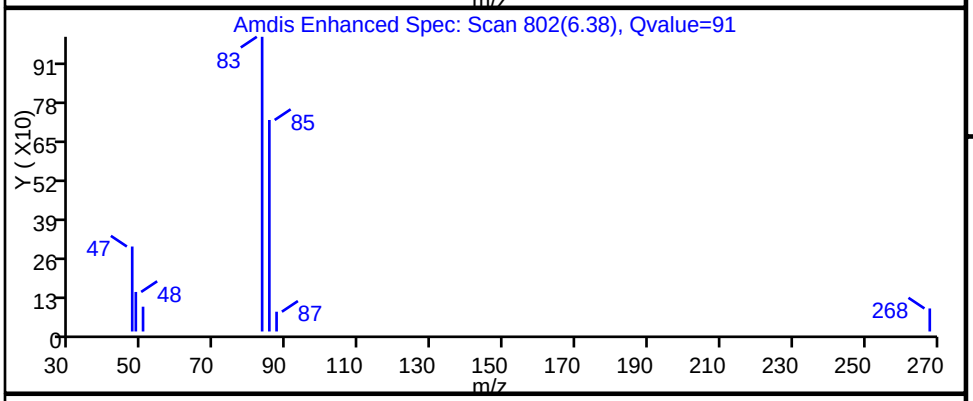
TestAmerica Pittsburgh

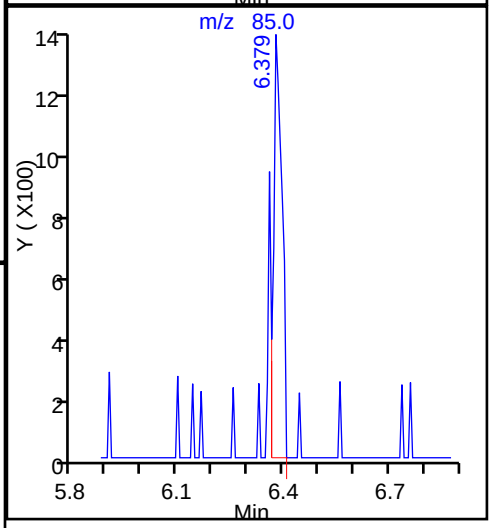
Data File:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527016.D				
Injection Date:	27-May-2015 16:26:30	Instrument ID:	CHHP5		
Lims ID:	180-44203-D-4	Lab Sample ID:	180-44203-4		
Client ID:	HD-MW-145A-0/1-0				
Operator ID:	001562	ALS Bottle#:	13	Worklist Smp#:	16
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

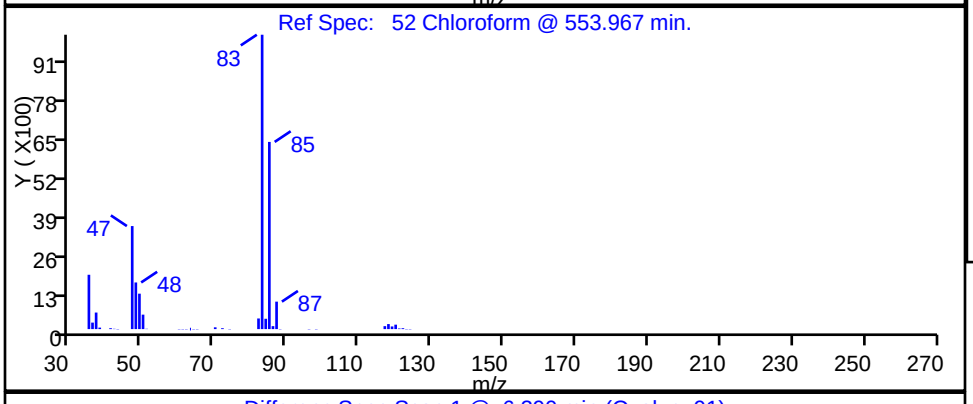
52 Chloroform, CAS: 67-66-3

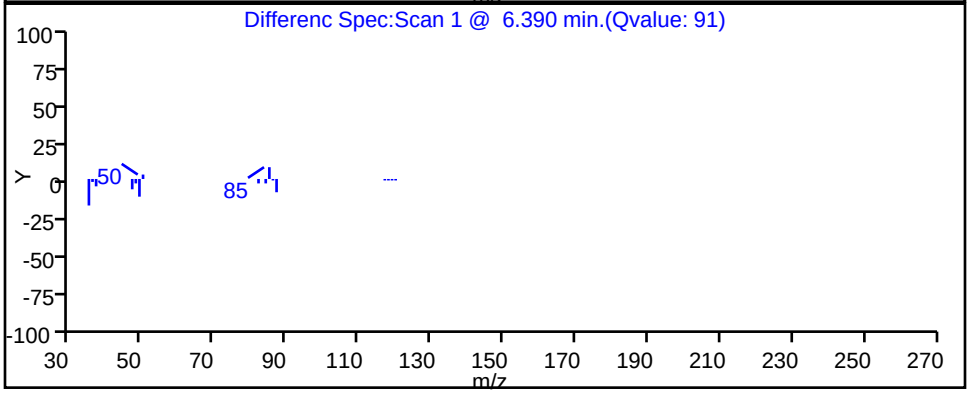










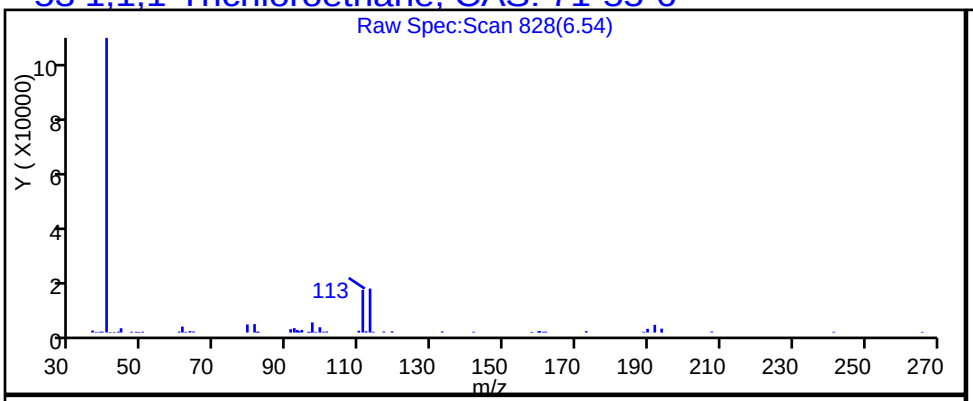


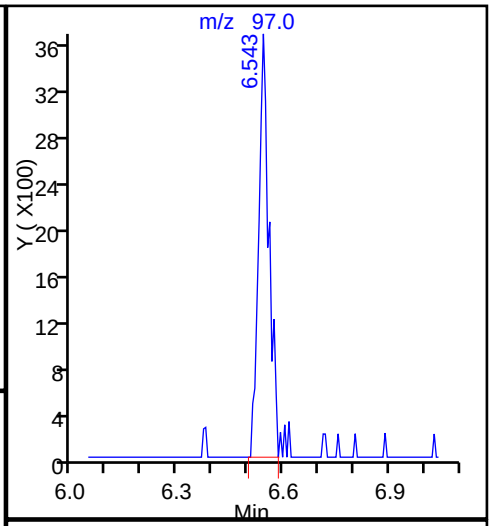
Report Date: 28-May-2015 07:36:25 Chrom Revision: 2.2 05-May-2015 11:39:10

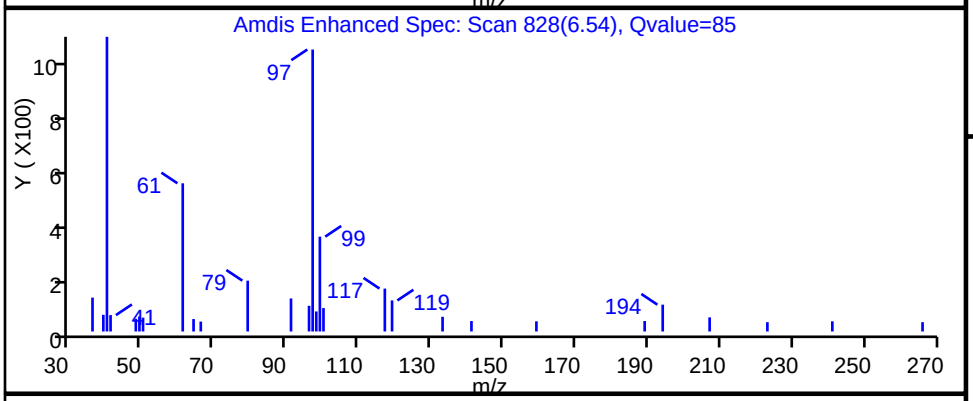
TestAmerica Pittsburgh

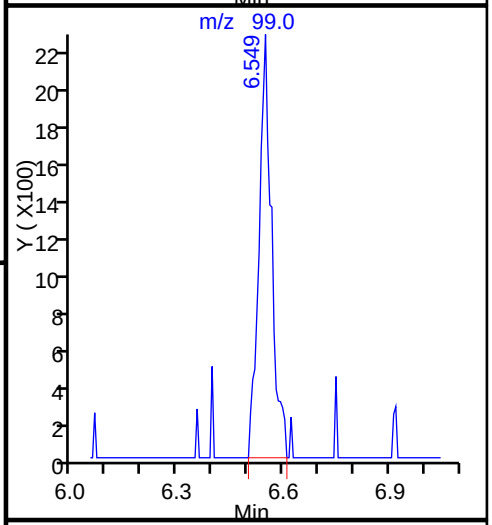
Data File:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527016.D				
Injection Date:	27-May-2015 16:26:30	Instrument ID:	CHHP5		
Lims ID:	180-44203-D-4	Lab Sample ID:	180-44203-4		
Client ID:	HD-MW-145A-0/1-0				
Operator ID:	001562	ALS Bottle#:	13	Worklist Smp#:	16
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

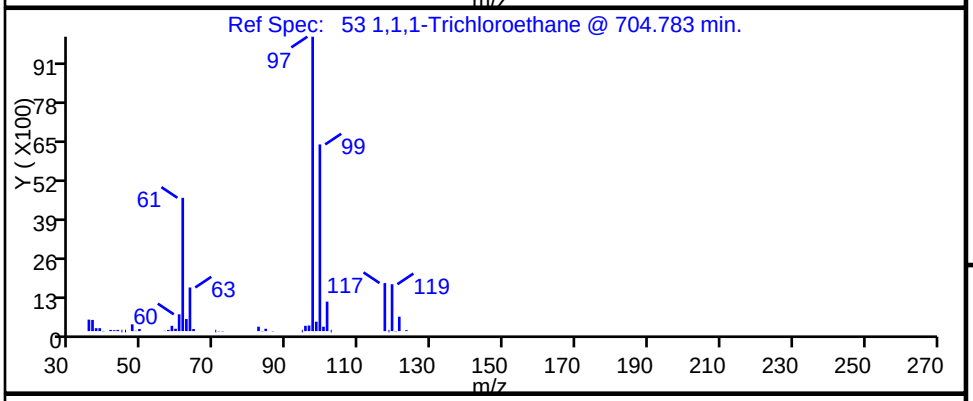
53 1,1,1-Trichloroethane, CAS: 71-55-6

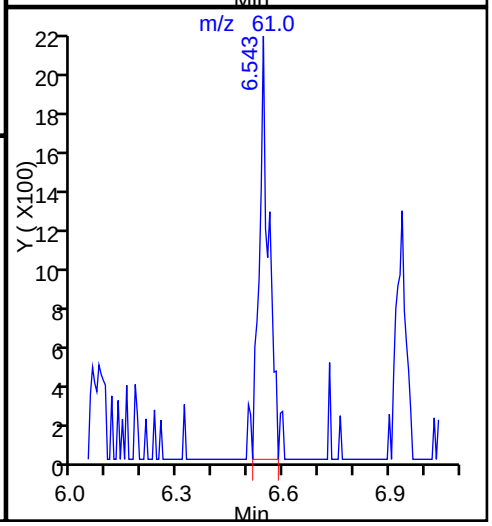


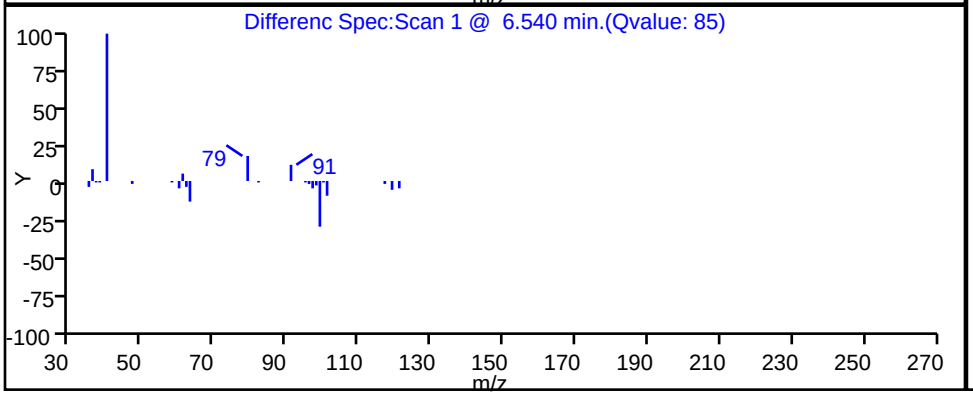










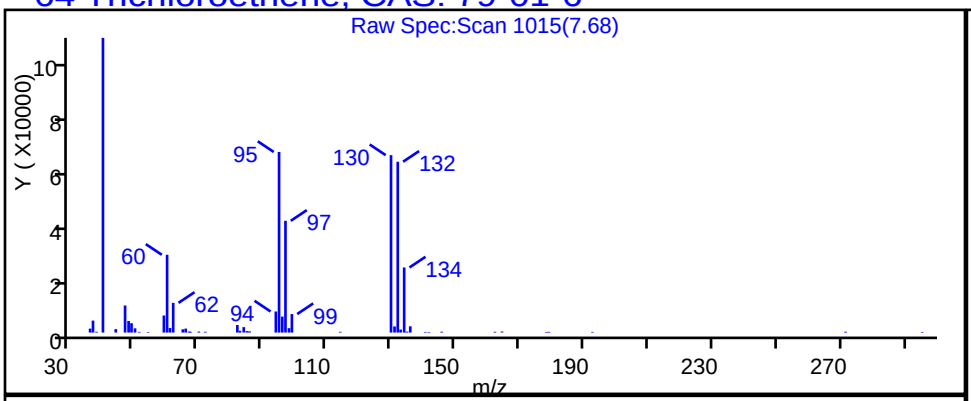


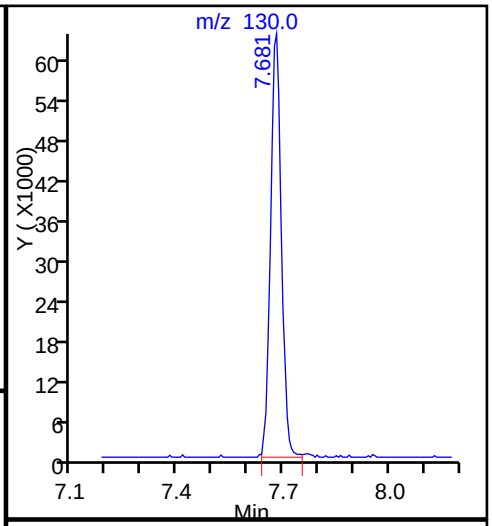
Report Date: 28-May-2015 07:36:25 Chrom Revision: 2.2 05-May-2015 11:39:10

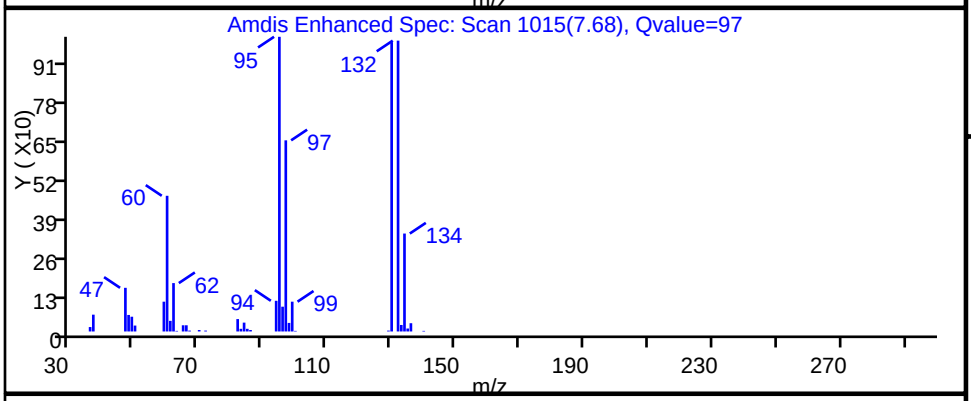
TestAmerica Pittsburgh

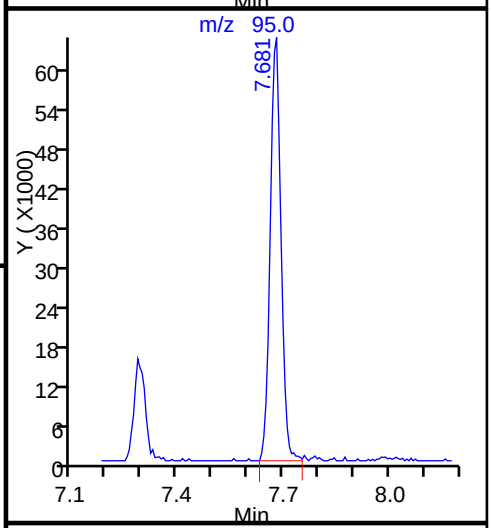
Data File:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527016.D				
Injection Date:	27-May-2015 16:26:30	Instrument ID:	CHHP5		
Lims ID:	180-44203-D-4	Lab Sample ID:	180-44203-4		
Client ID:	HD-MW-145A-0/1-0				
Operator ID:	001562	ALS Bottle#:	13	Worklist Smp#:	16
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

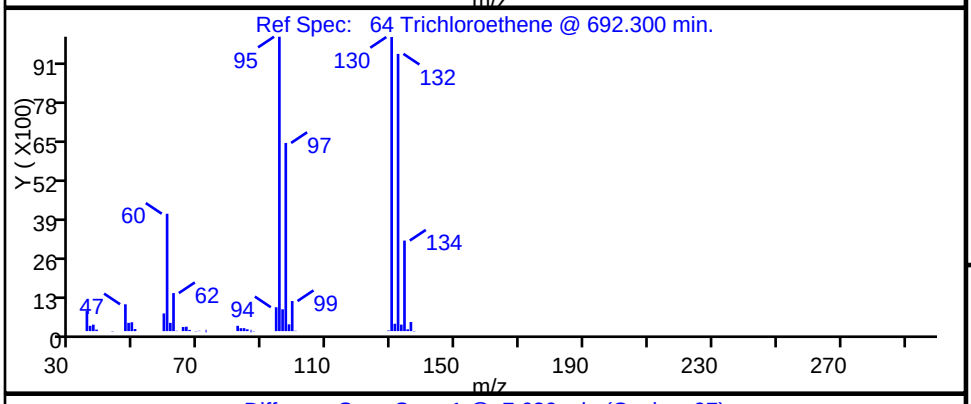
64 Trichloroethene, CAS: 79-01-6

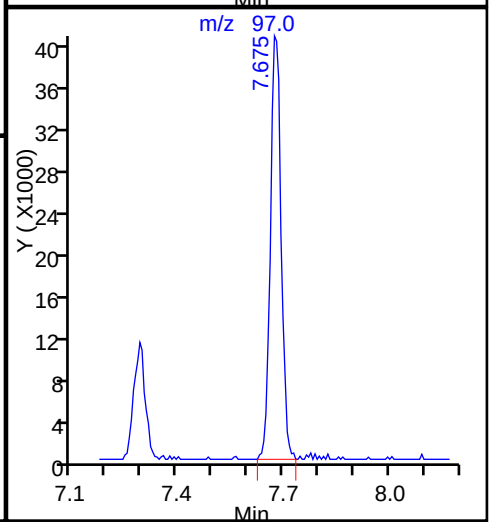


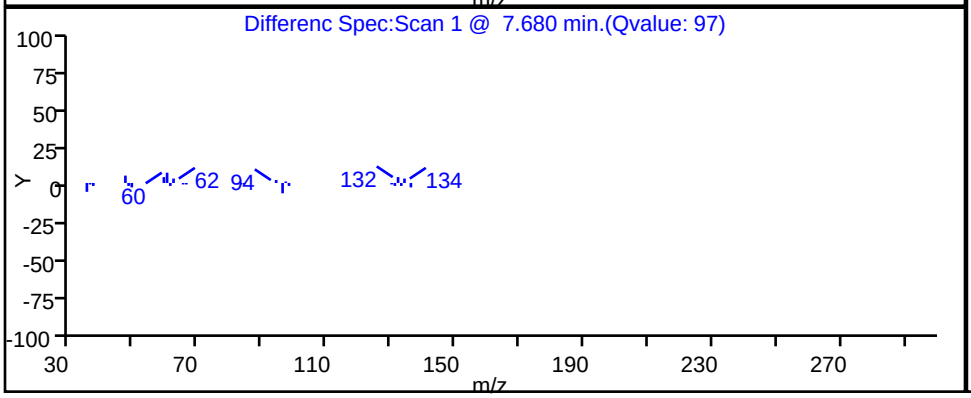










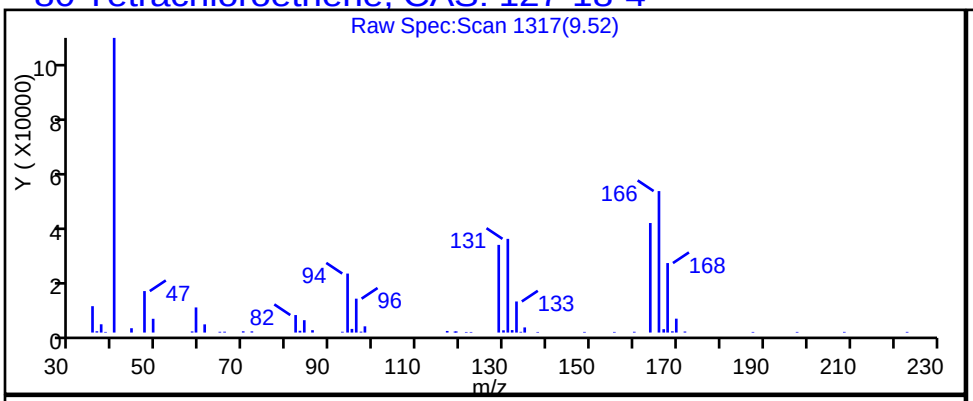


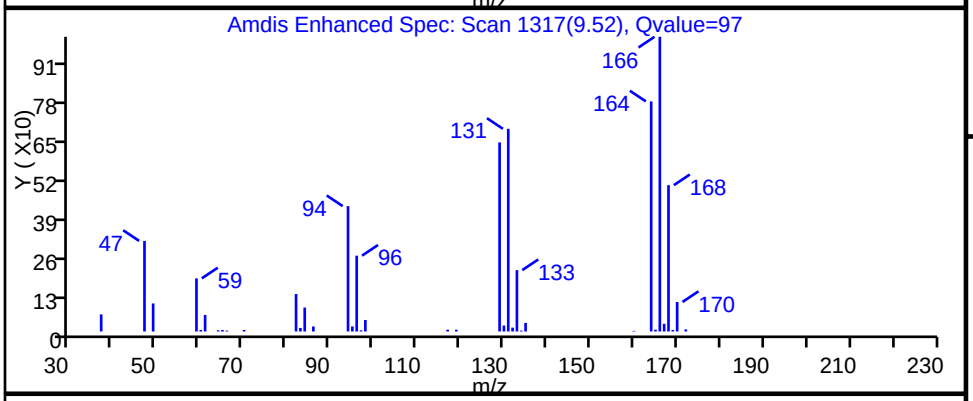
Report Date: 28-May-2015 07:36:25 Chrom Revision: 2.2 05-May-2015 11:39:10

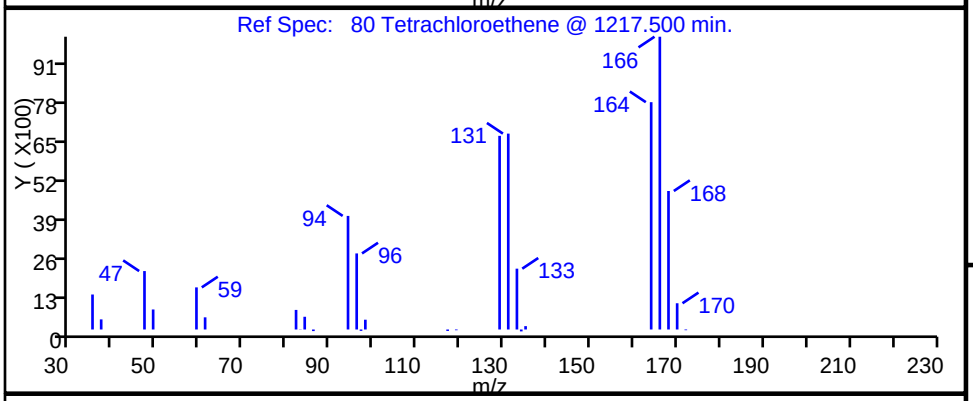
TestAmerica Pittsburgh

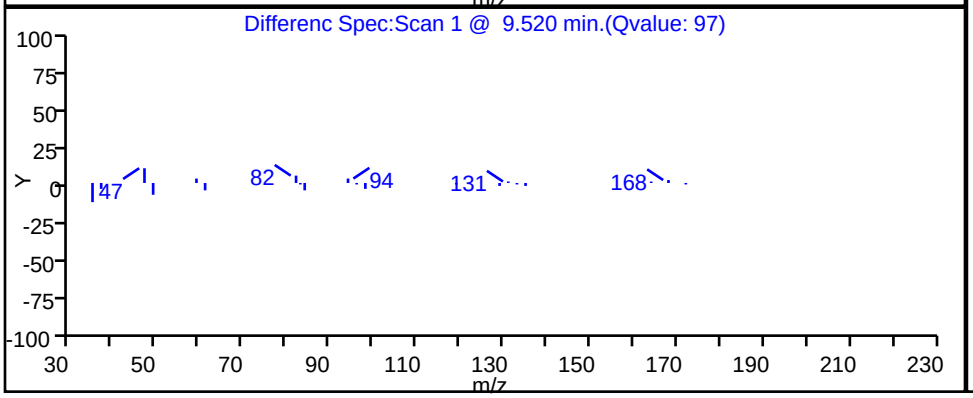
Data File:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527016.D		
Injection Date:	27-May-2015 16:26:30	Instrument ID:	CHHP5
Lims ID:	180-44203-D-4	Lab Sample ID:	180-44203-4
Client ID:	HD-MW-145A-0/1-0		
Operator ID:	001562	ALS Bottle#:	13 Worklist Smp#: 16
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

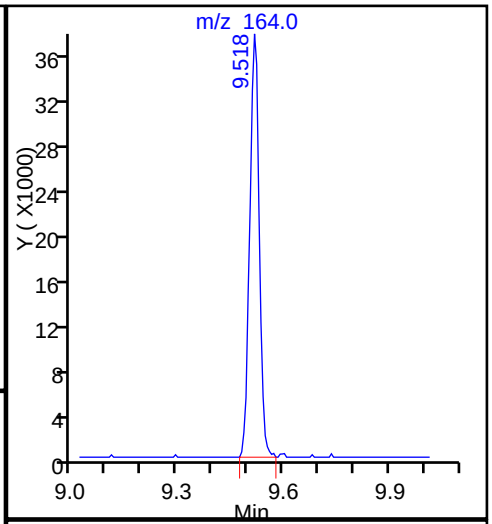
80 Tetrachloroethene, CAS: 127-18-4

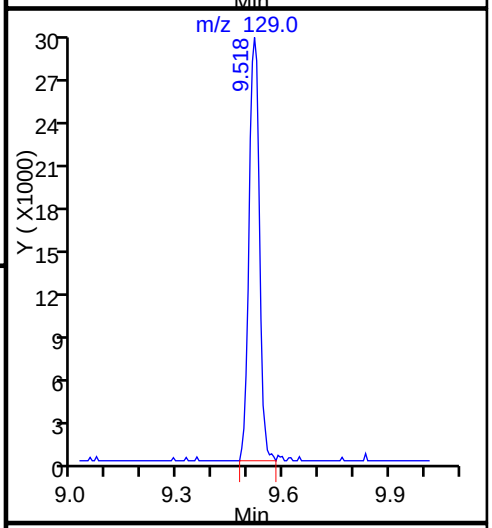


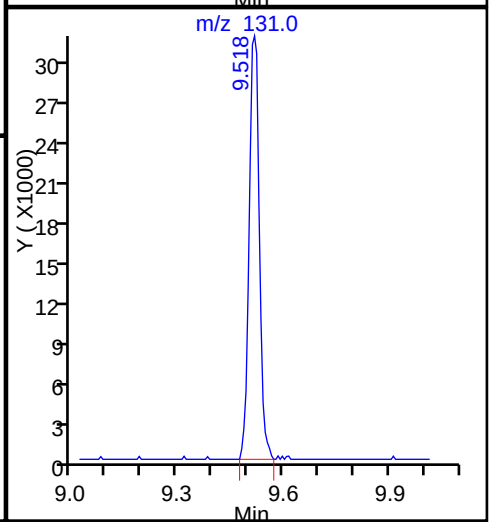












Manual Integration/User Assign Peak Report

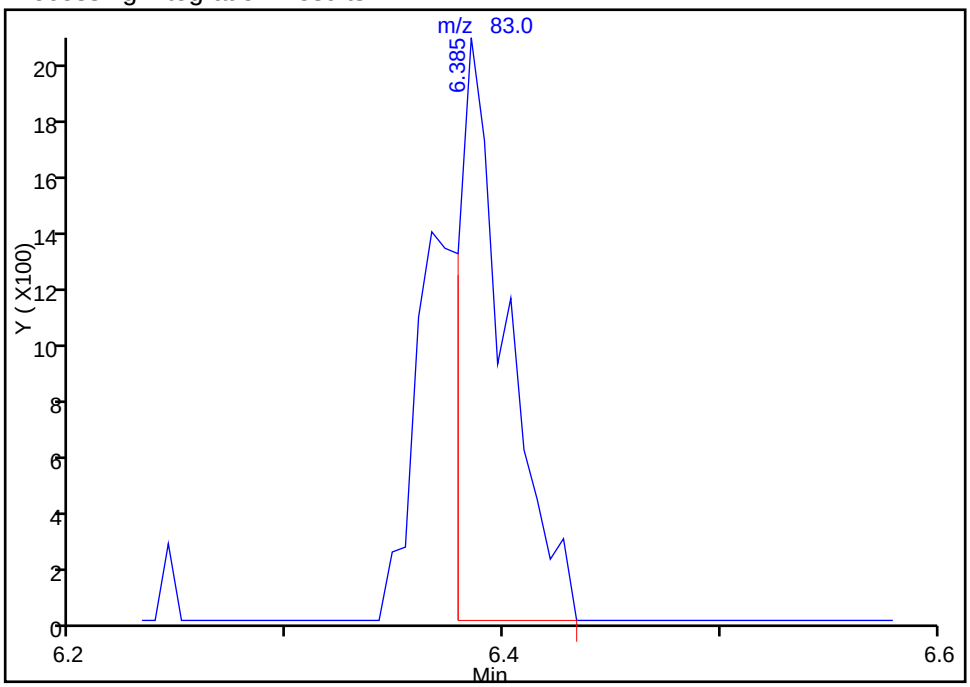
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527016.D				
Injection Date:	27-May-2015 16:26:30	Instrument ID:	CHHP5		
Lims ID:	180-44203-D-4	Lab Sample ID:	180-44203-4		
Client ID:	HD-MW-145A-0/1-0				
Operator ID:	001562	ALS Bottle#:	13	Worklist Smp#:	16
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

52 Chloroform, CAS: 67-66-3

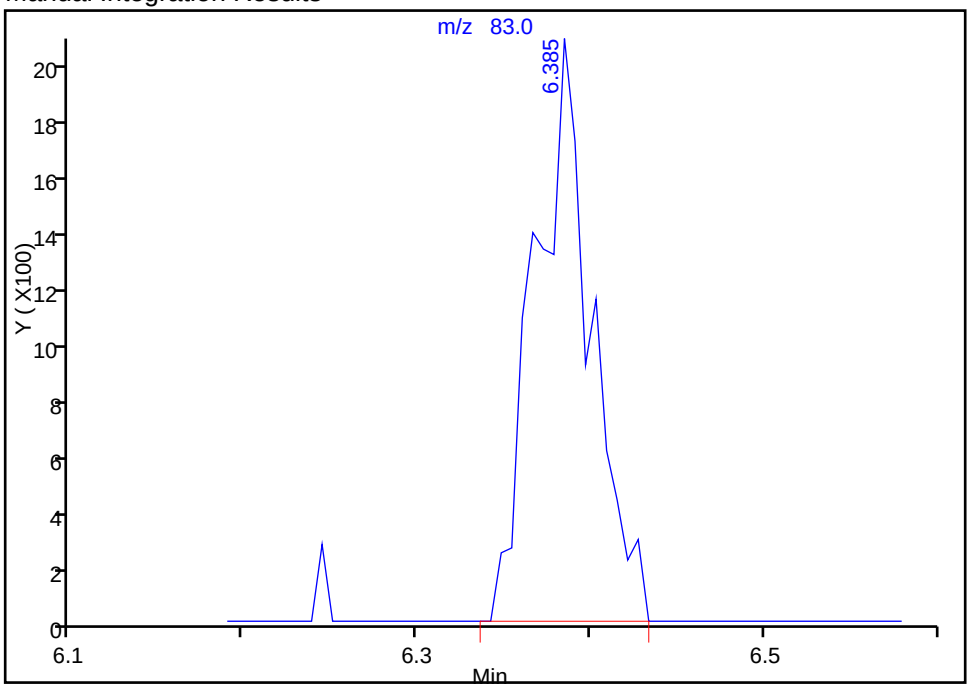
Processing Integration Results

RT: 6.38
Area: 3088
Amount: 0.923033
Amount Units: ng



Manual Integration Results

RT: 6.38
Area: 4613
Amount: 1.378870
Amount Units: ng



Reviewer: fergusond, 28-May-2015 07:36:24
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44203-1

SDG No.:

Client Sample ID: HD-QC1-0/1-1 | Lab Sample ID: 180-44203-5

Matrix: Water | Lab File ID: 50526017.D

Analysis Method: 8260C | Date Collected: 05/18/2015 08:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/26/2015 17:18

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.: 142745 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.28
75-01-4	Vinyl chloride	1.0	U	1.0	0.23
74-83-9	Bromomethane	1.0	U	1.0	0.31
75-00-3	Chloroethane	1.0	U	1.0	0.21
75-35-4	1,1-Dichloroethene	0.68	J	1.0	0.30
67-64-1	Acetone	5.0	U	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.21
75-09-2	Methylene Chloride	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	0.24	J	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	10		1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	0.30	J	1.0	0.17
71-55-6	1,1,1-Trichloroethane	0.61	J	1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	13		1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	9.5		1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.16
124-48-1	Dibromochloromethane	1.0	U	1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28
100-41-4	Ethylbenzene	1.0	U	1.0	0.23
1330-20-7	Xylenes, Total	3.0	U	3.0	0.49
100-42-5	Styrene	1.0	U	1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44203-1

SDG No.:

Client Sample ID: HD-QC1-0/1-1 | Lab Sample ID: 180-44203-5

Matrix: Water | Lab File ID: 50526017.D

Analysis Method: 8260C | Date Collected: 05/18/2015 08:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/26/2015 17:18

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.: 142745 | Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	120		64-135
2037-26-5	Toluene-d8 (Surr)	101		71-118
460-00-4	4-Bromofluorobenzene (Surr)	90		70-118
1868-53-7	Dibromofluoromethane (Surr)	117		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526017.D
Lims ID: 180-44203-C-5 Lab Sample ID: 180-44203-5
Client ID: HD-QC1-0/1-1
Sample Type: Client
Inject. Date: 26-May-2015 17:18:30 ALS Bottle#: 17 Worklist Smp#: 17
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-44203-C-5
Misc. Info.: 180-0007112-017
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 27-May-2015 07:49:53 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: fergusond Date: 27-May-2015 07:49:53

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.273	4.259	0.014	0	132944	1000.0	
* 2 Fluorobenzene (IS)	96	7.291	7.295	-0.004	98	339367	50.0	
* 3 Chlorobenzene-d5	119	10.387	10.391	-0.004	87	80157	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.735	12.733	0.002	96	103215	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.561	6.560	0.001	92	85548	58.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.938	6.937	0.001	0	109324	59.9	
$ 7 Toluene-d8 (Surr)	98	8.939	8.939	0.000	94	299405	50.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.573	11.573	0.000	89	95637	44.8	
12 Chloromethane	50		1.766				ND	
13 Vinyl chloride	62		1.900				ND	
15 Bromomethane	94		2.247				ND	
16 Chloroethane	64		2.399				ND	
22 1,1-Dichloroethene	96	3.343	3.348	-0.006	61	5514	3.39	
24 Acetone	43	3.446	3.439	0.007	1	3790	5.66	
26 Carbon disulfide	76		3.628				ND	
31 Methylene Chloride	84		4.139				ND	
33 Acrylonitrile	53		4.522				ND	
34 trans-1,2-Dichloroethene	96		4.565				ND	
35 Methyl tert-butyl ether	73	4.571	4.577	-0.006	19	1737	0.3502	M
37 1,1-Dichloroethane	63	5.204	5.197	0.007	4	4032	1.19	
45 cis-1,2-Dichloroethene	96	5.958	5.946	0.012	81	102493	51.5	
46 2-Butanone (MEK)	43		5.964				ND	
49 Chlorobromomethane	128		6.238				ND	
52 Chloroform	83	6.384	6.384	0.000	38	4623	1.52	
53 1,1,1-Trichloroethane	97	6.548	6.542	0.006	35	7228	3.07	
56 Carbon tetrachloride	117		6.712				ND	
58 Benzene	78		6.943				ND	
59 1,2-Dichloroethane	62		7.023				ND	
64 Trichloroethene	130	7.680	7.680	0.000	97	125979	65.0	
67 1,2-Dichloropropane	63		7.947				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		8.233				ND	
74 cis-1,3-Dichloropropene	75		8.677				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.829				ND	
76 Toluene	91		9.006				ND	
77 trans-1,3-Dichloropropene	75		9.255				ND	
79 1,1,2-Trichloroethane	97		9.450				ND	
80 Tetrachloroethene	164	9.523	9.517	0.006	95	68245	47.5	
82 2-Hexanone	43		9.657				ND	
84 Chlorodibromomethane	129		9.815				ND	
85 Ethylene Dibromide	107		9.930				ND	
87 Chlorobenzene	112		10.423				ND	
89 1,1,1,2-Tetrachloroethane	131		10.514				ND	
90 Ethylbenzene	106		10.521				ND	
91 m-Xylene & p-Xylene	106		10.654				ND	
92 o-Xylene	106		11.032				ND	
93 Styrene	104		11.050				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	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent

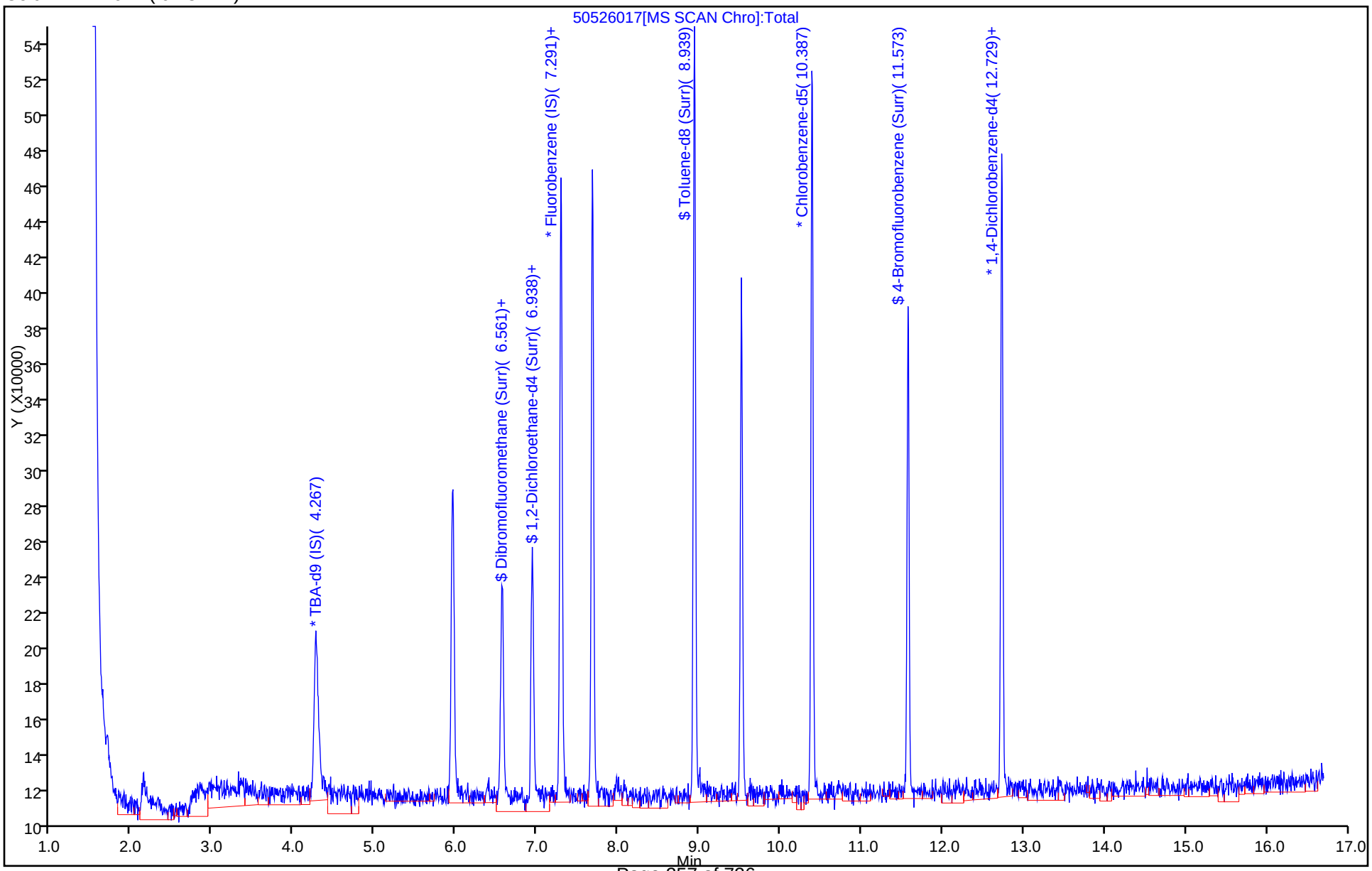
Report Date: 27-May-2015 07:49:53 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526017.D

Injection Date:	26-May-2015 17:18:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-44203-C-5	Lab Sample ID:	180-44203-5	Worklist Smp#:	17
Client ID:	HD-QC1-0/1-1				
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)

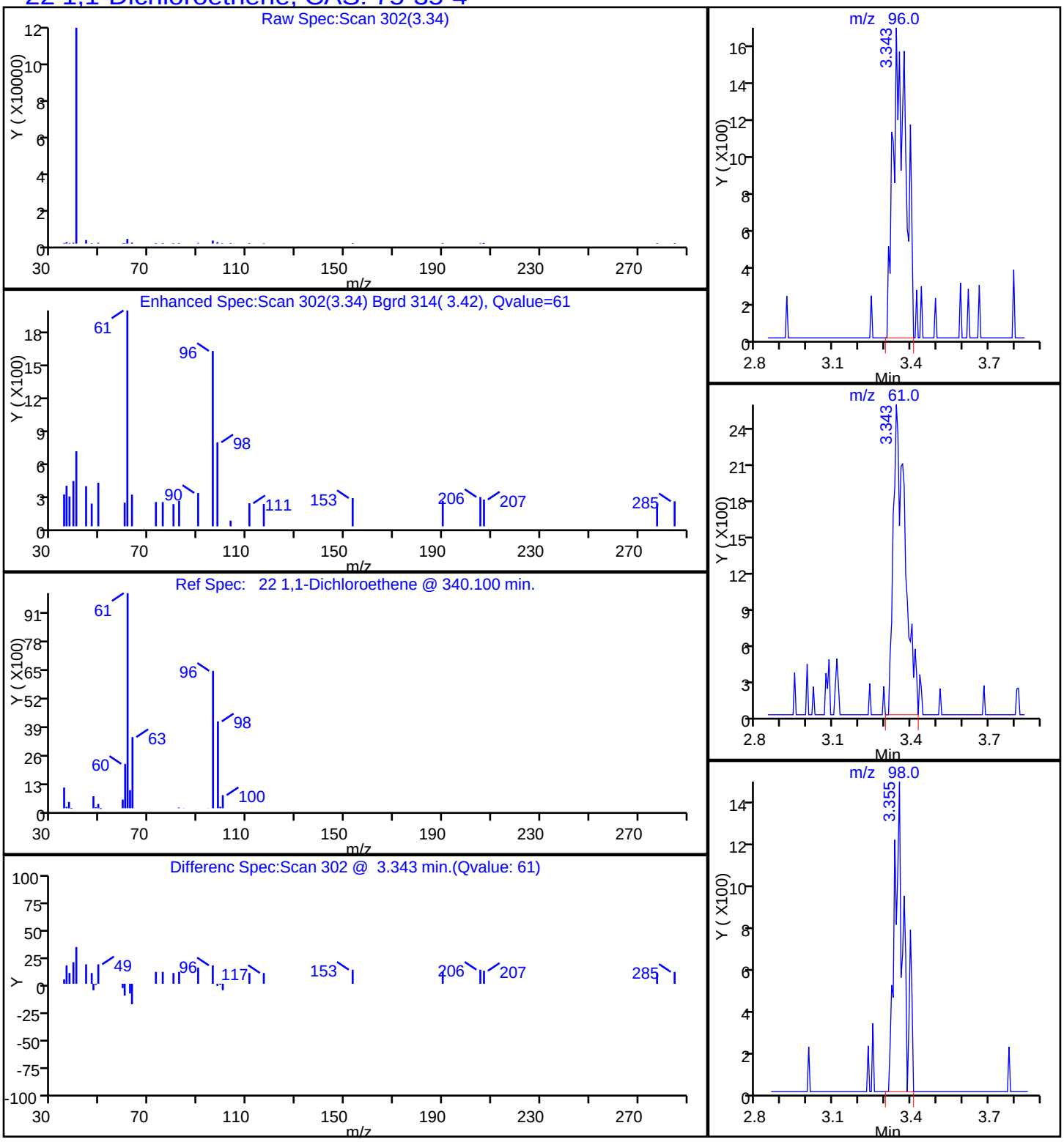


Report Date: 27-May-2015 07:49:53 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526017.D				
Injection Date:	26-May-2015 17:18:30	Instrument ID:	CHHP5		
Lims ID:	180-44203-C-5	Lab Sample ID:	180-44203-5		
Client ID:	HD-QC1-0/1-1				
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		

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

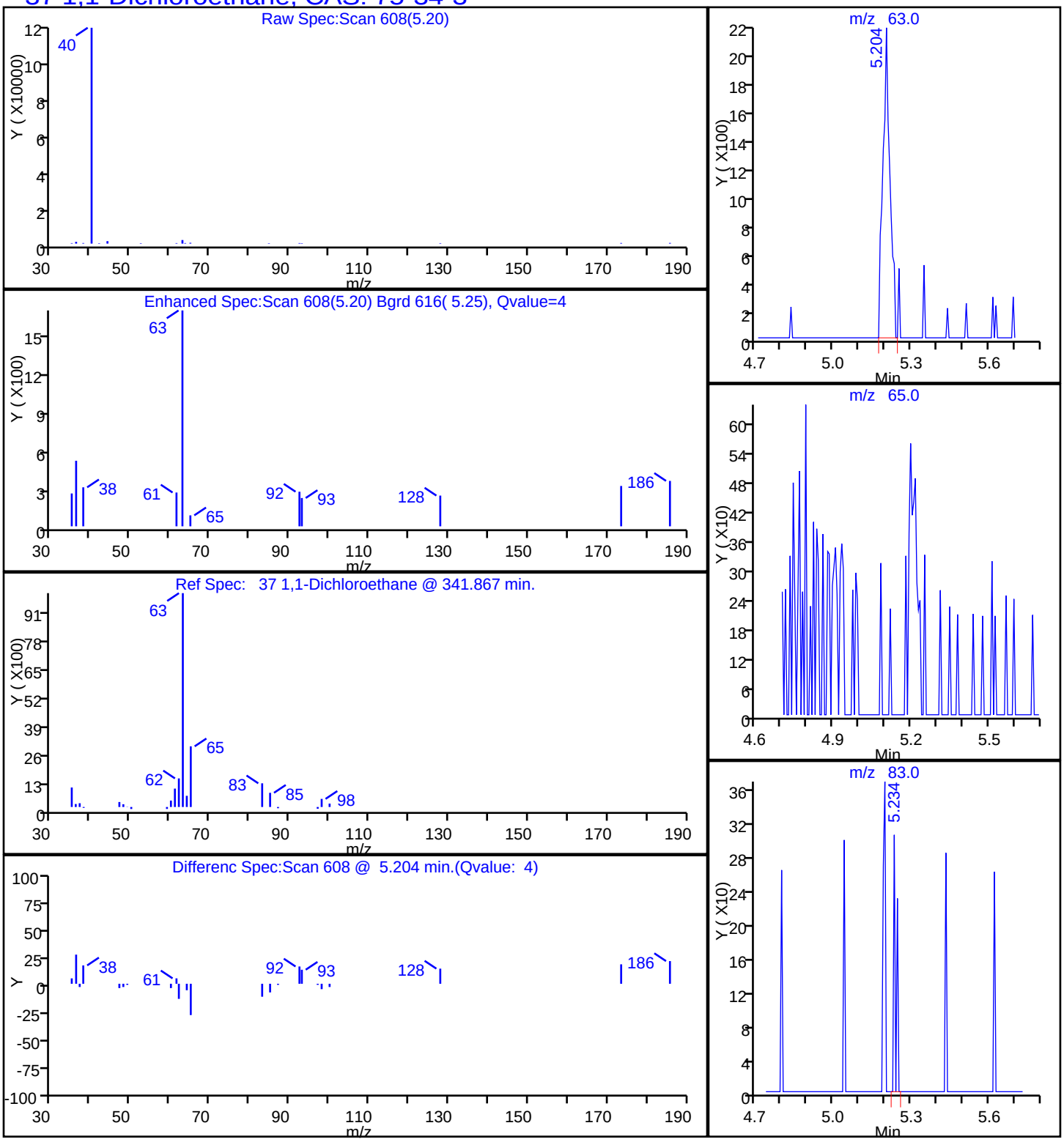


Report Date: 27-May-2015 07:49:53 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526017.D		
Injection Date:	26-May-2015 17:18:30	Instrument ID:	CHHP5
Lims ID:	180-44203-C-5	Lab Sample ID:	180-44203-5
Client ID:	HD-QC1-0/1-1		
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

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

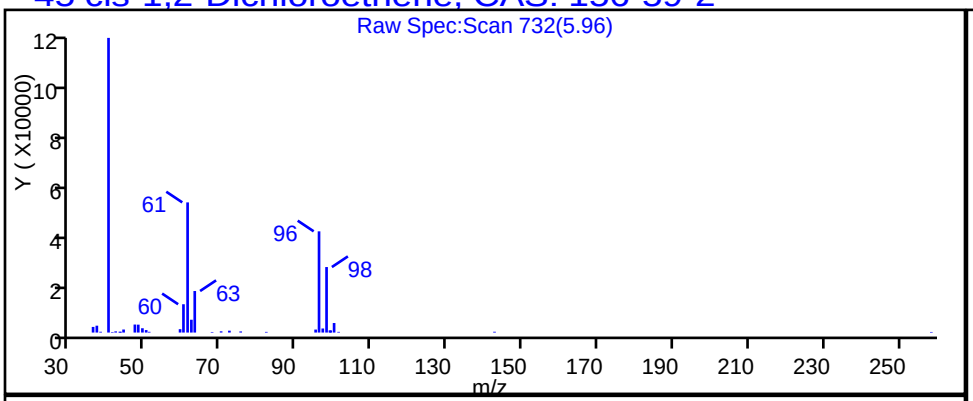


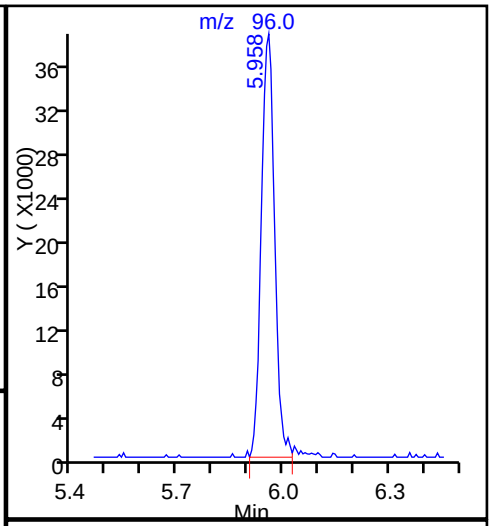
Report Date: 27-May-2015 07:49:53 Chrom Revision: 2.2 05-May-2015 11:39:10

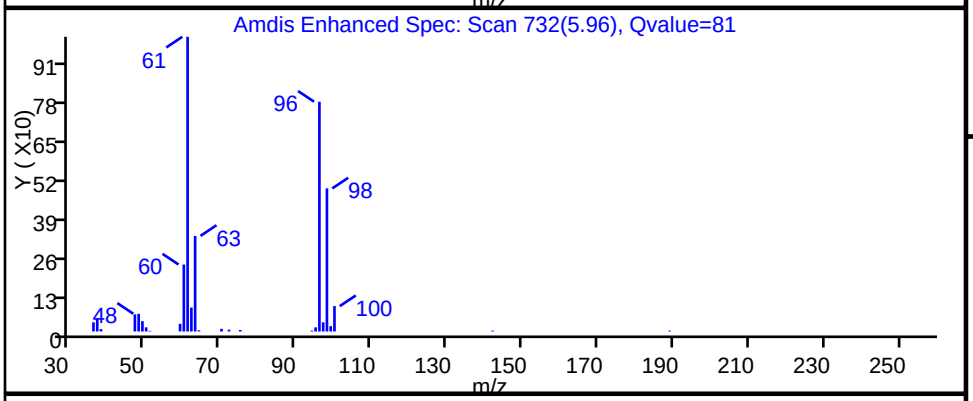
TestAmerica Pittsburgh

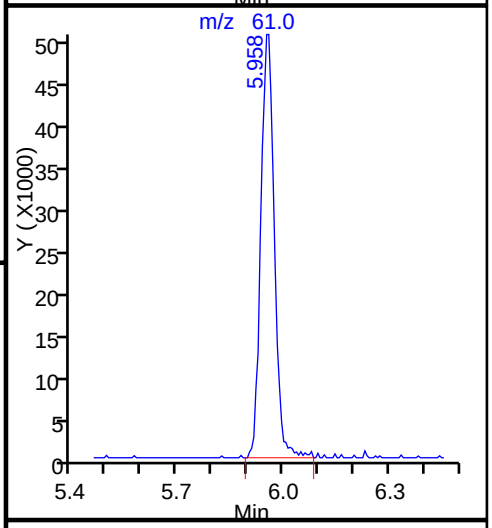
Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526017.D				
Injection Date:	26-May-2015 17:18:30	Instrument ID:	CHHP5		
Lims ID:	180-44203-C-5	Lab Sample ID:	180-44203-5		
Client ID:	HD-QC1-0/1-1				
Operator ID:	001562	ALS Bottle#:	17	Worklist Smp#:	17
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

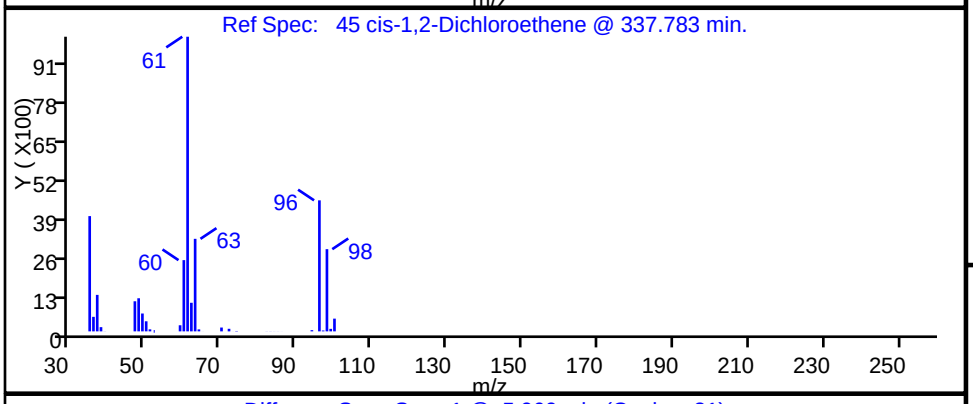
45 cis-1,2-Dichloroethene, CAS: 156-59-2

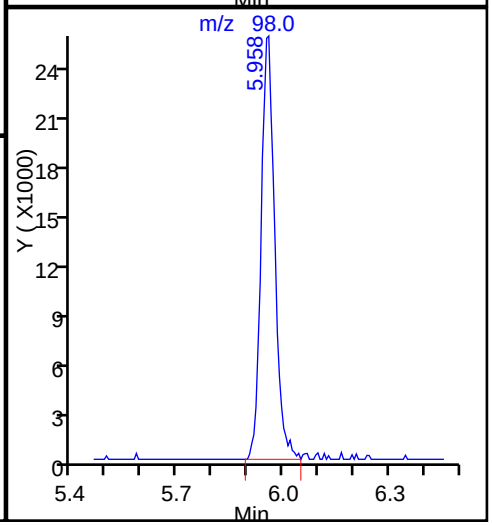


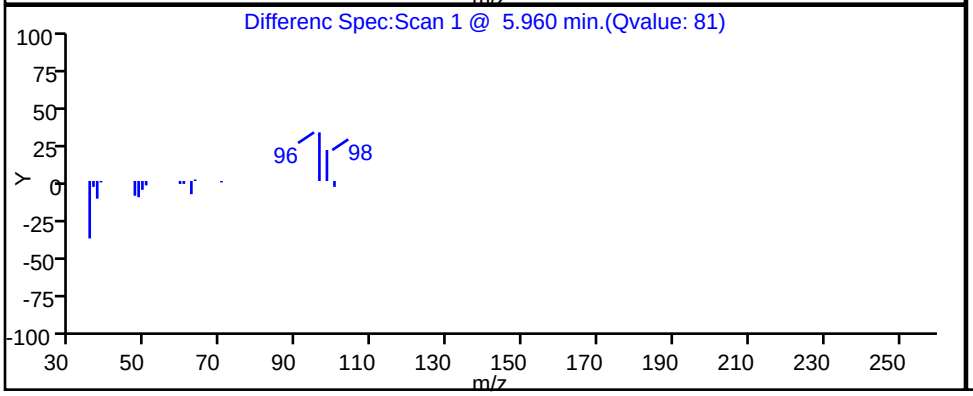










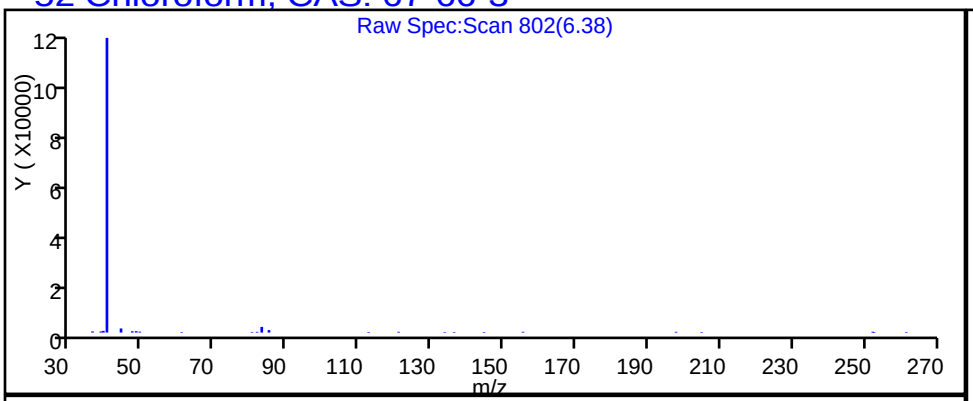


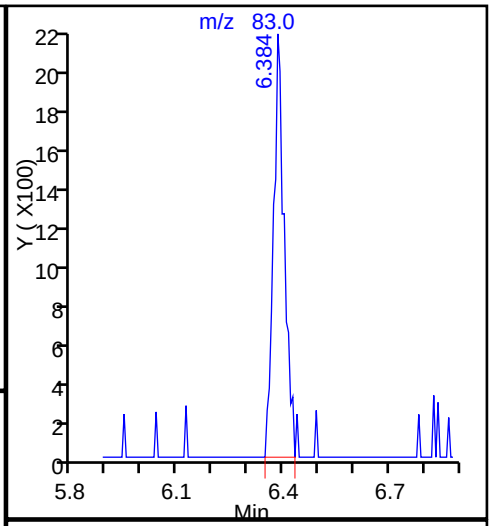
Report Date: 27-May-2015 07:49:53 Chrom Revision: 2.2 05-May-2015 11:39:10

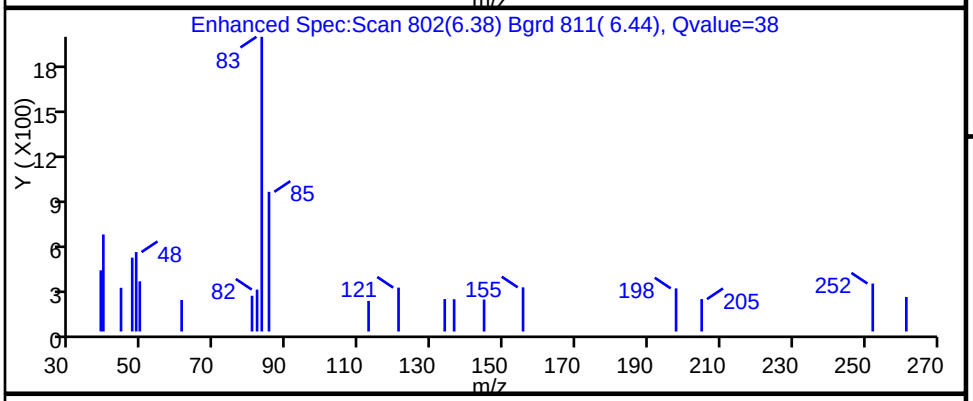
TestAmerica Pittsburgh

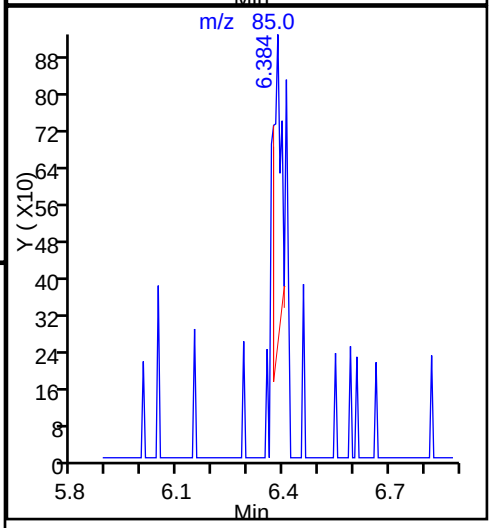
Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526017.D				
Injection Date:	26-May-2015 17:18:30	Instrument ID:	CHHP5		
Lims ID:	180-44203-C-5	Lab Sample ID:	180-44203-5		
Client ID:	HD-QC1-0/1-1				
Operator ID:	001562	ALS Bottle#:	17	Worklist Smp#:	17
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

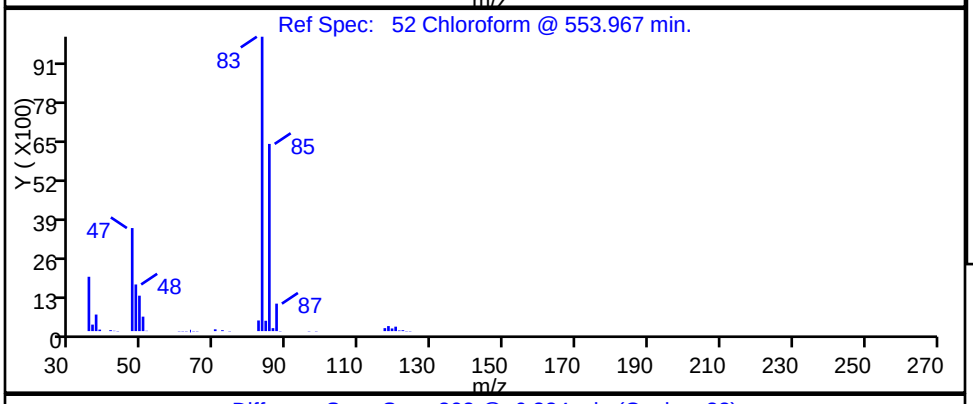
52 Chloroform, CAS: 67-66-3

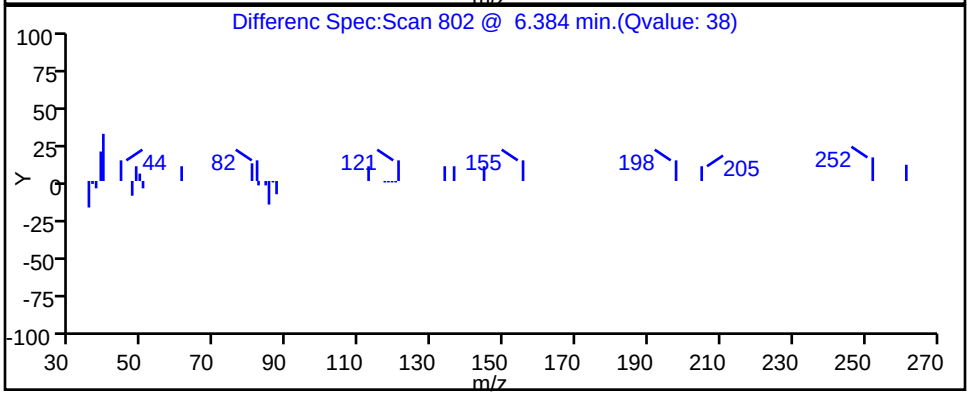










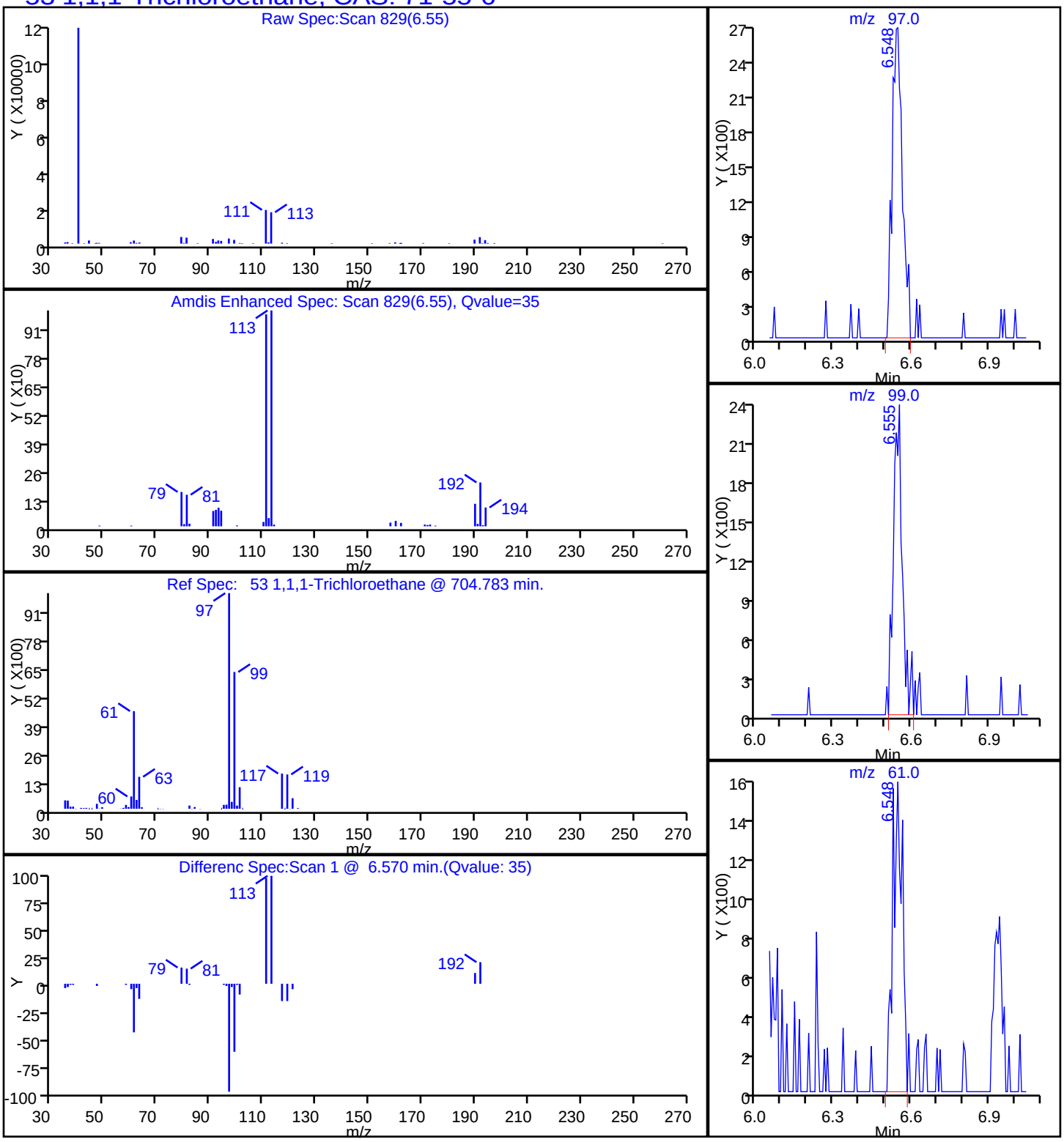


Report Date: 27-May-2015 07:49:53 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526017.D				
Injection Date:	26-May-2015 17:18:30	Instrument ID:	CHHP5		
Lims ID:	180-44203-C-5	Lab Sample ID:	180-44203-5		
Client ID:	HD-QC1-0/1-1				
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		

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

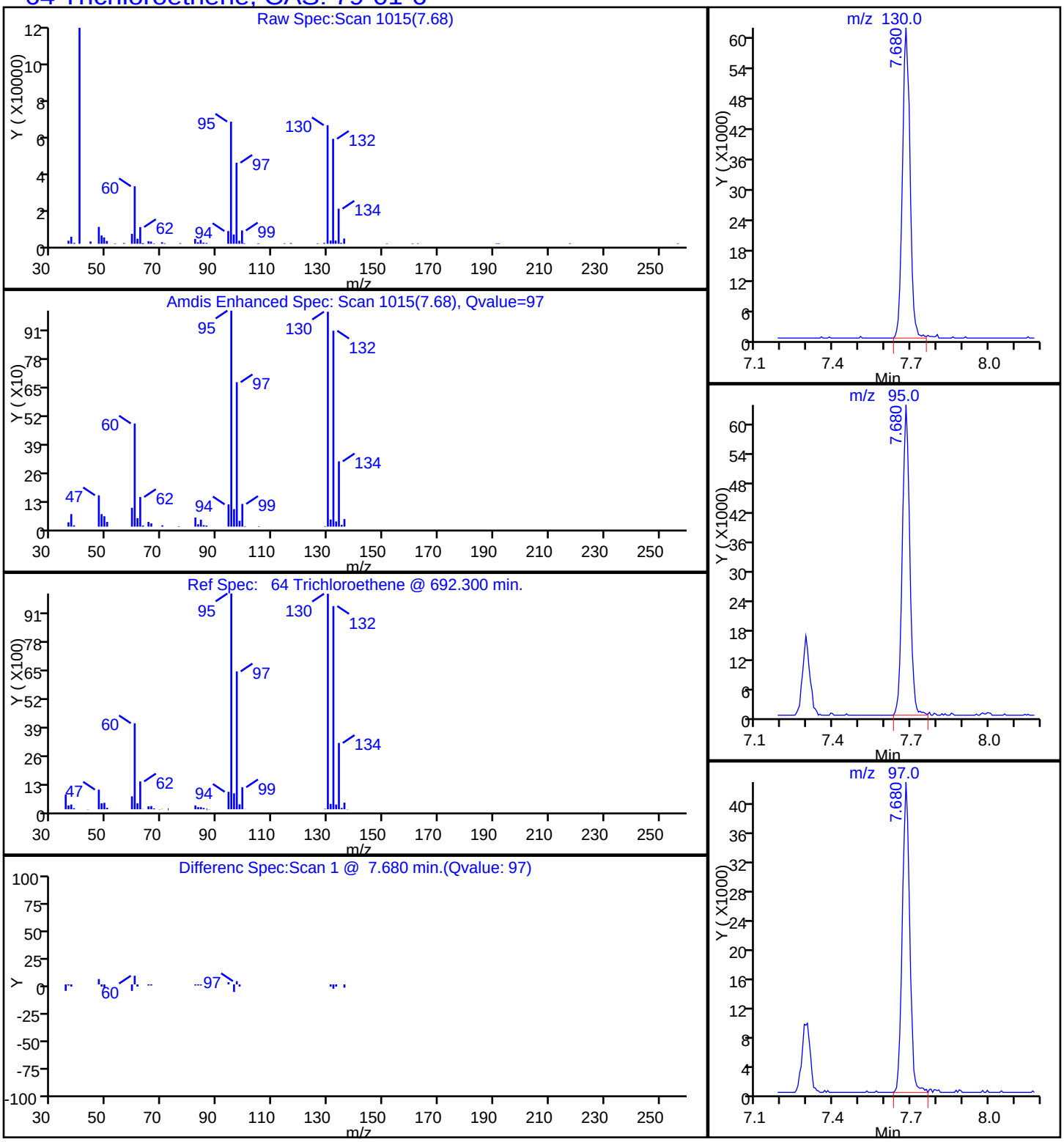


Report Date: 27-May-2015 07:49:53 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526017.D		
Injection Date:	26-May-2015 17:18:30	Instrument ID:	CHHP5
Lims ID:	180-44203-C-5	Lab Sample ID:	180-44203-5
Client ID:	HD-QC1-0/1-1		
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

64 Trichloroethene, CAS: 79-01-6

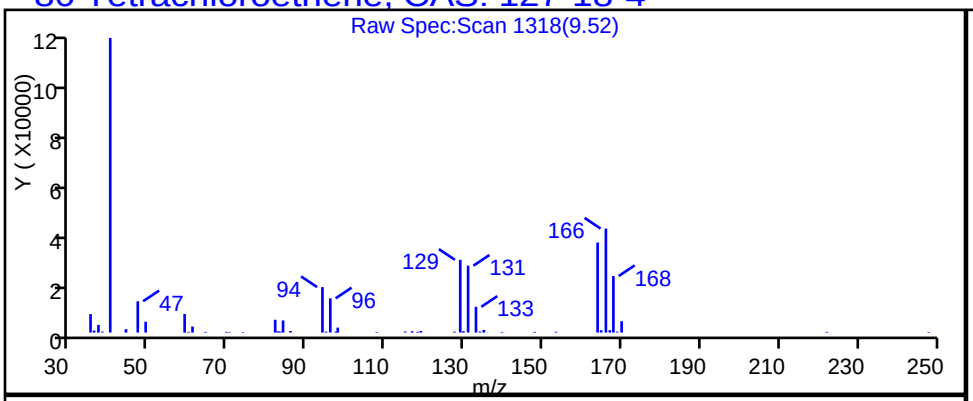


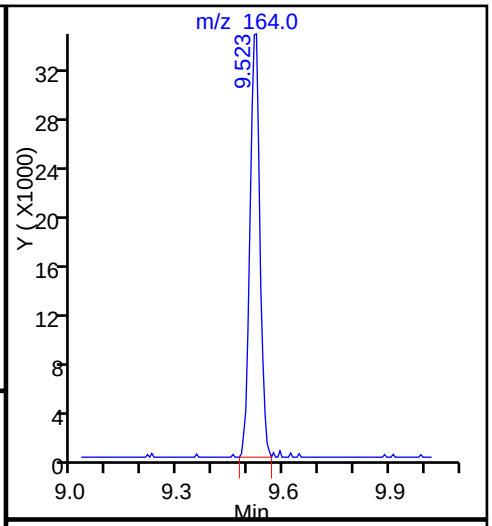
Report Date: 27-May-2015 07:49:53 Chrom Revision: 2.2 05-May-2015 11:39:10

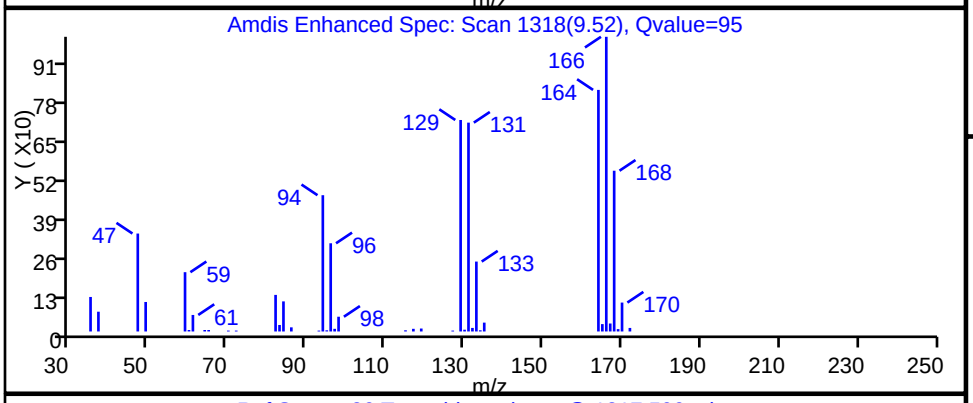
TestAmerica Pittsburgh

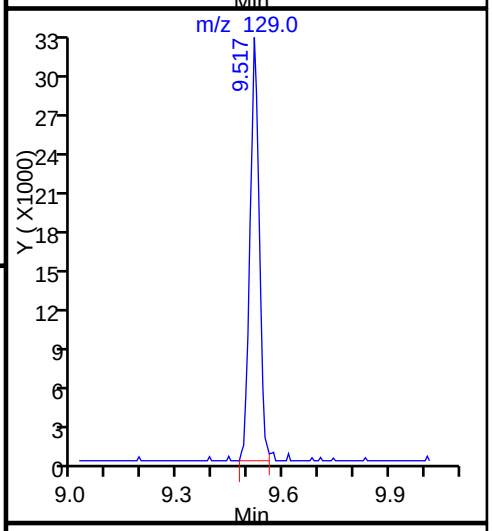
Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526017.D		
Injection Date:	26-May-2015 17:18:30	Instrument ID:	CHHP5
Lims ID:	180-44203-C-5	Lab Sample ID:	180-44203-5
Client ID:	HD-QC1-0/1-1		
Operator ID:	001562	ALS Bottle#:	17 Worklist Smp#: 17
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

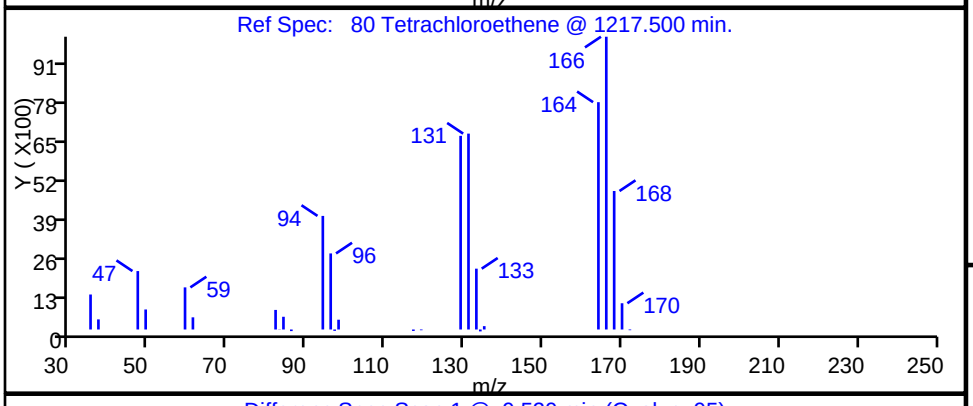
80 Tetrachloroethene, CAS: 127-18-4

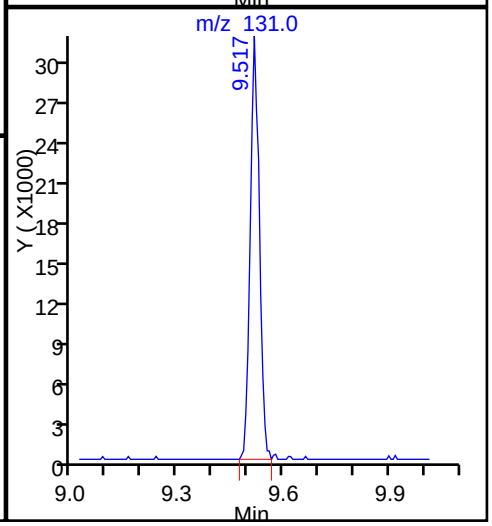


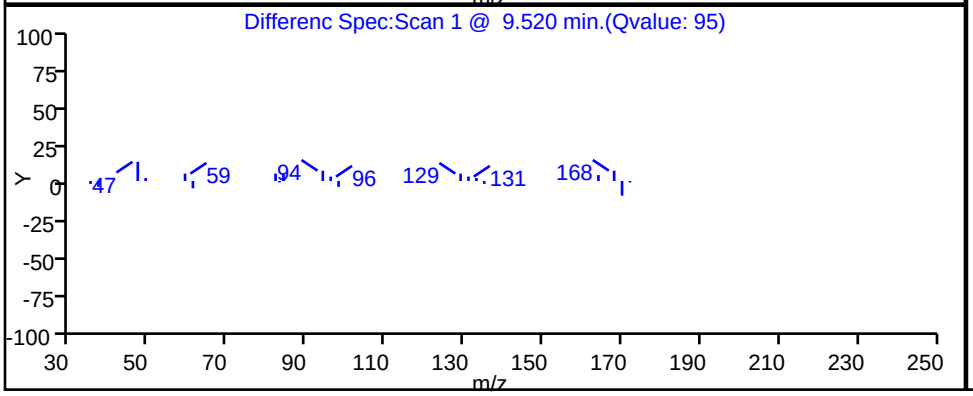












Manual Integration/User Assign Peak Report

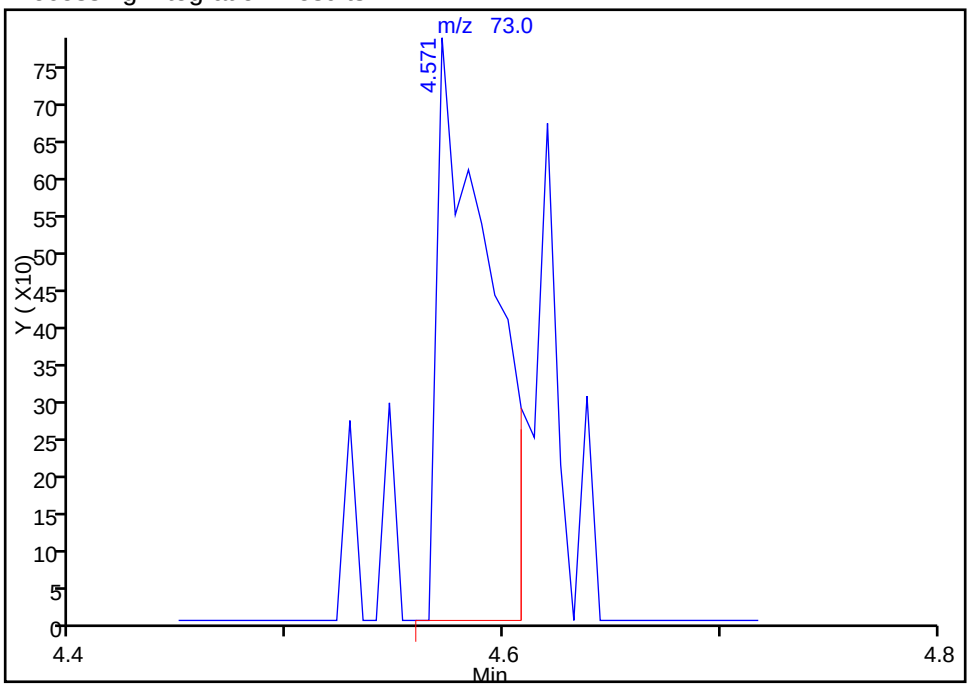
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526017.D				
Injection Date:	26-May-2015 17:18:30	Instrument ID:	CHHP5		
Lims ID:	180-44203-C-5	Lab Sample ID:	180-44203-5		
Client ID:	HD-QC1-0/1-1				
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		

35 Methyl tert-butyl ether, CAS: 1634-04-4

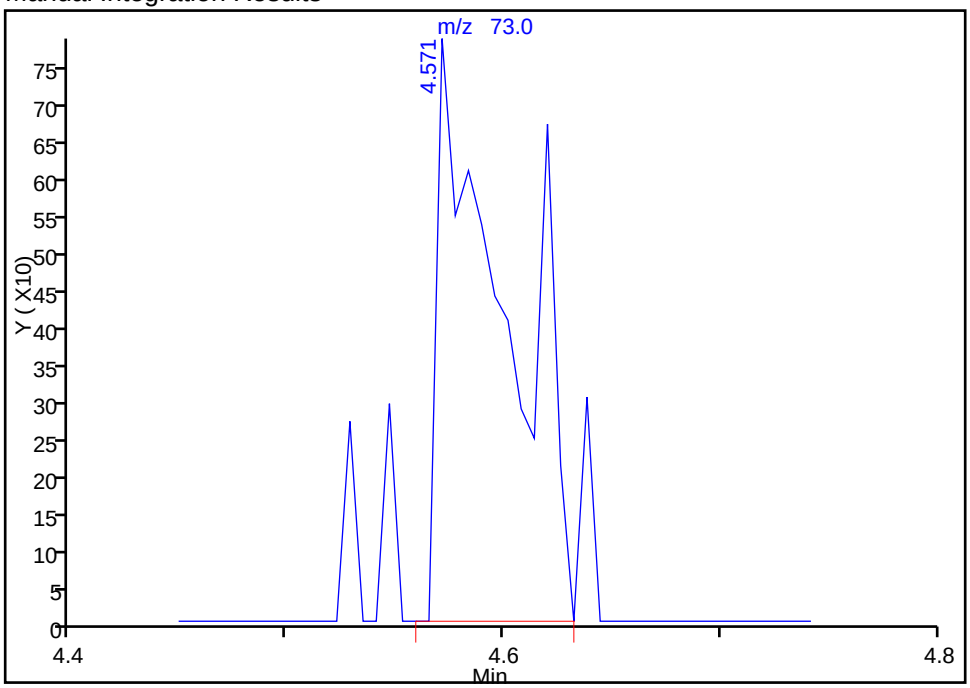
Processing Integration Results

RT: 4.57
Area: 1323
Amount: 0.266727
Amount Units: ng



Manual Integration Results

RT: 4.57
Area: 1737
Amount: 0.350192
Amount Units: ng



Reviewer: fergusond, 27-May-2015 07:49:53
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44203-1

SDG No.:

Client Sample ID: HD-QC1-0/1-2 | Lab Sample ID: 180-44203-6

Matrix: Water | Lab File ID: 50526007.D

Analysis Method: 8260C | Date Collected: 05/18/2015 12:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/26/2015 13:05

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 142745 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.28
75-01-4	Vinyl chloride	1.0	U	1.0	0.23
74-83-9	Bromomethane	1.0	U	1.0	0.31
75-00-3	Chloroethane	1.0	U	1.0	0.21
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.30
67-64-1	Acetone	5.0	U	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.21
75-09-2	Methylene Chloride	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	1.0	U	1.0	0.17
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	1.0	U	1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.16
124-48-1	Dibromochloromethane	1.0	U	1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28
100-41-4	Ethylbenzene	1.0	U	1.0	0.23
1330-20-7	Xylenes, Total	3.0	U	3.0	0.49
100-42-5	Styrene	1.0	U	1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44203-1

SDG No.:

Client Sample ID: HD-QC1-0/1-2 | Lab Sample ID: 180-44203-6

Matrix: Water | Lab File ID: 50526007.D

Analysis Method: 8260C | Date Collected: 05/18/2015 12:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/26/2015 13:05

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 142745 | Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	116		64-135
2037-26-5	Toluene-d8 (Surr)	101		71-118
460-00-4	4-Bromofluorobenzene (Surr)	91		70-118
1868-53-7	Dibromofluoromethane (Surr)	112		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526007.D
Lims ID: 180-44203-A-6 Lab Sample ID: 180-44203-6
Client ID: HD-QC1-0/1-2
Sample Type: Client
Inject. Date: 26-May-2015 13:05:30 ALS Bottle#: 7 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-44203-A-6
Misc. Info.: 180-0007112-007
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 26-May-2015 13:44:49 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: fergusond Date: 26-May-2015 13:44:49

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.275	4.259	0.016	0	127793	1000.0	
* 2 Fluorobenzene (IS)	96	7.293	7.295	-0.002	98	340705	50.0	
* 3 Chlorobenzene-d5	119	10.389	10.391	-0.002	88	80369	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.731	12.733	-0.002	96	106326	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.569	6.560	0.009	92	82016	55.8	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.940	6.937	0.003	0	106135	58.0	
$ 7 Toluene-d8 (Surr)	98	8.941	8.939	0.002	94	302617	50.7	
$ 8 4-Bromofluorobenzene (Surr	95	11.576	11.573	0.003	87	97139	45.3	
12 Chloromethane	50		1.766				ND	
13 Vinyl chloride	62		1.900				ND	
15 Bromomethane	94		2.247				ND	
16 Chloroethane	64		2.399				ND	
22 1,1-Dichloroethene	96		3.348				ND	
24 Acetone	43		3.439				ND	
26 Carbon disulfide	76		3.628				ND	
31 Methylene Chloride	84		4.139				ND	
33 Acrylonitrile	53		4.522				ND	
34 trans-1,2-Dichloroethene	96		4.565				ND	
35 Methyl tert-butyl ether	73		4.577				ND	
37 1,1-Dichloroethane	63		5.197				ND	
45 cis-1,2-Dichloroethene	96		5.946				ND	
46 2-Butanone (MEK)	43		5.964				ND	
49 Chlorobromomethane	128		6.238				ND	
52 Chloroform	83		6.384				ND	
53 1,1,1-Trichloroethane	97		6.542				ND	
56 Carbon tetrachloride	117		6.712				ND	
58 Benzene	78		6.943				ND	
59 1,2-Dichloroethane	62		7.023				ND	
64 Trichloroethene	130		7.680				ND	
67 1,2-Dichloropropane	63		7.947				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		8.233				ND	
74 cis-1,3-Dichloropropene	75		8.677				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.829				ND	
76 Toluene	91		9.006				ND	
77 trans-1,3-Dichloropropene	75		9.255				ND	
79 1,1,2-Trichloroethane	97		9.450				ND	
80 Tetrachloroethene	164		9.517				ND	
82 2-Hexanone	43		9.657				ND	
84 Chlorodibromomethane	129		9.815				ND	
85 Ethylene Dibromide	107		9.930				ND	
87 Chlorobenzene	112		10.423				ND	
89 1,1,1,2-Tetrachloroethane	131		10.514				ND	
90 Ethylbenzene	106		10.521				ND	
91 m-Xylene & p-Xylene	106		10.654				ND	
92 o-Xylene	106		11.032				ND	
93 Styrene	104		11.050				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:

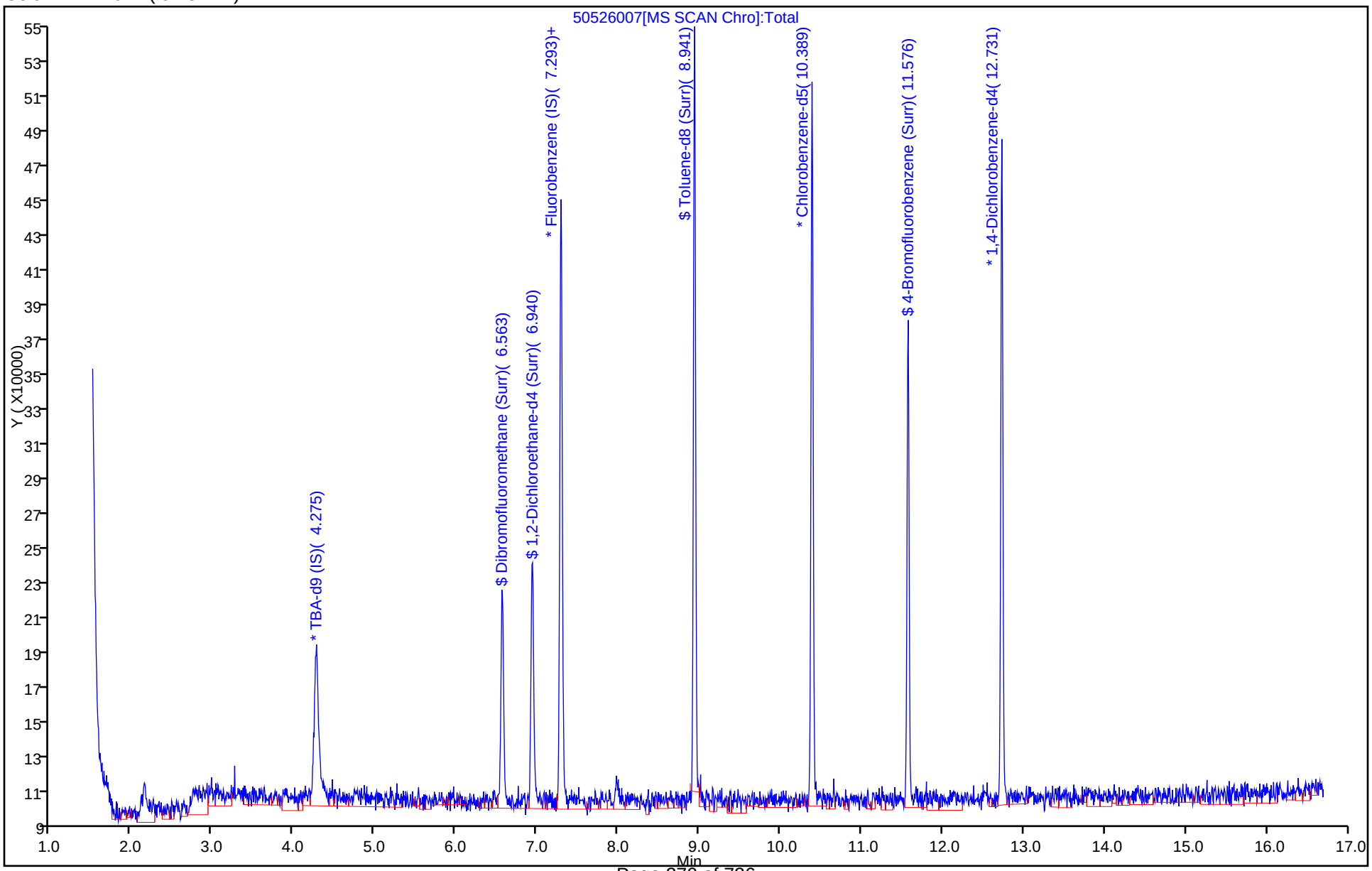
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 26-May-2015 13:44:49 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526007.D				
Injection Date:	26-May-2015 13:05:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-44203-A-6	Lab Sample ID:	180-44203-6	Worklist Smp#:	7
Client ID:	HD-QC1-0/1-2				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44203-1

SDG No.:

Client Sample ID: HD-MW-93S-0/1-0 | Lab Sample ID: 180-44203-7

Matrix: Water | Lab File ID: 50526019.D

Analysis Method: 8260C | Date Collected: 05/18/2015 12:27

Sample wt/vol: 5(mL) | Date Analyzed: 05/26/2015 18:05

Soil Aliquot Vol: | Dilution Factor: 5

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

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

Analysis Batch No.: 142745 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	5.0	U	5.0	1.4
75-01-4	Vinyl chloride	5.0	U	5.0	1.1
74-83-9	Bromomethane	5.0	U	5.0	1.6
75-00-3	Chloroethane	5.0	U	5.0	1.1
75-35-4	1,1-Dichloroethene	1.5	J	5.0	1.5
67-64-1	Acetone	25	U	25	13
75-15-0	Carbon disulfide	5.0	U	5.0	1.1
75-09-2	Methylene Chloride	2.8	J	5.0	0.63
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.85
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.92
75-34-3	1,1-Dichloroethane	1.7	J	5.0	0.58
156-59-2	cis-1,2-Dichloroethene	56		5.0	1.2
74-97-5	Bromochloromethane	5.0	U	5.0	0.90
78-93-3	2-Butanone (MEK)	25	U	25	2.7
67-66-3	Chloroform	5.0	U	5.0	0.85
71-55-6	1,1,1-Trichloroethane	7.9		5.0	1.4
56-23-5	Carbon tetrachloride	5.0	U	5.0	0.68
71-43-2	Benzene	5.0	U	5.0	0.53
107-06-2	1,2-Dichloroethane	5.0	U	5.0	1.1
79-01-6	Trichloroethene	47		5.0	0.72
78-87-5	1,2-Dichloropropane	5.0	U	5.0	0.47
75-27-4	Bromodichloromethane	5.0	U	5.0	0.65
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	0.93
108-10-1	4-Methyl-2-pentanone (MIBK)	25	U	25	2.6
108-88-3	Toluene	5.0	U	5.0	0.75
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	0.74
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	1.0
127-18-4	Tetrachloroethene	130		5.0	0.74
591-78-6	2-Hexanone	25	U	25	0.80
124-48-1	Dibromochloromethane	5.0	U	5.0	0.68
106-93-4	1,2-Dibromoethane (EDB)	5.0	U	5.0	0.90
108-90-7	Chlorobenzene	5.0	U	5.0	0.68
630-20-6	1,1,1,2-Tetrachloroethane	5.0	U	5.0	1.4
100-41-4	Ethylbenzene	5.0	U	5.0	1.1
1330-20-7	Xylenes, Total	15	U	15	2.4
100-42-5	Styrene	5.0	U	5.0	0.48

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44203-1

SDG No.:

Client Sample ID: HD-MW-93S-0/1-0 | Lab Sample ID: 180-44203-7

Matrix: Water | Lab File ID: 50526019.D

Analysis Method: 8260C | Date Collected: 05/18/2015 12:27

Sample wt/vol: 5(mL) | Date Analyzed: 05/26/2015 18:05

Soil Aliquot Vol: | Dilution Factor: 5

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

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

Analysis Batch No.: 142745 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	5.0	U	5.0	0.96
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	1.0
107-13-1	Acrylonitrile	100	U	100	2.7
123-91-1	1,4-Dioxane	1000	U	1000	170

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	120		64-135
2037-26-5	Toluene-d8 (Surr)	100		71-118
460-00-4	4-Bromofluorobenzene (Surr)	92		70-118
1868-53-7	Dibromofluoromethane (Surr)	114		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526019.D
Lims ID: 180-44203-D-7 Lab Sample ID: 180-44203-7
Client ID: HD-MW-93S-0/1-0
Sample Type: Client
Inject. Date: 26-May-2015 18:05:30 ALS Bottle#: 19 Worklist Smp#: 19
Purge Vol: 5.000 mL Dil. Factor: 5.0000
Sample Info: 180-44203-D-7, 5x
Misc. Info.: 180-0007112-019
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 27-May-2015 07:53:22 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: fergusond Date: 27-May-2015 07:53:22

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.269	4.259	0.010	0	115629	1000.0	
* 2 Fluorobenzene (IS)	96	7.292	7.295	-0.003	98	336729	50.0	
* 3 Chlorobenzene-d5	119	10.389	10.391	-0.002	87	77714	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.731	12.733	-0.002	97	98349	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.562	6.560	0.002	93	82904	57.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.939	6.937	0.002	0	108695	60.1	
$ 7 Toluene-d8 (Surr)	98	8.941	8.939	0.002	94	289216	50.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.569	11.573	-0.004	89	95245	46.0	
12 Chloromethane	50		1.766				ND	
13 Vinyl chloride	62		1.900				ND	
15 Bromomethane	94		2.247				ND	
16 Chloroethane	64		2.399				ND	
22 1,1-Dichloroethene	96	3.368	3.348	0.020	29	2460	1.52	
24 Acetone	43	3.454	3.439	0.015	74	3478	5.24	M
26 Carbon disulfide	76		3.628				ND	
31 Methylene Chloride	84	4.135	4.139	-0.004	74	11920	2.85	
33 Acrylonitrile	53		4.522				ND	
34 trans-1,2-Dichloroethene	96		4.565				ND	
35 Methyl tert-butyl ether	73		4.577				ND	
37 1,1-Dichloroethane	63	5.212	5.197	0.015	4	5600	1.66	
45 cis-1,2-Dichloroethene	96	5.954	5.946	0.008	80	110503	56.0	
46 2-Butanone (MEK)	43		5.964				ND	
49 Chlorobromomethane	128		6.238				ND	
52 Chloroform	83		6.384				ND	
53 1,1,1-Trichloroethane	97	6.544	6.542	0.002	87	18493	7.90	
56 Carbon tetrachloride	117		6.712				ND	
58 Benzene	78		6.943				ND	
59 1,2-Dichloroethane	62		7.023				ND	
64 Trichloroethene	130	7.676	7.680	-0.004	96	90958	47.3	
67 1,2-Dichloropropane	63		7.947				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		8.233				ND	
74 cis-1,3-Dichloropropene	75		8.677				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.829				ND	
76 Toluene	91		9.006				ND	
77 trans-1,3-Dichloropropene	75		9.255				ND	
79 1,1,2-Trichloroethane	97		9.450				ND	
80 Tetrachloroethene	164	9.519	9.517	0.002	97	174973	125.6	
82 2-Hexanone	43		9.657				ND	
84 Chlorodibromomethane	129		9.815				ND	
85 Ethylene Dibromide	107		9.930				ND	
87 Chlorobenzene	112		10.423				ND	
89 1,1,1,2-Tetrachloroethane	131		10.514				ND	
90 Ethylbenzene	106		10.521				ND	
91 m-Xylene & p-Xylene	106		10.654				ND	
92 o-Xylene	106		11.032				ND	
93 Styrene	104		11.050				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	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

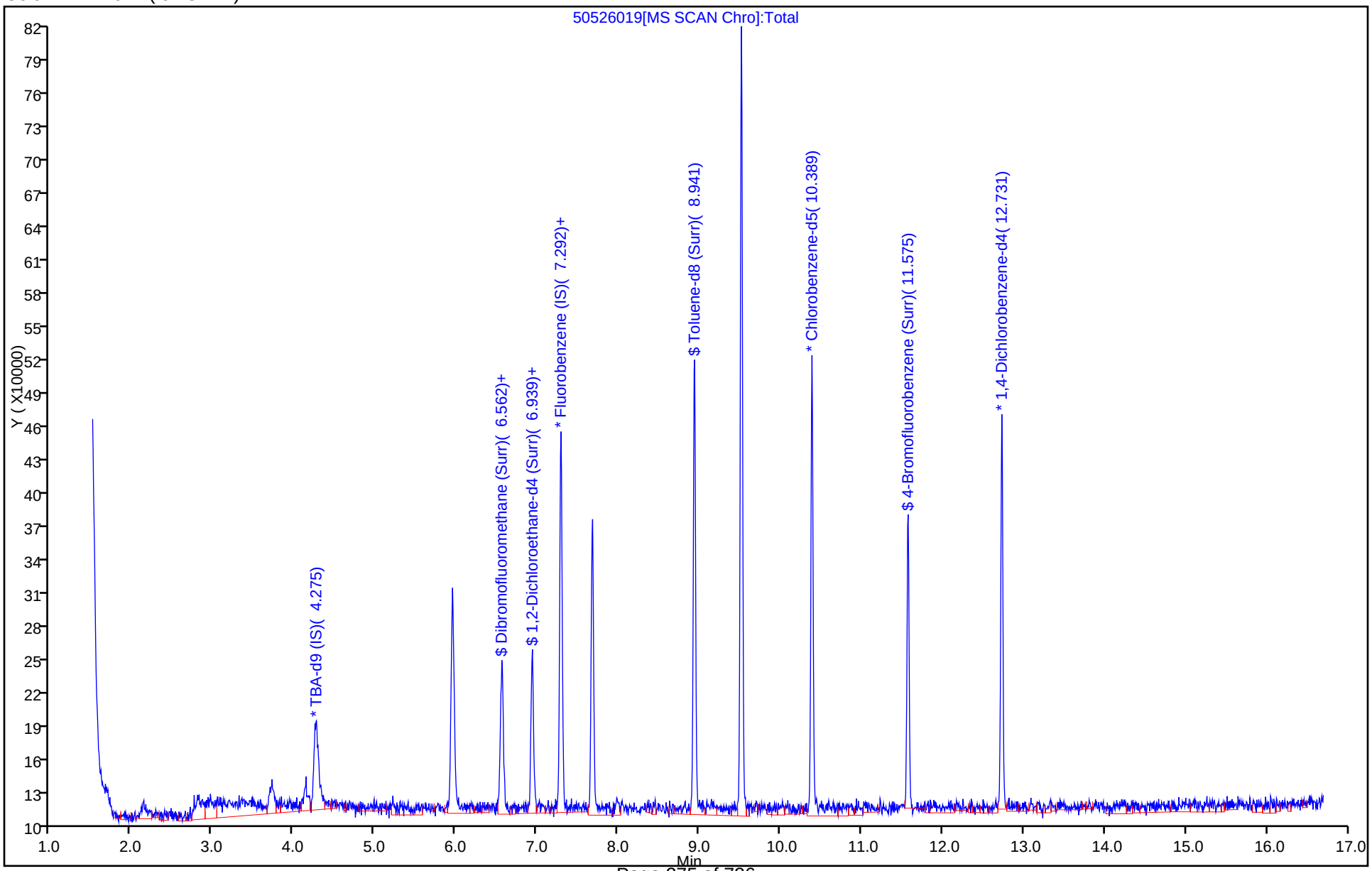
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 27-May-2015 07:53:23 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526019.D				
Injection Date:	26-May-2015 18:05:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-44203-D-7	Lab Sample ID:	180-44203-7	Worklist Smp#:	19
Client ID:	HD-MW-93S-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	5.0000	ALS Bottle#:	19
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



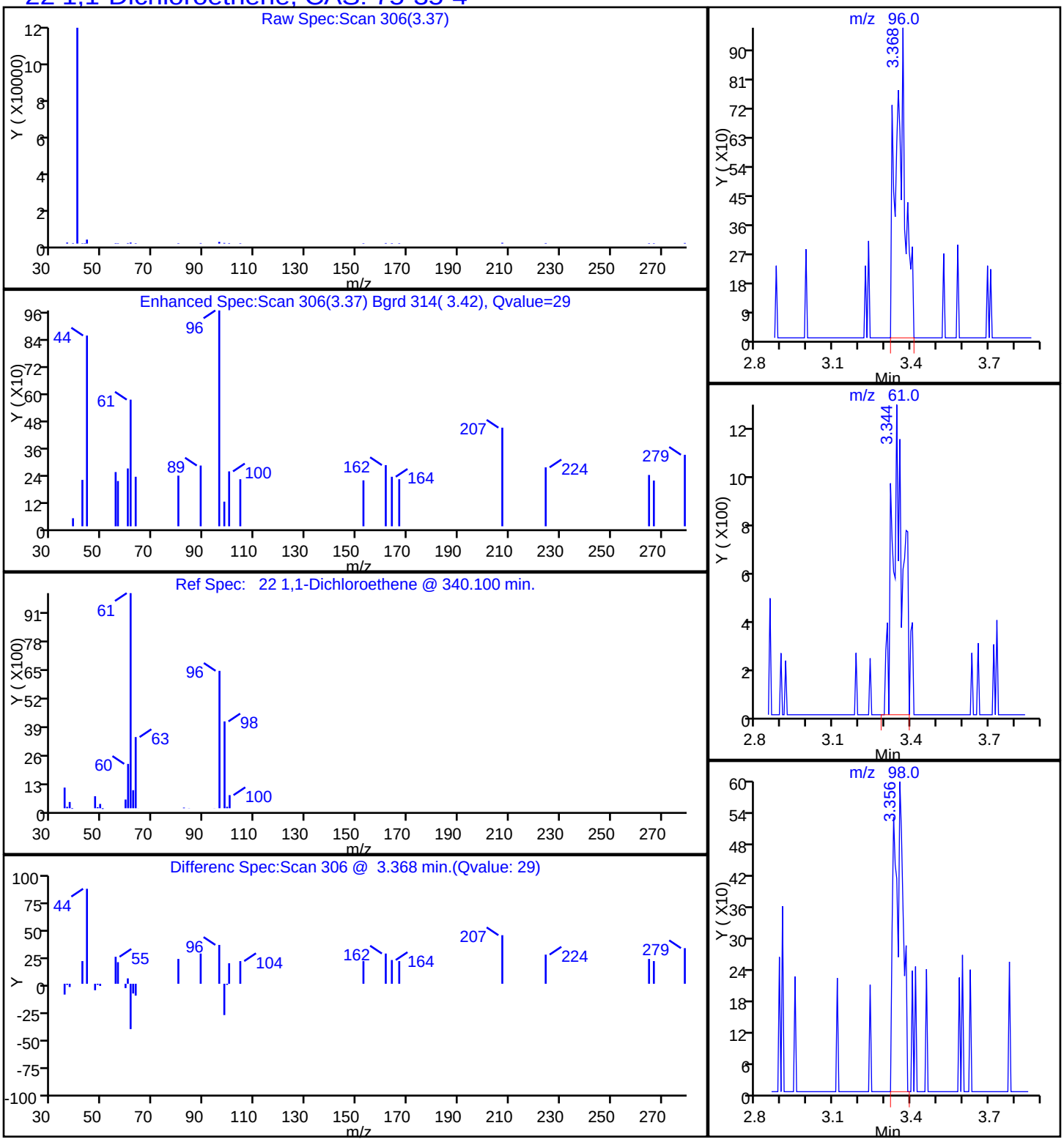
Report Date: 27-May-2015 07:53:23 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526019.D

Injection Date:	26-May-2015 18:05:30	Instrument ID:	CHHP5		
Lims ID:	180-44203-D-7	Lab Sample ID:	180-44203-7		
Client ID:	HD-MW-93S-0/1-0				
Operator ID:	001562	ALS Bottle#:	19	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	5.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

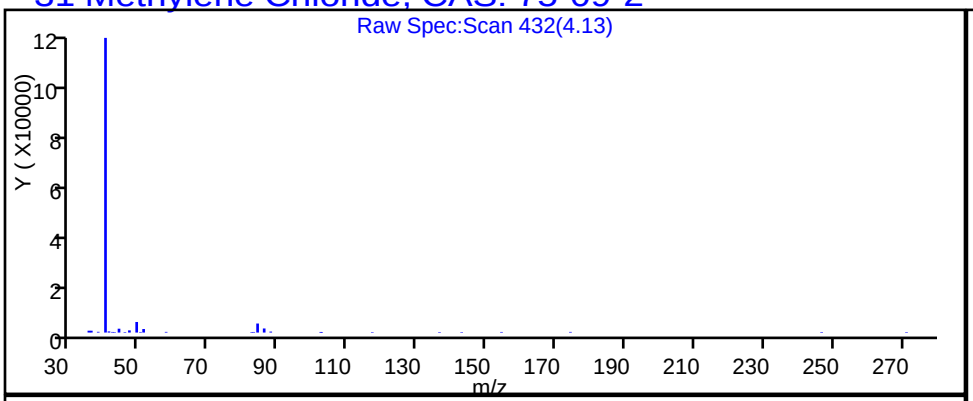


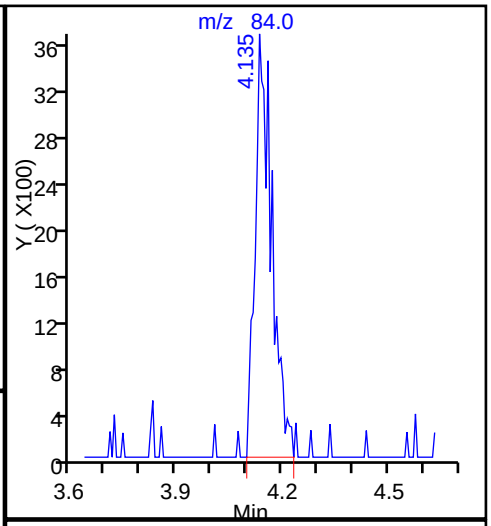
Report Date: 27-May-2015 07:53:23 Chrom Revision: 2.2 05-May-2015 11:39:10

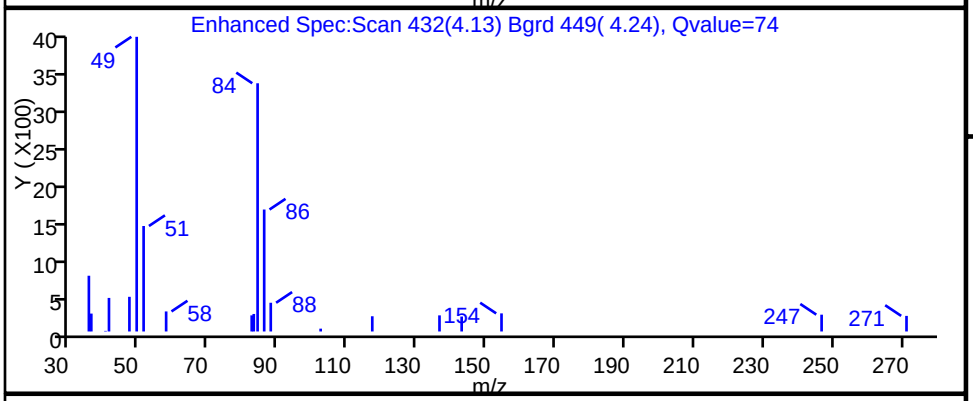
TestAmerica Pittsburgh

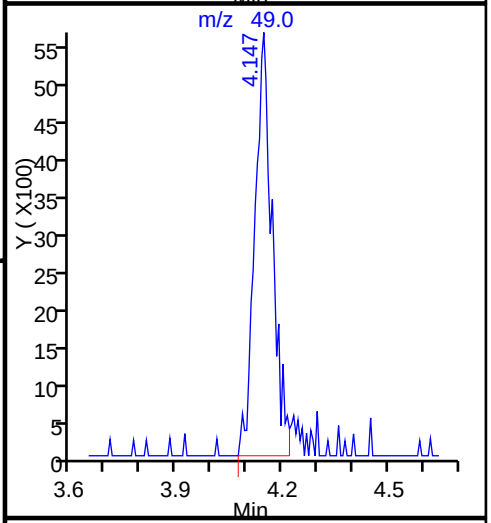
Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526019.D		
Injection Date:	26-May-2015 18:05:30	Instrument ID:	CHHP5
Lims ID:	180-44203-D-7	Lab Sample ID:	180-44203-7
Client ID:	HD-MW-93S-0/1-0		
Operator ID:	001562	ALS Bottle#:	19 Worklist Smp#: 19
Purge Vol:	5.000 mL	Dil. Factor:	5.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

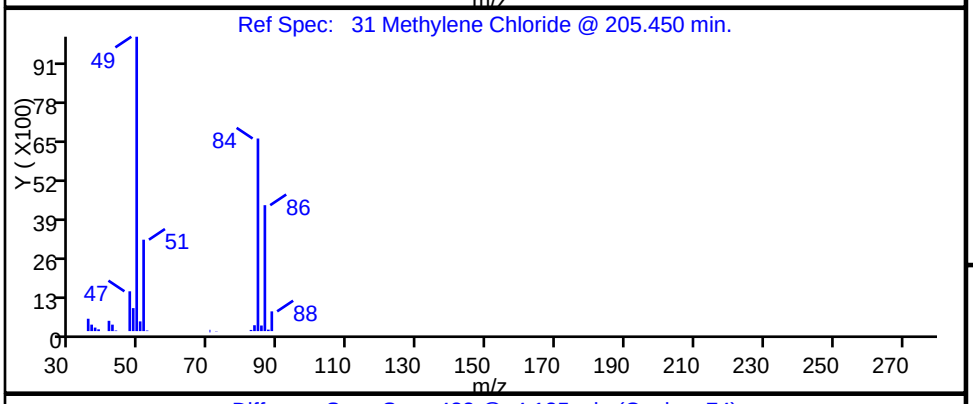
31 Methylene Chloride, CAS: 75-09-2

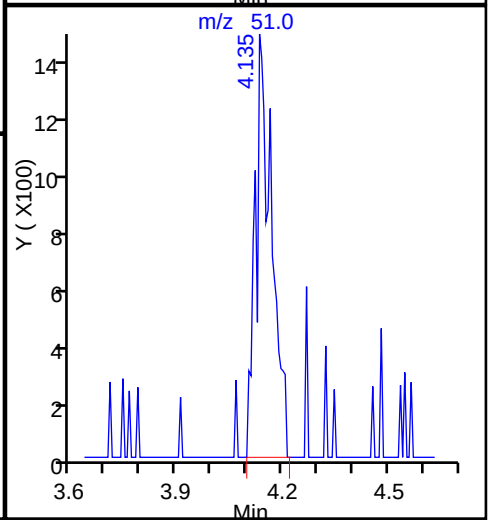


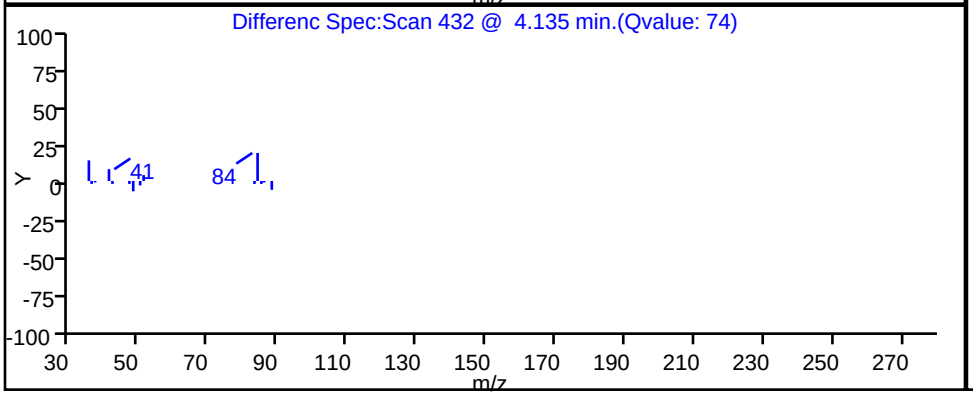










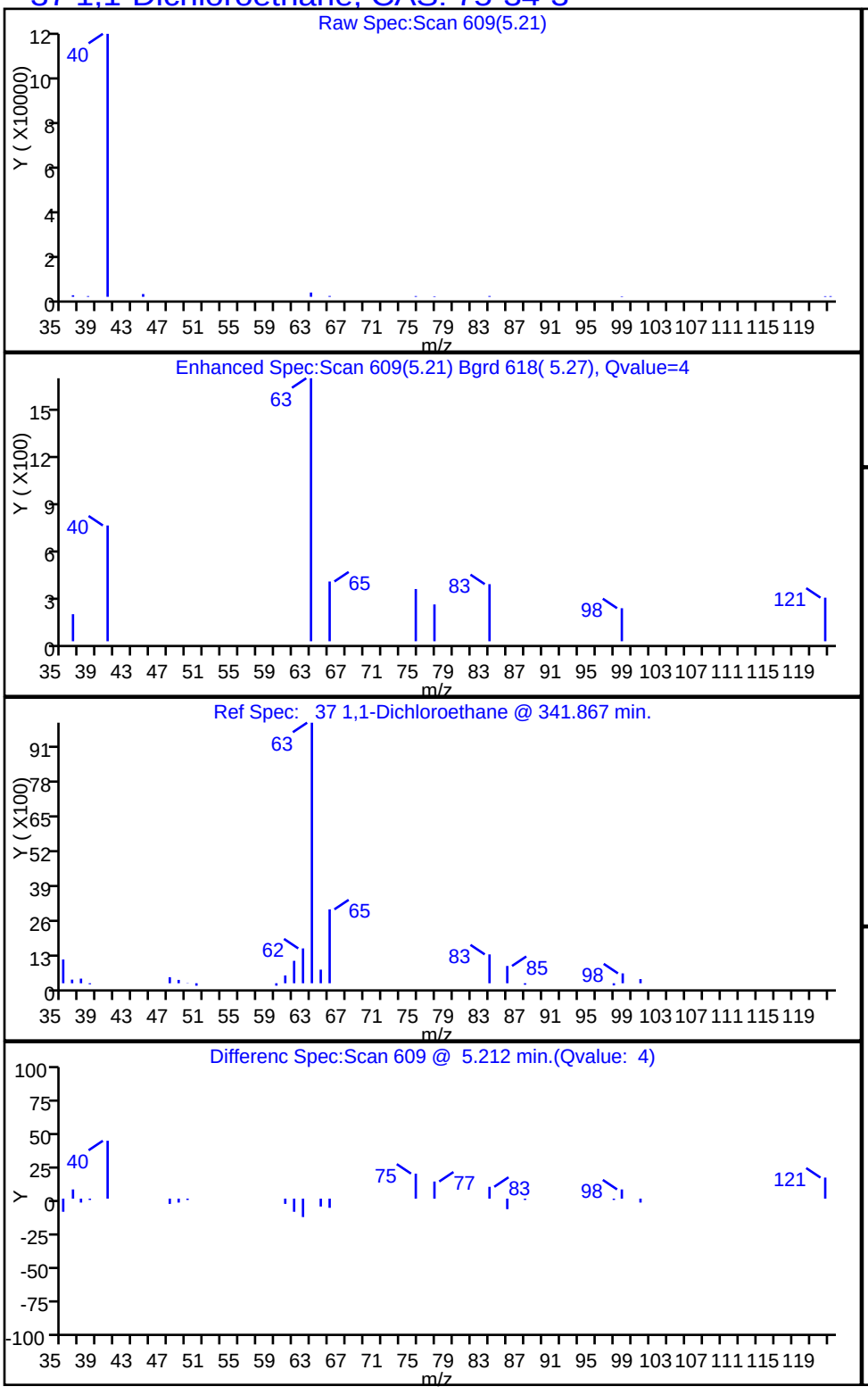


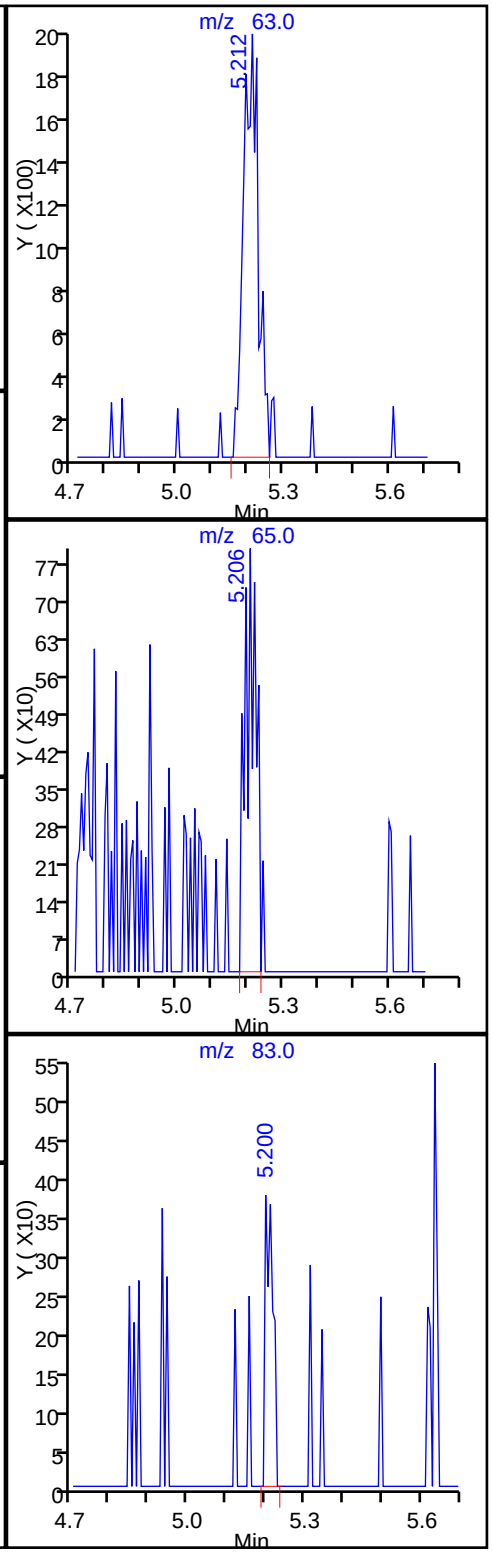
Report Date: 27-May-2015 07:53:23 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526019.D				
Injection Date:	26-May-2015 18:05:30	Instrument ID:	CHHP5		
Lims ID:	180-44203-D-7	Lab Sample ID:	180-44203-7		
Client ID:	HD-MW-93S-0/1-0				
Operator ID:	001562	ALS Bottle#:	19	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	5.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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



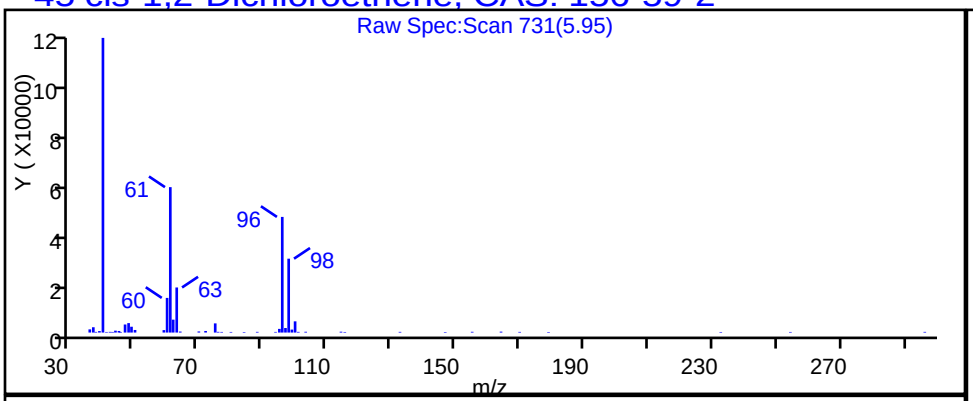


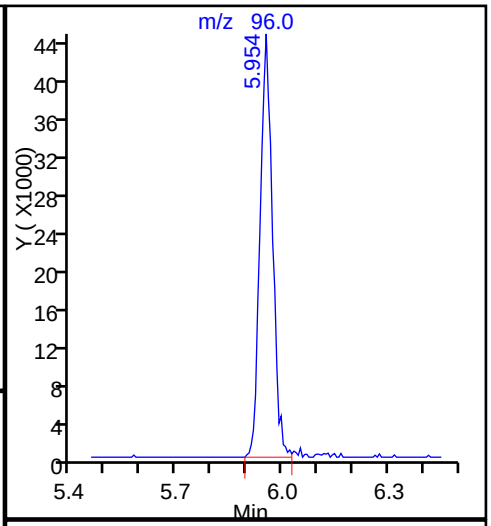
Report Date: 27-May-2015 07:53:23 Chrom Revision: 2.2 05-May-2015 11:39:10

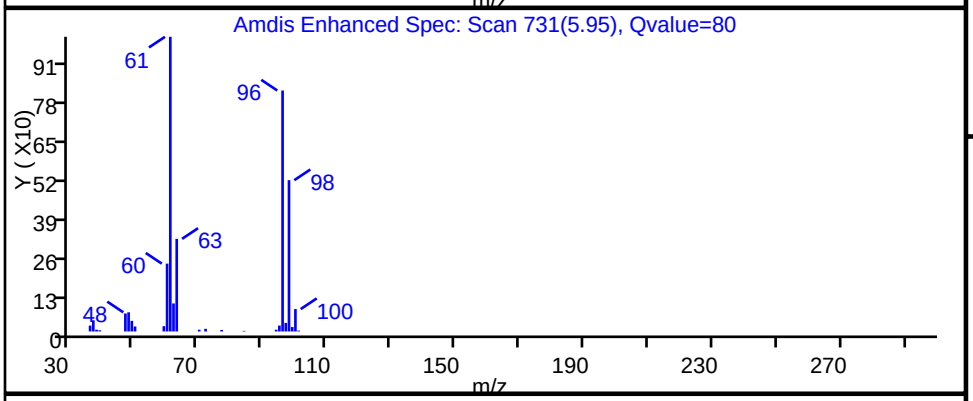
TestAmerica Pittsburgh

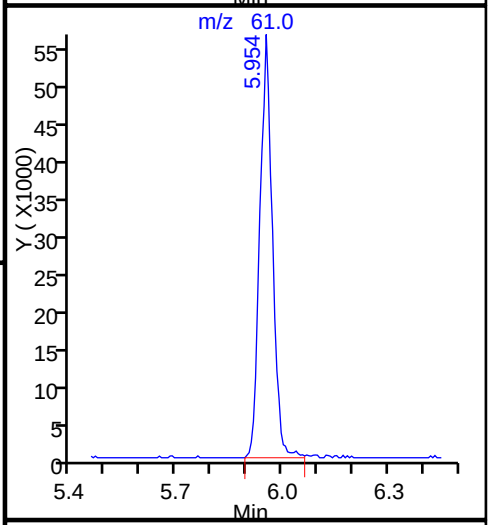
Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526019.D		
Injection Date:	26-May-2015 18:05:30	Instrument ID:	CHHP5
Lims ID:	180-44203-D-7	Lab Sample ID:	180-44203-7
Client ID:	HD-MW-93S-0/1-0		
Operator ID:	001562	ALS Bottle#:	19 Worklist Smp#: 19
Purge Vol:	5.000 mL	Dil. Factor:	5.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

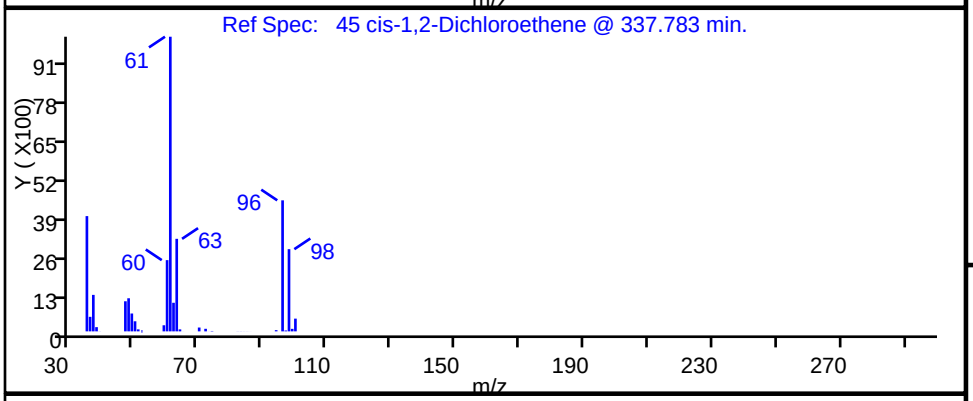
45 cis-1,2-Dichloroethene, CAS: 156-59-2

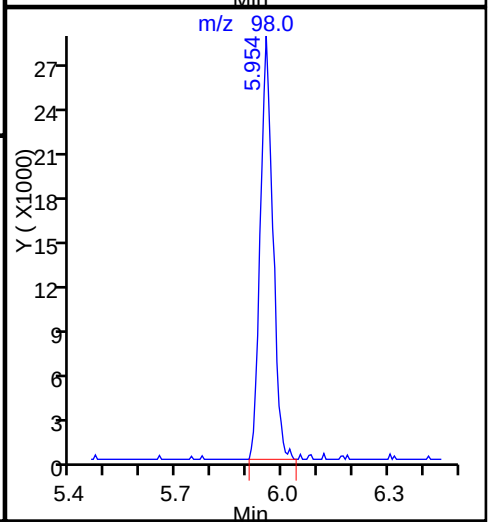


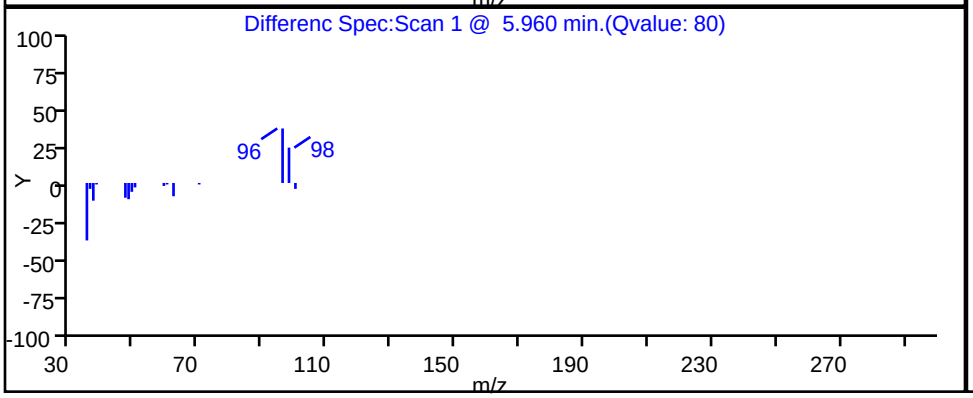










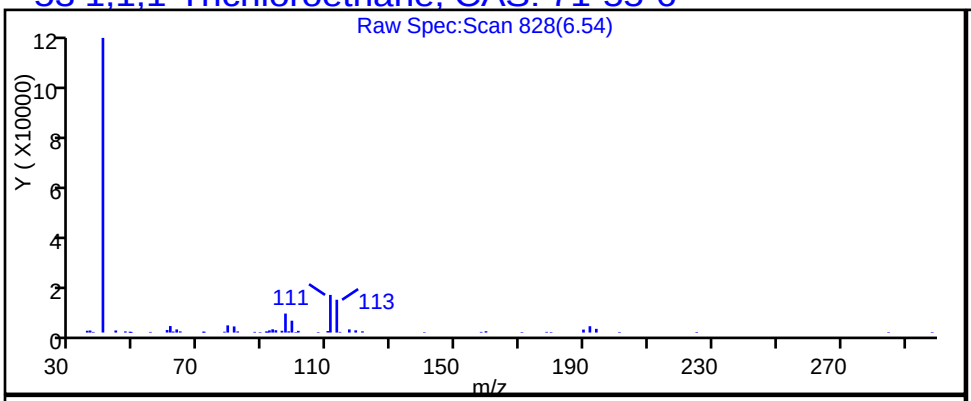


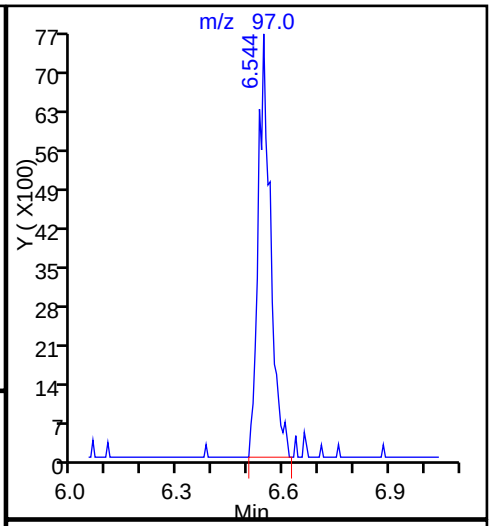
Report Date: 27-May-2015 07:53:23 Chrom Revision: 2.2 05-May-2015 11:39:10

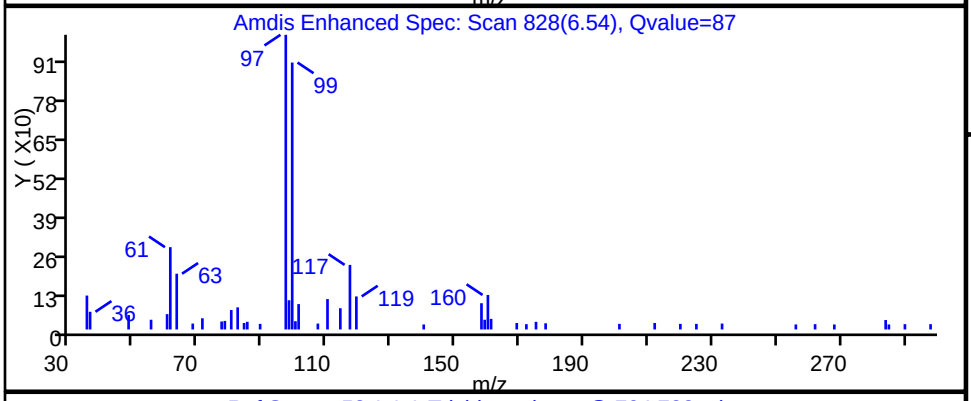
TestAmerica Pittsburgh

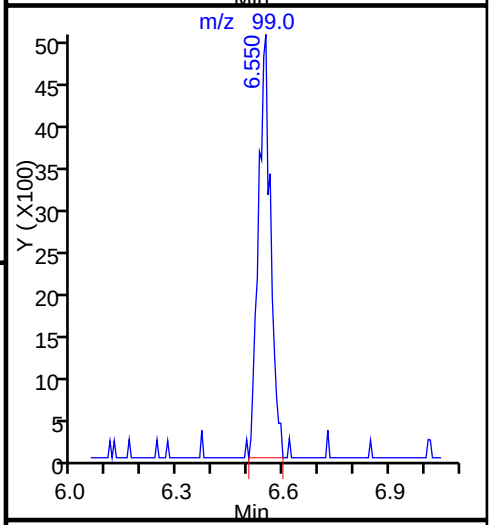
Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526019.D				
Injection Date:	26-May-2015 18:05:30	Instrument ID:	CHHP5		
Lims ID:	180-44203-D-7	Lab Sample ID:	180-44203-7		
Client ID:	HD-MW-93S-0/1-0				
Operator ID:	001562	ALS Bottle#:	19	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	5.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

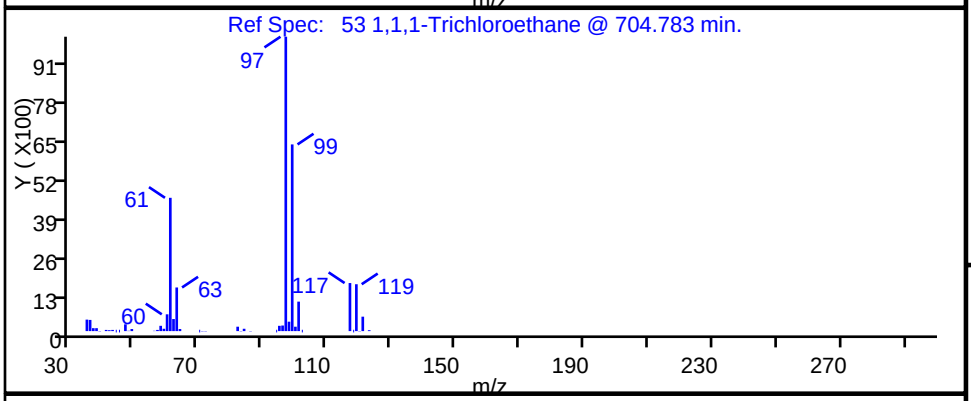
53 1,1,1-Trichloroethane, CAS: 71-55-6

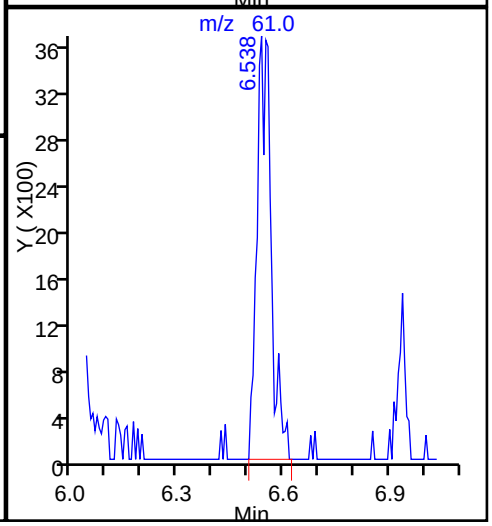


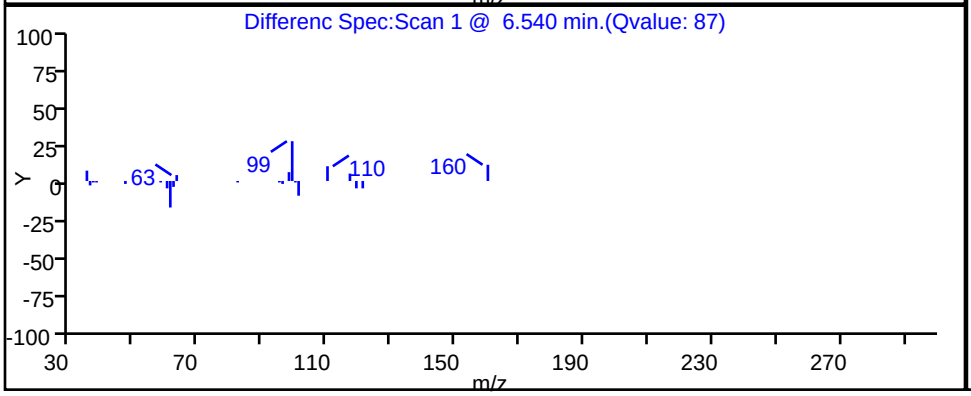










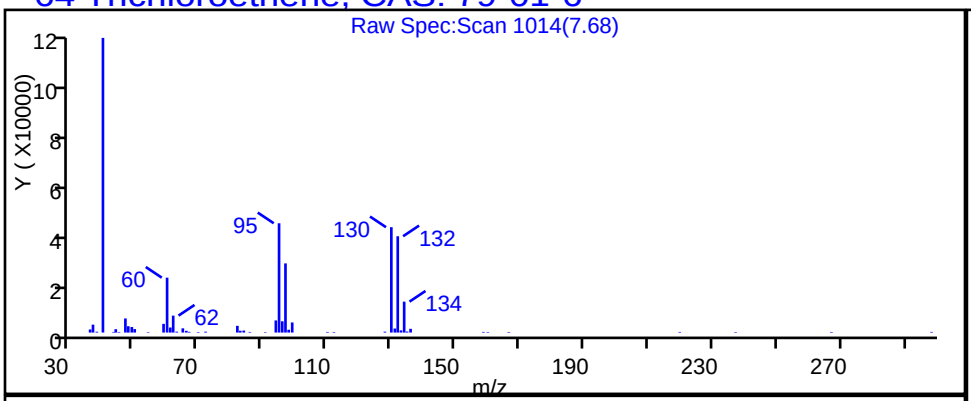


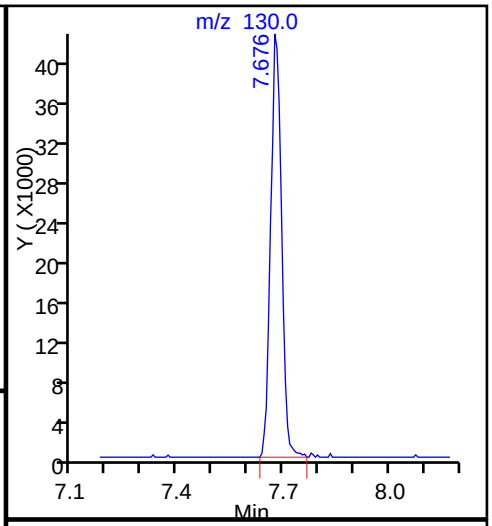
Report Date: 27-May-2015 07:53:23 Chrom Revision: 2.2 05-May-2015 11:39:10

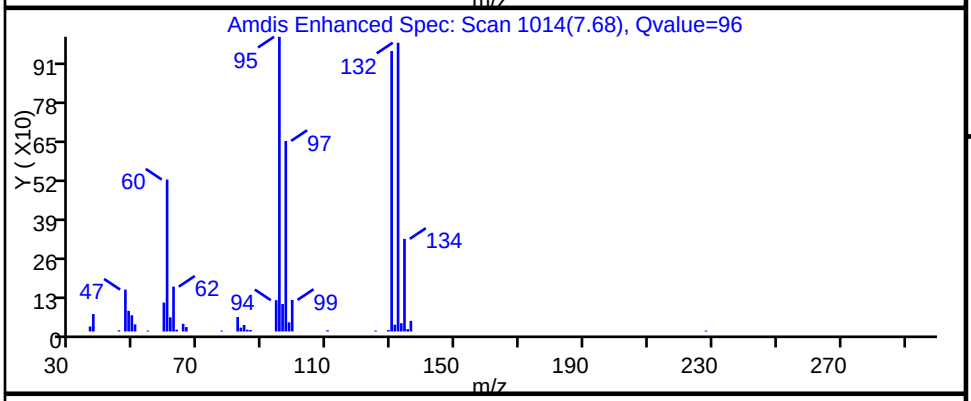
TestAmerica Pittsburgh

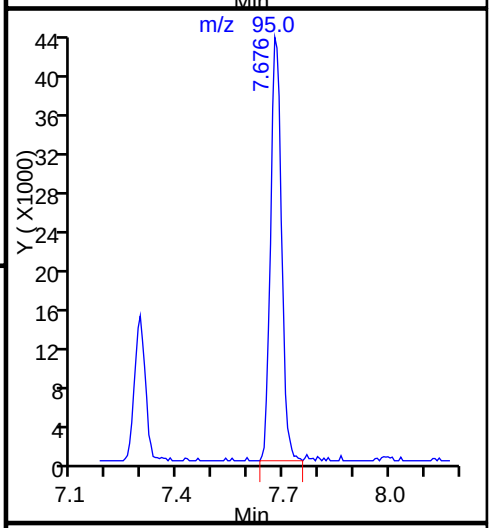
Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526019.D		
Injection Date:	26-May-2015 18:05:30	Instrument ID:	CHHP5
Lims ID:	180-44203-D-7	Lab Sample ID:	180-44203-7
Client ID:	HD-MW-93S-0/1-0		
Operator ID:	001562	ALS Bottle#:	19 Worklist Smp#: 19
Purge Vol:	5.000 mL	Dil. Factor:	5.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

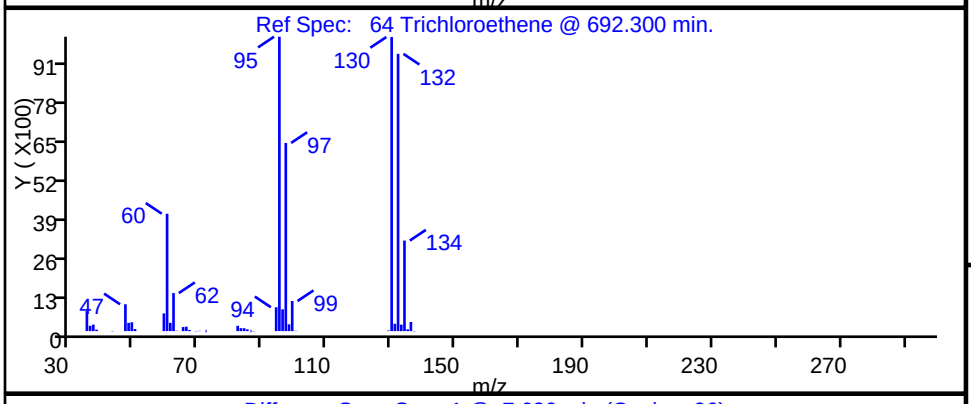
64 Trichloroethene, CAS: 79-01-6

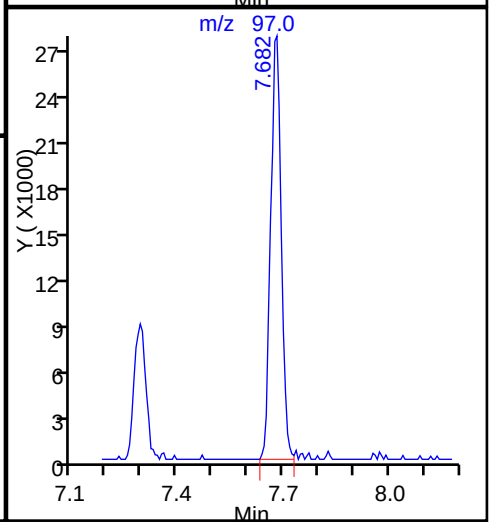


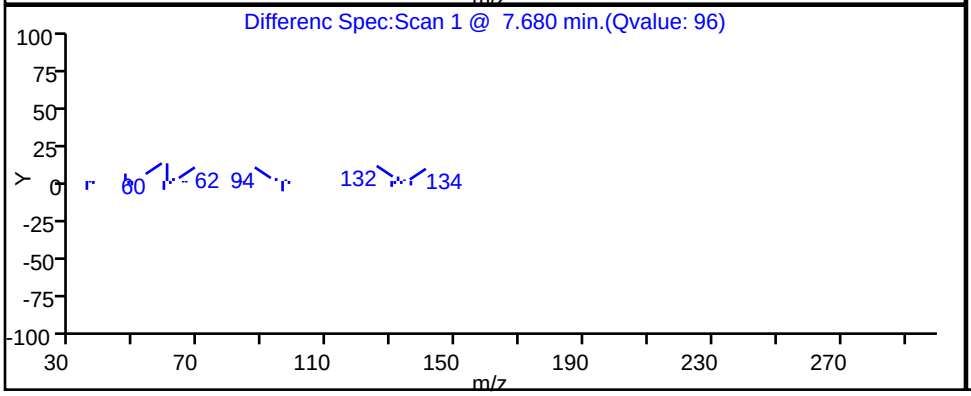












Report Date: 27-May-2015 07:53:23 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526019.D

Injection Date: 26-May-2015 18:05:30 Instrument ID: CHHP5

Lims ID: 180-44203-D-7 Lab Sample ID: 180-44203-7

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

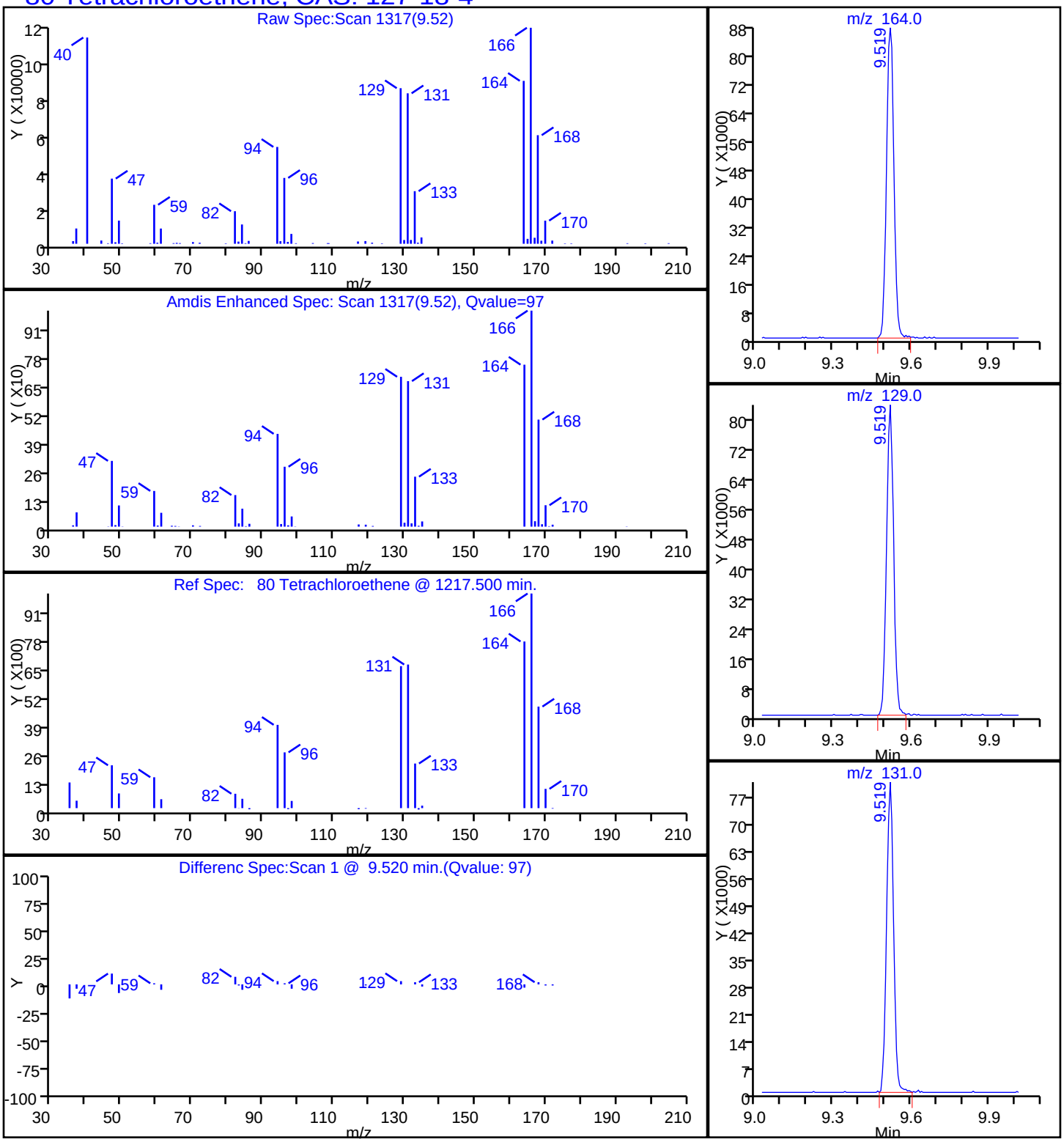
Operator ID: 001562 ALS Bottle#: 19 Worklist Smp#: 19

Purge Vol: 5.000 mL Dil. Factor: 5.0000

Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL

Column: DB-624 (0.18 mm) Detector MS SCAN

80 Tetrachloroethene, CAS: 127-18-4



Manual Integration/User Assign Peak Report

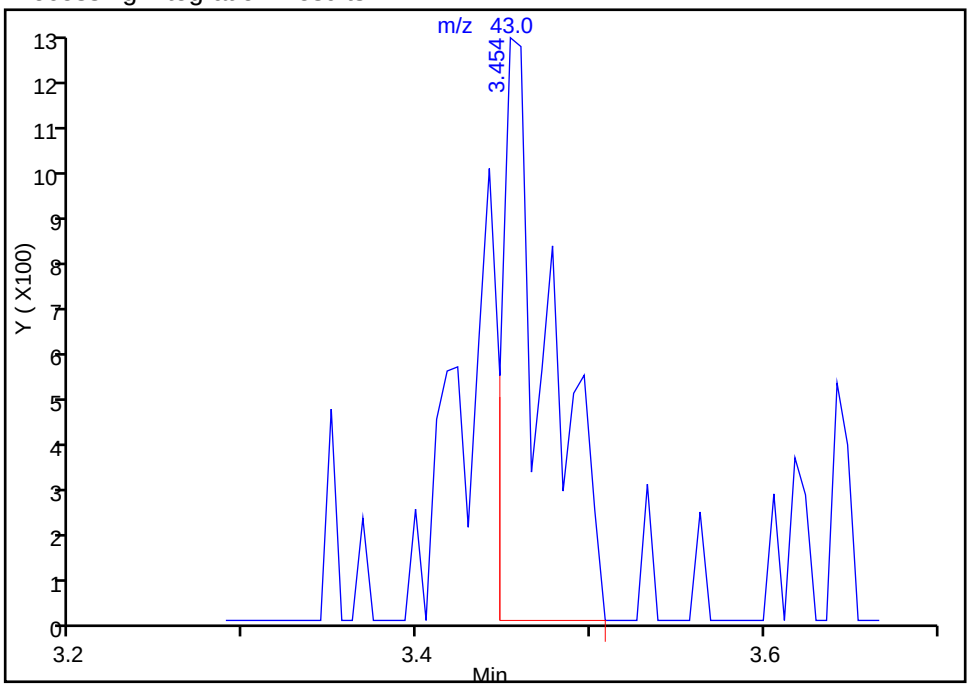
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526019.D				
Injection Date:	26-May-2015 18:05:30	Instrument ID:	CHHP5		
Lims ID:	180-44203-D-7	Lab Sample ID:	180-44203-7		
Client ID:	HD-MW-93S-0/1-0				
Operator ID:	001562	ALS Bottle#:	19	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	5.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

24 Acetone, CAS: 67-64-1

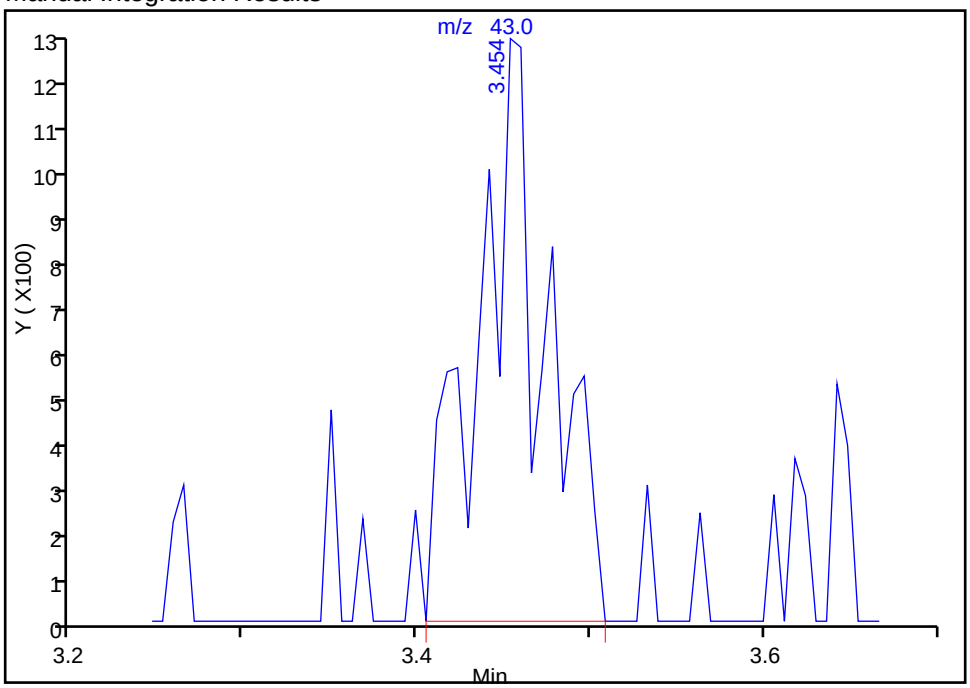
Processing Integration Results

RT: 3.45
Area: 2275
Amount: 3.425329
Amount Units: ng



Manual Integration Results

RT: 3.45
Area: 3478
Amount: 5.236613
Amount Units: ng



Reviewer: fergusond, 27-May-2015 07:53:22
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44203-1

SDG No.:

Client Sample ID: HD-MW-93D-0/1-0 | Lab Sample ID: 180-44203-8

Matrix: Water | Lab File ID: 50526022.D

Analysis Method: 8260C | Date Collected: 05/18/2015 10:22

Sample wt/vol: 5(mL) | Date Analyzed: 05/26/2015 19:18

Soil Aliquot Vol: | Dilution Factor: 10

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

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

Analysis Batch No.: 142745 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	10	U	10	2.8
75-01-4	Vinyl chloride	10	U	10	2.3
74-83-9	Bromomethane	10	U	10	3.1
75-00-3	Chloroethane	10	U	10	2.1
75-35-4	1,1-Dichloroethene	5.6	J	10	3.0
67-64-1	Acetone	50	U	50	25
75-15-0	Carbon disulfide	10	U	10	2.1
75-09-2	Methylene Chloride	6.9	J	10	1.3
156-60-5	trans-1,2-Dichloroethene	10	U	10	1.7
1634-04-4	Methyl tert-butyl ether	10	U	10	1.8
75-34-3	1,1-Dichloroethane	3.9	J	10	1.2
156-59-2	cis-1,2-Dichloroethene	75		10	2.4
74-97-5	Bromochloromethane	10	U	10	1.8
78-93-3	2-Butanone (MEK)	50	U	50	5.5
67-66-3	Chloroform	10	U	10	1.7
71-55-6	1,1,1-Trichloroethane	8.5	J	10	2.9
56-23-5	Carbon tetrachloride	10	U	10	1.4
71-43-2	Benzene	10	U	10	1.1
107-06-2	1,2-Dichloroethane	10	U	10	2.1
79-01-6	Trichloroethene	140		10	1.4
78-87-5	1,2-Dichloropropane	10	U	10	0.95
75-27-4	Bromodichloromethane	10	U	10	1.3
10061-01-5	cis-1,3-Dichloropropene	10	U	10	1.9
108-10-1	4-Methyl-2-pentanone (MIBK)	50	U	50	5.3
108-88-3	Toluene	10	U	10	1.5
10061-02-6	trans-1,3-Dichloropropene	10	U	10	1.5
79-00-5	1,1,2-Trichloroethane	10	U	10	2.0
127-18-4	Tetrachloroethene	150		10	1.5
591-78-6	2-Hexanone	50	U	50	1.6
124-48-1	Dibromochloromethane	10	U	10	1.4
106-93-4	1,2-Dibromoethane (EDB)	10	U	10	1.8
108-90-7	Chlorobenzene	10	U	10	1.4
630-20-6	1,1,1,2-Tetrachloroethane	10	U	10	2.8
100-41-4	Ethylbenzene	10	U	10	2.3
1330-20-7	Xylenes, Total	30	U	30	4.9
100-42-5	Styrene	10	U	10	0.97

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44203-1

SDG No.:

Client Sample ID: HD-MW-93D-0/1-0 | Lab Sample ID: 180-44203-8

Matrix: Water | Lab File ID: 50526022.D

Analysis Method: 8260C | Date Collected: 05/18/2015 10:22

Sample wt/vol: 5(mL) | Date Analyzed: 05/26/2015 19:18

Soil Aliquot Vol: | Dilution Factor: 10

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

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

Analysis Batch No.: 142745 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	10	U	10	1.9
79-34-5	1,1,2,2-Tetrachloroethane	10	U	10	2.0
107-13-1	Acrylonitrile	200	U	200	5.5
123-91-1	1,4-Dioxane	2000	U	2000	340

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	120		64-135
2037-26-5	Toluene-d8 (Surr)	106		71-118
460-00-4	4-Bromofluorobenzene (Surr)	94		70-118
1868-53-7	Dibromofluoromethane (Surr)	118		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526022.D
Lims ID: 180-44203-E-8 Lab Sample ID: 180-44203-8
Client ID: HD-MW-93D-0/1-0
Sample Type: Client
Inject. Date: 26-May-2015 19:18:30 ALS Bottle#: 22 Worklist Smp#: 22
Purge Vol: 5.000 mL Dil. Factor: 10.0000
Sample Info: 180-44203-E-8, 10x
Misc. Info.: 180-0007112-022
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 27-May-2015 07:56:15 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: fergusond Date: 27-May-2015 07:56:15

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.272	4.259	0.013	0	107752	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.295	-0.006	98	318341	50.0	
* 3 Chlorobenzene-d5	119	10.386	10.391	-0.005	87	71303	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.734	12.733	0.001	97	96388	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.566	6.560	0.006	94	81157	59.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.937	6.937	0.000	0	102274	59.8	
$ 7 Toluene-d8 (Surr)	98	8.938	8.939	-0.001	94	279818	52.8	
$ 8 4-Bromofluorobenzene (Surr	95	11.578	11.573	0.005	89	89486	47.1	
12 Chloromethane	50		1.766				ND	
13 Vinyl chloride	62	1.900	1.900	0.000	1	2460	0.9745	
15 Bromomethane	94		2.247				ND	
16 Chloroethane	64		2.399				ND	
22 1,1-Dichloroethene	96	3.347	3.348	-0.001	95	4247	2.78	
24 Acetone	43		3.439				ND	
26 Carbon disulfide	76		3.628				ND	
31 Methylene Chloride	84	4.157	4.139	0.017	72	12291	3.46	
33 Acrylonitrile	53		4.522				ND	
34 trans-1,2-Dichloroethene	96		4.565				ND	
35 Methyl tert-butyl ether	73		4.577				ND	
37 1,1-Dichloroethane	63	5.215	5.197	0.018	86	6175	1.94	
45 cis-1,2-Dichloroethene	96	5.957	5.946	0.011	82	69794	37.4	
46 2-Butanone (MEK)	43		5.964				ND	
49 Chlorobromomethane	128		6.238				ND	
52 Chloroform	83	6.383	6.384	-0.001	1	1434	0.5019	
53 1,1,1-Trichloroethane	97	6.547	6.542	0.005	78	9360	4.23	
56 Carbon tetrachloride	117		6.712				ND	
58 Benzene	78		6.943				ND	
59 1,2-Dichloroethane	62		7.023				ND	
64 Trichloroethene	130	7.679	7.680	-0.001	97	128666	70.8	
67 1,2-Dichloropropane	63		7.947				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		8.233				ND	
74 cis-1,3-Dichloropropene	75		8.677				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.829				ND	
76 Toluene	91		9.006				ND	
77 trans-1,3-Dichloropropene	75		9.255				ND	
79 1,1,2-Trichloroethane	97		9.450				ND	
80 Tetrachloroethene	164	9.516	9.517	-0.001	97	98464	77.0	
82 2-Hexanone	43		9.657				ND	
84 Chlorodibromomethane	129		9.815				ND	
85 Ethylene Dibromide	107		9.930				ND	
87 Chlorobenzene	112		10.423				ND	
89 1,1,1,2-Tetrachloroethane	131		10.514				ND	
90 Ethylbenzene	106		10.521				ND	
91 m-Xylene & p-Xylene	106		10.654				ND	
92 o-Xylene	106		11.032				ND	
93 Styrene	104		11.050				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:

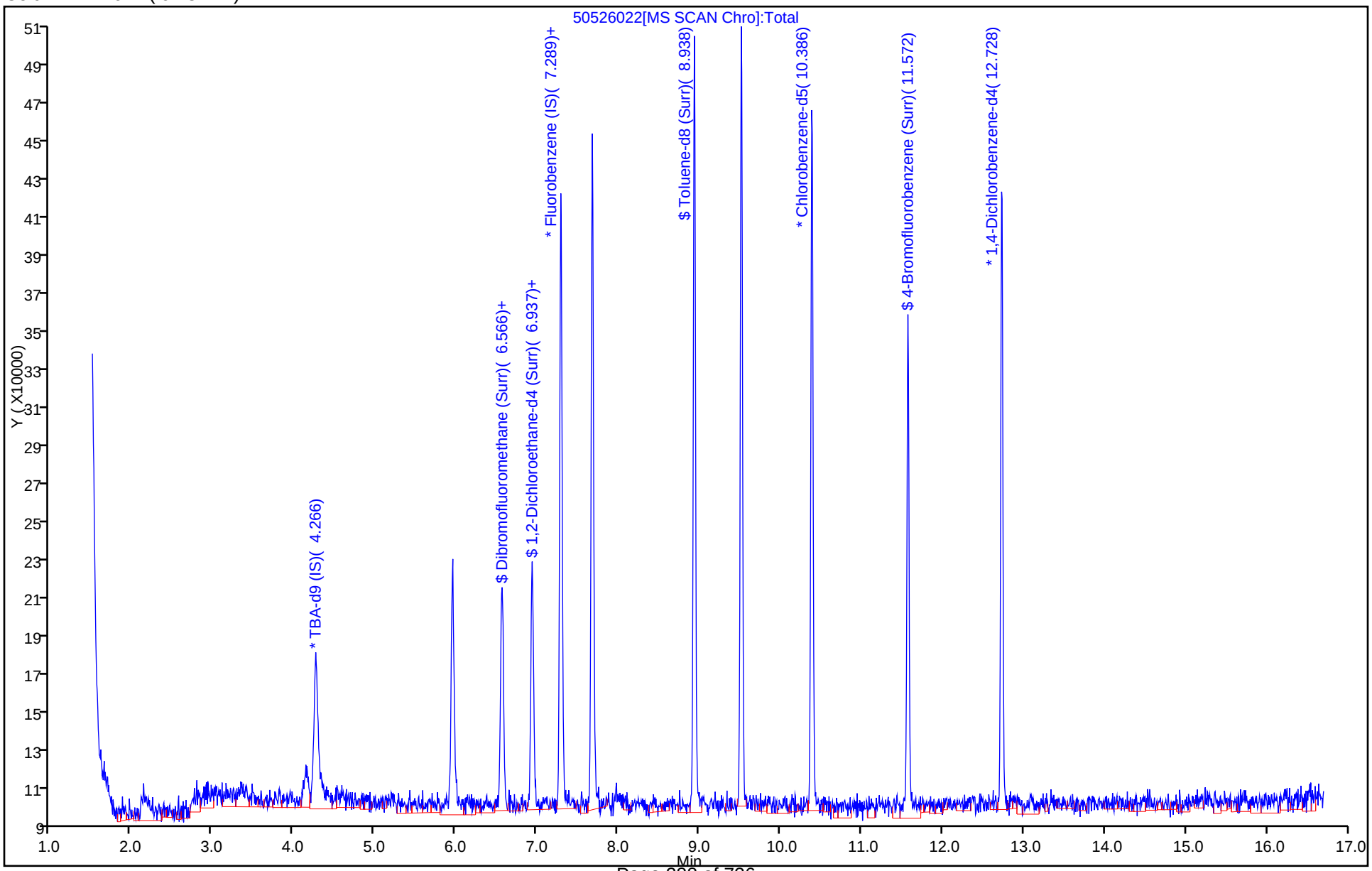
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 27-May-2015 07:56:16 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526022.D				
Injection Date:	26-May-2015 19:18:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-44203-E-8	Lab Sample ID:	180-44203-8	Worklist Smp#:	22
Client ID:	HD-MW-93D-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	10.0000	ALS Bottle#:	22
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)

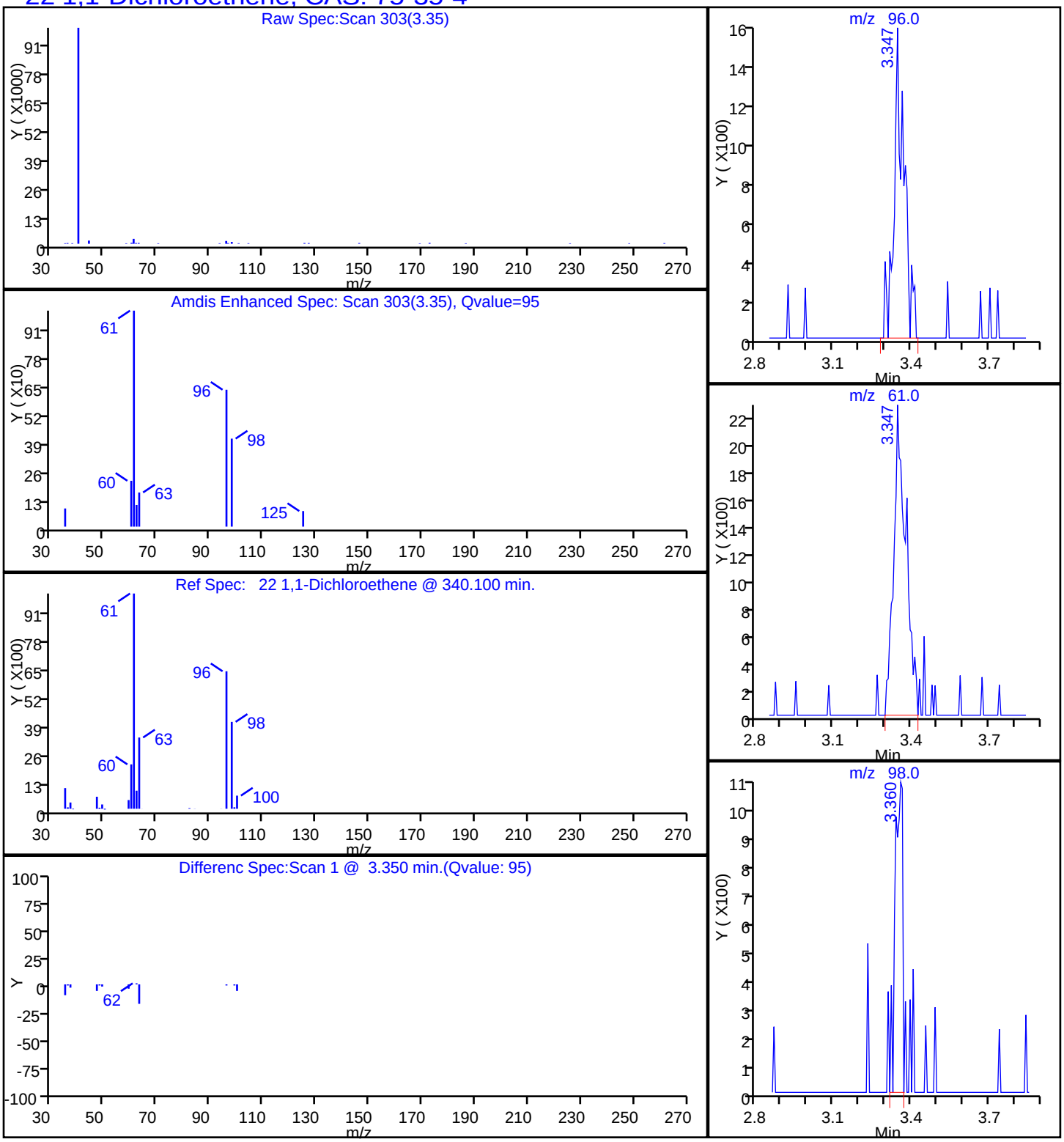


Report Date: 27-May-2015 07:56:16 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526022.D		
Injection Date:	26-May-2015 19:18:30	Instrument ID:	CHHP5
Lims ID:	180-44203-E-8	Lab Sample ID:	180-44203-8
Client ID:	HD-MW-93D-0/1-0		
Operator ID:	001562	ALS Bottle#:	22 Worklist Smp#: 22
Purge Vol:	5.000 mL	Dil. Factor:	10.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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

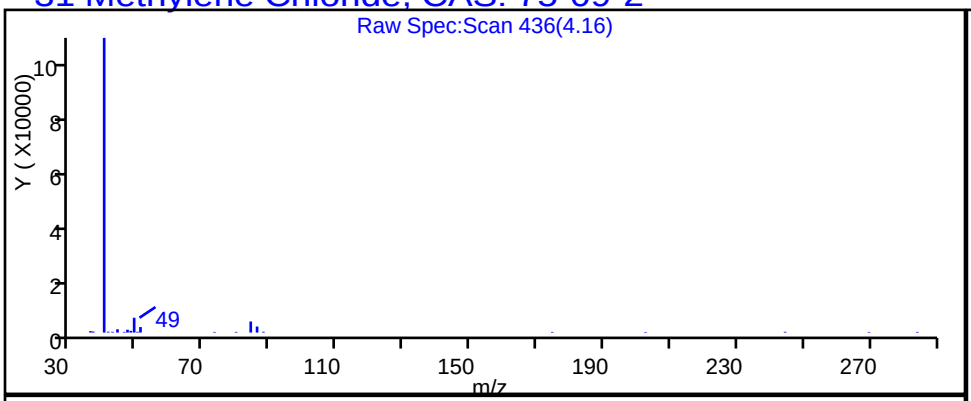


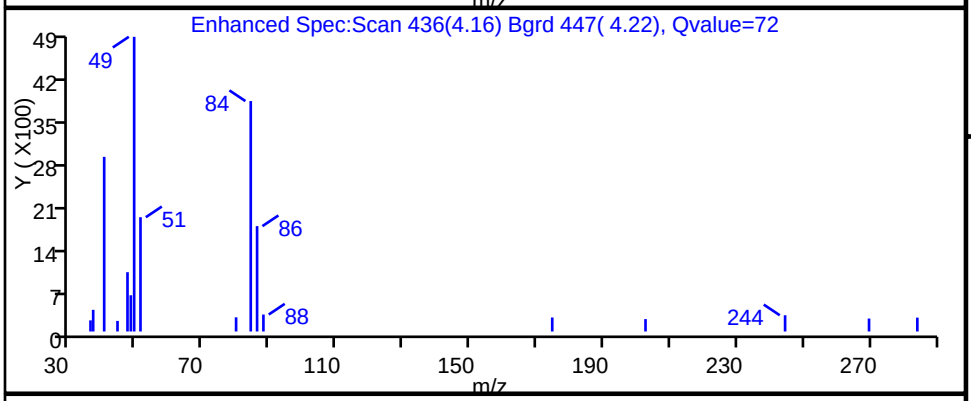
Report Date: 27-May-2015 07:56:16 Chrom Revision: 2.2 05-May-2015 11:39:10

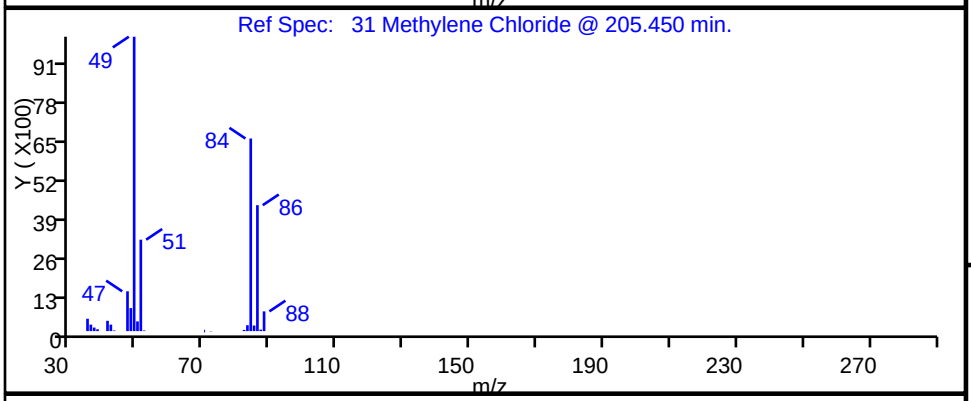
TestAmerica Pittsburgh

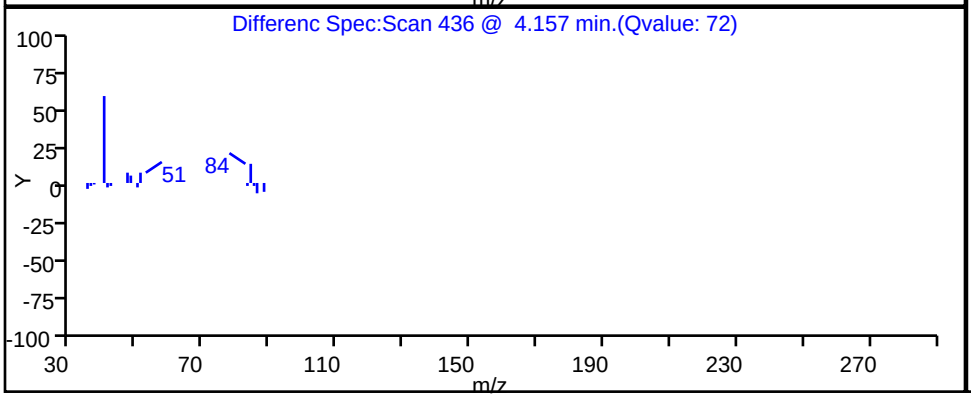
Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526022.D		
Injection Date:	26-May-2015 19:18:30	Instrument ID:	CHHP5
Lims ID:	180-44203-E-8	Lab Sample ID:	180-44203-8
Client ID:	HD-MW-93D-0/1-0		
Operator ID:	001562	ALS Bottle#:	22 Worklist Smp#: 22
Purge Vol:	5.000 mL	Dil. Factor:	10.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

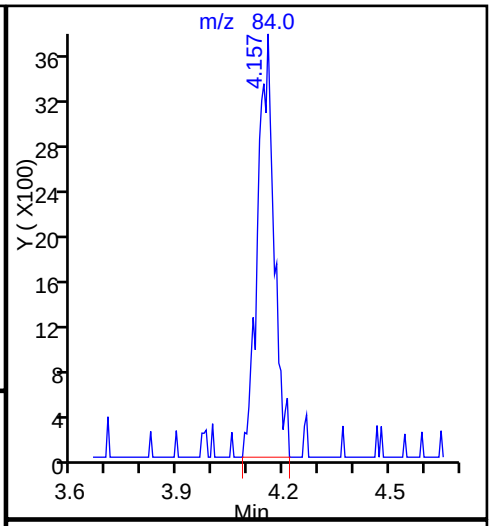
31 Methylene Chloride, CAS: 75-09-2

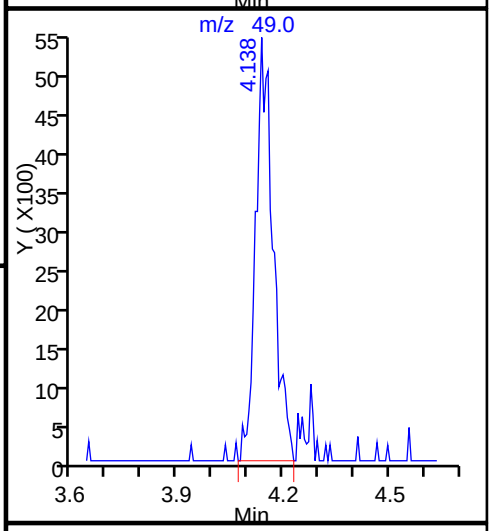


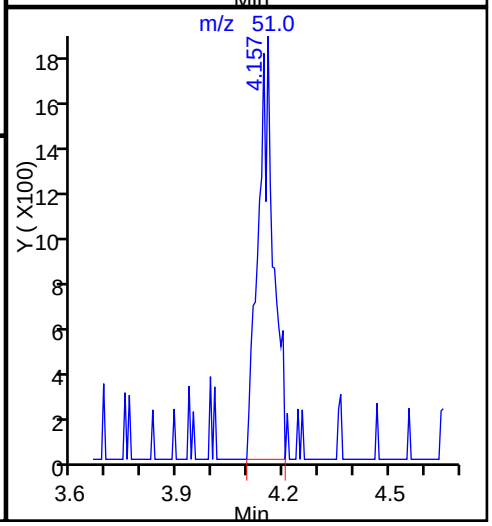










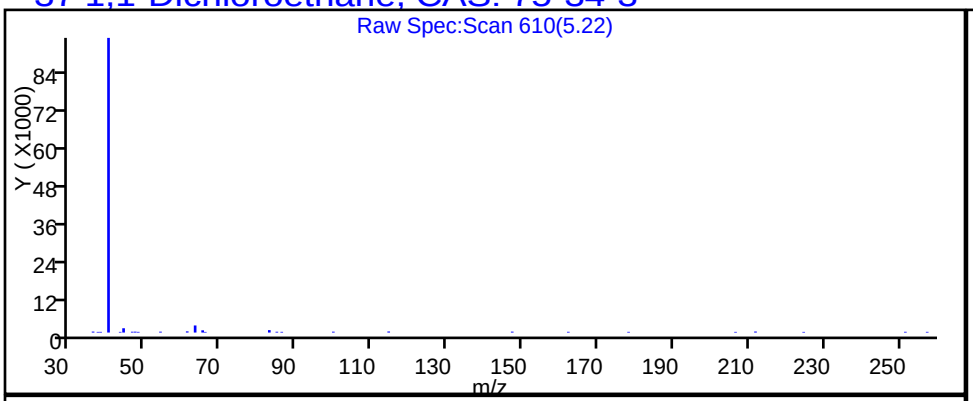


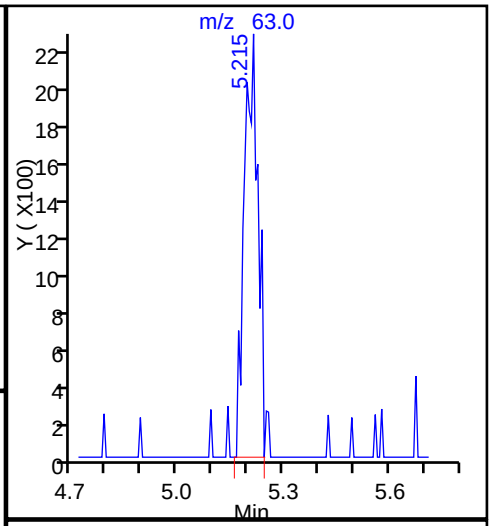
Report Date: 27-May-2015 07:56:16 Chrom Revision: 2.2 05-May-2015 11:39:10

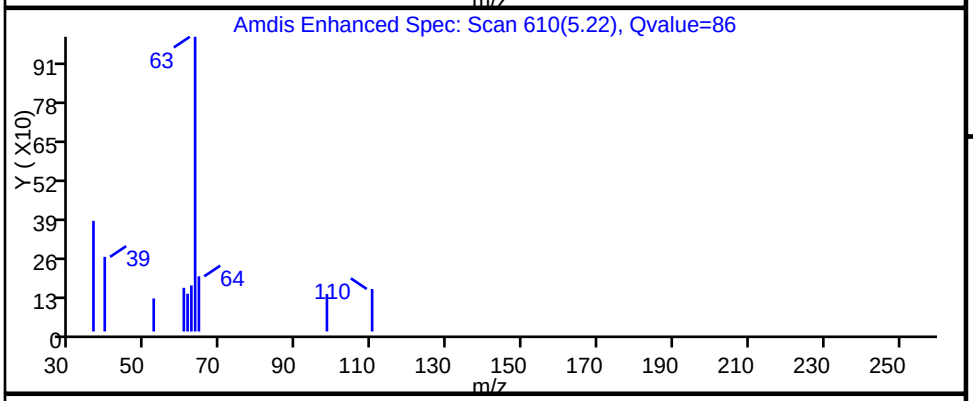
TestAmerica Pittsburgh

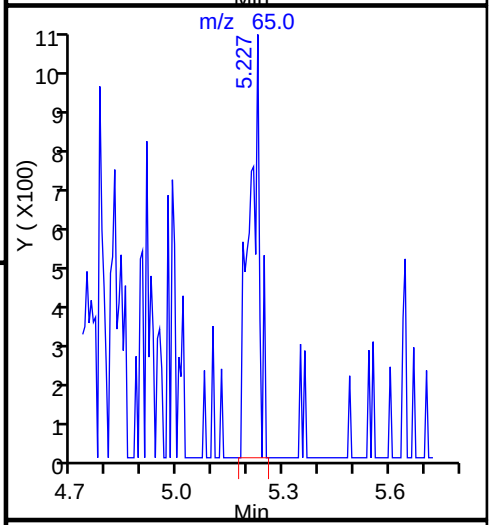
Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526022.D				
Injection Date:	26-May-2015 19:18:30	Instrument ID:	CHHP5		
Lims ID:	180-44203-E-8	Lab Sample ID:	180-44203-8		
Client ID:	HD-MW-93D-0/1-0				
Operator ID:	001562	ALS Bottle#:	22	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	10.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

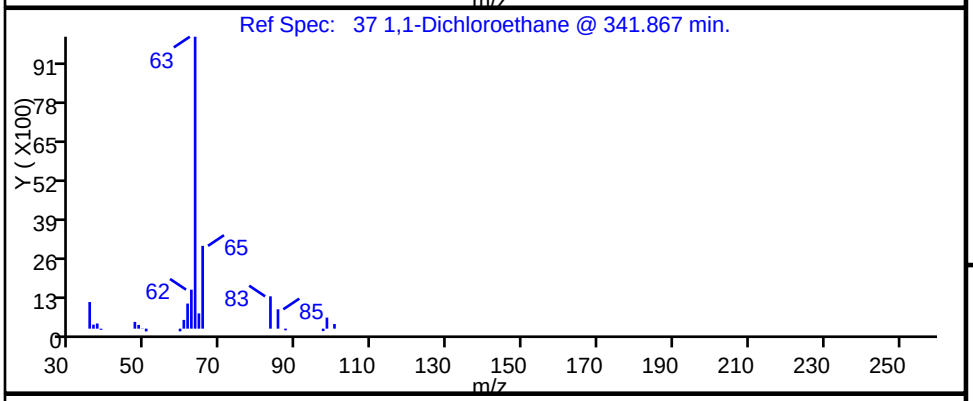
37 1,1-Dichloroethane, CAS: 75-34-3

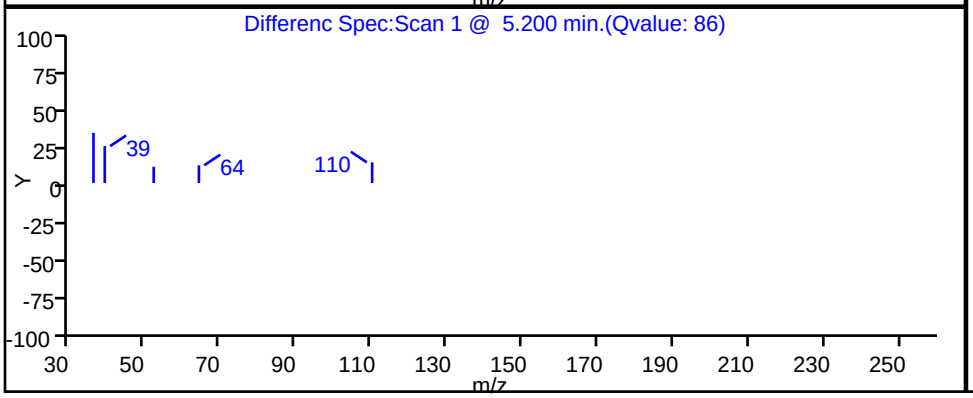


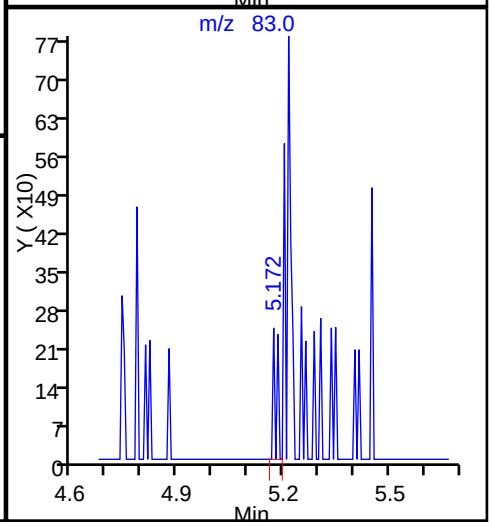










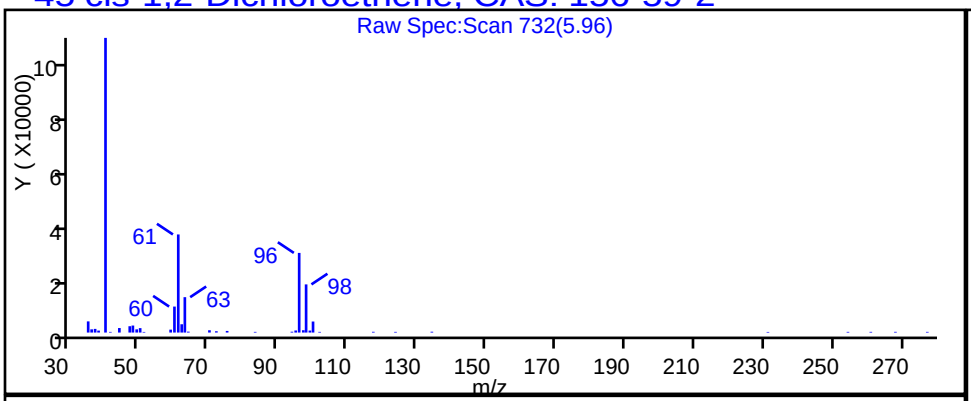


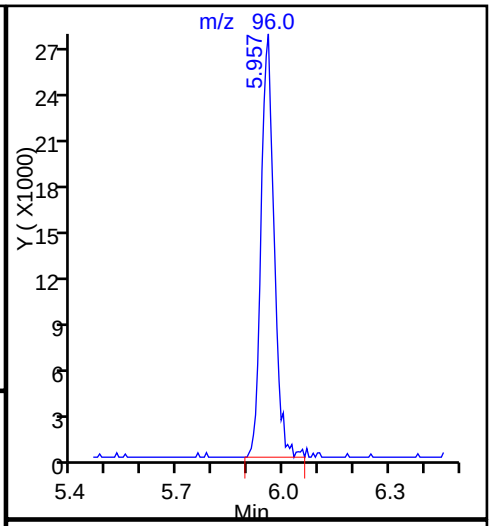
Report Date: 27-May-2015 07:56:16 Chrom Revision: 2.2 05-May-2015 11:39:10

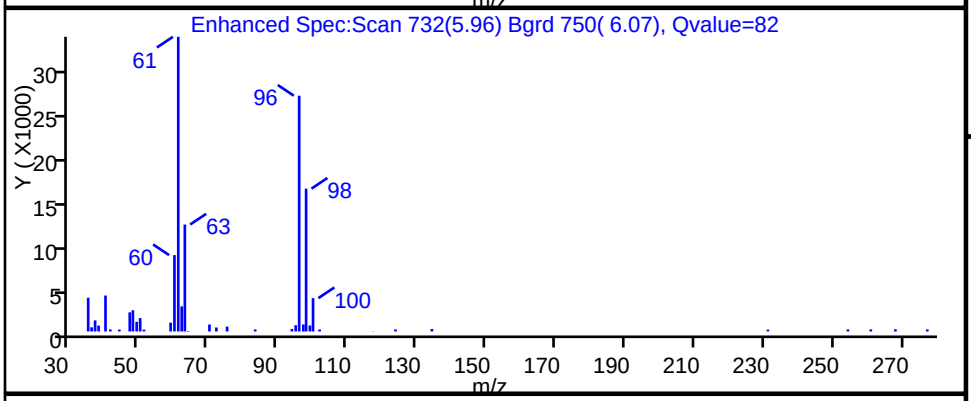
TestAmerica Pittsburgh

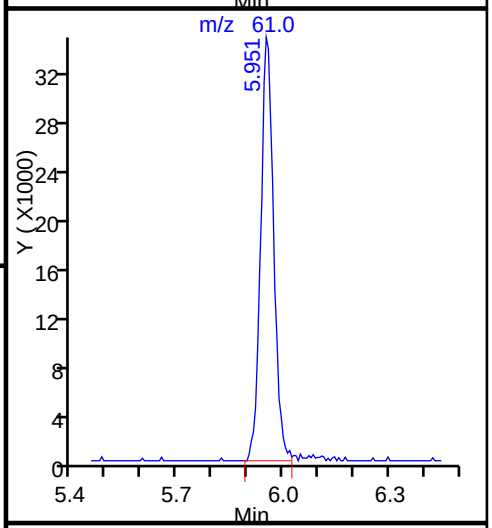
Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526022.D		
Injection Date:	26-May-2015 19:18:30	Instrument ID:	CHHP5
Lims ID:	180-44203-E-8	Lab Sample ID:	180-44203-8
Client ID:	HD-MW-93D-0/1-0		
Operator ID:	001562	ALS Bottle#:	22 Worklist Smp#: 22
Purge Vol:	5.000 mL	Dil. Factor:	10.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

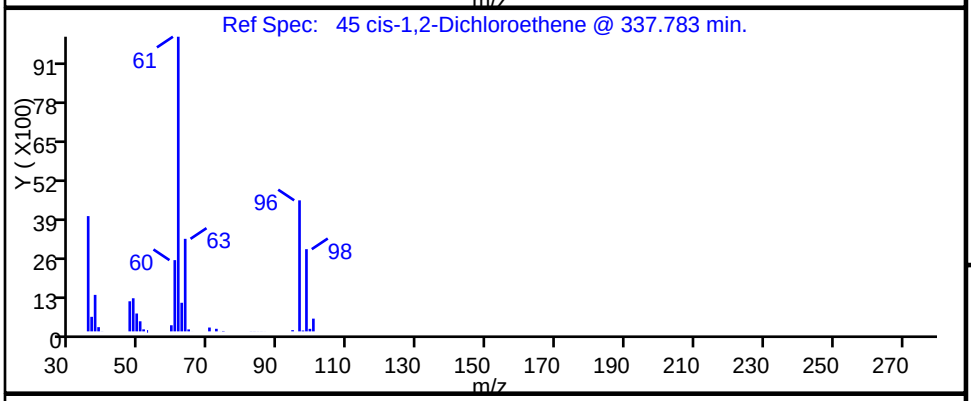
45 cis-1,2-Dichloroethene, CAS: 156-59-2

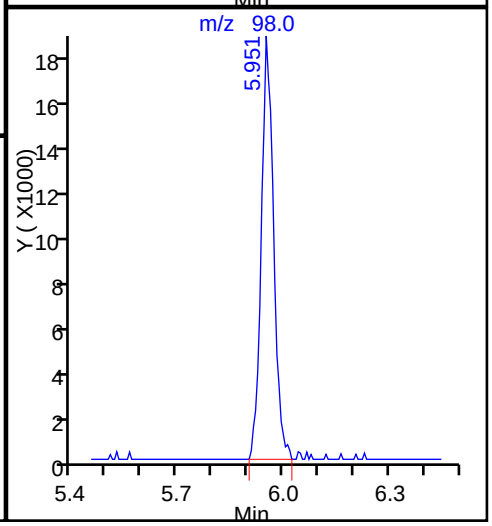


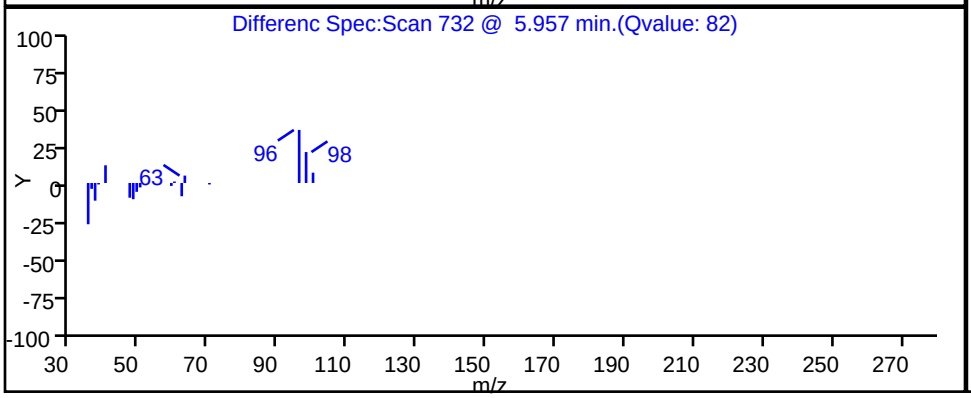










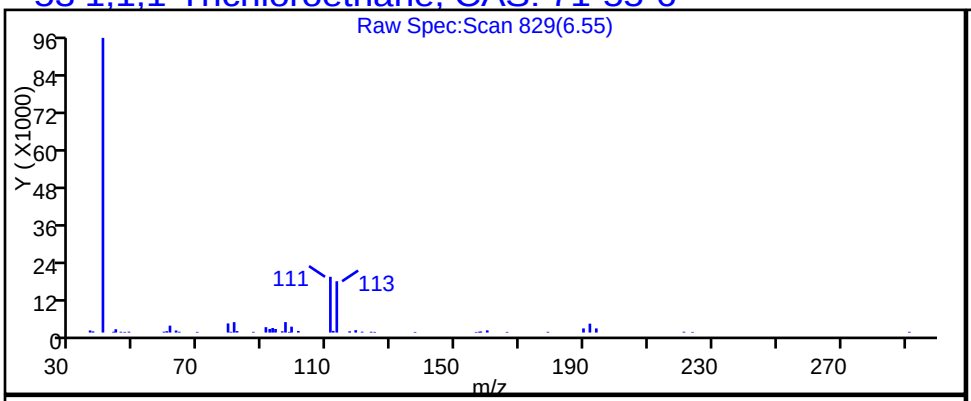


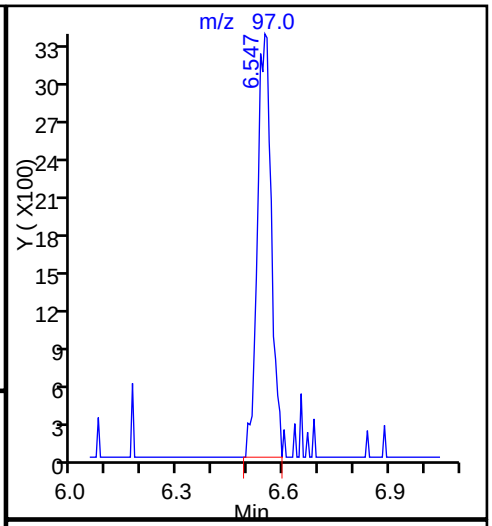
Report Date: 27-May-2015 07:56:16 Chrom Revision: 2.2 05-May-2015 11:39:10

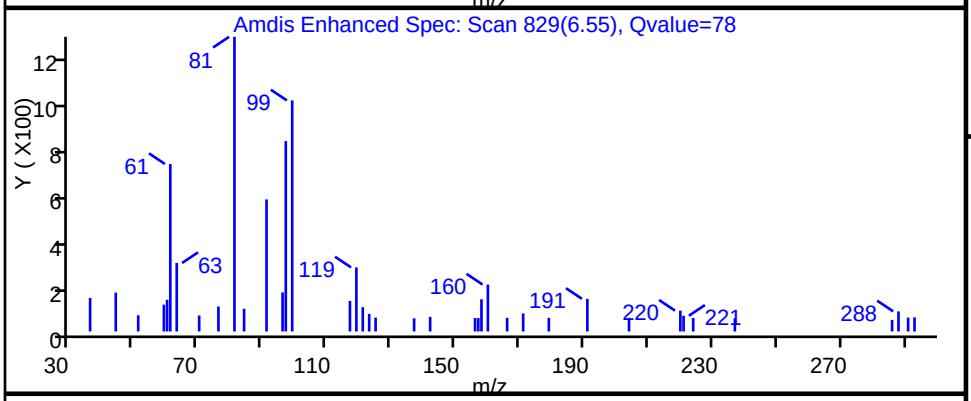
TestAmerica Pittsburgh

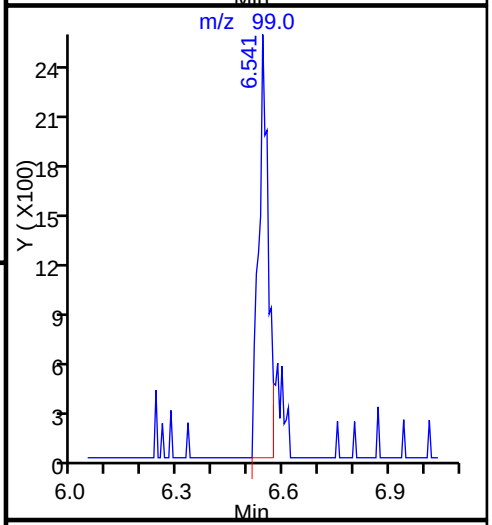
Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526022.D				
Injection Date:	26-May-2015 19:18:30	Instrument ID:	CHHP5		
Lims ID:	180-44203-E-8	Lab Sample ID:	180-44203-8		
Client ID:	HD-MW-93D-0/1-0				
Operator ID:	001562	ALS Bottle#:	22	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	10.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

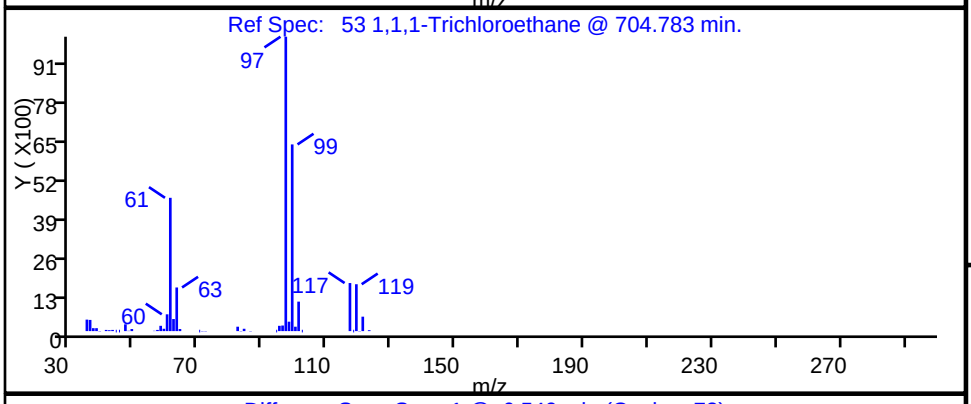
53 1,1,1-Trichloroethane, CAS: 71-55-6

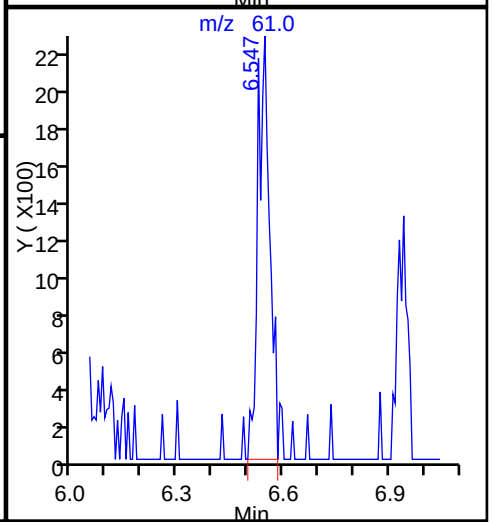


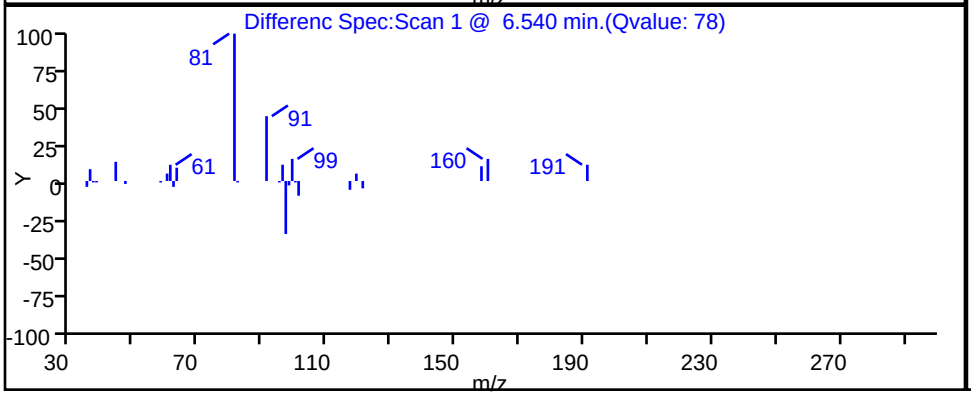










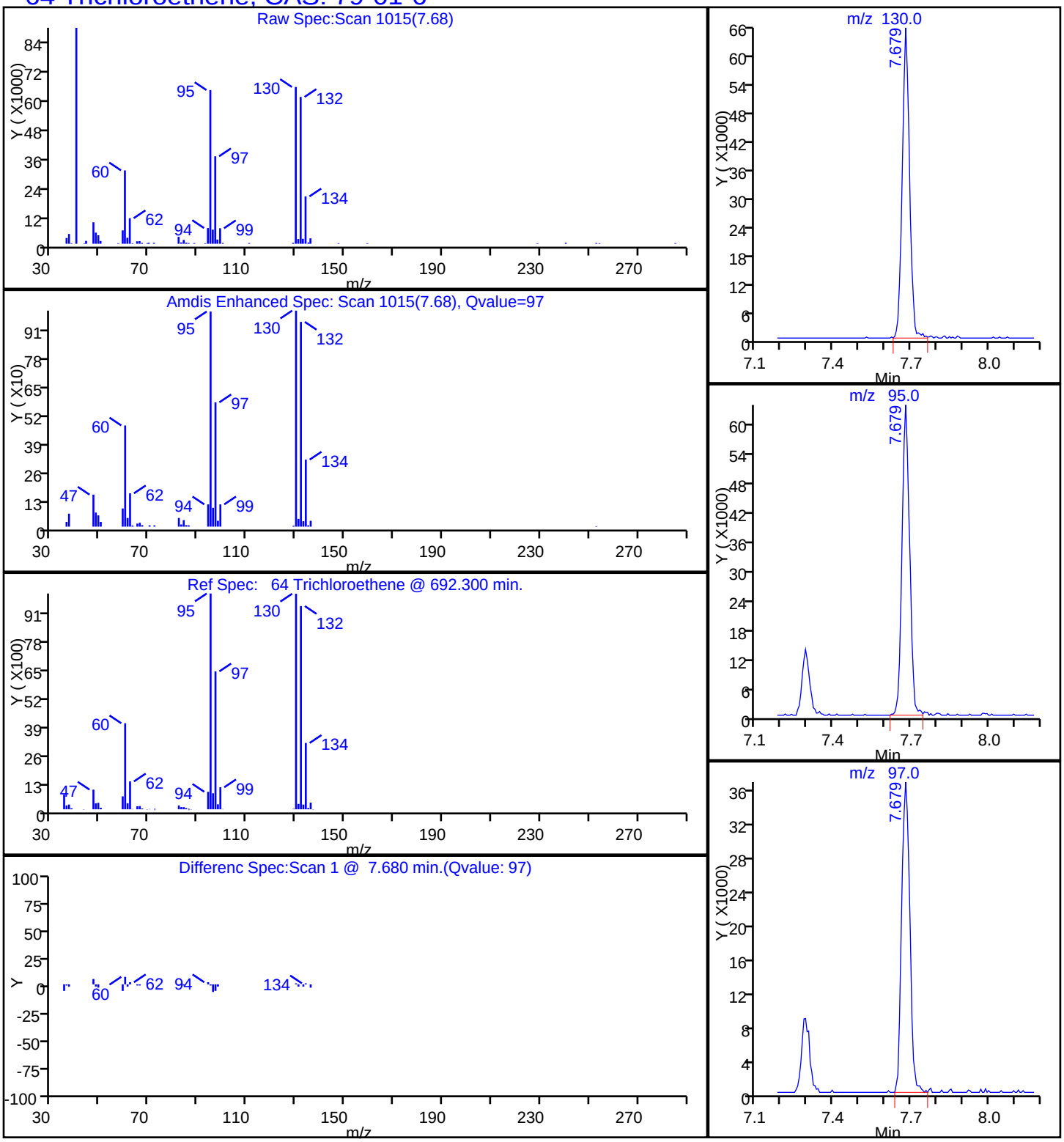


Report Date: 27-May-2015 07:56:16 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526022.D		
Injection Date:	26-May-2015 19:18:30	Instrument ID:	CHHP5
Lims ID:	180-44203-E-8	Lab Sample ID:	180-44203-8
Client ID:	HD-MW-93D-0/1-0		
Operator ID:	001562	ALS Bottle#:	22 Worklist Smp#: 22
Purge Vol:	5.000 mL	Dil. Factor:	10.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

64 Trichloroethene, CAS: 79-01-6

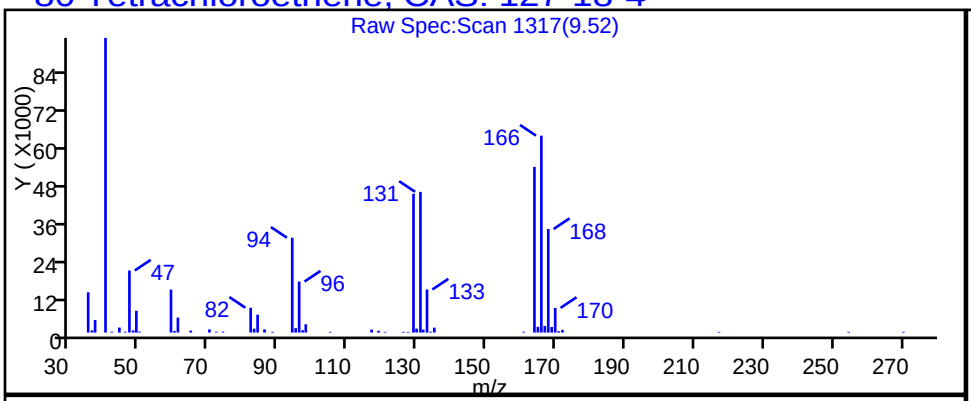


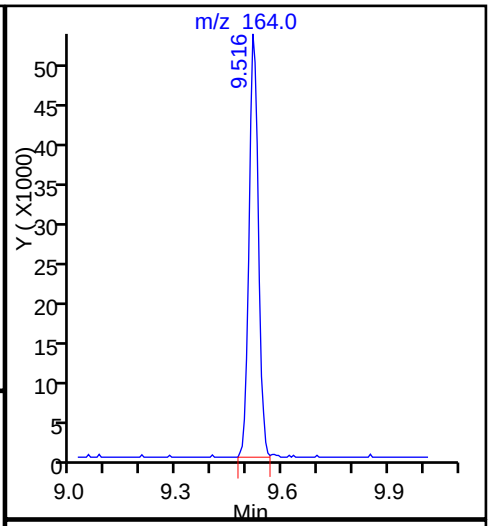
Report Date: 27-May-2015 07:56:16 Chrom Revision: 2.2 05-May-2015 11:39:10

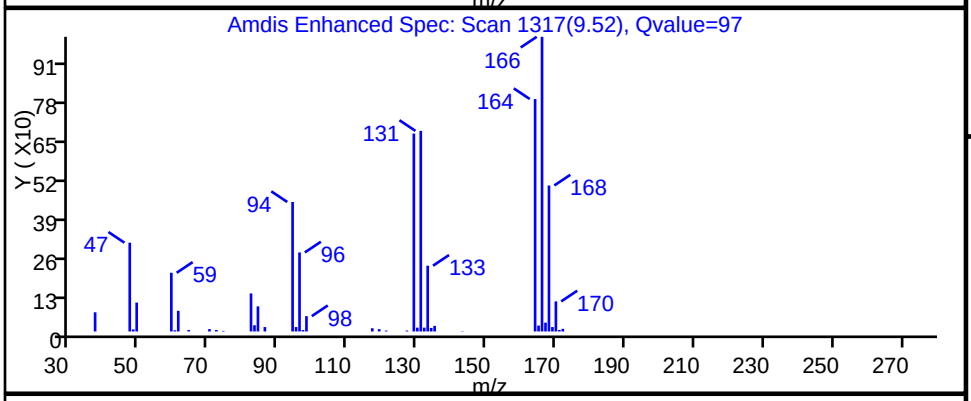
TestAmerica Pittsburgh

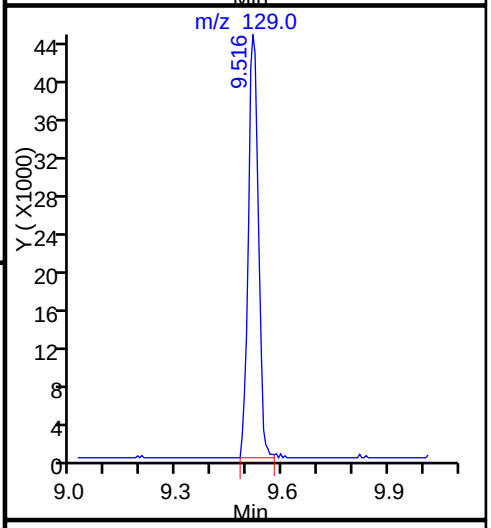
Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526022.D		
Injection Date:	26-May-2015 19:18:30	Instrument ID:	CHHP5
Lims ID:	180-44203-E-8	Lab Sample ID:	180-44203-8
Client ID:	HD-MW-93D-0/1-0		
Operator ID:	001562	ALS Bottle#:	22 Worklist Smp#: 22
Purge Vol:	5.000 mL	Dil. Factor:	10.0000
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

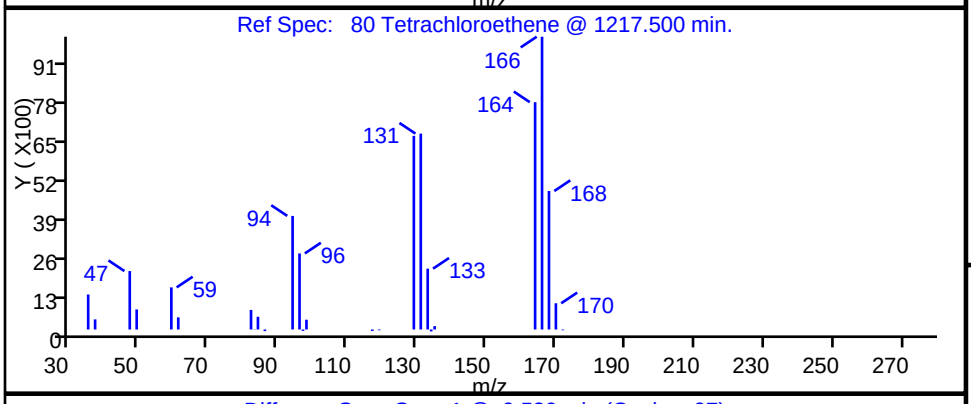
80 Tetrachloroethene, CAS: 127-18-4

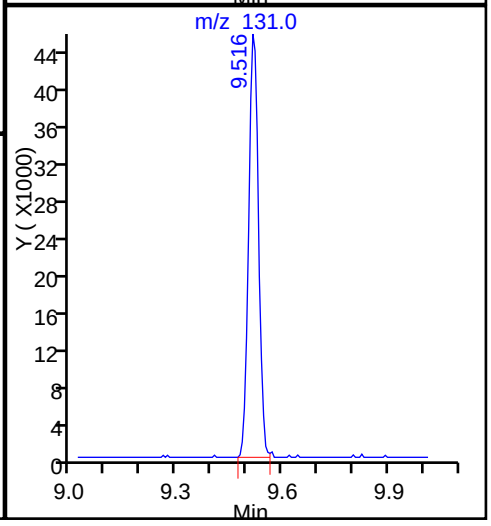


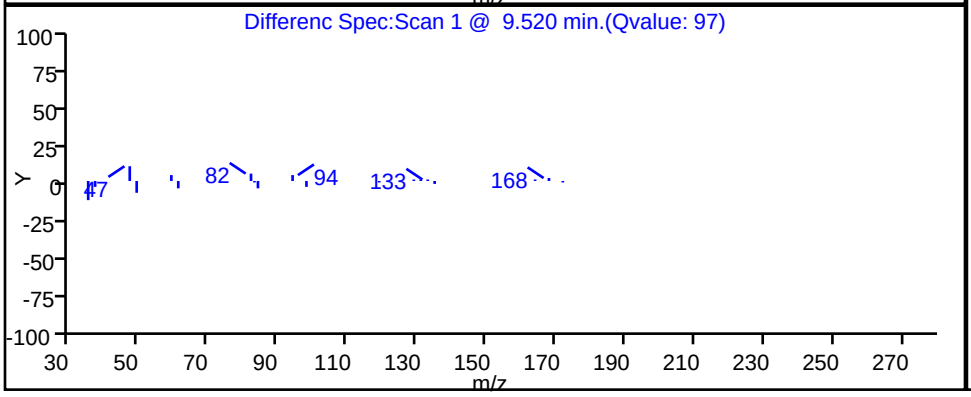












FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1 Analy Batch No.: 141828

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2015 14:25 Calibration End Date: 05/16/2015 18:25 Calibration ID: 23908

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-141828/16	50516016.D
Level 2	IC 180-141828/6	50516006.D
Level 3	ICIS 180-141828/7	50516007.D
Level 4	IC 180-141828/8	50516008.D
Level 5	IC 180-141828/9	50516009.D
Level 6	IC 180-141828/10	50516010.D
Level 7	IC 180-141828/11	50516011.D
Level 8	IC 180-141828/12	50516012.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	0.3385 0.3363	0.3560 0.3417	0.3413 0.3412	0.3253	0.3835	Ave		0.3455			0.1000	5.1		20.0			
Chloromethane	0.4972 0.4092	0.4387 0.4212	0.4451 0.4293	0.4127	0.4651	Ave		0.4398			0.1000	6.7		20.0			
Vinyl chloride	0.4006 0.3890	0.4089 0.3869	0.4064 0.3809	0.3671	0.4320	Ave		0.3965			0.1000	5.0		20.0			
1,3-Butadiene	0.5275 0.4357	0.4732 0.4327	0.4616 0.4199	0.4224	0.4843	Ave		0.4572			0.0100	8.1		20.0			
Bromomethane	0.2384 0.1645	0.1879 0.1624	0.1876 0.1578	0.1717	0.1840	Ave		0.1818			0.0500	14.1		20.0			
Chloroethane	0.2370 0.1972	0.2107 0.1980	0.2103 0.2121	0.1976	0.2179	Ave		0.2101			0.0500	6.4		20.0			
Dichlorofluoromethane	0.5457 0.4464	0.4955 0.4421	0.4726 0.4516	0.4445	0.5048	Ave		0.4754			0.0100	7.8		20.0			
Trichlorofluoromethane	0.4434 0.4495	0.4515 0.4407	0.4477 0.4353	0.4170	0.4969	Ave		0.4478			0.1000	5.1		20.0			
Ethyl ether	0.2752 0.2328	0.2484 0.2443	0.2562 0.2554	0.2474	0.2630	Ave		0.2528			0.0100	5.1		20.0			
Acrolein	0.0409 0.0401	0.0430 0.0424	0.0415 0.0440	0.0405	0.0450	Ave		0.0422			0.0100	4.1		20.0			
1,1-Dichloroethene	0.2694 0.2302	0.2343 0.2340	0.2361 0.2391	0.2162	0.2571	Ave		0.2396			0.1000	6.9		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.2620 0.2470	0.2521 0.2502	0.2490 0.2506	0.2286	0.2656	Ave		0.2506			0.1000	4.4		20.0			
Acetone	0.1179 0.0860	0.1184 0.0882	0.0942 0.0969	0.0861	0.1013	Ave		0.0986			0.0500	13.4		20.0			
Iodomethane	0.3980 0.3535	0.3582 0.3621	0.3537 0.3693	0.3503	0.3923	Ave		0.3672			0.0100	5.0		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1 Analy Batch No.: 141828

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2015 14:25 Calibration End Date: 05/16/2015 18:25 Calibration ID: 23908

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	0.6740 0.6242	0.6146 0.6432	0.6281 0.6537	0.5903	0.6794	Ave		0.6384			0.1000	4.7		20.0			
Allyl chloride	0.1617 0.1556	0.1604 0.1641	0.1555 0.1663	0.1438	0.1678	Ave		0.1594			0.0100	4.9		20.0			
Methyl acetate	0.2628 0.2189	0.2307 0.2270	0.2223 0.2392	0.2259	0.2467	Ave		0.2342			0.1000	6.3		20.0			
Methylene Chloride	0.4682 0.2548	0.2937 0.2675	0.2726 0.2782	0.2564	0.2952	Lin2	1.0305	0.2599			0.1000				0.9970		0.9900
tert-Butyl alcohol	1.0839 1.1096	1.1469 1.1479	1.1325 1.1020	1.1350	1.0839	Ave		1.1177			0.0100	2.4		20.0			
Acrylonitrile	0.1243 0.1126	0.1163 0.1156	0.1141 0.1214	0.1147	0.1270	Ave		0.1182			0.0100	4.5		20.0			
trans-1,2-Dichloroethene	0.2809 0.2584	0.2564 0.2666	0.2573 0.2740	0.2439	0.2831	Ave		0.2651			0.1000	5.1		20.0			
Methyl tert-butyl ether	0.7788 0.6921	0.7138 0.7151	0.7112 0.7599	0.6997	0.7757	Ave		0.7308			0.1000	4.8		20.0			
Hexane	0.4085 0.4167	0.4154 0.4231	0.4154 0.4248	0.3804	0.4578	Ave		0.4177			0.0100	5.1		20.0			
1,1-Dichloroethane	0.5390 0.4805	0.4866 0.4917	0.4985 0.5030	0.4694	0.5340	Ave		0.5003			0.2000	4.9		20.0			
Vinyl acetate	0.5005 0.5760	0.5682 0.5689	0.5654 0.5732	0.5546	0.5956	Ave		0.5628			0.0100	4.9		20.0			
2,2-Dichloropropane	0.2517 0.2489	0.2496 0.2500	0.2623 0.2516	0.2436	0.2729	Ave		0.2538			0.0100	3.7		20.0			
cis-1,2-Dichloroethene	0.3284 0.2792	0.2854 0.2868	0.2806 0.2995	0.2742	0.3107	Ave		0.2931			0.1000	6.3		20.0			
2-Butanone (MEK)	0.1677 0.1419	0.1525 0.1438	0.1384 0.1566	0.1419	0.1555	Ave		0.1498			0.0500	6.7		20.0			
Bromochloromethane	0.1506 0.1208	0.1268 0.1271	0.1251 0.1326	0.1215	0.1397	Ave		0.1305			0.0100	7.8		20.0			
Tetrahydrofuran	0.1275 0.0924	0.1004 0.0970	0.0964 0.1054	0.0937	0.1020	Ave		0.1018			0.0100	11.0		20.0			
Chloroform	0.5034 0.4282	0.4320 0.4402	0.4373 0.4498	0.4159	0.4829	Ave		0.4487			0.2000	6.6		20.0			
1,1,1-Trichloroethane	0.3227 0.3443	0.3421 0.3551	0.3559 0.3507	0.3254	0.3830	Ave		0.3474			0.1000	5.5		20.0			
Cyclohexane	0.5506 0.5226	0.5059 0.5313	0.5221 0.5282	0.4784	0.5696	Ave		0.5261			0.1000	5.2		20.0			
Carbon tetrachloride	0.2996 0.3151	0.3008 0.3222	0.3174 0.3197	0.2871	0.3426	Ave		0.3131			0.1000	5.4		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.: 180-44203-1 Analy Batch No.: 141828

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2015 14:25 Calibration End Date: 05/16/2015 18:25 Calibration ID: 23908

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	0.3746 0.3656	0.3494 0.3751	0.3690 0.3704	0.3325	0.3910	Ave		0.3659			0.0100	4.9		20.0			
Isobutyl alcohol	0.0106 0.0084	0.0092 0.0088	0.0088 0.0106	0.0082	0.0100	Ave		0.0093		*	0.0100	10.4		20.0			
Benzene	1.2016 1.0695	1.0935 1.0795	1.0971 1.1109	1.0577	1.2036	Ave		1.1142			0.5000	5.1		20.0			
1,2-Dichloroethane	0.3368 0.3233	0.3289 0.3286	0.3231 0.3428	0.3251	0.3506	Ave		0.3324			0.1000	3.0		20.0			
n-Heptane	0.4104 0.3707	0.3453 0.3818	0.3561 0.3811	0.3355	0.3905	Ave		0.3714			0.0100	6.7		20.0			
Trichloroethene	0.3283 0.2734	0.2774 0.2781	0.2722 0.2850	0.2665	0.3036	Ave		0.2856			0.2000	7.2		20.0			
Methylcyclohexane	0.4556 0.4694	0.4577 0.4805	0.4823 0.4752	0.4346	0.5094	Ave		0.4706			0.1000	4.7		20.0			
1,2-Dichloropropane	0.2960 0.2835	0.2741 0.2912	0.2870 0.3038	0.2747	0.3053	Ave		0.2895			0.1000	4.1		20.0			
1,4-Dioxane	0.0016 0.0022	0.0023 0.0022	0.0023 0.0026	0.0021	0.0024	Ave		0.0022		*	0.0100	13.7		20.0			
Dibromomethane	0.1686 0.1412	0.1352 0.1447	0.1445 0.1533	0.1415	0.1542	Ave		0.1479			0.0100	7.1		20.0			
Bromodichloromethane	0.3057 0.3208	0.3119 0.3256	0.3118 0.3461	0.3072	0.3494	Ave		0.3223			0.2000	5.3		20.0			
cis-1,3-Dichloropropene	0.3953 0.4100	0.3919 0.4159	0.3919 0.4382	0.3866	0.4482	Ave		0.4097			0.2000	5.6		20.0			
4-Methyl-2-pentanone (MIBK)	1.3310 1.2167	1.3373 1.2281	1.3395 1.2056	1.2952	1.3744	Ave		1.2910			0.1000	5.1		20.0			
Toluene	5.1787 4.5088	5.0775 4.3926	5.1626 4.1766	4.6361	5.0090	Ave		4.7677			0.4000	8.1		20.0			
trans-1,3-Dichloropropene	1.4561 1.4301	1.4521 1.4209	1.4935 1.4015	1.3999	1.5035	Ave		1.4447			0.1000	2.7		20.0			
Ethyl methacrylate	1.5359 1.4062	1.4503 1.3709	1.5082 1.3669	1.4096	1.4592	Ave		1.4384			0.0100	4.3		20.0			
1,1,2-Trichloroethane	1.0014 0.8462	0.9249 0.8458	0.9347 0.8357	0.8867	0.9255	Ave		0.9001			0.1000	6.4		20.0			
Tetrachloroethene	0.9774 0.8615	0.9141 0.8517	0.9801 0.7880	0.8508	0.9491	Ave		0.8966			0.2000	7.7		20.0			
1,3-Dichloropropane	2.0951 1.5830	1.7359 1.5550	1.7446 1.5570	1.6493	1.7053	Ave		1.7032			0.0100	10.3		20.0			
2-Hexanone	0.9888 0.8772	0.9645 0.8618	0.9416 0.8375	0.9227	0.9498	Ave		0.9180			0.1000	5.8		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1 Analy Batch No.: 141828

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2015 14:25 Calibration End Date: 05/16/2015 18:25 Calibration ID: 23908

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	0.8907 0.8631	0.8647 0.8653	0.9291 0.8596	0.8698	0.9261	Ave		0.8836			0.1000	3.3		20.0			
1,2-Dibromoethane (EDB)	1.0668 0.8785	0.9211 0.8712	0.9563 0.8546	0.9002	0.9512	Ave		0.9250			0.1000	7.4		20.0			
3-Chlorobenzotrifluoride	1.9370 1.5029	1.7812 1.5158	1.6907 1.3185	1.6012	1.6394	Ave		1.6233			0.0100	11.6		20.0			
Chlorobenzene	3.6477 2.8850	3.1879 2.8361	3.2309 2.7179	2.9847	3.1958	Ave		3.0858			0.5000	9.5		20.0			
4-Chlorobenzotrifluoride	1.6713 1.4123	1.6339 1.4191	1.5691 1.2405	1.5029	1.5393	Ave		1.4986			0.0100	9.3		20.0			
1,1,1,2-Tetrachloroethane	0.9963 1.0145	1.0509 1.0063	1.1149 0.9794	1.0260	1.0957	Ave		1.0355			0.0100	4.7		20.0			
Ethylbenzene	2.0248 1.7214	1.8230 1.6977	1.8761 1.6397	1.7139	1.8715	Ave		1.7960			0.1000	7.0		20.0			
m-Xylene & p-Xylene	2.4468 2.0853	2.2005 2.0481	2.3020 1.9741	2.0608	2.2818	Ave		2.1749			0.1000	7.4		20.0			
o-Xylene	2.4407 2.0206	2.1949 2.0094	2.2431 1.9478	2.0862	2.2286	Ave		2.1464			0.3000	7.5		20.0			
Styrene	3.5325 3.2490	3.4517 3.2126	3.5876 3.1459	3.3574	3.5543	Ave		3.3864			0.3000	5.0		20.0			
Bromoform	0.5602 0.5664	0.5451 0.5671	0.5838 0.5710	0.5557	0.6000	Ave		0.5687			0.1000	3.0		20.0			
2-Chlorobenzotrifluoride	1.9498 1.4951	1.6866 1.5100	1.6668 1.3249	1.5839	1.6344	Ave		1.6064			0.0100	11.3		20.0			
Isopropylbenzene	5.6376 4.9400	5.5685 4.8082	5.7360 4.5159	5.1172	5.5936	Ave		5.2396			0.1000	8.7		20.0			
1,1,2,2-Tetrachloroethane	1.4014 1.1926	1.2936 1.1784	1.3419 1.2132	1.2535	1.3050	Ave		1.2724			0.3000	6.1		20.0			
Bromobenzene	1.0062 0.8943	0.9376 0.9122	0.9077 0.9034	0.8816	0.9484	Ave		0.9239			0.0100	4.3		20.0			
trans-1,4-Dichloro-2-butene	0.3374 0.3121	0.2669 0.3077	0.3110 0.3170	0.2965	0.3071	Ave		0.3070			0.0100	6.5		20.0			
1,2,3-Trichloropropane	0.3450 0.2998	0.2929 0.2948	0.3006 0.2996	0.2931	0.3017	Ave		0.3034			0.0100	5.6		20.0			
N-Propylbenzene	1.0360 1.1205	1.0768 1.1398	1.0791 1.0986	1.0746	1.1785	Ave		1.1005			0.0100	4.0		20.0			
2-Chlorotoluene	1.0131 0.9404	0.9203 0.9425	0.9233 0.9337	0.9173	0.9539	Ave		0.9430			0.0100	3.3		20.0			
3-Chlorotoluene	1.1408 0.9154	0.9190 0.9548	0.9102 0.8851	0.9437	0.9956	Ave		0.9581			0.0100	8.5		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1 Analy Batch No.: 141828

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2015 14:25 Calibration End Date: 05/16/2015 18:25 Calibration ID: 23908

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	3.0269 3.0864	3.1082 3.0993	3.1554 2.9896	3.0455	3.2549	Ave		3.0958			0.0100	2.7		20.0			
4-Chlorotoluene	1.0332 1.0037	0.9844 1.0182	0.9820 0.9787	0.9576	1.0063	Ave		0.9955			0.0100	2.4		20.0			
tert-Butylbenzene	2.7388 2.6452	2.5843 2.6608	2.6791 2.5315	2.5798	2.7591	Ave		2.6473			0.0100	3.0		20.0			
1,2,4-Trimethylbenzene	2.9725 3.0532	3.0404 3.1005	3.1863 2.9972	3.0880	3.2583	Ave		3.0870			0.0100	3.1		20.0			
3,4-Dichlorobenzotrifluoride	1.0213 0.7973	0.8316 0.8246	0.8117 0.7392	0.8107	0.8102	Ave		0.8308			0.0100	9.9		20.0			
sec-Butylbenzene	3.8331 3.7094	3.7241 3.7076	3.8008 3.5364	3.6466	3.9340	Ave		3.7365			0.0100	3.2		20.0			
1,3-Dichlorobenzene	1.6486 1.5723	1.5988 1.6044	1.6555 1.6051	1.5553	1.6737	Ave		1.6142			0.6000	2.6		20.0			
4-Isopropyltoluene	3.0528 3.0626	3.0124 3.0441	3.1093 2.9657	3.0023	3.2038	Ave		3.0566			0.0100	2.4		20.0			
1,4-Dichlorobenzene	1.8543 1.6100	1.5704 1.6353	1.6385 1.6313	1.5856	1.7127	Ave		1.6548			0.5000	5.5		20.0			
2,4-Dichlorobenzotrifluoride	0.8959 0.7461	0.7710 0.8052	0.7296 0.6952	0.7991	0.7412	Ave		0.7729			0.0100	8.0		20.0			
2,5-Dichlorobenzotrifluoride	0.9367 0.7952	0.8629 0.8472	0.8581 0.7874	0.8282	0.8626	Ave		0.8473			0.0100	5.5		20.0			
n-Butylbenzene	2.5038 2.6682	2.5067 2.7063	2.6755 2.6532	2.5342	2.7640	Ave		2.6265			0.0100	3.8		20.0			
1,2-Dichlorobenzene	1.6706 1.4387	1.4320 1.4700	1.4651 1.4977	1.4663	1.5209	Ave		1.4952			0.4000	5.1		20.0			
1,2-Dibromo-3-Chloropropane	0.1692 0.1390	0.1407 0.1469	0.1485 0.1584	0.1395	0.1482	Ave		0.1488			0.0500	7.0		20.0			
1,2,4-Trichlorobenzene	0.5790 0.5981	0.5733 0.6456	0.6459 0.6838	0.6119	0.6384	Ave		0.6220			0.2000	6.1		20.0			
Hexachlorobutadiene	0.2498 0.2905	0.2817 0.3126	0.2944 0.3090	0.2811	0.3003	Ave		0.2899			0.0100	6.8		20.0			
Naphthalene	1.5328 1.6895	1.5684 1.8135	1.6928 1.9595	1.7271	1.7962	Ave		1.7225			0.0100	8.0		20.0			
1,2,3-Trichlorobenzene	0.4345 0.4679	0.4460 0.5092	0.4816 0.5473	0.4862	0.5016	Ave		0.4843			0.0100	7.5		20.0			
2,4,5-Trichlorotoluene	0.1929 0.2190	0.1938 0.2548	0.2089 0.2514	0.2179	0.2163	Ave		0.2194			0.0100	10.6		20.0			
2,3,6-Trichlorotoluene	0.1549 +++++	0.1768 +++++	0.1936 +++++	0.2019	0.2018	Ave		0.1979			0.0100	12.3		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.: 180-44203-1 Analy Batch No.: 141828

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2015 14:25 Calibration End Date: 05/16/2015 18:25 Calibration ID: 23908

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)	0.2437 0.2111	0.2184 0.2082	0.2119 0.2201	0.2124	0.1997	Ave		0.2157				6.0		20.0			
1,2-Dichloroethane-d4 (Surr)	0.3224 0.2563	0.2632 0.2580	0.2672 0.2713	0.2571	0.2540	Ave		0.2687				8.4		20.0			
Toluene-d8 (Surr)	4.6036 3.5497	3.9165 3.3576	4.0099 3.2197	3.7675	3.2809	Ave		3.7132				12.5		20.0			
4-Bromofluorobenzene (Surr)	1.6153 1.2499	1.4030 1.2076	1.4307 1.2137	1.3322	1.2112	Ave		1.3329				10.8		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1 Analy Batch No.: 141828

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2015 14:25 Calibration End Date: 05/16/2015 18:25 Calibration ID: 23908

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-141828/16	50516016.D
Level 2	IC 180-141828/6	50516006.D
Level 3	ICIS 180-141828/7	50516007.D
Level 4	IC 180-141828/8	50516008.D
Level 5	IC 180-141828/9	50516009.D
Level 6	IC 180-141828/10	50516010.D
Level 7	IC 180-141828/11	50516011.D
Level 8	IC 180-141828/12	50516012.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	12513 489556	70934 571054	139772 677972	198147	284090	5.00 175	25.0 200	50.0 250	75.0	100
Chloromethane	FB	Ave	18383 595634	87407 704073	182305 853061	251404	344598	5.00 175	25.0 200	50.0 250	75.0	100
Vinyl chloride	FB	Ave	14812 566283	81471 646662	166449 756967	223607	320054	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Butadiene	FB	Ave	19501 634286	94284 723158	189069 834397	257309	358834	5.00 175	25.0 200	50.0 250	75.0	100
Bromomethane	FB	Ave	8813 239513	37441 271395	76846 313631	104570	136319	5.00 175	25.0 200	50.0 250	75.0	100
Chloroethane	FB	Ave	8762 287097	41990 330931	86143 421453	120354	161455	5.00 175	25.0 200	50.0 250	75.0	100
Dichlorofluoromethane	FB	Ave	20175 649772	98720 738885	193540 897395	270770	373977	5.00 175	25.0 200	50.0 250	75.0	100
Trichlorofluoromethane	FB	Ave	16394 654292	89972 736625	183341 864903	254032	368166	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl ether	FB	Ave	10174 338873	49497 408402	104936 507453	150731	194864	5.00 175	25.0 200	50.0 250	75.0	100
Acrolein	FB	Ave	30234 75025	42888 88651	51004 96098	57567	66638	100 225	125 250	150 275	175	200
1,1-Dichloroethene	FB	Ave	9961 335036	46676 391170	96707 475066	131710	190502	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	9687 359471	50237 418214	101970 498000	139284	196759	5.00 175	25.0 200	50.0 250	75.0	100
Acetone	FB	Ave	21797 250330	47200 294993	77143 384917	104849	150082	25.0 350	50.0 400	100 500	150	200
Iodomethane	FB	Ave	14714 514557	71377 605171	144879 733771	213381	290615	5.00 175	25.0 200	50.0 250	75.0	100
Carbon disulfide	FB	Ave	24919 908552	122453 1075123	257225 1298935	359618	503316	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.: 180-44203-1 Analy Batch No.: 141828

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2015 14:25 Calibration End Date: 05/16/2015 18:25 Calibration ID: 23908

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	5978 226558	31965 274256	63699 330407	87584	124326	5.00 175	25.0 200	50.0 250	75.0	100
Methyl acetate	FB	Ave	48572 1593543	229790 1896769	455285 2376963	688206	913845	25.0 875	125 1000	250 1250	375	500
Methylene Chloride	FB	Lin2	17309 370938	58513 447077	111625 552796	156184	218733	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butyl alcohol	TBA	Ave	7157 310446	51697 386153	98788 512805	133879	192394	50.0 1750	250 2000	500 2500	750	1000
Acrylonitrile	FB	Ave	45954 1638590	231706 1932324	467180 2412653	698952	940824	50.0 1750	250 2000	500 2500	750	1000
trans-1,2-Dichloroethene	FB	Ave	10386 376161	51093 445623	105390 544478	148571	209713	5.00 175	25.0 200	50.0 250	75.0	100
Methyl tert-butyl ether	FB	Ave	28792 1007461	142227 1195212	291276 1509991	426281	574699	5.00 175	25.0 200	50.0 250	75.0	100
Hexane	FB	Ave	15102 606508	82772 707171	170117 844126	231711	339162	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloroethane	FB	Ave	19928 699468	96960 821765	204154 999556	285975	395632	5.00 175	25.0 200	50.0 250	75.0	100
Vinyl acetate	FB	Ave	18503 838397	113208 950875	231574 1138937	337865	441287	5.00 175	25.0 200	50.0 250	75.0	100
2,2-Dichloropropane	FB	Ave	9307 362248	49736 417803	107432 500050	148401	202218	5.00 175	25.0 200	50.0 250	75.0	100
cis-1,2-Dichloroethene	FB	Ave	12142 406370	56864 479341	114911 595141	167014	230222	5.00 175	25.0 200	50.0 250	75.0	100
2-Butanone (MEK)	FB	Ave	31006 413184	60768 480568	113388 622273	172923	230372	25.0 350	50.0 400	100 500	150	200
Bromochloromethane	FB	Ave	5566 175842	25264 212511	51243 263556	74026	103519	5.00 175	25.0 200	50.0 250	75.0	100
Tetrahydrofuran	FB	Ave	9426 268899	40005 324299	78927 419005	114171	151096	10.0 350	50.0 400	100 500	150	200
Chloroform	FB	Ave	18610 623315	86085 735696	179091 893900	253342	357774	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1-Trichloroethane	FB	Ave	11932 501196	68170 593527	145763 696824	198228	283726	5.00 175	25.0 200	50.0 250	75.0	100
Cyclohexane	FB	Ave	20355 760681	100809 887972	213844 1049572	291411	421978	5.00 175	25.0 200	50.0 250	75.0	100
Carbon tetrachloride	FB	Ave	11078 458714	59940 538483	129982 635270	174900	253847	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloropropene	FB	Ave	13850 532113	69623 626963	151117 735954	202545	289670	5.00 175	25.0 200	50.0 250	75.0	100
Isobutyl alcohol	FB	Ave	9787 306921	45812 367512	89662 528662	124554	185654	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.: 180-44203-1 Analy Batch No.: 141828

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2015 14:25 Calibration End Date: 05/16/2015 18:25 Calibration ID: 23908

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	44424 1556800	217892 1804376	449313 2207544	644345	891733	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloroethane	FB	Ave	12453 470597	65542 549195	132308 681235	198068	259711	5.00 175	25.0 200	50.0 250	75.0	100
n-Heptane	FB	Ave	15172 539599	68804 638200	145862 757243	204400	289291	5.00 175	25.0 200	50.0 250	75.0	100
Trichloroethene	FB	Ave	12139 397937	55263 464834	111483 566380	162356	224913	5.00 175	25.0 200	50.0 250	75.0	100
Methylcyclohexane	FB	Ave	16844 683293	91190 803074	197540 944316	264739	377428	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloropropane	FB	Ave	10943 412685	54622 486757	117533 603740	167326	226207	5.00 175	25.0 200	50.0 250	75.0	100
1,4-Dioxane	FB	Ave	1153 63617	9166 72304	19231 102170	25640	36079	100 3500	500 4000	1000 5000	1500	2000
Dibromomethane	FB	Ave	6235 205482	26937 241803	59201 304535	86196	114272	5.00 175	25.0 200	50.0 250	75.0	100
Bromodichloromethane	FB	Ave	11303 466967	62149 544261	127705 687742	187125	258861	5.00 175	25.0 200	50.0 250	75.0	100
cis-1,3-Dichloropropene	FB	Ave	14613 596748	78080 695090	160488 870707	235501	332080	5.00 175	25.0 200	50.0 250	75.0	100
4-Methyl-2-pentanone (MIBK)	CBZ	Ave	52342 854345	118427 1022549	241157 1279570	363974	491050	25.0 350	50.0 400	100 500	150	200
Toluene	CBZ	Ave	40730 1582981	224826 1828639	464739 2216424	651396	894815	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,3-Dichloropropene	CBZ	Ave	11452 502087	64299 591530	134442 743755	196686	268588	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl methacrylate	CBZ	Ave	12080 493696	64218 570691	135767 725382	198049	260669	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloroethane	CBZ	Ave	7876 297075	40952 352121	84146 443499	124580	165328	5.00 175	25.0 200	50.0 250	75.0	100
Tetrachloroethene	CBZ	Ave	7687 302473	40477 354566	88231 418170	119542	169544	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Dichloropropane	CBZ	Ave	16478 555783	76862 647342	157053 826269	231741	304646	5.00 175	25.0 200	50.0 250	75.0	100
2-Hexanone	CBZ	Ave	38885 615972	85414 717499	169527 888839	259288	339351	25.0 350	50.0 400	100 500	150	200
Dibromochloromethane	CBZ	Ave	7005 303040	38287 360233	83636 456166	122216	165444	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dibromoethane (EDB)	CBZ	Ave	8390 308447	40787 362695	86087 453495	126486	169918	5.00 175	25.0 200	50.0 250	75.0	100
3-Chlorobenzotrifluoride	CBZ	Ave	15234 527642	78870 631042	152198 699677	224982	292861	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.: 180-44203-1 Analy Batch No.: 141828

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2015 14:25 Calibration End Date: 05/16/2015 18:25 Calibration ID: 23908

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	28689 1012881	141159 1180656	290849 1442349	419367	570910	5.00 175	25.0 200	50.0 250	75.0	100
4-Chlorobenzotrifluoride	CBZ	Ave	13145 495834	72349 590776	141246 658310	211166	274980	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1,2-Tetrachloroethane	CBZ	Ave	7836 356190	46532 418931	100367 519767	144165	195742	5.00 175	25.0 200	50.0 250	75.0	100
Ethylbenzene	CBZ	Ave	15925 604351	80722 706749	168885 870182	240815	334335	5.00 175	25.0 200	50.0 250	75.0	100
m-Xylene & p-Xylene	CBZ	Ave	19244 732122	97434 852624	207226 1047590	289558	407630	5.00 175	25.0 200	50.0 250	75.0	100
o-Xylene	CBZ	Ave	19196 709393	97187 836498	201921 1033655	293127	398116	5.00 175	25.0 200	50.0 250	75.0	100
Styrene	CBZ	Ave	27783 1140683	152840 1337390	322959 1669453	471737	634944	5.00 175	25.0 200	50.0 250	75.0	100
Bromoform	CBZ	Ave	4406 198852	24135 236082	52554 303024	78081	107188	5.00 175	25.0 200	50.0 250	75.0	100
2-Chlorobenzotrifluoride	CBZ	Ave	15335 524920	74681 628620	150042 703113	222548	291981	5.00 175	25.0 200	50.0 250	75.0	100
Isopropylbenzene	CBZ	Ave	44339 1734373	246567 2001663	516352 2396507	718989	999249	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2,2-Tetrachloroethane	CBZ	Ave	11022 418695	57279 490555	120795 643838	176119	233122	5.00 175	25.0 200	50.0 250	75.0	100
Bromobenzene	DCB	Ave	10926 398529	58460 473382	116689 600210	166541	230103	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,4-Dichloro-2-butene	DCB	Ave	3664 139100	16644 159664	39979 210584	56013	74514	5.00 175	25.0 200	50.0 250	75.0	100
1,2,3-Trichloropropane	DCB	Ave	3746 133594	18265 153012	38651 199028	55364	73189	5.00 175	25.0 200	50.0 250	75.0	100
N-Propylbenzene	DCB	Ave	11250 499315	67141 591500	138735 729900	203005	285930	5.00 175	25.0 200	50.0 250	75.0	100
2-Chlorotoluene	DCB	Ave	11001 419063	57380 489127	118701 620292	173296	231421	5.00 175	25.0 200	50.0 250	75.0	100
3-Chlorotoluene	DCB	Ave	12388 407920	57302 495496	117016 587998	178285	241548	5.00 175	25.0 200	50.0 250	75.0	100
1,3,5-Trimethylbenzene	DCB	Ave	32870 1375415	193803 1608417	405661 1986196	575343	789696	5.00 175	25.0 200	50.0 250	75.0	100
4-Chlorotoluene	DCB	Ave	11220 447268	61378 528393	126246 650195	180900	244132	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butylbenzene	DCB	Ave	29741 1178813	161138 1380885	344428 1681816	487360	669393	5.00 175	25.0 200	50.0 250	75.0	100
1,2,4-Trimethylbenzene	DCB	Ave	32279 1360625	189572 1609046	409626 1991208	583360	790516	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.: 180-44203-1 Analy Batch No.: 141828

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2015 14:25 Calibration End Date: 05/16/2015 18:25 Calibration ID: 23908

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	11090 355323	51853 427937	104350 491068	153151	196577	5.00 175	25.0 200	50.0 250	75.0	100
sec-Butylbenzene	DCB	Ave	41624 1653035	232206 1924108	488634 2349439	688902	954454	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Dichlorobenzene	DCB	Ave	17902 700660	99688 832640	212835 1066399	293827	406066	5.00 175	25.0 200	50.0 250	75.0	100
4-Isopropyltoluene	DCB	Ave	33151 1364814	187830 1579772	399737 1970323	567183	777298	5.00 175	25.0 200	50.0 250	75.0	100
1,4-Dichlorobenzene	DCB	Ave	20136 717486	97915 848655	210640 1083798	299547	415537	5.00 175	25.0 200	50.0 250	75.0	100
2,4-Dichlorobenzotrifluoride	DCB	Ave	9729 332494	48075 417880	93800 461859	150960	179817	5.00 175	25.0 200	50.0 250	75.0	100
2,5-Dichlorobenzotrifluoride	DCB	Ave	10172 354350	53803 439671	110314 523106	156467	209283	5.00 175	25.0 200	50.0 250	75.0	100
n-Butylbenzene	DCB	Ave	27189 1189032	156297 1404498	343964 1762668	478753	670595	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichlorobenzene	DCB	Ave	18141 641130	89288 762881	188357 995030	277004	368987	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dibromo-3-Chloropropane	DCB	Ave	1837 61945	8772 76236	19090 105258	26350	35965	5.00 175	25.0 200	50.0 250	75.0	100
1,2,4-Trichlorobenzene	DCB	Ave	6288 266554	35744 335069	83043 454311	115597	154892	5.00 175	25.0 200	50.0 250	75.0	100
Hexachlorobutadiene	DCB	Ave	2713 129453	17563 162203	37852 205269	53104	72860	5.00 175	25.0 200	50.0 250	75.0	100
Naphthalene	DCB	Ave	16645 752912	97794 941162	217630 1301801	326282	435794	5.00 175	25.0 200	50.0 250	75.0	100
1,2,3-Trichlorobenzene	DCB	Ave	4718 208528	27811 264239	61918 363631	91856	121692	5.00 175	25.0 200	50.0 250	75.0	100
2,4,5-Trichlorotoluene	DCB	Ave	2095 97593	12082 132246	26853 167048	41170	52474	5.00 175	25.0 200	50.0 250	75.0	100
2,3,6-Trichlorotoluene	DCB	Ave	1682 +++++	11025 +++++	24889 +++++	38141	48949	5.00 +++++	25.0 +++++	50.0 +++++	75.0	100
Dibromofluoromethane (Surr)	FB	Ave	9010 307223	43510 348028	86766 437325	129378	147987	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloroethane-d4 (Surr)	FB	Ave	11918 373050	52451 431230	109451 539180	156609	188154	5.00 175	25.0 200	50.0 250	75.0	100
Toluene-d8 (Surr)	CBZ	Ave	36207 1246255	173419 1397781	360970 1708627	529355	586112	5.00 175	25.0 200	50.0 250	75.0	100
4-Bromofluorobenzene (Surr)	CBZ	Ave	12704 438835	62122 502727	128795 644083	187179	216366	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.: 180-44203-1 Analy Batch No.: 141828

SDG No.:

Instrument ID: CHHP5 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/16/2015 14:25 Calibration End Date: 05/16/2015 18:25 Calibration ID: 23908

Curve Type Legend:

Ave = Average ISTD
Lin2 = Linear 1/conc^2 ISTD

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516006.D
Lims ID: IC VSTD5
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 16-May-2015 14:25:30 ALS Bottle#: 6 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD5
Misc. Info.: 180-0006955-006
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 20-May-2015 07:58:57 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK053

First Level Reviewer: fergusond Date: 20-May-2015 07:54:41

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.279	4.284	-0.005	0	180307	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.289	0.001	98	398506	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.387	10.392	-0.005	87	88558	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.735	12.734	0.001	95	124703	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.566	6.566	0.000	94	43510	25.0	25.3	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.937	6.937	0.000	0	52451	25.0	24.5	
$ 7 Toluene-d8 (Surr)	98	8.939	8.938	0.001	93	173419	25.0	26.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.573	11.572	0.001	89	62122	25.0	26.3	
11 Dichlorodifluoromethane	85	1.614	1.614	0.000	99	70934	25.0	25.8	
12 Chloromethane	50	1.760	1.760	0.000	99	87407	25.0	24.9	
13 Vinyl chloride	62	1.888	1.893	-0.005	98	81471	25.0	25.8	
14 Butadiene	39	1.937	1.936	0.001	100	94284	25.0	25.9	
15 Bromomethane	94	2.241	2.240	0.001	92	37441	25.0	25.8	
16 Chloroethane	64	2.393	2.386	0.007	99	41990	25.0	25.1	
17 Dichlorofluoromethane	67	2.661	2.666	-0.005	96	98720	25.0	26.1	
18 Trichlorofluoromethane	101	2.703	2.703	0.000	96	89972	25.0	25.2	
20 Ethyl ether	59	3.050	3.049	0.001	93	49497	25.0	24.6	
21 Acrolein	56	3.232	3.226	0.006	98	42888	125.0	127.6	
22 1,1-Dichloroethene	96	3.342	3.353	-0.011	96	46676	25.0	24.4	
23 1,1,2-Trichloro-1,2,2-trif	101	3.421	3.414	0.007	93	50237	25.0	25.1	
24 Acetone	43	3.439	3.451	-0.012	97	47200	50.0	60.0	
25 Iodomethane	142	3.537	3.536	0.001	96	71377	25.0	24.4	
26 Carbon disulfide	76	3.634	3.633	0.001	100	122453	25.0	24.1	
28 3-Chloro-1-propene	76	3.914	3.919	-0.005	92	31965	25.0	25.2	
30 Methyl acetate	43	3.938	3.944	-0.006	99	229790	125.0	123.1	
31 Methylene Chloride	84	4.139	4.144	-0.005	87	58513	25.0	24.3	
32 2-Methyl-2-propanol	59	4.413	4.412	0.001	97	51697	250.0	256.5	
33 Acrylonitrile	53	4.528	4.528	0.000	100	231706	250.0	245.9	
34 trans-1,2-Dichloroethene	96	4.571	4.570	0.001	97	51093	25.0	24.2	
35 Methyl tert-butyl ether	73	4.583	4.588	-0.005	97	142227	25.0	24.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.991	4.990	0.001	95	82772	25.0	24.9	
37 1,1-Dichloroethane	63	5.204	5.203	0.001	96	96960	25.0	24.3	
38 Vinyl acetate	43	5.252	5.252	0.000	96	113208	25.0	25.2	
44 2,2-Dichloropropane	77	5.946	5.945	0.001	59	49736	25.0	24.6	
45 cis-1,2-Dichloroethene	96	5.952	5.951	0.001	82	56864	25.0	24.3	
46 2-Butanone (MEK)	43	5.964	5.963	0.001	91	60768	50.0	50.9	
49 Chlorobromomethane	128	6.232	6.243	-0.011	96	25264	25.0	24.3	
51 Tetrahydrofuran	42	6.256	6.261	-0.005	90	40005	50.0	49.3	
52 Chloroform	83	6.384	6.383	0.001	95	86085	25.0	24.1	
53 1,1,1-Trichloroethane	97	6.542	6.541	0.001	98	68170	25.0	24.6	
54 Cyclohexane	56	6.609	6.614	-0.005	94	100809	25.0	24.0	
56 Carbon tetrachloride	117	6.718	6.718	0.000	97	59940	25.0	24.0	
55 1,1-Dichloropropene	75	6.730	6.730	0.000	93	69623	25.0	23.9	
57 Isobutyl alcohol	41	6.931	6.937	-0.006	95	45812	625.0	616.3	
58 Benzene	78	6.949	6.943	0.006	97	217892	25.0	24.5	
59 1,2-Dichloroethane	62	7.022	7.022	0.000	96	65542	25.0	24.7	
62 n-Heptane	43	7.308	7.308	0.000	94	68804	25.0	23.2	
64 Trichloroethene	130	7.680	7.685	-0.005	97	55263	25.0	24.3	
66 Methylcyclohexane	83	7.917	7.916	0.001	90	91190	25.0	24.3	
67 1,2-Dichloropropane	63	7.953	7.953	0.000	93	54622	25.0	23.7	
70 1,4-Dioxane	88	8.032	8.032	0.000	42	9166	500.0	520.8	
68 Dibromomethane	93	8.038	8.038	0.000	95	26937	25.0	22.9	
71 Dichlorobromomethane	83	8.233	8.232	0.001	98	62149	25.0	24.2	
74 cis-1,3-Dichloropropene	75	8.677	8.677	0.000	93	78080	25.0	23.9	
75 4-Methyl-2-pentanone (MIBK	43	8.829	8.829	0.000	98	118427	50.0	51.8	
76 Toluene	91	9.006	9.005	0.001	97	224826	25.0	26.6	
77 trans-1,3-Dichloropropene	75	9.249	9.254	-0.005	96	64299	25.0	25.1	
78 Ethyl methacrylate	69	9.310	9.309	0.001	90	64218	25.0	25.2	
79 1,1,2-Trichloroethane	97	9.450	9.443	0.007	93	40952	25.0	25.7	
80 Tetrachloroethene	164	9.517	9.516	0.001	97	40477	25.0	25.5	
81 1,3-Dichloropropane	76	9.608	9.601	0.007	95	76862	25.0	25.5	
82 2-Hexanone	43	9.663	9.662	0.001	98	85414	50.0	52.5	
84 Chlorodibromomethane	129	9.815	9.814	0.001	90	38287	25.0	24.5	
85 Ethylene Dibromide	107	9.930	9.930	0.000	99	40787	25.0	24.9	
86 3-Chlorobenzotrifluoride	180	10.393	10.392	0.001	76	78870	25.0	27.4	
87 Chlorobenzene	112	10.417	10.422	-0.005	95	141159	25.0	25.8	
88 4-Chlorobenzotrifluoride	180	10.478	10.477	0.001	95	72349	25.0	27.3	
89 1,1,1,2-Tetrachloroethane	131	10.514	10.514	0.000	93	46532	25.0	25.4	
90 Ethylbenzene	106	10.520	10.520	0.000	98	80722	25.0	25.4	
91 m-Xylene & p-Xylene	106	10.648	10.654	-0.006	0	97434	25.0	25.3	
92 o-Xylene	106	11.032	11.031	0.001	96	97187	25.0	25.6	
93 Styrene	104	11.050	11.049	0.001	96	152840	25.0	25.5	
94 Bromoform	173	11.232	11.232	0.000	95	24135	25.0	24.0	
96 2-Chlorobenzotrifluoride	180	11.299	11.298	0.001	96	74681	25.0	26.2	
97 Isopropylbenzene	105	11.397	11.396	0.000	96	246567	25.0	26.6	
99 1,1,2,2-Tetrachloroethane	83	11.707	11.706	0.001	77	57279	25.0	25.4	
100 Bromobenzene	156	11.713	11.712	0.001	93	58460	25.0	25.4	
102 trans-1,4-Dichloro-2-buten	53	11.743	11.749	-0.006	77	16644	25.0	21.7	
101 1,2,3-Trichloropropane	110	11.762	11.761	0.001	86	18265	25.0	24.1	
103 N-Propylbenzene	120	11.816	11.816	0.000	99	67141	25.0	24.5	
104 2-Chlorotoluene	126	11.901	11.901	0.000	96	57380	25.0	24.4	
105 3-Chlorotoluene	126	11.968	11.968	0.000	96	57302	25.0	24.0	

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	11.999	11.998	0.001	94	193803	25.0	25.1	
107 4-Chlorotoluene	126	12.029	12.029	0.001	97	61378	25.0	24.7	
108 tert-Butylbenzene	119	12.309	12.308	0.001	94	161138	25.0	24.4	
110 1,2,4-Trimethylbenzene	105	12.370	12.369	0.001	98	189572	25.0	24.6	
111 1,2-dichloro-4-(trifluorom	214	12.412	12.412	0.000	98	51853	25.0	25.0	
112 sec-Butylbenzene	105	12.534	12.533	0.001	94	232206	25.0	24.9	
113 1,3-Dichlorobenzene	146	12.650	12.655	-0.005	98	99688	25.0	24.8	
114 4-Isopropyltoluene	119	12.692	12.692	0.000	97	187830	25.0	24.6	
115 1,4-Dichlorobenzene	146	12.759	12.752	0.007	96	97915	25.0	23.7	
116 2,4-Dichloro-1-(triflourom	214	12.784	12.783	0.001	96	48075	25.0	24.9	
118 2,5-Dichlorobenzotrifluori	214	12.826	12.825	0.001	0	53803	25.0	25.5	
120 n-Butylbenzene	91	13.100	13.099	0.001	98	156297	25.0	23.9	
121 1,2-Dichlorobenzene	146	13.112	13.111	0.001	96	89288	25.0	23.9	
122 1,2-Dibromo-3-Chloropropan	75	13.903	13.902	0.001	81	8772	25.0	23.6	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.049	14.042	0.007	0	178905	75.0	75.4	
125 2,3- & 3,4- Dichlorotoluen	125	14.463	14.462	0.001	0	111029	50.0	49.8	
126 1,2,4-Trichlorobenzene	180	14.724	14.723	0.001	95	35744	25.0	23.0	
127 Hexachlorobutadiene	225	14.876	14.876	0.000	96	17563	25.0	24.3	
128 Naphthalene	128	14.992	14.991	0.001	97	97794	25.0	22.8	
129 1,2,3-Trichlorobenzene	180	15.217	15.216	0.001	96	27811	25.0	23.0	
131 2,4,5-Trichlorotoluene	159	15.996	15.989	0.007	0	12082	25.0	22.1	
130 2,3,6-Trichlorotoluene	159	16.093	16.092	0.001	94	11025	25.0	22.3	
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		50.0	50.9	
S 134 1,2-Dichloroethene, Total	96				0		50.0	48.5	
S 135 1,3-Dichloropropene, Total	1				0		50.0	49.0	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOAACROPRI_00005	Amount Added:	5.00	Units: uL	
VOA8260SURR_00036	Amount Added:	1.00	Units: uL	
VOA8260VOAPRI_00115	Amount Added:	1.00	Units: uL	
voaWEEmix1st_00001	Amount Added:	1.00	Units: uL	
voaWketPri Re_00005	Amount Added:	1.00	Units: uL	
voaWVA1st Res_00001	Amount Added:	1.00	Units: uL	
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent

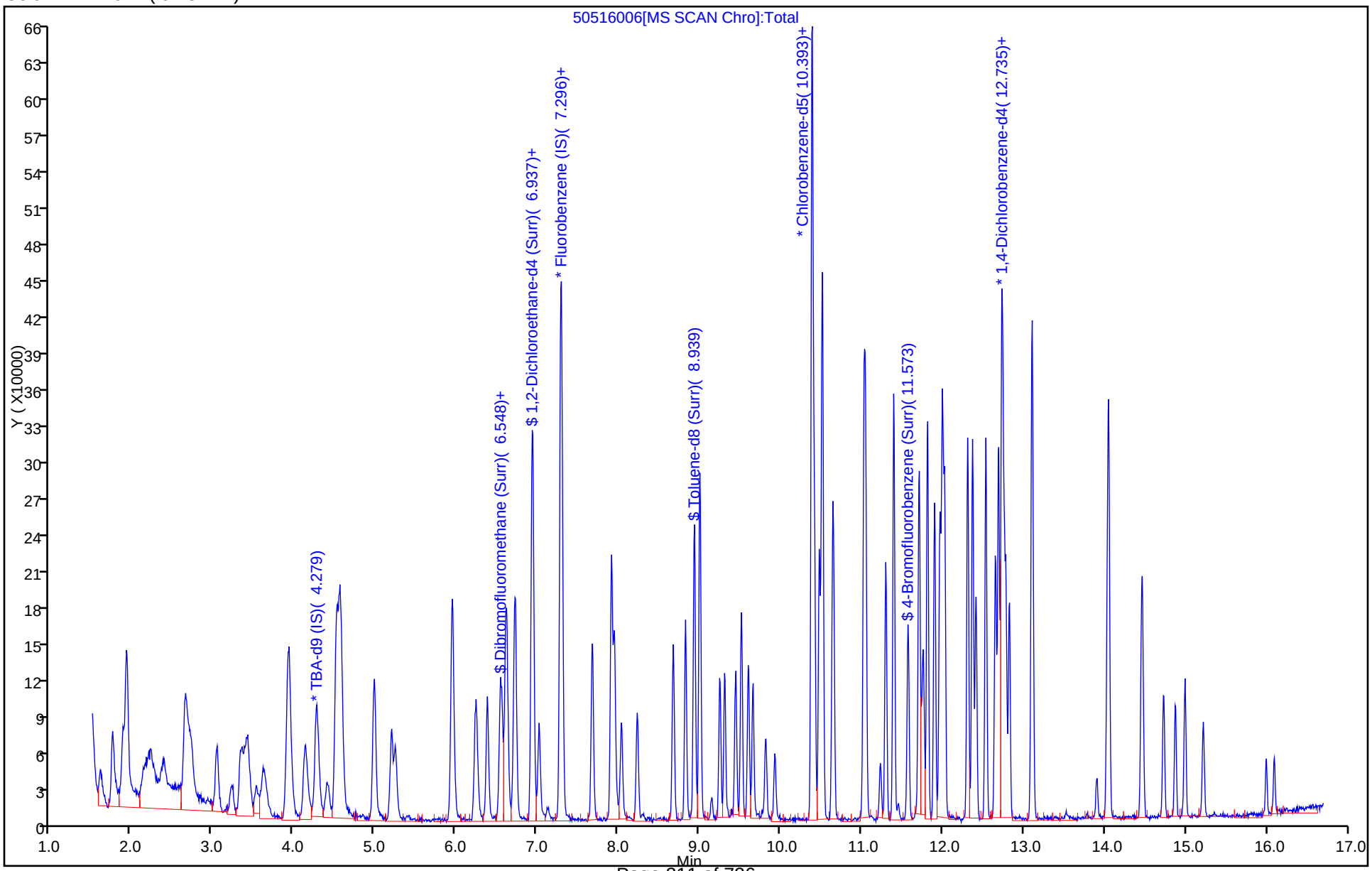
Report Date: 20-May-2015 07:58:57 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516006.D

Injection Date:	16-May-2015 14:25:30	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#:	6
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\20150516-6955.b\50516007.D
Lims ID: ICIS VSTD10
Client ID:
Sample Type: ICIS Calib Level: 3
Inject. Date: 16-May-2015 14:49:30 ALS Bottle#: 7 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ICIS VSTD10
Misc. Info.: 180-0006955-007
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 20-May-2015 08:06:56 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK053

First Level Reviewer: fergusond Date: 20-May-2015 08:06:56

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.284	4.284	0.000	0	174462	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.289	0.000	98	409556	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.392	10.392	0.000	86	90020	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.734	12.734	0.000	92	128560	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.566	6.566	0.000	92	86766	50.0	49.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.937	6.937	0.000	0	109451	50.0	49.7	
$ 7 Toluene-d8 (Surr)	98	8.938	8.938	0.000	94	360970	50.0	54.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.572	0.000	89	128795	50.0	53.7	
11 Dichlorodifluoromethane	85	1.614	1.614	0.000	100	139772	50.0	49.4	
12 Chloromethane	50	1.760	1.760	0.000	99	182305	50.0	50.6	
13 Vinyl chloride	62	1.893	1.893	0.000	99	166449	50.0	51.3	
14 Butadiene	39	1.936	1.936	0.000	98	189069	50.0	50.5	
15 Bromomethane	94	2.240	2.240	0.000	92	76846	50.0	51.6	
16 Chloroethane	64	2.386	2.386	0.000	99	86143	50.0	50.1	
17 Dichlorofluoromethane	67	2.666	2.666	0.000	97	193540	50.0	49.7	
18 Trichlorofluoromethane	101	2.703	2.703	0.000	96	183341	50.0	50.0	
20 Ethyl ether	59	3.049	3.049	0.000	94	104936	50.0	50.7	
21 Acrolein	56	3.226	3.226	0.000	99	51004	150.0	147.6	
22 1,1-Dichloroethene	96	3.353	3.353	0.000	97	96707	50.0	49.3	
23 1,1,2-Trichloro-1,2,2-trif	101	3.414	3.414	0.000	92	101970	50.0	49.7	
24 Acetone	43	3.451	3.451	0.000	98	77143	100.0	95.5	
25 Iodomethane	142	3.536	3.536	0.000	97	144879	50.0	48.2	
26 Carbon disulfide	76	3.633	3.633	0.000	100	257225	50.0	49.2	
28 3-Chloro-1-propene	76	3.919	3.919	0.000	90	63699	50.0	48.8	
30 Methyl acetate	43	3.944	3.944	0.000	99	455285	250.0	237.3	
31 Methylene Chloride	84	4.144	4.144	0.000	97	111625	50.0	48.5	
32 2-Methyl-2-propanol	59	4.412	4.412	0.000	95	98788	500.0	506.6	
33 Acrylonitrile	53	4.528	4.528	0.000	99	467180	500.0	482.3	
34 trans-1,2-Dichloroethene	96	4.570	4.570	0.000	98	105390	50.0	48.5	
35 Methyl tert-butyl ether	73	4.588	4.588	0.000	98	291276	50.0	48.7	

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	96	170117	50.0	49.7	
37 1,1-Dichloroethane	63	5.203	5.203	0.000	96	204154	50.0	49.8	
38 Vinyl acetate	43	5.252	5.252	0.000	97	231574	50.0	50.2	
44 2,2-Dichloropropane	77	5.945	5.945	0.000	64	107432	50.0	51.7	
45 cis-1,2-Dichloroethene	96	5.951	5.951	0.000	85	114911	50.0	47.9	
46 2-Butanone (MEK)	43	5.963	5.963	0.000	90	113388	100.0	92.4	
49 Chlorobromomethane	128	6.243	6.243	0.000	97	51243	50.0	47.9	
51 Tetrahydrofuran	42	6.261	6.261	0.000	91	78927	100.0	94.6	
52 Chloroform	83	6.383	6.383	0.000	95	179091	50.0	48.7	
53 1,1,1-Trichloroethane	97	6.541	6.541	0.000	99	145763	50.0	51.2	
54 Cyclohexane	56	6.614	6.614	0.000	94	213844	50.0	49.6	
56 Carbon tetrachloride	117	6.718	6.718	0.000	96	129982	50.0	50.7	
55 1,1-Dichloropropene	75	6.730	6.730	0.000	94	151117	50.0	50.4	
57 Isobutyl alcohol	41	6.937	6.937	0.000	94	89662	1250.0	1173.6	
58 Benzene	78	6.943	6.943	0.000	97	449313	50.0	49.2	
59 1,2-Dichloroethane	62	7.022	7.022	0.000	97	132308	50.0	48.6	
62 n-Heptane	43	7.308	7.308	0.000	94	145862	50.0	47.9	
64 Trichloroethene	130	7.685	7.685	0.000	96	111483	50.0	47.7	
66 Methylcyclohexane	83	7.916	7.916	0.000	89	197540	50.0	51.2	
67 1,2-Dichloropropane	63	7.953	7.953	0.000	94	117533	50.0	49.6	
68 Dibromomethane	93	8.038	8.038	0.000	97	59201	50.0	48.9	
70 1,4-Dioxane	88	8.032	8.032	0.000	44	19231	1000.0	1063.2	M
71 Dichlorobromomethane	83	8.232	8.232	0.000	99	127705	50.0	48.4	
74 cis-1,3-Dichloropropene	75	8.677	8.677	0.000	93	160488	50.0	47.8	
75 4-Methyl-2-pentanone (MIBK	43	8.829	8.829	0.000	98	241157	100.0	103.8	
76 Toluene	91	9.005	9.005	0.000	98	464739	50.0	54.1	
77 trans-1,3-Dichloropropene	75	9.254	9.254	0.000	96	134442	50.0	51.7	
78 Ethyl methacrylate	69	9.309	9.309	0.000	90	135767	50.0	52.4	
79 1,1,2-Trichloroethane	97	9.443	9.443	0.000	92	84146	50.0	51.9	
80 Tetrachloroethene	164	9.516	9.516	0.000	96	88231	50.0	54.7	
81 1,3-Dichloropropane	76	9.601	9.601	0.000	94	157053	50.0	51.2	
82 2-Hexanone	43	9.662	9.662	0.000	98	169527	100.0	102.6	
84 Chlorodibromomethane	129	9.814	9.814	0.000	90	83636	50.0	52.6	
85 Ethylene Dibromide	107	9.930	9.930	0.000	99	86087	50.0	51.7	
86 3-Chlorobenzotrifluoride	180	10.392	10.392	0.000	84	152198	50.0	52.1	
87 Chlorobenzene	112	10.422	10.422	0.000	94	290849	50.0	52.4	
88 4-Chlorobenzotrifluoride	180	10.477	10.477	0.000	95	141246	50.0	52.4	
89 1,1,1,2-Tetrachloroethane	131	10.514	10.514	0.000	93	100367	50.0	53.8	
90 Ethylbenzene	106	10.520	10.520	0.000	99	168885	50.0	52.2	
91 m-Xylene & p-Xylene	106	10.654	10.654	0.000	0	207226	50.0	52.9	
92 o-Xylene	106	11.031	11.031	0.000	96	201921	50.0	52.3	
93 Styrene	104	11.049	11.049	0.000	95	322959	50.0	53.0	
94 Bromoform	173	11.232	11.232	0.000	94	52554	50.0	51.3	
96 2-Chlorobenzotrifluoride	180	11.298	11.298	0.000	96	150042	50.0	51.9	
97 Isopropylbenzene	105	11.396	11.396	0.000	96	516352	50.0	54.7	
99 1,1,2,2-Tetrachloroethane	83	11.706	11.706	0.000	77	120795	50.0	52.7	
100 Bromobenzene	156	11.712	11.712	0.000	92	116689	50.0	49.1	
102 trans-1,4-Dichloro-2-buten	53	11.749	11.749	0.000	83	39979	50.0	50.7	
101 1,2,3-Trichloropropane	110	11.761	11.761	0.000	86	38651	50.0	49.5	
103 N-Propylbenzene	120	11.816	11.816	0.000	99	138735	50.0	49.0	
104 2-Chlorotoluene	126	11.901	11.901	0.000	96	118701	50.0	49.0	
105 3-Chlorotoluene	126	11.968	11.968	0.000	95	117016	50.0	47.5	

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	11.998	11.998	0.000	93	405661	50.0	51.0	
107 4-Chlorotoluene	126	12.029	12.029	0.000	98	126246	50.0	49.3	
108 tert-Butylbenzene	119	12.308	12.308	0.000	94	344428	50.0	50.6	
110 1,2,4-Trimethylbenzene	105	12.369	12.369	0.000	98	409626	50.0	51.6	
111 1,2-dichloro-4-(trifluorom	214	12.412	12.412	0.000	98	104350	50.0	48.8	
112 sec-Butylbenzene	105	12.533	12.533	0.000	94	488634	50.0	50.9	
113 1,3-Dichlorobenzene	146	12.655	12.655	0.000	98	212835	50.0	51.3	
114 4-Isopropyltoluene	119	12.692	12.692	0.000	96	399737	50.0	50.9	
115 1,4-Dichlorobenzene	146	12.752	12.752	0.000	94	210640	50.0	49.5	
116 2,4-Dichloro-1-(triflourom	214	12.783	12.783	0.000	97	93800	50.0	47.2	
118 2,5-Dichlorobenzotrifluori	214	12.825	12.825	0.000	0	110314	50.0	50.6	
120 n-Butylbenzene	91	13.099	13.099	0.000	98	343964	50.0	50.9	
121 1,2-Dichlorobenzene	146	13.111	13.111	0.000	96	188357	50.0	49.0	
122 1,2-Dibromo-3-Chloropropan	75	13.902	13.902	0.000	77	19090	50.0	49.9	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.042	14.042	0.000	0	364691	150.0	149.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.462	14.462	0.000	0	231450	100.0	100.8	
126 1,2,4-Trichlorobenzene	180	14.723	14.723	0.000	92	83043	50.0	51.9	
127 Hexachlorobutadiene	225	14.876	14.876	0.000	98	37852	50.0	50.8	
128 Naphthalene	128	14.991	14.991	0.000	97	217630	50.0	49.1	
129 1,2,3-Trichlorobenzene	180	15.216	15.216	0.000	93	61918	50.0	49.7	
131 2,4,5-Trichlorotoluene	159	15.989	15.989	0.000	0	26853	50.0	47.6	
130 2,3,6-Trichlorotoluene	159	16.092	16.092	0.000	96	24889	50.0	48.9	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	105.2	
S 134 1,2-Dichloroethene, Total	96				0		100.0	96.4	
S 135 1,3-Dichloropropene, Total	1				0		100.0	99.5	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWVA1st Res_00001	Amount Added:	2.00	Units: uL	
voaWketPri Re_00005	Amount Added:	2.00	Units: uL	
voaWEEmix1st_00001	Amount Added:	2.00	Units: uL	
VOA8260VOAPRI_00115	Amount Added:	2.00	Units: uL	
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	
VOAACROPRI_00005	Amount Added:	6.00	Units: uL	
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent

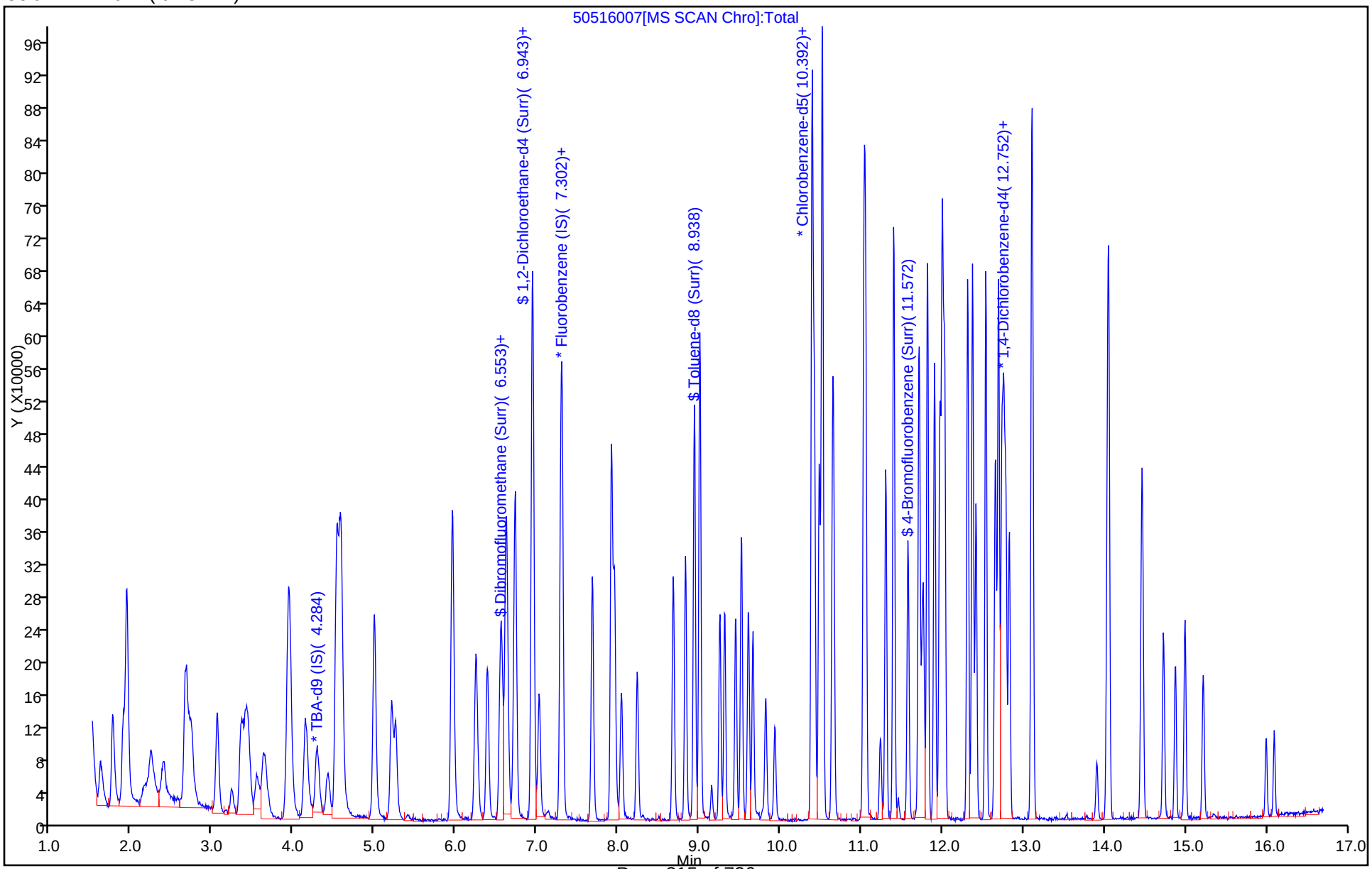
Report Date: 20-May-2015 08:06:57 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516007.D

Injection Date:	16-May-2015 14:49:30	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#:	7
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

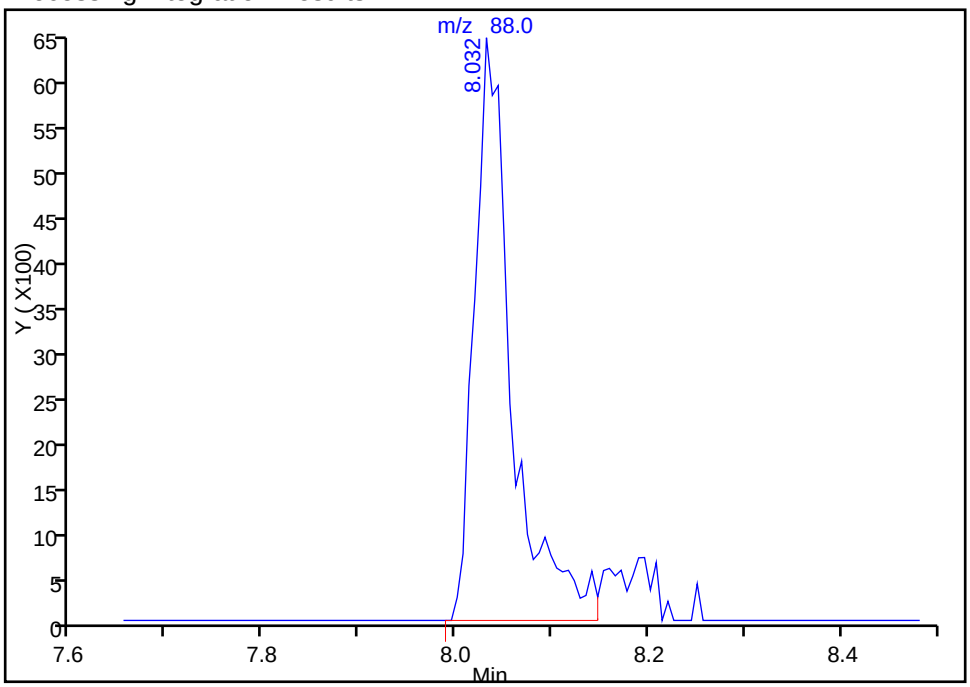
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516007.D
Injection Date: 16-May-2015 14:49:30 Instrument ID: CHHP5
Lims ID: ICIS VSTD10
Client ID:
Operator ID: 001562 ALS Bottle#: 7 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

70 1,4-Dioxane, CAS: 123-91-1

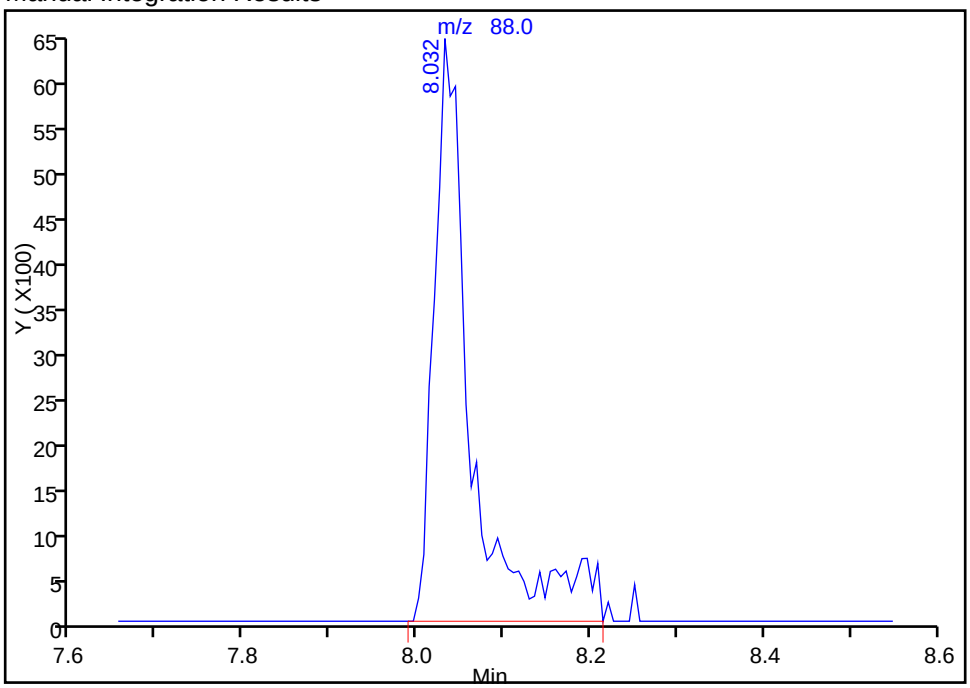
Processing Integration Results

RT: 8.03
Area: 17281
Amount: 961.0766
Amount Units: ng



Manual Integration Results

RT: 8.03
Area: 19231
Amount: 1063.2170
Amount Units: ng



Reviewer: fergusond, 17-May-2015 09:57:10
Audit Action: Manually Integrated
Audit Reason: Peak Tail

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516008.D
Lims ID: IC VSTD15
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 16-May-2015 15:13:30 ALS Bottle#: 8 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD15
Misc. Info.: 180-0006955-008
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 20-May-2015 07:59:00 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK053

First Level Reviewer: fergusond Date: 19-May-2015 16:55:21

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.294	4.294	0.000	0	157279	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.287	7.287	0.000	98	406127	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.389	10.389	0.000	87	93670	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.731	12.731	0.000	95	125943	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.563	6.563	0.000	93	129378	75.0	73.9	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.934	6.934	0.000	0	156609	75.0	71.8	
$ 7 Toluene-d8 (Surr)	98	8.935	8.935	0.000	93	529355	75.0	76.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.576	11.576	0.000	88	187179	75.0	75.0	
11 Dichlorodifluoromethane	85	1.611	1.611	0.000	99	198147	75.0	70.6	
12 Chloromethane	50	1.763	1.763	0.000	99	251404	75.0	70.4	
13 Vinyl chloride	62	1.891	1.891	0.000	98	223607	75.0	69.4	
14 Butadiene	39	1.933	1.933	0.000	98	257309	75.0	69.3	
15 Bromomethane	94	2.231	2.231	0.000	90	104570	75.0	70.8	
16 Chloroethane	64	2.384	2.384	0.000	99	120354	75.0	70.5	
17 Dichlorofluoromethane	67	2.663	2.663	0.000	97	270770	75.0	70.1	
18 Trichlorofluoromethane	101	2.700	2.700	0.000	98	254032	75.0	69.8	
20 Ethyl ether	59	3.047	3.047	0.000	95	150731	75.0	73.4	
21 Acrolein	56	3.223	3.223	0.000	96	57567	175.0	168.0	
22 1,1-Dichloroethene	96	3.345	3.345	0.000	97	131710	75.0	67.7	
23 1,1,2-Trichloro-1,2,2-trif	101	3.406	3.406	0.000	95	139284	75.0	68.4	
24 Acetone	43	3.442	3.442	0.000	99	104849	150.0	130.9	
25 Iodomethane	142	3.539	3.539	0.000	97	213381	75.0	71.5	
26 Carbon disulfide	76	3.631	3.631	0.000	100	359618	75.0	69.3	
28 3-Chloro-1-propene	76	3.923	3.923	0.000	91	87584	75.0	67.6	
30 Methyl acetate	43	3.941	3.941	0.000	99	688206	375.0	361.8	
31 Methylene Chloride	84	4.136	4.136	0.000	97	156184	75.0	70.0	
32 2-Methyl-2-propanol	59	4.409	4.409	0.000	96	133879	750.0	761.6	
33 Acrylonitrile	53	4.525	4.525	0.000	99	698952	750.0	727.7	
34 trans-1,2-Dichloroethene	96	4.561	4.561	0.000	98	148571	75.0	69.0	
35 Methyl tert-butyl ether	73	4.586	4.586	0.000	98	426281	75.0	71.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.987	4.987	0.000	95	231711	75.0	68.3	
37 1,1-Dichloroethane	63	5.200	5.200	0.000	96	285975	75.0	70.4	
38 Vinyl acetate	43	5.255	5.255	0.000	97	337865	75.0	73.9	
44 2,2-Dichloropropane	77	5.942	5.942	0.000	62	148401	75.0	72.0	
45 cis-1,2-Dichloroethene	96	5.955	5.955	0.000	83	167014	75.0	70.2	
46 2-Butanone (MEK)	43	5.967	5.967	0.000	99	172923	150.0	142.1	
49 Chlorobromomethane	128	6.234	6.234	0.000	97	74026	75.0	69.8	
51 Tetrahydrofuran	42	6.253	6.253	0.000	91	114171	150.0	138.0	
52 Chloroform	83	6.380	6.380	0.000	94	253342	75.0	69.5	
53 1,1,1-Trichloroethane	97	6.539	6.539	0.000	98	198228	75.0	70.2	
54 Cyclohexane	56	6.612	6.612	0.000	95	291411	75.0	68.2	
56 Carbon tetrachloride	117	6.715	6.715	0.000	96	174900	75.0	68.8	
55 1,1-Dichloropropene	75	6.733	6.733	0.000	96	202545	75.0	68.1	
57 Isobutyl alcohol	41	6.928	6.928	0.000	94	124554	1875.0	1644.1	
58 Benzene	78	6.946	6.946	0.000	97	644345	75.0	71.2	
59 1,2-Dichloroethane	62	7.019	7.019	0.000	96	198068	75.0	73.4	
62 n-Heptane	43	7.311	7.311	0.000	96	204400	75.0	67.8	
64 Trichloroethene	130	7.676	7.676	0.000	97	162356	75.0	70.0	
66 Methylcyclohexane	83	7.913	7.913	0.000	91	264739	75.0	69.3	
67 1,2-Dichloropropane	63	7.950	7.950	0.000	93	167326	75.0	71.2	
70 1,4-Dioxane	88	8.035	8.035	0.000	38	25640	1500.0	1429.5	
68 Dibromomethane	93	8.035	8.035	0.000	95	86196	75.0	71.8	
71 Dichlorobromomethane	83	8.230	8.230	0.000	98	187125	75.0	71.5	
74 cis-1,3-Dichloropropene	75	8.680	8.680	0.000	93	235501	75.0	70.8	
75 4-Methyl-2-pentanone (MIBK	43	8.832	8.832	0.000	97	363974	150.0	150.5	
76 Toluene	91	9.002	9.002	0.000	98	651396	75.0	72.9	
77 trans-1,3-Dichloropropene	75	9.252	9.252	0.000	97	196686	75.0	72.7	
78 Ethyl methacrylate	69	9.313	9.313	0.000	91	198049	75.0	73.5	
79 1,1,2-Trichloroethane	97	9.446	9.446	0.000	92	124580	75.0	73.9	
80 Tetrachloroethene	164	9.519	9.519	0.000	97	119542	75.0	71.2	
81 1,3-Dichloropropane	76	9.605	9.605	0.000	93	231741	75.0	72.6	
82 2-Hexanone	43	9.659	9.659	0.000	99	259288	150.0	150.8	
84 Chlorodibromomethane	129	9.818	9.818	0.000	91	122216	75.0	73.8	
85 Ethylene Dibromide	107	9.933	9.933	0.000	98	126486	75.0	73.0	
86 3-Chlorobenzotrifluoride	180	10.389	10.389	0.000	92	224982	75.0	74.0	
87 Chlorobenzene	112	10.420	10.420	0.000	94	419367	75.0	72.5	
88 4-Chlorobenzotrifluoride	180	10.481	10.481	0.000	97	211166	75.0	75.2	
89 1,1,1,2-Tetrachloroethane	131	10.511	10.511	0.000	92	144165	75.0	74.3	
90 Ethylbenzene	106	10.517	10.517	0.000	99	240815	75.0	71.6	
91 m-Xylene & p-Xylene	106	10.651	10.651	0.000	0	289558	75.0	71.1	
92 o-Xylene	106	11.028	11.028	0.000	96	293127	75.0	72.9	
93 Styrene	104	11.052	11.052	0.000	95	471737	75.0	74.4	
94 Bromoform	173	11.235	11.235	0.000	94	78081	75.0	73.3	
96 2-Chlorobenzotrifluoride	180	11.302	11.302	0.000	97	222548	75.0	73.9	
97 Isopropylbenzene	105	11.399	11.399	0.000	96	718989	75.0	73.2	
99 1,1,2,2-Tetrachloroethane	83	11.709	11.709	0.000	79	176119	75.0	73.9	
100 Bromobenzene	156	11.709	11.709	0.000	94	166541	75.0	71.6	
102 trans-1,4-Dichloro-2-buten	53	11.746	11.746	0.000	89	56013	75.0	72.4	
101 1,2,3-Trichloropropane	110	11.764	11.764	0.000	87	55364	75.0	72.4	
103 N-Propylbenzene	120	11.813	11.813	0.000	99	203005	75.0	73.2	
104 2-Chlorotoluene	126	11.904	11.904	0.000	96	173296	75.0	73.0	
105 3-Chlorotoluene	126	11.965	11.965	0.000	94	178285	75.0	73.9	

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	11.995	11.995	0.000	95	575343	75.0	73.8	
107 4-Chlorotoluene	126	12.026	12.026	0.000	98	180900	75.0	72.1	
108 tert-Butylbenzene	119	12.312	12.312	0.000	94	487360	75.0	73.1	
110 1,2,4-Trimethylbenzene	105	12.373	12.373	0.000	98	583360	75.0	75.0	
111 1,2-dichloro-4-(trifluorom	214	12.415	12.415	0.000	98	153151	75.0	73.2	
112 sec-Butylbenzene	105	12.537	12.537	0.000	94	688902	75.0	73.2	
113 1,3-Dichlorobenzene	146	12.652	12.652	0.000	97	293827	75.0	72.3	
114 4-Isopropyltoluene	119	12.689	12.689	0.000	96	567183	75.0	73.7	
115 1,4-Dichlorobenzene	146	12.756	12.756	0.000	95	299547	75.0	71.9	
116 2,4-Dichloro-1-(triflourom	214	12.780	12.780	0.000	96	150960	75.0	77.5	
118 2,5-Dichlorobenzotrifluori	214	12.823	12.823	0.000	0	156467	75.0	73.3	
120 n-Butylbenzene	91	13.097	13.097	0.000	98	478753	75.0	72.4	
121 1,2-Dichlorobenzene	146	13.115	13.115	0.000	96	277004	75.0	73.6	
122 1,2-Dibromo-3-Chloropropan	75	13.900	13.900	0.000	80	26350	75.0	70.3	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.046	14.046	0.000	0	545686	225.0	227.6	
125 2,3- & 3,4- Dichlorotoluen	125	14.459	14.459	0.000	0	336189	150.0	149.4	
126 1,2,4-Trichlorobenzene	180	14.727	14.727	0.000	94	115597	75.0	73.8	
127 Hexachlorobutadiene	225	14.867	14.867	0.000	97	53104	75.0	72.7	
128 Naphthalene	128	14.988	14.988	0.000	97	326282	75.0	75.2	
129 1,2,3-Trichlorobenzene	180	15.220	15.220	0.000	96	91856	75.0	75.3	
131 2,4,5-Trichlorotoluene	159	15.992	15.992	0.000	0	41170	75.0	74.5	
130 2,3,6-Trichlorotoluene	159	16.090	16.090	0.000	96	38141	75.0	76.5	
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		150.0	144.0	
S 134 1,2-Dichloroethene, Total	96				0		150.0	139.2	
S 135 1,3-Dichloropropene, Total	1				0		150.0	143.4	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOAACROPRI_00005	Amount Added:	7.00	Units: uL	
voaWVA1st Res_00001	Amount Added:	3.00	Units: uL	
VOA8260SURR_00036	Amount Added:	3.00	Units: uL	
VOA8260VOAPRI_00115	Amount Added:	3.00	Units: uL	
voaWEEmix1st_00001	Amount Added:	3.00	Units: uL	
voaWketPri Re_00005	Amount Added:	3.00	Units: uL	
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent

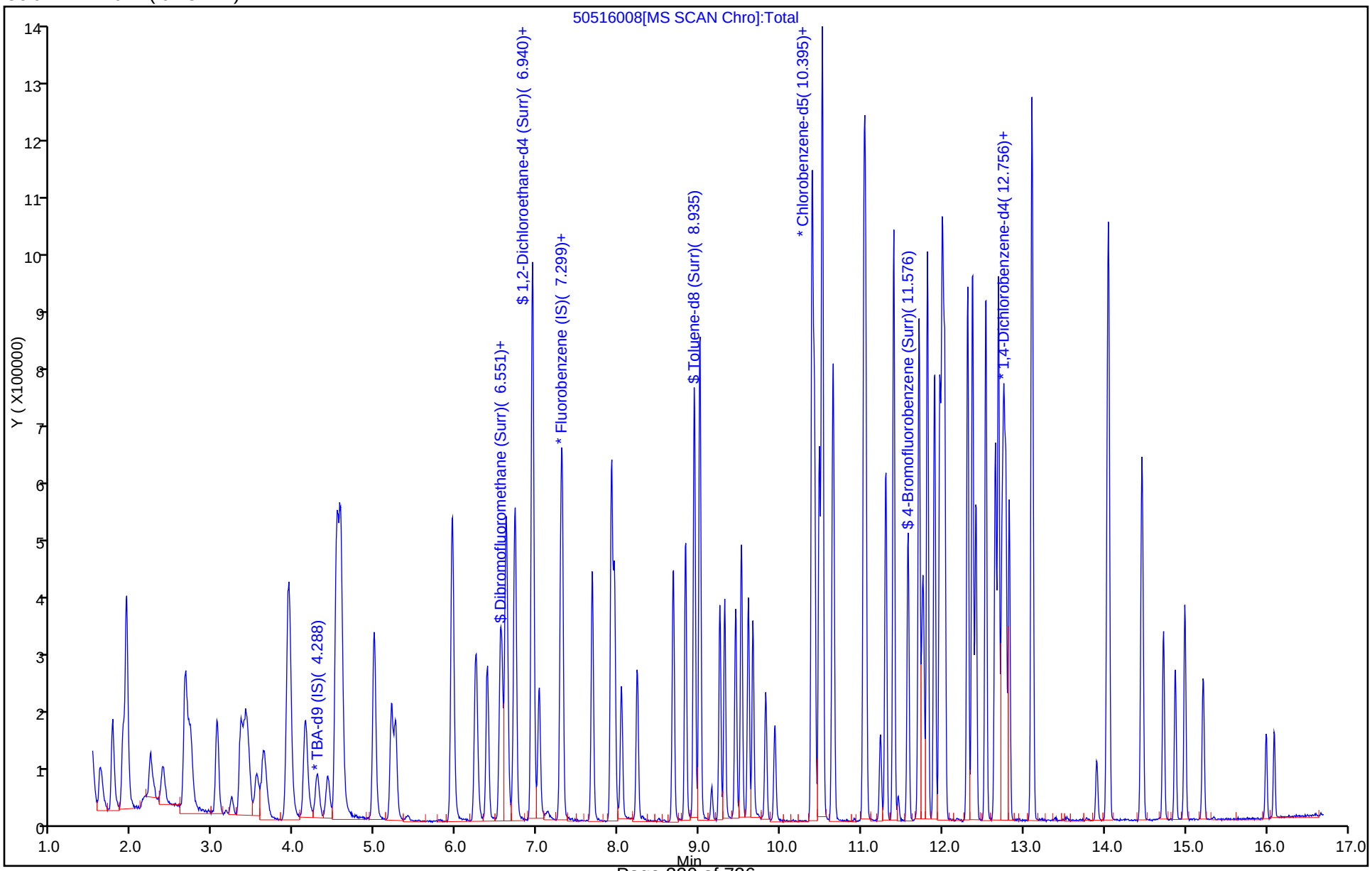
Report Date: 20-May-2015 07:59:00 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516008.D

Injection Date:	16-May-2015 15:13:30	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#:	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\20150516-6955.b\50516009.D
Lims ID: IC VSTD20
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 16-May-2015 15:37:30 ALS Bottle#: 9 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD20
Misc. Info.: 180-0006955-009
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 20-May-2015 07:59:02 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK053

First Level Reviewer: fergusond Date: 17-May-2015 10:24:21

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.273	4.294	-0.021	0	177496	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.287	0.003	98	370431	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.393	10.389	0.004	87	89321	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.735	12.731	0.004	92	121307	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.566	6.563	0.003	94	147987	100.0	92.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.937	6.934	0.003	0	188154	100.0	94.5	
$ 7 Toluene-d8 (Surr)	98	8.939	8.935	0.004	93	586112	100.0	88.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.573	11.576	-0.003	87	216366	100.0	90.9	
11 Dichlorodifluoromethane	85	1.608	1.611	-0.003	99	284090	100.0	111.0	
12 Chloromethane	50	1.760	1.763	-0.003	99	344598	100.0	105.8	
13 Vinyl chloride	62	1.894	1.891	0.003	100	320054	100.0	109.0	
14 Butadiene	39	1.937	1.933	0.004	97	358834	100.0	105.9	
15 Bromomethane	94	2.241	2.231	0.010	91	136319	100.0	101.2	
16 Chloroethane	64	2.387	2.384	0.003	99	161455	100.0	103.7	
17 Dichlorofluoromethane	67	2.661	2.663	-0.002	98	373977	100.0	106.2	
18 Trichlorofluoromethane	101	2.709	2.700	0.009	95	368166	100.0	111.0	
20 Ethyl ether	59	3.044	3.047	-0.003	95	194864	100.0	104.0	
21 Acrolein	56	3.232	3.223	0.009	97	66638	200.0	213.3	
22 1,1-Dichloroethene	96	3.342	3.345	-0.003	98	190502	100.0	107.3	
23 1,1,2-Trichloro-1,2,2-trif	101	3.415	3.406	0.009	93	196759	100.0	106.0	
24 Acetone	43	3.445	3.442	0.003	99	150082	200.0	205.4	
25 Iodomethane	142	3.537	3.539	-0.002	97	290615	100.0	106.8	
26 Carbon disulfide	76	3.628	3.631	-0.003	100	503316	100.0	106.4	
28 3-Chloro-1-propene	76	3.920	3.923	-0.003	91	124326	100.0	105.3	
30 Methyl acetate	43	3.938	3.941	-0.003	99	913845	500.0	526.7	
31 Methylene Chloride	84	4.139	4.136	0.003	97	218733	100.0	109.6	
32 2-Methyl-2-propanol	59	4.419	4.409	0.010	96	192394	1000.0	969.8	
33 Acrylonitrile	53	4.522	4.525	-0.003	99	940824	1000.0	1073.9	
34 trans-1,2-Dichloroethene	96	4.571	4.561	0.010	98	209713	100.0	106.8	
35 Methyl tert-butyl ether	73	4.583	4.586	-0.003	98	574699	100.0	106.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.991	4.987	0.004	95	339162	100.0	109.6	
37 1,1-Dichloroethane	63	5.204	5.200	0.004	96	395632	100.0	106.7	
38 Vinyl acetate	43	5.252	5.255	-0.003	97	441287	100.0	105.8	
44 2,2-Dichloropropane	77	5.952	5.942	0.010	91	202218	100.0	107.5	
45 cis-1,2-Dichloroethene	96	5.958	5.955	0.003	83	230222	100.0	106.0	
46 2-Butanone (MEK)	43	5.964	5.967	-0.003	100	230372	200.0	207.6	
49 Chlorobromomethane	128	6.238	6.234	0.004	97	103519	100.0	107.0	
51 Tetrahydrofuran	42	6.256	6.253	0.003	91	151096	200.0	200.3	
52 Chloroform	83	6.384	6.380	0.004	95	357774	100.0	107.6	
53 1,1,1-Trichloroethane	97	6.548	6.539	0.009	98	283726	100.0	110.2	
54 Cyclohexane	56	6.615	6.612	0.003	95	421978	100.0	108.3	
56 Carbon tetrachloride	117	6.718	6.715	0.003	94	253847	100.0	109.4	
55 1,1-Dichloropropene	75	6.730	6.733	-0.003	93	289670	100.0	106.8	
57 Isobutyl alcohol	41	6.931	6.928	0.003	94	185654	2500.0	2686.7	
58 Benzene	78	6.943	6.946	-0.003	98	891733	100.0	108.0	
59 1,2-Dichloroethane	62	7.022	7.019	0.003	96	259711	100.0	105.5	
62 n-Heptane	43	7.308	7.311	-0.003	95	289291	100.0	105.1	
64 Trichloroethene	130	7.680	7.676	0.004	97	224913	100.0	106.3	
66 Methylcyclohexane	83	7.917	7.913	0.004	93	377428	100.0	108.3	
67 1,2-Dichloropropane	63	7.947	7.950	-0.003	94	226207	100.0	105.5	
70 1,4-Dioxane	88	8.032	8.035	-0.003	42	36079	2000.0	2205.4	
68 Dibromomethane	93	8.038	8.035	0.003	97	114272	100.0	104.3	
71 Dichlorobromomethane	83	8.233	8.230	0.003	98	258861	100.0	108.4	
74 cis-1,3-Dichloropropene	75	8.677	8.680	-0.003	94	332080	100.0	109.4	
75 4-Methyl-2-pentanone (MIBK	43	8.829	8.832	-0.003	98	491050	200.0	212.9	
76 Toluene	91	9.006	9.002	0.004	98	894815	100.0	105.1	
77 trans-1,3-Dichloropropene	75	9.255	9.252	0.003	96	268588	100.0	104.1	
78 Ethyl methacrylate	69	9.310	9.313	-0.003	92	260669	100.0	101.4	
79 1,1,2-Trichloroethane	97	9.450	9.446	0.004	91	165328	100.0	102.8	
80 Tetrachloroethene	164	9.517	9.519	-0.002	96	169544	100.0	105.9	
81 1,3-Dichloropropane	76	9.602	9.605	-0.003	95	304646	100.0	100.1	
82 2-Hexanone	43	9.663	9.659	0.004	98	339351	200.0	206.9	
84 Chlorodibromomethane	129	9.821	9.818	0.003	91	165444	100.0	104.8	
85 Ethylene Dibromide	107	9.930	9.933	-0.003	97	169918	100.0	102.8	
86 3-Chlorobenzotrifluoride	180	10.393	10.389	0.004	93	292861	100.0	101.0	
87 Chlorobenzene	112	10.417	10.420	-0.003	94	570910	100.0	103.6	
88 4-Chlorobenzotrifluoride	180	10.478	10.481	-0.003	96	274980	100.0	102.7	
89 1,1,1,2-Tetrachloroethane	131	10.514	10.511	0.003	93	195742	100.0	105.8	
90 Ethylbenzene	106	10.520	10.517	0.003	98	334335	100.0	104.2	
91 m-Xylene & p-Xylene	106	10.648	10.651	-0.003	0	407630	100.0	104.9	
92 o-Xylene	106	11.031	11.028	0.003	97	398116	100.0	103.8	
93 Styrene	104	11.050	11.052	-0.002	95	634944	100.0	105.0	
94 Bromoform	173	11.232	11.235	-0.003	95	107188	100.0	105.5	
96 2-Chlorobenzotrifluoride	180	11.299	11.302	-0.003	96	291981	100.0	101.7	
97 Isopropylbenzene	105	11.397	11.399	-0.003	96	999249	100.0	106.8	
99 1,1,2,2-Tetrachloroethane	83	11.707	11.709	-0.002	87	233122	100.0	102.6	
100 Bromobenzene	156	11.713	11.709	0.004	93	230103	100.0	102.7	
102 trans-1,4-Dichloro-2-buten	53	11.749	11.746	0.003	84	74514	100.0	100.1	
101 1,2,3-Trichloropropane	110	11.762	11.764	-0.002	87	73189	100.0	99.4	
103 N-Propylbenzene	120	11.816	11.813	0.003	98	285930	100.0	107.1	
104 2-Chlorotoluene	126	11.901	11.904	-0.003	96	231421	100.0	101.1	
105 3-Chlorotoluene	126	11.968	11.965	0.003	95	241548	100.0	103.9	

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	11.999	11.995	0.004	94	789696	100.0	105.1	
107 4-Chlorotoluene	126	12.023	12.026	-0.003	98	244132	100.0	101.1	
108 tert-Butylbenzene	119	12.309	12.312	-0.003	94	669393	100.0	104.2	
110 1,2,4-Trimethylbenzene	105	12.370	12.373	-0.003	98	790516	100.0	105.5	
111 1,2-dichloro-4-(trifluorom	214	12.412	12.415	-0.003	97	196577	100.0	97.5	
112 sec-Butylbenzene	105	12.534	12.537	-0.003	95	954454	100.0	105.3	
113 1,3-Dichlorobenzene	146	12.656	12.652	0.004	97	406066	100.0	103.7	
114 4-Isopropyltoluene	119	12.692	12.689	0.003	96	777298	100.0	104.8	
115 1,4-Dichlorobenzene	146	12.759	12.756	0.003	94	415537	100.0	103.5	
116 2,4-Dichloro-1-(triflourom	214	12.784	12.780	0.004	96	179817	100.0	95.9	
118 2,5-Dichlorobenzotrifluori	214	12.826	12.823	0.003	0	209283	100.0	101.8	
120 n-Butylbenzene	91	13.100	13.097	0.004	98	670595	100.0	105.2	
121 1,2-Dichlorobenzene	146	13.112	13.115	-0.003	95	368987	100.0	101.7	
122 1,2-Dibromo-3-Chloropropan	75	13.903	13.900	0.003	85	35965	100.0	99.6	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.049	14.046	0.003	0	718214	300.0	311.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.463	14.459	0.004	0	444255	200.0	205.0	
126 1,2,4-Trichlorobenzene	180	14.730	14.727	0.003	95	154892	100.0	102.6	
127 Hexachlorobutadiene	225	14.870	14.867	0.003	98	72860	100.0	103.6	
128 Naphthalene	128	14.992	14.988	0.004	97	435794	100.0	104.3	
129 1,2,3-Trichlorobenzene	180	15.217	15.220	-0.003	95	121692	100.0	103.6	
131 2,4,5-Trichlorotoluene	159	15.996	15.992	0.004	0	52474	100.0	98.6	
130 2,3,6-Trichlorotoluene	159	16.093	16.090	0.003	96	48949	100.0	102.0	
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		200.0	208.7	
S 134 1,2-Dichloroethene, Total	96				0		200.0	212.8	
S 135 1,3-Dichloropropene, Total	1				0		200.0	213.5	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

voaWketPri Re_00005	Amount Added:	4.00	Units: uL		
VOA8260SURR_00036	Amount Added:	4.00	Units: uL		
VOA8260VOAPRI_00115	Amount Added:	4.00	Units: uL		
voaWEEmix1st_00001	Amount Added:	4.00	Units: uL		
voaWVA1st Res_00001	Amount Added:	4.00	Units: uL		
VOAACROPRI_00005	Amount Added:	8.00	Units: uL		
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent	

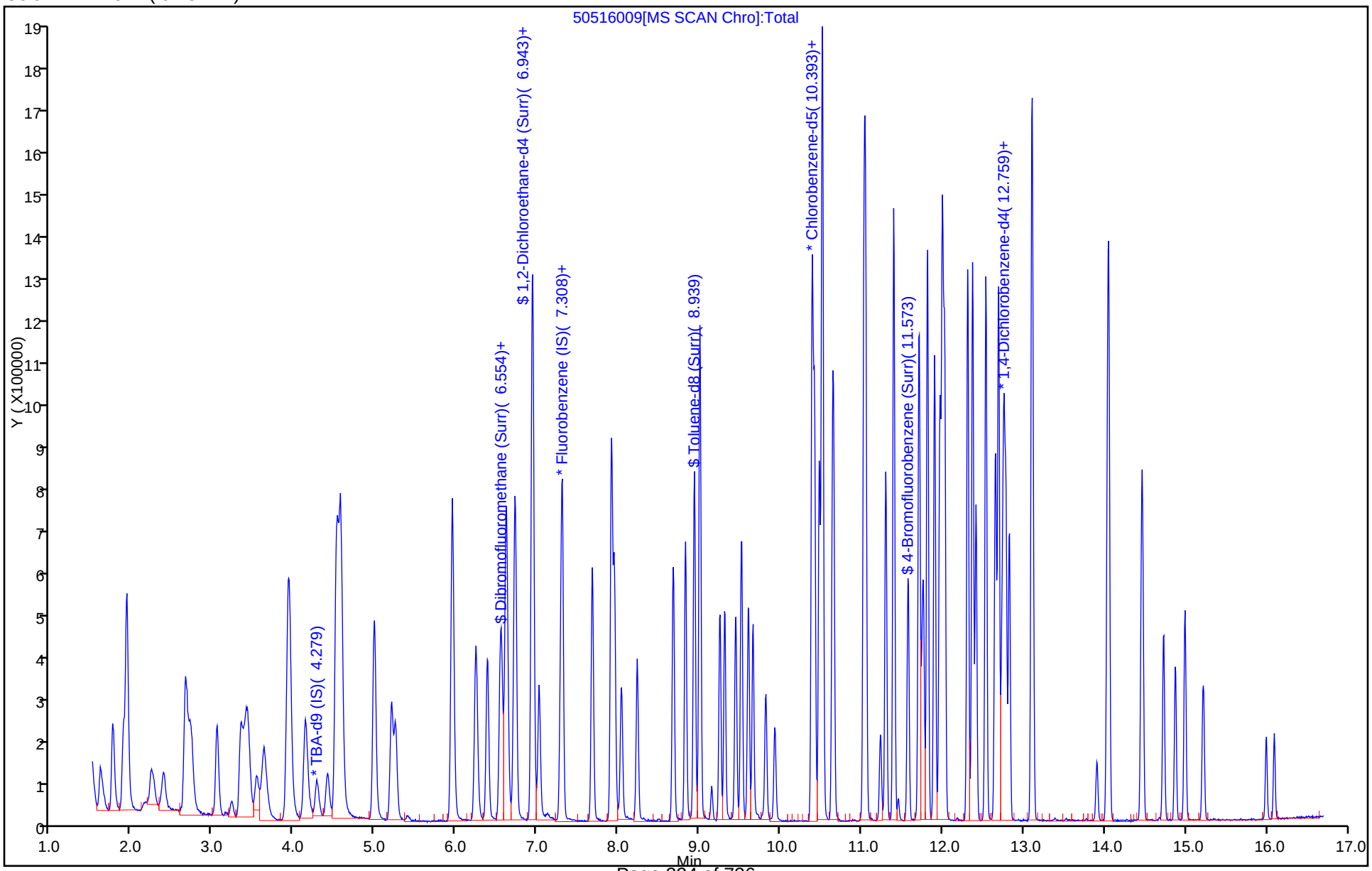
Report Date: 20-May-2015 07:59:03 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516009.D

Injection Date:	16-May-2015 15:37:30	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#:	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\20150516-6955.b\50516010.D
Lims ID: IC VSTD35
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 16-May-2015 16:01:30 ALS Bottle#: 10 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD35
Misc. Info.: 180-0006955-010
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 20-May-2015 07:59:04 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK053

First Level Reviewer: fergusond Date: 17-May-2015 10:25:28

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.274	4.294	-0.020	0	159875	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.292	7.287	0.005	99	415895	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.388	10.389	-0.001	61	100311	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.737	12.731	0.006	93	127325	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.562	6.563	-0.001	93	307223	175.0	171.3	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.933	6.934	-0.001	0	373050	175.0	166.9	
$ 7 Toluene-d8 (Surr)	98	8.940	8.935	0.005	94	1246255	175.0	167.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.575	11.576	-0.001	88	438835	175.0	164.1	
11 Dichlorodifluoromethane	85	1.610	1.611	-0.001	99	489556	175.0	170.4	
12 Chloromethane	50	1.762	1.763	-0.001	99	595634	175.0	162.8	
13 Vinyl chloride	62	1.896	1.891	0.005	98	566283	175.0	171.7	
14 Butadiene	39	1.932	1.933	-0.001	97	634286	175.0	166.8	
15 Bromomethane	94	2.249	2.231	0.018	92	239513	175.0	158.4	
16 Chloroethane	64	2.382	2.384	-0.002	99	287097	175.0	164.3	
17 Dichlorofluoromethane	67	2.662	2.663	-0.001	98	649772	175.0	164.3	
18 Trichlorofluoromethane	101	2.705	2.700	0.005	96	654292	175.0	175.7	
20 Ethyl ether	59	3.052	3.047	0.005	94	338873	175.0	161.1	
21 Acrolein	56	3.228	3.223	0.005	98	75025	225.0	213.9	
22 1,1-Dichloroethene	96	3.338	3.345	-0.007	97	335036	175.0	168.1	
23 1,1,2-Trichloro-1,2,2-trif	101	3.411	3.406	0.005	93	359471	175.0	172.4	
24 Acetone	43	3.441	3.442	-0.001	100	250330	350.0	305.2	
25 Iodomethane	142	3.532	3.539	-0.007	97	514557	175.0	168.5	
26 Carbon disulfide	76	3.624	3.631	-0.007	100	908552	175.0	171.1	
28 3-Chloro-1-propene	76	3.922	3.923	-0.001	91	226558	175.0	170.9	
30 Methyl acetate	43	3.940	3.941	-0.001	98	1593543	875.0	818.0	
31 Methylene Chloride	84	4.141	4.136	0.005	96	370938	175.0	167.6	
32 2-Methyl-2-propanol	59	4.408	4.409	-0.001	96	310446	1750.0	1737.3	
33 Acrylonitrile	53	4.524	4.525	-0.001	100	1638590	1750.0	1666.0	
34 trans-1,2-Dichloroethene	96	4.560	4.561	-0.001	98	376161	175.0	170.6	
35 Methyl tert-butyl ether	73	4.579	4.586	-0.007	98	1007461	175.0	165.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.986	4.987	-0.001	96	606508	175.0	174.5	
37 1,1-Dichloroethane	63	5.199	5.200	-0.001	96	699468	175.0	168.1	
38 Vinyl acetate	43	5.248	5.255	-0.007	97	838397	175.0	179.1	
44 2,2-Dichloropropane	77	5.947	5.942	0.005	92	362248	175.0	171.6	
45 cis-1,2-Dichloroethene	96	5.947	5.955	-0.008	85	406370	175.0	166.7	
46 2-Butanone (MEK)	43	5.960	5.967	-0.007	99	413184	350.0	331.6	
49 Chlorobromomethane	128	6.233	6.234	-0.001	96	175842	175.0	161.9	
51 Tetrahydrofuran	42	6.252	6.253	-0.001	90	268899	350.0	317.4	
52 Chloroform	83	6.385	6.380	0.005	94	623315	175.0	167.0	
53 1,1,1-Trichloroethane	97	6.544	6.539	0.005	98	501196	175.0	173.4	
54 Cyclohexane	56	6.610	6.612	-0.002	95	760681	175.0	173.8	
56 Carbon tetrachloride	117	6.714	6.715	-0.001	95	458714	175.0	176.2	
55 1,1-Dichloropropene	75	6.732	6.733	-0.001	94	532113	175.0	174.8	
57 Isobutyl alcohol	41	6.927	6.928	-0.001	94	306921	4375.0	3956.2	
58 Benzene	78	6.945	6.946	-0.001	98	1556800	175.0	168.0	
59 1,2-Dichloroethane	62	7.024	7.019	0.005	96	470597	175.0	170.2	
62 n-Heptane	43	7.310	7.311	-0.001	94	539599	175.0	174.7	
64 Trichloroethene	130	7.681	7.676	0.005	97	397937	175.0	167.5	
66 Methylcyclohexane	83	7.912	7.913	-0.001	93	683293	175.0	174.6	
67 1,2-Dichloropropane	63	7.949	7.950	-0.001	93	412685	175.0	171.4	
68 Dibromomethane	93	8.034	8.035	-0.001	96	205482	175.0	167.0	
70 1,4-Dioxane	88	8.028	8.035	-0.007	41	63617	3500.0	3463.6	
71 Dichlorobromomethane	83	8.235	8.230	0.005	99	466967	175.0	174.2	
74 cis-1,3-Dichloropropene	75	8.673	8.680	-0.007	94	596748	175.0	175.1	
75 4-Methyl-2-pentanone (MIBK	43	8.825	8.832	-0.007	98	854345	350.0	329.9	
76 Toluene	91	9.007	9.002	0.005	98	1582981	175.0	165.5	
77 trans-1,3-Dichloropropene	75	9.251	9.252	-0.001	96	502087	175.0	173.2	
78 Ethyl methacrylate	69	9.312	9.313	-0.001	91	493696	175.0	171.1	
79 1,1,2-Trichloroethane	97	9.445	9.446	-0.001	92	297075	175.0	164.5	
80 Tetrachloroethene	164	9.518	9.519	-0.001	95	302473	175.0	168.2	
81 1,3-Dichloropropane	76	9.604	9.605	-0.001	95	555783	175.0	162.7	
82 2-Hexanone	43	9.658	9.659	-0.001	98	615972	350.0	334.5	
84 Chlorodibromomethane	129	9.816	9.818	-0.002	91	303040	175.0	171.0	
85 Ethylene Dibromide	107	9.932	9.933	-0.001	99	308447	175.0	166.2	
86 3-Chlorobenzotrifluoride	180	10.394	10.389	0.005	93	527642	175.0	162.0	
87 Chlorobenzene	112	10.419	10.420	-0.001	94	1012881	175.0	163.6	
88 4-Chlorobenzotrifluoride	180	10.480	10.481	-0.001	96	495834	175.0	164.9	
89 1,1,1,2-Tetrachloroethane	131	10.510	10.511	-0.001	94	356190	175.0	171.5	
90 Ethylbenzene	106	10.516	10.517	-0.001	98	604351	175.0	167.7	
91 m-Xylene & p-Xylene	106	10.650	10.651	-0.001	0	732122	175.0	167.8	
92 o-Xylene	106	11.027	11.028	-0.001	95	709393	175.0	164.7	
93 Styrene	104	11.051	11.052	-0.001	95	1140683	175.0	167.9	
94 Bromoform	173	11.234	11.235	-0.001	96	198852	175.0	174.3	
96 2-Chlorobenzotrifluoride	180	11.301	11.302	-0.001	96	524920	175.0	162.9	
97 Isopropylbenzene	105	11.398	11.399	-0.001	97	1734373	175.0	165.0	
99 1,1,2,2-Tetrachloroethane	83	11.708	11.709	-0.001	78	418695	175.0	164.0	
100 Bromobenzene	156	11.708	11.709	-0.001	93	398529	175.0	169.4	
102 trans-1,4-Dichloro-2-buten	53	11.745	11.746	-0.001	86	139100	175.0	177.9	
101 1,2,3-Trichloropropane	110	11.763	11.764	-0.001	86	133594	175.0	172.9	
103 N-Propylbenzene	120	11.812	11.813	-0.001	98	499315	175.0	178.2	
104 2-Chlorotoluene	126	11.903	11.904	-0.001	97	419063	175.0	174.5	
105 3-Chlorotoluene	126	11.970	11.965	0.005	95	407920	175.0	167.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
106 1,3,5-Trimethylbenzene	105	11.994	11.995	-0.001	95	1375415	175.0	174.5	
107 4-Chlorotoluene	126	12.025	12.026	-0.001	98	447268	175.0	176.4	
108 tert-Butylbenzene	119	12.311	12.312	-0.001	81	1178813	175.0	174.9	
110 1,2,4-Trimethylbenzene	105	12.372	12.373	-0.001	97	1360625	175.0	173.1	
111 1,2-dichloro-4-(trifluorom	214	12.414	12.415	-0.001	98	355323	175.0	167.9	
112 sec-Butylbenzene	105	12.536	12.537	-0.001	95	1653035	175.0	173.7	
113 1,3-Dichlorobenzene	146	12.651	12.652	-0.001	97	700660	175.0	170.5	
114 4-Isopropyltoluene	119	12.688	12.689	-0.001	96	1364814	175.0	175.3	
115 1,4-Dichlorobenzene	146	12.755	12.756	-0.001	94	717486	175.0	170.3	
116 2,4-Dichloro-1-(triflourom	214	12.785	12.780	0.005	96	332494	175.0	168.9	
118 2,5-Dichlorobenzotrifluori	214	12.822	12.823	-0.001	0	354350	175.0	164.2	
120 n-Butylbenzene	91	13.102	13.097	0.006	97	1189032	175.0	177.8	
121 1,2-Dichlorobenzene	146	13.114	13.115	-0.001	95	641130	175.0	168.4	
122 1,2-Dibromo-3-Chloropropan	75	13.905	13.900	0.005	83	61945	175.0	163.5	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.044	14.046	-0.002	0	1225990	525.0	505.8	
125 2,3- & 3,4- Dichlorotoluen	125	14.464	14.459	0.005	0	764884	350.0	336.3	
126 1,2,4-Trichlorobenzene	180	14.726	14.727	-0.001	94	266554	175.0	168.3	
127 Hexachlorobutadiene	225	14.872	14.867	0.005	98	129453	175.0	175.3	
128 Naphthalene	128	14.994	14.988	0.006	98	752912	175.0	171.6	
129 1,2,3-Trichlorobenzene	180	15.219	15.220	-0.001	95	208528	175.0	169.1	
131 2,4,5-Trichlorotoluene	159	15.991	15.992	-0.001	0	97593	175.0	174.7	
130 2,3,6-Trichlorotoluene	159	16.095	16.090	0.005	96	88195	175.0	175.0	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		350.0	332.5	
S 134 1,2-Dichloroethene, Total	96				0		350.0	337.3	
S 135 1,3-Dichloropropene, Total	1				0		350.0	348.3	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOAACROPRI_00005	Amount Added:	9.00	Units: uL	
VOA8260SURR_00036	Amount Added:	7.00	Units: uL	
VOA8260VOAPRI_00115	Amount Added:	7.00	Units: uL	
voaWEEmix1st_00001	Amount Added:	7.00	Units: uL	
voaWketPri Re_00005	Amount Added:	7.00	Units: uL	
voaWVA1st Res_00001	Amount Added:	7.00	Units: uL	
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent

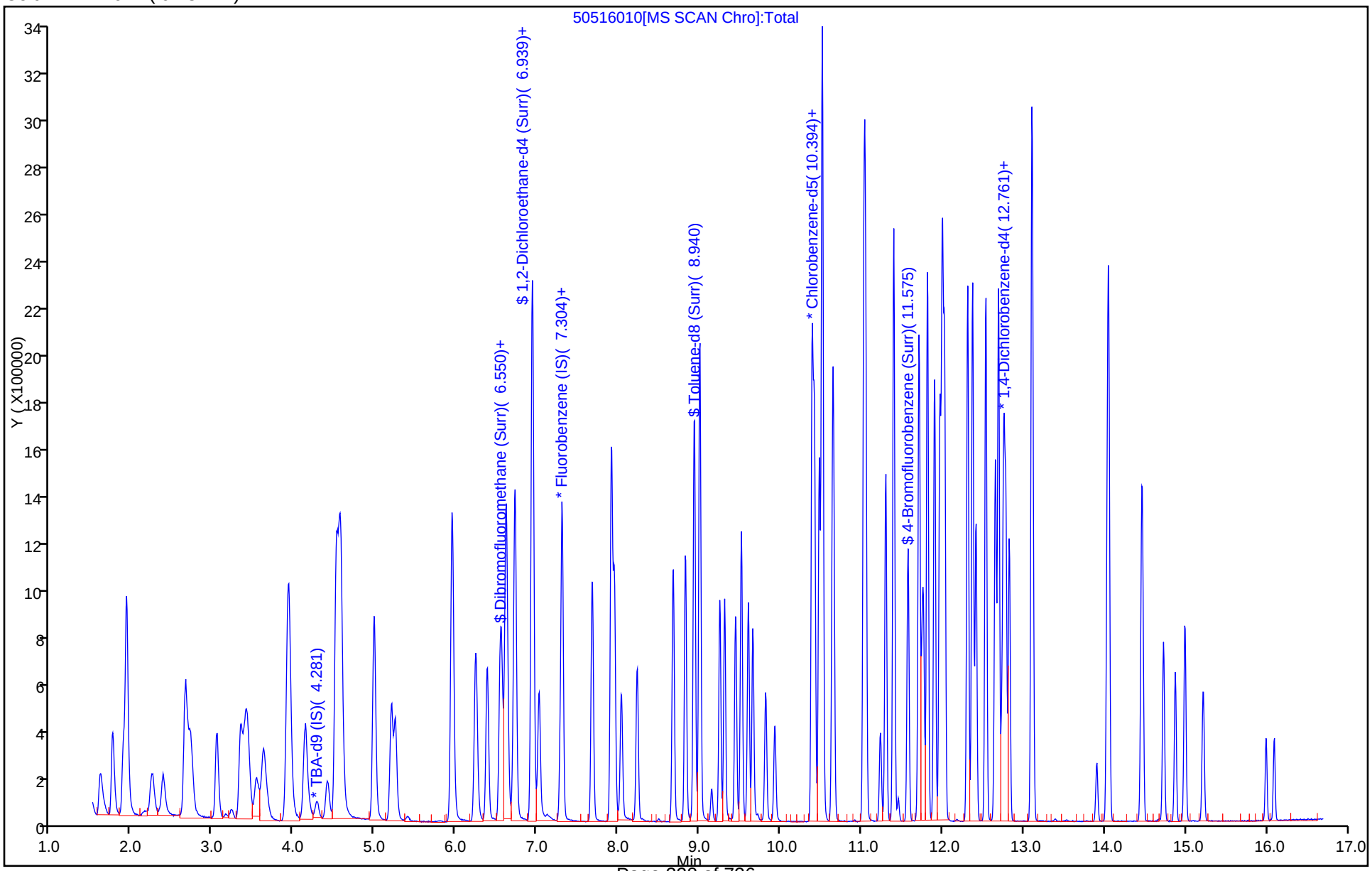
Report Date: 20-May-2015 07:59:04 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516010.D

Injection Date:	16-May-2015 16:01:30	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#:	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\20150516-6955.b\50516011.D
Lims ID: IC VSTD40
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 16-May-2015 16:25:30 ALS Bottle#: 11 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD40
Misc. Info.: 180-0006955-011
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 20-May-2015 07:59:05 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK053

First Level Reviewer: fergusond Date: 17-May-2015 10:30:50

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	4.294	-0.007	0	168203	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.286	7.287	-0.001	98	417857	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.389	10.389	0.000	58	104075	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.731	12.731	0.000	93	129741	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.562	6.563	-0.001	94	348028	200.0	193.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.939	6.934	0.005	0	431230	200.0	192.0	
$ 7 Toluene-d8 (Surr)	98	8.935	8.935	0.000	94	1397781	200.0	180.8	
$ 8 4-Bromofluorobenzene (Surr	95	11.575	11.576	-0.001	87	502727	200.0	181.2	
11 Dichlorodifluoromethane	85	1.616	1.611	0.005	99	571054	200.0	197.8	
12 Chloromethane	50	1.762	1.763	-0.001	99	704073	200.0	191.6	
13 Vinyl chloride	62	1.896	1.891	0.005	98	646662	200.0	195.2	
14 Butadiene	39	1.933	1.933	0.000	97	723158	200.0	189.3	
15 Bromomethane	94	2.231	2.231	0.000	92	271395	200.0	178.6	
16 Chloroethane	64	2.383	2.384	-0.001	100	330931	200.0	188.5	
17 Dichlorofluoromethane	67	2.663	2.663	0.000	97	738885	200.0	186.0	
18 Trichlorofluoromethane	101	2.699	2.700	-0.001	98	736625	200.0	196.9	
20 Ethyl ether	59	3.046	3.047	-0.001	94	408402	200.0	193.3	
21 Acrolein	56	3.222	3.223	-0.001	99	88651	250.0	251.5	
22 1,1-Dichloroethene	96	3.338	3.345	-0.007	98	391170	200.0	195.4	
23 1,1,2-Trichloro-1,2,2-trif	101	3.411	3.406	0.005	93	418214	200.0	199.7	
24 Acetone	43	3.441	3.442	-0.001	100	294993	400.0	357.9	
25 Iodomethane	142	3.533	3.539	-0.006	97	605171	200.0	197.2	
26 Carbon disulfide	76	3.618	3.631	-0.013	100	1075123	200.0	201.5	
28 3-Chloro-1-propene	76	3.916	3.923	-0.007	91	274256	200.0	205.9	
30 Methyl acetate	43	3.934	3.941	-0.007	98	1896769	1000.0	969.1	
31 Methylene Chloride	84	4.141	4.136	0.005	97	447077	200.0	201.9	
32 2-Methyl-2-propanol	59	4.415	4.409	0.006	96	386153	2000.0	2054.0	
33 Acrylonitrile	53	4.524	4.525	-0.001	98	1932324	2000.0	1955.4	
34 trans-1,2-Dichloroethene	96	4.561	4.561	0.000	98	445623	200.0	201.2	
35 Methyl tert-butyl ether	73	4.579	4.586	-0.007	97	1195212	200.0	195.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.987	4.987	0.000	95	707171	200.0	202.6	
37 1,1-Dichloroethane	63	5.199	5.200	-0.001	96	821765	200.0	196.5	
38 Vinyl acetate	43	5.248	5.255	-0.007	97	950875	200.0	202.2	
44 2,2-Dichloropropane	77	5.942	5.942	0.000	92	417803	200.0	197.0	
45 cis-1,2-Dichloroethene	96	5.948	5.955	-0.007	83	479341	200.0	195.7	
46 2-Butanone (MEK)	43	5.960	5.967	-0.007	100	480568	400.0	383.9	
49 Chlorobromomethane	128	6.234	6.234	0.000	97	212511	200.0	194.8	
51 Tetrahydrofuran	42	6.252	6.253	-0.001	90	324299	400.0	381.0	
52 Chloroform	83	6.380	6.380	0.000	95	735696	200.0	196.2	
53 1,1,1-Trichloroethane	97	6.538	6.539	-0.001	98	593527	200.0	204.4	
54 Cyclohexane	56	6.617	6.612	0.005	95	887972	200.0	202.0	
56 Carbon tetrachloride	117	6.714	6.715	-0.001	95	538483	200.0	205.8	
55 1,1-Dichloropropene	75	6.726	6.733	-0.007	93	626963	200.0	205.0	
57 Isobutyl alcohol	41	6.933	6.928	0.005	93	367512	5000.0	4714.9	
58 Benzene	78	6.939	6.946	-0.007	98	1804376	200.0	193.8	
59 1,2-Dichloroethane	62	7.018	7.019	-0.001	96	549195	200.0	197.7	
62 n-Heptane	43	7.304	7.311	-0.007	94	638200	200.0	205.6	
64 Trichloroethene	130	7.675	7.676	-0.001	97	464834	200.0	194.8	
66 Methylcyclohexane	83	7.913	7.913	0.000	91	803074	200.0	204.2	
67 1,2-Dichloropropane	63	7.949	7.950	-0.001	93	486757	200.0	201.2	
68 Dibromomethane	93	8.034	8.035	-0.001	97	241803	200.0	195.6	
70 1,4-Dioxane	88	8.034	8.035	-0.001	40	72304	4000.0	3918.0	
71 Dichlorobromomethane	83	8.229	8.230	-0.001	98	544261	200.0	202.1	
74 cis-1,3-Dichloropropene	75	8.673	8.680	-0.007	93	695090	200.0	203.0	
75 4-Methyl-2-pentanone (MIBK	43	8.825	8.832	-0.007	98	1022549	400.0	380.5	
76 Toluene	91	9.008	9.002	0.006	98	1828639	200.0	184.3	
77 trans-1,3-Dichloropropene	75	9.251	9.252	-0.001	97	591530	200.0	196.7	
78 Ethyl methacrylate	69	9.312	9.313	-0.001	91	570691	200.0	190.6	
79 1,1,2-Trichloroethane	97	9.446	9.446	0.000	91	352121	200.0	187.9	
80 Tetrachloroethene	164	9.519	9.519	0.000	95	354566	200.0	190.0	
81 1,3-Dichloropropane	76	9.604	9.605	-0.001	94	647342	200.0	182.6	
82 2-Hexanone	43	9.659	9.659	0.000	98	717499	400.0	375.5	
84 Chlorodibromomethane	129	9.817	9.818	-0.001	90	360233	200.0	195.9	
85 Ethylene Dibromide	107	9.926	9.933	-0.007	98	362695	200.0	188.4	
86 3-Chlorobenzotrifluoride	180	10.389	10.389	0.000	93	631042	200.0	186.8	
87 Chlorobenzene	112	10.419	10.420	-0.001	93	1180656	200.0	183.8	
88 4-Chlorobenzotrifluoride	180	10.480	10.481	-0.001	97	590776	200.0	189.4	
89 1,1,1,2-Tetrachloroethane	131	10.510	10.511	-0.001	95	418931	200.0	194.4	
90 Ethylbenzene	106	10.516	10.517	-0.001	98	706749	200.0	189.0	
91 m-Xylene & p-Xylene	106	10.650	10.651	-0.001	0	852624	200.0	188.3	
92 o-Xylene	106	11.027	11.028	-0.001	96	836498	200.0	187.2	
93 Styrene	104	11.052	11.052	0.000	95	1337390	200.0	189.7	
94 Bromoform	173	11.234	11.235	-0.001	96	236082	200.0	199.4	
96 2-Chlorobenzotrifluoride	180	11.301	11.302	-0.001	96	628620	200.0	188.0	
97 Isopropylbenzene	105	11.399	11.399	-0.001	97	2001663	200.0	183.5	
99 1,1,2,2-Tetrachloroethane	83	11.709	11.709	0.000	92	490555	200.0	185.2	
100 Bromobenzene	156	11.715	11.709	0.006	94	473382	200.0	197.5	
102 trans-1,4-Dichloro-2-buten	53	11.745	11.746	-0.001	86	159664	200.0	200.5	
101 1,2,3-Trichloropropane	110	11.764	11.764	0.000	86	153012	200.0	194.3	
103 N-Propylbenzene	120	11.812	11.813	-0.001	98	591500	200.0	207.1	
104 2-Chlorotoluene	126	11.903	11.904	-0.001	96	489127	200.0	199.9	
105 3-Chlorotoluene	126	11.964	11.965	-0.001	95	495496	200.0	199.3	

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	11.995	11.995	0.000	95	1608417	200.0	200.2	
107 4-Chlorotoluene	126	12.025	12.026	-0.001	98	528393	200.0	204.6	
108 tert-Butylbenzene	119	12.311	12.312	-0.001	94	1380885	200.0	201.0	
110 1,2,4-Trimethylbenzene	105	12.372	12.373	-0.001	97	1609046	200.0	200.9	
111 1,2-dichloro-4-(trifluorom	214	12.414	12.415	-0.001	98	427937	200.0	198.5	
112 sec-Butylbenzene	105	12.536	12.537	-0.001	95	1924108	200.0	198.5	
113 1,3-Dichlorobenzene	146	12.652	12.652	0.000	97	832640	200.0	198.8	
114 4-Isopropyltoluene	119	12.688	12.689	-0.001	96	1579772	200.0	199.2	
115 1,4-Dichlorobenzene	146	12.755	12.756	-0.001	92	848655	200.0	197.6	
116 2,4-Dichloro-1-(triflourom	214	12.779	12.780	-0.001	96	417880	200.0	208.4	
118 2,5-Dichlorobenzotrifluori	214	12.828	12.823	0.005	0	439671	200.0	200.0	
120 n-Butylbenzene	91	13.102	13.097	0.006	97	1404498	200.0	206.1	
121 1,2-Dichlorobenzene	146	13.114	13.115	-0.001	95	762881	200.0	196.6	
122 1,2-Dibromo-3-Chloropropan	75	13.905	13.900	0.005	79	76236	200.0	197.4	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.045	14.046	-0.001	0	1539388	600.0	623.3	
125 2,3- & 3,4- Dichlorotoluen	125	14.458	14.459	-0.001	0	962981	400.0	415.5	
126 1,2,4-Trichlorobenzene	180	14.726	14.727	-0.001	94	335069	200.0	207.6	
127 Hexachlorobutadiene	225	14.872	14.867	0.005	98	162203	200.0	215.6	
128 Naphthalene	128	14.988	14.988	0.000	98	941162	200.0	210.6	
129 1,2,3-Trichlorobenzene	180	15.219	15.220	-0.001	94	264239	200.0	210.3	
131 2,4,5-Trichlorotoluene	159	15.992	15.992	0.000	0	132246	200.0	232.3	
130 2,3,6-Trichlorotoluene	159	16.089	16.090	-0.001	95	119597	200.0	238.5	
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		400.0	375.6	
S 134 1,2-Dichloroethene, Total	96				0		400.0	396.9	
S 135 1,3-Dichloropropene, Total	1				0		400.0	399.7	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

voaWVA1st Res_00001	Amount Added:	8.00	Units: uL	
voaWketPri Re_00005	Amount Added:	8.00	Units: uL	
voaWEEmix1st_00001	Amount Added:	8.00	Units: uL	
VOA8260VOAPRI_00115	Amount Added:	8.00	Units: uL	
VOA8260SURR_00036	Amount Added:	8.00	Units: uL	
VOAACROPRI_00005	Amount Added:	10.00	Units: uL	
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent

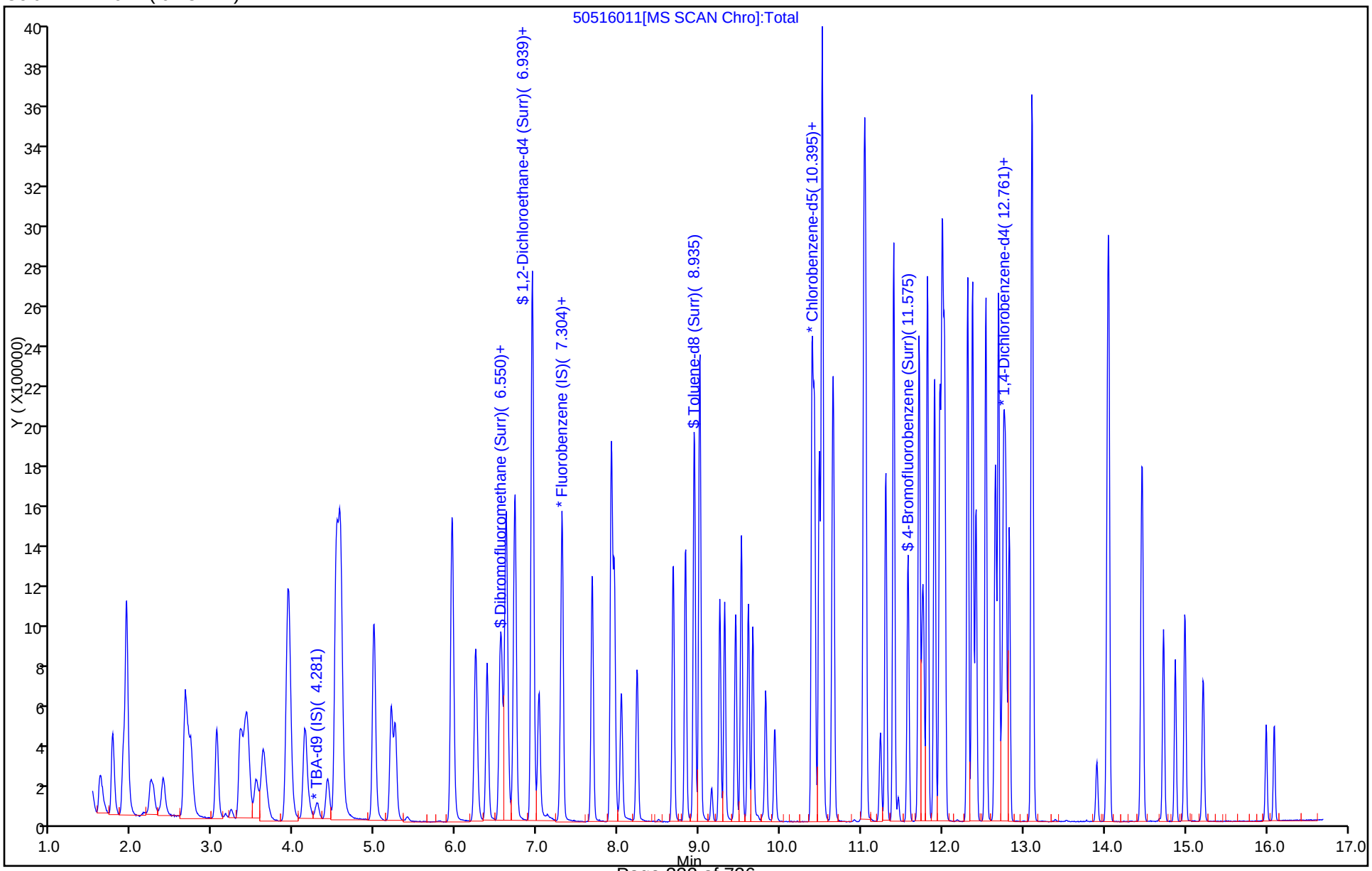
Report Date: 20-May-2015 07:59:05 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516011.D

Injection Date:	16-May-2015 16:25:30	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#:	11
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\20150516-6955.b\50516012.D
Lims ID: IC VSTD50
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 16-May-2015 16:49:30 ALS Bottle#: 12 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD50
Misc. Info.: 180-0006955-012
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 20-May-2015 07:59:07 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK053

First Level Reviewer: fergusond Date: 19-May-2015 16:52:15

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.291	4.294	-0.003	0	186139	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.287	0.003	98	397426	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.386	10.389	-0.003	85	106136	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.735	12.731	0.004	90	132873	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.560	6.563	-0.003	93	437325	250.0	255.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.937	6.934	0.003	0	539180	250.0	252.5	
$ 7 Toluene-d8 (Surr)	98	8.939	8.935	0.004	93	1708627	250.0	216.8	
$ 8 4-Bromofluorobenzene (Surr	95	11.573	11.576	-0.003	87	644083	250.0	227.6	
11 Dichlorodifluoromethane	85	1.608	1.611	-0.003	99	677972	250.0	246.9	
12 Chloromethane	50	1.760	1.763	-0.003	99	853061	250.0	244.0	
13 Vinyl chloride	62	1.900	1.891	0.009	98	756967	250.0	240.2	
14 Butadiene	39	1.930	1.933	-0.003	97	834397	250.0	229.6	
15 Bromomethane	94	2.229	2.231	-0.002	90	313631	250.0	217.1	
16 Chloroethane	64	2.375	2.384	-0.009	99	421453	250.0	252.4	
17 Dichlorofluoromethane	67	2.654	2.663	-0.009	98	897395	250.0	237.5	
18 Trichlorofluoromethane	101	2.709	2.700	0.009	96	864903	250.0	243.0	
20 Ethyl ether	59	3.044	3.047	-0.003	94	507453	250.0	252.5	
21 Acrolein	56	3.232	3.223	0.009	100	96098	275.0	286.7	
22 1,1-Dichloroethene	96	3.336	3.345	-0.009	98	475066	250.0	249.5	
23 1,1,2-Trichloro-1,2,2-trif	101	3.409	3.406	0.003	93	498000	250.0	250.0	
24 Acetone	43	3.439	3.442	-0.003	100	384917	500.0	491.0	
25 Iodomethane	142	3.536	3.539	-0.003	97	733771	250.0	251.4	
26 Carbon disulfide	76	3.622	3.631	-0.009	100	1298935	250.0	256.0	
28 3-Chloro-1-propene	76	3.914	3.923	-0.009	92	330407	250.0	260.8	
30 Methyl acetate	43	3.938	3.941	-0.003	98	2376963	1250.0	1276.9	
31 Methylene Chloride	84	4.133	4.136	-0.003	96	552796	250.0	263.6	
32 2-Methyl-2-propanol	59	4.419	4.409	0.010	95	512805	2500.0	2464.8	
33 Acrylonitrile	53	4.522	4.525	-0.003	98	2412653	2500.0	2567.0	
34 trans-1,2-Dichloroethene	96	4.559	4.561	-0.003	98	544478	250.0	258.4	
35 Methyl tert-butyl ether	73	4.577	4.586	-0.009	98	1509991	250.0	260.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.984	4.987	-0.003	95	844126	250.0	254.2	
37 1,1-Dichloroethane	63	5.197	5.200	-0.003	96	999556	250.0	251.3	
38 Vinyl acetate	43	5.246	5.255	-0.009	97	1138937	250.0	254.6	
44 2,2-Dichloropropane	77	5.946	5.942	0.004	93	500050	250.0	247.8	
45 cis-1,2-Dichloroethene	96	5.946	5.955	-0.009	82	595141	250.0	255.5	
46 2-Butanone (MEK)	43	5.958	5.967	-0.009	100	622273	500.0	522.7	
49 Chlorobromomethane	128	6.238	6.234	0.004	97	263556	250.0	254.0	
51 Tetrahydrofuran	42	6.250	6.253	-0.003	91	419005	500.0	517.6	
52 Chloroform	83	6.377	6.380	-0.003	95	893900	250.0	250.6	
53 1,1,1-Trichloroethane	97	6.536	6.539	-0.003	98	696824	250.0	252.3	
54 Cyclohexane	56	6.609	6.612	-0.003	95	1049572	250.0	251.0	
56 Carbon tetrachloride	117	6.718	6.715	0.003	94	635270	250.0	255.3	
55 1,1-Dichloropropene	75	6.730	6.733	-0.003	93	735954	250.0	253.0	
57 Isobutyl alcohol	41	6.931	6.928	0.003	94	528662	6250.0	7131.0	
58 Benzene	78	6.943	6.946	-0.003	99	2207544	250.0	249.3	
59 1,2-Dichloroethane	62	7.022	7.019	0.003	96	681235	250.0	257.8	
62 n-Heptane	43	7.308	7.311	-0.003	94	757243	250.0	256.5	
64 Trichloroethene	130	7.679	7.676	0.003	96	566380	250.0	249.5	
66 Methylcyclohexane	83	7.917	7.913	0.004	93	944316	250.0	252.5	
67 1,2-Dichloropropane	63	7.947	7.950	-0.003	94	603740	250.0	262.4	
68 Dibromomethane	93	8.038	8.035	0.003	97	304535	250.0	259.0	
70 1,4-Dioxane	88	8.032	8.035	-0.003	92	102170	5000.0	5821.0	
71 Dichlorobromomethane	83	8.233	8.230	0.003	98	687742	250.0	268.4	
74 cis-1,3-Dichloropropene	75	8.677	8.680	-0.003	93	870707	250.0	267.4	
75 4-Methyl-2-pentanone (MIBK	43	8.829	8.832	-0.003	98	1279570	500.0	466.9	
76 Toluene	91	9.006	9.002	0.004	98	2216424	250.0	219.0	
77 trans-1,3-Dichloropropene	75	9.255	9.252	0.003	97	743755	250.0	242.5	
78 Ethyl methacrylate	69	9.310	9.313	-0.003	91	725382	250.0	237.6	
79 1,1,2-Trichloroethane	97	9.444	9.446	-0.002	92	443499	250.0	232.1	
80 Tetrachloroethene	164	9.517	9.519	-0.002	95	418170	250.0	219.7	
81 1,3-Dichloropropane	76	9.602	9.605	-0.003	94	826269	250.0	228.5	
82 2-Hexanone	43	9.663	9.659	0.004	97	888839	500.0	456.1	
84 Chlorodibromomethane	129	9.815	9.818	-0.003	91	456166	250.0	243.2	
85 Ethylene Dibromide	107	9.930	9.933	-0.003	99	453495	250.0	231.0	
86 3-Chlorobenzotrifluoride	180	10.393	10.389	0.004	94	699677	250.0	203.0	
87 Chlorobenzene	112	10.417	10.420	-0.003	92	1442349	250.0	220.2	
88 4-Chlorobenzotrifluoride	180	10.478	10.481	-0.003	97	658310	250.0	207.0	
89 1,1,1,2-Tetrachloroethane	131	10.514	10.511	0.003	95	519767	250.0	236.5	
90 Ethylbenzene	106	10.520	10.517	0.003	98	870182	250.0	228.2	
91 m-Xylene & p-Xylene	106	10.648	10.651	-0.003	0	1047590	250.0	226.9	
92 o-Xylene	106	11.031	11.028	0.003	96	1033655	250.0	226.9	
93 Styrene	104	11.050	11.052	-0.002	95	1669453	250.0	232.2	
94 Bromoform	173	11.232	11.235	-0.003	96	303024	250.0	251.0	
96 2-Chlorobenzotrifluoride	180	11.299	11.302	-0.003	96	703113	250.0	206.2	
97 Isopropylbenzene	105	11.396	11.399	-0.003	97	2396507	250.0	215.5	
99 1,1,2,2-Tetrachloroethane	83	11.707	11.709	-0.002	79	643838	250.0	238.4	
100 Bromobenzene	156	11.713	11.709	0.004	95	600210	250.0	244.5	
102 trans-1,4-Dichloro-2-buten	53	11.743	11.746	-0.003	85	210584	250.0	258.1	
101 1,2,3-Trichloropropane	110	11.761	11.764	-0.003	85	199028	250.0	246.8	
103 N-Propylbenzene	120	11.816	11.813	0.003	97	729900	250.0	249.6	
104 2-Chlorotoluene	126	11.901	11.904	-0.003	96	620292	250.0	247.5	
105 3-Chlorotoluene	126	11.968	11.965	0.003	95	587998	250.0	230.9	

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	11.999	11.995	0.004	95	1986196	250.0	241.4	
107 4-Chlorotoluene	126	12.023	12.026	-0.003	98	650195	250.0	245.8	
108 tert-Butylbenzene	119	12.309	12.312	-0.003	93	1681816	250.0	239.1	
110 1,2,4-Trimethylbenzene	105	12.370	12.373	-0.003	98	1991208	250.0	242.7	
111 1,2-dichloro-4-(trifluorom	214	12.412	12.415	-0.003	98	491068	250.0	222.4	
112 sec-Butylbenzene	105	12.534	12.537	-0.003	95	2349439	250.0	236.6	
113 1,3-Dichlorobenzene	146	12.650	12.652	-0.002	97	1066399	250.0	248.6	
114 4-Isopropyltoluene	119	12.692	12.689	0.003	95	1970323	250.0	242.6	
115 1,4-Dichlorobenzene	146	12.759	12.756	0.003	94	1083798	250.0	246.5	
116 2,4-Dichloro-1-(triflourom	214	12.783	12.780	0.003	95	461859	250.0	224.9	
118 2,5-Dichlorobenzotrifluori	214	12.826	12.823	0.003	0	523106	250.0	232.3	
120 n-Butylbenzene	91	13.100	13.097	0.004	97	1762668	250.0	252.5	
121 1,2-Dichlorobenzene	146	13.112	13.115	-0.003	95	995030	250.0	250.4	
122 1,2-Dibromo-3-Chloropropan	75	13.903	13.900	0.003	83	105258	250.0	266.2	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.043	14.046	-0.003	0	1871521	750.0	739.9	
125 2,3- & 3,4- Dichlorotoluen	125	14.462	14.459	0.003	0	1224014	500.0	515.7	
126 1,2,4-Trichlorobenzene	180	14.730	14.727	0.003	94	454311	250.0	274.8	
127 Hexachlorobutadiene	225	14.870	14.867	0.003	98	205269	250.0	266.4	
128 Naphthalene	128	14.992	14.988	0.004	98	1301801	250.0	284.4	
129 1,2,3-Trichlorobenzene	180	15.217	15.220	-0.003	95	363631	250.0	282.5	
131 2,4,5-Trichlorotoluene	159	15.995	15.992	0.003	0	167048	250.0	286.5	
130 2,3,6-Trichlorotoluene	159	16.093	16.090	0.003	95	149988	250.0	291.1	
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		500.0	453.8	
S 134 1,2-Dichloroethene, Total	96				0		500.0	513.9	
S 135 1,3-Dichloropropene, Total	1				0		500.0	509.9	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOAACROPRI_00005	Amount Added:	11.00	Units: uL	
VOA8260SURR_00036	Amount Added:	10.00	Units: uL	
VOA8260VOAPRI_00115	Amount Added:	10.00	Units: uL	
voaWEEmix1st_00001	Amount Added:	10.00	Units: uL	
voaWketPri Re_00005	Amount Added:	10.00	Units: uL	
voaWVA1st Res_00001	Amount Added:	10.00	Units: uL	
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent

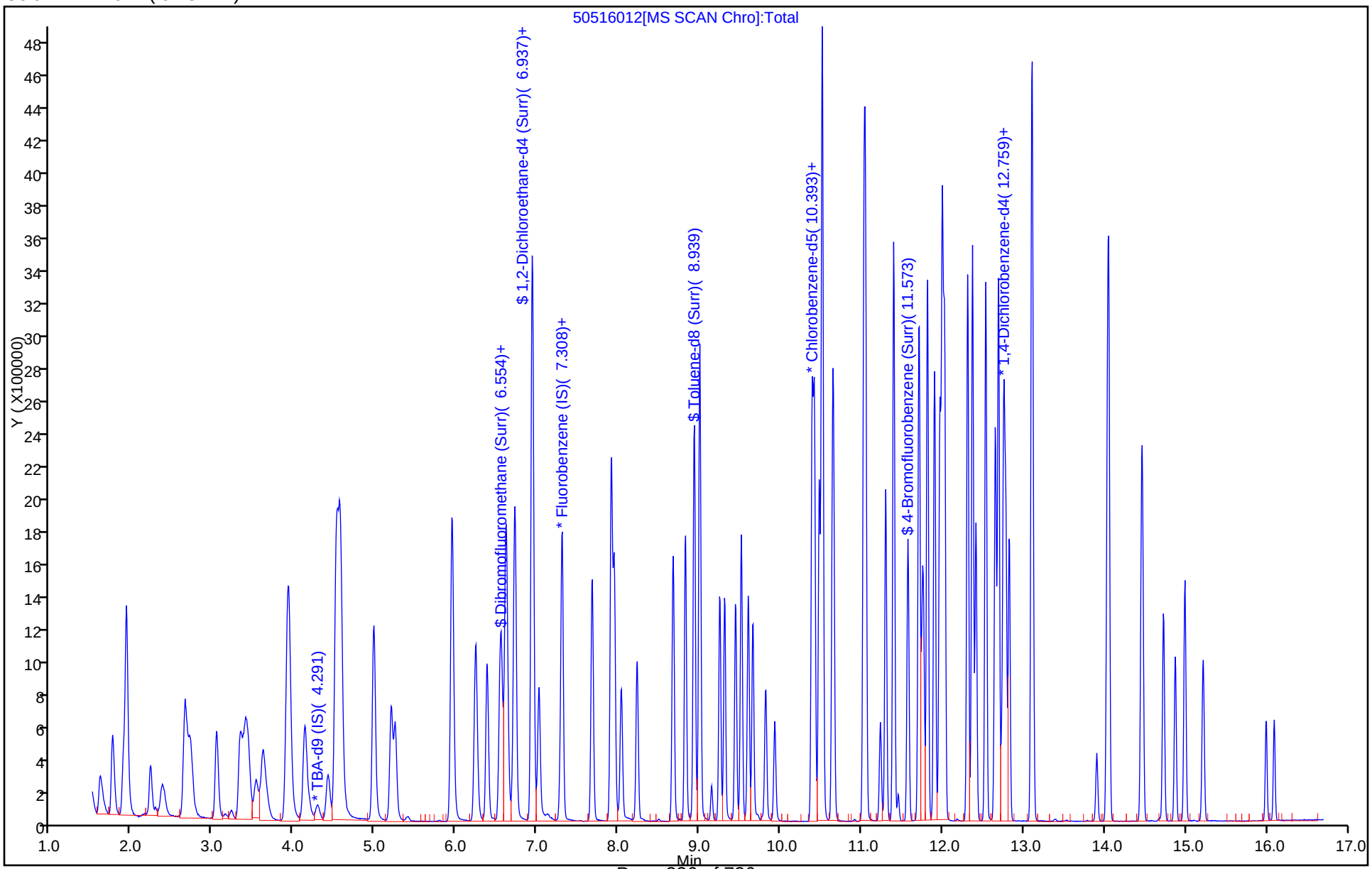
Report Date: 20-May-2015 07:59:07 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516012.D

Injection Date:	16-May-2015 16:49:30	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#:	12
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D
Lims ID: IC VSTD1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 16-May-2015 18:25:30 ALS Bottle#: 16 Worklist Smp#: 16
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD1
Misc. Info.: 180-0006955-016
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub4

Method: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 20-May-2015 07:59:09 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK053

First Level Reviewer: fergusond Date: 20-May-2015 07:57:45

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.274	4.294	-0.020	0	132057	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.286	7.287	-0.001	98	369705	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.388	10.389	-0.001	87	78649	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.730	12.731	-0.001	96	108592	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.568	6.563	0.005	88	9010	5.00	5.65	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.939	6.934	0.005	0	11918	5.00	6.00	
$ 7 Toluene-d8 (Surr)	98	8.940	8.935	0.005	93	36207	5.00	6.20	
$ 8 4-Bromofluorobenzene (Surr	95	11.568	11.576	-0.008	89	12704	5.00	6.06	
11 Dichlorodifluoromethane	85	1.622	1.611	0.011	92	12513	5.00	4.90	
12 Chloromethane	50	1.756	1.763	-0.007	99	18383	5.00	5.65	
13 Vinyl chloride	62	1.889	1.891	-0.002	96	14812	5.00	5.05	
14 Butadiene	39	1.932	1.933	-0.001	97	19501	5.00	5.77	
15 Bromomethane	94	2.242	2.231	0.011	80	8813	5.00	6.56	
16 Chloroethane	64	2.382	2.384	-0.002	79	8762	5.00	5.64	
17 Dichlorofluoromethane	67	2.662	2.663	-0.001	96	20175	5.00	5.74	
18 Trichlorofluoromethane	101	2.692	2.700	-0.008	80	16394	5.00	4.95	M
20 Ethyl ether	59	3.045	3.047	-0.002	82	10174	5.00	5.44	
21 Acrolein	56	3.234	3.223	0.011	98	30234	100.0	97.0	
22 1,1-Dichloroethene	96	3.337	3.345	-0.008	69	9961	5.00	5.62	
23 1,1,2-Trichloro-1,2,2-trif	101	3.410	3.406	0.004	57	9687	5.00	5.23	
24 Acetone	43	3.453	3.442	0.011	88	21797	25.0	29.9	
25 Iodomethane	142	3.544	3.539	0.005	82	14714	5.00	5.42	
26 Carbon disulfide	76	3.629	3.631	-0.002	96	24919	5.00	5.28	
28 3-Chloro-1-propene	76	3.934	3.923	0.011	84	5978	5.00	5.07	
30 Methyl acetate	43	3.940	3.941	-0.001	97	48572	25.0	28.0	
31 Methylene Chloride	84	4.134	4.136	-0.002	80	17309	5.00	5.04	
32 2-Methyl-2-propanol	59	4.426	4.409	0.017	90	7157	50.0	48.5	
33 Acrylonitrile	53	4.530	4.525	0.005	99	45954	50.0	52.6	
34 trans-1,2-Dichloroethene	96	4.560	4.561	-0.001	98	10386	5.00	5.30	
35 Methyl tert-butyl ether	73	4.591	4.586	0.005	97	28792	5.00	5.33	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.980	4.987	-0.007	93	15102	5.00	4.89	
37 1,1-Dichloroethane	63	5.199	5.200	-0.001	95	19928	5.00	5.39	
38 Vinyl acetate	43	5.254	5.255	-0.001	93	18503	5.00	4.45	
44 2,2-Dichloropropane	77	5.935	5.942	-0.007	58	9307	5.00	4.96	
45 cis-1,2-Dichloroethene	96	5.947	5.955	-0.008	82	12142	5.00	5.60	
46 2-Butanone (MEK)	43	5.971	5.967	0.004	100	31006	25.0	28.0	
49 Chlorobromomethane	128	6.239	6.234	0.005	95	5566	5.00	5.77	
51 Tetrahydrofuran	42	6.270	6.253	0.017	87	9426	10.0	12.5	
52 Chloroform	83	6.379	6.380	-0.001	94	18610	5.00	5.61	
53 1,1,1-Trichloroethane	97	6.543	6.539	0.004	99	11932	5.00	4.65	
54 Cyclohexane	56	6.610	6.612	-0.002	96	20355	5.00	5.23	
56 Carbon tetrachloride	117	6.714	6.715	-0.001	78	11078	5.00	4.79	
55 1,1-Dichloropropene	75	6.732	6.733	-0.001	90	13850	5.00	5.12	
57 Isobutyl alcohol	41	6.939	6.928	0.011	70	9787	125.0	141.9	M
58 Benzene	78	6.939	6.946	-0.007	95	44424	5.00	5.39	
59 1,2-Dichloroethane	62	7.024	7.019	0.005	94	12453	5.00	5.07	
62 n-Heptane	43	7.310	7.311	-0.001	39	15172	5.00	5.52	
64 Trichloroethene	130	7.675	7.676	-0.001	90	12139	5.00	5.75	
66 Methylcyclohexane	83	7.918	7.913	0.005	91	16844	5.00	4.84	
67 1,2-Dichloropropane	63	7.949	7.950	-0.001	90	10943	5.00	5.11	
68 Dibromomethane	93	8.040	8.035	0.005	95	6235	5.00	5.70	
70 1,4-Dioxane	88	8.046	8.035	0.011	1	1153	100.0	70.6	M
71 Dichlorobromomethane	83	8.228	8.230	-0.002	97	11303	5.00	4.74	
74 cis-1,3-Dichloropropene	75	8.673	8.680	-0.007	92	14613	5.00	4.82	
75 4-Methyl-2-pentanone (MIBK	43	8.825	8.832	-0.007	98	52342	25.0	25.8	
76 Toluene	91	9.007	9.002	0.005	98	40730	5.00	5.43	
77 trans-1,3-Dichloropropene	75	9.250	9.252	-0.002	96	11452	5.00	5.04	
78 Ethyl methacrylate	69	9.311	9.313	-0.002	88	12080	5.00	5.34	
79 1,1,2-Trichloroethane	97	9.451	9.446	0.005	90	7876	5.00	5.56	
80 Tetrachloroethene	164	9.524	9.519	0.005	95	7687	5.00	5.45	
81 1,3-Dichloropropane	76	9.609	9.605	0.004	92	16478	5.00	6.15	
82 2-Hexanone	43	9.664	9.659	0.005	99	38885	25.0	26.9	
84 Chlorodibromomethane	129	9.822	9.818	0.004	88	7005	5.00	5.04	
85 Ethylene Dibromide	107	9.932	9.933	-0.001	99	8390	5.00	5.77	
86 3-Chlorobenzotrifluoride	180	10.388	10.389	-0.001	64	15234	5.00	5.97	
87 Chlorobenzene	112	10.418	10.420	-0.002	96	28689	5.00	5.91	
88 4-Chlorobenzotrifluoride	180	10.479	10.481	-0.002	95	13145	5.00	5.58	
89 1,1,1,2-Tetrachloroethane	131	10.504	10.511	-0.007	42	7836	5.00	4.81	
90 Ethylbenzene	106	10.516	10.517	-0.001	98	15925	5.00	5.64	
91 m-Xylene & p-Xylene	106	10.650	10.651	-0.001	0	19244	5.00	5.63	
92 o-Xylene	106	11.033	11.028	0.005	97	19196	5.00	5.69	
93 Styrene	104	11.051	11.052	-0.001	96	27783	5.00	5.22	
94 Bromoform	173	11.228	11.235	-0.007	91	4406	5.00	4.93	
96 2-Chlorobenzotrifluoride	180	11.301	11.302	-0.001	96	15335	5.00	6.07	
97 Isopropylbenzene	105	11.398	11.399	-0.001	96	44339	5.00	5.38	
99 1,1,2,2-Tetrachloroethane	83	11.714	11.709	0.005	74	11022	5.00	5.51	
100 Bromobenzene	156	11.714	11.709	0.005	94	10926	5.00	5.45	
102 trans-1,4-Dichloro-2-buten	53	11.739	11.746	-0.007	77	3664	5.00	5.50	
101 1,2,3-Trichloropropane	110	11.769	11.764	0.005	87	3746	5.00	5.68	
103 N-Propylbenzene	120	11.818	11.813	0.005	99	11250	5.00	4.71	
104 2-Chlorotoluene	126	11.903	11.904	-0.001	97	11001	5.00	5.37	
105 3-Chlorotoluene	126	11.964	11.965	-0.001	96	12388	5.00	5.95	

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	11.995	-0.001	94	32870	5.00	4.89	
107 4-Chlorotoluene	126	12.031	12.026	0.005	98	11220	5.00	5.19	
108 tert-Butylbenzene	119	12.310	12.312	-0.002	93	29741	5.00	5.17	
110 1,2,4-Trimethylbenzene	105	12.371	12.373	-0.002	97	32279	5.00	4.81	
111 1,2-dichloro-4-(trifluorom	214	12.414	12.415	-0.001	95	11090	5.00	6.15	
112 sec-Butylbenzene	105	12.536	12.537	-0.001	94	41624	5.00	5.13	
113 1,3-Dichlorobenzene	146	12.651	12.652	-0.001	95	17902	5.00	5.11	
114 4-Isopropyltoluene	119	12.688	12.689	-0.001	97	33151	5.00	4.99	
115 1,4-Dichlorobenzene	146	12.755	12.756	-0.001	94	20136	5.00	5.60	
116 2,4-Dichloro-1-(triflourom	214	12.779	12.780	-0.001	95	9729	5.00	5.80	
118 2,5-Dichlorobenzotrifluori	214	12.828	12.823	0.005	0	10172	5.00	5.53	
120 n-Butylbenzene	91	13.095	13.097	-0.001	96	27189	5.00	4.77	
121 1,2-Dichlorobenzene	146	13.113	13.115	-0.002	96	18141	5.00	5.59	
122 1,2-Dibromo-3-Chloropropan	75	13.904	13.900	0.004	64	1837	5.00	5.68	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.044	14.046	-0.002	0	29912	15.0	14.5	
125 2,3- & 3,4- Dichlorotoluen	125	14.458	14.459	-0.001	0	18293	10.0	9.43	
126 1,2,4-Trichlorobenzene	180	14.726	14.727	-0.001	91	6288	5.00	4.65	
127 Hexachlorobutadiene	225	14.878	14.867	0.011	90	2713	5.00	4.31	
128 Naphthalene	128	14.993	14.988	0.005	96	16645	5.00	4.45	
129 1,2,3-Trichlorobenzene	180	15.212	15.220	-0.008	93	4718	5.00	4.49	
131 2,4,5-Trichlorotoluene	159	15.991	15.992	-0.001	0	2095	5.00	4.40	
130 2,3,6-Trichlorotoluene	159	16.094	16.090	0.004	81	1682	5.00	3.91	
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		10.0	11.3	
S 134 1,2-Dichloroethene, Total	96				0		10.0	10.9	
S 135 1,3-Dichloropropene, Total	1				0		10.0	9.86	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWVA1st Res_00001	Amount Added:	0.20	Units: uL	
VOA8260SURR_00036	Amount Added:	0.20	Units: uL	
VOA8260VOAPRI_00115	Amount Added:	0.20	Units: uL	
voaWEEmix1st_00001	Amount Added:	0.20	Units: uL	
voaWketPri Re_00005	Amount Added:	0.80	Units: uL	
VOAACROPRI_00005	Amount Added:	4.00	Units: uL	
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent

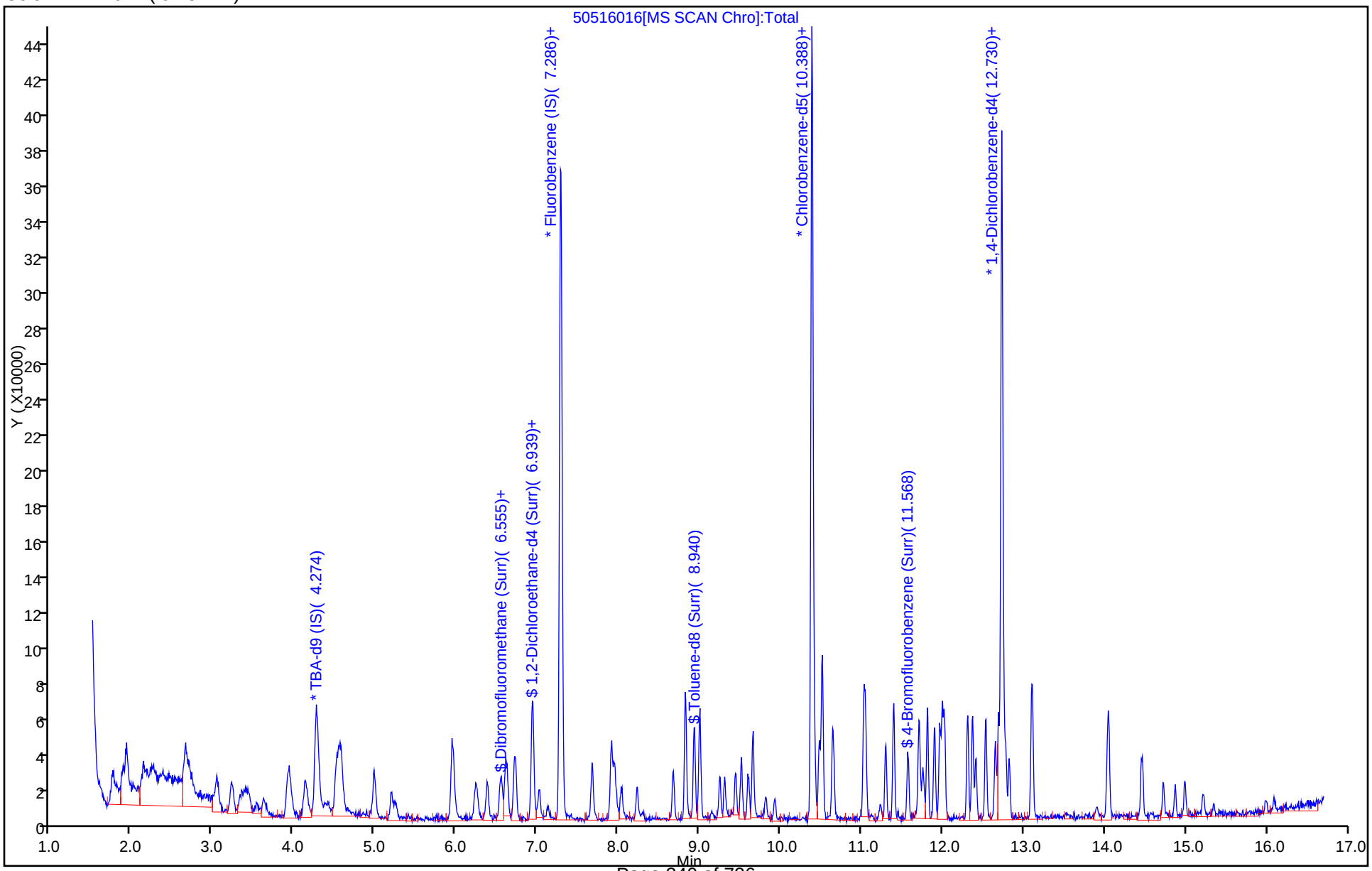
Report Date: 20-May-2015 07:59:09 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Injection Date:	16-May-2015 18:25:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	IC VSTD1			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)



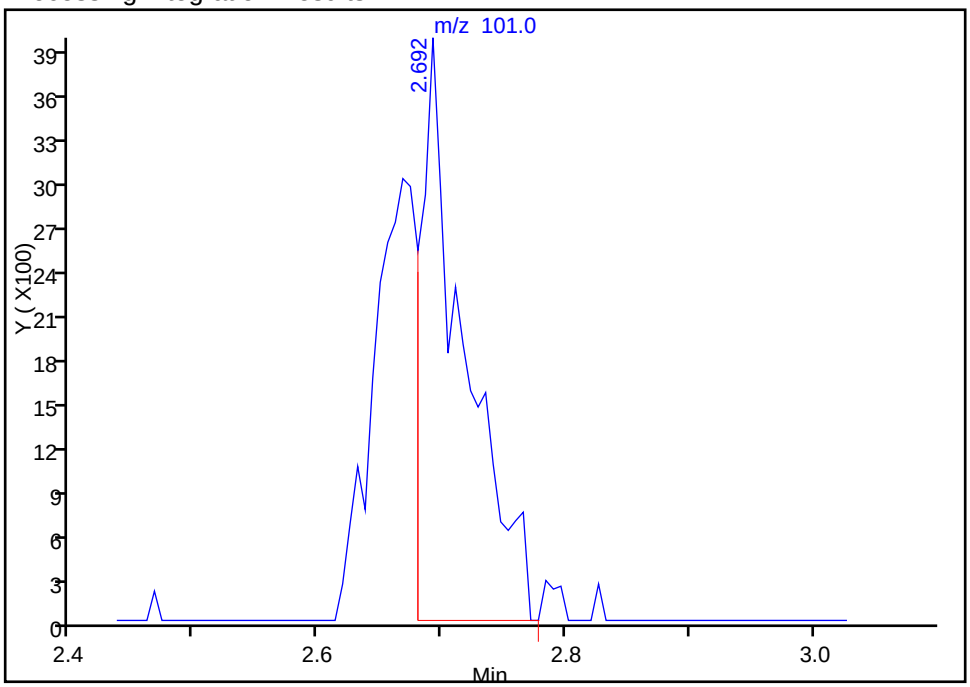
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D
Injection Date: 16-May-2015 18:25:30 Instrument ID: CHHP5
Lims ID: IC VSTD1
Client ID:
Operator ID: 001562 ALS Bottle#: 16 Worklist Smp#: 16
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

18 Trichlorofluoromethane, CAS: 75-69-4

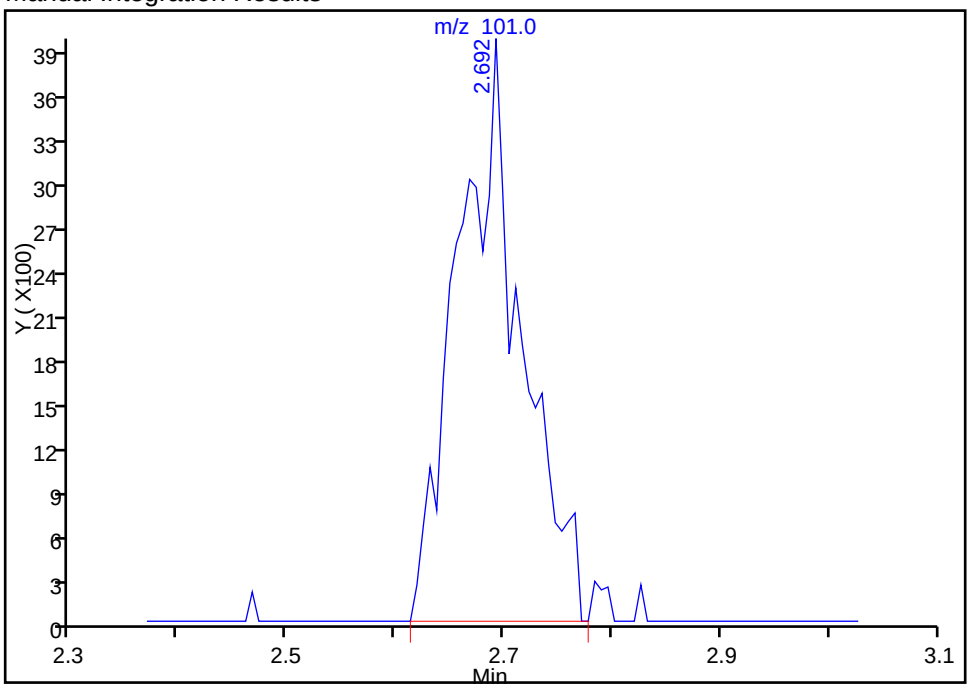
Processing Integration Results

RT: 2.69
Area: 9803
Amount: 4.940155
Amount Units: ng



Manual Integration Results

RT: 2.69
Area: 16394
Amount: 4.951756
Amount Units: ng



Reviewer: fergusond, 17-May-2015 10:13:11
Audit Action: Manually Integrated
Audit Reason: Split Peak

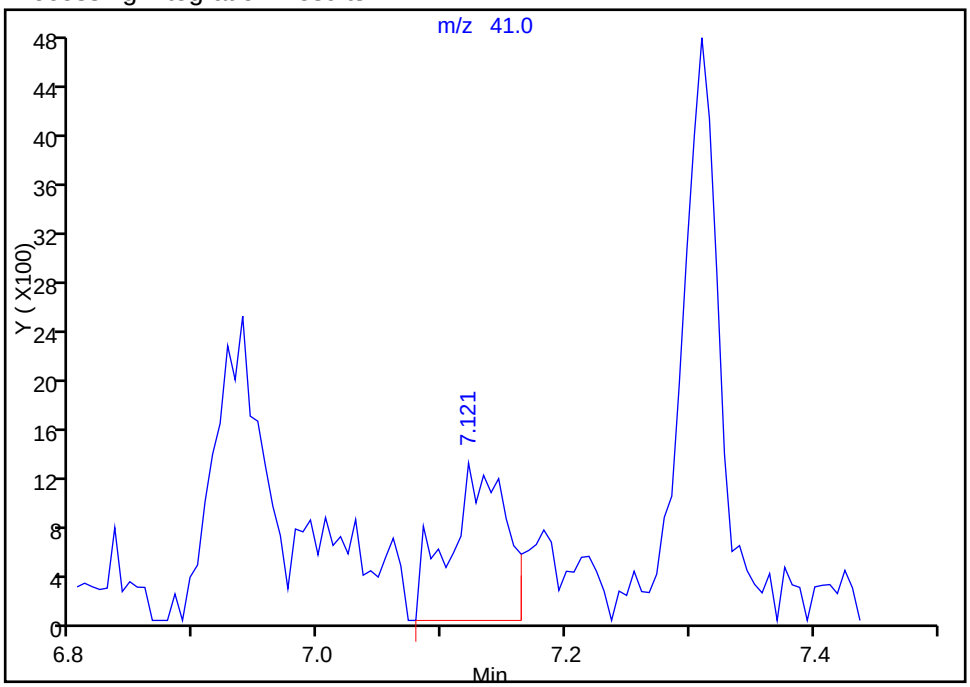
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D
Injection Date: 16-May-2015 18:25:30 Instrument ID: CHHP5
Lims ID: IC VSTD1
Client ID:
Operator ID: 001562 ALS Bottle#: 16 Worklist Smp#: 16
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

57 Isobutyl alcohol, CAS: 78-83-1

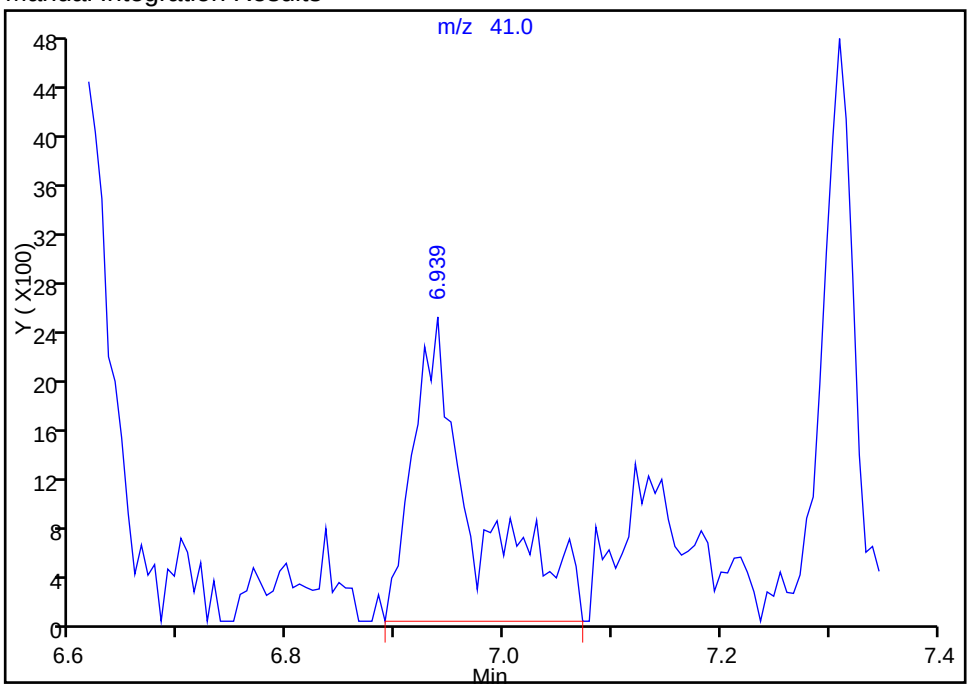
Processing Integration Results

RT: 7.12
Area: 4044
Amount: 123.9494
Amount Units: ng



Manual Integration Results

RT: 6.94
Area: 9787
Amount: 141.9137
Amount Units: ng



Reviewer: fergusond, 17-May-2015 10:13:11
Audit Action: Manually Integrated
Audit Reason: Peak Tail

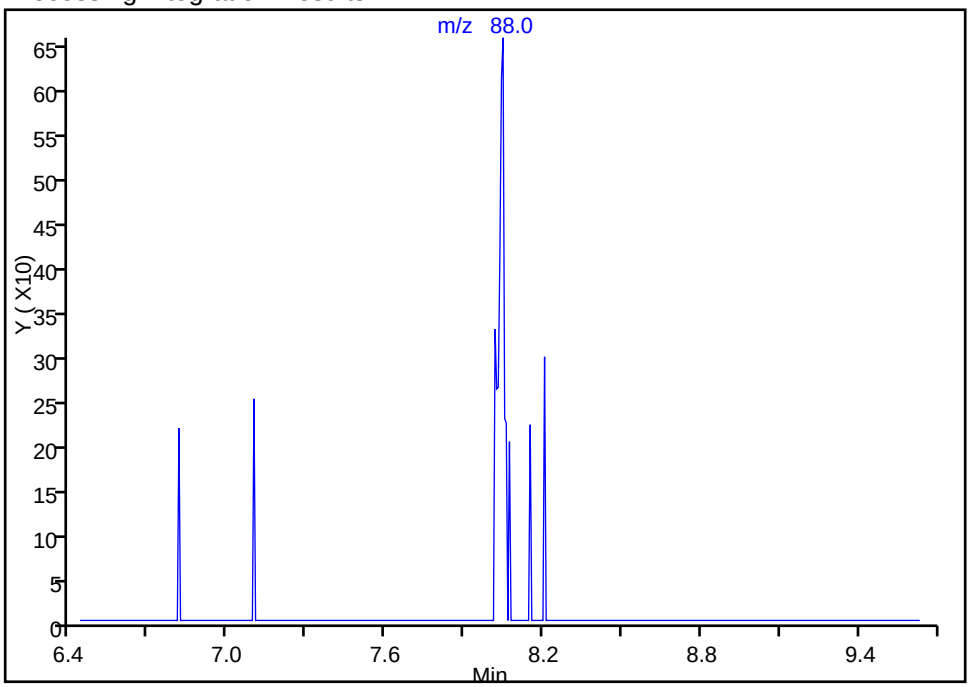
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D				
Injection Date:	16-May-2015 18:25:30	Instrument ID:	CHHP5		
Lims ID:	IC VSTD1				
Client ID:					
Operator ID:	001562	ALS Bottle#:	16	Worklist Smp#:	16
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

70 1,4-Dioxane, CAS: 123-91-1

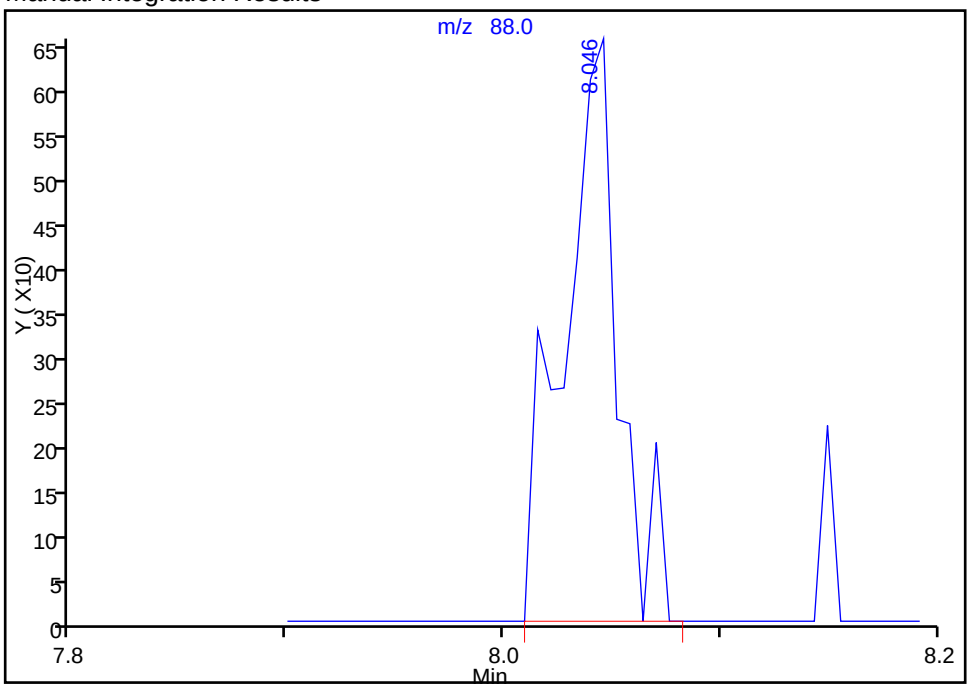
Not Detected
Expected RT: 8.04

Processing Integration Results



Manual Integration Results

RT: 8.05
Area: 1153
Amount: 70.616682
Amount Units: ng



Reviewer: fergusond, 17-May-2015 10:13:11
Audit Action: Manually Integrated
Audit Reason: Peak Tail

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Lab Sample ID: CCVIS 180-142676/2 Calibration Date: 05/24/2015 12:15

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: 50524002.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	0.1474	0.0100	17.8	20.0	-10.8	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150524-7097.b\50524002.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 24-May-2015 12:15:30 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0007097-002
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub12

Method: \\PITCHROM\ChromData\CHHP5\20150524-7097.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 24-May-2015 15:15:24 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK027

First Level Reviewer: fergusond Date: 24-May-2015 12:57:45

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.272	4.272	0.000	0	126654	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.290	0.000	98	439325	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.386	10.386	0.000	87	91750	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.728	12.728	0.000	94	132471	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.560	6.560	0.000	94	97599	50.0	51.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.931	6.931	0.000	0	120827	50.0	51.2	
$ 7 Toluene-d8 (Surr)	98	8.938	8.938	0.000	94	402189	50.0	59.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.572	0.000	87	131248	50.0	53.7	
11 Dichlorodifluoromethane	85	1.614	1.614	0.000	99	134274	50.0	44.2	
12 Chloromethane	50	1.766	1.766	0.000	99	168826	50.0	43.7	
13 Vinyl chloride	62	1.900	1.900	0.000	99	157362	50.0	45.2	
14 Butadiene	39	1.936	1.936	0.000	97	180759	50.0	45.0	
15 Bromomethane	94	2.240	2.240	0.000	92	80669	50.0	50.5	
16 Chloroethane	64	2.398	2.398	0.000	99	97738	50.0	52.9	
17 Dichlorofluoromethane	67	2.666	2.666	0.000	97	238959	50.0	57.2	
18 Trichlorofluoromethane	101	2.703	2.703	0.000	95	192874	50.0	49.0	
20 Ethyl ether	59	3.043	3.043	0.000	94	123757	50.0	55.7	
21 Acrolein	56	3.226	3.226	0.000	98	66999	150.0	180.8	
22 1,1-Dichloroethene	96	3.341	3.341	0.000	97	126336	50.0	60.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.433	3.433	0.000	93	134875	50.0	61.2	
24 Acetone	43	3.439	3.439	0.000	71	72653	100.0	83.8	
25 Iodomethane	142	3.536	3.536	0.000	97	182935	50.0	56.7	
26 Carbon disulfide	76	3.627	3.627	0.000	100	244234	50.0	43.5	
28 3-Chloro-1-propene	76	3.913	3.913	0.000	90	67868	50.0	48.5	
30 Methyl acetate	43	3.938	3.938	0.000	98	551604	250.0	268.1	
31 Methylene Chloride	84	4.132	4.132	0.000	98	142379	50.0	58.4	
32 2-Methyl-2-propanol	59	4.412	4.412	0.000	94	72693	500.0	513.5	
33 Acrylonitrile	53	4.522	4.522	0.000	100	553993	500.0	533.2	
34 trans-1,2-Dichloroethene	96	4.558	4.558	0.000	98	135398	50.0	58.1	
35 Methyl tert-butyl ether	73	4.576	4.576	0.000	96	282467	50.0	44.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.990	4.990	0.000	94	207487	50.0	56.5	
37 1,1-Dichloroethane	63	5.203	5.203	0.000	97	233687	50.0	53.2	
38 Vinyl acetate	43	5.252	5.252	0.000	98	194963	50.0	39.4	
44 2,2-Dichloropropane	77	5.945	5.945	0.000	74	93376	50.0	41.9	
45 cis-1,2-Dichloroethene	96	5.951	5.951	0.000	83	138875	50.0	53.9	
46 2-Butanone (MEK)	43	5.957	5.957	0.000	77	114183	100.0	86.8	
49 Chlorobromomethane	128	6.237	6.237	0.000	96	59490	50.0	51.9	
51 Tetrahydrofuran	42	6.249	6.249	0.000	86	75363	100.0	84.2	
52 Chloroform	83	6.383	6.383	0.000	95	212361	50.0	53.9	
53 1,1,1-Trichloroethane	97	6.535	6.535	0.000	97	151486	50.0	49.6	
54 Cyclohexane	56	6.614	6.614	0.000	95	248278	50.0	53.7	
56 Carbon tetrachloride	117	6.712	6.712	0.000	98	135537	50.0	49.3	
55 1,1-Dichloropropene	75	6.730	6.730	0.000	93	179235	50.0	55.7	
57 Isobutyl alcohol	41	6.925	6.925	0.000	62	80142	1250.0	977.9	
58 Benzene	78	6.943	6.943	0.000	98	557151	50.0	56.9	
59 1,2-Dichloroethane	62	7.022	7.022	0.000	95	153723	50.0	52.6	
62 n-Heptane	43	7.308	7.308	0.000	94	178441	50.0	54.7	
64 Trichloroethene	130	7.673	7.673	0.000	96	124292	50.0	49.5	
66 Methylcyclohexane	83	7.916	7.916	0.000	95	210874	50.0	51.0	
67 1,2-Dichloropropane	63	7.947	7.947	0.000	93	134492	50.0	52.9	
68 Dibromomethane	93	8.032	8.032	0.000	97	65840	50.0	50.7	
70 1,4-Dioxane	88	8.032	8.032	0.000	37	17717	1000.0	913.1	M
71 Dichlorobromomethane	83	8.226	8.226	0.000	97	116284	50.0	41.1	
73 2-Chloroethyl vinyl ether	63	8.531	8.531	0.000	91	129549	100.0	89.2	
74 cis-1,3-Dichloropropene	75	8.677	8.677	0.000	92	147726	50.0	41.0	
75 4-Methyl-2-pentanone (MIBK	43	8.829	8.829	0.000	98	219521	100.0	92.7	
76 Toluene	91	9.005	9.005	0.000	98	541528	50.0	61.9	
77 trans-1,3-Dichloropropene	75	9.248	9.248	0.000	97	106717	50.0	40.3	
78 Ethyl methacrylate	69	9.309	9.309	0.000	91	110713	50.0	41.9	
79 1,1,2-Trichloroethane	97	9.443	9.443	0.000	92	93986	50.0	56.9	
80 Tetrachloroethene	164	9.516	9.516	0.000	96	100835	50.0	61.3	
81 1,3-Dichloropropane	76	9.601	9.601	0.000	95	166375	50.0	53.2	
82 2-Hexanone	43	9.662	9.662	0.000	98	148713	100.0	88.3	
84 Chlorodibromomethane	129	9.820	9.820	0.000	91	68374	50.0	42.2	
85 Ethylene Dibromide	107	9.924	9.924	0.000	98	88482	50.0	52.1	
86 3-Chlorobenzotrifluoride	180	10.392	10.392	0.000	91	171456	50.0	57.6	
87 Chlorobenzene	112	10.416	10.416	0.000	95	322184	50.0	56.9	
88 4-Chlorobenzotrifluoride	180	10.477	10.477	0.000	95	160117	50.0	58.2	
89 1,1,1,2-Tetrachloroethane	131	10.514	10.514	0.000	92	92923	50.0	48.9	
90 Ethylbenzene	106	10.520	10.520	0.000	99	172459	50.0	52.3	
91 m-Xylene & p-Xylene	106	10.648	10.648	0.000	0	213699	50.0	53.5	
92 o-Xylene	106	11.031	11.031	0.000	96	201944	50.0	51.3	
93 Styrene	104	11.049	11.049	0.000	96	340168	50.0	54.7	
94 Bromoform	173	11.232	11.232	0.000	95	38424	50.0	36.8	
96 2-Chlorobenzotrifluoride	180	11.299	11.299	0.000	97	166572	50.0	56.5	
97 Isopropylbenzene	105	11.396	11.396	0.000	97	502349	50.0	52.2	
99 1,1,2,2-Tetrachloroethane	83	11.706	11.706	0.000	88	127043	50.0	54.4	
100 Bromobenzene	156	11.712	11.712	0.000	95	117115	50.0	47.8	
102 trans-1,4-Dichloro-2-buten	53	11.749	11.749	0.000	80	33576	50.0	41.3	
101 1,2,3-Trichloropropane	110	11.761	11.761	0.000	87	40391	50.0	50.2	
103 N-Propylbenzene	120	11.816	11.816	0.000	99	144129	50.0	49.4	
104 2-Chlorotoluene	126	11.901	11.901	0.000	96	124626	50.0	49.9	

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	123745	50.0	48.8	
106 1,3,5-Trimethylbenzene	105	11.998	11.998	0.000	95	414481	50.0	50.5	
107 4-Chlorotoluene	126	12.022	12.022	0.000	98	135178	50.0	51.3	
108 tert-Butylbenzene	119	12.308	12.308	0.000	95	332192	50.0	47.4	
110 1,2,4-Trimethylbenzene	105	12.369	12.369	0.000	98	411998	50.0	50.4	
111 1,2-dichloro-4-(trifluorom	214	12.412	12.412	0.000	98	123966	50.0	56.3	
112 sec-Butylbenzene	105	12.533	12.533	0.000	95	493116	50.0	49.8	
113 1,3-Dichlorobenzene	146	12.649	12.649	0.000	97	219322	50.0	51.3	
114 4-Isopropyltoluene	119	12.692	12.692	0.000	97	403259	50.0	49.8	
115 1,4-Dichlorobenzene	146	12.752	12.752	0.000	94	225390	50.0	51.4	
116 2,4-Dichloro-1-(triflourom	214	12.783	12.783	0.000	98	115061	50.0	56.2	
118 2,5-Dichlorobenzotrifluori	214	12.819	12.819	0.000	0	123233	50.0	54.9	
120 n-Butylbenzene	91	13.099	13.099	0.000	98	352070	50.0	50.6	
121 1,2-Dichlorobenzene	146	13.111	13.111	0.000	96	202030	50.0	51.0	
122 1,2-Dibromo-3-Chloropropan	75	13.896	13.896	0.000	73	13297	50.0	33.7	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.042	14.042	0.000	0	350605	150.0	139.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.462	14.462	0.000	0	208836	100.0	88.3	
126 1,2,4-Trichlorobenzene	180	14.724	14.724	0.000	93	78743	50.0	47.8	
127 Hexachlorobutadiene	225	14.870	14.870	0.000	98	44555	50.0	58.0	
128 Naphthalene	128	14.991	14.991	0.000	97	168047	50.0	36.8	
129 1,2,3-Trichlorobenzene	180	15.216	15.216	0.000	95	64161	50.0	50.0	
131 2,4,5-Trichlorotoluene	159	15.995	15.995	0.000	0	18276	50.0	31.4	
130 2,3,6-Trichlorotoluene	159	16.092	16.092	0.000	95	21266	50.0	40.6	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	112.1	
S 133 Xylenes, Total	106				0		100.0	104.8	
S 135 1,3-Dichloropropene, Total	1				0		100.0	81.3	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWVA1st Res_00001	Amount Added:	2.00	Units: uL	
voaWketPri Re_00005	Amount Added:	2.00	Units: uL	
voaWEEmix1st_00001	Amount Added:	2.00	Units: uL	
VOA8260VOAPRI_00120	Amount Added:	2.00	Units: uL	
VOAACROPRI_00005	Amount Added:	6.00	Units: uL	
VOACEVEPRI_00008	Amount Added:	2.00	Units: uL	
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent

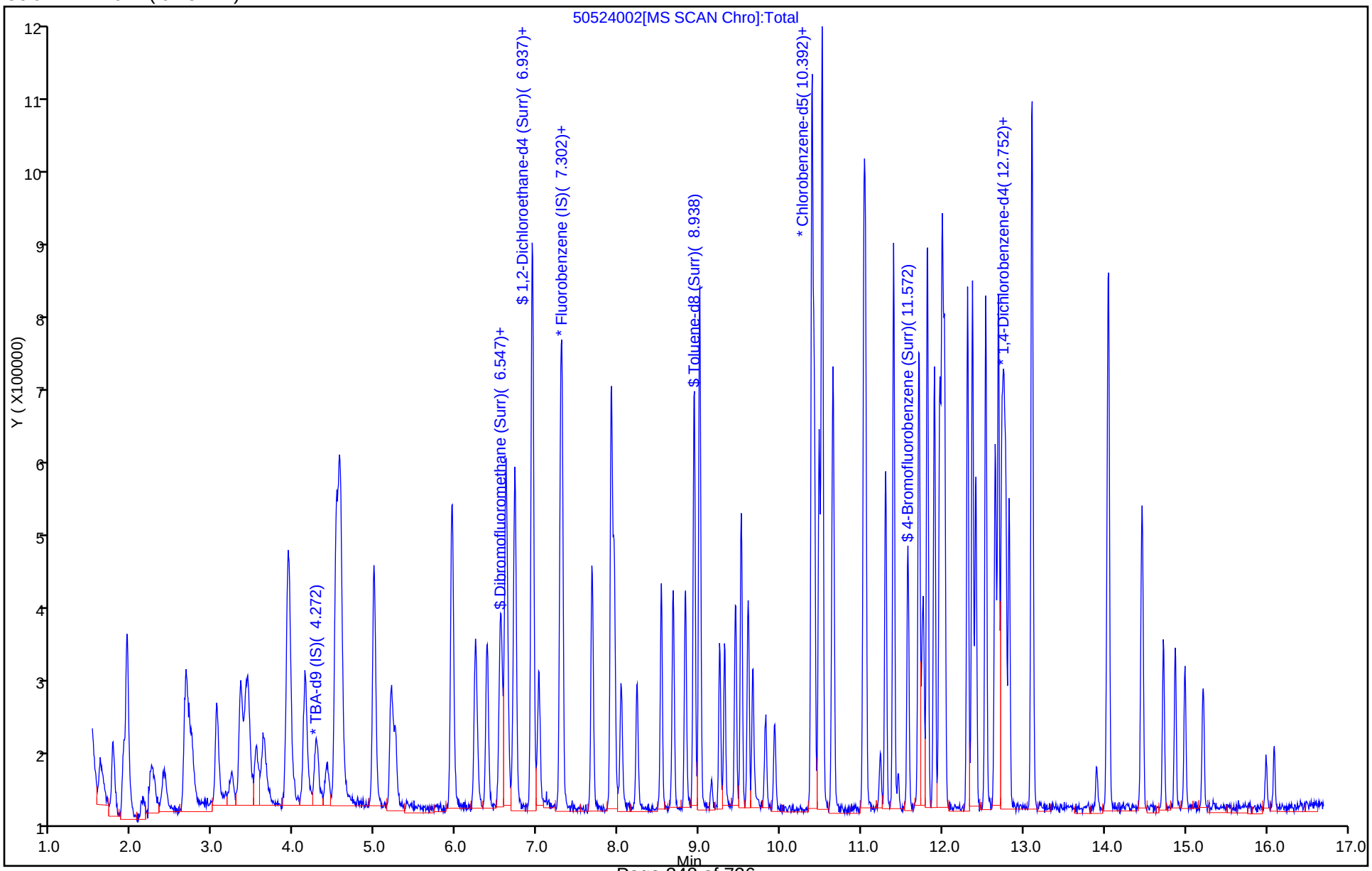
Report Date: 24-May-2015 15:15:25 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150524-7097.b\50524002.D

Injection Date:	24-May-2015 12:15:30	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.: 180-44203-1

SDG No.:

Lab Sample ID: CCVIS 180-142676/2 Calibration Date: 05/24/2015 12:15

Instrument ID: CHHP5 Calib Start Date: 05/16/2015 14:25

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/16/2015 18:25

Lab File ID: 50524002.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	0.3455	0.3056	0.1000	8.85	10.0	-11.5	20.0
Chloromethane	Ave	0.4398	0.3843	0.1000	8.74	10.0	-12.6	20.0
Vinyl chloride	Ave	0.3965	0.3582	0.1000	9.03	10.0	-9.7	20.0
Bromomethane	Ave	0.1818	0.1836	0.0500	10.1	10.0	1.0	20.0
Chloroethane	Ave	0.2101	0.2225	0.0500	10.6	10.0	5.9	20.0
Dichlorofluoromethane	Ave	0.4754	0.5439	0.0100	11.4	10.0	14.4	20.0
Trichlorofluoromethane	Ave	0.4478	0.4390	0.1000	9.80	10.0	-2.0	20.0
Ethyl ether	Ave	0.2528	0.2817	0.0100	11.1	10.0	11.4	20.0
Acrolein	Ave	0.0422	0.0508	0.0100	36.2	30.0	20.5*	20.0
1,1-Dichloroethene	Ave	0.2396	0.2876	0.1000	12.0	10.0	20.0	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2506	0.3070	0.1000	12.2	10.0	22.5*	20.0
Acetone	Ave	0.0986	0.0827	0.0500	16.8	20.0	-16.2	20.0
Iodomethane	Ave	0.3672	0.4164	0.0100	11.3	10.0	13.4	20.0
Carbon disulfide	Ave	0.6384	0.5559	0.1000	8.71	10.0	-12.9	20.0
Allyl chloride	Ave	0.1594	0.1545	0.0100	9.69	10.0	-3.1	20.0
Methyl acetate	Ave	0.2342	0.2511	0.1000	53.6	50.0	7.2	20.0
Methylene Chloride	Lin2		0.3241	0.1000	11.7	10.0	16.8	20.0
tert-Butyl alcohol	Ave	1.118	1.148	0.0100	103	100	2.7	20.0
Acrylonitrile	Ave	0.1182	0.1261	0.0100	107	100	6.6	20.0
trans-1,2-Dichloroethene	Ave	0.2651	0.3082	0.1000	11.6	10.0	16.3	20.0
Methyl tert-butyl ether	Ave	0.7308	0.6430	0.1000	8.80	10.0	-12.0	20.0
Hexane	Ave	0.4177	0.4723	0.0100	11.3	10.0	13.1	20.0
1,1-Dichloroethane	Ave	0.5003	0.5319	0.2000	10.6	10.0	6.3	20.0
Vinyl acetate	Ave	0.5628	0.4438	0.0100	7.89	10.0	-21.1*	20.0
2,2-Dichloropropane	Ave	0.2538	0.2125	0.0100	8.37	10.0	-16.3	20.0
cis-1,2-Dichloroethene	Ave	0.2931	0.3161	0.1000	10.8	10.0	7.9	20.0
2-Butanone (MEK)	Ave	0.1498	0.1300	0.0500	17.4	20.0	-13.2	20.0
Bromochloromethane	Ave	0.1305	0.1354	0.0100	10.4	10.0	3.7	20.0
Tetrahydrofuran	Ave	0.1018	0.0858	0.0100	16.8	20.0	-15.8	20.0
Chloroform	Ave	0.4487	0.4834	0.2000	10.8	10.0	7.7	20.0
1,1,1-Trichloroethane	Ave	0.3474	0.3448	0.1000	9.93	10.0	-0.7	20.0
Cyclohexane	Ave	0.5261	0.5651	0.1000	10.7	10.0	7.4	20.0
Carbon tetrachloride	Ave	0.3131	0.3085	0.1000	9.85	10.0	-1.5	20.0
1,1-Dichloropropene	Ave	0.3659	0.4080	0.0100	11.1	10.0	11.5	20.0
Isobutyl alcohol	Ave	0.0093	0.0073*	0.0100	196	250	-21.8*	20.0
Benzene	Ave	1.114	1.268	0.5000	11.4	10.0	13.8	20.0
1,2-Dichloroethane	Ave	0.3324	0.3499	0.1000	10.5	10.0	5.3	20.0
n-Heptane	Ave	0.3714	0.4062	0.0100	10.9	10.0	9.4	20.0
Trichloroethene	Ave	0.2856	0.2829	0.2000	9.91	10.0	-0.9	20.0
Methylcyclohexane	Ave	0.4706	0.4800	0.1000	10.2	10.0	2.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Lab Sample ID: CCVIS 180-142676/2 Calibration Date: 05/24/2015 12:15

Instrument ID: CHHP5 Calib Start Date: 05/16/2015 14:25

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/16/2015 18:25

Lab File ID: 50524002.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	0.2895	0.3061	0.1000	10.6	10.0	5.8	20.0
1,4-Dioxane	Ave	0.0022	0.0020*	0.0100	183	200	-8.7	20.0
Dibromomethane	Ave	0.1479	0.1499	0.0100	10.1	10.0	1.3	20.0
Bromodichloromethane	Ave	0.3223	0.2647	0.2000	8.21	10.0	-17.9	20.0
cis-1,3-Dichloropropene	Ave	0.4097	0.3363	0.2000	8.21	10.0	-17.9	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.291	1.196	0.1000	18.5	20.0	-7.3	20.0
Toluene	Ave	4.768	5.902	0.4000	12.4	10.0	23.8*	20.0
trans-1,3-Dichloropropene	Ave	1.445	1.163	0.1000	8.05	10.0	-19.5	20.0
Ethyl methacrylate	Ave	1.438	1.207	0.0100	8.39	10.0	-16.1	20.0
1,1,2-Trichloroethane	Ave	0.9001	1.024	0.1000	11.4	10.0	13.8	20.0
Tetrachloroethene	Ave	0.8966	1.099	0.2000	12.3	10.0	22.6*	20.0
1,3-Dichloropropane	Ave	1.703	1.813	0.0100	10.6	10.0	6.5	20.0
2-Hexanone	Ave	0.9180	0.8104	0.1000	17.7	20.0	-11.7	20.0
Dibromochloromethane	Ave	0.8836	0.7452	0.1000	8.43	10.0	-15.7	20.0
1,2-Dibromoethane (EDB)	Ave	0.9250	0.9644	0.1000	10.4	10.0	4.3	20.0
3-Chlorobenzotrifluoride	Ave	1.623	1.869	0.0100	11.5	10.0	15.1	20.0
Chlorobenzene	Ave	3.086	3.512	0.5000	11.4	10.0	13.8	20.0
4-Chlorobenzotrifluoride	Ave	1.499	1.745	0.0100	11.6	10.0	16.5	20.0
1,1,1,2-Tetrachloroethane	Ave	1.036	1.013	0.0100	9.78	10.0	-2.2	20.0
Ethylbenzene	Ave	1.796	1.880	0.1000	10.5	10.0	4.7	20.0
m-Xylene & p-Xylene	Ave	2.175	2.329	0.1000	10.7	10.0	7.1	20.0
o-Xylene	Ave	2.146	2.201	0.3000	10.3	10.0	2.5	20.0
Styrene	Ave	3.386	3.708	0.3000	10.9	10.0	9.5	20.0
Bromoform	Ave	0.5687	0.4188	0.1000	7.36	10.0	-26.4*	20.0
2-Chlorobenzotrifluoride	Ave	1.606	1.816	0.0100	11.3	10.0	13.0	20.0
Isopropylbenzene	Ave	5.240	5.475	0.1000	10.4	10.0	4.5	20.0
1,1,2,2-Tetrachloroethane	Ave	1.272	1.385	0.3000	10.9	10.0	8.8	20.0
Bromobenzene	Ave	0.9239	0.8841	0.0100	9.57	10.0	-4.3	20.0
trans-1,4-Dichloro-2-butene	Ave	0.3070	0.2535	0.0100	8.26	10.0	-17.4	20.0
1,2,3-Trichloropropane	Ave	0.3034	0.3049	0.0100	10.0	10.0	0.5	20.0
N-Propylbenzene	Ave	1.100	1.088	0.0100	9.89	10.0	-1.1	20.0
2-Chlorotoluene	Ave	0.9430	0.9408	0.0100	9.98	10.0	-0.2	20.0
3-Chlorotoluene	Ave	0.9581	0.9341	0.0100	9.75	10.0	-2.5	20.0
1,3,5-Trimethylbenzene	Ave	3.096	3.129	0.0100	10.1	10.0	1.1	20.0
4-Chlorotoluene	Ave	0.995	1.020	0.0100	10.3	10.0	2.5	20.0
tert-Butylbenzene	Ave	2.647	2.508	0.0100	9.47	10.0	-5.3	20.0
1,2,4-Trimethylbenzene	Ave	3.087	3.110	0.0100	10.1	10.0	0.7	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.8308	0.9358	0.0100	11.3	10.0	12.6	20.0
sec-Butylbenzene	Ave	3.737	3.722	0.0100	9.96	10.0	-0.4	20.0
1,3-Dichlorobenzene	Ave	1.614	1.656	0.6000	10.3	10.0	2.6	20.0
4-Isopropyltoluene	Ave	3.057	3.044	0.0100	9.96	10.0	-0.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Lab Sample ID: CCVIS 180-142676/2 Calibration Date: 05/24/2015 12:15

Instrument ID: CHHP5 Calib Start Date: 05/16/2015 14:25

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/16/2015 18:25

Lab File ID: 50524002.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	1.655	1.701	0.5000	10.3	10.0	2.8	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.7729	0.8686	0.0100	11.2	10.0	12.4	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.8473	0.9303	0.0100	11.0	10.0	9.8	20.0
n-Butylbenzene	Ave	2.626	2.658	0.0100	10.1	10.0	1.2	20.0
1,2-Dichlorobenzene	Ave	1.495	1.525	0.4000	10.2	10.0	2.0	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1488	0.1004	0.0500	6.75	10.0	-32.5*	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	0.9518	0.8822	0.0100	27.8	30.0	-7.3	20.0
2,3- & 3,4- Dichlorotoluene	Ave	0.8932	0.7882	0.0100	17.7	20.0	-11.7	20.0
1,2,4-Trichlorobenzene	Ave	0.6220	0.5944	0.2000	9.56	10.0	-4.4	20.0
Hexachlorobutadiene	Ave	0.2899	0.3363	0.0100	11.6	10.0	16.0	20.0
Naphthalene	Ave	1.722	1.269	0.0100	7.36	10.0	-26.4*	20.0
1,2,3-Trichlorobenzene	Ave	0.4843	0.4843	0.0100	10.0	10.0	0.0	20.0
2,4,5-Trichlorotoluene	Ave	0.2194	0.1380	0.0100	6.29	10.0	-37.1*	20.0
2,3,6-Trichlorotoluene	Ave	0.1979	0.1605	0.0100	8.11	10.0	-18.9	20.0
Dibromofluoromethane (Surr)	Ave	0.2157	0.2222		10.3	10.0	3.0	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2687	0.2750		10.2	10.0	2.4	20.0
Toluene-d8 (Surr)	Ave	3.713	4.384		11.8	10.0	18.1	20.0
4-Bromofluorobenzene (Surr)	Ave	1.333	1.431		10.7	10.0	7.3	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150524-7097.b\50524002.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 24-May-2015 12:15:30 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0007097-002
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub12

Method: \\PITCHROM\ChromData\CHHP5\20150524-7097.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 24-May-2015 15:15:24 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK027

First Level Reviewer: fergusond Date: 24-May-2015 12:57:45

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.272	4.272	0.000	0	126654	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.290	0.000	98	439325	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.386	10.386	0.000	87	91750	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.728	12.728	0.000	94	132471	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.560	6.560	0.000	94	97599	50.0	51.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.931	6.931	0.000	0	120827	50.0	51.2	
$ 7 Toluene-d8 (Surr)	98	8.938	8.938	0.000	94	402189	50.0	59.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.572	0.000	87	131248	50.0	53.7	
11 Dichlorodifluoromethane	85	1.614	1.614	0.000	99	134274	50.0	44.2	
12 Chloromethane	50	1.766	1.766	0.000	99	168826	50.0	43.7	
13 Vinyl chloride	62	1.900	1.900	0.000	99	157362	50.0	45.2	
14 Butadiene	39	1.936	1.936	0.000	97	180759	50.0	45.0	
15 Bromomethane	94	2.240	2.240	0.000	92	80669	50.0	50.5	
16 Chloroethane	64	2.398	2.398	0.000	99	97738	50.0	52.9	
17 Dichlorofluoromethane	67	2.666	2.666	0.000	97	238959	50.0	57.2	
18 Trichlorofluoromethane	101	2.703	2.703	0.000	95	192874	50.0	49.0	
20 Ethyl ether	59	3.043	3.043	0.000	94	123757	50.0	55.7	
21 Acrolein	56	3.226	3.226	0.000	98	66999	150.0	180.8	
22 1,1-Dichloroethene	96	3.341	3.341	0.000	97	126336	50.0	60.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.433	3.433	0.000	93	134875	50.0	61.2	
24 Acetone	43	3.439	3.439	0.000	71	72653	100.0	83.8	
25 Iodomethane	142	3.536	3.536	0.000	97	182935	50.0	56.7	
26 Carbon disulfide	76	3.627	3.627	0.000	100	244234	50.0	43.5	
28 3-Chloro-1-propene	76	3.913	3.913	0.000	90	67868	50.0	48.5	
30 Methyl acetate	43	3.938	3.938	0.000	98	551604	250.0	268.1	
31 Methylene Chloride	84	4.132	4.132	0.000	98	142379	50.0	58.4	
32 2-Methyl-2-propanol	59	4.412	4.412	0.000	94	72693	500.0	513.5	
33 Acrylonitrile	53	4.522	4.522	0.000	100	553993	500.0	533.2	
34 trans-1,2-Dichloroethene	96	4.558	4.558	0.000	98	135398	50.0	58.1	
35 Methyl tert-butyl ether	73	4.576	4.576	0.000	96	282467	50.0	44.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.990	4.990	0.000	94	207487	50.0	56.5	
37 1,1-Dichloroethane	63	5.203	5.203	0.000	97	233687	50.0	53.2	
38 Vinyl acetate	43	5.252	5.252	0.000	98	194963	50.0	39.4	
44 2,2-Dichloropropane	77	5.945	5.945	0.000	74	93376	50.0	41.9	
45 cis-1,2-Dichloroethene	96	5.951	5.951	0.000	83	138875	50.0	53.9	
46 2-Butanone (MEK)	43	5.957	5.957	0.000	77	114183	100.0	86.8	
49 Chlorobromomethane	128	6.237	6.237	0.000	96	59490	50.0	51.9	
51 Tetrahydrofuran	42	6.249	6.249	0.000	86	75363	100.0	84.2	
52 Chloroform	83	6.383	6.383	0.000	95	212361	50.0	53.9	
53 1,1,1-Trichloroethane	97	6.535	6.535	0.000	97	151486	50.0	49.6	
54 Cyclohexane	56	6.614	6.614	0.000	95	248278	50.0	53.7	
56 Carbon tetrachloride	117	6.712	6.712	0.000	98	135537	50.0	49.3	
55 1,1-Dichloropropene	75	6.730	6.730	0.000	93	179235	50.0	55.7	
57 Isobutyl alcohol	41	6.925	6.925	0.000	62	80142	1250.0	977.9	
58 Benzene	78	6.943	6.943	0.000	98	557151	50.0	56.9	
59 1,2-Dichloroethane	62	7.022	7.022	0.000	95	153723	50.0	52.6	
62 n-Heptane	43	7.308	7.308	0.000	94	178441	50.0	54.7	
64 Trichloroethene	130	7.673	7.673	0.000	96	124292	50.0	49.5	
66 Methylcyclohexane	83	7.916	7.916	0.000	95	210874	50.0	51.0	
67 1,2-Dichloropropane	63	7.947	7.947	0.000	93	134492	50.0	52.9	
68 Dibromomethane	93	8.032	8.032	0.000	97	65840	50.0	50.7	
70 1,4-Dioxane	88	8.032	8.032	0.000	37	17717	1000.0	913.1	M
71 Dichlorobromomethane	83	8.226	8.226	0.000	97	116284	50.0	41.1	
73 2-Chloroethyl vinyl ether	63	8.531	8.531	0.000	91	129549	100.0	89.2	
74 cis-1,3-Dichloropropene	75	8.677	8.677	0.000	92	147726	50.0	41.0	
75 4-Methyl-2-pentanone (MIBK	43	8.829	8.829	0.000	98	219521	100.0	92.7	
76 Toluene	91	9.005	9.005	0.000	98	541528	50.0	61.9	
77 trans-1,3-Dichloropropene	75	9.248	9.248	0.000	97	106717	50.0	40.3	
78 Ethyl methacrylate	69	9.309	9.309	0.000	91	110713	50.0	41.9	
79 1,1,2-Trichloroethane	97	9.443	9.443	0.000	92	93986	50.0	56.9	
80 Tetrachloroethene	164	9.516	9.516	0.000	96	100835	50.0	61.3	
81 1,3-Dichloropropane	76	9.601	9.601	0.000	95	166375	50.0	53.2	
82 2-Hexanone	43	9.662	9.662	0.000	98	148713	100.0	88.3	
84 Chlorodibromomethane	129	9.820	9.820	0.000	91	68374	50.0	42.2	
85 Ethylene Dibromide	107	9.924	9.924	0.000	98	88482	50.0	52.1	
86 3-Chlorobenzotrifluoride	180	10.392	10.392	0.000	91	171456	50.0	57.6	
87 Chlorobenzene	112	10.416	10.416	0.000	95	322184	50.0	56.9	
88 4-Chlorobenzotrifluoride	180	10.477	10.477	0.000	95	160117	50.0	58.2	
89 1,1,1,2-Tetrachloroethane	131	10.514	10.514	0.000	92	92923	50.0	48.9	
90 Ethylbenzene	106	10.520	10.520	0.000	99	172459	50.0	52.3	
91 m-Xylene & p-Xylene	106	10.648	10.648	0.000	0	213699	50.0	53.5	
92 o-Xylene	106	11.031	11.031	0.000	96	201944	50.0	51.3	
93 Styrene	104	11.049	11.049	0.000	96	340168	50.0	54.7	
94 Bromoform	173	11.232	11.232	0.000	95	38424	50.0	36.8	
96 2-Chlorobenzotrifluoride	180	11.299	11.299	0.000	97	166572	50.0	56.5	
97 Isopropylbenzene	105	11.396	11.396	0.000	97	502349	50.0	52.2	
99 1,1,2,2-Tetrachloroethane	83	11.706	11.706	0.000	88	127043	50.0	54.4	
100 Bromobenzene	156	11.712	11.712	0.000	95	117115	50.0	47.8	
102 trans-1,4-Dichloro-2-buten	53	11.749	11.749	0.000	80	33576	50.0	41.3	
101 1,2,3-Trichloropropane	110	11.761	11.761	0.000	87	40391	50.0	50.2	
103 N-Propylbenzene	120	11.816	11.816	0.000	99	144129	50.0	49.4	
104 2-Chlorotoluene	126	11.901	11.901	0.000	96	124626	50.0	49.9	

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	123745	50.0	48.8	
106 1,3,5-Trimethylbenzene	105	11.998	11.998	0.000	95	414481	50.0	50.5	
107 4-Chlorotoluene	126	12.022	12.022	0.000	98	135178	50.0	51.3	
108 tert-Butylbenzene	119	12.308	12.308	0.000	95	332192	50.0	47.4	
110 1,2,4-Trimethylbenzene	105	12.369	12.369	0.000	98	411998	50.0	50.4	
111 1,2-dichloro-4-(trifluorom	214	12.412	12.412	0.000	98	123966	50.0	56.3	
112 sec-Butylbenzene	105	12.533	12.533	0.000	95	493116	50.0	49.8	
113 1,3-Dichlorobenzene	146	12.649	12.649	0.000	97	219322	50.0	51.3	
114 4-Isopropyltoluene	119	12.692	12.692	0.000	97	403259	50.0	49.8	
115 1,4-Dichlorobenzene	146	12.752	12.752	0.000	94	225390	50.0	51.4	
116 2,4-Dichloro-1-(triflourom	214	12.783	12.783	0.000	98	115061	50.0	56.2	
118 2,5-Dichlorobenzotrifluori	214	12.819	12.819	0.000	0	123233	50.0	54.9	
120 n-Butylbenzene	91	13.099	13.099	0.000	98	352070	50.0	50.6	
121 1,2-Dichlorobenzene	146	13.111	13.111	0.000	96	202030	50.0	51.0	
122 1,2-Dibromo-3-Chloropropan	75	13.896	13.896	0.000	73	13297	50.0	33.7	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.042	14.042	0.000	0	350605	150.0	139.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.462	14.462	0.000	0	208836	100.0	88.3	
126 1,2,4-Trichlorobenzene	180	14.724	14.724	0.000	93	78743	50.0	47.8	
127 Hexachlorobutadiene	225	14.870	14.870	0.000	98	44555	50.0	58.0	
128 Naphthalene	128	14.991	14.991	0.000	97	168047	50.0	36.8	
129 1,2,3-Trichlorobenzene	180	15.216	15.216	0.000	95	64161	50.0	50.0	
131 2,4,5-Trichlorotoluene	159	15.995	15.995	0.000	0	18276	50.0	31.4	
130 2,3,6-Trichlorotoluene	159	16.092	16.092	0.000	95	21266	50.0	40.6	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	112.1	
S 133 Xylenes, Total	106				0		100.0	104.8	
S 135 1,3-Dichloropropene, Total	1				0		100.0	81.3	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWVA1st Res_00001	Amount Added:	2.00	Units: uL	
voaWketPri Re_00005	Amount Added:	2.00	Units: uL	
voaWEEmix1st_00001	Amount Added:	2.00	Units: uL	
VOA8260VOAPRI_00120	Amount Added:	2.00	Units: uL	
VOAACROPRI_00005	Amount Added:	6.00	Units: uL	
VOACEVEPRI_00008	Amount Added:	2.00	Units: uL	
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent

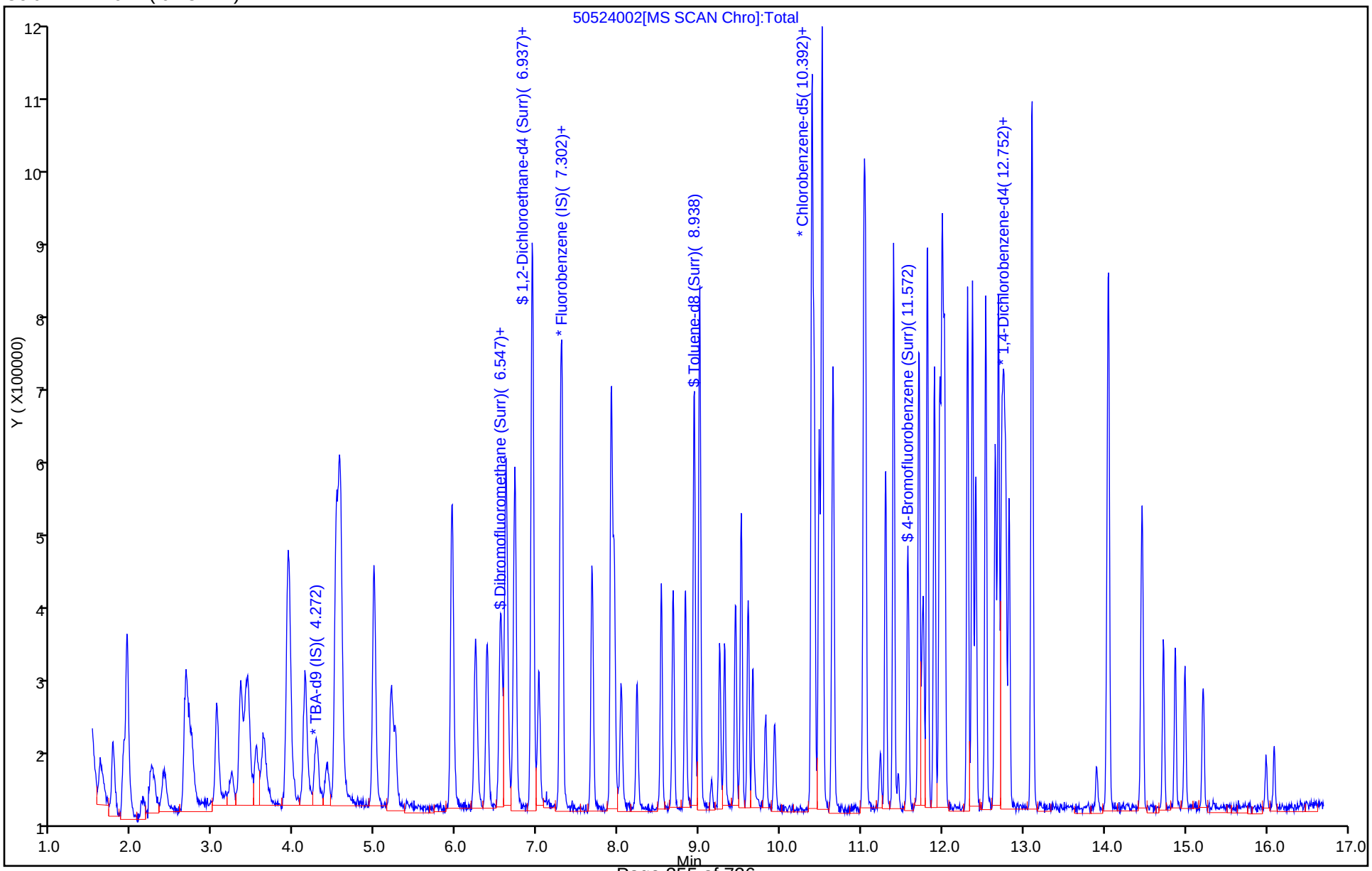
Report Date: 24-May-2015 15:15:25 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150524-7097.b\50524002.D

Injection Date:	24-May-2015 12:15:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

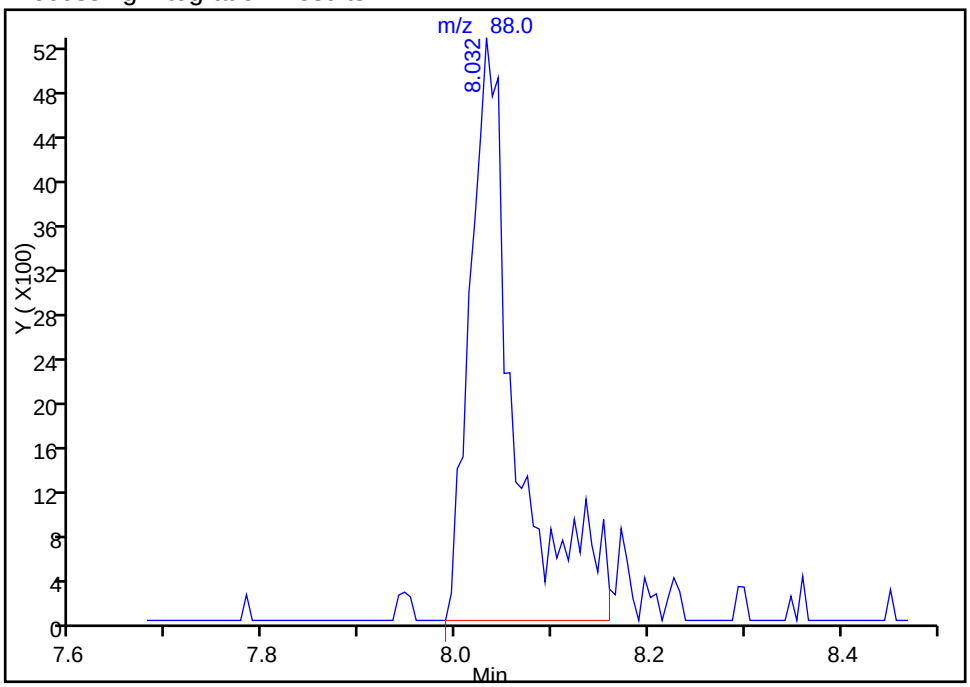
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150524-7097.b\50524002.D
Injection Date: 24-May-2015 12:15:30 Instrument ID: CHHP5
Lims ID: CCVIS
Client ID:
Operator ID: 001562 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

70 1,4-Dioxane, CAS: 123-91-1

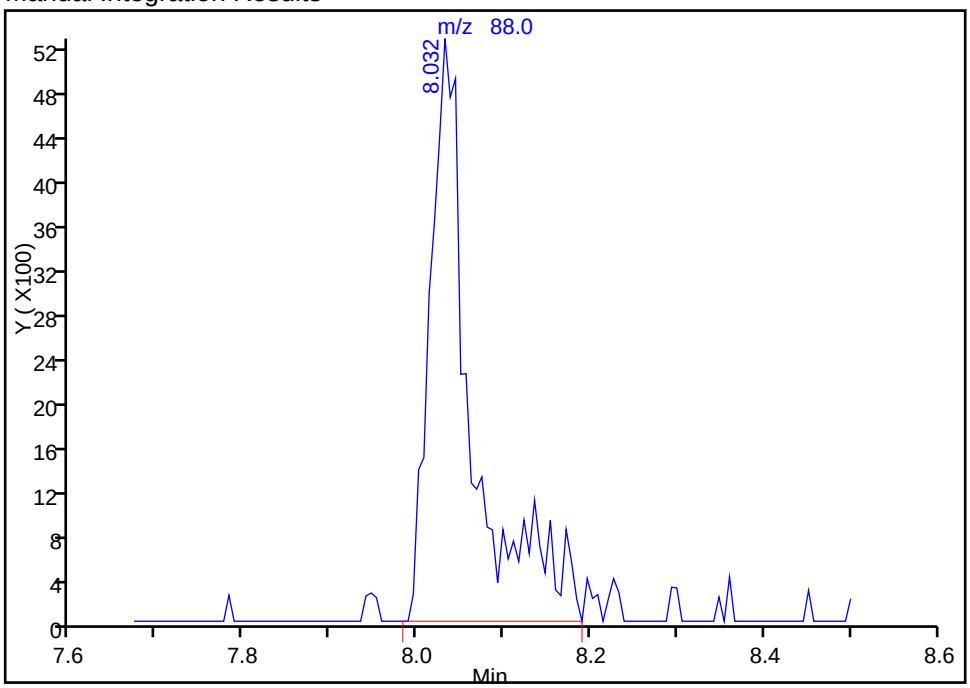
Processing Integration Results

RT: 8.03
Area: 17058
Amount: 879.1754
Amount Units: ng



Manual Integration Results

RT: 8.03
Area: 17717
Amount: 913.1405
Amount Units: ng



Reviewer: fergusond, 24-May-2015 12:57:45
Audit Action: Manually Integrated
Audit Reason: Peak Tail

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Lab Sample ID: CCVIS 180-142745/2 Calibration Date: 05/26/2015 10:48

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: 50526002.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	0.1315	0.0100	15.9	20.0	-20.4*	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526002.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 26-May-2015 10:48:30 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0007112-002
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub12

Method: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 26-May-2015 12:20:30 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: fergusond Date: 26-May-2015 11:08:19

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.273	4.273	0.000	0	130784	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.290	0.000	97	434095	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.393	10.393	0.000	81	92571	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.735	12.735	0.000	90	134489	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.560	6.560	0.000	57	92008	50.0	49.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.937	6.937	0.000	0	109159	50.0	46.8	
$ 7 Toluene-d8 (Surr)	98	8.939	8.939	0.000	93	360381	50.0	52.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.573	11.573	0.000	86	117905	50.0	47.8	
11 Dichlorodifluoromethane	85	1.608	1.608	0.000	62	127561	50.0	42.5	
12 Chloromethane	50	1.766	1.766	0.000	83	145790	50.0	38.2	
13 Vinyl chloride	62	1.900	1.900	0.000	82	138311	50.0	40.2	
14 Butadiene	39	1.937	1.937	0.000	97	169478	50.0	42.7	
15 Bromomethane	94	2.247	2.247	0.000	87	82550	50.0	52.3	
16 Chloroethane	64	2.399	2.399	0.000	93	91109	50.0	49.9	
17 Dichlorofluoromethane	67	2.667	2.667	0.000	81	217860	50.0	52.8	
18 Trichlorofluoromethane	101	2.703	2.703	0.000	83	186457	50.0	48.0	M
20 Ethyl ether	59	3.050	3.050	0.000	91	114151	50.0	52.0	
21 Acrolein	56	3.226	3.226	0.000	87	59868	150.0	163.5	
22 1,1-Dichloroethene	96	3.348	3.348	0.000	88	117111	50.0	56.3	
23 1,1,2-Trichloro-1,2,2-trif	101	3.421	3.421	0.000	83	126557	50.0	58.2	
24 Acetone	43	3.439	3.439	0.000	88	70016	100.0	81.8	
25 Iodomethane	142	3.537	3.537	0.000	99	170233	50.0	53.4	
26 Carbon disulfide	76	3.628	3.628	0.000	99	289087	50.0	52.2	
28 3-Chloro-1-propene	76	3.920	3.920	0.000	76	62741	50.0	45.3	
30 Methyl acetate	43	3.938	3.938	0.000	97	526555	250.0	259.0	
31 Methylene Chloride	84	4.139	4.139	0.000	86	142172	50.0	59.0	
32 2-Methyl-2-propanol	59	4.413	4.413	0.000	71	69262	500.0	473.8	
33 Acrylonitrile	53	4.522	4.522	0.000	99	501972	500.0	489.0	
34 trans-1,2-Dichloroethene	96	4.565	4.565	0.000	84	127341	50.0	55.3	
35 Methyl tert-butyl ether	73	4.577	4.577	0.000	88	263000	50.0	41.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.991	4.991	0.000	94	183574	50.0	50.6	
37 1,1-Dichloroethane	63	5.197	5.197	0.000	86	223669	50.0	51.5	
38 Vinyl acetate	43	5.246	5.246	0.000	97	194826	50.0	39.9	
44 2,2-Dichloropropane	77	5.946	5.946	0.000	62	95104	50.0	43.2	
45 cis-1,2-Dichloroethene	96	5.946	5.946	0.000	69	127107	50.0	50.0	
46 2-Butanone (MEK)	43	5.964	5.964	0.000	83	100480	100.0	77.3	
49 Chlorobromomethane	128	6.238	6.238	0.000	91	53134	50.0	46.9	
51 Tetrahydrofuran	42	6.256	6.256	0.000	85	73567	100.0	83.2	
52 Chloroform	83	6.384	6.384	0.000	83	194986	50.0	50.1	
53 1,1,1-Trichloroethane	97	6.542	6.542	0.000	54	150855	50.0	50.0	
54 Cyclohexane	56	6.615	6.615	0.000	77	224764	50.0	49.2	
56 Carbon tetrachloride	117	6.712	6.712	0.000	83	134256	50.0	49.4	
55 1,1-Dichloropropene	75	6.731	6.731	0.000	91	169990	50.0	53.5	
57 Isobutyl alcohol	41	6.931	6.931	0.000	50	88637	1250.0	1094.6	
58 Benzene	78	6.943	6.943	0.000	96	514107	50.0	53.1	
59 1,2-Dichloroethane	62	7.023	7.023	0.000	96	142359	50.0	49.3	
62 n-Heptane	43	7.308	7.308	0.000	89	163561	50.0	50.7	
64 Trichloroethene	130	7.680	7.680	0.000	93	113275	50.0	45.7	
66 Methylcyclohexane	83	7.917	7.917	0.000	93	187203	50.0	45.8	
67 1,2-Dichloropropane	63	7.947	7.947	0.000	84	118828	50.0	47.3	
68 Dibromomethane	93	8.032	8.032	0.000	95	63498	50.0	49.5	
70 1,4-Dioxane	88	8.032	8.032	0.000	33	15352	1000.0	800.8	M
71 Dichlorobromomethane	83	8.233	8.233	0.000	88	125175	50.0	44.7	
73 2-Chloroethyl vinyl ether	63	8.531	8.531	0.000	90	114139	100.0	79.6	
74 cis-1,3-Dichloropropene	75	8.677	8.677	0.000	88	139671	50.0	39.3	
75 4-Methyl-2-pentanone (MIBK	43	8.829	8.829	0.000	67	195877	100.0	82.0	
76 Toluene	91	9.006	9.006	0.000	92	498382	50.0	56.5	
77 trans-1,3-Dichloropropene	75	9.255	9.255	0.000	97	113967	50.0	42.6	
78 Ethyl methacrylate	69	9.310	9.310	0.000	89	109279	50.0	41.0	
79 1,1,2-Trichloroethane	97	9.450	9.450	0.000	81	88520	50.0	53.1	
80 Tetrachloroethene	164	9.517	9.517	0.000	90	94475	50.0	56.9	
81 1,3-Dichloropropane	76	9.608	9.608	0.000	86	158047	50.0	50.1	
82 2-Hexanone	43	9.657	9.657	0.000	98	146788	100.0	86.4	
84 Chlorodibromomethane	129	9.815	9.815	0.000	86	72941	50.0	44.6	
85 Ethylene Dibromide	107	9.930	9.930	0.000	97	81578	50.0	47.6	
86 3-Chlorobenzotrifluoride	180	10.393	10.393	0.000	86	165780	50.0	55.2	
87 Chlorobenzene	112	10.423	10.423	0.000	77	297749	50.0	52.1	
88 4-Chlorobenzotrifluoride	180	10.478	10.478	0.000	93	155472	50.0	56.0	
89 1,1,1,2-Tetrachloroethane	131	10.514	10.514	0.000	39	95076	50.0	49.6	
90 Ethylbenzene	106	10.521	10.521	0.000	98	162978	50.0	49.0	
91 m-Xylene & p-Xylene	106	10.654	10.654	0.000	0	204491	50.0	50.8	
92 o-Xylene	106	11.032	11.032	0.000	96	185140	50.0	46.6	
93 Styrene	104	11.050	11.050	0.000	93	313400	50.0	50.0	
94 Bromoform	173	11.232	11.232	0.000	89	43159	50.0	41.0	
96 2-Chlorobenzotrifluoride	180	11.299	11.299	0.000	97	157046	50.0	52.8	
97 Isopropylbenzene	105	11.403	11.403	0.000	96	475119	50.0	49.0	
99 1,1,2,2-Tetrachloroethane	83	11.713	11.713	0.000	55	116680	50.0	49.5	
100 Bromobenzene	156	11.713	11.713	0.000	83	111549	50.0	44.9	
102 trans-1,4-Dichloro-2-buten	53	11.743	11.743	0.000	71	33633	50.0	40.7	
101 1,2,3-Trichloropropane	110	11.768	11.768	0.000	67	38720	50.0	47.4	
103 N-Propylbenzene	120	11.816	11.816	0.000	97	138319	50.0	46.7	
104 2-Chlorotoluene	126	11.901	11.901	0.000	95	117264	50.0	46.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.968	11.968	0.000	72	123278	50.0	47.8	
106 1,3,5-Trimethylbenzene	105	11.999	11.999	0.000	93	400233	50.0	48.1	
107 4-Chlorotoluene	126	12.023	12.023	0.000	98	124305	50.0	46.4	
108 tert-Butylbenzene	119	12.315	12.315	0.000	83	301533	50.0	42.3	
110 1,2,4-Trimethylbenzene	105	12.370	12.370	0.000	98	385782	50.0	46.5	
111 1,2-dichloro-4-(trifluorom	214	12.412	12.412	0.000	97	120033	50.0	53.7	
112 sec-Butylbenzene	105	12.534	12.534	0.000	93	468100	50.0	46.6	
113 1,3-Dichlorobenzene	146	12.656	12.656	0.000	79	210643	50.0	48.5	
114 4-Isopropyltoluene	119	12.692	12.692	0.000	80	375144	50.0	45.6	
115 1,4-Dichlorobenzene	146	12.759	12.759	0.000	93	209858	50.0	47.1	
116 2,4-Dichloro-1-(triflourom	214	12.784	12.784	0.000	90	108160	50.0	52.0	
118 2,5-Dichlorobenzotrifluori	214	12.826	12.826	0.000	0	122388	50.0	53.7	
120 n-Butylbenzene	91	13.100	13.100	0.000	95	321162	50.0	45.5	
121 1,2-Dichlorobenzene	146	13.112	13.112	0.000	90	192606	50.0	47.9	
122 1,2-Dibromo-3-Chloropropan	75	13.909	13.909	0.000	64	15778	50.0	39.4	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.049	14.049	0.000	0	328258	150.0	128.2	
125 2,3- & 3,4- Dichlorotoluen	125	14.463	14.463	0.000	0	194772	100.0	81.1	
126 1,2,4-Trichlorobenzene	180	14.724	14.724	0.000	91	72819	50.0	43.5	
127 Hexachlorobutadiene	225	14.876	14.876	0.000	89	46391	50.0	59.5	
128 Naphthalene	128	14.992	14.992	0.000	94	160864	50.0	34.7	
129 1,2,3-Trichlorobenzene	180	15.217	15.217	0.000	93	58679	50.0	45.0	
131 2,4,5-Trichlorotoluene	159	15.990	15.990	0.000	0	17873	50.0	30.3	
130 2,3,6-Trichlorotoluene	159	16.093	16.093	0.000	84	19012	50.0	35.7	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	97.4	
S 134 1,2-Dichloroethene, Total	96				0		100.0	105.3	
S 135 1,3-Dichloropropene, Total	1				0		100.0	81.9	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWVA1st Res_00001	Amount Added:	2.00	Units: uL	
voaWketPri Re_00005	Amount Added:	2.00	Units: uL	
voaWEEmix1st_00001	Amount Added:	2.00	Units: uL	
VOA8260VOAPRI_00121	Amount Added:	2.00	Units: uL	
VOAACROPRI_00005	Amount Added:	6.00	Units: uL	
VOACEVEPRI_00008	Amount Added:	2.00	Units: uL	
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent

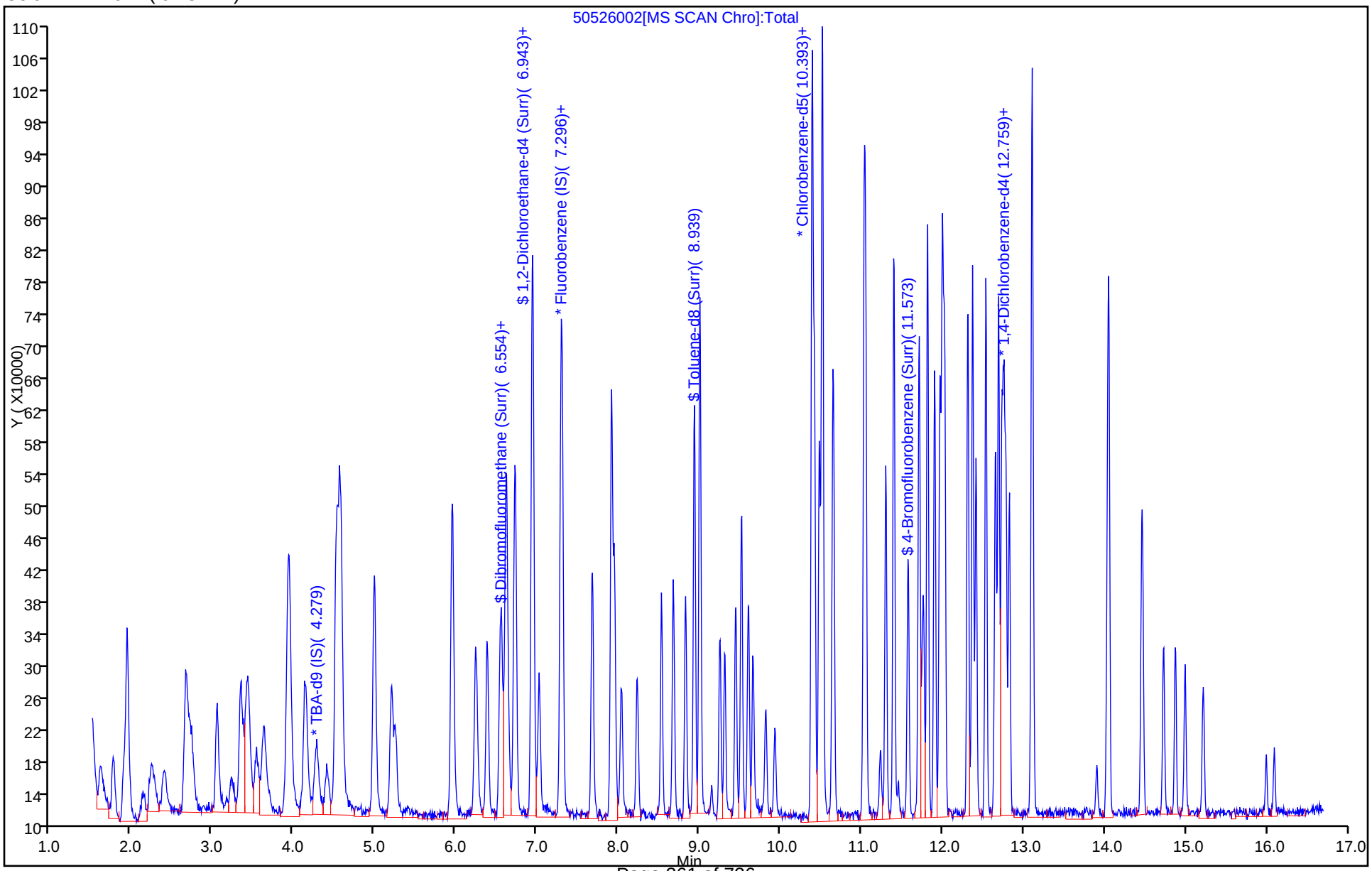
Report Date: 26-May-2015 12:20:32 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526002.D

Injection Date:	26-May-2015 10:48:30	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.: 180-44203-1

SDG No.:

Lab Sample ID: CCVIS 180-142745/2 Calibration Date: 05/26/2015 10:48

Instrument ID: CHHP5 Calib Start Date: 05/16/2015 14:25

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/16/2015 18:25

Lab File ID: 50526002.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	0.3455	0.2939	0.1000	8.51	10.0	-14.9	20.0
Chloromethane	Ave	0.4398	0.3359	0.1000	7.64	10.0	-23.6*	20.0
Vinyl chloride	Ave	0.3965	0.3186	0.1000	8.04	10.0	-19.6	20.0
Bromomethane	Ave	0.1818	0.1902	0.0500	10.5	10.0	4.6	20.0
Chloroethane	Ave	0.2101	0.2099	0.0500	9.99	10.0	-0.1	20.0
Dichlorofluoromethane	Ave	0.4754	0.5019	0.0100	10.6	10.0	5.6	20.0
Trichlorofluoromethane	Ave	0.4478	0.4295	0.1000	9.59	10.0	-4.1	20.0
Ethyl ether	Ave	0.2528	0.2630	0.0100	10.4	10.0	4.0	20.0
Acrolein	Ave	0.0422	0.0460	0.0100	32.7	30.0	9.0	20.0
1,1-Dichloroethene	Ave	0.2396	0.2698	0.1000	11.3	10.0	12.6	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2506	0.2915	0.1000	11.6	10.0	16.3	20.0
Acetone	Ave	0.0986	0.0807	0.0500	16.4	20.0	-18.2	20.0
Iodomethane	Ave	0.3672	0.3922	0.0100	10.7	10.0	6.8	20.0
Carbon disulfide	Ave	0.6384	0.6660	0.1000	10.4	10.0	4.3	20.0
Allyl chloride	Ave	0.1594	0.1445	0.0100	9.07	10.0	-9.3	20.0
Methyl acetate	Ave	0.2342	0.2426	0.1000	51.8	50.0	3.6	20.0
Methylene Chloride	Lin2		0.3275	0.1000	11.8	10.0	18.1	20.0
tert-Butyl alcohol	Ave	1.118	1.059	0.0100	94.8	100	-5.2	20.0
Acrylonitrile	Ave	0.1182	0.1156	0.0100	97.8	100	-2.2	20.0
trans-1,2-Dichloroethene	Ave	0.2651	0.2934	0.1000	11.1	10.0	10.7	20.0
Methyl tert-butyl ether	Ave	0.7308	0.6059	0.1000	8.29	10.0	-17.1	20.0
Hexane	Ave	0.4177	0.4229	0.0100	10.1	10.0	1.2	20.0
1,1-Dichloroethane	Ave	0.5003	0.5153	0.2000	10.3	10.0	3.0	20.0
Vinyl acetate	Ave	0.5628	0.4488	0.0100	7.97	10.0	-20.3*	20.0
2,2-Dichloropropane	Ave	0.2538	0.2191	0.0100	8.63	10.0	-13.7	20.0
cis-1,2-Dichloroethene	Ave	0.2931	0.2928	0.1000	9.99	10.0	-0.1	20.0
2-Butanone (MEK)	Ave	0.1498	0.1157	0.0500	15.5	20.0	-22.7*	20.0
Bromochloromethane	Ave	0.1305	0.1224	0.0100	9.38	10.0	-6.2	20.0
Tetrahydrofuran	Ave	0.1018	0.0847	0.0100	16.6	20.0	-16.8	20.0
Chloroform	Ave	0.4487	0.4492	0.2000	10.0	10.0	0.1	20.0
1,1,1-Trichloroethane	Ave	0.3474	0.3475	0.1000	10.0	10.0	0.0	20.0
Cyclohexane	Ave	0.5261	0.5178	0.1000	9.84	10.0	-1.6	20.0
Carbon tetrachloride	Ave	0.3131	0.3093	0.1000	9.88	10.0	-1.2	20.0
1,1-Dichloropropene	Ave	0.3659	0.3916	0.0100	10.7	10.0	7.0	20.0
Isobutyl alcohol	Ave	0.0093	0.0082*	0.0100	219	250	-12.4	20.0
Benzene	Ave	1.114	1.184	0.5000	10.6	10.0	6.3	20.0
1,2-Dichloroethane	Ave	0.3324	0.3279	0.1000	9.87	10.0	-1.3	20.0
n-Heptane	Ave	0.3714	0.3768	0.0100	10.1	10.0	1.4	20.0
Trichloroethene	Ave	0.2856	0.2610	0.2000	9.14	10.0	-8.6	20.0
Methylcyclohexane	Ave	0.4706	0.4313	0.1000	9.16	10.0	-8.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Lab Sample ID: CCVIS 180-142745/2 Calibration Date: 05/26/2015 10:48

Instrument ID: CHHP5 Calib Start Date: 05/16/2015 14:25

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/16/2015 18:25

Lab File ID: 50526002.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	0.2895	0.2737	0.1000	9.46	10.0	-5.4	20.0
1,4-Dioxane	Ave	0.0022	0.0018*	0.0100	160	200	-19.9	20.0
Dibromomethane	Ave	0.1479	0.1463	0.0100	9.89	10.0	-1.1	20.0
Bromodichloromethane	Ave	0.3223	0.2884	0.2000	8.95	10.0	-10.5	20.0
cis-1,3-Dichloropropene	Ave	0.4097	0.3218	0.2000	7.85	10.0	-21.5*	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.291	1.058	0.1000	16.4	20.0	-18.0	20.0
Toluene	Ave	4.768	5.384	0.4000	11.3	10.0	12.9	20.0
trans-1,3-Dichloropropene	Ave	1.445	1.231	0.1000	8.52	10.0	-14.8	20.0
Ethyl methacrylate	Ave	1.438	1.180	0.0100	8.21	10.0	-17.9	20.0
1,1,2-Trichloroethane	Ave	0.9001	0.9562	0.1000	10.6	10.0	6.2	20.0
Tetrachloroethene	Ave	0.8966	1.021	0.2000	11.4	10.0	13.8	20.0
1,3-Dichloropropane	Ave	1.703	1.707	0.0100	10.0	10.0	0.2	20.0
2-Hexanone	Ave	0.9180	0.7928	0.1000	17.3	20.0	-13.6	20.0
Dibromochloromethane	Ave	0.8836	0.7880	0.1000	8.92	10.0	-10.8	20.0
1,2-Dibromoethane (EDB)	Ave	0.9250	0.8813	0.1000	9.53	10.0	-4.7	20.0
3-Chlorobenzotrifluoride	Ave	1.623	1.791	0.0100	11.0	10.0	10.3	20.0
Chlorobenzene	Ave	3.086	3.216	0.5000	10.4	10.0	4.2	20.0
4-Chlorobenzotrifluoride	Ave	1.499	1.679	0.0100	11.2	10.0	12.1	20.0
1,1,1,2-Tetrachloroethane	Ave	1.036	1.027	0.0100	9.92	10.0	-0.8	20.0
Ethylbenzene	Ave	1.796	1.761	0.1000	9.80	10.0	-2.0	20.0
m-Xylene & p-Xylene	Ave	2.175	2.209	0.1000	10.2	10.0	1.6	20.0
o-Xylene	Ave	2.146	2.000	0.3000	9.32	10.0	-6.8	20.0
Styrene	Ave	3.386	3.386	0.3000	10.0	10.0	-0.0	20.0
Bromoform	Ave	0.5687	0.4662	0.1000	8.20	10.0	-18.0	20.0
2-Chlorobenzotrifluoride	Ave	1.606	1.696	0.0100	10.6	10.0	5.6	20.0
Isopropylbenzene	Ave	5.240	5.132	0.1000	9.80	10.0	-2.0	20.0
1,1,2,2-Tetrachloroethane	Ave	1.272	1.260	0.3000	9.91	10.0	-0.9	20.0
Bromobenzene	Ave	0.9239	0.8294	0.0100	8.98	10.0	-10.2	20.0
trans-1,4-Dichloro-2-butene	Ave	0.3070	0.2501	0.0100	8.15	10.0	-18.5	20.0
1,2,3-Trichloropropane	Ave	0.3034	0.2879	0.0100	9.49	10.0	-5.1	20.0
N-Propylbenzene	Ave	1.100	1.028	0.0100	9.35	10.0	-6.5	20.0
2-Chlorotoluene	Ave	0.9430	0.8719	0.0100	9.25	10.0	-7.5	20.0
3-Chlorotoluene	Ave	0.9581	0.9166	0.0100	9.57	10.0	-4.3	20.0
1,3,5-Trimethylbenzene	Ave	3.096	2.976	0.0100	9.61	10.0	-3.9	20.0
4-Chlorotoluene	Ave	0.995	0.9243	0.0100	9.28	10.0	-7.2	20.0
tert-Butylbenzene	Ave	2.647	2.242	0.0100	8.47	10.0	-15.3	20.0
1,2,4-Trimethylbenzene	Ave	3.087	2.869	0.0100	9.29	10.0	-7.1	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.8308	0.8925	0.0100	10.7	10.0	7.4	20.0
sec-Butylbenzene	Ave	3.737	3.481	0.0100	9.32	10.0	-6.8	20.0
1,3-Dichlorobenzene	Ave	1.614	1.566	0.6000	9.70	10.0	-3.0	20.0
4-Isopropyltoluene	Ave	3.057	2.789	0.0100	9.13	10.0	-8.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Lab Sample ID: CCVIS 180-142745/2 Calibration Date: 05/26/2015 10:48

Instrument ID: CHHP5 Calib Start Date: 05/16/2015 14:25

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/16/2015 18:25

Lab File ID: 50526002.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	1.655	1.560	0.5000	9.43	10.0	-5.7	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.7729	0.8042	0.0100	10.4	10.0	4.1	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.8473	0.9100	0.0100	10.7	10.0	7.4	20.0
n-Butylbenzene	Ave	2.626	2.388	0.0100	9.09	10.0	-9.1	20.0
1,2-Dichlorobenzene	Ave	1.495	1.432	0.4000	9.58	10.0	-4.2	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1488	0.1173	0.0500	7.88	10.0	-21.2*	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	0.9518	0.8136	0.0100	25.6	30.0	-14.5	20.0
2,3- & 3,4- Dichlorotoluene	Ave	0.8932	0.7241	0.0100	16.2	20.0	-18.9	20.0
1,2,4-Trichlorobenzene	Ave	0.6220	0.5415	0.2000	8.70	10.0	-13.0	20.0
Hexachlorobutadiene	Ave	0.2899	0.3449	0.0100	11.9	10.0	19.0	20.0
Naphthalene	Ave	1.722	1.196	0.0100	6.94	10.0	-30.6*	20.0
1,2,3-Trichlorobenzene	Ave	0.4843	0.4363	0.0100	9.01	10.0	-9.9	20.0
2,4,5-Trichlorotoluene	Ave	0.2194	0.1329	0.0100	6.06	10.0	-39.4*	20.0
2,3,6-Trichlorotoluene	Ave	0.1979	0.1414	0.0100	7.14	10.0	-28.6*	20.0
Dibromofluoromethane (Surr)	Ave	0.2157	0.2120		9.83	10.0	-1.7	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2687	0.2515		9.36	10.0	-6.4	20.0
Toluene-d8 (Surr)	Ave	3.713	3.893		10.5	10.0	4.8	20.0
4-Bromofluorobenzene (Surr)	Ave	1.333	1.274		9.56	10.0	-4.4	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526002.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 26-May-2015 10:48:30 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0007112-002
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub12

Method: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 26-May-2015 12:20:30 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: fergusond Date: 26-May-2015 11:08:19

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.273	4.273	0.000	0	130784	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.290	0.000	97	434095	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.393	10.393	0.000	81	92571	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.735	12.735	0.000	90	134489	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.560	6.560	0.000	57	92008	50.0	49.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.937	6.937	0.000	0	109159	50.0	46.8	
$ 7 Toluene-d8 (Surr)	98	8.939	8.939	0.000	93	360381	50.0	52.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.573	11.573	0.000	86	117905	50.0	47.8	
11 Dichlorodifluoromethane	85	1.608	1.608	0.000	62	127561	50.0	42.5	
12 Chloromethane	50	1.766	1.766	0.000	83	145790	50.0	38.2	
13 Vinyl chloride	62	1.900	1.900	0.000	82	138311	50.0	40.2	
14 Butadiene	39	1.937	1.937	0.000	97	169478	50.0	42.7	
15 Bromomethane	94	2.247	2.247	0.000	87	82550	50.0	52.3	
16 Chloroethane	64	2.399	2.399	0.000	93	91109	50.0	49.9	
17 Dichlorofluoromethane	67	2.667	2.667	0.000	81	217860	50.0	52.8	
18 Trichlorofluoromethane	101	2.703	2.703	0.000	83	186457	50.0	48.0	M
20 Ethyl ether	59	3.050	3.050	0.000	91	114151	50.0	52.0	
21 Acrolein	56	3.226	3.226	0.000	87	59868	150.0	163.5	
22 1,1-Dichloroethene	96	3.348	3.348	0.000	88	117111	50.0	56.3	
23 1,1,2-Trichloro-1,2,2-trif	101	3.421	3.421	0.000	83	126557	50.0	58.2	
24 Acetone	43	3.439	3.439	0.000	88	70016	100.0	81.8	
25 Iodomethane	142	3.537	3.537	0.000	99	170233	50.0	53.4	
26 Carbon disulfide	76	3.628	3.628	0.000	99	289087	50.0	52.2	
28 3-Chloro-1-propene	76	3.920	3.920	0.000	76	62741	50.0	45.3	
30 Methyl acetate	43	3.938	3.938	0.000	97	526555	250.0	259.0	
31 Methylene Chloride	84	4.139	4.139	0.000	86	142172	50.0	59.0	
32 2-Methyl-2-propanol	59	4.413	4.413	0.000	71	69262	500.0	473.8	
33 Acrylonitrile	53	4.522	4.522	0.000	99	501972	500.0	489.0	
34 trans-1,2-Dichloroethene	96	4.565	4.565	0.000	84	127341	50.0	55.3	
35 Methyl tert-butyl ether	73	4.577	4.577	0.000	88	263000	50.0	41.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.991	4.991	0.000	94	183574	50.0	50.6	
37 1,1-Dichloroethane	63	5.197	5.197	0.000	86	223669	50.0	51.5	
38 Vinyl acetate	43	5.246	5.246	0.000	97	194826	50.0	39.9	
44 2,2-Dichloropropane	77	5.946	5.946	0.000	62	95104	50.0	43.2	
45 cis-1,2-Dichloroethene	96	5.946	5.946	0.000	69	127107	50.0	50.0	
46 2-Butanone (MEK)	43	5.964	5.964	0.000	83	100480	100.0	77.3	
49 Chlorobromomethane	128	6.238	6.238	0.000	91	53134	50.0	46.9	
51 Tetrahydrofuran	42	6.256	6.256	0.000	85	73567	100.0	83.2	
52 Chloroform	83	6.384	6.384	0.000	83	194986	50.0	50.1	
53 1,1,1-Trichloroethane	97	6.542	6.542	0.000	54	150855	50.0	50.0	
54 Cyclohexane	56	6.615	6.615	0.000	77	224764	50.0	49.2	
56 Carbon tetrachloride	117	6.712	6.712	0.000	83	134256	50.0	49.4	
55 1,1-Dichloropropene	75	6.731	6.731	0.000	91	169990	50.0	53.5	
57 Isobutyl alcohol	41	6.931	6.931	0.000	50	88637	1250.0	1094.6	
58 Benzene	78	6.943	6.943	0.000	96	514107	50.0	53.1	
59 1,2-Dichloroethane	62	7.023	7.023	0.000	96	142359	50.0	49.3	
62 n-Heptane	43	7.308	7.308	0.000	89	163561	50.0	50.7	
64 Trichloroethene	130	7.680	7.680	0.000	93	113275	50.0	45.7	
66 Methylcyclohexane	83	7.917	7.917	0.000	93	187203	50.0	45.8	
67 1,2-Dichloropropane	63	7.947	7.947	0.000	84	118828	50.0	47.3	
68 Dibromomethane	93	8.032	8.032	0.000	95	63498	50.0	49.5	
70 1,4-Dioxane	88	8.032	8.032	0.000	33	15352	1000.0	800.8	M
71 Dichlorobromomethane	83	8.233	8.233	0.000	88	125175	50.0	44.7	
73 2-Chloroethyl vinyl ether	63	8.531	8.531	0.000	90	114139	100.0	79.6	
74 cis-1,3-Dichloropropene	75	8.677	8.677	0.000	88	139671	50.0	39.3	
75 4-Methyl-2-pentanone (MIBK	43	8.829	8.829	0.000	67	195877	100.0	82.0	
76 Toluene	91	9.006	9.006	0.000	92	498382	50.0	56.5	
77 trans-1,3-Dichloropropene	75	9.255	9.255	0.000	97	113967	50.0	42.6	
78 Ethyl methacrylate	69	9.310	9.310	0.000	89	109279	50.0	41.0	
79 1,1,2-Trichloroethane	97	9.450	9.450	0.000	81	88520	50.0	53.1	
80 Tetrachloroethene	164	9.517	9.517	0.000	90	94475	50.0	56.9	
81 1,3-Dichloropropane	76	9.608	9.608	0.000	86	158047	50.0	50.1	
82 2-Hexanone	43	9.657	9.657	0.000	98	146788	100.0	86.4	
84 Chlorodibromomethane	129	9.815	9.815	0.000	86	72941	50.0	44.6	
85 Ethylene Dibromide	107	9.930	9.930	0.000	97	81578	50.0	47.6	
86 3-Chlorobenzotrifluoride	180	10.393	10.393	0.000	86	165780	50.0	55.2	
87 Chlorobenzene	112	10.423	10.423	0.000	77	297749	50.0	52.1	
88 4-Chlorobenzotrifluoride	180	10.478	10.478	0.000	93	155472	50.0	56.0	
89 1,1,1,2-Tetrachloroethane	131	10.514	10.514	0.000	39	95076	50.0	49.6	
90 Ethylbenzene	106	10.521	10.521	0.000	98	162978	50.0	49.0	
91 m-Xylene & p-Xylene	106	10.654	10.654	0.000	0	204491	50.0	50.8	
92 o-Xylene	106	11.032	11.032	0.000	96	185140	50.0	46.6	
93 Styrene	104	11.050	11.050	0.000	93	313400	50.0	50.0	
94 Bromoform	173	11.232	11.232	0.000	89	43159	50.0	41.0	
96 2-Chlorobenzotrifluoride	180	11.299	11.299	0.000	97	157046	50.0	52.8	
97 Isopropylbenzene	105	11.403	11.403	0.000	96	475119	50.0	49.0	
99 1,1,2,2-Tetrachloroethane	83	11.713	11.713	0.000	55	116680	50.0	49.5	
100 Bromobenzene	156	11.713	11.713	0.000	83	111549	50.0	44.9	
102 trans-1,4-Dichloro-2-buten	53	11.743	11.743	0.000	71	33633	50.0	40.7	
101 1,2,3-Trichloropropane	110	11.768	11.768	0.000	67	38720	50.0	47.4	
103 N-Propylbenzene	120	11.816	11.816	0.000	97	138319	50.0	46.7	
104 2-Chlorotoluene	126	11.901	11.901	0.000	95	117264	50.0	46.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.968	11.968	0.000	72	123278	50.0	47.8	
106 1,3,5-Trimethylbenzene	105	11.999	11.999	0.000	93	400233	50.0	48.1	
107 4-Chlorotoluene	126	12.023	12.023	0.000	98	124305	50.0	46.4	
108 tert-Butylbenzene	119	12.315	12.315	0.000	83	301533	50.0	42.3	
110 1,2,4-Trimethylbenzene	105	12.370	12.370	0.000	98	385782	50.0	46.5	
111 1,2-dichloro-4-(trifluorom	214	12.412	12.412	0.000	97	120033	50.0	53.7	
112 sec-Butylbenzene	105	12.534	12.534	0.000	93	468100	50.0	46.6	
113 1,3-Dichlorobenzene	146	12.656	12.656	0.000	79	210643	50.0	48.5	
114 4-Isopropyltoluene	119	12.692	12.692	0.000	80	375144	50.0	45.6	
115 1,4-Dichlorobenzene	146	12.759	12.759	0.000	93	209858	50.0	47.1	
116 2,4-Dichloro-1-(triflourom	214	12.784	12.784	0.000	90	108160	50.0	52.0	
118 2,5-Dichlorobenzotrifluori	214	12.826	12.826	0.000	0	122388	50.0	53.7	
120 n-Butylbenzene	91	13.100	13.100	0.000	95	321162	50.0	45.5	
121 1,2-Dichlorobenzene	146	13.112	13.112	0.000	90	192606	50.0	47.9	
122 1,2-Dibromo-3-Chloropropan	75	13.909	13.909	0.000	64	15778	50.0	39.4	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.049	14.049	0.000	0	328258	150.0	128.2	
125 2,3- & 3,4- Dichlorotoluen	125	14.463	14.463	0.000	0	194772	100.0	81.1	
126 1,2,4-Trichlorobenzene	180	14.724	14.724	0.000	91	72819	50.0	43.5	
127 Hexachlorobutadiene	225	14.876	14.876	0.000	89	46391	50.0	59.5	
128 Naphthalene	128	14.992	14.992	0.000	94	160864	50.0	34.7	
129 1,2,3-Trichlorobenzene	180	15.217	15.217	0.000	93	58679	50.0	45.0	
131 2,4,5-Trichlorotoluene	159	15.990	15.990	0.000	0	17873	50.0	30.3	
130 2,3,6-Trichlorotoluene	159	16.093	16.093	0.000	84	19012	50.0	35.7	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	97.4	
S 134 1,2-Dichloroethene, Total	96				0		100.0	105.3	
S 135 1,3-Dichloropropene, Total	1				0		100.0	81.9	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWVA1st Res_00001	Amount Added:	2.00	Units: uL	
voaWketPri Re_00005	Amount Added:	2.00	Units: uL	
voaWEEmix1st_00001	Amount Added:	2.00	Units: uL	
VOA8260VOAPRI_00121	Amount Added:	2.00	Units: uL	
VOAACROPRI_00005	Amount Added:	6.00	Units: uL	
VOACEVEPRI_00008	Amount Added:	2.00	Units: uL	
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent

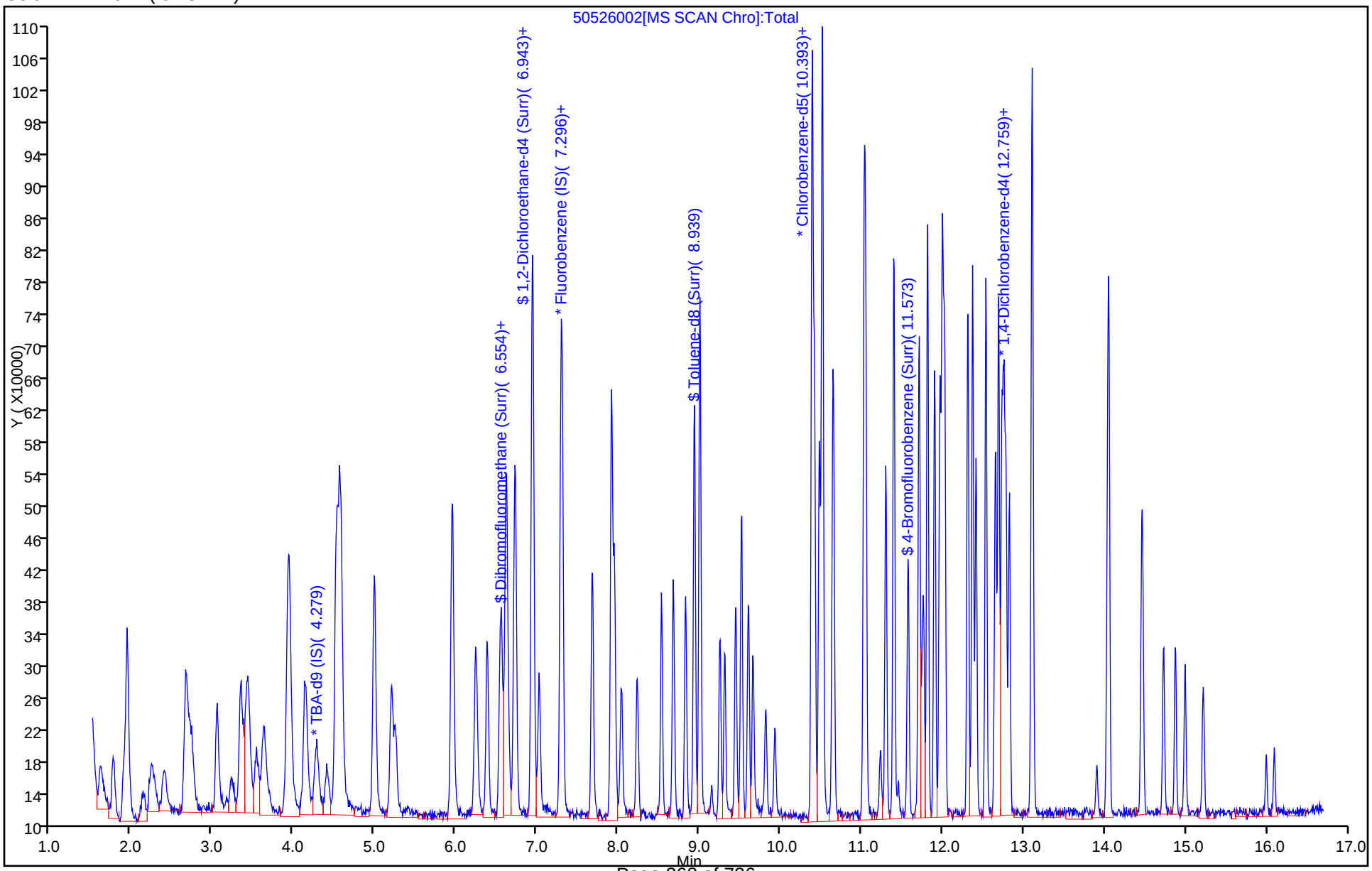
Report Date: 26-May-2015 12:20:32 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526002.D

Injection Date:	26-May-2015 10:48:30	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)



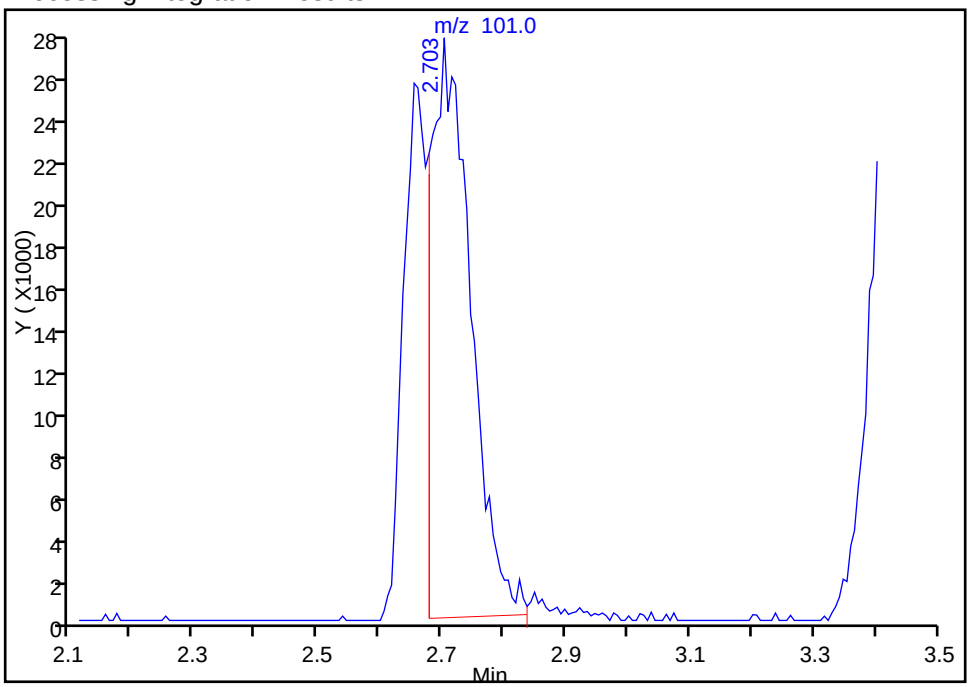
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526002.D				
Injection Date:	26-May-2015 10:48:30	Instrument ID:	CHHP5		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	001562	ALS Bottle#:	2	Worklist Smp#:	2
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

18 Trichlorofluoromethane, CAS: 75-69-4

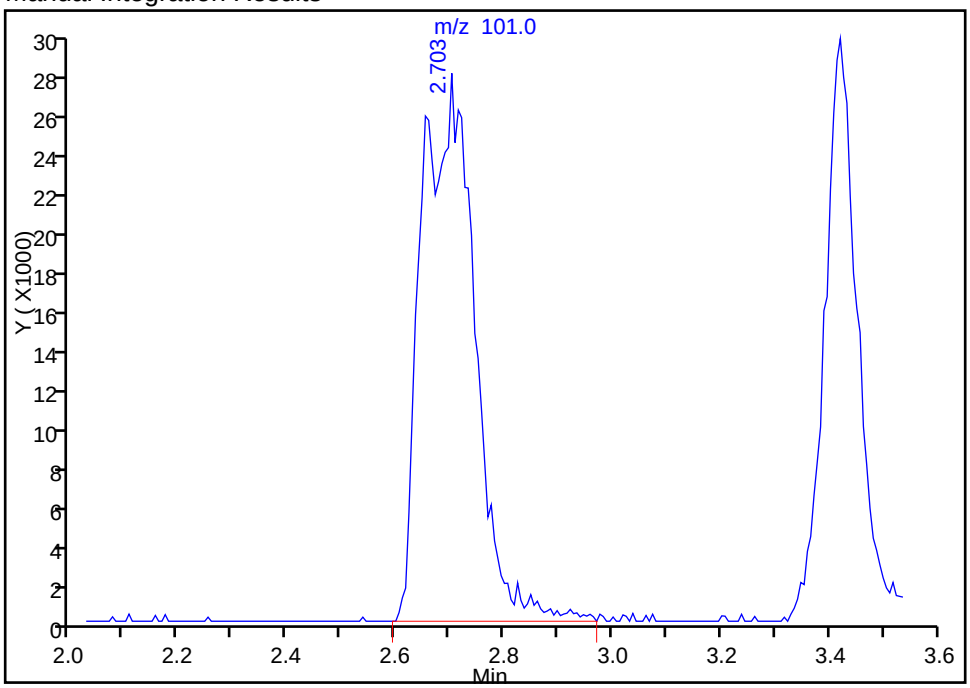
Processing Integration Results

RT: 2.70
Area: 119297
Amount: 30.688410
Amount Units: ng



Manual Integration Results

RT: 2.70
Area: 186457
Amount: 47.964901
Amount Units: ng



Reviewer: fergusond, 26-May-2015 11:08:19
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

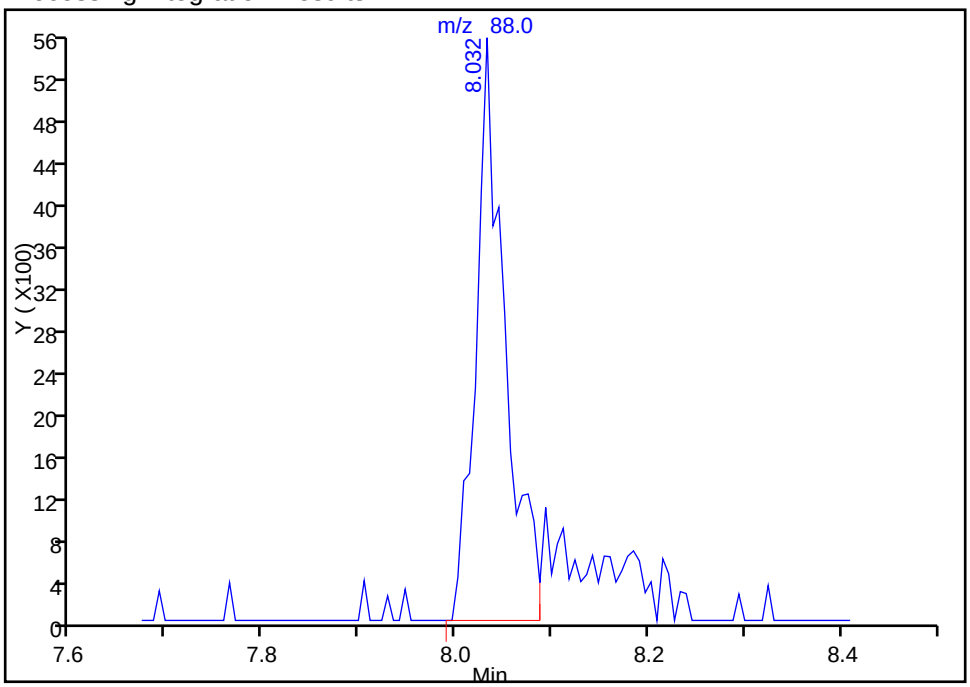
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526002.D				
Injection Date:	26-May-2015 10:48:30	Instrument ID:	CHHP5		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	001562	ALS Bottle#:	2	Worklist Smp#:	2
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

70 1,4-Dioxane, CAS: 123-91-1

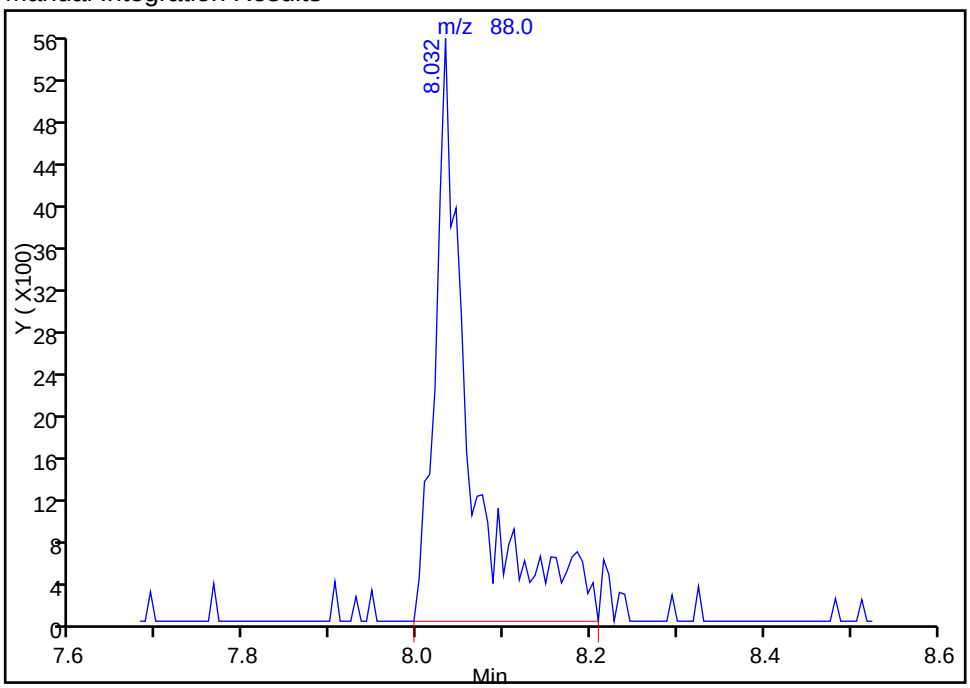
Processing Integration Results

RT: 8.03
Area: 11576
Amount: 603.8194
Amount Units: ng



Manual Integration Results

RT: 8.03
Area: 15352
Amount: 800.7805
Amount Units: ng



Reviewer: fergusond, 26-May-2015 11:08:19
Audit Action: Manually Integrated
Audit Reason: Peak Tail

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Lab Sample ID: CCVIS 180-142864/7 Calibration Date: 05/27/2015 12:33

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: 50527007.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	0.1480	0.0100	17.9	20.0	-10.4	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527007.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 27-May-2015 12:33:30 ALS Bottle#: 4 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0007136-007
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub12

Method: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 27-May-2015 16:31:57 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: fergusond Date: 27-May-2015 13:17:58

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.274	4.274	0.000	0	142779	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.292	7.292	0.000	99	435254	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.388	10.388	0.000	86	94901	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.730	12.730	0.000	93	135191	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.561	6.561	0.000	92	92129	50.0	49.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.933	6.933	0.000	0	113646	50.0	48.6	
$ 7 Toluene-d8 (Surr)	98	8.934	8.934	0.000	94	390331	50.0	55.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.574	11.574	0.000	90	129706	50.0	51.3	
11 Dichlorodifluoromethane	85	1.622	1.622	0.000	99	135988	50.0	45.2	
12 Chloromethane	50	1.768	1.768	0.000	99	155381	50.0	40.6	
13 Vinyl chloride	62	1.908	1.908	0.000	99	144360	50.0	41.8	
14 Butadiene	39	1.938	1.938	0.000	99	177922	50.0	44.7	
15 Bromomethane	94	2.273	2.273	0.000	93	81840	50.0	51.7	
16 Chloroethane	64	2.413	2.413	0.000	99	94452	50.0	51.6	
17 Dichlorofluoromethane	67	2.674	2.674	0.000	97	227639	50.0	55.0	
18 Trichlorofluoromethane	101	2.723	2.723	0.000	97	194907	50.0	50.0	
20 Ethyl ether	59	3.051	3.051	0.000	93	124544	50.0	56.6	
21 Acrolein	56	3.228	3.228	0.000	99	64332	150.0	175.2	
22 1,1-Dichloroethene	96	3.343	3.343	0.000	96	125363	50.0	60.1	
23 1,1,2-Trichloro-1,2,2-trif	101	3.416	3.416	0.000	93	133488	50.0	61.2	
24 Acetone	43	3.441	3.441	0.000	78	82089	100.0	95.6	
25 Iodomethane	142	3.532	3.532	0.000	97	177369	50.0	55.5	
26 Carbon disulfide	76	3.629	3.629	0.000	100	240865	50.0	43.3	
28 3-Chloro-1-propene	76	3.915	3.915	0.000	73	66949	50.0	48.2	
30 Methyl acetate	43	3.946	3.946	0.000	99	579915	250.0	284.5	
31 Methylene Chloride	84	4.140	4.140	0.000	96	149373	50.0	62.1	
32 2-Methyl-2-propanol	59	4.414	4.414	0.000	88	75036	500.0	470.2	
33 Acrylonitrile	53	4.524	4.524	0.000	98	560202	500.0	544.2	
34 trans-1,2-Dichloroethene	96	4.566	4.566	0.000	99	132003	50.0	57.2	
35 Methyl tert-butyl ether	73	4.584	4.584	0.000	96	287172	50.0	45.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.992	4.992	0.000	96	204367	50.0	56.2	
37 1,1-Dichloroethane	63	5.205	5.205	0.000	97	238548	50.0	54.8	
38 Vinyl acetate	43	5.254	5.254	0.000	98	190754	50.0	38.9	
44 2,2-Dichloropropane	77	5.947	5.947	0.000	58	100487	50.0	45.5	
45 cis-1,2-Dichloroethene	96	5.953	5.953	0.000	82	135749	50.0	53.2	
46 2-Butanone (MEK)	43	5.959	5.959	0.000	71	116883	100.0	89.6	
49 Chlorobromomethane	128	6.233	6.233	0.000	94	57886	50.0	50.9	
51 Tetrahydrofuran	42	6.251	6.251	0.000	89	77832	100.0	87.8	
52 Chloroform	83	6.379	6.379	0.000	95	211154	50.0	54.1	
53 1,1,1-Trichloroethane	97	6.543	6.543	0.000	97	154584	50.0	51.1	
54 Cyclohexane	56	6.616	6.616	0.000	97	248796	50.0	54.3	
56 Carbon tetrachloride	117	6.714	6.714	0.000	94	136462	50.0	50.1	
55 1,1-Dichloropropene	75	6.726	6.726	0.000	92	177165	50.0	55.6	
57 Isobutyl alcohol	41	6.926	6.926	0.000	86	94866	1250.0	1168.4	
58 Benzene	78	6.945	6.945	0.000	98	553193	50.0	57.0	
59 1,2-Dichloroethane	62	7.024	7.024	0.000	96	154769	50.0	53.5	
62 n-Heptane	43	7.310	7.310	0.000	91	177425	50.0	54.9	
64 Trichloroethene	130	7.681	7.681	0.000	97	124200	50.0	50.0	
66 Methylcyclohexane	83	7.918	7.918	0.000	95	215994	50.0	52.7	
67 1,2-Dichloropropane	63	7.949	7.949	0.000	94	129849	50.0	51.5	
70 1,4-Dioxane	88	8.034	8.034	0.000	39	18912	1000.0	983.8	M
68 Dibromomethane	93	8.040	8.040	0.000	96	64935	50.0	50.4	
71 Dichlorobromomethane	83	8.234	8.234	0.000	98	119877	50.0	42.7	
73 2-Chloroethyl vinyl ether	63	8.533	8.533	0.000	93	128794	100.0	89.6	
74 cis-1,3-Dichloropropene	75	8.672	8.672	0.000	93	149485	50.0	41.9	
75 4-Methyl-2-pentanone (MIBK	43	8.825	8.825	0.000	99	226240	100.0	92.3	
76 Toluene	91	9.007	9.007	0.000	98	548659	50.0	60.6	
77 trans-1,3-Dichloropropene	75	9.250	9.250	0.000	98	120223	50.0	43.8	
78 Ethyl methacrylate	69	9.311	9.311	0.000	90	122470	50.0	44.9	
79 1,1,2-Trichloroethane	97	9.445	9.445	0.000	91	101757	50.0	59.6	
80 Tetrachloroethene	164	9.518	9.518	0.000	96	101635	50.0	59.7	
81 1,3-Dichloropropane	76	9.603	9.603	0.000	96	176722	50.0	54.7	
82 2-Hexanone	43	9.658	9.658	0.000	99	177190	100.0	101.7	
84 Chlorodibromomethane	129	9.822	9.822	0.000	89	72431	50.0	43.2	
85 Ethylene Dibromide	107	9.932	9.932	0.000	97	88745	50.0	50.5	
86 3-Chlorobenzotrifluoride	180	10.388	10.388	0.000	89	184745	50.0	60.0	
87 Chlorobenzene	112	10.418	10.418	0.000	94	330810	50.0	56.5	
88 4-Chlorobenzotrifluoride	180	10.479	10.479	0.000	96	175765	50.0	61.8	
89 1,1,1,2-Tetrachloroethane	131	10.510	10.510	0.000	87	101617	50.0	51.7	
90 Ethylbenzene	106	10.516	10.516	0.000	99	181040	50.0	53.1	
91 m-Xylene & p-Xylene	106	10.650	10.650	0.000	0	219349	50.0	53.1	
92 o-Xylene	106	11.027	11.027	0.000	98	204458	50.0	50.2	
93 Styrene	104	11.051	11.051	0.000	96	342459	50.0	53.3	
94 Bromoform	173	11.234	11.234	0.000	96	38700	50.0	35.9	
96 2-Chlorobenzotrifluoride	180	11.301	11.301	0.000	97	184902	50.0	60.6	
97 Isopropylbenzene	105	11.398	11.398	0.000	96	521002	50.0	52.4	
99 1,1,2,2-Tetrachloroethane	83	11.708	11.708	0.000	90	132604	50.0	54.9	
100 Bromobenzene	156	11.714	11.714	0.000	94	122557	50.0	49.1	
102 trans-1,4-Dichloro-2-buten	53	11.745	11.745	0.000	79	35336	50.0	42.6	
101 1,2,3-Trichloropropane	110	11.769	11.769	0.000	86	38987	50.0	47.5	
103 N-Propylbenzene	120	11.812	11.812	0.000	99	154254	50.0	51.8	
104 2-Chlorotoluene	126	11.903	11.903	0.000	96	127497	50.0	50.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.970	11.970	0.000	95	140269	50.0	54.1	
106 1,3,5-Trimethylbenzene	105	12.000	12.000	0.000	96	427403	50.0	51.1	
107 4-Chlorotoluene	126	12.024	12.024	0.000	98	135161	50.0	50.2	
108 tert-Butylbenzene	119	12.310	12.310	0.000	94	341166	50.0	47.7	
110 1,2,4-Trimethylbenzene	105	12.371	12.371	0.000	98	424051	50.0	50.8	
111 1,2-dichloro-4-(trifluorom	214	12.414	12.414	0.000	98	131721	50.0	58.6	
112 sec-Butylbenzene	105	12.535	12.535	0.000	94	513862	50.0	50.9	
113 1,3-Dichlorobenzene	146	12.651	12.651	0.000	97	222880	50.0	51.1	
114 4-Isopropyltoluene	119	12.688	12.688	0.000	96	401158	50.0	48.5	
115 1,4-Dichlorobenzene	146	12.754	12.754	0.000	92	222804	50.0	49.8	
116 2,4-Dichloro-1-(triflourom	214	12.785	12.785	0.000	96	129533	50.0	62.0	
118 2,5-Dichlorobenzotrifluori	214	12.821	12.821	0.000	0	132342	50.0	57.8	
120 n-Butylbenzene	91	13.101	13.101	0.000	99	362135	50.0	51.0	
121 1,2-Dichlorobenzene	146	13.113	13.113	0.000	95	205961	50.0	50.9	
122 1,2-Dibromo-3-Chloropropan	75	13.898	13.898	0.000	69	13550	50.0	33.7	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.044	14.044	0.000	0	375769	150.0	146.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.464	14.464	0.000	0	223483	100.0	92.5	
126 1,2,4-Trichlorobenzene	180	14.726	14.726	0.000	93	79743	50.0	47.4	
127 Hexachlorobutadiene	225	14.872	14.872	0.000	96	45365	50.0	57.9	
128 Naphthalene	128	14.993	14.993	0.000	97	174452	50.0	37.5	
129 1,2,3-Trichlorobenzene	180	15.212	15.212	0.000	95	61311	50.0	46.8	
131 2,4,5-Trichlorotoluene	159	15.991	15.991	0.000	0	20440	50.0	34.5	
130 2,3,6-Trichlorotoluene	159	16.094	16.094	0.000	93	19015	50.0	35.5	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	103.3	
S 134 1,2-Dichloroethene, Total	96				0		100.0	110.4	
S 135 1,3-Dichloropropene, Total	1				0		100.0	85.8	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWVA1st Res_00001	Amount Added:	2.00	Units: uL	
voaWketPri Re_00005	Amount Added:	2.00	Units: uL	
voaWEEmix1st_00001	Amount Added:	2.00	Units: uL	
VOA8260VOAPRI_00121	Amount Added:	2.00	Units: uL	
VOACEVEPRI_00008	Amount Added:	2.00	Units: uL	
VOAACROPRI_00005	Amount Added:	6.00	Units: uL	
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent

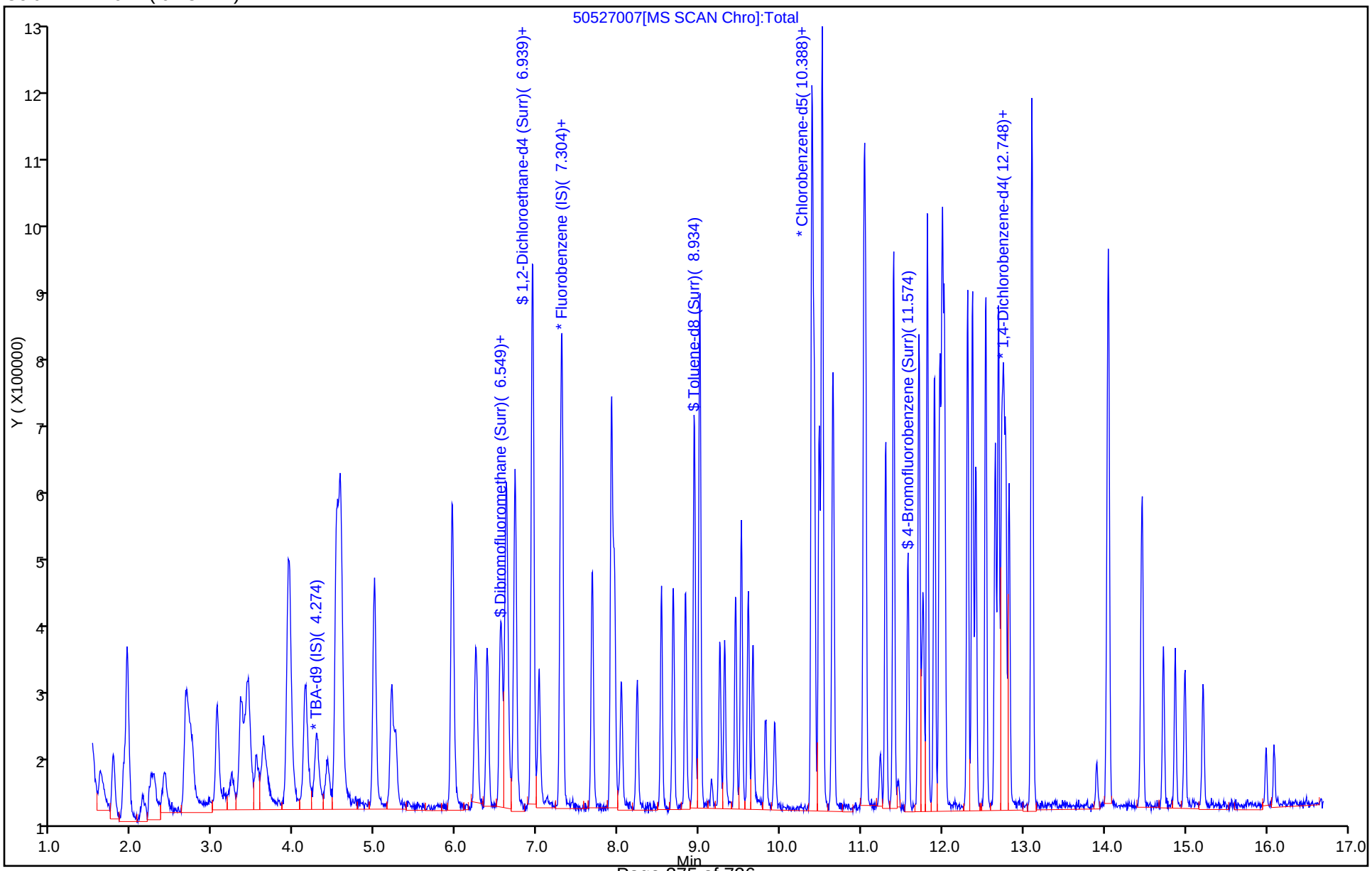
Report Date: 27-May-2015 16:31:58 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527007.D

Injection Date:	27-May-2015 12:33:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	CCVIS			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
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.: 180-44203-1

SDG No.:

Lab Sample ID: CCVIS 180-142864/7 Calibration Date: 05/27/2015 12:33

Instrument ID: CHHP5 Calib Start Date: 05/16/2015 14:25

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/16/2015 18:25

Lab File ID: 50527007.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	0.3455	0.3124	0.1000	9.04	10.0	-9.6	20.0
Chloromethane	Ave	0.4398	0.3570	0.1000	8.12	10.0	-18.8	20.0
Vinyl chloride	Ave	0.3965	0.3317	0.1000	8.37	10.0	-16.3	20.0
Bromomethane	Ave	0.1818	0.1880	0.0500	10.3	10.0	3.4	20.0
Chloroethane	Ave	0.2101	0.2170	0.0500	10.3	10.0	3.3	20.0
Dichlorofluoromethane	Ave	0.4754	0.5230	0.0100	11.0	10.0	10.0	20.0
Trichlorofluoromethane	Ave	0.4478	0.4478	0.1000	10.0	10.0	0.0	20.0
Ethyl ether	Ave	0.2528	0.2861	0.0100	11.3	10.0	13.2	20.0
Acrolein	Ave	0.0422	0.0493	0.0100	35.0	30.0	16.8	20.0
1,1-Dichloroethene	Ave	0.2396	0.2880	0.1000	12.0	10.0	20.2*	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2506	0.3067	0.1000	12.2	10.0	22.4*	20.0
Acetone	Ave	0.0986	0.0943	0.0500	19.1	20.0	-4.4	20.0
Iodomethane	Ave	0.3672	0.4075	0.0100	11.1	10.0	11.0	20.0
Carbon disulfide	Ave	0.6384	0.5534	0.1000	8.67	10.0	-13.3	20.0
Allyl chloride	Ave	0.1594	0.1538	0.0100	9.65	10.0	-3.5	20.0
Methyl acetate	Ave	0.2342	0.2665	0.1000	56.9	50.0	13.8	20.0
Methylene Chloride	Lin2		0.3432	0.1000	12.4	10.0	24.1*	20.0
tert-Butyl alcohol	Ave	1.118	1.051	0.0100	94.0	100	-6.0	20.0
Acrylonitrile	Ave	0.1182	0.1287	0.0100	109	100	8.8	20.0
trans-1,2-Dichloroethene	Ave	0.2651	0.3033	0.1000	11.4	10.0	14.4	20.0
Methyl tert-butyl ether	Ave	0.7308	0.6598	0.1000	9.03	10.0	-9.7	20.0
Hexane	Ave	0.4177	0.4695	0.0100	11.2	10.0	12.4	20.0
1,1-Dichloroethane	Ave	0.5003	0.5481	0.2000	11.0	10.0	9.5	20.0
Vinyl acetate	Ave	0.5628	0.4383	0.0100	7.79	10.0	-22.1*	20.0
2,2-Dichloropropane	Ave	0.2538	0.2309	0.0100	9.10	10.0	-9.0	20.0
cis-1,2-Dichloroethene	Ave	0.2931	0.3119	0.1000	10.6	10.0	6.4	20.0
2-Butanone (MEK)	Ave	0.1498	0.1343	0.0500	17.9	20.0	-10.4	20.0
Bromochloromethane	Ave	0.1305	0.1330	0.0100	10.2	10.0	1.9	20.0
Tetrahydrofuran	Ave	0.1018	0.0894	0.0100	17.6	20.0	-12.2	20.0
Chloroform	Ave	0.4487	0.4851	0.2000	10.8	10.0	8.1	20.0
1,1,1-Trichloroethane	Ave	0.3474	0.3552	0.1000	10.2	10.0	2.2	20.0
Cyclohexane	Ave	0.5261	0.5716	0.1000	10.9	10.0	8.7	20.0
Carbon tetrachloride	Ave	0.3131	0.3135	0.1000	10.0	10.0	0.1	20.0
1,1-Dichloropropene	Ave	0.3659	0.4070	0.0100	11.1	10.0	11.2	20.0
Isobutyl alcohol	Ave	0.0093	0.0087*	0.0100	234	250	-6.5	20.0
Benzene	Ave	1.114	1.271	0.5000	11.4	10.0	14.1	20.0
1,2-Dichloroethane	Ave	0.3324	0.3556	0.1000	10.7	10.0	7.0	20.0
n-Heptane	Ave	0.3714	0.4076	0.0100	11.0	10.0	9.7	20.0
Trichloroethene	Ave	0.2856	0.2854	0.2000	9.99	10.0	-0.0	20.0
Methylcyclohexane	Ave	0.4706	0.4963	0.1000	10.5	10.0	5.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Lab Sample ID: CCVIS 180-142864/7 Calibration Date: 05/27/2015 12:33

Instrument ID: CHHP5 Calib Start Date: 05/16/2015 14:25

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/16/2015 18:25

Lab File ID: 50527007.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	0.2895	0.2983	0.1000	10.3	10.0	3.1	20.0
1,4-Dioxane	Ave	0.0022	0.0022*	0.0100	197	200	-1.6	20.0
Dibromomethane	Ave	0.1479	0.1492	0.0100	10.1	10.0	0.9	20.0
Bromodichloromethane	Ave	0.3223	0.2754	0.2000	8.54	10.0	-14.6	20.0
cis-1,3-Dichloropropene	Ave	0.4097	0.3434	0.2000	8.38	10.0	-16.2	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.291	1.192	0.1000	18.5	20.0	-7.7	20.0
Toluene	Ave	4.768	5.781	0.4000	12.1	10.0	21.3*	20.0
trans-1,3-Dichloropropene	Ave	1.445	1.267	0.1000	8.77	10.0	-12.3	20.0
Ethyl methacrylate	Ave	1.438	1.291	0.0100	8.97	10.0	-10.3	20.0
1,1,2-Trichloroethane	Ave	0.9001	1.072	0.1000	11.9	10.0	19.1	20.0
Tetrachloroethene	Ave	0.8966	1.071	0.2000	11.9	10.0	19.4	20.0
1,3-Dichloropropane	Ave	1.703	1.862	0.0100	10.9	10.0	9.3	20.0
2-Hexanone	Ave	0.9180	0.9336	0.1000	20.3	20.0	1.7	20.0
Dibromochloromethane	Ave	0.8836	0.7632	0.1000	8.64	10.0	-13.6	20.0
1,2-Dibromoethane (EDB)	Ave	0.9250	0.9351	0.1000	10.1	10.0	1.1	20.0
3-Chlorobenzotrifluoride	Ave	1.623	1.947	0.0100	12.0	10.0	19.9	20.0
Chlorobenzene	Ave	3.086	3.486	0.5000	11.3	10.0	13.0	20.0
4-Chlorobenzotrifluoride	Ave	1.499	1.852	0.0100	12.4	10.0	23.6*	20.0
1,1,1,2-Tetrachloroethane	Ave	1.036	1.071	0.0100	10.3	10.0	3.4	20.0
Ethylbenzene	Ave	1.796	1.908	0.1000	10.6	10.0	6.2	20.0
m-Xylene & p-Xylene	Ave	2.175	2.311	0.1000	10.6	10.0	6.3	20.0
o-Xylene	Ave	2.146	2.154	0.3000	10.0	10.0	0.4	20.0
Styrene	Ave	3.386	3.609	0.3000	10.7	10.0	6.6	20.0
Bromoform	Ave	0.5687	0.4078	0.1000	7.17	10.0	-28.3*	20.0
2-Chlorobenzotrifluoride	Ave	1.606	1.948	0.0100	12.1	10.0	21.3*	20.0
Isopropylbenzene	Ave	5.240	5.490	0.1000	10.5	10.0	4.8	20.0
1,1,2,2-Tetrachloroethane	Ave	1.272	1.397	0.3000	11.0	10.0	9.8	20.0
Bromobenzene	Ave	0.9239	0.9066	0.0100	9.81	10.0	-1.9	20.0
trans-1,4-Dichloro-2-butene	Ave	0.3070	0.2614	0.0100	8.51	10.0	-14.9	20.0
1,2,3-Trichloropropane	Ave	0.3034	0.2884	0.0100	9.50	10.0	-5.0	20.0
N-Propylbenzene	Ave	1.100	1.141	0.0100	10.4	10.0	3.7	20.0
2-Chlorotoluene	Ave	0.9430	0.9431	0.0100	10.0	10.0	0.0	20.0
3-Chlorotoluene	Ave	0.9581	1.038	0.0100	10.8	10.0	8.3	20.0
1,3,5-Trimethylbenzene	Ave	3.096	3.161	0.0100	10.2	10.0	2.1	20.0
4-Chlorotoluene	Ave	0.995	1.000	0.0100	10.0	10.0	0.4	20.0
tert-Butylbenzene	Ave	2.647	2.524	0.0100	9.53	10.0	-4.7	20.0
1,2,4-Trimethylbenzene	Ave	3.087	3.137	0.0100	10.2	10.0	1.6	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.8308	0.9743	0.0100	11.7	10.0	17.3	20.0
sec-Butylbenzene	Ave	3.737	3.801	0.0100	10.2	10.0	1.7	20.0
1,3-Dichlorobenzene	Ave	1.614	1.649	0.6000	10.2	10.0	2.1	20.0
4-Isopropyltoluene	Ave	3.057	2.967	0.0100	9.71	10.0	-2.9	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Lab Sample ID: CCVIS 180-142864/7 Calibration Date: 05/27/2015 12:33

Instrument ID: CHHP5 Calib Start Date: 05/16/2015 14:25

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/16/2015 18:25

Lab File ID: 50527007.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	1.655	1.648	0.5000	9.96	10.0	-0.4	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.7729	0.9582	0.0100	12.4	10.0	24.0*	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.8473	0.9789	0.0100	11.6	10.0	15.5	20.0
n-Butylbenzene	Ave	2.626	2.679	0.0100	10.2	10.0	2.0	20.0
1,2-Dichlorobenzene	Ave	1.495	1.523	0.4000	10.2	10.0	1.9	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.1488	0.1002	0.0500	6.74	10.0	-32.6*	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	0.9518	0.9265	0.0100	29.2	30.0	-2.7	20.0
2,3- & 3,4- Dichlorotoluene	Ave	0.8932	0.8266	0.0100	18.5	20.0	-7.5	20.0
1,2,4-Trichlorobenzene	Ave	0.6220	0.5899	0.2000	9.48	10.0	-5.2	20.0
Hexachlorobutadiene	Ave	0.2899	0.3356	0.0100	11.6	10.0	15.7	20.0
Naphthalene	Ave	1.722	1.290	0.0100	7.49	10.0	-25.1*	20.0
1,2,3-Trichlorobenzene	Ave	0.4843	0.4535	0.0100	9.36	10.0	-6.4	20.0
2,4,5-Trichlorotoluene	Ave	0.2194	0.1512	0.0100	6.89	10.0	-31.1*	20.0
2,3,6-Trichlorotoluene	Ave	0.1979	0.1407	0.0100	7.11	10.0	-28.9*	20.0
Dibromofluoromethane (Surr)	Ave	0.2157	0.2117		9.81	10.0	-1.9	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.2687	0.2611		9.72	10.0	-2.8	20.0
Toluene-d8 (Surr)	Ave	3.713	4.113		11.1	10.0	10.8	20.0
4-Bromofluorobenzene (Surr)	Ave	1.333	1.367		10.3	10.0	2.5	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527007.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 27-May-2015 12:33:30 ALS Bottle#: 4 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0007136-007
Operator ID: 001562 Instrument ID: CHHP5
Sublist: chrom-MSVOA_LL_CHHP5*sub12

Method: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 27-May-2015 16:31:57 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: fergusond Date: 27-May-2015 13:17:58

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.274	4.274	0.000	0	142779	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.292	7.292	0.000	99	435254	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.388	10.388	0.000	86	94901	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.730	12.730	0.000	93	135191	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.561	6.561	0.000	92	92129	50.0	49.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.933	6.933	0.000	0	113646	50.0	48.6	
$ 7 Toluene-d8 (Surr)	98	8.934	8.934	0.000	94	390331	50.0	55.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.574	11.574	0.000	90	129706	50.0	51.3	
11 Dichlorodifluoromethane	85	1.622	1.622	0.000	99	135988	50.0	45.2	
12 Chloromethane	50	1.768	1.768	0.000	99	155381	50.0	40.6	
13 Vinyl chloride	62	1.908	1.908	0.000	99	144360	50.0	41.8	
14 Butadiene	39	1.938	1.938	0.000	99	177922	50.0	44.7	
15 Bromomethane	94	2.273	2.273	0.000	93	81840	50.0	51.7	
16 Chloroethane	64	2.413	2.413	0.000	99	94452	50.0	51.6	
17 Dichlorofluoromethane	67	2.674	2.674	0.000	97	227639	50.0	55.0	
18 Trichlorofluoromethane	101	2.723	2.723	0.000	97	194907	50.0	50.0	
20 Ethyl ether	59	3.051	3.051	0.000	93	124544	50.0	56.6	
21 Acrolein	56	3.228	3.228	0.000	99	64332	150.0	175.2	
22 1,1-Dichloroethene	96	3.343	3.343	0.000	96	125363	50.0	60.1	
23 1,1,2-Trichloro-1,2,2-trif	101	3.416	3.416	0.000	93	133488	50.0	61.2	
24 Acetone	43	3.441	3.441	0.000	78	82089	100.0	95.6	
25 Iodomethane	142	3.532	3.532	0.000	97	177369	50.0	55.5	
26 Carbon disulfide	76	3.629	3.629	0.000	100	240865	50.0	43.3	
28 3-Chloro-1-propene	76	3.915	3.915	0.000	73	66949	50.0	48.2	
30 Methyl acetate	43	3.946	3.946	0.000	99	579915	250.0	284.5	
31 Methylene Chloride	84	4.140	4.140	0.000	96	149373	50.0	62.1	
32 2-Methyl-2-propanol	59	4.414	4.414	0.000	88	75036	500.0	470.2	
33 Acrylonitrile	53	4.524	4.524	0.000	98	560202	500.0	544.2	
34 trans-1,2-Dichloroethene	96	4.566	4.566	0.000	99	132003	50.0	57.2	
35 Methyl tert-butyl ether	73	4.584	4.584	0.000	96	287172	50.0	45.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.992	4.992	0.000	96	204367	50.0	56.2	
37 1,1-Dichloroethane	63	5.205	5.205	0.000	97	238548	50.0	54.8	
38 Vinyl acetate	43	5.254	5.254	0.000	98	190754	50.0	38.9	
44 2,2-Dichloropropane	77	5.947	5.947	0.000	58	100487	50.0	45.5	
45 cis-1,2-Dichloroethene	96	5.953	5.953	0.000	82	135749	50.0	53.2	
46 2-Butanone (MEK)	43	5.959	5.959	0.000	71	116883	100.0	89.6	
49 Chlorobromomethane	128	6.233	6.233	0.000	94	57886	50.0	50.9	
51 Tetrahydrofuran	42	6.251	6.251	0.000	89	77832	100.0	87.8	
52 Chloroform	83	6.379	6.379	0.000	95	211154	50.0	54.1	
53 1,1,1-Trichloroethane	97	6.543	6.543	0.000	97	154584	50.0	51.1	
54 Cyclohexane	56	6.616	6.616	0.000	97	248796	50.0	54.3	
56 Carbon tetrachloride	117	6.714	6.714	0.000	94	136462	50.0	50.1	
55 1,1-Dichloropropene	75	6.726	6.726	0.000	92	177165	50.0	55.6	
57 Isobutyl alcohol	41	6.926	6.926	0.000	86	94866	1250.0	1168.4	
58 Benzene	78	6.945	6.945	0.000	98	553193	50.0	57.0	
59 1,2-Dichloroethane	62	7.024	7.024	0.000	96	154769	50.0	53.5	
62 n-Heptane	43	7.310	7.310	0.000	91	177425	50.0	54.9	
64 Trichloroethene	130	7.681	7.681	0.000	97	124200	50.0	50.0	
66 Methylcyclohexane	83	7.918	7.918	0.000	95	215994	50.0	52.7	
67 1,2-Dichloropropane	63	7.949	7.949	0.000	94	129849	50.0	51.5	
70 1,4-Dioxane	88	8.034	8.034	0.000	39	18912	1000.0	983.8	M
68 Dibromomethane	93	8.040	8.040	0.000	96	64935	50.0	50.4	
71 Dichlorobromomethane	83	8.234	8.234	0.000	98	119877	50.0	42.7	
73 2-Chloroethyl vinyl ether	63	8.533	8.533	0.000	93	128794	100.0	89.6	
74 cis-1,3-Dichloropropene	75	8.672	8.672	0.000	93	149485	50.0	41.9	
75 4-Methyl-2-pentanone (MIBK	43	8.825	8.825	0.000	99	226240	100.0	92.3	
76 Toluene	91	9.007	9.007	0.000	98	548659	50.0	60.6	
77 trans-1,3-Dichloropropene	75	9.250	9.250	0.000	98	120223	50.0	43.8	
78 Ethyl methacrylate	69	9.311	9.311	0.000	90	122470	50.0	44.9	
79 1,1,2-Trichloroethane	97	9.445	9.445	0.000	91	101757	50.0	59.6	
80 Tetrachloroethene	164	9.518	9.518	0.000	96	101635	50.0	59.7	
81 1,3-Dichloropropane	76	9.603	9.603	0.000	96	176722	50.0	54.7	
82 2-Hexanone	43	9.658	9.658	0.000	99	177190	100.0	101.7	
84 Chlorodibromomethane	129	9.822	9.822	0.000	89	72431	50.0	43.2	
85 Ethylene Dibromide	107	9.932	9.932	0.000	97	88745	50.0	50.5	
86 3-Chlorobenzotrifluoride	180	10.388	10.388	0.000	89	184745	50.0	60.0	
87 Chlorobenzene	112	10.418	10.418	0.000	94	330810	50.0	56.5	
88 4-Chlorobenzotrifluoride	180	10.479	10.479	0.000	96	175765	50.0	61.8	
89 1,1,1,2-Tetrachloroethane	131	10.510	10.510	0.000	87	101617	50.0	51.7	
90 Ethylbenzene	106	10.516	10.516	0.000	99	181040	50.0	53.1	
91 m-Xylene & p-Xylene	106	10.650	10.650	0.000	0	219349	50.0	53.1	
92 o-Xylene	106	11.027	11.027	0.000	98	204458	50.0	50.2	
93 Styrene	104	11.051	11.051	0.000	96	342459	50.0	53.3	
94 Bromoform	173	11.234	11.234	0.000	96	38700	50.0	35.9	
96 2-Chlorobenzotrifluoride	180	11.301	11.301	0.000	97	184902	50.0	60.6	
97 Isopropylbenzene	105	11.398	11.398	0.000	96	521002	50.0	52.4	
99 1,1,2,2-Tetrachloroethane	83	11.708	11.708	0.000	90	132604	50.0	54.9	
100 Bromobenzene	156	11.714	11.714	0.000	94	122557	50.0	49.1	
102 trans-1,4-Dichloro-2-buten	53	11.745	11.745	0.000	79	35336	50.0	42.6	
101 1,2,3-Trichloropropane	110	11.769	11.769	0.000	86	38987	50.0	47.5	
103 N-Propylbenzene	120	11.812	11.812	0.000	99	154254	50.0	51.8	
104 2-Chlorotoluene	126	11.903	11.903	0.000	96	127497	50.0	50.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
105 3-Chlorotoluene	126	11.970	11.970	0.000	95	140269	50.0	54.1	
106 1,3,5-Trimethylbenzene	105	12.000	12.000	0.000	96	427403	50.0	51.1	
107 4-Chlorotoluene	126	12.024	12.024	0.000	98	135161	50.0	50.2	
108 tert-Butylbenzene	119	12.310	12.310	0.000	94	341166	50.0	47.7	
110 1,2,4-Trimethylbenzene	105	12.371	12.371	0.000	98	424051	50.0	50.8	
111 1,2-dichloro-4-(trifluorom	214	12.414	12.414	0.000	98	131721	50.0	58.6	
112 sec-Butylbenzene	105	12.535	12.535	0.000	94	513862	50.0	50.9	
113 1,3-Dichlorobenzene	146	12.651	12.651	0.000	97	222880	50.0	51.1	
114 4-Isopropyltoluene	119	12.688	12.688	0.000	96	401158	50.0	48.5	
115 1,4-Dichlorobenzene	146	12.754	12.754	0.000	92	222804	50.0	49.8	
116 2,4-Dichloro-1-(triflourom	214	12.785	12.785	0.000	96	129533	50.0	62.0	
118 2,5-Dichlorobenzotrifluori	214	12.821	12.821	0.000	0	132342	50.0	57.8	
120 n-Butylbenzene	91	13.101	13.101	0.000	99	362135	50.0	51.0	
121 1,2-Dichlorobenzene	146	13.113	13.113	0.000	95	205961	50.0	50.9	
122 1,2-Dibromo-3-Chloropropan	75	13.898	13.898	0.000	69	13550	50.0	33.7	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.044	14.044	0.000	0	375769	150.0	146.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.464	14.464	0.000	0	223483	100.0	92.5	
126 1,2,4-Trichlorobenzene	180	14.726	14.726	0.000	93	79743	50.0	47.4	
127 Hexachlorobutadiene	225	14.872	14.872	0.000	96	45365	50.0	57.9	
128 Naphthalene	128	14.993	14.993	0.000	97	174452	50.0	37.5	
129 1,2,3-Trichlorobenzene	180	15.212	15.212	0.000	95	61311	50.0	46.8	
131 2,4,5-Trichlorotoluene	159	15.991	15.991	0.000	0	20440	50.0	34.5	
130 2,3,6-Trichlorotoluene	159	16.094	16.094	0.000	93	19015	50.0	35.5	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
S 133 Xylenes, Total	106				0		100.0	103.3	
S 134 1,2-Dichloroethene, Total	96				0		100.0	110.4	
S 135 1,3-Dichloropropene, Total	1				0		100.0	85.8	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWVA1st Res_00001	Amount Added:	2.00	Units: uL	
voaWketPri Re_00005	Amount Added:	2.00	Units: uL	
voaWEEmix1st_00001	Amount Added:	2.00	Units: uL	
VOA8260VOAPRI_00121	Amount Added:	2.00	Units: uL	
VOACEVEPRI_00008	Amount Added:	2.00	Units: uL	
VOAACROPRI_00005	Amount Added:	6.00	Units: uL	
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent

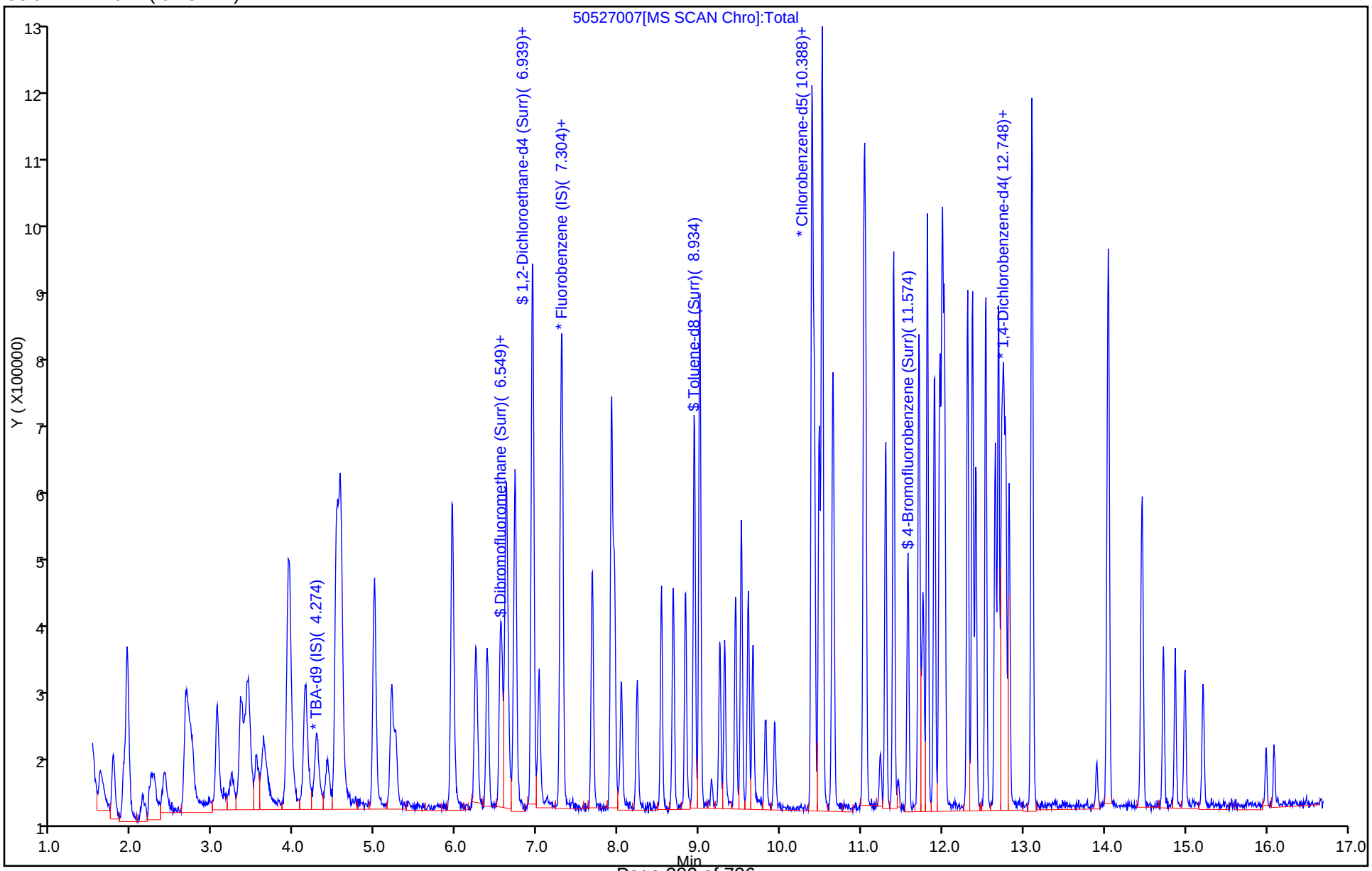
Report Date: 27-May-2015 16:31:58 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527007.D

Injection Date:	27-May-2015 12:33:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	CCVIS			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

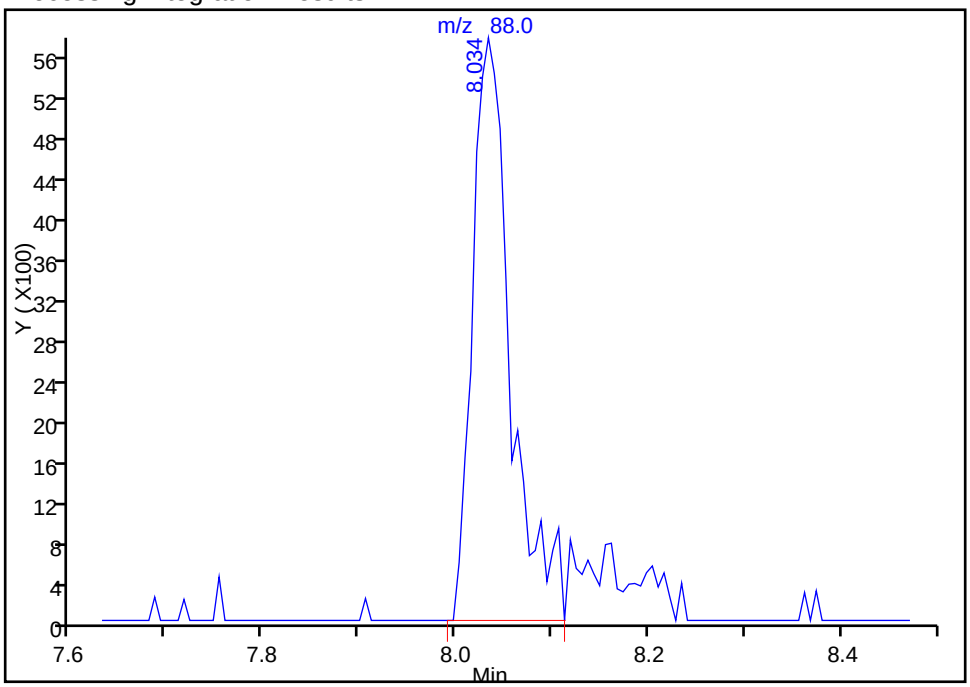
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527007.D
Injection Date: 27-May-2015 12:33:30 Instrument ID: CHHP5
Lims ID: CCVIS
Client ID:
Operator ID: 001562 ALS Bottle#: 4 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

70 1,4-Dioxane, CAS: 123-91-1

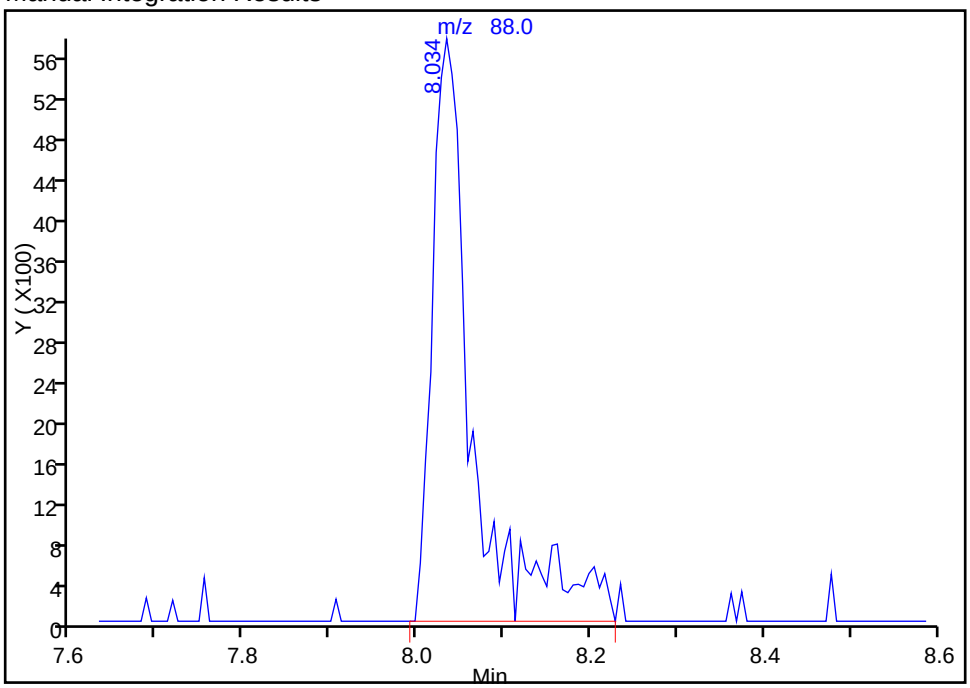
Processing Integration Results

RT: 8.03
Area: 15841
Amount: 824.0872
Amount Units: ng



Manual Integration Results

RT: 8.03
Area: 18912
Amount: 983.8480
Amount Units: ng



Reviewer: fergusond, 27-May-2015 13:17:58
Audit Action: Manually Integrated
Audit Reason: Peak Tail

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File:	\\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516003.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	16-May-2015 10:39:30	ALS Bottle#:	3	Worklist Smp#:	3
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Sample Info:	BFB				
Misc. Info.:	180-0006955-003				
Operator ID:	001562	Instrument ID:	CHHP5		
Method:	\\PITCHROM\ChromData\CHHP5\20150516-6955.b\MSVOA_LL_CHHP5.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	17-May-2015 10:46:07	Calib Date:	16-May-2015 18:25:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK006				
First Level Reviewer: fergusond		Date:	16-May-2015 10:55:00		

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	8.371	8.371	0.000	0	75032	NR	NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

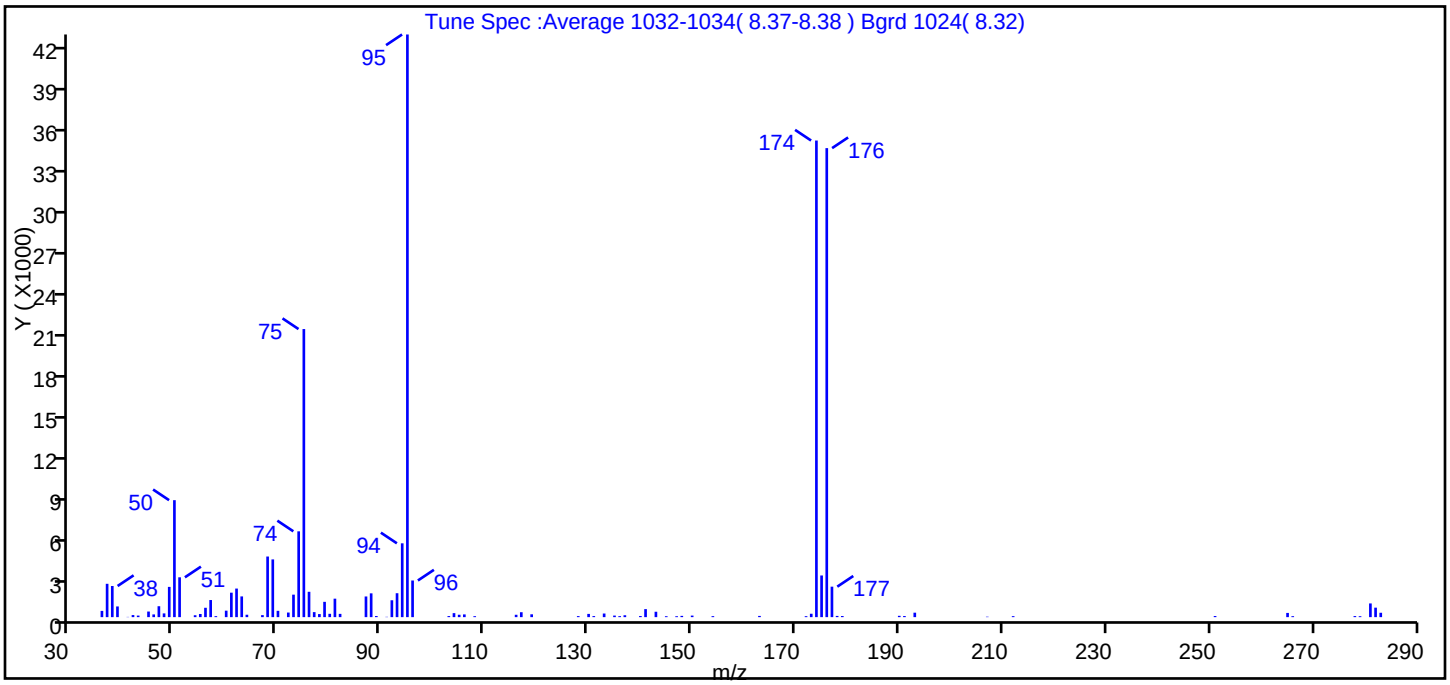
voabfb25_00062 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516003.D
Injection Date: 16-May-2015 10:39:30 Instrument ID: CHHP5
Lims ID: BFB
Client ID:
Operator ID: 001562 ALS Bottle#: 3 Worklist Smp#: 3
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Tune Method: BFB Method 8260

$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	20.1
75	30 to 60% of m/z 95	49.4
96	5 to 9% of m/z 95	6.3
173	Less than 2% of m/z 174	0.6 (0.7)
174	50 to 120% of m/z 95	81.8
175	5 to 9% of m/z 174	7.2 (8.7)
176	Greater than 95% but less than 101% of m/z 174	80.5 (98.4)
177	5 to 9% of m/z 176	5.2 (6.5)

Data File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516003.D\MSVOA_LL_CHHP5.rslt\spectra.d
Injection Date: 16-May-2015 10:39:30
Spectrum: Tune Spec :Average 1032-1034(8.37-8.38) Bgrd 1024(8.32)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 93

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	454	67.00	146	103.00	78	172.00	70
37.00	2422	68.00	4404	104.00	291	173.00	247
38.00	2262	69.00	4194	105.00	174	174.00	34624
39.00	777	70.00	459	106.00	199	175.00	3027
41.00	17	72.00	334	108.00	69	176.00	34072
42.00	151	73.00	1634	116.00	172	177.00	2214
43.00	114	74.00	6234	117.00	358	178.00	89
45.00	407	75.00	20928	119.00	207	179.00	81
46.00	198	76.00	1842	128.00	75	190.00	96
47.00	793	77.00	365	130.00	236	191.00	80
48.00	272	78.00	224	131.00	77	193.00	324
49.00	2198	79.00	1112	133.00	263	207.00	32
50.00	8497	80.00	242	135.00	114	212.00	71
51.00	2894	81.00	1342	136.00	72	251.00	81
54.00	138	82.00	238	137.00	137	265.00	306
55.00	229	87.00	1502	140.00	81	266.00	70
56.00	680	88.00	1729	141.00	583	278.00	78
57.00	1243	89.00	80	143.00	392	279.00	67
58.00	72	91.00	22	145.00	67	281.00	996
60.00	470	92.00	1226	147.00	67	282.00	689
61.00	1777	93.00	1738	148.00	93	283.00	318
62.00	2076	94.00	5363	150.00	113		
63.00	1506	95.00	42328	154.00	72		
64.00	175	96.00	2662	163.00	89		

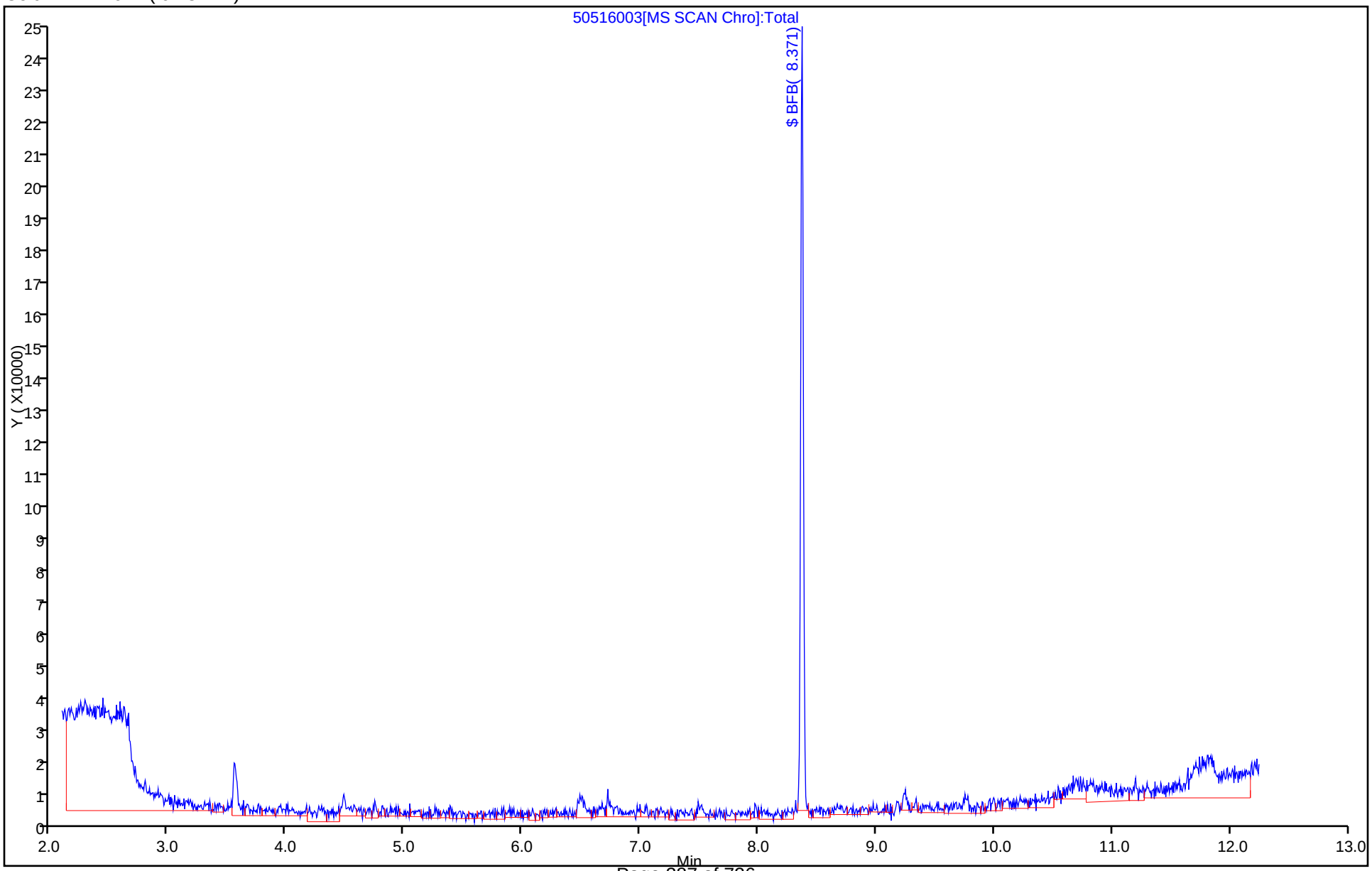
Report Date: 17-May-2015 10:46:08 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516003.D

Injection Date:	16-May-2015 10:39:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	BFB			Worklist Smp#:	3
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File:	\\PITCHROM\ChromData\CHHP5\20150524-7097.b\50524004.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	24-May-2015 11:37:30	ALS Bottle#:	1	Worklist Smp#:	4
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Sample Info:	BFB				
Misc. Info.:	180-0007097-004				
Operator ID:	001562	Instrument ID:	CHHP5		
Method:	\\PITCHROM\ChromData\CHHP5\20150524-7097.b\MSVOA_LL_CHHP5.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	24-May-2015 15:15:24	Calib Date:	16-May-2015 18:25:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK027				
First Level Reviewer: fergusond		Date:	24-May-2015 11:49:35		

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	8.359	8.359	0.000	0	187714	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

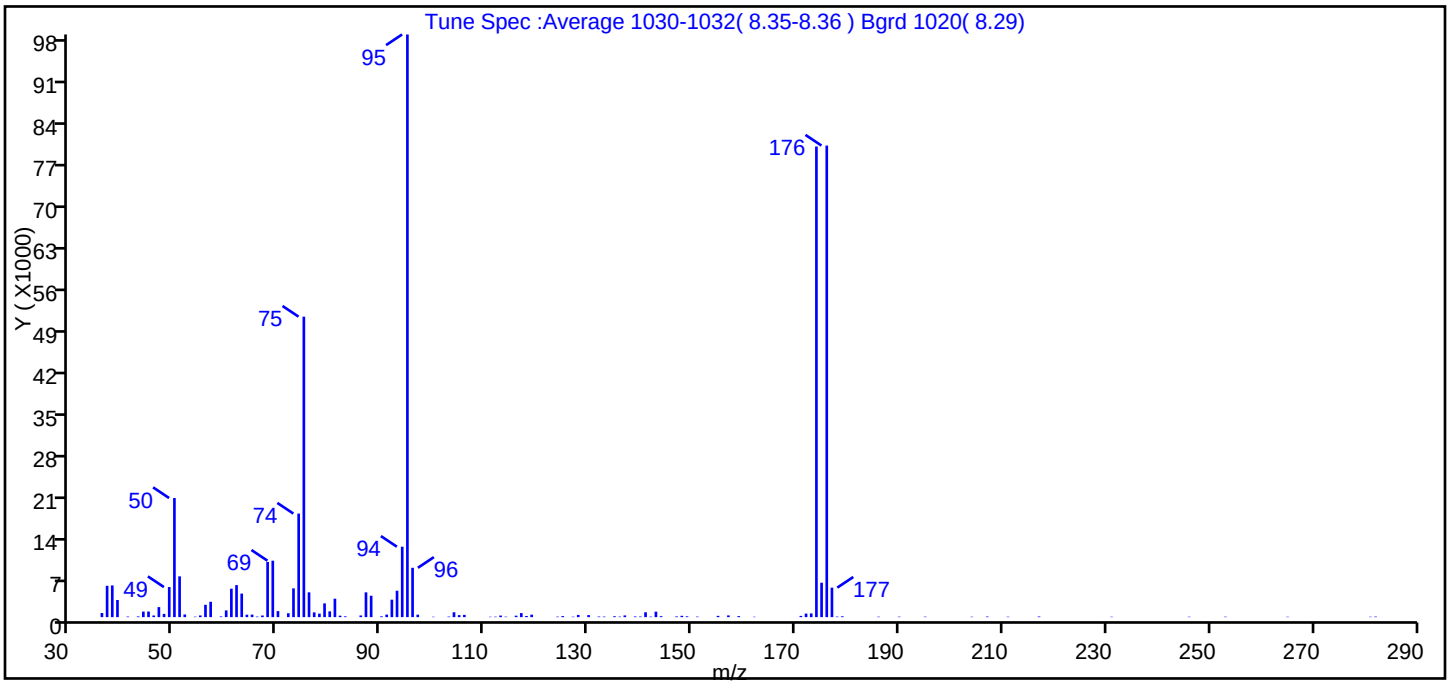
voabfb25_00062 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150524-7097.b\50524004.D
Injection Date: 24-May-2015 11:37:30 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	20.4
75	30 to 60% of m/z 95	51.6
96	5 to 9% of m/z 95	8.5
173	Less than 2% of m/z 174	0.6 (0.8)
174	50 to 120% of m/z 95	80.8
175	5 to 9% of m/z 174	5.9 (7.3)
176	Greater than 95% but less than 101% of m/z 174	80.9 (100.2)
177	5 to 9% of m/z 176	5.1 (6.3)

Data File: \\PITCHROM\ChromData\CHHP5\20150524-7097.b\50524004.D\MSVOA_LL_CHHP5.rslt\spectra.d
Injection Date: 24-May-2015 11:37:30
Spectrum: Tune Spec :Average 1030-1032(8.35-8.36) Bgrd 1020(8.29)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 113

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	701	69.00	9551	106.00	382	155.00	217
37.00	5303	70.00	1024	111.00	67	157.00	291
38.00	5364	72.00	660	112.00	79	159.00	176
39.00	2902	73.00	4868	113.00	270	162.00	68
41.00	100	74.00	17520	114.00	79	171.00	213
43.00	123	75.00	50840	116.00	248	172.00	600
44.00	942	76.00	4199	117.00	687	173.00	627
45.00	952	77.00	807	118.00	197	174.00	79624
46.00	277	78.00	592	119.00	416	175.00	5824
47.00	1698	79.00	2329	124.00	87	176.00	79784
48.00	552	80.00	980	125.00	179	177.00	4989
49.00	5090	81.00	3121	127.00	75	178.00	92
50.00	20152	82.00	248	128.00	375	179.00	139
51.00	6901	83.00	132	130.00	346	186.00	78
52.00	452	86.00	282	132.00	101	190.00	82
54.00	81	87.00	4196	133.00	94	195.00	80
55.00	284	88.00	3620	135.00	150	204.00	70
56.00	2090	90.00	137	136.00	85	207.00	100
57.00	2602	91.00	434	137.00	290	211.00	76
59.00	116	92.00	2955	139.00	114	217.00	109
60.00	1139	93.00	4471	140.00	98	231.00	68
61.00	4811	94.00	11914	141.00	824	246.00	72
62.00	5421	95.00	98576	142.00	87	253.00	77
63.00	3985	96.00	8349	143.00	930	265.00	67
64.00	413	97.00	419	144.00	161	281.00	69
65.00	431	100.00	67	147.00	121	282.00	89
66.00	92	103.00	93	148.00	227		
67.00	276	104.00	826	149.00	137		
68.00	9340	105.00	344	151.00	86		

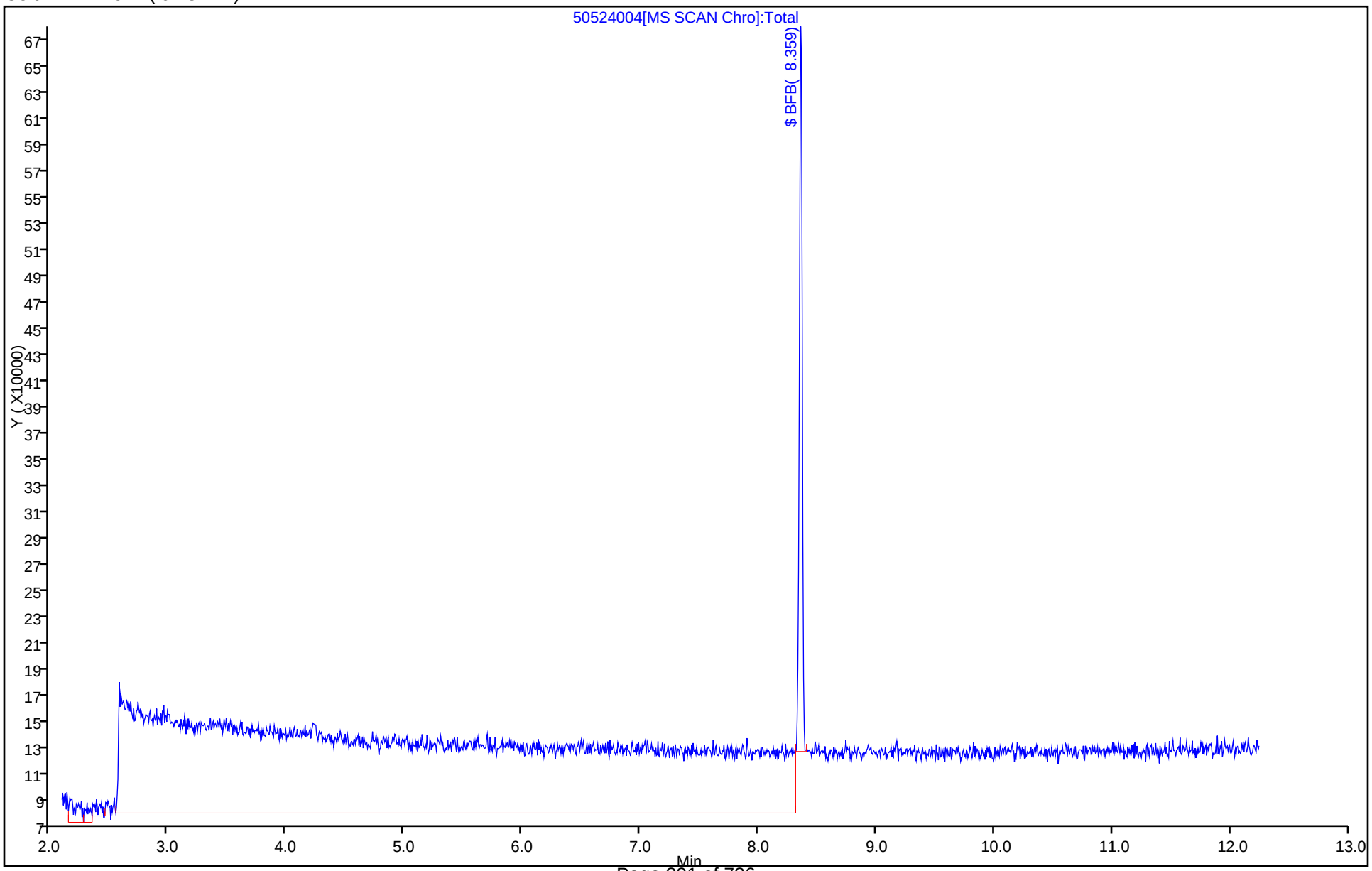
Report Date: 24-May-2015 15:15:24 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150524-7097.b\50524004.D

Injection Date:	24-May-2015 11:37:30	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\20150526-7112.b\50526001.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	26-May-2015 10:08:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Sample Info:	BFB				
Misc. Info.:	180-0007112-001				
Operator ID:	001562	Instrument ID:	CHHP5		
Method:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\MSVOA_LL_CHHP5.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	26-May-2015 12:20:28	Calib Date:	16-May-2015 18:25:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK004				

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	8.372	8.372	0.000	0	55782	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

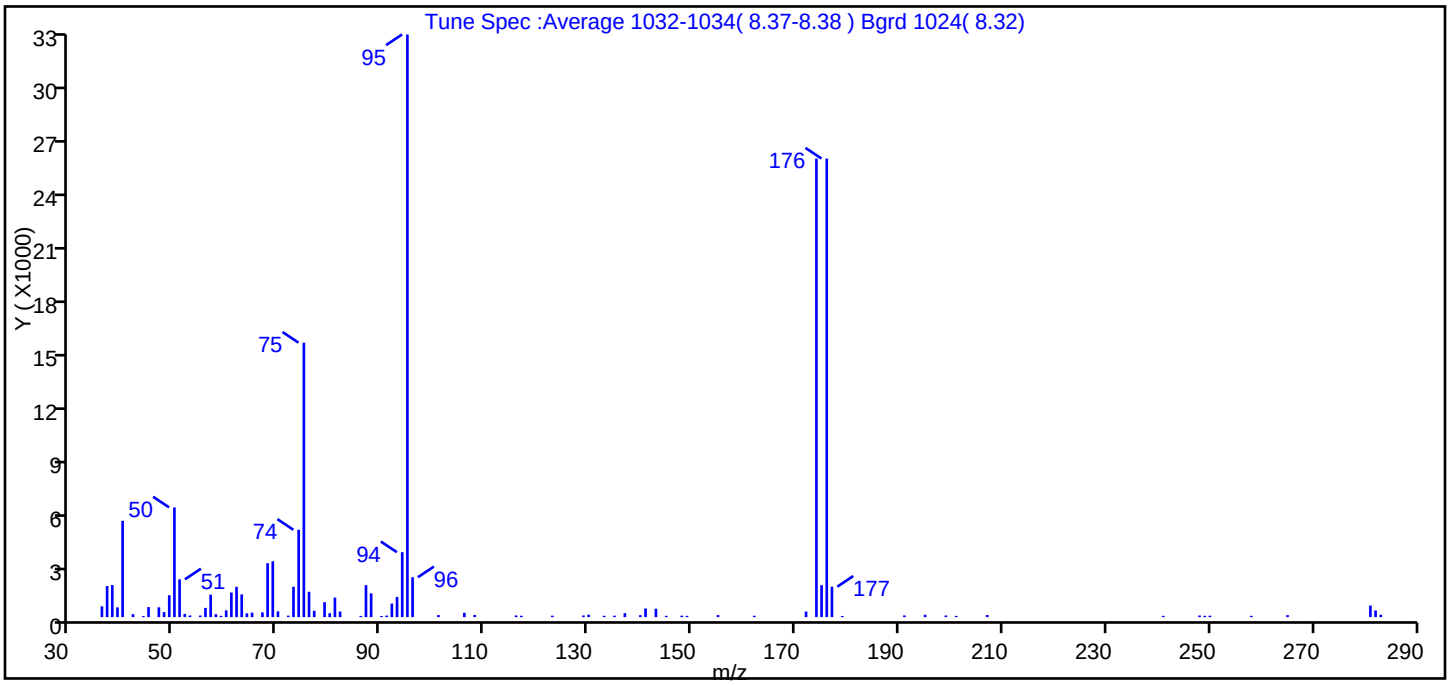
voabfb25_00062 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526001.D				
Injection Date:	26-May-2015 10:08:30	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	18.8
75	30 to 60% of m/z 95	47.1
96	5 to 9% of m/z 95	6.8
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	78.7
175	5 to 9% of m/z 174	5.5 (7.0)
176	Greater than 95% but less than 101% of m/z 174	78.7 (100.0)
177	5 to 9% of m/z 176	5.2 (6.6)

Data File: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526001.D\MSVOA_LL_CHHP5.rslt\spectra.d
Injection Date: 26-May-2015 10:08:30
Spectrum: Tune Spec :Average 1032-1034(8.37-8.38) Bgrd 1024(8.32)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 89

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	602	63.00	1270	93.00	1129	172.00	313
37.00	1740	64.00	212	94.00	3627	174.00	25608
38.00	1794	65.00	251	95.00	32536	175.00	1785
39.00	547	67.00	268	96.00	2228	176.00	25608
40.00	5381	68.00	3017	101.00	116	177.00	1700
42.00	167	69.00	3117	106.00	244	179.00	66
44.00	62	70.00	322	108.00	125	191.00	97
45.00	562	72.00	86	116.00	96	195.00	134
47.00	550	73.00	1696	117.00	79	199.00	93
48.00	281	74.00	4880	123.00	83	201.00	71
49.00	1224	75.00	15327	129.00	93	207.00	119
50.00	6129	76.00	1417	130.00	138	241.00	75
51.00	2111	77.00	355	133.00	78	248.00	90
52.00	179	79.00	836	135.00	82	249.00	77
53.00	92	80.00	218	137.00	223	250.00	82
55.00	90	81.00	1094	140.00	111	258.00	76
56.00	516	82.00	313	141.00	484	265.00	112
57.00	1254	86.00	70	143.00	469	281.00	646
58.00	164	87.00	1787	145.00	76	282.00	372
59.00	75	88.00	1327	148.00	83	283.00	135
60.00	379	90.00	67	149.00	72		
61.00	1373	91.00	90	155.00	116		
62.00	1693	92.00	757	162.00	79		

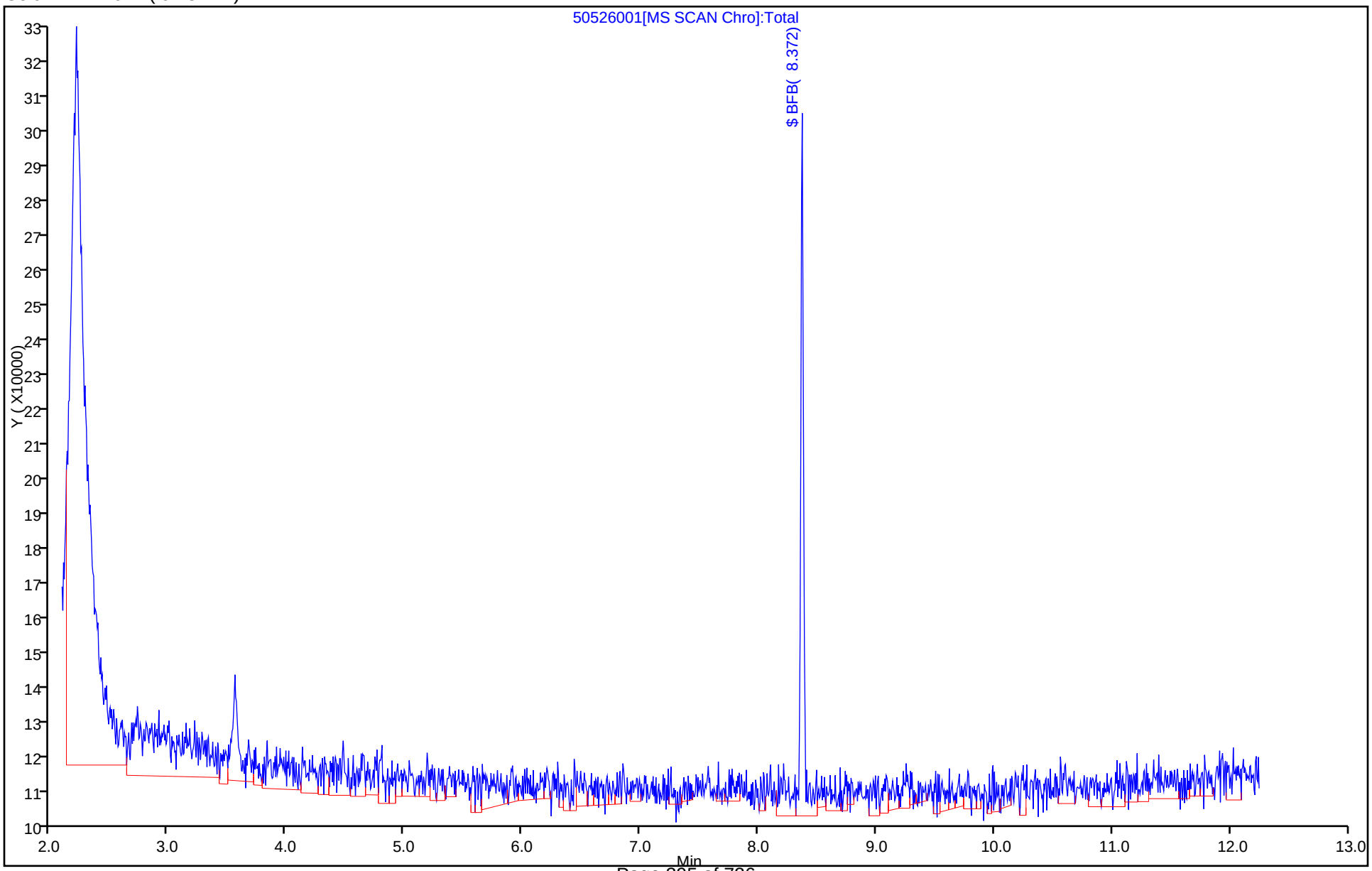
Report Date: 26-May-2015 12:20:29 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526001.D

Injection Date:	26-May-2015 10:08:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527006.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	27-May-2015 11:07:30	ALS Bottle#:	1	Worklist Smp#:	6
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Sample Info:	BFB				
Misc. Info.:	180-0007136-006				
Operator ID:	001562	Instrument ID:	CHHP5		
Method:	\\PITCHROM\ChromData\CHHP5\20150527-7136.b\MSVOA_LL_CHHP5.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	27-May-2015 16:32:01	Calib Date:	16-May-2015 18:25:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK006				
First Level Reviewer: fergusond		Date:	27-May-2015 11:17:45		

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	167641	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

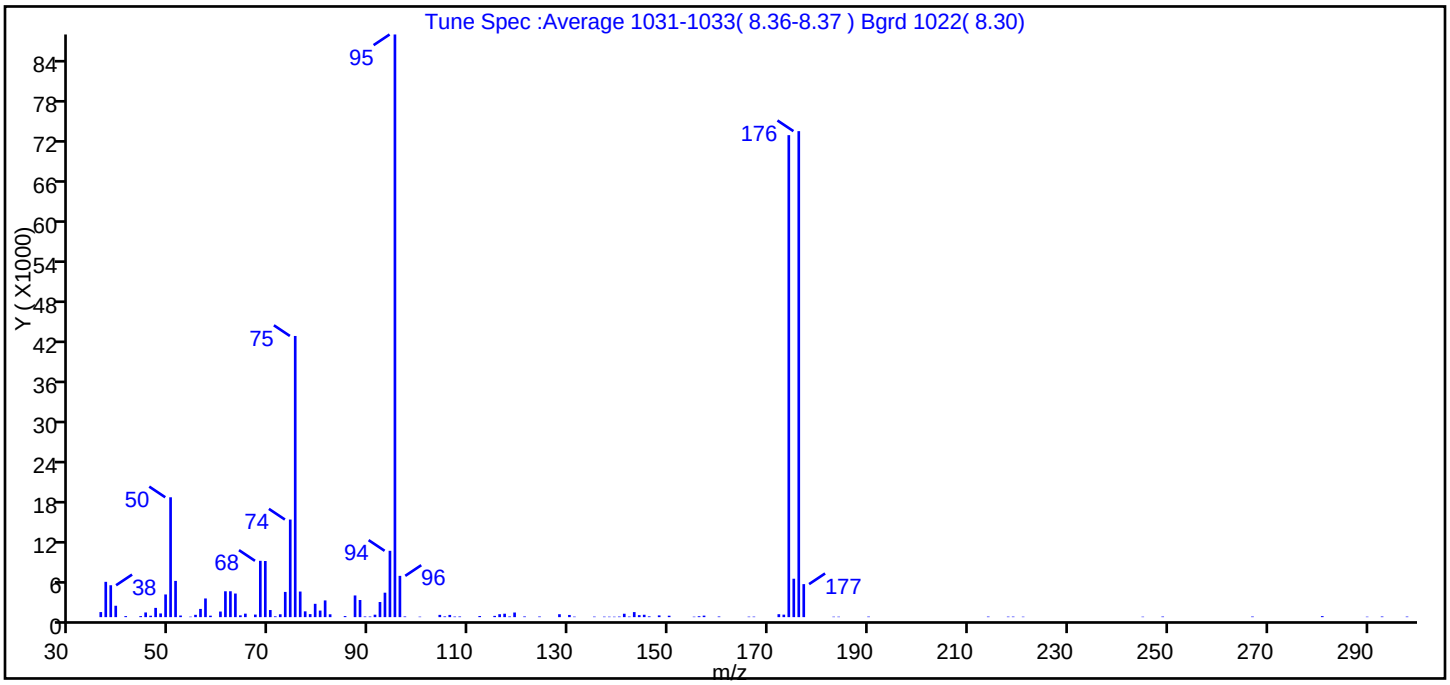
voabfb25_00062 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527006.D
Injection Date: 27-May-2015 11:07:30 Instrument ID: CHHP5
Lims ID: BFB
Client ID:
Operator ID: 001562 ALS Bottle#: 1 Worklist Smp#: 6
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Tune Method: BFB Method 8260

$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	20.6
75	30 to 60% of m/z 95	48.3
96	5 to 9% of m/z 95	7.1
173	Less than 2% of m/z 174	0.4 (0.5)
174	50 to 120% of m/z 95	82.7
175	5 to 9% of m/z 174	6.6 (8.0)
176	Greater than 95% but less than 101% of m/z 174	83.4 (100.8)
177	5 to 9% of m/z 176	5.7 (6.8)

Data File: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527006.D\MSVOA_LL_CHHP5.rslt\spectra.d
Injection Date: 27-May-2015 11:07:30
Spectrum: Tune Spec :Average 1031-1033(8.36-8.37) Bgrd 1022(8.30)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 109

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	760	70.00	1064	106.00	332	156.00	138
37.00	5284	71.00	123	107.00	86	157.00	226
38.00	4773	72.00	427	108.00	98	160.00	98
39.00	1705	73.00	3775	112.00	165	166.00	73
41.00	156	74.00	14605	115.00	188	167.00	77
44.00	155	75.00	42072	116.00	439	172.00	440
45.00	702	76.00	3831	117.00	513	173.00	374
46.00	211	77.00	869	118.00	104	174.00	72120
47.00	1385	78.00	450	119.00	693	175.00	5748
48.00	556	79.00	1994	121.00	105	176.00	72720
49.00	3395	80.00	984	124.00	96	177.00	4941
50.00	17936	81.00	2503	128.00	435	183.00	67
51.00	5425	82.00	427	130.00	329	184.00	67
52.00	243	85.00	160	131.00	77	190.00	81
54.00	70	87.00	3245	135.00	79	214.00	83
55.00	350	88.00	2565	137.00	74	218.00	76
56.00	1230	89.00	100	138.00	69	219.00	79
57.00	2795	90.00	91	139.00	66	221.00	67
58.00	221	91.00	368	140.00	87	245.00	67
60.00	838	92.00	2263	141.00	510	249.00	89
61.00	3870	93.00	3660	142.00	87	267.00	90
62.00	3873	94.00	9927	143.00	756	281.00	152
63.00	3531	95.00	87184	144.00	299	290.00	67
64.00	267	96.00	6178	145.00	357	293.00	93
65.00	522	97.00	104	146.00	116	298.00	83
67.00	385	100.00	71	148.00	258		
68.00	8428	104.00	340	150.00	213		
69.00	8398	105.00	110	155.00	69		

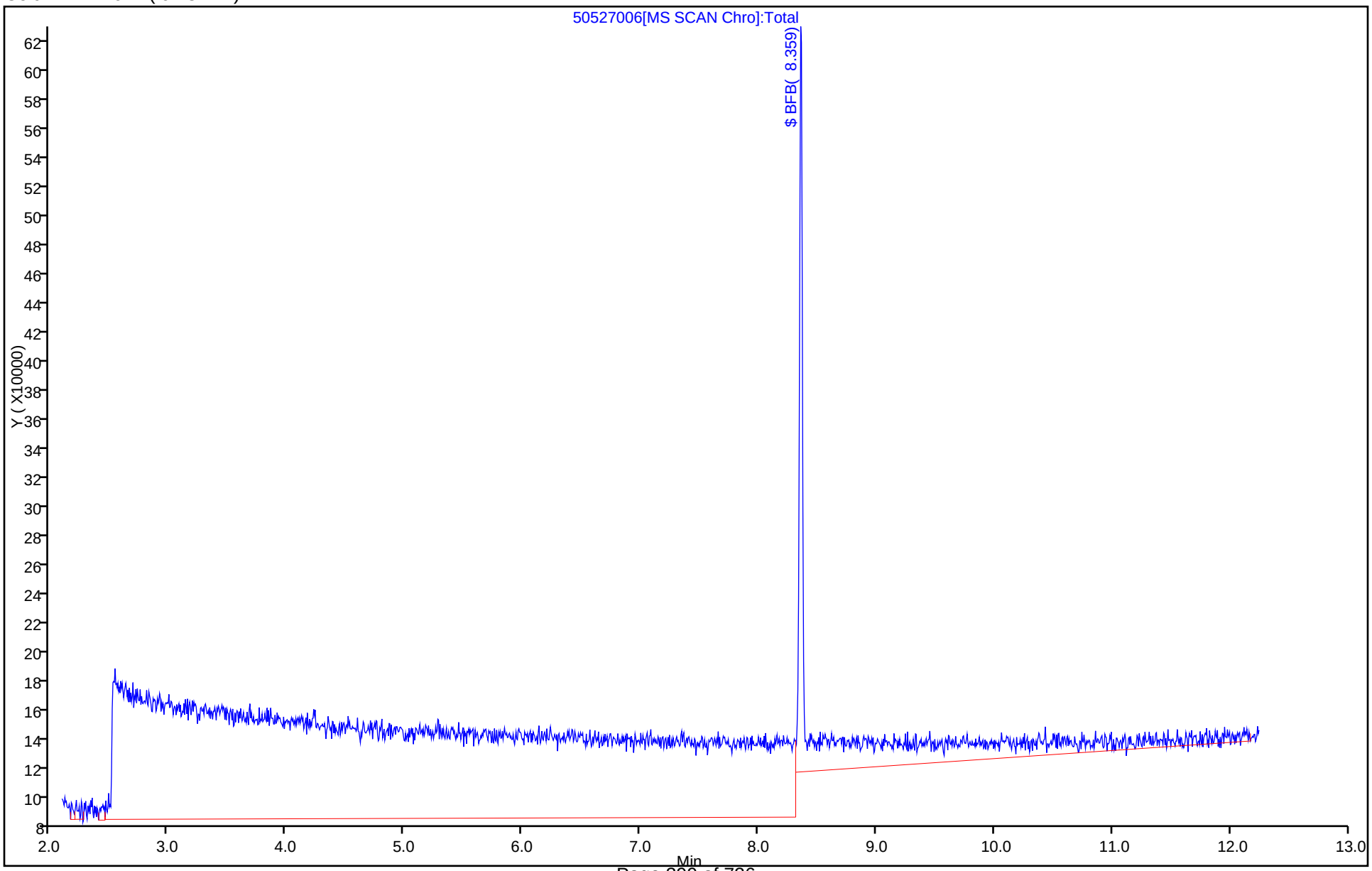
Report Date: 27-May-2015 16:32:02 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527006.D

Injection Date:	27-May-2015 11:07:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	BFB			Worklist Smp#:	6
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44203-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 180-142676/6

Matrix: Water | Lab File ID: 50524006.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/24/2015 13:29

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.: 142676 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.28
75-01-4	Vinyl chloride	1.0	U	1.0	0.23
74-83-9	Bromomethane	1.0	U	1.0	0.31
75-00-3	Chloroethane	1.0	U	1.0	0.21
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.30
67-64-1	Acetone	5.0	U	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.21
75-09-2	Methylene Chloride	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	1.0	U	1.0	0.17
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	1.0	U	1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.16
124-48-1	Dibromochloromethane	1.0	U	1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28
100-41-4	Ethylbenzene	1.0	U	1.0	0.23
1330-20-7	Xylenes, Total	3.0	U	3.0	0.49
100-42-5	Styrene	1.0	U	1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-142676/6

Matrix: Water Lab File ID: 50524006.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/24/2015 13:29

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.: 142676 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	116		64-135
2037-26-5	Toluene-d8 (Surr)	106		71-118
460-00-4	4-Bromofluorobenzene (Surr)	95		70-118
1868-53-7	Dibromofluoromethane (Surr)	110		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150524-7097.b\50524006.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 24-May-2015 13:29:30 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: MB
Misc. Info.: 180-0007097-006
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150524-7097.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 24-May-2015 15:37:59 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK027

First Level Reviewer: fergusond Date: 24-May-2015 15:37:59

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.278	4.272	0.006	0	132716	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.289	0.001	98	364047	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.386	10.386	0.000	88	80339	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.734	12.734	0.000	96	105153	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.566	6.560	0.006	93	86154	50.0	54.9	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.937	6.931	0.006	0	113150	50.0	57.8	
$ 7 Toluene-d8 (Surr)	98	8.938	8.938	0.000	94	317022	50.0	53.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.572	0.000	87	101604	50.0	47.4	
11 Dichlorodifluoromethane	85		1.614					ND	
12 Chloromethane	50		1.766					ND	
13 Vinyl chloride	62		1.900					ND	
14 Butadiene	39		1.936					ND	
15 Bromomethane	94		2.240					ND	
16 Chloroethane	64		2.398					ND	
17 Dichlorofluoromethane	67		2.666					ND	
18 Trichlorofluoromethane	101		2.703					ND	
19 Ethanol	45		2.952					ND	
20 Ethyl ether	59		3.043					ND	
21 Acrolein	56		3.226					ND	
22 1,1-Dichloroethene	96		3.341					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.433					ND	
24 Acetone	43		3.439					ND	
25 Iodomethane	142		3.536					ND	
26 Carbon disulfide	76		3.627					ND	
27 Isopropyl alcohol	45		3.730					ND	
29 Acetonitrile	40		3.870					ND	
28 3-Chloro-1-propene	76		3.913					ND	
30 Methyl acetate	43		3.938					ND	
31 Methylene Chloride	84		4.132					ND	
32 2-Methyl-2-propanol	59		4.412					ND	
33 Acrylonitrile	53		4.522					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		5.252					ND	
39 2-Chloro-1,3-butadiene	53		5.300					ND	
41 Isopropyl ether	45		5.300					ND	
40 Isopropyl ether TIC	45		5.409					ND	
42 Tert-butyl ethyl ether	59		5.774					ND	
44 2,2-Dichloropropane	77		5.945					ND	
45 cis-1,2-Dichloroethene	96		5.951					ND	
46 2-Butanone (MEK)	43		5.957					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
47 Propionitrile	54		6.036					ND	
48 Ethyl acetate	43		6.042					ND	
50 Methacrylonitrile	41		6.212					ND	
49 Chlorobromomethane	128		6.237					ND	
51 Tetrahydrofuran	42		6.249					ND	
52 Chloroform	83		6.383					ND	
53 1,1,1-Trichloroethane	97		6.535					ND	
54 Cyclohexane	56		6.614					ND	
56 Carbon tetrachloride	117		6.712					ND	
55 1,1-Dichloropropene	75		6.730					ND	
57 Isobutyl alcohol	41		6.925					ND	
58 Benzene	78		6.943					ND	
59 1,2-Dichloroethane	62		7.022					ND	
61 Tert-amyl methyl ether	73		7.125					ND	
60 Tert-amyl methyl ether (TI	73		7.262					ND	
62 n-Heptane	43		7.308					ND	
63 n-Butanol	56		7.636					ND	
64 Trichloroethene	130		7.673					ND	
65 Ethyl acrylate	55		7.800					ND	
66 Methylcyclohexane	83		7.916					ND	
67 1,2-Dichloropropane	63		7.947					ND	
69 Methyl methacrylate	69		8.031					ND	
68 Dibromomethane	93		8.032					ND	
70 1,4-Dioxane	88		8.032					ND	
71 Dichlorobromomethane	83		8.226					ND	
72 2-Nitropropane	41		8.457					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		9.783					ND	
84 Chlorodibromomethane	129		9.820					ND	
85 Ethylene Dibromide	107		9.924					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		10.520					ND	
91 m-Xylene & p-Xylene	106		10.648					ND	
92 o-Xylene	106		11.031					ND	
93 Styrene	104		11.049					ND	
95 Cyclohexanol	57		11.231					ND	
94 Bromoform	173		11.232					ND	
96 2-Chlorobenzotrifluoride	180		11.299					ND	
97 Isopropylbenzene	105		11.396					ND	
98 Cyclohexanone	55		11.487					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		11.749					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		11.998					ND	
107 4-Chlorotoluene	126		12.022					ND	
108 tert-Butylbenzene	119		12.308					ND	
109 Pentachloroethane	167		12.345					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		12.692					ND	
115 1,4-Dichlorobenzene	146		12.752					ND	
117 1,2,3-Trimethylbenzene	105		12.783					ND	
116 2,4-Dichloro-1-(triflourom	214		12.783					ND	
118 2,5-Dichlorobenzotrifluori	214		12.819					ND	
119 Benzyl chloride	91		12.868					ND	
120 n-Butylbenzene	91		13.099					ND	
121 1,2-Dichlorobenzene	146		13.111					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.896					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.042					ND	
124 1,3,5-Trichlorobenzene	180		14.090					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		14.991					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		16.135					ND	
150 2,6-Dichlorotoluene	1		0.000					ND	
146 2,5-Dichlorotoluene	1		0.000					ND	
149 3,4-Dichlorotoluene	1		0.000					ND	
151 Isooctane	57		0.000					ND	
152 Formaldehyde TIC	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
147 2,4-Dichlorotoluene	1		0.000					ND	
148 2,3-Dichlorotoluene	1		0.000					ND	
S 134 1,2-Dichloroethene, Total	96		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_00036	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent

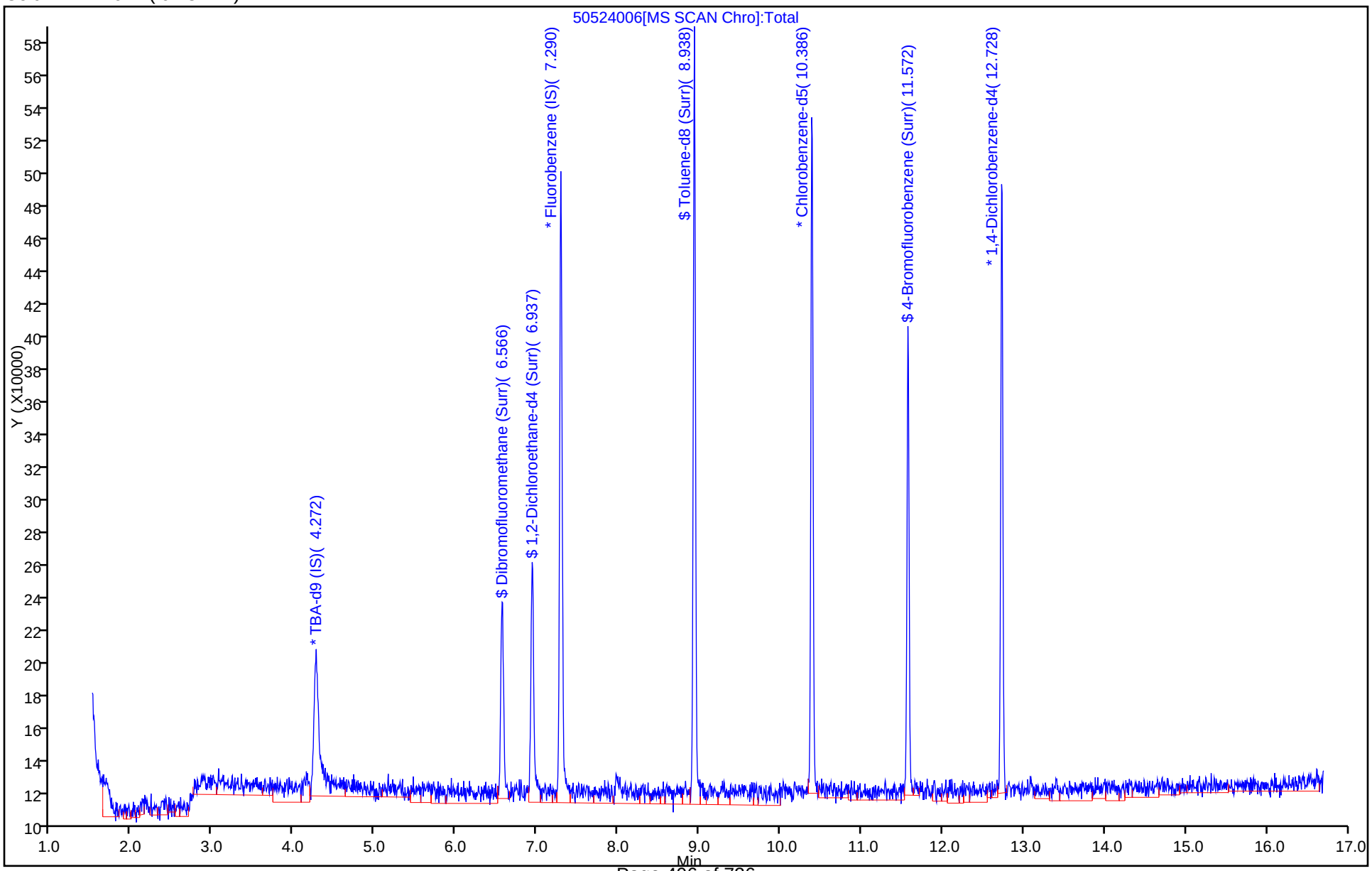
Report Date: 24-May-2015 15:37:59 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150524-7097.b\50524006.D

Injection Date:	24-May-2015 13:29:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	MB			Worklist Smp#:	6
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44203-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 180-142745/5

Matrix: Water | Lab File ID: 50526005.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/26/2015 12:00

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 142745 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.28
75-01-4	Vinyl chloride	1.0	U	1.0	0.23
74-83-9	Bromomethane	1.0	U	1.0	0.31
75-00-3	Chloroethane	1.0	U	1.0	0.21
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.30
67-64-1	Acetone	5.0	U	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.21
75-09-2	Methylene Chloride	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	1.0	U	1.0	0.17
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	1.0	U	1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.16
124-48-1	Dibromochloromethane	1.0	U	1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28
100-41-4	Ethylbenzene	1.0	U	1.0	0.23
1330-20-7	Xylenes, Total	3.0	U	3.0	0.49
100-42-5	Styrene	1.0	U	1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-142745/5

Matrix: Water Lab File ID: 50526005.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/26/2015 12:00

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 142745 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	115		64-135
2037-26-5	Toluene-d8 (Surr)	107		71-118
460-00-4	4-Bromofluorobenzene (Surr)	96		70-118
1868-53-7	Dibromofluoromethane (Surr)	112		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526005.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 26-May-2015 12:00:30 ALS Bottle#: 5 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: MB
Misc. Info.: 180-0007112-005
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 27-May-2015 07:31:15 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: fergusond Date: 27-May-2015 07:31:15

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	4.259	0.013	0	152497	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.295	7.295	0.000	98	392612	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.392	10.391	0.001	87	88527	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.734	12.733	0.001	96	125788	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.565	6.560	0.005	93	94540	50.0	55.8	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.936	6.937	-0.001	0	121329	50.0	57.5	
$ 7 Toluene-d8 (Surr)	98	8.938	8.939	-0.001	94	351733	50.0	53.5	
$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.573	-0.001	88	113255	50.0	48.0	
11 Dichlorodifluoromethane	85		1.608					ND	
12 Chloromethane	50		1.766					ND	
13 Vinyl chloride	62		1.900					ND	
14 Butadiene	39		1.937					ND	
15 Bromomethane	94		2.247					ND	
16 Chloroethane	64		2.399					ND	
17 Dichlorofluoromethane	67		2.667					ND	
18 Trichlorofluoromethane	101		2.703					ND	
19 Ethanol	45		2.957					ND	
20 Ethyl ether	59		3.050					ND	
21 Acrolein	56		3.226					ND	
22 1,1-Dichloroethene	96		3.348					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.421					ND	
24 Acetone	43		3.439					ND	
25 Iodomethane	142		3.537					ND	
26 Carbon disulfide	76		3.628					ND	
27 Isopropyl alcohol	45		3.712					ND	
29 Acetonitrile	40		3.876					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		4.413					ND	
33 Acrylonitrile	53		4.522					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		4.565					ND	
35 Methyl tert-butyl ether	73		4.577					ND	
36 Hexane	57		4.991					ND	
37 1,1-Dichloroethane	63		5.197					ND	
38 Vinyl acetate	43		5.246					ND	
41 Isopropyl ether	45		5.299					ND	
39 2-Chloro-1,3-butadiene	53		5.299					ND	
40 Isopropyl ether TIC	45		5.409					ND	
42 Tert-butyl ethyl ether	59		5.774					ND	
44 2,2-Dichloropropane	77		5.946					ND	
45 cis-1,2-Dichloroethene	96		5.946					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
46 2-Butanone (MEK)	43		5.964					ND	
47 Propionitrile	54		6.036					ND	
48 Ethyl acetate	43		6.042					ND	
50 Methacrylonitrile	41		6.212					ND	
49 Chlorobromomethane	128		6.238					ND	
51 Tetrahydrofuran	42		6.256					ND	
52 Chloroform	83		6.384					ND	
53 1,1,1-Trichloroethane	97		6.542					ND	
54 Cyclohexane	56		6.615					ND	
56 Carbon tetrachloride	117		6.712					ND	
55 1,1-Dichloropropene	75		6.731					ND	
57 Isobutyl alcohol	41		6.931					ND	
58 Benzene	78		6.943					ND	
59 1,2-Dichloroethane	62		7.023					ND	
61 Tert-amyl methyl ether	73		7.125					ND	
60 Tert-amyl methyl ether (TI	73		7.262					ND	
62 n-Heptane	43		7.308					ND	
63 n-Butanol	56		7.636					ND	
64 Trichloroethene	130		7.680					ND	
65 Ethyl acrylate	55		7.800					ND	
66 Methylcyclohexane	83		7.917					ND	
67 1,2-Dichloropropane	63		7.947					ND	
70 1,4-Dioxane	88		8.032					ND	
68 Dibromomethane	93		8.032					ND	
69 Methyl methacrylate	69		8.037					ND	
71 Dichlorobromomethane	83		8.233					ND	
72 2-Nitropropane	41		8.451					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		9.006					ND	
77 trans-1,3-Dichloropropene	75		9.255					ND	
78 Ethyl methacrylate	69		9.310					ND	
79 1,1,2-Trichloroethane	97		9.450					ND	
80 Tetrachloroethene	164		9.517					ND	
81 1,3-Dichloropropane	76		9.608					ND	
82 2-Hexanone	43		9.657					ND	
83 n-Butyl acetate	43		9.783					ND	
84 Chlorodibromomethane	129		9.815					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		10.393					ND	
87 Chlorobenzene	112		10.423					ND	
88 4-Chlorobenzotrifluoride	180		10.478					ND	
89 1,1,1,2-Tetrachloroethane	131		10.514					ND	
90 Ethylbenzene	106		10.521					ND	
91 m-Xylene & p-Xylene	106		10.654					ND	
92 o-Xylene	106		11.032					ND	
93 Styrene	104		11.050					ND	
95 Cyclohexanol	57		11.231					ND	
94 Bromoform	173		11.232					ND	
96 2-Chlorobenzotrifluoride	180		11.299					ND	
97 Isopropylbenzene	105		11.403					ND	
98 Cyclohexanone	55		11.486					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		11.768					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		11.999					ND	
107 4-Chlorotoluene	126		12.023					ND	
108 tert-Butylbenzene	119		12.315					ND	
109 Pentachloroethane	167		12.344					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		12.656					ND	
114 4-Isopropyltoluene	119		12.692					ND	
115 1,4-Dichlorobenzene	146		12.759					ND	
117 1,2,3-Trimethylbenzene	105		12.782					ND	
116 2,4-Dichloro-1-(triflourom	214		12.784					ND	
118 2,5-Dichlorobenzotrifluori	214		12.826					ND	
119 Benzyl chloride	91		12.867					ND	
120 n-Butylbenzene	91		13.100					ND	
121 1,2-Dichlorobenzene	146		13.112					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.909					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.049					ND	
124 1,3,5-Trichlorobenzene	180		14.090					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.463					ND	
126 1,2,4-Trichlorobenzene	180		14.724					ND	
127 Hexachlorobutadiene	225		14.876					ND	
128 Naphthalene	128		14.992					ND	
129 1,2,3-Trichlorobenzene	180		15.217					ND	
131 2,4,5-Trichlorotoluene	159		15.990					ND	
130 2,3,6-Trichlorotoluene	159		16.093					ND	
132 2-Methylnaphthalene	142		16.134					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_00036	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent

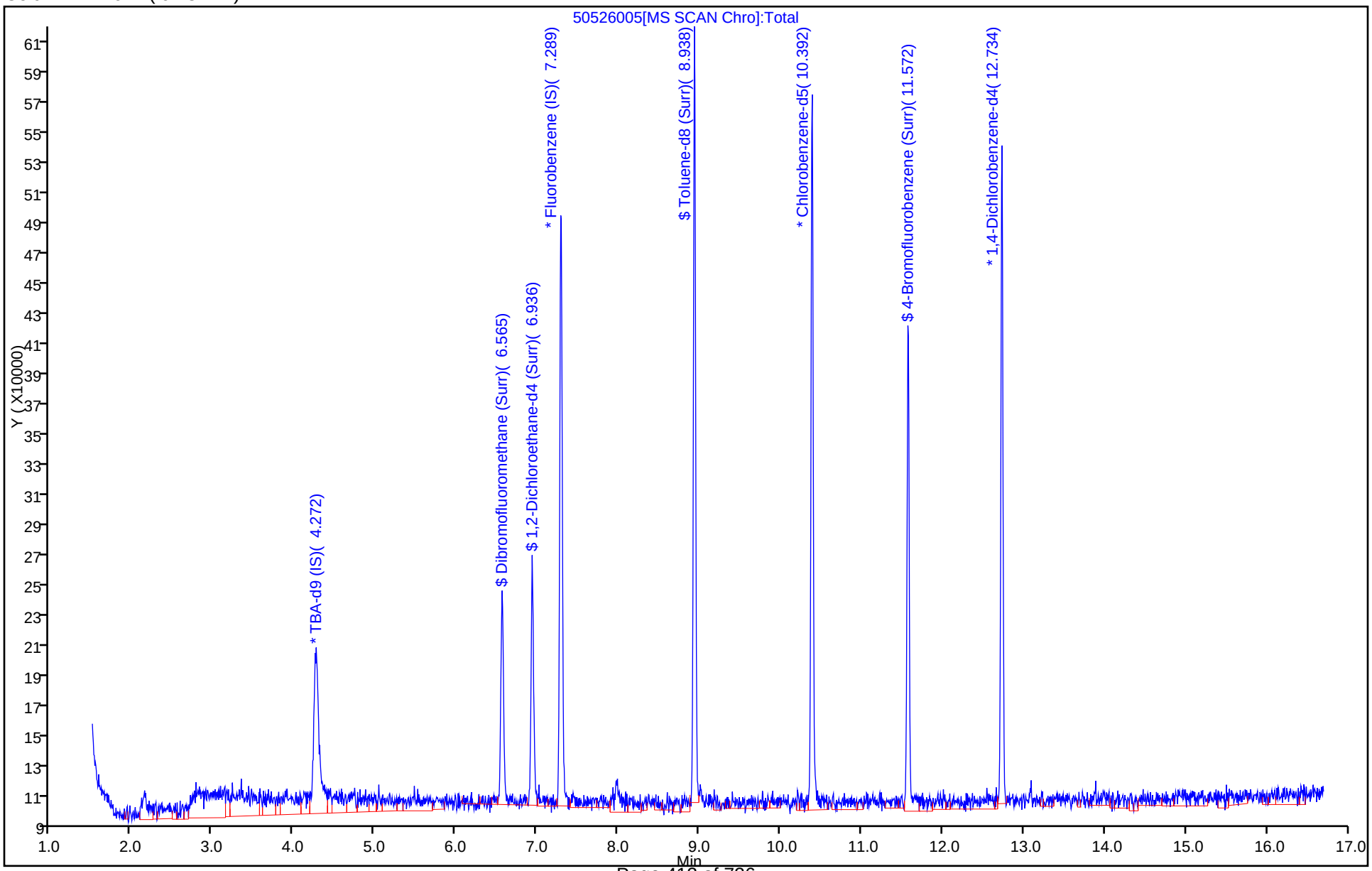
Report Date: 27-May-2015 07:31:16 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526005.D

Injection Date:	26-May-2015 12:00:30	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.: 180-44203-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 180-142864/9

Matrix: Water | Lab File ID: 50527009.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/27/2015 13:22

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.: 142864 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.28
75-01-4	Vinyl chloride	1.0	U	1.0	0.23
74-83-9	Bromomethane	1.0	U	1.0	0.31
75-00-3	Chloroethane	1.0	U	1.0	0.21
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.30
67-64-1	Acetone	5.0	U	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.21
75-09-2	Methylene Chloride	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	1.0	U	1.0	0.17
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	1.0	U	1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.16
124-48-1	Dibromochloromethane	1.0	U	1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28
100-41-4	Ethylbenzene	1.0	U	1.0	0.23
1330-20-7	Xylenes, Total	3.0	U	3.0	0.49
100-42-5	Styrene	1.0	U	1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-142864/9

Matrix: Water Lab File ID: 50527009.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/27/2015 13:22

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.: 142864 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	111		64-135
2037-26-5	Toluene-d8 (Surr)	105		71-118
460-00-4	4-Bromofluorobenzene (Surr)	93		70-118
1868-53-7	Dibromofluoromethane (Surr)	105		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527009.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 27-May-2015 13:22:30 ALS Bottle#: 6 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: MB
Misc. Info.: 180-0007136-009
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 27-May-2015 16:35:43 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: fergusond Date: 27-May-2015 16:35:43

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.266	4.274	-0.008	0	149220	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.292	-0.003	98	412288	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.392	10.388	0.004	88	90639	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.728	12.730	-0.002	97	111995	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.565	6.561	0.004	93	93633	50.0	52.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.936	6.933	0.003	0	122851	50.0	55.4	
$ 7 Toluene-d8 (Surr)	98	8.938	8.934	0.004	94	353067	50.0	52.5	
$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.574	-0.002	89	112857	50.0	46.7	
11 Dichlorodifluoromethane	85		1.622					ND	
12 Chloromethane	50		1.768					ND	
13 Vinyl chloride	62		1.908					ND	
14 Butadiene	39		1.938					ND	
15 Bromomethane	94		2.273					ND	
16 Chloroethane	64		2.413					ND	
17 Dichlorofluoromethane	67		2.674					ND	
18 Trichlorofluoromethane	101		2.723					ND	
19 Ethanol	45		2.951					ND	
20 Ethyl ether	59		3.051					ND	
21 Acrolein	56		3.228					ND	
22 1,1-Dichloroethene	96		3.343					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.416					ND	
24 Acetone	43		3.441					ND	
25 Iodomethane	142		3.532					ND	
26 Carbon disulfide	76		3.629					ND	
27 Isopropyl alcohol	45		3.718					ND	
29 Acetonitrile	40		3.870					ND	
28 3-Chloro-1-propene	76		3.915					ND	
30 Methyl acetate	43		3.946					ND	
31 Methylene Chloride	84		4.140					ND	
32 2-Methyl-2-propanol	59		4.414					ND	
33 Acrylonitrile	53		4.524					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		4.566					ND	
35 Methyl tert-butyl ether	73		4.584					ND	
36 Hexane	57		4.992					ND	
37 1,1-Dichloroethane	63		5.205					ND	
38 Vinyl acetate	43		5.254					ND	
39 2-Chloro-1,3-butadiene	53		5.300					ND	
41 Isopropyl ether	45		5.306					ND	
40 Isopropyl ether TIC	45		5.409					ND	
42 Tert-butyl ethyl ether	59		5.780					ND	
44 2,2-Dichloropropane	77		5.947					ND	
45 cis-1,2-Dichloroethene	96		5.953					ND	
46 2-Butanone (MEK)	43		5.959					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
48 Ethyl acetate	43		6.036					ND	
47 Propionitrile	54		6.036					ND	
50 Methacrylonitrile	41		6.212					ND	
49 Chlorobromomethane	128		6.233					ND	
51 Tetrahydrofuran	42		6.251					ND	
52 Chloroform	83		6.379					ND	
53 1,1,1-Trichloroethane	97		6.543					ND	
54 Cyclohexane	56		6.616					ND	
56 Carbon tetrachloride	117		6.714					ND	
55 1,1-Dichloropropene	75		6.726					ND	
57 Isobutyl alcohol	41		6.926					ND	
58 Benzene	78		6.945					ND	
59 1,2-Dichloroethane	62		7.024					ND	
61 Tert-amyl methyl ether	73		7.125					ND	
60 Tert-amyl methyl ether (TI	73		7.262					ND	
62 n-Heptane	43		7.310					ND	
63 n-Butanol	56		7.636					ND	
64 Trichloroethene	130		7.681					ND	
65 Ethyl acrylate	55		7.800					ND	
66 Methylcyclohexane	83		7.918					ND	
67 1,2-Dichloropropane	63		7.949					ND	
70 1,4-Dioxane	88		8.034					ND	
69 Methyl methacrylate	69		8.037					ND	
68 Dibromomethane	93		8.040					ND	
71 Dichlorobromomethane	83		8.234					ND	
72 2-Nitropropane	41		8.457					ND	
73 2-Chloroethyl vinyl ether	63		8.533					ND	
74 cis-1,3-Dichloropropene	75		8.672					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.825					ND	
76 Toluene	91		9.007					ND	
77 trans-1,3-Dichloropropene	75		9.250					ND	
78 Ethyl methacrylate	69		9.311					ND	
79 1,1,2-Trichloroethane	97		9.445					ND	
80 Tetrachloroethene	164		9.518					ND	
81 1,3-Dichloropropane	76		9.603					ND	
82 2-Hexanone	43		9.658					ND	
83 n-Butyl acetate	43		9.783					ND	
84 Chlorodibromomethane	129		9.822					ND	
85 Ethylene Dibromide	107		9.932					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
86 3-Chlorobenzotrifluoride	180		10.388					ND	
87 Chlorobenzene	112		10.418					ND	
88 4-Chlorobenzotrifluoride	180		10.479					ND	
89 1,1,1,2-Tetrachloroethane	131		10.510					ND	
90 Ethylbenzene	106		10.516					ND	
91 m-Xylene & p-Xylene	106		10.650					ND	
92 o-Xylene	106		11.027					ND	
93 Styrene	104		11.051					ND	
95 Cyclohexanol	57		11.231					ND	
94 Bromoform	173		11.234					ND	
96 2-Chlorobenzotrifluoride	180		11.301					ND	
97 Isopropylbenzene	105		11.398					ND	
98 Cyclohexanone	55		11.480					ND	
99 1,1,2,2-Tetrachloroethane	83		11.708					ND	
100 Bromobenzene	156		11.714					ND	
102 trans-1,4-Dichloro-2-buten	53		11.745					ND	
101 1,2,3-Trichloropropane	110		11.769					ND	
103 N-Propylbenzene	120		11.812					ND	
104 2-Chlorotoluene	126		11.903					ND	
105 3-Chlorotoluene	126		11.970					ND	
106 1,3,5-Trimethylbenzene	105		12.000					ND	
107 4-Chlorotoluene	126		12.024					ND	
108 tert-Butylbenzene	119		12.310					ND	
109 Pentachloroethane	167		12.344					ND	
110 1,2,4-Trimethylbenzene	105		12.371					ND	
111 1,2-dichloro-4-(trifluorom	214		12.414					ND	
112 sec-Butylbenzene	105		12.535					ND	
113 1,3-Dichlorobenzene	146		12.651					ND	
114 4-Isopropyltoluene	119		12.688					ND	
115 1,4-Dichlorobenzene	146		12.754					ND	
117 1,2,3-Trimethylbenzene	105		12.782					ND	
116 2,4-Dichloro-1-(triflourom	214		12.785					ND	
118 2,5-Dichlorobenzotrifluori	214		12.821					ND	
119 Benzyl chloride	91		12.867					ND	
120 n-Butylbenzene	91		13.101					ND	
121 1,2-Dichlorobenzene	146		13.113					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.898					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.044					ND	
124 1,3,5-Trichlorobenzene	180		14.090					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.464					ND	
126 1,2,4-Trichlorobenzene	180		14.726					ND	
127 Hexachlorobutadiene	225		14.872					ND	
128 Naphthalene	128		14.993					ND	
129 1,2,3-Trichlorobenzene	180		15.212					ND	
131 2,4,5-Trichlorotoluene	159		15.991					ND	
130 2,3,6-Trichlorotoluene	159		16.094					ND	
132 2-Methylnaphthalene	142		16.134					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_00036	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent

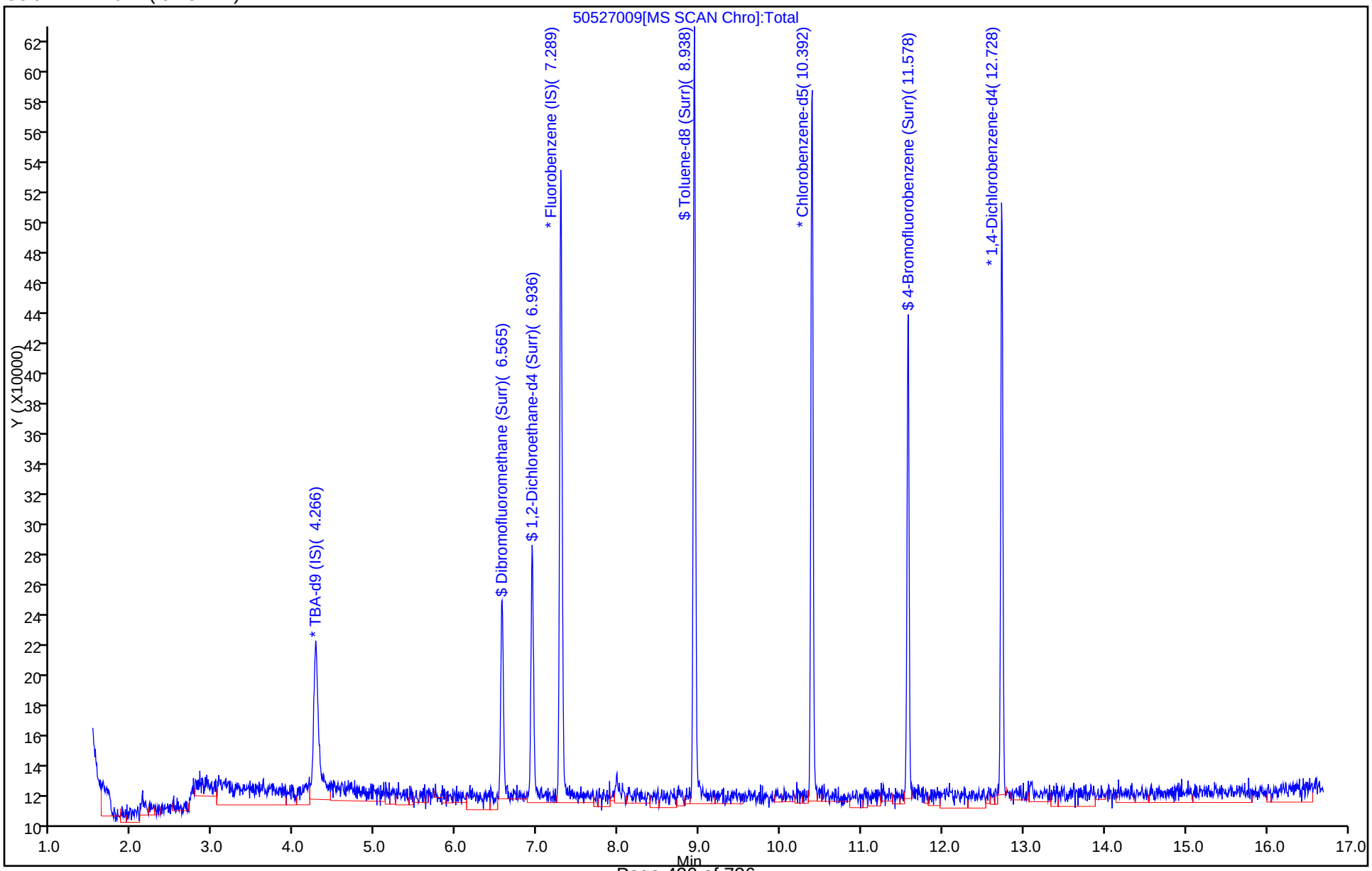
Report Date: 27-May-2015 16:35:43 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527009.D

Injection Date:	27-May-2015 13:22:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	MB			Worklist Smp#:	9
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	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.: 180-44203-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-142676/9

Matrix: Water | Lab File ID: 50524009.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/24/2015 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.: 142676 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	7.35		1.0	0.28
75-01-4	Vinyl chloride	7.63		1.0	0.23
74-83-9	Bromomethane	10.1		1.0	0.31
75-00-3	Chloroethane	9.99		1.0	0.21
75-35-4	1,1-Dichloroethene	10.8		1.0	0.30
67-64-1	Acetone	18.3		5.0	2.5
75-15-0	Carbon disulfide	7.98		1.0	0.21
75-09-2	Methylene Chloride	11.2		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	10.8		1.0	0.17
1634-04-4	Methyl tert-butyl ether	8.20		1.0	0.18
75-34-3	1,1-Dichloroethane	10.5		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	10.0		1.0	0.24
74-97-5	Bromochloromethane	9.23		1.0	0.18
78-93-3	2-Butanone (MEK)	17.2		5.0	0.55
67-66-3	Chloroform	10.1		1.0	0.17
71-55-6	1,1,1-Trichloroethane	9.72		1.0	0.29
56-23-5	Carbon tetrachloride	9.18		1.0	0.14
71-43-2	Benzene	10.7		1.0	0.11
107-06-2	1,2-Dichloroethane	10.1		1.0	0.21
79-01-6	Trichloroethene	9.00		1.0	0.14
78-87-5	1,2-Dichloropropane	9.70		1.0	0.095
75-27-4	Bromodichloromethane	8.32		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	7.53		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	15.6		5.0	0.53
108-88-3	Toluene	11.3		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	7.93		1.0	0.15
79-00-5	1,1,2-Trichloroethane	10.4		1.0	0.20
127-18-4	Tetrachloroethene	11.1		1.0	0.15
591-78-6	2-Hexanone	15.1		5.0	0.16
124-48-1	Dibromochloromethane	7.84		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	9.02		1.0	0.18
108-90-7	Chlorobenzene	10.3		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	9.67		1.0	0.28
100-41-4	Ethylbenzene	9.80		1.0	0.23
1330-20-7	Xylenes, Total	19.0		3.0	0.49
100-42-5	Styrene	9.88		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44203-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-142676/9

Matrix: Water | Lab File ID: 50524009.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/24/2015 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.: 142676 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	6.79		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	9.97		1.0	0.20
107-13-1	Acrylonitrile	97.6		20	0.55
123-91-1	1,4-Dioxane	172	J	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		64-135
2037-26-5	Toluene-d8 (Surr)	107		71-118
460-00-4	4-Bromofluorobenzene (Surr)	96		70-118
1868-53-7	Dibromofluoromethane (Surr)	100		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150524-7097.b\50524009.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 24-May-2015 14:55:30 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: LCS
Misc. Info.: 180-0007097-009
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150524-7097.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 24-May-2015 15:15:11 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK027

First Level Reviewer: fergusond Date: 24-May-2015 15:15:11

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.280	4.272	0.008	0	110799	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.291	7.289	0.002	98	428648	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.388	10.386	0.002	87	91511	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.730	12.734	-0.004	95	136632	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.555	6.560	-0.005	93	92665	50.0	50.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.932	6.931	0.001	0	113573	50.0	49.3	
$ 7 Toluene-d8 (Surr)	98	8.934	8.938	-0.004	94	362213	50.0	53.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.574	11.572	0.002	88	117441	50.0	48.1	
11 Dichlorodifluoromethane	85	1.609	1.614	-0.005	99	114874	50.0	38.8	
12 Chloromethane	50	1.761	1.766	-0.005	99	138556	50.0	36.7	
13 Vinyl chloride	62	1.901	1.900	0.001	82	129701	50.0	38.2	
14 Butadiene	39	1.938	1.936	0.002	99	154314	50.0	39.4	
15 Bromomethane	94	2.248	2.240	0.008	90	78628	50.0	50.5	
16 Chloroethane	64	2.394	2.398	-0.004	99	90007	50.0	50.0	
17 Dichlorofluoromethane	67	2.662	2.666	-0.004	98	210441	50.0	51.6	
18 Trichlorofluoromethane	101	2.710	2.703	0.007	97	174058	50.0	45.3	
20 Ethyl ether	59	3.045	3.043	0.002	94	113476	50.0	52.3	
21 Acrolein	56	3.233	3.226	0.007	99	54413	150.0	150.5	
22 1,1-Dichloroethene	96	3.343	3.341	0.002	96	110892	50.0	54.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.416	3.433	-0.017	93	122115	50.0	56.8	
24 Acetone	43	3.446	3.439	0.007	99	77431	100.0	91.6	
25 Iodomethane	142	3.538	3.536	0.002	97	166662	50.0	52.9	
26 Carbon disulfide	76	3.635	3.627	0.008	100	218436	50.0	39.9	
28 3-Chloro-1-propene	76	3.927	3.913	0.014	90	61250	50.0	44.8	
30 Methyl acetate	43	3.945	3.938	0.007	98	503945	250.0	251.0	
31 Methylene Chloride	84	4.134	4.132	0.002	97	134050	50.0	56.2	
32 2-Methyl-2-propanol	59	4.408	4.412	-0.004	96	58000	500.0	468.3	
33 Acrylonitrile	53	4.523	4.522	0.001	99	494872	500.0	488.2	
34 trans-1,2-Dichloroethene	96	4.566	4.558	0.008	97	122433	50.0	53.9	
35 Methyl tert-butyl ether	73	4.578	4.576	0.002	96	256851	50.0	41.0	
36 Hexane	57	4.992	4.990	0.002	95	183085	50.0	51.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.198	5.203	-0.005	97	226210	50.0	52.7	
38 Vinyl acetate	43	5.253	5.252	0.001	97	193813	50.0	40.2	
44 2,2-Dichloropropane	77	5.947	5.945	0.002	79	92634	50.0	42.6	
45 cis-1,2-Dichloroethene	96	5.953	5.951	0.002	82	126184	50.0	50.2	
46 2-Butanone (MEK)	43	5.965	5.957	0.008	100	110576	100.0	86.1	
49 Chlorobromomethane	128	6.233	6.237	-0.004	94	51619	50.0	46.1	
51 Tetrahydrofuran	42	6.251	6.249	0.002	91	69320	100.0	79.4	
52 Chloroform	83	6.385	6.383	0.002	95	194882	50.0	50.7	
53 1,1,1-Trichloroethane	97	6.543	6.535	0.008	97	144751	50.0	48.6	
54 Cyclohexane	56	6.616	6.614	0.002	94	223871	50.0	49.6	
56 Carbon tetrachloride	117	6.713	6.712	0.001	97	123155	50.0	45.9	
55 1,1-Dichloropropene	75	6.731	6.730	0.001	93	162236	50.0	51.7	
57 Isobutyl alcohol	41	6.926	6.925	0.001	45	81930	1250.0	1024.6	
58 Benzene	78	6.944	6.943	0.001	97	511612	50.0	53.6	
59 1,2-Dichloroethane	62	7.023	7.022	0.001	96	144433	50.0	50.7	
62 n-Heptane	43	7.303	7.308	-0.005	93	154995	50.0	48.7	
64 Trichloroethene	130	7.680	7.673	0.007	95	110206	50.0	45.0	
66 Methylcyclohexane	83	7.918	7.916	0.002	93	189388	50.0	46.9	
67 1,2-Dichloropropane	63	7.948	7.947	0.001	94	120344	50.0	48.5	
68 Dibromomethane	93	8.033	8.032	0.001	95	61006	50.0	48.1	
70 1,4-Dioxane	88	8.027	8.032	-0.005	35	16301	1000.0	861.1	M
71 Dichlorobromomethane	83	8.234	8.226	0.008	98	114889	50.0	41.6	
73 2-Chloroethyl vinyl ether	63	8.532	8.531	0.001	91	112600	100.0	79.5	
74 cis-1,3-Dichloropropene	75	8.678	8.677	0.001	93	132175	50.0	37.6	
75 4-Methyl-2-pentanone (MIBK	43	8.830	8.829	0.001	98	184353	100.0	78.0	
76 Toluene	91	9.007	9.005	0.002	98	494988	50.0	56.7	
77 trans-1,3-Dichloropropene	75	9.256	9.248	0.008	96	104880	50.0	39.7	
78 Ethyl methacrylate	69	9.311	9.309	0.002	92	101032	50.0	38.4	
79 1,1,2-Trichloroethane	97	9.445	9.443	0.002	92	85728	50.0	52.0	
80 Tetrachloroethene	164	9.518	9.516	0.002	96	91158	50.0	55.6	
81 1,3-Dichloropropane	76	9.603	9.601	0.002	96	156966	50.0	50.4	
82 2-Hexanone	43	9.658	9.662	-0.004	100	126467	100.0	75.3	
84 Chlorodibromomethane	129	9.816	9.820	-0.004	92	63408	50.0	39.2	
85 Ethylene Dibromide	107	9.925	9.924	0.001	99	76380	50.0	45.1	
86 3-Chlorobenzotrifluoride	180	10.394	10.392	0.002	88	166673	50.0	56.1	
87 Chlorobenzene	112	10.418	10.416	0.002	93	291801	50.0	51.7	
88 4-Chlorobenzotrifluoride	180	10.479	10.477	0.002	96	156292	50.0	57.0	
89 1,1,1,2-Tetrachloroethane	131	10.509	10.514	-0.005	93	91619	50.0	48.3	
90 Ethylbenzene	106	10.515	10.520	-0.005	99	161113	50.0	49.0	
91 m-Xylene & p-Xylene	106	10.649	10.648	0.001	0	190928	50.0	48.0	
92 o-Xylene	106	11.026	11.031	-0.005	97	183972	50.0	46.8	
93 Styrene	104	11.051	11.049	0.002	96	306258	50.0	49.4	
94 Bromoform	173	11.227	11.232	-0.005	95	35313	50.0	33.9	
96 2-Chlorobenzotrifluoride	180	11.300	11.299	0.001	97	162284	50.0	55.2	
97 Isopropylbenzene	105	11.397	11.396	0.001	97	462251	50.0	48.2	
99 1,1,2,2-Tetrachloroethane	83	11.708	11.706	0.002	78	116053	50.0	49.8	
100 Bromobenzene	156	11.708	11.712	-0.004	95	104955	50.0	41.6	
102 trans-1,4-Dichloro-2-buten	53	11.744	11.749	-0.005	75	33128	50.0	39.5	
101 1,2,3-Trichloropropane	110	11.762	11.761	0.001	85	35796	50.0	43.2	
103 N-Propylbenzene	120	11.811	11.816	-0.005	99	134369	50.0	44.7	
104 2-Chlorotoluene	126	11.902	11.901	0.001	96	114264	50.0	44.3	
105 3-Chlorotoluene	126	11.963	11.968	-0.005	95	129363	50.0	49.4	

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	11.994	11.998	-0.004	96	384806	50.0	45.5	
107 4-Chlorotoluene	126	12.024	12.022	0.002	98	125937	50.0	46.3	
108 tert-Butylbenzene	119	12.310	12.308	0.002	94	299856	50.0	41.4	
110 1,2,4-Trimethylbenzene	105	12.371	12.369	0.002	98	375282	50.0	44.5	
111 1,2-dichloro-4-(trifluorom	214	12.413	12.412	0.001	98	121536	50.0	53.5	
112 sec-Butylbenzene	105	12.535	12.533	0.002	95	455637	50.0	44.6	
113 1,3-Dichlorobenzene	146	12.651	12.649	0.002	98	204312	50.0	46.3	
114 4-Isopropyltoluene	119	12.687	12.692	-0.005	96	365885	50.0	43.8	
115 1,4-Dichlorobenzene	146	12.754	12.752	0.002	94	203901	50.0	45.1	
116 2,4-Dichloro-1-(triflourom	214	12.778	12.783	-0.005	97	116281	50.0	55.1	
118 2,5-Dichlorobenzotrifluori	214	12.821	12.819	0.002	0	121929	50.0	52.7	
120 n-Butylbenzene	91	13.095	13.099	-0.004	99	319977	50.0	44.6	
121 1,2-Dichlorobenzene	146	13.107	13.111	-0.004	96	188620	50.0	46.2	
122 1,2-Dibromo-3-Chloropropan	75	13.898	13.896	0.002	74	13365	50.0	32.9	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.044	14.042	0.002	0	360237	150.0	138.5	
125 2,3- & 3,4- Dichlorotoluen	125	14.457	14.462	-0.005	0	218632	100.0	89.6	
126 1,2,4-Trichlorobenzene	180	14.725	14.724	0.001	93	74089	50.0	43.6	
127 Hexachlorobutadiene	225	14.871	14.870	0.001	96	42283	50.0	53.4	
128 Naphthalene	128	14.993	14.991	0.002	97	164736	50.0	35.0	
129 1,2,3-Trichlorobenzene	180	15.212	15.216	-0.004	96	57177	50.0	43.2	
131 2,4,5-Trichlorotoluene	159	15.990	15.995	-0.005	0	21114	50.0	35.2	
130 2,3,6-Trichlorotoluene	159	16.088	16.092	-0.004	93	20061	50.0	37.1	
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	94.8	
S 134 1,2-Dichloroethene, Total	96				0		100.0	104.1	
S 135 1,3-Dichloropropene, Total	1				0		100.0	77.3	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOA2ND_00123	Amount Added:	2.00	Units: uL		
voaWKet2n Res_00001	Amount Added:	2.00	Units: uL		
voaWeemix2nd_00001	Amount Added:	2.00	Units: uL		
voaWVA2ndRes_00001	Amount Added:	2.00	Units: uL		
VOACEVEPRI_00008	Amount Added:	2.00	Units: uL		
voaWacro2 Res_00003	Amount Added:	6.00	Units: uL		
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent	
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent	

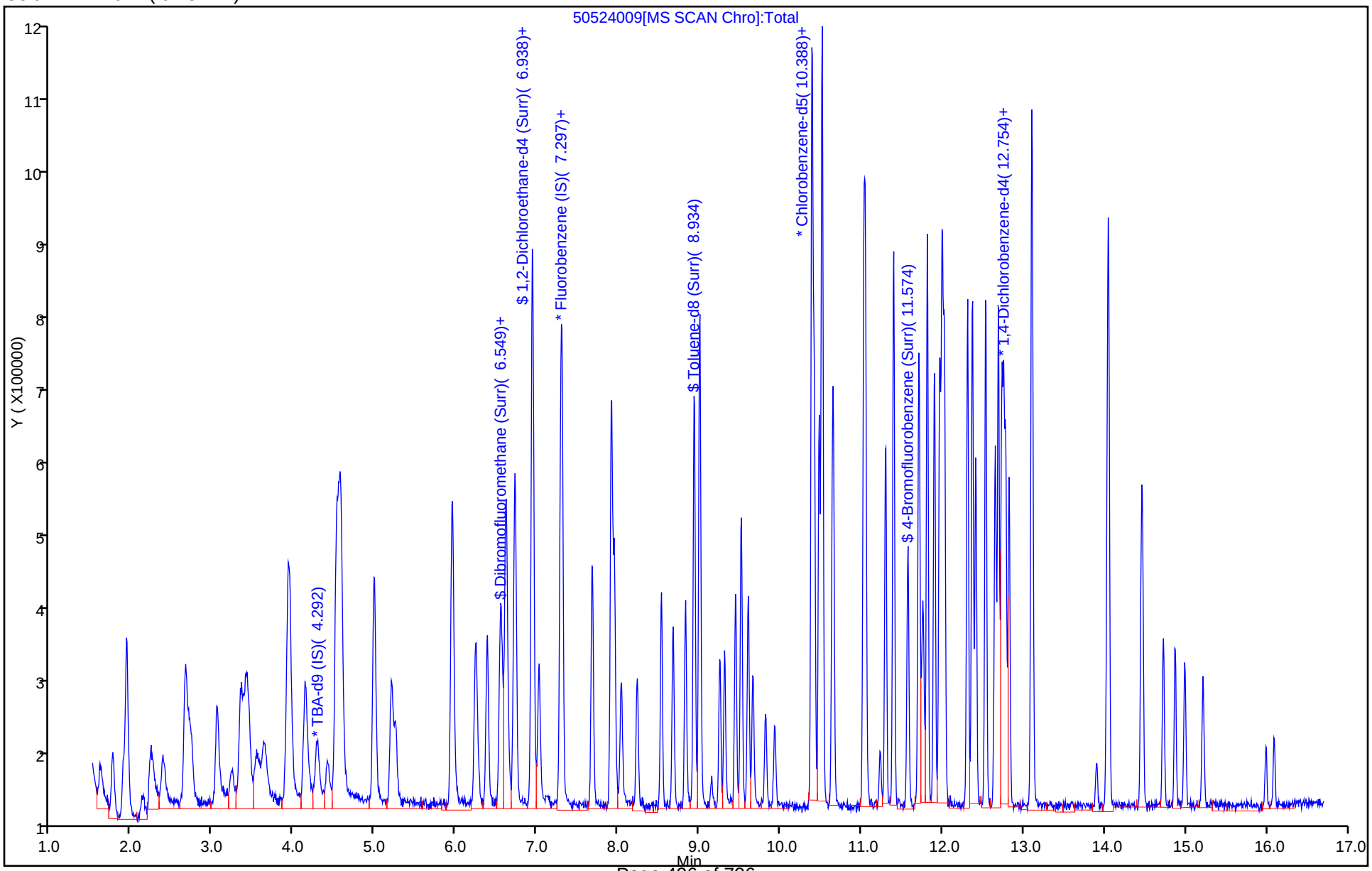
Report Date: 24-May-2015 15:15:11 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150524-7097.b\50524009.D

Injection Date:	24-May-2015 14:55:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	LCS			Worklist Smp#:	9
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

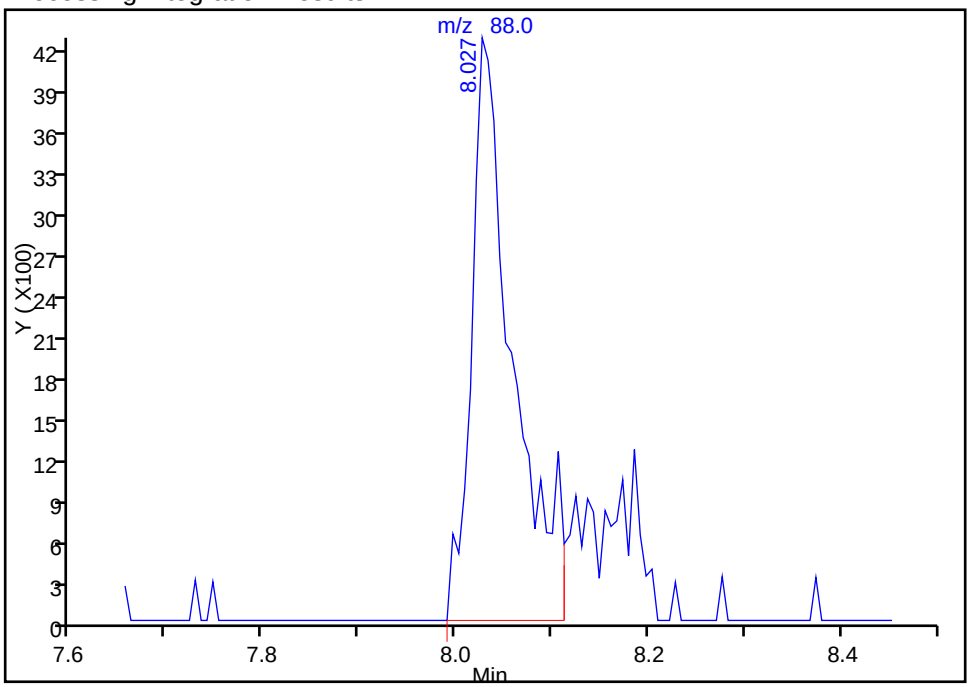
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150524-7097.b\50524009.D
Injection Date: 24-May-2015 14:55:30 Instrument ID: CHHP5
Lims ID: LCS
Client ID:
Operator ID: 001562 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

70 1,4-Dioxane, CAS: 123-91-1

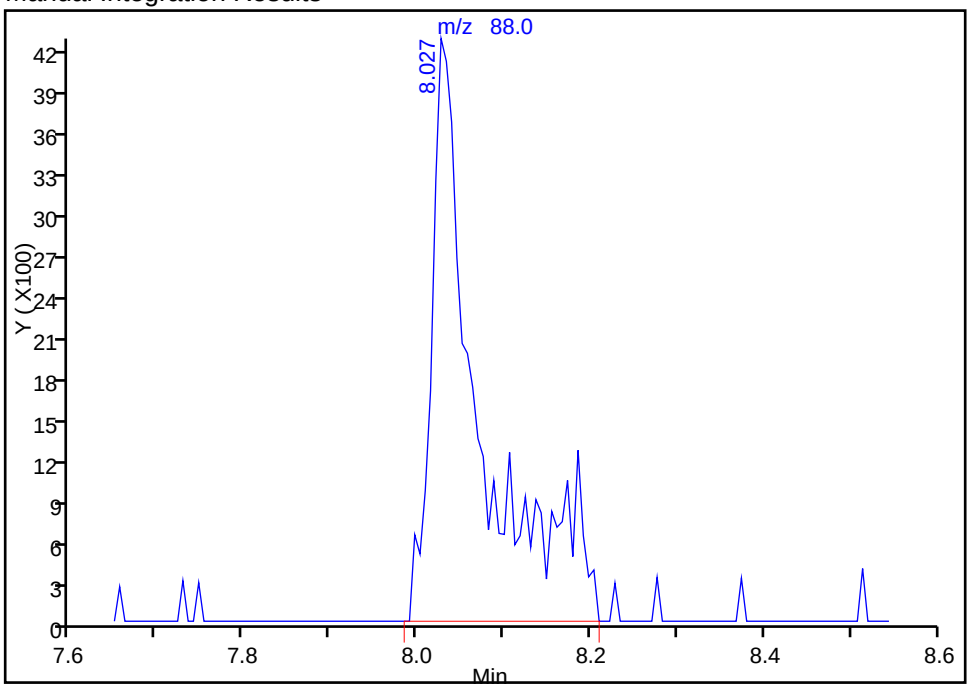
Processing Integration Results

RT: 8.03
Area: 12551
Amount: 662.9959
Amount Units: ng



Manual Integration Results

RT: 8.03
Area: 16301
Amount: 861.0865
Amount Units: ng



Reviewer: fergusond, 24-May-2015 15:15:11
Audit Action: Manually Integrated
Audit Reason: Peak Tail

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44203-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-142745/8

Matrix: Water | Lab File ID: 50526008.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/26/2015 13:29

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.: 142745 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	6.57		1.0	0.28
75-01-4	Vinyl chloride	7.37		1.0	0.23
74-83-9	Bromomethane	9.67		1.0	0.31
75-00-3	Chloroethane	10.1		1.0	0.21
75-35-4	1,1-Dichloroethene	9.82		1.0	0.30
67-64-1	Acetone	17.6		5.0	2.5
75-15-0	Carbon disulfide	8.10		1.0	0.21
75-09-2	Methylene Chloride	10.5		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	10.3		1.0	0.17
1634-04-4	Methyl tert-butyl ether	7.89		1.0	0.18
75-34-3	1,1-Dichloroethane	9.52		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	9.41		1.0	0.24
74-97-5	Bromochloromethane	9.06		1.0	0.18
78-93-3	2-Butanone (MEK)	16.9		5.0	0.55
67-66-3	Chloroform	9.59		1.0	0.17
71-55-6	1,1,1-Trichloroethane	9.28		1.0	0.29
56-23-5	Carbon tetrachloride	9.49		1.0	0.14
71-43-2	Benzene	9.87		1.0	0.11
107-06-2	1,2-Dichloroethane	10.1		1.0	0.21
79-01-6	Trichloroethene	9.15		1.0	0.14
78-87-5	1,2-Dichloropropane	9.55		1.0	0.095
75-27-4	Bromodichloromethane	8.40		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	8.06		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	17.0		5.0	0.53
108-88-3	Toluene	10.7		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	7.80		1.0	0.15
79-00-5	1,1,2-Trichloroethane	10.9		1.0	0.20
127-18-4	Tetrachloroethene	10.6		1.0	0.15
591-78-6	2-Hexanone	15.6		5.0	0.16
124-48-1	Dibromochloromethane	8.30		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	9.35		1.0	0.18
108-90-7	Chlorobenzene	10.2		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	9.31		1.0	0.28
100-41-4	Ethylbenzene	9.58		1.0	0.23
1330-20-7	Xylenes, Total	19.0		3.0	0.49
100-42-5	Styrene	9.85		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44203-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-142745/8

Matrix: Water | Lab File ID: 50526008.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/26/2015 13:29

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.: 142745 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	7.85		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	10.2		1.0	0.20
107-13-1	Acrylonitrile	93.9		20	0.55
123-91-1	1,4-Dioxane	144	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)	102		71-118
460-00-4	4-Bromofluorobenzene (Surr)	99		70-118
1868-53-7	Dibromofluoromethane (Surr)	96		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526008.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 26-May-2015 13:29:30 ALS Bottle#: 8 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: LCS
Misc. Info.: 180-0007112-008
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 26-May-2015 12:45:15 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: fergusond Date: 26-May-2015 14:58:33

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.284	4.259	0.025	0	107920	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.295	-0.006	98	440272	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.386	10.391	-0.005	88	94474	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.728	12.733	-0.005	95	137994	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.565	6.560	0.005	93	91420	50.0	48.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.936	6.937	-0.001	0	107477	50.0	45.4	
$ 7 Toluene-d8 (Surr)	98	8.938	8.939	-0.001	94	358453	50.0	51.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.572	11.573	-0.001	88	124872	50.0	49.6	
11 Dichlorodifluoromethane	85	1.613	1.608	0.005	99	99199	50.0	32.6	
12 Chloromethane	50	1.765	1.766	-0.001	99	127239	50.0	32.9	
13 Vinyl chloride	62	1.893	1.900	-0.007	98	128626	50.0	36.8	
14 Butadiene	39	1.936	1.937	-0.001	98	161909	50.0	40.2	
15 Bromomethane	94	2.252	2.247	0.005	93	77416	50.0	48.4	
16 Chloroethane	64	2.392	2.399	-0.007	98	93133	50.0	50.3	
17 Dichlorofluoromethane	67	2.666	2.667	-0.001	97	219894	50.0	52.5	
18 Trichlorofluoromethane	101	2.714	2.703	0.011	92	182534	50.0	46.3	
20 Ethyl ether	59	3.055	3.050	0.005	94	104228	50.0	46.8	
21 Acrolein	56	3.237	3.226	0.011	99	59657	150.0	160.6	
22 1,1-Dichloroethene	96	3.353	3.348	0.005	98	103573	50.0	49.1	
23 1,1,2-Trichloro-1,2,2-trif	101	3.420	3.421	-0.001	93	113806	50.0	51.6	
24 Acetone	43	3.444	3.439	0.005	95	76520	100.0	88.1	
25 Iodomethane	142	3.548	3.537	0.011	97	160401	50.0	49.6	
26 Carbon disulfide	76	3.639	3.628	0.011	100	227646	50.0	40.5	
28 3-Chloro-1-propene	76	3.913	3.920	-0.007	88	60298	50.0	43.0	
30 Methyl acetate	43	3.943	3.938	0.005	98	484538	250.0	235.0	
31 Methylene Chloride	84	4.150	4.139	0.011	96	129559	50.0	52.6	
32 2-Methyl-2-propanol	59	4.412	4.413	-0.001	86	54535	500.0	452.1	
33 Acrylonitrile	53	4.521	4.522	-0.001	100	488635	500.0	469.3	
34 trans-1,2-Dichloroethene	96	4.570	4.565	0.005	88	119886	50.0	51.4	
35 Methyl tert-butyl ether	73	4.582	4.577	0.005	97	253895	50.0	39.5	
36 Hexane	57	4.996	4.991	0.005	95	167509	50.0	45.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.202	5.197	0.005	97	209748	50.0	47.6	
38 Vinyl acetate	43	5.251	5.246	0.005	97	178640	50.0	36.0	
44 2,2-Dichloropropane	77	5.945	5.946	-0.001	63	94784	50.0	42.4	
45 cis-1,2-Dichloroethene	96	5.951	5.946	0.005	84	121392	50.0	47.0	
46 2-Butanone (MEK)	43	5.969	5.964	0.005	99	111656	100.0	84.7	
49 Chlorobromomethane	128	6.231	6.238	-0.007	95	52076	50.0	45.3	
51 Tetrahydrofuran	42	6.255	6.256	-0.001	87	63252	100.0	70.5	
52 Chloroform	83	6.383	6.384	-0.001	95	189467	50.0	48.0	
53 1,1,1-Trichloroethane	97	6.541	6.542	-0.001	96	141951	50.0	46.4	
54 Cyclohexane	56	6.620	6.615	0.005	94	212501	50.0	45.9	
56 Carbon tetrachloride	117	6.717	6.712	0.005	96	130850	50.0	47.5	
55 1,1-Dichloropropene	75	6.729	6.731	-0.001	92	153361	50.0	47.6	
57 Isobutyl alcohol	41	6.930	6.931	-0.001	45	74410	1250.0	906.0	
58 Benzene	78	6.948	6.943	0.005	98	484225	50.0	49.4	
59 1,2-Dichloroethane	62	7.027	7.023	0.004	97	148154	50.0	50.6	
62 n-Heptane	43	7.313	7.308	0.005	92	146607	50.0	44.8	
64 Trichloroethene	130	7.684	7.680	0.004	97	115091	50.0	45.8	
66 Methylcyclohexane	83	7.922	7.917	0.005	92	181576	50.0	43.8	
67 1,2-Dichloropropane	63	7.952	7.947	0.005	94	121700	50.0	47.7	
68 Dibromomethane	93	8.037	8.032	0.005	96	63553	50.0	48.8	
70 1,4-Dioxane	88	8.037	8.032	0.005	34	14039	1000.0	722.0	
71 Dichlorobromomethane	83	8.232	8.233	-0.001	98	119141	50.0	42.0	
73 2-Chloroethyl vinyl ether	63	8.530	8.531	-0.001	93	102699	100.0	70.6	
74 cis-1,3-Dichloropropene	75	8.676	8.677	-0.001	93	145482	50.0	40.3	
75 4-Methyl-2-pentanone (MIBK	43	8.828	8.829	-0.001	98	207036	100.0	84.9	
76 Toluene	91	9.005	9.006	-0.001	97	483291	50.0	53.6	
77 trans-1,3-Dichloropropene	75	9.254	9.255	-0.001	98	106473	50.0	39.0	
78 Ethyl methacrylate	69	9.315	9.310	0.005	91	107624	50.0	39.6	
79 1,1,2-Trichloroethane	97	9.443	9.450	-0.007	90	92833	50.0	54.6	
80 Tetrachloroethene	164	9.516	9.517	-0.001	98	89709	50.0	53.0	
81 1,3-Dichloropropane	76	9.601	9.608	-0.007	94	158183	50.0	49.2	
82 2-Hexanone	43	9.662	9.657	0.005	99	135596	100.0	78.2	
84 Chlorodibromomethane	129	9.820	9.815	0.005	90	69265	50.0	41.5	
85 Ethylene Dibromide	107	9.929	9.930	-0.001	99	81724	50.0	46.8	
86 3-Chlorobenzotrifluoride	180	10.392	10.393	-0.001	88	162800	50.0	53.1	
87 Chlorobenzene	112	10.416	10.423	-0.007	94	298391	50.0	51.2	
88 4-Chlorobenzotrifluoride	180	10.477	10.478	-0.001	96	155054	50.0	54.8	
89 1,1,1,2-Tetrachloroethane	131	10.513	10.514	-0.001	92	91047	50.0	46.5	
90 Ethylbenzene	106	10.519	10.521	-0.001	99	162599	50.0	47.9	
91 m-Xylene & p-Xylene	106	10.653	10.654	-0.001	0	199820	50.0	48.6	
92 o-Xylene	106	11.030	11.032	-0.002	97	188081	50.0	46.4	
93 Styrene	104	11.049	11.050	-0.001	95	315240	50.0	49.3	
94 Bromoform	173	11.237	11.232	0.005	95	42161	50.0	39.2	
96 2-Chlorobenzotrifluoride	180	11.298	11.299	-0.001	97	162649	50.0	53.6	
97 Isopropylbenzene	105	11.395	11.403	-0.008	96	478318	50.0	48.3	
99 1,1,2,2-Tetrachloroethane	83	11.706	11.713	-0.007	78	122779	50.0	51.1	
100 Bromobenzene	156	11.712	11.713	-0.001	94	115597	50.0	45.3	
102 trans-1,4-Dichloro-2-buten	53	11.748	11.743	0.005	73	33037	50.0	39.0	
101 1,2,3-Trichloropropane	110	11.760	11.768	-0.008	88	37001	50.0	44.2	
103 N-Propylbenzene	120	11.815	11.816	-0.001	99	140594	50.0	46.3	
104 2-Chlorotoluene	126	11.900	11.901	-0.001	96	120246	50.0	46.2	
105 3-Chlorotoluene	126	11.967	11.968	-0.001	96	122986	50.0	46.5	

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	11.998	11.999	-0.001	95	398014	50.0	46.6	
107 4-Chlorotoluene	126	12.028	12.023	0.005	98	130856	50.0	47.6	
108 tert-Butylbenzene	119	12.308	12.315	-0.007	94	310608	50.0	42.5	
110 1,2,4-Trimethylbenzene	105	12.369	12.370	-0.001	98	395014	50.0	46.4	
111 1,2-dichloro-4-(trifluorom	214	12.411	12.412	-0.001	98	123020	50.0	53.7	
112 sec-Butylbenzene	105	12.533	12.534	-0.001	95	477407	50.0	46.3	
113 1,3-Dichlorobenzene	146	12.655	12.656	-0.001	97	210917	50.0	47.3	
114 4-Isopropyltoluene	119	12.691	12.692	-0.001	97	386175	50.0	45.8	
115 1,4-Dichlorobenzene	146	12.758	12.759	-0.001	95	214926	50.0	47.1	
116 2,4-Dichloro-1-(triflourom	214	12.782	12.784	-0.002	96	112224	50.0	52.6	
118 2,5-Dichlorobenzotrifluori	214	12.825	12.826	-0.001	0	128903	50.0	55.1	
120 n-Butylbenzene	91	13.099	13.100	-0.001	99	325361	50.0	44.9	
121 1,2-Dichlorobenzene	146	13.111	13.112	-0.001	95	198684	50.0	48.1	
122 1,2-Dibromo-3-Chloropropan	75	13.902	13.909	-0.007	77	14279	50.0	34.8	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.048	14.049	-0.001	0	330682	150.0	125.9	
125 2,3- & 3,4- Dichlorotoluen	125	14.461	14.463	-0.002	0	197352	100.0	80.1	
126 1,2,4-Trichlorobenzene	180	14.729	14.724	0.005	94	74328	50.0	43.3	
127 Hexachlorobutadiene	225	14.869	14.876	-0.007	95	43836	50.0	54.8	
128 Naphthalene	128	14.991	14.992	-0.001	97	166391	50.0	35.0	
129 1,2,3-Trichlorobenzene	180	15.216	15.217	-0.001	94	55317	50.0	41.4	
131 2,4,5-Trichlorotoluene	159	15.995	15.990	0.004	0	16813	50.0	27.8	
130 2,3,6-Trichlorotoluene	159	16.092	16.093	-0.001	89	17559	50.0	32.2	
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	95.0	
S 134 1,2-Dichloroethene, Total	96				0		100.0	98.4	
S 135 1,3-Dichloropropene, Total	1				0		100.0	79.3	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOA8260VOA2ND_00124	Amount Added:	2.00	Units: uL	
voaWeemix2nd_00001	Amount Added:	2.00	Units: uL	
voaWVA1st Res_00001	Amount Added:	2.00	Units: uL	
VOACEVEPRI_00008	Amount Added:	2.00	Units: uL	
voaWketPri Re_00005	Amount Added:	2.00	Units: uL	
voaWacro2 Res_00003	Amount Added:	6.00	Units: uL	
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent

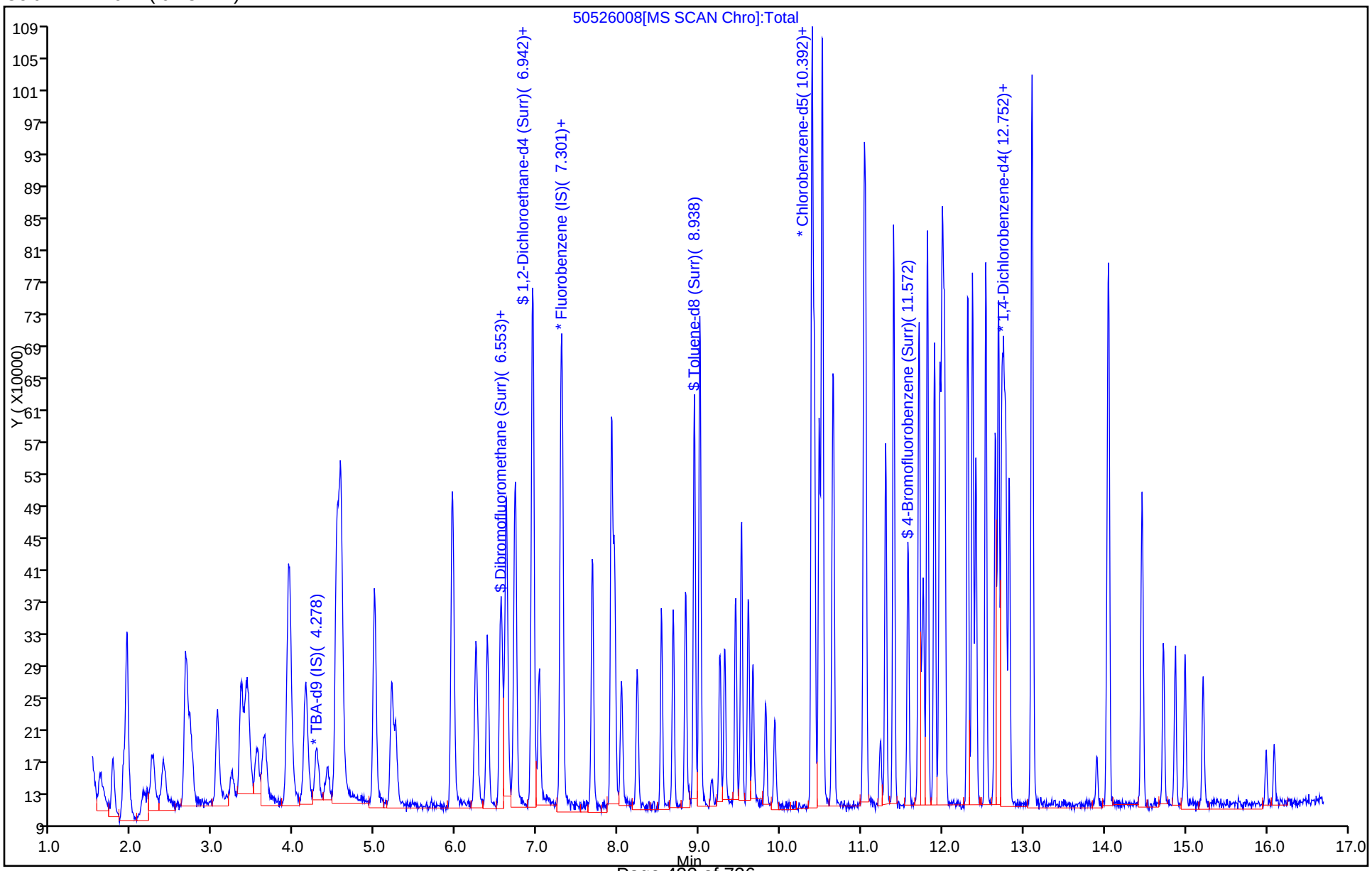
Report Date: 26-May-2015 14:58:34 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526008.D

Injection Date:	26-May-2015 13:29:30	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#:	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.: 180-44203-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-142864/12

Matrix: Water | Lab File ID: 50527012.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/27/2015 14:50

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 142864 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	7.14		1.0	0.28
75-01-4	Vinyl chloride	7.78		1.0	0.23
74-83-9	Bromomethane	9.36		1.0	0.31
75-00-3	Chloroethane	10.1		1.0	0.21
75-35-4	1,1-Dichloroethene	11.3		1.0	0.30
67-64-1	Acetone	18.7		5.0	2.5
75-15-0	Carbon disulfide	8.26		1.0	0.21
75-09-2	Methylene Chloride	11.8		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	10.8		1.0	0.17
1634-04-4	Methyl tert-butyl ether	8.31		1.0	0.18
75-34-3	1,1-Dichloroethane	10.3		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	10.1		1.0	0.24
74-97-5	Bromochloromethane	9.62		1.0	0.18
78-93-3	2-Butanone (MEK)	17.8		5.0	0.55
67-66-3	Chloroform	10.1		1.0	0.17
71-55-6	1,1,1-Trichloroethane	9.92		1.0	0.29
56-23-5	Carbon tetrachloride	9.16		1.0	0.14
71-43-2	Benzene	10.7		1.0	0.11
107-06-2	1,2-Dichloroethane	10.2		1.0	0.21
79-01-6	Trichloroethene	9.05		1.0	0.14
78-87-5	1,2-Dichloropropane	9.65		1.0	0.095
75-27-4	Bromodichloromethane	8.44		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	7.99		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	16.7		5.0	0.53
108-88-3	Toluene	11.5		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	8.12		1.0	0.15
79-00-5	1,1,2-Trichloroethane	10.8		1.0	0.20
127-18-4	Tetrachloroethene	11.6		1.0	0.15
591-78-6	2-Hexanone	16.5		5.0	0.16
124-48-1	Dibromochloromethane	7.98		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	9.96		1.0	0.18
108-90-7	Chlorobenzene	10.6		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	9.46		1.0	0.28
100-41-4	Ethylbenzene	9.93		1.0	0.23
1330-20-7	Xylenes, Total	19.4		3.0	0.49
100-42-5	Styrene	10.2		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44203-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-142864/12

Matrix: Water | Lab File ID: 50527012.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 05/27/2015 14:50

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 142864 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	6.67		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	10.4		1.0	0.20
107-13-1	Acrylonitrile	99.9		20	0.55
123-91-1	1,4-Dioxane	167	J	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		64-135
2037-26-5	Toluene-d8 (Surr)	101		71-118
460-00-4	4-Bromofluorobenzene (Surr)	93		70-118
1868-53-7	Dibromofluoromethane (Surr)	90		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527012.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 27-May-2015 14:50:30 ALS Bottle#: 9 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: LCS
Misc. Info.: 180-0007136-012
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 27-May-2015 15:09:03 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK006

First Level Reviewer: fergusond Date: 27-May-2015 15:09:09

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.275	4.274	0.001	0	124287	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.292	7.292	0.000	98	449752	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.389	10.388	0.001	87	97252	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.731	12.730	0.001	94	138873	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.562	6.561	0.001	94	87647	50.0	45.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.933	6.933	0.000	0	112911	50.0	46.7	
$ 7 Toluene-d8 (Surr)	98	8.935	8.934	0.001	93	364996	50.0	50.5	
$ 8 4-Bromofluorobenzene (Surr	95	11.569	11.574	-0.005	88	120345	50.0	46.4	
11 Dichlorodifluoromethane	85	1.610	1.622	-0.012	99	127533	50.0	41.0	
12 Chloromethane	50	1.768	1.768	0.000	99	141295	50.0	35.7	
13 Vinyl chloride	62	1.902	1.908	-0.006	98	138786	50.0	38.9	
14 Butadiene	39	1.945	1.938	0.007	99	164538	50.0	40.0	
15 Bromomethane	94	2.261	2.273	-0.012	93	76548	50.0	46.8	
16 Chloroethane	64	2.395	2.413	-0.018	99	95423	50.0	50.5	
17 Dichlorofluoromethane	67	2.675	2.674	0.001	98	229501	50.0	53.7	
18 Trichlorofluoromethane	101	2.699	2.723	-0.024	97	184562	50.0	45.8	
20 Ethyl ether	59	3.052	3.051	0.001	93	117900	50.0	51.8	
21 Acrolein	56	3.222	3.228	-0.006	98	63551	150.0	167.5	
22 1,1-Dichloroethene	96	3.344	3.343	0.001	99	121325	50.0	56.3	
23 1,1,2-Trichloro-1,2,2-trif	101	3.429	3.416	0.013	92	128815	50.0	57.1	
24 Acetone	43	3.441	3.441	0.000	84	83123	100.0	93.7	
25 Iodomethane	142	3.533	3.532	0.001	97	173559	50.0	52.6	
26 Carbon disulfide	76	3.630	3.629	0.001	100	237032	50.0	41.3	
28 3-Chloro-1-propene	76	3.922	3.915	0.007	90	62755	50.0	43.8	
30 Methyl acetate	43	3.946	3.946	0.000	98	546836	250.0	259.6	
31 Methylene Chloride	84	4.135	4.140	-0.005	96	147357	50.0	59.1	
32 2-Methyl-2-propanol	59	4.409	4.414	-0.005	89	61574	500.0	443.2	
33 Acrylonitrile	53	4.524	4.524	0.000	99	531174	500.0	499.4	
34 trans-1,2-Dichloroethene	96	4.567	4.566	0.001	99	128649	50.0	54.0	
35 Methyl tert-butyl ether	73	4.579	4.584	-0.005	95	273020	50.0	41.5	
36 Hexane	57	4.987	4.992	-0.005	95	191558	50.0	51.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.206	5.205	0.001	97	231013	50.0	51.3	
38 Vinyl acetate	43	5.248	5.254	-0.006	97	168579	50.0	33.3	
44 2,2-Dichloropropane	77	5.948	5.947	0.001	58	92465	50.0	40.5	
45 cis-1,2-Dichloroethene	96	5.954	5.953	0.001	82	133080	50.0	50.5	
46 2-Butanone (MEK)	43	5.960	5.959	0.001	75	120129	100.0	89.2	
49 Chlorobromomethane	128	6.240	6.233	0.007	95	56456	50.0	48.1	
51 Tetrahydrofuran	42	6.252	6.251	0.001	94	77390	100.0	84.5	
52 Chloroform	83	6.380	6.379	0.001	95	204647	50.0	50.7	
53 1,1,1-Trichloroethane	97	6.544	6.543	0.001	97	154925	50.0	49.6	
54 Cyclohexane	56	6.611	6.616	-0.005	94	234410	50.0	49.5	
56 Carbon tetrachloride	117	6.720	6.714	0.006	96	129042	50.0	45.8	
55 1,1-Dichloropropene	75	6.726	6.726	0.000	93	175522	50.0	53.3	
57 Isobutyl alcohol	41	6.927	6.926	0.001	45	85027	1250.0	1013.5	
58 Benzene	78	6.945	6.945	0.000	97	536675	50.0	53.5	
59 1,2-Dichloroethane	62	7.018	7.024	-0.006	95	152843	50.0	51.1	
62 n-Heptane	43	7.304	7.310	-0.006	93	165782	50.0	49.6	
64 Trichloroethene	130	7.676	7.681	-0.005	96	116251	50.0	45.3	
66 Methylcyclohexane	83	7.919	7.918	0.001	94	202020	50.0	47.7	
67 1,2-Dichloropropane	63	7.949	7.949	0.000	95	125643	50.0	48.3	
70 1,4-Dioxane	88	8.034	8.034	0.000	35	16616	1000.0	836.5	M
68 Dibromomethane	93	8.034	8.040	-0.006	96	65125	50.0	49.0	
71 Dichlorobromomethane	83	8.229	8.234	-0.005	98	122375	50.0	42.2	
73 2-Chloroethyl vinyl ether	63	8.533	8.533	0.000	93	118916	100.0	80.0	
74 cis-1,3-Dichloropropene	75	8.679	8.672	0.007	92	147186	50.0	39.9	
75 4-Methyl-2-pentanone (MIBK	43	8.825	8.825	0.000	99	209854	100.0	83.6	
76 Toluene	91	9.008	9.007	0.001	97	533253	50.0	57.5	
77 trans-1,3-Dichloropropene	75	9.251	9.250	0.001	97	114047	50.0	40.6	
78 Ethyl methacrylate	69	9.312	9.311	0.001	91	114753	50.0	41.0	
79 1,1,2-Trichloroethane	97	9.446	9.445	0.001	93	94919	50.0	54.2	
80 Tetrachloroethene	164	9.519	9.518	0.001	95	101035	50.0	57.9	
81 1,3-Dichloropropane	76	9.604	9.603	0.001	96	169157	50.0	51.1	
82 2-Hexanone	43	9.659	9.658	0.001	99	147055	100.0	82.4	
84 Chlorodibromomethane	129	9.817	9.822	-0.005	90	68607	50.0	39.9	
85 Ethylene Dibromide	107	9.926	9.932	-0.006	96	89623	50.0	49.8	
86 3-Chlorobenzotrifluoride	180	10.389	10.388	0.001	82	145615	50.0	46.1	
87 Chlorobenzene	112	10.419	10.418	0.001	94	317391	50.0	52.9	
88 4-Chlorobenzotrifluoride	180	10.480	10.479	0.001	96	143759	50.0	49.3	
89 1,1,1,2-Tetrachloroethane	131	10.510	10.510	0.000	92	95303	50.0	47.3	
90 Ethylbenzene	106	10.516	10.516	0.000	99	173518	50.0	49.7	
91 m-Xylene & p-Xylene	106	10.644	10.650	-0.006	0	208977	50.0	49.4	
92 o-Xylene	106	11.027	11.027	0.000	98	197958	50.0	47.4	
93 Styrene	104	11.052	11.051	0.001	96	334938	50.0	50.9	
94 Bromoform	173	11.228	11.234	-0.006	94	36887	50.0	33.3	
96 2-Chlorobenzotrifluoride	180	11.301	11.301	0.001	97	146375	50.0	46.8	
97 Isopropylbenzene	105	11.399	11.398	0.001	97	497998	50.0	48.9	
99 1,1,2,2-Tetrachloroethane	83	11.703	11.708	-0.005	90	128346	50.0	51.9	
100 Bromobenzene	156	11.709	11.714	-0.005	94	118071	50.0	46.0	
102 trans-1,4-Dichloro-2-buten	53	11.745	11.745	0.000	81	33228	50.0	39.0	
101 1,2,3-Trichloropropane	110	11.764	11.769	-0.005	87	43137	50.0	51.2	
103 N-Propylbenzene	120	11.812	11.812	0.000	99	148450	50.0	48.6	
104 2-Chlorotoluene	126	11.904	11.903	0.001	95	120251	50.0	45.9	
105 3-Chlorotoluene	126	11.964	11.970	-0.006	95	114482	50.0	43.0	

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	11.995	12.000	-0.005	94	411504	50.0	47.9	
107 4-Chlorotoluene	126	12.019	12.024	-0.005	98	134287	50.0	48.6	
108 tert-Butylbenzene	119	12.311	12.310	0.001	95	322921	50.0	43.9	
110 1,2,4-Trimethylbenzene	105	12.366	12.371	-0.005	98	402375	50.0	46.9	
111 1,2-dichloro-4-(trifluorom	214	12.415	12.414	0.001	98	106265	50.0	46.1	
112 sec-Butylbenzene	105	12.530	12.535	-0.005	95	480039	50.0	46.3	
113 1,3-Dichlorobenzene	146	12.652	12.651	0.001	98	213299	50.0	47.6	
114 4-Isopropyltoluene	119	12.688	12.688	0.000	96	384310	50.0	45.3	
115 1,4-Dichlorobenzene	146	12.755	12.754	0.001	96	214470	50.0	46.7	
116 2,4-Dichloro-1-(triflourom	214	12.780	12.785	-0.005	95	100744	50.0	46.9	
118 2,5-Dichlorobenzotrifluori	214	12.822	12.821	0.001	0	105775	50.0	44.9	
120 n-Butylbenzene	91	13.102	13.101	0.001	98	332475	50.0	45.6	
121 1,2-Dichlorobenzene	146	13.108	13.113	-0.005	95	199548	50.0	48.1	
122 1,2-Dibromo-3-Chloropropan	75	13.899	13.898	0.001	74	14806	50.0	35.8	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.045	14.044	0.001	0	295991	150.0	112.0	
125 2,3- & 3,4- Dichlorotoluen	125	14.465	14.464	0.001	0	180993	100.0	73.0	
126 1,2,4-Trichlorobenzene	180	14.726	14.726	0.000	94	72788	50.0	42.1	
127 Hexachlorobutadiene	225	14.872	14.872	0.000	95	42331	50.0	52.6	
128 Naphthalene	128	14.994	14.993	0.001	98	170535	50.0	35.6	
129 1,2,3-Trichlorobenzene	180	15.213	15.212	0.001	94	57996	50.0	43.1	
131 2,4,5-Trichlorotoluene	159	15.992	15.991	0.001	0	15294	50.0	25.1	
130 2,3,6-Trichlorotoluene	159	16.095	16.094	0.001	92	15001	50.0	27.3	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	104.4	
S 133 Xylenes, Total	106				0		100.0	96.8	
S 135 1,3-Dichloropropene, Total	1				0		100.0	80.5	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOA2ND_00124	Amount Added:	2.00	Units: uL		
voaWeemix2nd_00001	Amount Added:	2.00	Units: uL		
VOACEVEPRI_00008	Amount Added:	2.00	Units: uL		
voaWketPri Re_00005	Amount Added:	2.00	Units: uL		
voaWVA1st Res_00001	Amount Added:	2.00	Units: uL		
voaWacro2 Res_00003	Amount Added:	6.00	Units: uL		
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent	
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent	

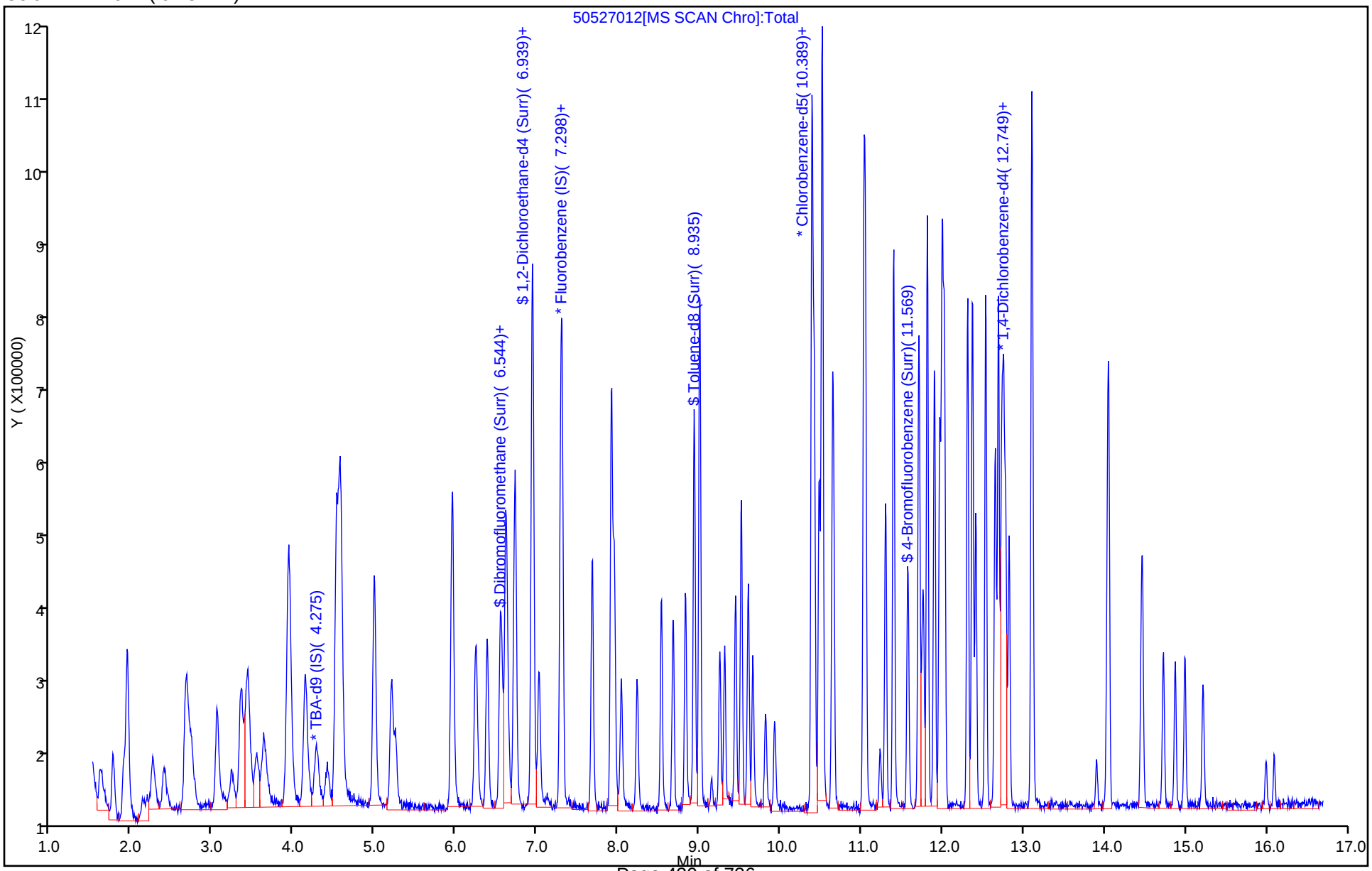
Report Date: 27-May-2015 15:09:10 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527012.D

Injection Date:	27-May-2015 14:50:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	LCS			Worklist Smp#:	12
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



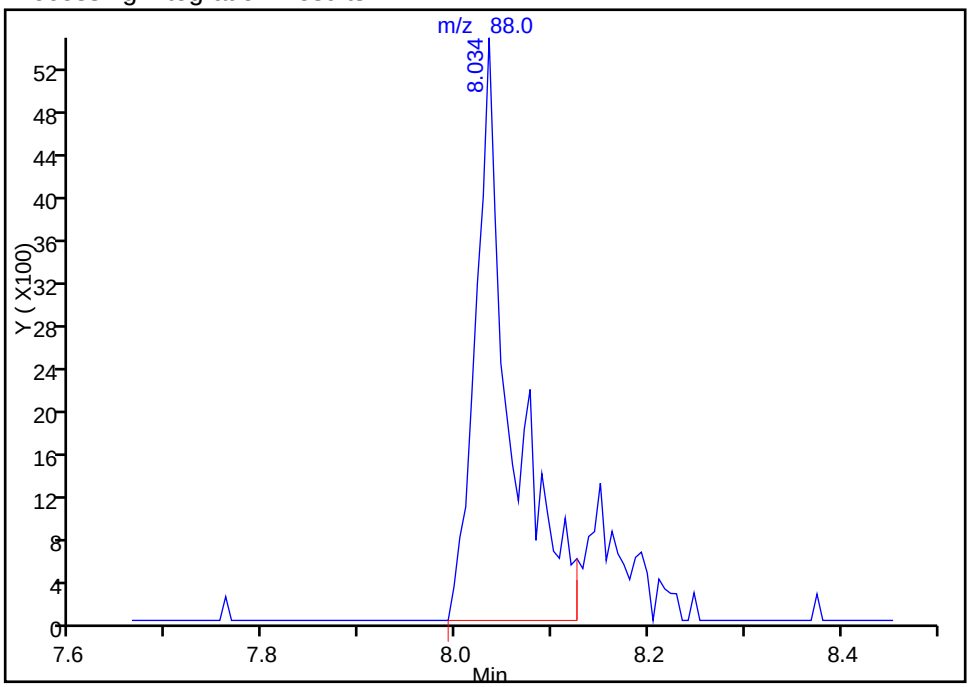
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150527-7136.b\50527012.D
Injection Date: 27-May-2015 14:50:30 Instrument ID: CHHP5
Lims ID: LCS
Client ID:
Operator ID: 001562 ALS Bottle#: 9 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP5 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

70 1,4-Dioxane, CAS: 123-91-1

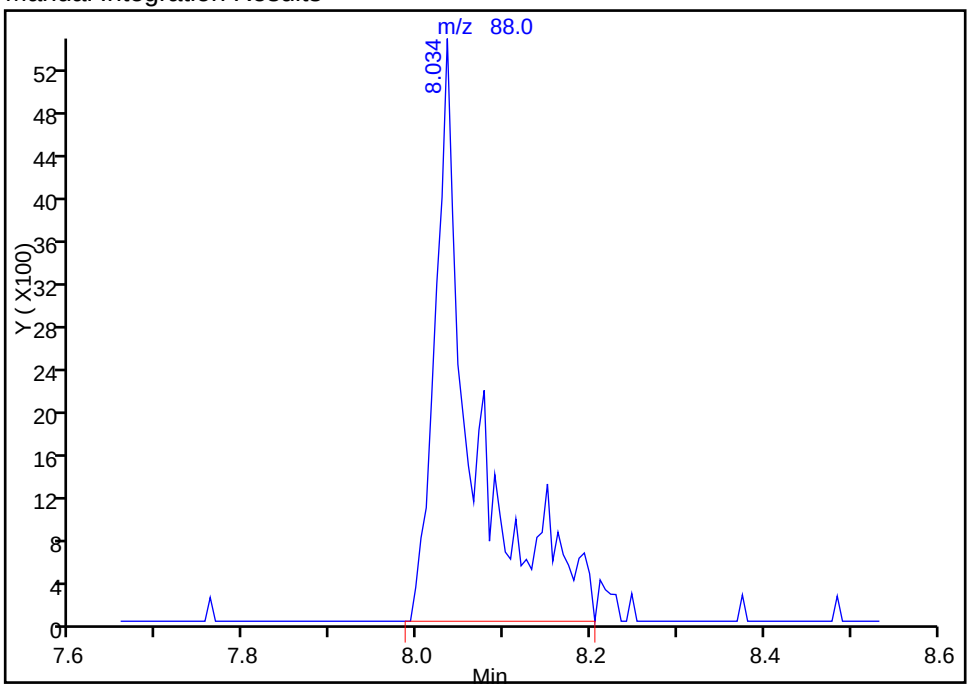
Processing Integration Results

RT: 8.03
Area: 13722
Amount: 690.8403
Amount Units: ng



Manual Integration Results

RT: 8.03
Area: 16616
Amount: 836.5400
Amount Units: ng



Reviewer: fergusond, 27-May-2015 15:09:09
Audit Action: Manually Integrated
Audit Reason: Peak Tail

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44203-1

SDG No.:

Client Sample ID: HD-MW-99S-0/1-0 MS | Lab Sample ID: 180-44203-3 MS

Matrix: Water | Lab File ID: 50526010.D

Analysis Method: 8260C | Date Collected: 05/18/2015 09:55

Sample wt/vol: 5(mL) | Date Analyzed: 05/26/2015 14:31

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 142745 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	6.51		1.0	0.28
75-01-4	Vinyl chloride	7.60		1.0	0.23
74-83-9	Bromomethane	9.60		1.0	0.31
75-00-3	Chloroethane	10.1		1.0	0.21
75-35-4	1,1-Dichloroethene	12.1		1.0	0.30
67-64-1	Acetone	20.1		5.0	2.5
75-15-0	Carbon disulfide	8.26		1.0	0.21
75-09-2	Methylene Chloride	11.0		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	10.7		1.0	0.17
1634-04-4	Methyl tert-butyl ether	8.23		1.0	0.18
75-34-3	1,1-Dichloroethane	10.6		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	34.5		1.0	0.24
74-97-5	Bromochloromethane	9.73		1.0	0.18
78-93-3	2-Butanone (MEK)	18.7		5.0	0.55
67-66-3	Chloroform	10.2		1.0	0.17
71-55-6	1,1,1-Trichloroethane	12.9		1.0	0.29
56-23-5	Carbon tetrachloride	9.45		1.0	0.14
71-43-2	Benzene	10.4		1.0	0.11
107-06-2	1,2-Dichloroethane	10.3		1.0	0.21
79-01-6	Trichloroethene	31.2		1.0	0.14
78-87-5	1,2-Dichloropropane	9.89		1.0	0.095
75-27-4	Bromodichloromethane	9.10		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	7.66		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	17.5		5.0	0.53
108-88-3	Toluene	11.3		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	8.30		1.0	0.15
79-00-5	1,1,2-Trichloroethane	11.2		1.0	0.20
127-18-4	Tetrachloroethene	29.7		1.0	0.15
591-78-6	2-Hexanone	16.5		5.0	0.16
124-48-1	Dibromochloromethane	8.80		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	9.94		1.0	0.18
108-90-7	Chlorobenzene	10.7		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	10.1		1.0	0.28
100-41-4	Ethylbenzene	9.99		1.0	0.23
1330-20-7	Xylenes, Total	20.0		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.: 180-44203-1

SDG No.:

Client Sample ID: HD-MW-99S-0/1-0 MS | Lab Sample ID: 180-44203-3 MS

Matrix: Water | Lab File ID: 50526010.D

Analysis Method: 8260C | Date Collected: 05/18/2015 09:55

Sample wt/vol: 5(mL) | Date Analyzed: 05/26/2015 14:31

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 142745 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	7.97		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	10.3		1.0	0.20
107-13-1	Acrylonitrile	96.9		20	0.55
123-91-1	1,4-Dioxane	161	J	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		64-135
2037-26-5	Toluene-d8 (Surr)	104		71-118
460-00-4	4-Bromofluorobenzene (Surr)	100		70-118
1868-53-7	Dibromofluoromethane (Surr)	98		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526010.D
Lims ID: 180-44203-D-3 MS
Client ID: HD-MW-99S-0/1-0
Sample Type: MS
Inject. Date: 26-May-2015 14:31:30 ALS Bottle#: 10 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-44203-D-3 MS
Misc. Info.: 180-0007112-010
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 26-May-2015 15:00:58 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: fergusond Date: 26-May-2015 15:02:21

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	4.259	0.021	0	112220	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.292	7.295	-0.003	98	443165	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.394	10.391	0.003	86	96264	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.730	12.733	-0.003	94	133551	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.562	6.560	0.002	94	93244	50.0	48.8	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.933	6.937	-0.004	0	116283	50.0	48.8	
$ 7 Toluene-d8 (Surr)	98	8.934	8.939	-0.005	94	372999	50.0	52.2	
$ 8 4-Bromofluorobenzene (Surr	95	11.574	11.573	0.001	87	127897	50.0	49.8	
11 Dichlorodifluoromethane	85	1.616	1.608	0.008	99	102008	50.0	33.3	
12 Chloromethane	50	1.762	1.766	-0.004	99	126802	50.0	32.5	
13 Vinyl chloride	62	1.902	1.900	0.002	98	133534	50.0	38.0	
14 Butadiene	39	1.944	1.937	0.007	97	164740	50.0	40.7	
15 Bromomethane	94	2.261	2.247	0.014	93	77359	50.0	48.0	
16 Chloroethane	64	2.395	2.399	-0.004	98	94242	50.0	50.6	
17 Dichlorofluoromethane	67	2.668	2.667	0.001	97	224397	50.0	53.3	
18 Trichlorofluoromethane	101	2.705	2.703	0.002	92	182480	50.0	46.0	
20 Ethyl ether	59	3.045	3.050	-0.005	92	110976	50.0	49.5	
21 Acrolein	56	3.234	3.226	0.008	99	60858	150.0	162.8	
22 1,1-Dichloroethene	96	3.337	3.348	-0.011	98	128119	50.0	60.3	
23 1,1,2-Trichloro-1,2,2-trif	101	3.423	3.421	0.002	93	116888	50.0	52.6	
24 Acetone	43	3.441	3.439	0.002	99	87761	100.0	100.4	
25 Iodomethane	142	3.532	3.537	-0.005	98	165389	50.0	50.8	
26 Carbon disulfide	76	3.629	3.628	0.001	99	233581	50.0	41.3	
28 3-Chloro-1-propene	76	3.921	3.920	0.001	88	61898	50.0	43.8	
30 Methyl acetate	43	3.940	3.938	0.002	98	515341	250.0	248.3	
31 Methylene Chloride	84	4.140	4.139	0.001	98	135785	50.0	55.0	
32 2-Methyl-2-propanol	59	4.408	4.413	-0.005	88	64163	500.0	511.5	
33 Acrylonitrile	53	4.524	4.522	0.002	99	507709	500.0	484.4	
34 trans-1,2-Dichloroethene	96	4.566	4.565	0.001	98	125922	50.0	53.6	
35 Methyl tert-butyl ether	73	4.578	4.577	0.001	96	266617	50.0	41.2	
36 Hexane	57	4.986	4.991	-0.005	96	185807	50.0	50.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.205	5.197	0.008	97	236131	50.0	53.2	
38 Vinyl acetate	43	5.254	5.246	0.008	97	184171	50.0	36.9	
44 2,2-Dichloropropane	77	5.947	5.946	0.001	79	92868	50.0	41.3	
45 cis-1,2-Dichloroethene	96	5.953	5.946	0.007	81	448459	50.0	172.6	
46 2-Butanone (MEK)	43	5.966	5.964	0.002	43	123879	100.0	93.3	
49 Chlorobromomethane	128	6.233	6.238	-0.005	96	56285	50.0	48.6	
51 Tetrahydrofuran	42	6.258	6.256	0.002	91	76432	100.0	84.7	
52 Chloroform	83	6.379	6.384	-0.005	97	201881	50.0	50.8	
53 1,1,1-Trichloroethane	97	6.543	6.542	0.001	98	198417	50.0	64.4	
54 Cyclohexane	56	6.616	6.615	0.001	94	226545	50.0	48.6	
56 Carbon tetrachloride	117	6.720	6.712	0.008	94	131077	50.0	47.2	
55 1,1-Dichloropropene	75	6.732	6.731	0.002	93	165838	50.0	51.1	
57 Isobutyl alcohol	41	6.927	6.931	-0.004	76	82021	1250.0	992.2	
58 Benzene	78	6.945	6.943	0.002	97	515497	50.0	52.2	
59 1,2-Dichloroethane	62	7.018	7.023	-0.005	96	151509	50.0	51.4	
62 n-Heptane	43	7.310	7.308	0.002	93	161167	50.0	49.0	
64 Trichloroethene	130	7.681	7.680	0.001	98	395217	50.0	156.1	
66 Methylcyclohexane	83	7.918	7.917	0.001	94	196960	50.0	47.2	
67 1,2-Dichloropropane	63	7.955	7.947	0.008	95	126804	50.0	49.4	
70 1,4-Dioxane	88	8.028	8.032	-0.004	35	15799	1000.0	807.2	
68 Dibromomethane	93	8.034	8.032	0.002	97	66480	50.0	50.7	
71 Dichlorobromomethane	83	8.235	8.233	0.002	98	130018	50.0	45.5	
74 cis-1,3-Dichloropropene	75	8.673	8.677	-0.004	93	139033	50.0	38.3	
75 4-Methyl-2-pentanone (MIBK	43	8.825	8.829	-0.004	98	217141	100.0	87.4	
76 Toluene	91	9.007	9.006	0.001	99	517742	50.0	56.4	
77 trans-1,3-Dichloropropene	75	9.251	9.255	-0.004	97	115422	50.0	41.5	
78 Ethyl methacrylate	69	9.311	9.310	0.001	91	114029	50.0	41.2	
79 1,1,2-Trichloroethane	97	9.445	9.450	-0.005	91	96968	50.0	56.0	
80 Tetrachloroethene	164	9.518	9.517	0.001	97	256176	50.0	148.4	
81 1,3-Dichloropropane	76	9.603	9.608	-0.005	94	173110	50.0	52.8	
82 2-Hexanone	43	9.658	9.657	0.001	98	145950	100.0	82.6	
84 Chlorodibromomethane	129	9.816	9.815	0.001	89	74845	50.0	44.0	
85 Ethylene Dibromide	107	9.926	9.930	-0.004	99	88513	50.0	49.7	
86 3-Chlorobenzotrifluoride	180	10.388	10.393	-0.005	86	171583	50.0	54.9	
87 Chlorobenzene	112	10.419	10.423	-0.004	94	317878	50.0	53.5	
88 4-Chlorobenzotrifluoride	180	10.479	10.478	0.001	97	161269	50.0	55.9	
89 1,1,1,2-Tetrachloroethane	131	10.510	10.514	-0.004	93	100243	50.0	50.3	
90 Ethylbenzene	106	10.516	10.521	-0.004	99	172753	50.0	50.0	
91 m-Xylene & p-Xylene	106	10.650	10.654	-0.004	0	214839	50.0	51.3	
92 o-Xylene	106	11.033	11.032	0.001	97	199659	50.0	48.3	
93 Styrene	104	11.051	11.050	0.001	95	330649	50.0	50.7	
94 Bromoform	173	11.228	11.232	-0.004	95	43649	50.0	39.9	
96 2-Chlorobenzotrifluoride	180	11.301	11.299	0.002	97	164187	50.0	53.1	
97 Isopropylbenzene	105	11.398	11.403	-0.005	96	510566	50.0	50.6	
99 1,1,2,2-Tetrachloroethane	83	11.708	11.713	-0.005	78	126160	50.0	51.5	
100 Bromobenzene	156	11.708	11.713	-0.005	93	118902	50.0	48.2	
102 trans-1,4-Dichloro-2-buten	53	11.745	11.743	0.002	74	32954	50.0	40.2	
101 1,2,3-Trichloropropane	110	11.769	11.768	0.001	87	40248	50.0	49.7	
103 N-Propylbenzene	120	11.812	11.816	-0.004	99	146320	50.0	49.8	
104 2-Chlorotoluene	126	11.903	11.901	0.002	96	122238	50.0	48.5	
105 3-Chlorotoluene	126	11.964	11.968	-0.004	95	127474	50.0	49.8	
106 1,3,5-Trimethylbenzene	105	11.994	11.999	-0.005	95	415172	50.0	50.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
107 4-Chlorotoluene	126	12.025	12.023	0.002	98	136095	50.0	51.2	
108 tert-Butylbenzene	119	12.311	12.315	-0.004	94	332734	50.0	47.1	
110 1,2,4-Trimethylbenzene	105	12.371	12.370	0.001	98	397211	50.0	48.2	
111 1,2-dichloro-4-(trifluorom	214	12.414	12.412	0.002	98	121022	50.0	54.5	
112 sec-Butylbenzene	105	12.536	12.534	0.002	95	493922	50.0	49.5	
113 1,3-Dichlorobenzene	146	12.651	12.656	-0.005	98	213786	50.0	49.6	
114 4-Isopropyltoluene	119	12.688	12.692	-0.004	96	393439	50.0	48.2	
115 1,4-Dichlorobenzene	146	12.761	12.759	0.002	94	221559	50.0	50.1	
116 2,4-Dichloro-1-(triflourom	214	12.779	12.784	-0.005	97	111310	50.0	53.9	
118 2,5-Dichlorobenzotrifluori	214	12.822	12.826	-0.004	0	122905	50.0	54.3	
120 n-Butylbenzene	91	13.101	13.100	0.001	98	343151	50.0	48.9	
121 1,2-Dichlorobenzene	146	13.114	13.112	0.002	96	199054	50.0	49.8	
122 1,2-Dibromo-3-Chloropropan	75	13.898	13.909	-0.011	75	14557	50.0	36.6	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.044	14.049	-0.005	0	327295	150.0	128.7	
125 2,3- & 3,4- Dichlorotoluen	125	14.464	14.463	0.001	0	192836	100.0	80.8	
126 1,2,4-Trichlorobenzene	180	14.726	14.724	0.002	93	71002	50.0	42.7	
127 Hexachlorobutadiene	225	14.872	14.876	-0.004	94	41671	50.0	53.8	
128 Naphthalene	128	14.993	14.992	0.001	97	164305	50.0	35.7	
129 1,2,3-Trichlorobenzene	180	15.212	15.217	-0.005	93	57763	50.0	44.7	
131 2,4,5-Trichlorotoluene	159	15.991	15.990	0.001	0	16449	50.0	28.1	
130 2,3,6-Trichlorotoluene	159	16.088	16.093	-0.005	95	17205	50.0	32.6	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	226.2	
S 133 Xylenes, Total	106				0		100.0	99.6	
S 135 1,3-Dichloropropene, Total	1				0		100.0	79.8	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOA8260VOA2ND_00124	Amount Added:	2.00	Units: uL	
voaWeemix2nd_00001	Amount Added:	2.00	Units: uL	
voaWVA1st Res_00001	Amount Added:	2.00	Units: uL	
voaWketPri Re_00005	Amount Added:	2.00	Units: uL	
voaWacro2 Res_00003	Amount Added:	6.00	Units: uL	
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent

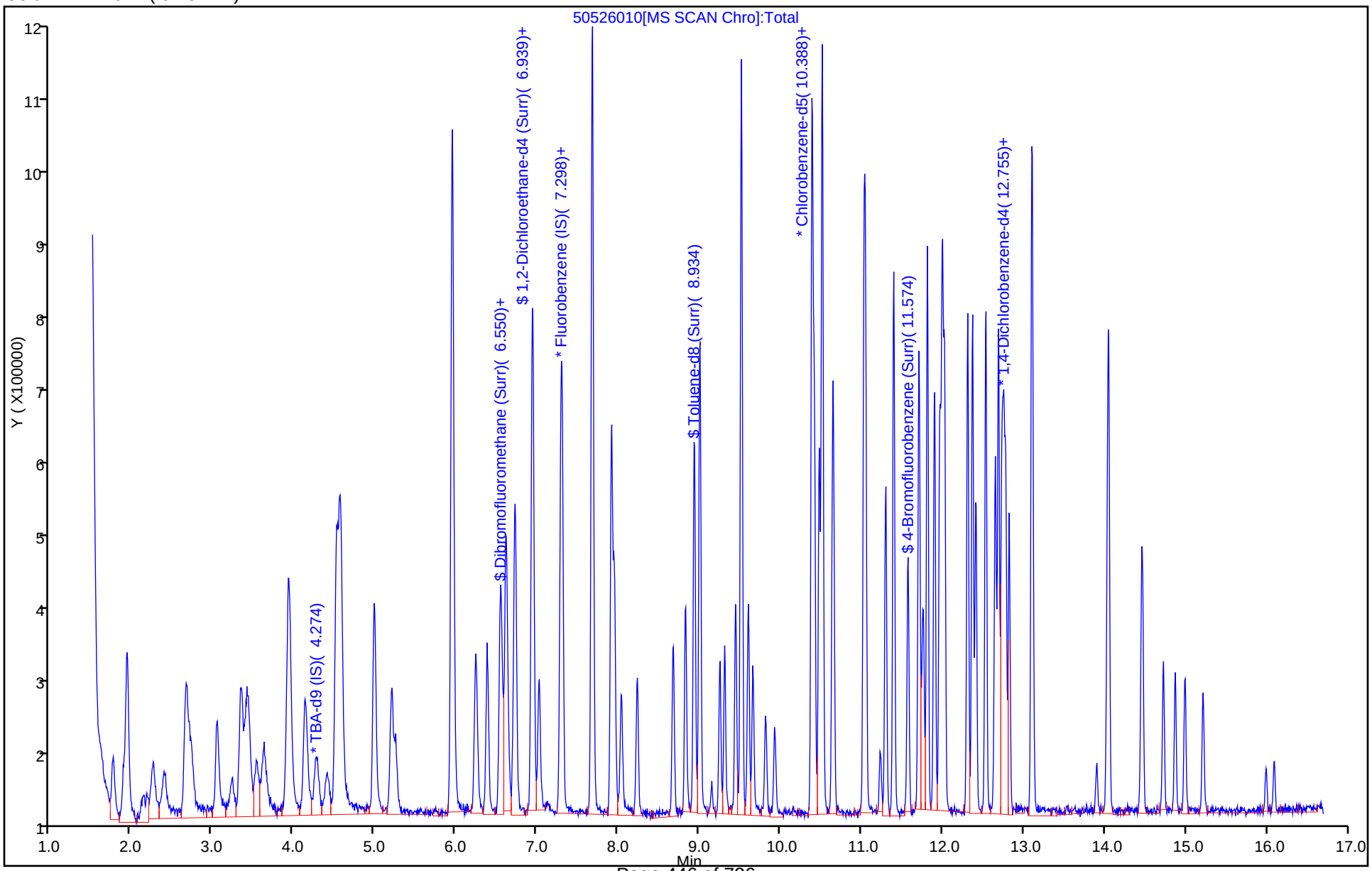
Report Date: 26-May-2015 15:02:21 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526010.D

Injection Date:	26-May-2015 14:31:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-44203-D-3 MS			Worklist Smp#:	10
Client ID:	HD-MW-99S-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44203-1

SDG No.:

Client Sample ID: HD-MW-99S-0/1-0 MSD | Lab Sample ID: 180-44203-3 MSD

Matrix: Water | Lab File ID: 50526011.D

Analysis Method: 8260C | Date Collected: 05/18/2015 09:55

Sample wt/vol: 5(mL) | Date Analyzed: 05/26/2015 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.: 142745 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	6.24		1.0	0.28
75-01-4	Vinyl chloride	7.43		1.0	0.23
74-83-9	Bromomethane	9.32		1.0	0.31
75-00-3	Chloroethane	9.84		1.0	0.21
75-35-4	1,1-Dichloroethene	11.6		1.0	0.30
67-64-1	Acetone	19.5		5.0	2.5
75-15-0	Carbon disulfide	7.95		1.0	0.21
75-09-2	Methylene Chloride	11.4		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	10.6		1.0	0.17
1634-04-4	Methyl tert-butyl ether	8.67		1.0	0.18
75-34-3	1,1-Dichloroethane	10.7		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	34.4		1.0	0.24
74-97-5	Bromochloromethane	9.39		1.0	0.18
78-93-3	2-Butanone (MEK)	18.7		5.0	0.55
67-66-3	Chloroform	10.5		1.0	0.17
71-55-6	1,1,1-Trichloroethane	12.3		1.0	0.29
56-23-5	Carbon tetrachloride	9.18		1.0	0.14
71-43-2	Benzene	10.4		1.0	0.11
107-06-2	1,2-Dichloroethane	10.3		1.0	0.21
79-01-6	Trichloroethene	30.8		1.0	0.14
78-87-5	1,2-Dichloropropane	10.0		1.0	0.095
75-27-4	Bromodichloromethane	8.86		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	8.10		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	18.9		5.0	0.53
108-88-3	Toluene	11.6		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	8.63		1.0	0.15
79-00-5	1,1,2-Trichloroethane	11.5		1.0	0.20
127-18-4	Tetrachloroethene	29.2		1.0	0.15
591-78-6	2-Hexanone	18.0		5.0	0.16
124-48-1	Dibromochloromethane	9.06		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	10.7		1.0	0.18
108-90-7	Chlorobenzene	11.1		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	10.1		1.0	0.28
100-41-4	Ethylbenzene	10.1		1.0	0.23
1330-20-7	Xylenes, Total	20.3		3.0	0.49
100-42-5	Styrene	10.5		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44203-1

SDG No.:

Client Sample ID: HD-MW-99S-0/1-0 MSD | Lab Sample ID: 180-44203-3 MSD

Matrix: Water | Lab File ID: 50526011.D

Analysis Method: 8260C | Date Collected: 05/18/2015 09:55

Sample wt/vol: 5(mL) | Date Analyzed: 05/26/2015 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.: 142745 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	8.51		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	11.1		1.0	0.20
107-13-1	Acrylonitrile	104		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)	97		64-135
2037-26-5	Toluene-d8 (Surr)	103		71-118
460-00-4	4-Bromofluorobenzene (Surr)	97		70-118
1868-53-7	Dibromofluoromethane (Surr)	94		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526011.D
Lims ID: 180-44203-E-3 MSD
Client ID: HD-MW-99S-0/1-0
Sample Type: MSD
Inject. Date: 26-May-2015 14:55:30 ALS Bottle#: 11 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-44203-E-3 MSD
Misc. Info.: 180-0007112-011
Operator ID: 001562 Instrument ID: CHHP5

Method: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\MSVOA_LL_CHHP5.m
Limit Group: VOA 8260C ICAL
Last Update: 26-May-2015 15:40:10 Calib Date: 16-May-2015 18:25:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP5\20150516-6955.b\50516016.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK004

First Level Reviewer: fergusond Date: 26-May-2015 15:40:10

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.272	4.259	0.013	0	131189	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.295	-0.005	99	428783	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.392	10.391	0.001	87	89941	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.735	12.733	0.002	93	124705	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.566	6.560	0.006	93	86776	50.0	46.9	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.937	6.937	0.000	0	111314	50.0	48.3	
$ 7 Toluene-d8 (Surr)	98	8.938	8.939	-0.001	93	345549	50.0	51.7	
$ 8 4-Bromofluorobenzene (Surr	95	11.573	11.573	0.000	89	116122	50.0	48.4	
11 Dichlorodifluoromethane	85	1.626	1.608	0.018	99	95015	50.0	32.1	
12 Chloromethane	50	1.772	1.766	0.006	99	117720	50.0	31.2	
13 Vinyl chloride	62	1.906	1.900	0.006	97	126363	50.0	37.2	
14 Butadiene	39	1.949	1.937	0.012	99	162689	50.0	41.5	
15 Bromomethane	94	2.259	2.247	0.012	91	72659	50.0	46.6	
16 Chloroethane	64	2.411	2.399	0.012	97	88640	50.0	49.2	
17 Dichlorofluoromethane	67	2.672	2.667	0.005	98	216295	50.0	53.1	
18 Trichlorofluoromethane	101	2.703	2.703	0.000	95	163244	50.0	42.5	
20 Ethyl ether	59	3.050	3.050	0.000	95	109153	50.0	50.3	
21 Acrolein	56	3.238	3.226	0.012	98	58857	150.0	162.7	
22 1,1-Dichloroethene	96	3.348	3.348	0.000	97	119300	50.0	58.1	
23 1,1,2-Trichloro-1,2,2-trif	101	3.421	3.421	0.000	91	107713	50.0	50.1	
24 Acetone	43	3.445	3.439	0.006	99	82579	100.0	97.6	
25 Iodomethane	142	3.536	3.537	-0.001	96	164735	50.0	52.3	
26 Carbon disulfide	76	3.634	3.628	0.006	100	217539	50.0	39.7	
28 3-Chloro-1-propene	76	3.920	3.920	0.000	87	60117	50.0	44.0	
30 Methyl acetate	43	3.944	3.938	0.006	99	528874	250.0	263.3	
31 Methylene Chloride	84	4.139	4.139	0.000	96	135390	50.0	56.8	
32 2-Methyl-2-propanol	59	4.400	4.413	-0.013	91	64471	500.0	439.7	
33 Acrylonitrile	53	4.522	4.522	0.000	99	525376	500.0	518.1	
34 trans-1,2-Dichloroethene	96	4.571	4.565	0.006	97	119992	50.0	52.8	
35 Methyl tert-butyl ether	73	4.583	4.577	0.006	96	271777	50.0	43.4	
36 Hexane	57	4.996	4.991	0.005	95	172641	50.0	48.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.197	5.197	0.000	97	230314	50.0	53.7	
38 Vinyl acetate	43	5.252	5.246	0.006	97	186774	50.0	38.7	
44 2,2-Dichloropropane	77	5.951	5.946	0.005	36	89425	50.0	41.1	
45 cis-1,2-Dichloroethene	96	5.951	5.946	0.005	81	432815	50.0	172.2	
46 2-Butanone (MEK)	43	5.964	5.964	0.000	40	120335	100.0	93.7	
49 Chlorobromomethane	128	6.237	6.238	-0.001	95	52537	50.0	46.9	
51 Tetrahydrofuran	42	6.250	6.256	-0.006	91	73610	100.0	84.3	
52 Chloroform	83	6.383	6.384	-0.001	94	201929	50.0	52.5	
53 1,1,1-Trichloroethane	97	6.542	6.542	0.000	96	183712	50.0	61.7	
54 Cyclohexane	56	6.615	6.615	0.000	94	207929	50.0	46.1	
56 Carbon tetrachloride	117	6.724	6.712	0.012	79	123243	50.0	45.9	
55 1,1-Dichloropropene	75	6.730	6.731	0.000	94	155581	50.0	49.6	
57 Isobutyl alcohol	41	6.931	6.931	0.000	65	83372	1250.0	1042.3	
58 Benzene	78	6.949	6.943	0.006	97	495377	50.0	51.8	
59 1,2-Dichloroethane	62	7.022	7.023	-0.001	96	147417	50.0	51.7	
62 n-Heptane	43	7.308	7.308	0.000	91	149406	50.0	46.9	
64 Trichloroethene	130	7.679	7.680	-0.001	98	376716	50.0	153.8	
66 Methylcyclohexane	83	7.916	7.917	-0.001	92	190772	50.0	47.3	
67 1,2-Dichloropropane	63	7.953	7.947	0.006	94	124385	50.0	50.1	
70 1,4-Dioxane	88	8.032	8.032	0.000	36	14873	1000.0	785.4	M
68 Dibromomethane	93	8.038	8.032	0.006	96	61622	50.0	48.6	
71 Dichlorobromomethane	83	8.233	8.233	0.000	98	122463	50.0	44.3	
74 cis-1,3-Dichloropropene	75	8.677	8.677	0.000	93	142318	50.0	40.5	
75 4-Methyl-2-pentanone (MIBK	43	8.829	8.829	0.000	98	219204	100.0	94.4	
76 Toluene	91	9.005	9.006	-0.001	98	498356	50.0	58.1	
77 trans-1,3-Dichloropropene	75	9.255	9.255	0.000	98	112123	50.0	43.1	
78 Ethyl methacrylate	69	9.310	9.310	0.000	88	118952	50.0	46.0	
79 1,1,2-Trichloroethane	97	9.443	9.450	-0.007	92	93141	50.0	57.5	
80 Tetrachloroethene	164	9.516	9.517	-0.001	97	235161	50.0	145.8	
81 1,3-Dichloropropane	76	9.602	9.608	-0.006	93	169730	50.0	55.4	
82 2-Hexanone	43	9.662	9.657	0.005	99	148619	100.0	90.0	
84 Chlorodibromomethane	129	9.821	9.815	0.006	90	71993	50.0	45.3	
85 Ethylene Dibromide	107	9.930	9.930	0.000	97	89314	50.0	53.7	
86 3-Chlorobenzotrifluoride	180	10.392	10.393	-0.001	85	158386	50.0	54.2	
87 Chlorobenzene	112	10.417	10.423	-0.006	94	308906	50.0	55.7	
88 4-Chlorobenzotrifluoride	180	10.478	10.478	0.000	95	149297	50.0	55.4	
89 1,1,1,2-Tetrachloroethane	131	10.514	10.514	0.000	93	93609	50.0	50.3	
90 Ethylbenzene	106	10.520	10.521	0.000	99	163370	50.0	50.6	
91 m-Xylene & p-Xylene	106	10.648	10.654	-0.006	0	202685	50.0	51.8	
92 o-Xylene	106	11.031	11.032	-0.001	97	190546	50.0	49.4	
93 Styrene	104	11.049	11.050	-0.001	95	319013	50.0	52.4	
94 Bromoform	173	11.238	11.232	0.006	95	43546	50.0	42.6	
96 2-Chlorobenzotrifluoride	180	11.299	11.299	0.000	97	154357	50.0	53.4	
97 Isopropylbenzene	105	11.396	11.403	-0.007	96	478635	50.0	50.8	
99 1,1,2,2-Tetrachloroethane	83	11.706	11.713	-0.007	91	126902	50.0	55.4	
100 Bromobenzene	156	11.713	11.713	0.000	95	115676	50.0	50.2	
102 trans-1,4-Dichloro-2-buten	53	11.743	11.743	0.000	73	31415	50.0	41.0	
101 1,2,3-Trichloropropane	110	11.761	11.768	-0.007	84	38602	50.0	51.0	
103 N-Propylbenzene	120	11.816	11.816	0.000	99	133984	50.0	48.8	
104 2-Chlorotoluene	126	11.901	11.901	0.000	96	115035	50.0	48.9	
105 3-Chlorotoluene	126	11.962	11.968	-0.006	97	114955	50.0	48.1	
106 1,3,5-Trimethylbenzene	105	11.998	11.999	-0.001	97	388518	50.0	50.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
107 4-Chlorotoluene	126	12.023	12.023	0.000	98	127500	50.0	51.4	
108 tert-Butylbenzene	119	12.309	12.315	-0.006	94	303541	50.0	46.0	
110 1,2,4-Trimethylbenzene	105	12.370	12.370	0.000	98	381156	50.0	49.5	
111 1,2-dichloro-4-(trifluorom	214	12.412	12.412	0.000	97	113658	50.0	54.9	
112 sec-Butylbenzene	105	12.534	12.534	0.000	94	451386	50.0	48.4	
113 1,3-Dichlorobenzene	146	12.649	12.656	-0.007	98	206196	50.0	51.2	
114 4-Isopropyltoluene	119	12.692	12.692	0.000	97	364022	50.0	47.7	
115 1,4-Dichlorobenzene	146	12.753	12.759	-0.006	95	216950	50.0	52.6	
116 2,4-Dichloro-1-(triflourom	214	12.783	12.784	-0.001	96	104262	50.0	54.1	
118 2,5-Dichlorobenzotrifluori	214	12.820	12.826	-0.006	0	111414	50.0	52.7	
120 n-Butylbenzene	91	13.100	13.100	0.000	98	306747	50.0	46.8	
121 1,2-Dichlorobenzene	146	13.112	13.112	0.000	95	188424	50.0	50.5	
122 1,2-Dibromo-3-Chloropropan	75	13.896	13.909	-0.013	72	14816	50.0	39.9	
123 2,4- & 2,5- & 2,6- Dichlor	125	14.042	14.049	-0.007	0	302696	150.0	127.5	
125 2,3- & 3,4- Dichlorotoluen	125	14.462	14.463	-0.001	0	175664	100.0	78.9	
126 1,2,4-Trichlorobenzene	180	14.724	14.724	0.000	93	68646	50.0	44.2	
127 Hexachlorobutadiene	225	14.876	14.876	0.000	95	40051	50.0	55.4	
128 Naphthalene	128	14.992	14.992	0.000	97	161880	50.0	37.7	
129 1,2,3-Trichlorobenzene	180	15.211	15.217	-0.007	95	53940	50.0	44.7	
131 2,4,5-Trichlorotoluene	159	15.989	15.990	-0.001	0	15793	50.0	28.9	
130 2,3,6-Trichlorotoluene	159	16.087	16.093	-0.006	94	15289	50.0	31.0	
147 2,4-Dichlorotoluene	1		0.000				ND	ND	
148 2,3-Dichlorotoluene	1		0.000				ND	ND	
150 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 2,5-Dichlorotoluene	1		0.000				ND	ND	
149 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 134 1,2-Dichloroethene, Total	96				0		100.0	225.0	
S 133 Xylenes, Total	106				0		100.0	101.2	
S 135 1,3-Dichloropropene, Total	1				0		100.0	83.6	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWacro2 Res_00003	Amount Added:	6.00	Units: uL		
voaWeemix2nd_00001	Amount Added:	2.00	Units: uL		
VOA8260VOA2ND_00124	Amount Added:	2.00	Units: uL		
voaWketPri Re_00005	Amount Added:	2.00	Units: uL		
voaWVA1st Res_00001	Amount Added:	2.00	Units: uL		
VOA8260INT_00036	Amount Added:	2.00	Units: uL	Run Reagent	
VOA8260SURR_00036	Amount Added:	2.00	Units: uL	Run Reagent	

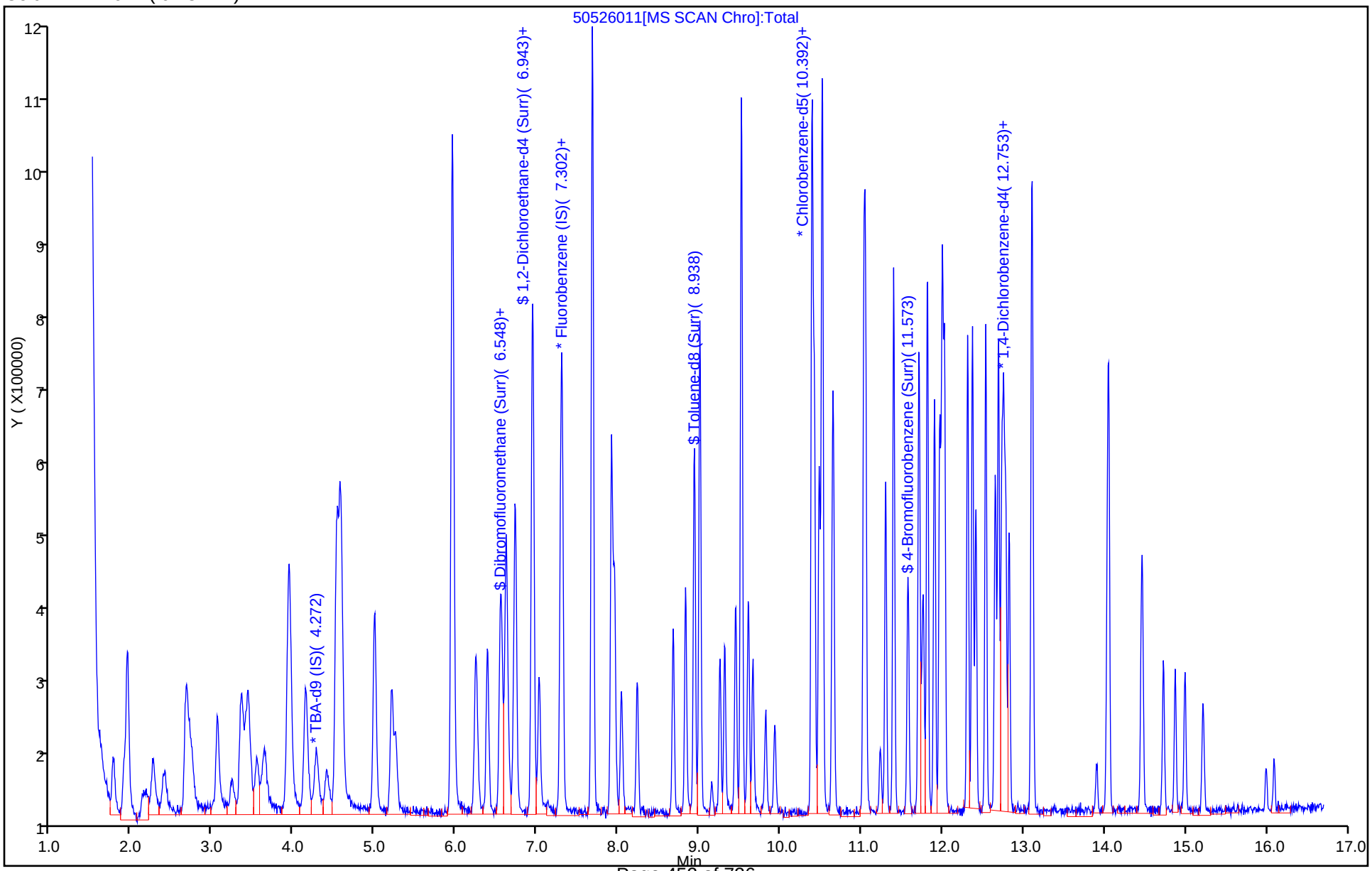
Report Date: 26-May-2015 15:40:11 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526011.D

Injection Date:	26-May-2015 14:55:30	Instrument ID:	CHHP5	Operator ID:	001562
Lims ID:	180-44203-E-3 MSD			Worklist Smp#:	11
Client ID:	HD-MW-99S-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

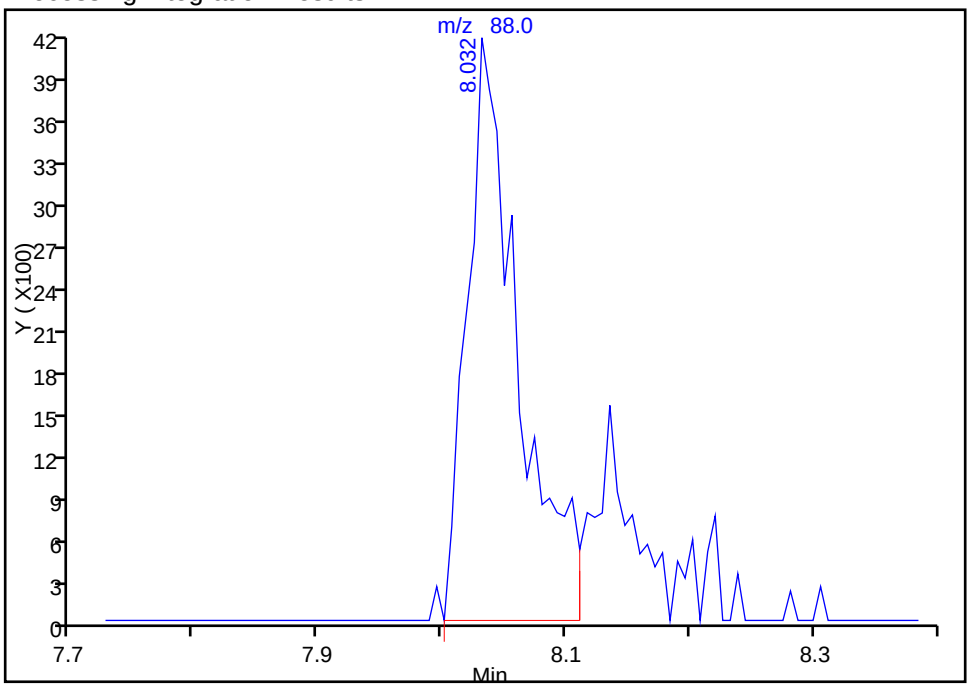
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP5\20150526-7112.b\50526011.D				
Injection Date:	26-May-2015 14:55:30	Instrument ID:	CHHP5		
Lims ID:	180-44203-E-3 MSD				
Client ID:	HD-MW-99S-0/1-0				
Operator ID:	001562	ALS Bottle#:	11	Worklist Smp#:	11
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP5	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

70 1,4-Dioxane, CAS: 123-91-1

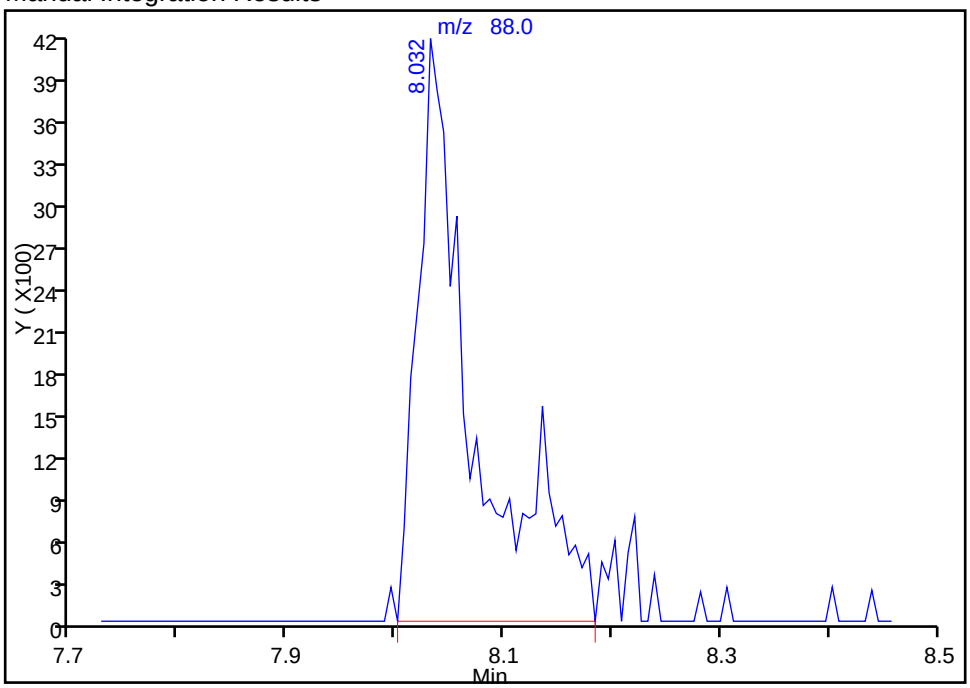
Processing Integration Results

RT: 8.03
Area: 11921
Amount: 629.5184
Amount Units: ng



Manual Integration Results

RT: 8.03
Area: 14873
Amount: 785.4062
Amount Units: ng



Reviewer: fergusond, 26-May-2015 15:40:10
Audit Action: Manually Integrated
Audit Reason: Peak Tail

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Instrument ID: CHHP5 Start Date: 05/16/2015 10:39

Analysis Batch Number: 141828 End Date: 05/16/2015 19:13

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-141828/3		05/16/2015 10:39	1	50516003.D	DB-624 0.18(mm)
IC 180-141828/6		05/16/2015 14:25	1	50516006.D	DB-624 0.18(mm)
ICIS 180-141828/7		05/16/2015 14:49	1	50516007.D	DB-624 0.18(mm)
IC 180-141828/8		05/16/2015 15:13	1	50516008.D	DB-624 0.18(mm)
IC 180-141828/9		05/16/2015 15:37	1	50516009.D	DB-624 0.18(mm)
IC 180-141828/10		05/16/2015 16:01	1	50516010.D	DB-624 0.18(mm)
IC 180-141828/11		05/16/2015 16:25	1	50516011.D	DB-624 0.18(mm)
IC 180-141828/12		05/16/2015 16:49	1	50516012.D	DB-624 0.18(mm)
IC 180-141828/16		05/16/2015 18:25	1	50516016.D	DB-624 0.18(mm)
LODV 180-141828/17		05/16/2015 18:49	1		DB-624 0.18(mm)
ICV 180-141828/18		05/16/2015 19:13	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Instrument ID: CHHP5 Start Date: 05/24/2015 11:37

Analysis Batch Number: 142676 End Date: 05/24/2015 23:35

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-142676/4		05/24/2015 11:37	1	50524004.D	DB-624 0.18(mm)
CCVIS 180-142676/2		05/24/2015 12:15	1	50524002.D	DB-624 0.18(mm)
CCV 180-142676/3		05/24/2015 12:39	1	50524003.D	DB-624 0.18(mm)
LODV 180-142676/5		05/24/2015 13:05	1		DB-624 0.18(mm)
MB 180-142676/6		05/24/2015 13:29	1	50524006.D	DB-624 0.18(mm)
ZZZZZ		05/24/2015 14:30	1		DB-624 0.18(mm)
LCS 180-142676/9		05/24/2015 14:55	1	50524009.D	DB-624 0.18(mm)
ZZZZZ		05/24/2015 15:34	1		DB-624 0.18(mm)
ZZZZZ		05/24/2015 15:58	1		DB-624 0.18(mm)
ZZZZZ		05/24/2015 16:22	1		DB-624 0.18(mm)
ZZZZZ		05/24/2015 17:10	25		DB-624 0.18(mm)
ZZZZZ		05/24/2015 17:34	1		DB-624 0.18(mm)
ZZZZZ		05/24/2015 17:58	1		DB-624 0.18(mm)
ZZZZZ		05/24/2015 18:23	1		DB-624 0.18(mm)
ZZZZZ		05/24/2015 18:47	1		DB-624 0.18(mm)
ZZZZZ		05/24/2015 19:59	1		DB-624 0.18(mm)
ZZZZZ		05/24/2015 20:23	1		DB-624 0.18(mm)
ZZZZZ		05/24/2015 20:47	1		DB-624 0.18(mm)
ZZZZZ		05/24/2015 21:11	1		DB-624 0.18(mm)
ZZZZZ		05/24/2015 21:35	1		DB-624 0.18(mm)
ZZZZZ		05/24/2015 21:59	1		DB-624 0.18(mm)
ZZZZZ		05/24/2015 22:47	1		DB-624 0.18(mm)
ZZZZZ		05/24/2015 23:11	1		DB-624 0.18(mm)
180-44203-2	HD-MW-98I-0/1-0	05/24/2015 23:35	1	50524030.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Instrument ID: CHHP5 Start Date: 05/26/2015 10:08

Analysis Batch Number: 142745 End Date: 05/26/2015 22:06

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-142745/1		05/26/2015 10:08	1	50526001.D	DB-624 0.18(mm)
CCVIS 180-142745/2		05/26/2015 10:48	1	50526002.D	DB-624 0.18(mm)
CCV 180-142745/3		05/26/2015 11:12	1	50526003.D	DB-624 0.18(mm)
LODV 180-142745/4		05/26/2015 11:36	1		DB-624 0.18(mm)
MB 180-142745/5		05/26/2015 12:00	1	50526005.D	DB-624 0.18(mm)
180-44203-6	HD-QC1-0/1-2	05/26/2015 13:05	1	50526007.D	DB-624 0.18(mm)
LCS 180-142745/8		05/26/2015 13:29	1	50526008.D	DB-624 0.18(mm)
180-44203-3	HD-MW-99S-0/1-0	05/26/2015 14:07	1	50526009.D	DB-624 0.18(mm)
180-44203-3 MS	HD-MW-99S-0/1-0 MS	05/26/2015 14:31	1	50526010.D	DB-624 0.18(mm)
180-44203-3 MSD	HD-MW-99S-0/1-0 MSD	05/26/2015 14:55	1	50526011.D	DB-624 0.18(mm)
ZZZZZ		05/26/2015 15:42	2		DB-624 0.18(mm)
ZZZZZ		05/26/2015 16:06	2		DB-624 0.18(mm)
180-44203-1	HD-MW-98S-0/1-0	05/26/2015 16:30	1	50526015.D	DB-624 0.18(mm)
180-44203-5	HD-QC1-0/1-1	05/26/2015 17:18	1	50526017.D	DB-624 0.18(mm)
180-44203-7	HD-MW-93S-0/1-0	05/26/2015 18:05	5	50526019.D	DB-624 0.18(mm)
ZZZZZ		05/26/2015 18:30	1		DB-624 0.18(mm)
180-44203-8	HD-MW-93D-0/1-0	05/26/2015 19:18	10	50526022.D	DB-624 0.18(mm)
ZZZZZ		05/26/2015 19:42	1		DB-624 0.18(mm)
ZZZZZ		05/26/2015 20:06	1		DB-624 0.18(mm)
ZZZZZ		05/26/2015 20:30	1		DB-624 0.18(mm)
ZZZZZ		05/26/2015 20:54	1		DB-624 0.18(mm)
ZZZZZ		05/26/2015 21:18	1		DB-624 0.18(mm)
ZZZZZ		05/26/2015 21:42	1		DB-624 0.18(mm)
ZZZZZ		05/26/2015 22:06	5		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Instrument ID: CHHP5 Start Date: 05/27/2015 11:07

Analysis Batch Number: 142864 End Date: 05/28/2015 00:01

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-142864/6		05/27/2015 11:07	1	50527006.D	DB-624 0.18(mm)
CCVIS 180-142864/7		05/27/2015 12:33	1	50527007.D	DB-624 0.18(mm)
ZZZZZ		05/27/2015 12:33	1		DB-624 0.18(mm)
MB 180-142864/9		05/27/2015 13:22	1	50527009.D	DB-624 0.18(mm)
ZZZZZ		05/27/2015 14:02	1		DB-624 0.18(mm)
ZZZZZ		05/27/2015 14:27	1		DB-624 0.18(mm)
LCS 180-142864/12		05/27/2015 14:50	1	50527012.D	DB-624 0.18(mm)
ZZZZZ		05/27/2015 15:15	1		DB-624 0.18(mm)
ZZZZZ		05/27/2015 15:38	1		DB-624 0.18(mm)
180-44203-4	HD-MW-145A-0/1-0	05/27/2015 16:26	1	50527016.D	DB-624 0.18(mm)
ZZZZZ		05/27/2015 16:50	2		DB-624 0.18(mm)
ZZZZZ		05/27/2015 17:14	1		DB-624 0.18(mm)
ZZZZZ		05/27/2015 17:37	1		DB-624 0.18(mm)
ZZZZZ		05/27/2015 18:02	1		DB-624 0.18(mm)
ZZZZZ		05/27/2015 18:50	1		DB-624 0.18(mm)
ZZZZZ		05/27/2015 20:02	1		DB-624 0.18(mm)
ZZZZZ		05/27/2015 20:26	10		DB-624 0.18(mm)
ZZZZZ		05/27/2015 20:50	1		DB-624 0.18(mm)
ZZZZZ		05/27/2015 21:14	12.5		DB-624 0.18(mm)
ZZZZZ		05/27/2015 21:38	50		DB-624 0.18(mm)
ZZZZZ		05/27/2015 22:50	100		DB-624 0.18(mm)
ZZZZZ		05/28/2015 00:01	1		DB-624 0.18(mm)

300_ORGFMS

Anions, Ion Chromatography

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Matrix: Water Level: Low Lab File ID: B-ICS2100 B 05-19-2015-5.d

Lab ID: LCS 180-142093/5 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
Nitrate as N	2.50	2.44	98	90-110	
Chloride	50.0	48.8	98	90-110	
Sulfate	50.0	48.0	96	90-110	

Column to be used to flag recovery and RPD values

FORM III 300.0

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Matrix: Water Level: Low Lab File ID: B-ICS2100 B 05-19-2015-11.d

Lab ID: 180-44203-3 MS Client ID: HD-MW-99S-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	3.0	4.02	83	80-120	
Chloride	25.0	100	119	67	80-120	4
Sulfate	25.0	32	53.6	87	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.: 180-44203-1

SDG No.:

Matrix: Water Level: Low Lab File ID: B-ICS2100 B 05-19-2015-12.d

Lab ID: 180-44203-3 MSD Client ID: HD-MW-99S-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	4.31	106	7	20	80-120	
Chloride	25.0	128	101	7	20	80-120	4
Sulfate	25.0	57.4	102	7	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.: 180-44203-1

SDG No.:

Lab File ID: B-ICS2100 B 05-19-2015-6.d Lab Sample ID: MB 180-142093/6

Matrix: Water Date Extracted:

Instrument ID: CHICS2100B Date Analyzed: 05/19/2015 12:51

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	CCB 180-142093/4	B-ICS2100 B 05-19-2015-4.d	05/19/2015 12:15
	LCS 180-142093/5	B-ICS2100 B 05-19-2015-5.d	05/19/2015 12:33
HD-MW-98S-0/1-0	180-44203-1	B-ICS2100 B 05-19-2015-8.d	05/19/2015 13:50
HD-MW-98I-0/1-0	180-44203-2	B-ICS2100 B 05-19-2015-9.d	05/19/2015 14:08
HD-MW-99S-0/1-0	180-44203-3	B-ICS2100 B 05-19-2015-10.d	05/19/2015 14:25
HD-MW-99S-0/1-0 MS	180-44203-3 MS	B-ICS2100 B 05-19-2015-11.d	05/19/2015 14:42
HD-MW-99S-0/1-0 MSD	180-44203-3 MSD	B-ICS2100 B 05-19-2015-12.d	05/19/2015 15:00
HD-MW-145A-0/1-0	180-44203-4	B-ICS2100 B 05-19-2015-13.d	05/19/2015 15:17
HD-QC1-0/1-1	180-44203-5	B-ICS2100 B 05-19-2015-14.d	05/19/2015 15:34
	CCB 180-142093/16	B-ICS2100 B 05-19-2015-16.d	05/19/2015 16:09
HD-MW-93S-0/1-0	180-44203-7	B-ICS2100 B 05-19-2015-17.d	05/19/2015 16:26
HD-MW-93D-0/1-0	180-44203-8	B-ICS2100 B 05-19-2015-18.d	05/19/2015 16:44
	CCB 180-142093/28	B-ICS2100 B 05-19-2015-28.d	05/19/2015 19:37

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Client Sample ID: HD-MW-98S-0/1-0 Lab Sample ID: 180-44203-1

Matrix: Water Lab File ID: B-ICS2100 B 05-19-2015-8.d

Analysis Method: 300.0 Date Collected: 05/18/2015 12:50

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/19/2015 13:50

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142093 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.0	B	0.10	0.0062
16887-00-6	Chloride	60		1.0	0.20
14808-79-8	Sulfate	44		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

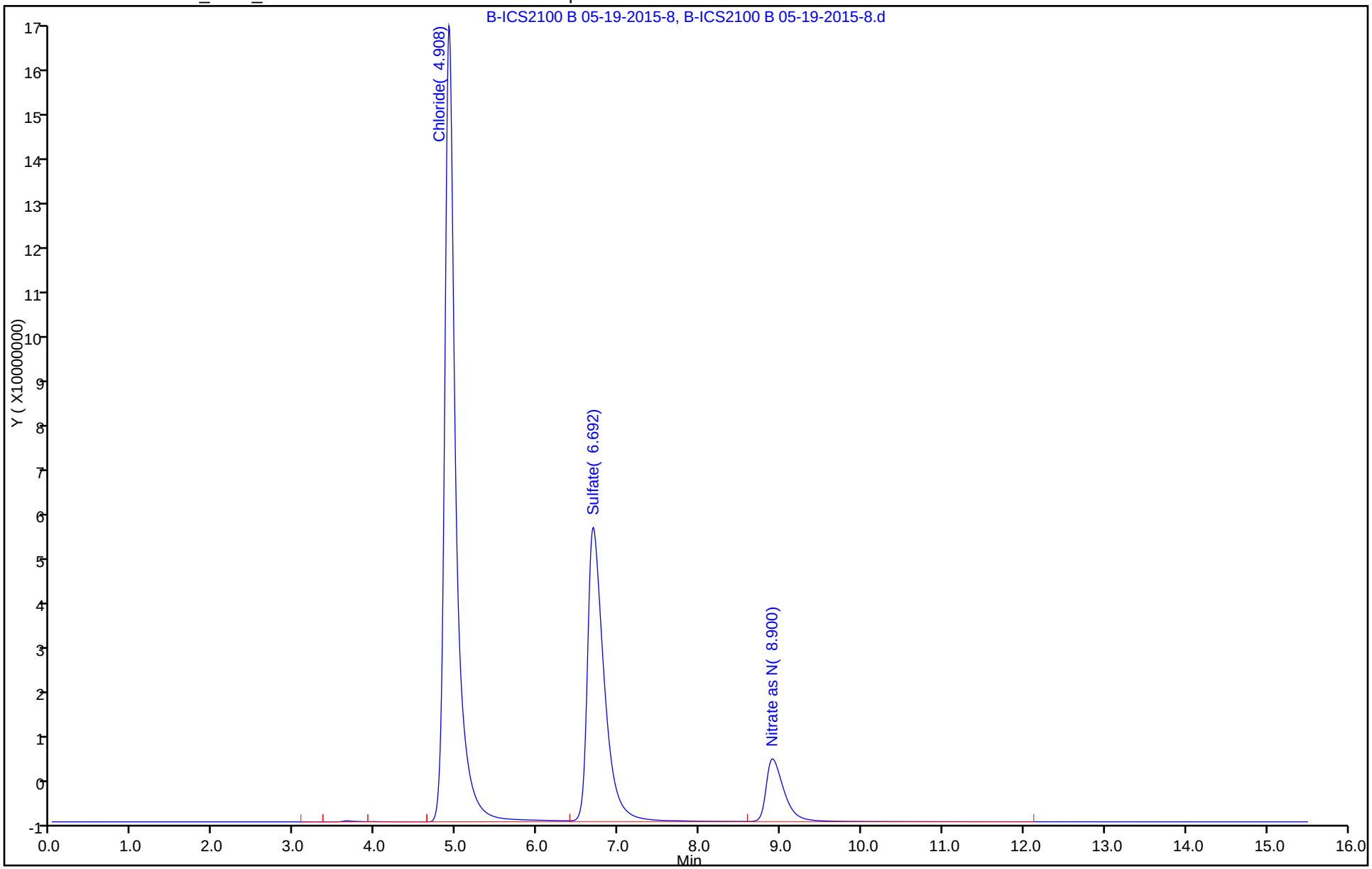
Data File:	\\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\B-ICS2100 B 05-19-2015-8.d				
Lims ID:	180-44203-A-1	Lab Sample ID:	180-44203-1		
Client ID:	HD-MW-98S-0/1-0				
Sample Type:	Client				
Inject. Date:	19-May-2015 13:50:00	ALS Bottle#:	0	Worklist Smp#:	8
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0007007-008				
Misc. Info.:	8 180-44203-a-1				
Operator ID:		Instrument ID:	CHICS2100B		
Method:	\\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\300_9056_CHIC2100B.m				
Limit Group:	GC Anions ICAL				
Last Update:	20-May-2015 16:57:35	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:	XAWRK002				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.908	4.917	-0.009	1597418651	59.9	
3 Sulfate	6.692	6.683	0.009	869147808	44.4	
5 Nitrate as N	8.900	8.908	-0.008	200518499	3.04	

Report Date: 20-May-2015 16:57:39 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\B-ICS2100 B 05-19-2015-8.d				
Injection Date:	19-May-2015 13:50:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	180-44203-A-1	Lab Sample ID:	180-44203-1	Worklist Smp#:	8
Client ID:	HD-MW-98S-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.: 180-44203-1

SDG No.:

Client Sample ID: HD-MW-98I-0/1-0 | Lab Sample ID: 180-44203-2

Matrix: Water | Lab File ID: B-ICS2100 B 05-19-2015-9.d

Analysis Method: 300.0 | Date Collected: 05/18/2015 13:45

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 05/19/2015 14:08

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: AS-18 ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 142093 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.8	B	0.10	0.0062
16887-00-6	Chloride	54		1.0	0.20
14808-79-8	Sulfate	42		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

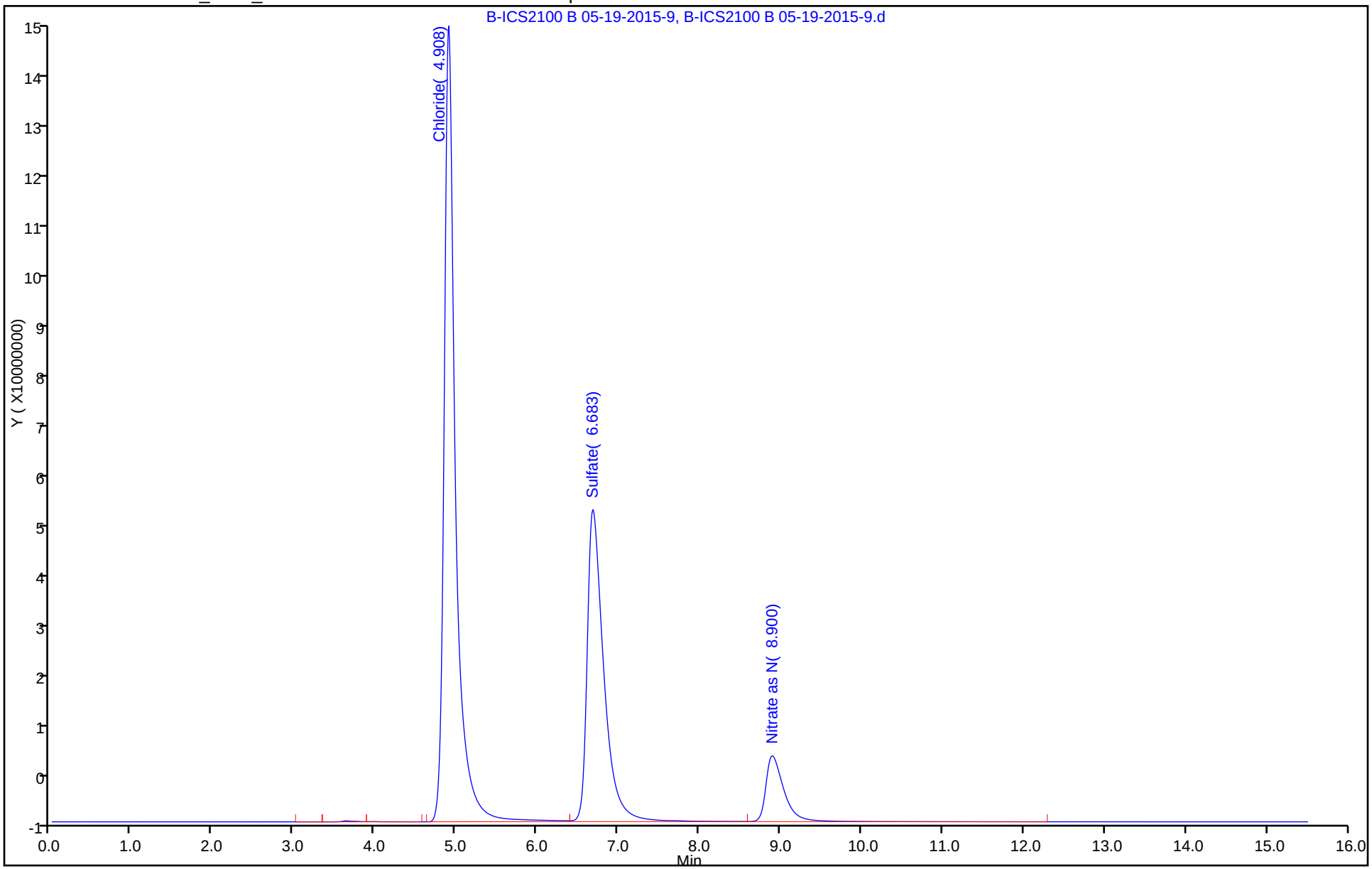
Data File:	\\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\B-ICS2100 B 05-19-2015-9.d				
Lims ID:	180-44203-A-2	Lab Sample ID:	180-44203-2		
Client ID:	HD-MW-98I-0/1-0				
Sample Type:	Client				
Inject. Date:	19-May-2015 14:08:00	ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0007007-009				
Misc. Info.:	9 180-44203-a-2				
Operator ID:		Instrument ID:	CHICS2100B		
Method:	\\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\300_9056_CHIC2100B.m				
Limit Group:	GC Anions ICAL				
Last Update:	20-May-2015 16:57:35	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:	XAWRK002				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.908	4.917	-0.009	1440610889	54.0	
3 Sulfate	6.683	6.683	0.000	824131945	42.1	
5 Nitrate as N	8.900	8.908	-0.008	187846705	2.84	

Report Date: 20-May-2015 16:57:38 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\B-ICS2100 B 05-19-2015-9.d				
Injection Date:	19-May-2015 14:08:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	180-44203-A-2	Lab Sample ID:	180-44203-2	Worklist Smp#:	9
Client ID:	HD-MW-98I-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.: 180-44203-1

SDG No.:

Client Sample ID: HD-MW-99S-0/1-0 Lab Sample ID: 180-44203-3

Matrix: Water Lab File ID: B-ICS2100 B 05-19-2015-10.d

Analysis Method: 300.0 Date Collected: 05/18/2015 09:55

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/19/2015 14:25

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142093 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.0	B	0.10	0.0062
16887-00-6	Chloride	100		1.0	0.20
14808-79-8	Sulfate	32		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\B-ICS2100 B 05-19-2015-10.d
Lims ID: 180-44203-A-3 Lab Sample ID: 180-44203-3
Client ID: HD-MW-99S-0/1-0
Sample Type: Client
Inject. Date: 19-May-2015 14:25:00 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007007-010
Misc. Info.: 10 180-44203-a-3
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 20-May-2015 17:00:02 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

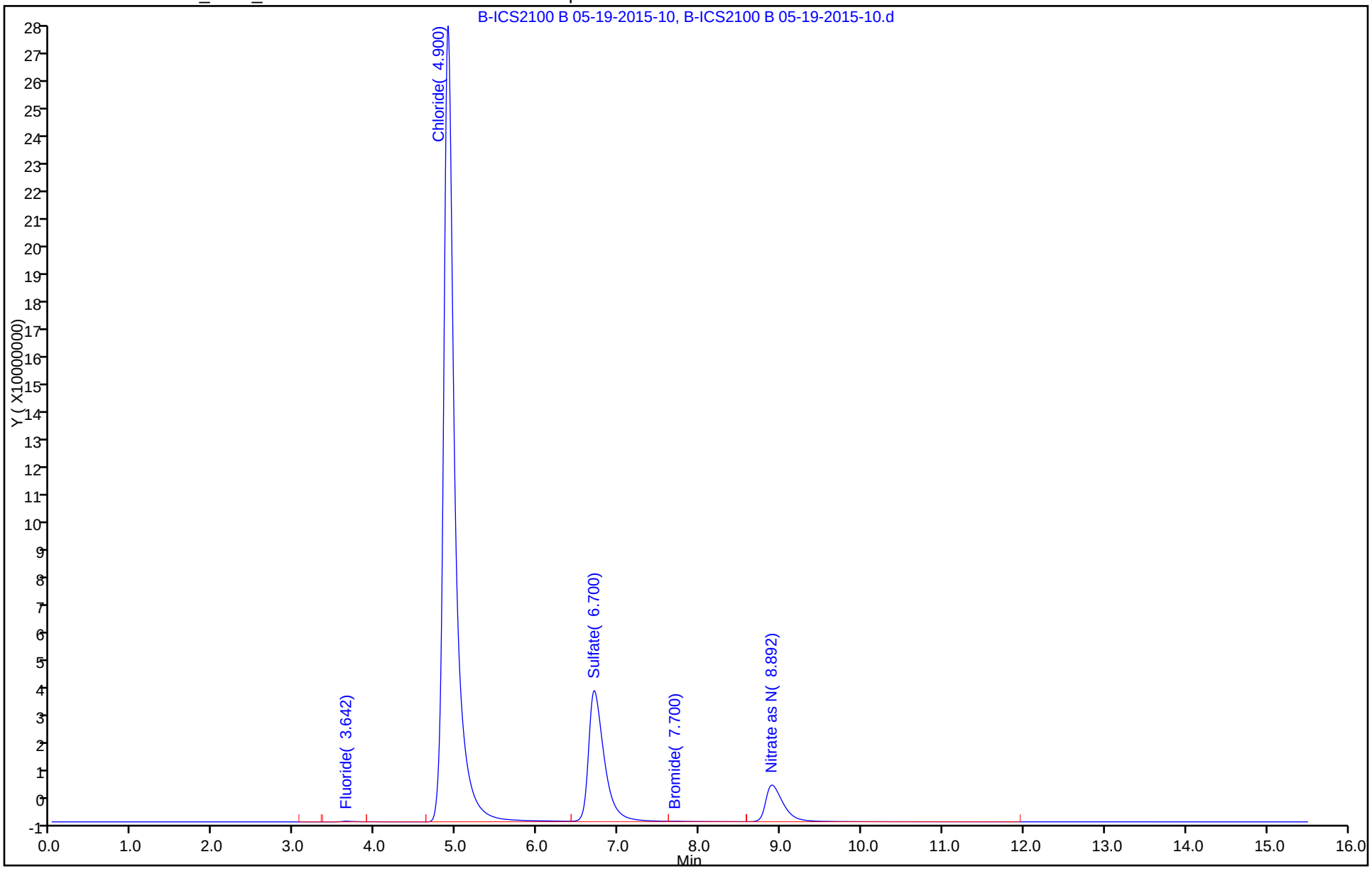
Column 1 : Det: 0008
Process Host: XAWRK002

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	3.642	3.658	-0.016	2463755	0.0535	
2 Chloride	4.900	4.917	-0.017	2735322268	102.6	
7 Nitrite as N		5.775			ND	
3 Sulfate	6.700	6.683	0.017	625172404	31.9	
4 Bromide	7.700	7.708	-0.008	143543H	0.1736	
5 Nitrate as N	8.892	8.908	-0.016	196843549	2.98	
6 Orthophosphate as P		12.208			ND	

Report Date: 20-May-2015 17:00:03 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\B-ICS2100 B 05-19-2015-10.d				
Injection Date:	19-May-2015 14:25:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	180-44203-A-3	Lab Sample ID:	180-44203-3	Worklist Smp#:	10
Client ID:	HD-MW-99S-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.: 180-44203-1

SDG No.:

Client Sample ID: HD-MW-145A-0/1-0 Lab Sample ID: 180-44203-4

Matrix: Water Lab File ID: B-ICS2100 B 05-19-2015-13.d

Analysis Method: 300.0 Date Collected: 05/18/2015 11:25

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/19/2015 15:17

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142093 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.6	B	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

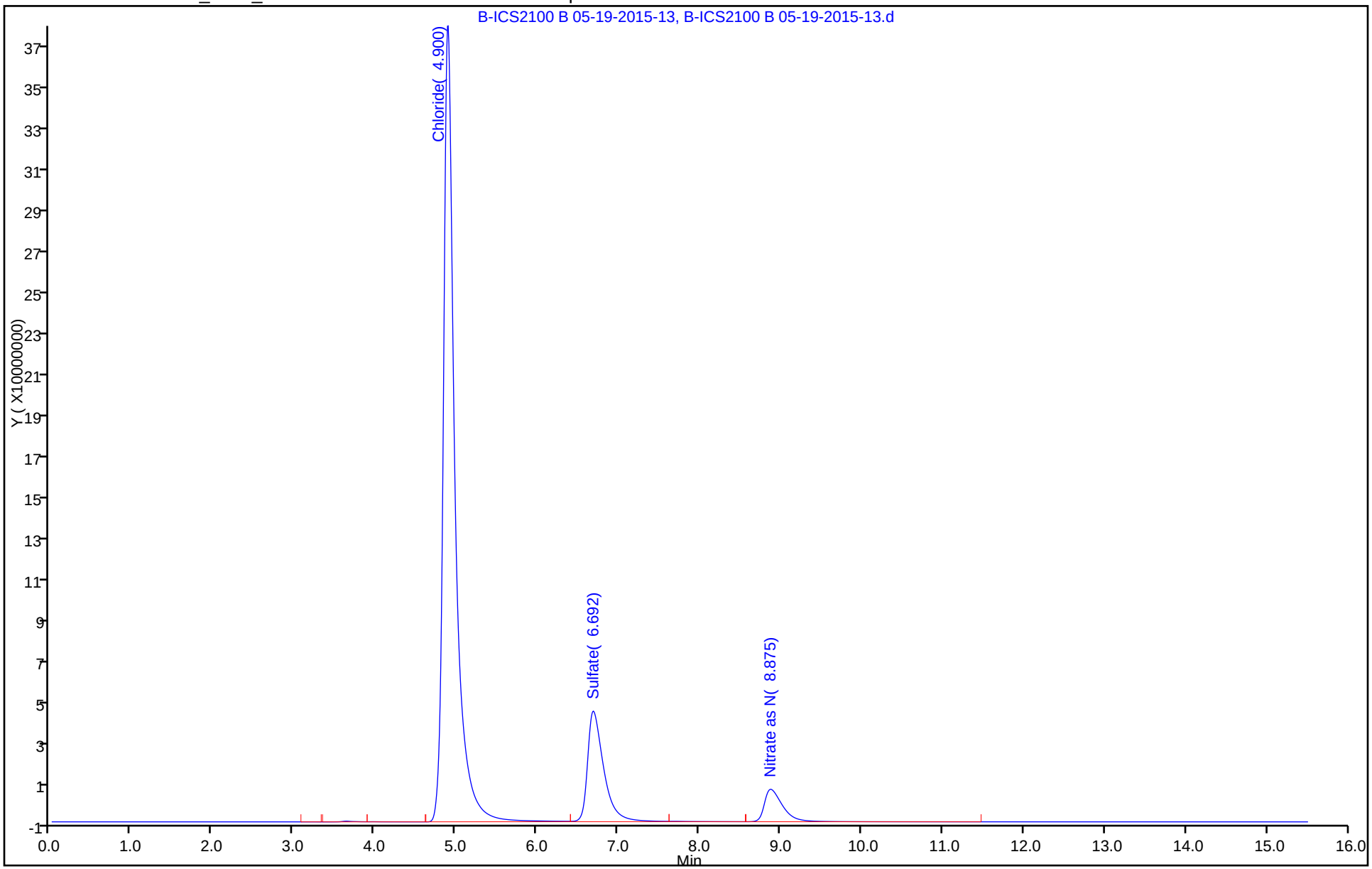
Data File:	\\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\B-ICS2100 B 05-19-2015-13.d				
Lims ID:	180-44203-A-4	Lab Sample ID:	180-44203-4		
Client ID:	HD-MW-145A-0/1-0				
Sample Type:	Client				
Inject. Date:	19-May-2015 15:17:00	ALS Bottle#:	0	Worklist Smp#:	13
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0007007-013				
Misc. Info.:	13 180-44203-a-4				
Operator ID:		Instrument ID:	CHICS2100B		
Method:	\\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\300_9056_CHIC2100B.m				
Limit Group:	GC Anions ICAL				
Last Update:	20-May-2015 17:00:02	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:	XAWRK002				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.900	4.917	-0.017	3725233278	139.7	
3 Sulfate	6.692	6.683	0.009	719433500	36.7	
5 Nitrate as N	8.875	8.908	-0.033	238841801	3.61	

Report Date: 20-May-2015 17:00:04 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\B-ICS2100 B 05-19-2015-13.d				
Injection Date:	19-May-2015 15:17:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	180-44203-A-4	Lab Sample ID:	180-44203-4	Worklist Smp#:	13
Client ID:	HD-MW-145A-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.: 180-44203-1

SDG No.:

Client Sample ID: HD-QC1-0/1-1 Lab Sample ID: 180-44203-5

Matrix: Water Lab File ID: B-ICS2100 B 05-19-2015-14.d

Analysis Method: 300.0 Date Collected: 05/18/2015 08:00

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/19/2015 15:34

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142093 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	130		1.0	0.20
14808-79-8	Sulfate	35		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

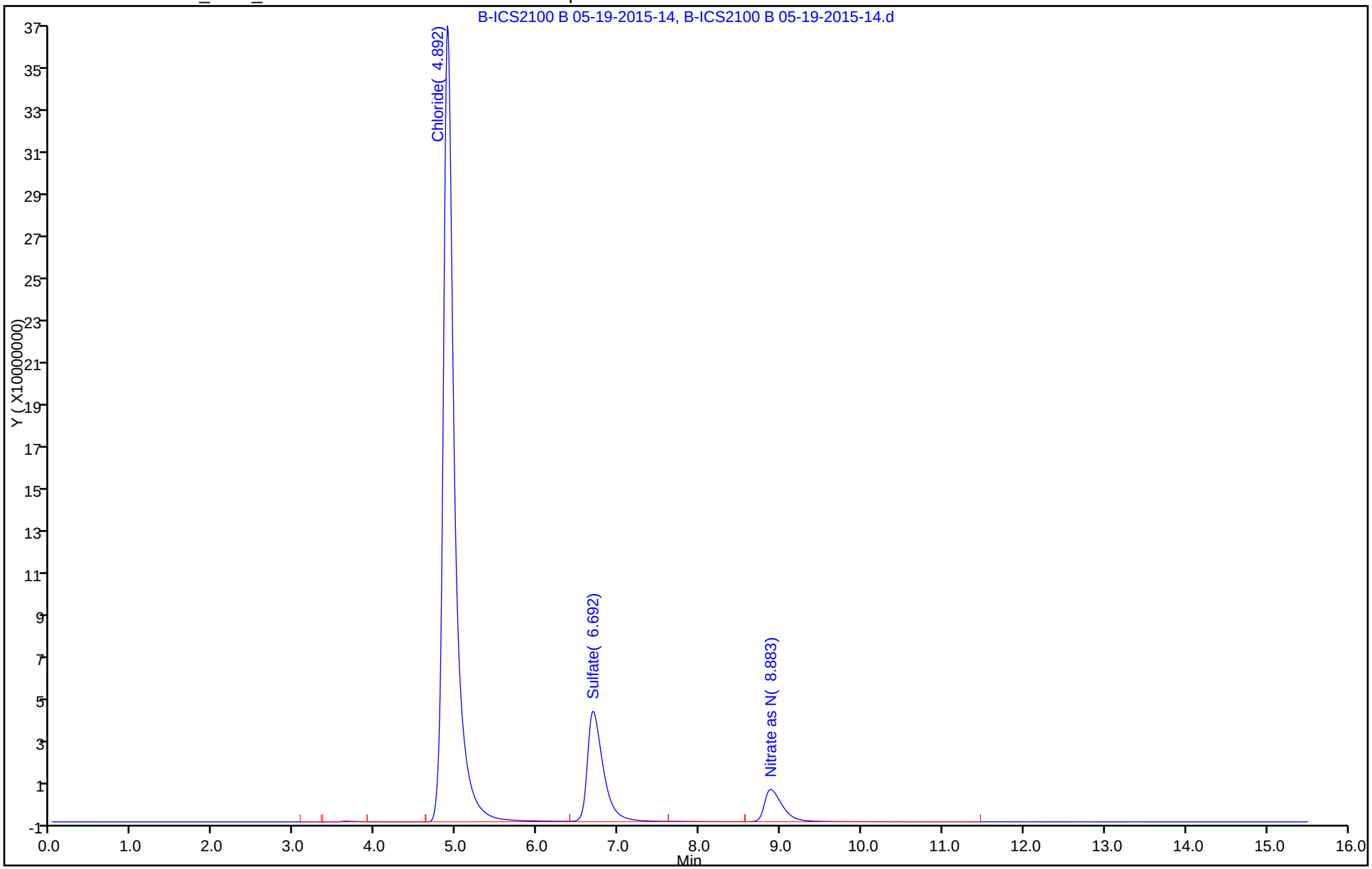
Data File:	\\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\B-ICS2100 B 05-19-2015-14.d				
Lims ID:	180-44203-A-5	Lab Sample ID:	180-44203-5		
Client ID:	HD-QC1-0/1-1				
Sample Type:	Client				
Inject. Date:	19-May-2015 15:34:00	ALS Bottle#:	0	Worklist Smp#:	14
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0007007-014				
Misc. Info.:	14 180-44203-a-5				
Operator ID:		Instrument ID:	CHICS2100B		
Method:	\\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\300_9056_CHIC2100B.m				
Limit Group:	GC Anions ICAL				
Last Update:	20-May-2015 17:00:02	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:	XAWRK002				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.892	4.917	-0.025	3588778498	134.5	
3 Sulfate	6.692	6.683	0.009	693682192	35.4	
5 Nitrate as N	8.883	8.908	-0.025	230476919	3.49	

Report Date: 20-May-2015 17:00:05 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\B-ICS2100 B 05-19-2015-14.d				
Injection Date:	19-May-2015 15:34:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	180-44203-A-5	Lab Sample ID:	180-44203-5	Worklist Smp#:	14
Client ID:	HD-QC1-0/1-1				
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.: 180-44203-1

SDG No.:

Client Sample ID: HD-MW-93S-0/1-0 Lab Sample ID: 180-44203-7

Matrix: Water Lab File ID: B-ICS2100 B 05-19-2015-17.d

Analysis Method: 300.0 Date Collected: 05/18/2015 12:27

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/19/2015 16:26

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142093 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	1.2	B	0.10	0.0062
16887-00-6	Chloride	150		1.0	0.20
14808-79-8	Sulfate	36		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

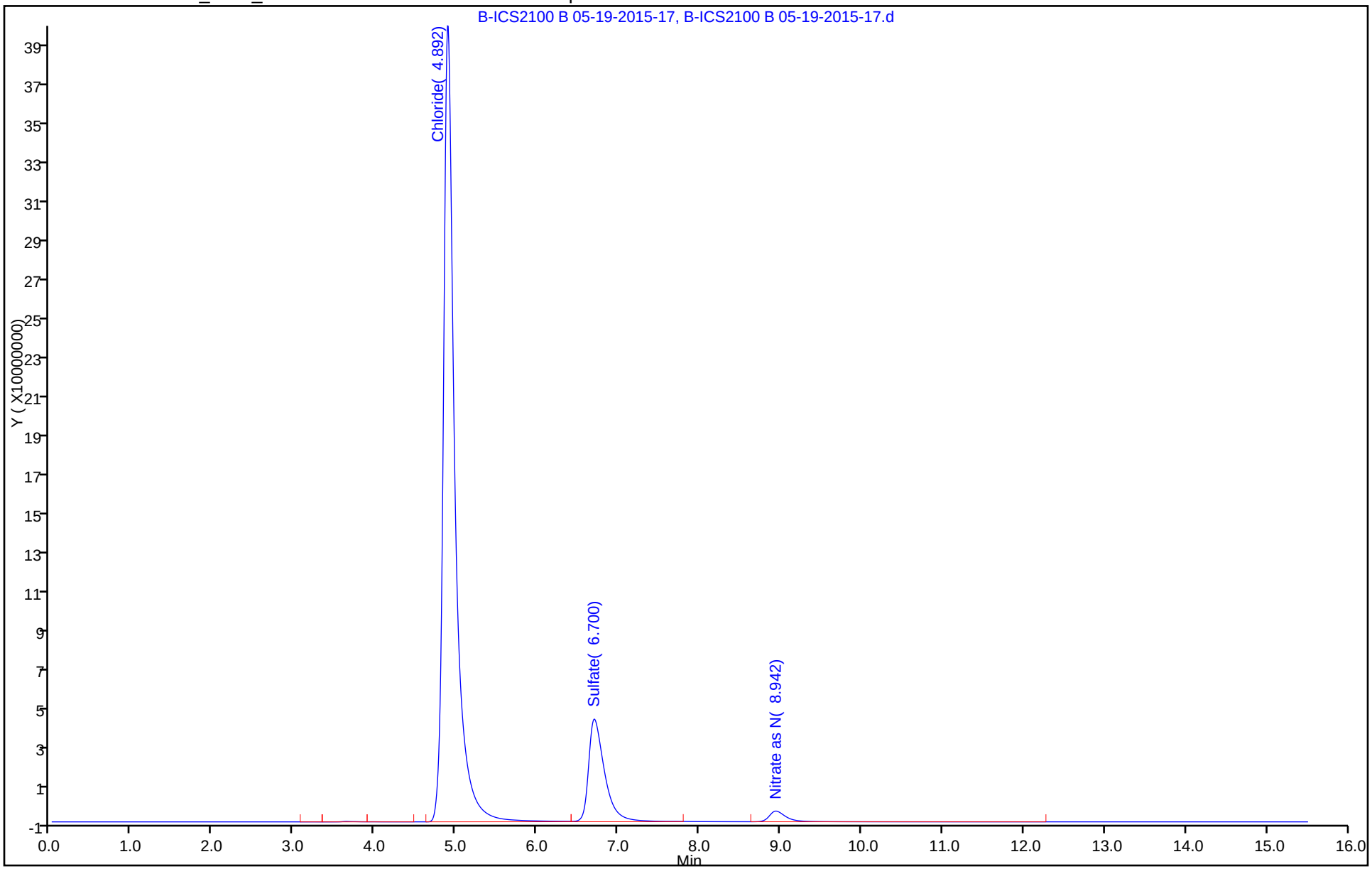
Data File:	\\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\B-ICS2100 B 05-19-2015-17.d				
Lims ID:	180-44203-A-7	Lab Sample ID:	180-44203-7		
Client ID:	HD-MW-93S-0/1-0				
Sample Type:	Client				
Inject. Date:	19-May-2015 16:26:00	ALS Bottle#:	0	Worklist Smp#:	17
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0007007-017				
Misc. Info.:	17 180-44203-a-7				
Operator ID:		Instrument ID:	CHICS2100B		
Method:	\\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\300_9056_CHIC2100B.m				
Limit Group:	GC Anions ICAL				
Last Update:	20-May-2015 17:00:05	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:	XAWRK002				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.892	4.917	-0.025	3915668327	146.8	
3 Sulfate	6.700	6.683	0.017	701014635	35.8	
5 Nitrate as N	8.942	8.908	0.034	78360850	1.19	

Report Date: 20-May-2015 17:00:06 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\B-ICS2100 B 05-19-2015-17.d				
Injection Date:	19-May-2015 16:26:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	180-44203-A-7	Lab Sample ID:	180-44203-7	Worklist Smp#:	17
Client ID:	HD-MW-93S-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.: 180-44203-1

SDG No.:

Client Sample ID: HD-MW-93D-0/1-0 | Lab Sample ID: 180-44203-8

Matrix: Water | Lab File ID: B-ICS2100 B 05-19-2015-18.d

Analysis Method: 300.0 | Date Collected: 05/18/2015 10:22

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 05/19/2015 16:44

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: AS-18 ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 142093 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.51	B	0.10	0.0062
16887-00-6	Chloride	100		1.0	0.20
14808-79-8	Sulfate	31		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

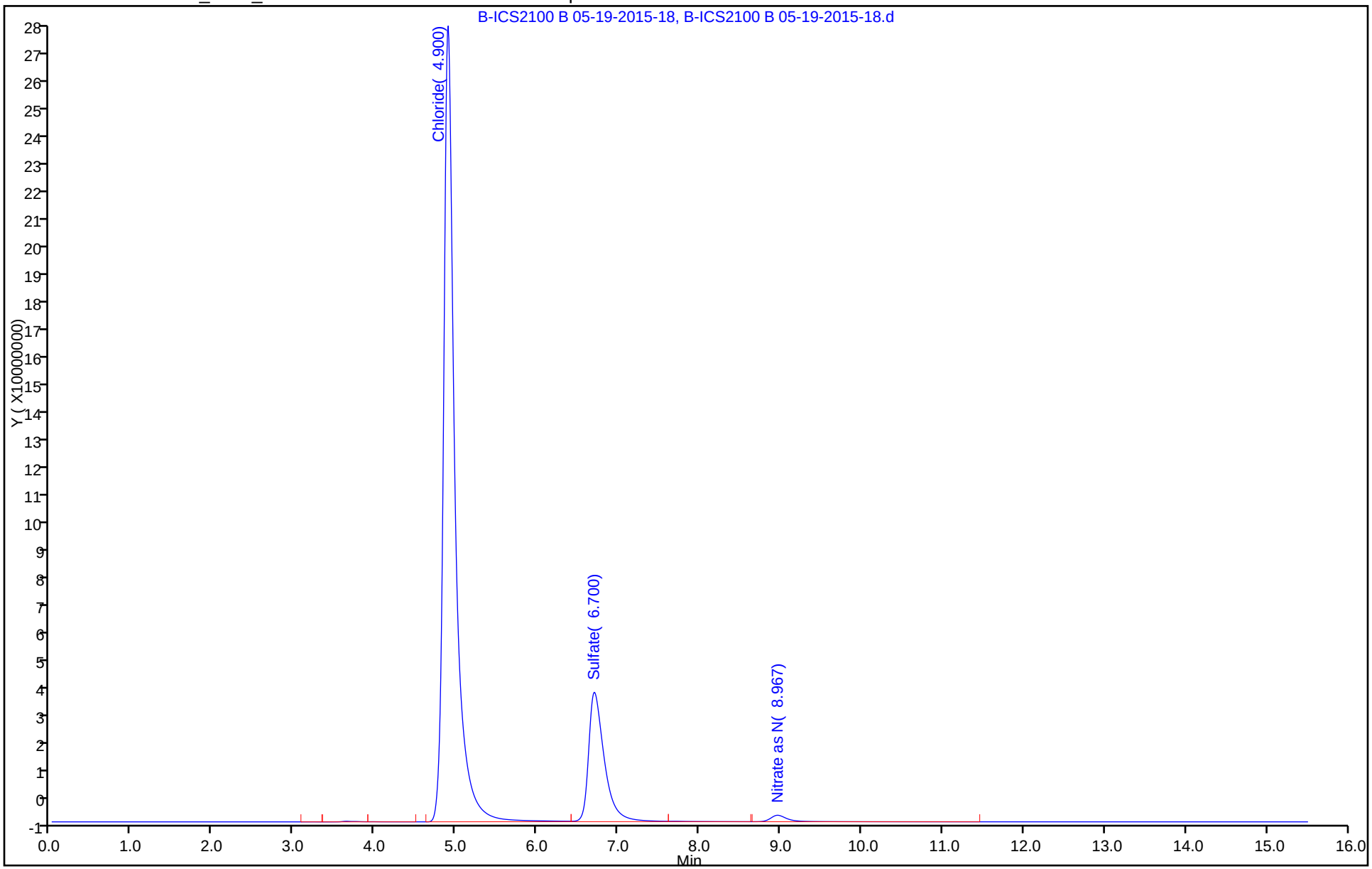
Data File:	\\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\B-ICS2100 B 05-19-2015-18.d				
Lims ID:	180-44203-A-8	Lab Sample ID:	180-44203-8		
Client ID:	HD-MW-93D-0/1-0				
Sample Type:	Client				
Inject. Date:	19-May-2015 16:44:00	ALS Bottle#:	0	Worklist Smp#:	18
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0007007-018				
Misc. Info.:	18 180-44203-a-8				
Operator ID:		Instrument ID:	CHICS2100B		
Method:	\\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\300_9056_CHIC2100B.m				
Limit Group:	GC Anions ICAL				
Last Update:	20-May-2015 17:00:05	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:	XAWRK002				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.900	4.917	-0.017	2709398427	101.6	
3 Sulfate	6.700	6.683	0.017	608232480	31.0	
5 Nitrate as N	8.967	8.908	0.059	33165807	0.5094	

Report Date: 20-May-2015 17:00:06 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\B-ICS2100 B 05-19-2015-18.d				
Injection Date:	19-May-2015 16:44:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	180-44203-A-8	Lab Sample ID:	180-44203-8	Worklist Smp#:	18
Client ID:	HD-MW-93D-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM VI
HPLC/IC INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1 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.: 180-44203-1 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.: 180-44203-1 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:

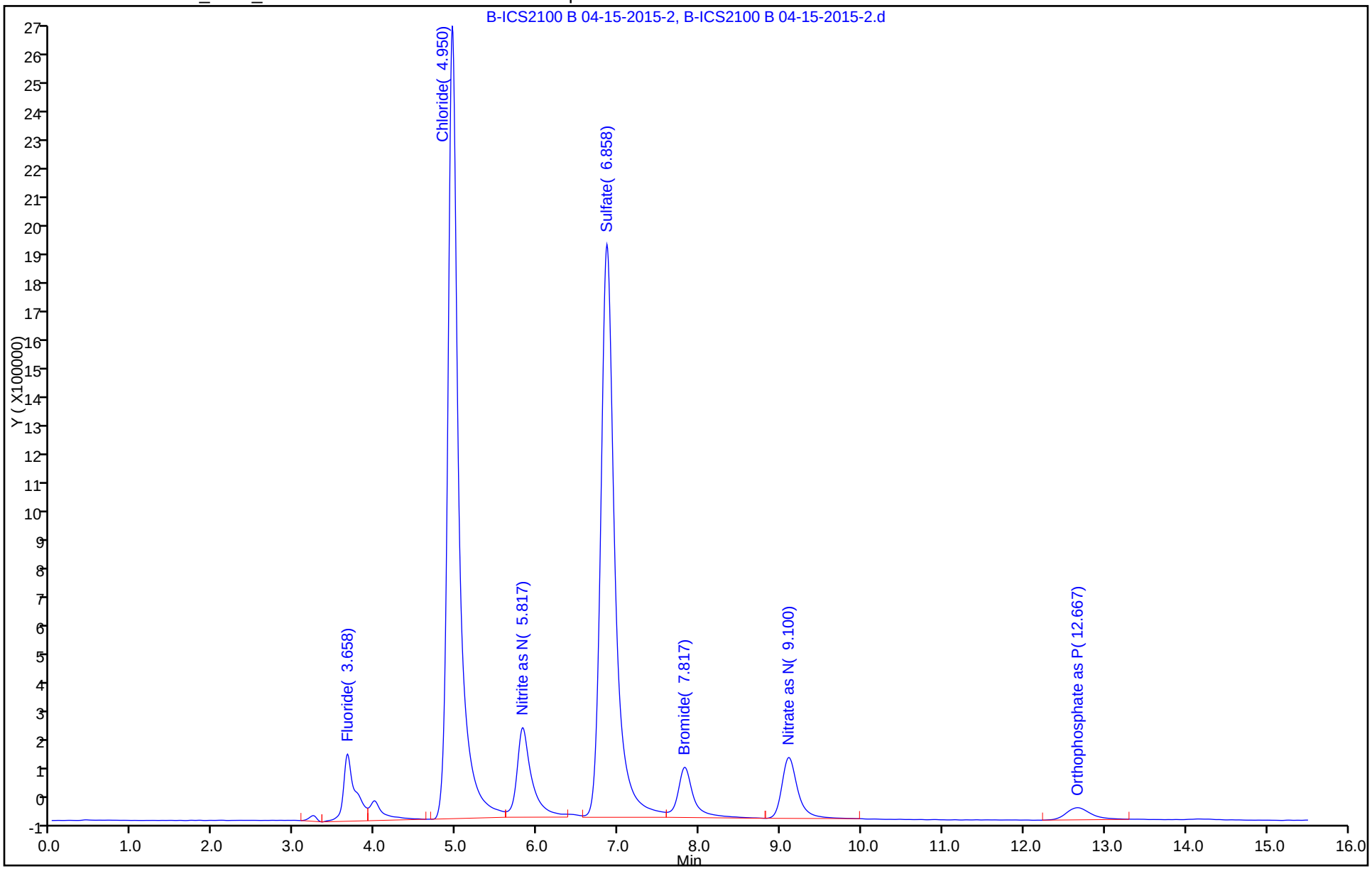
ICSTDL2_00171 Amount Added: 1.00 Units: mL

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:

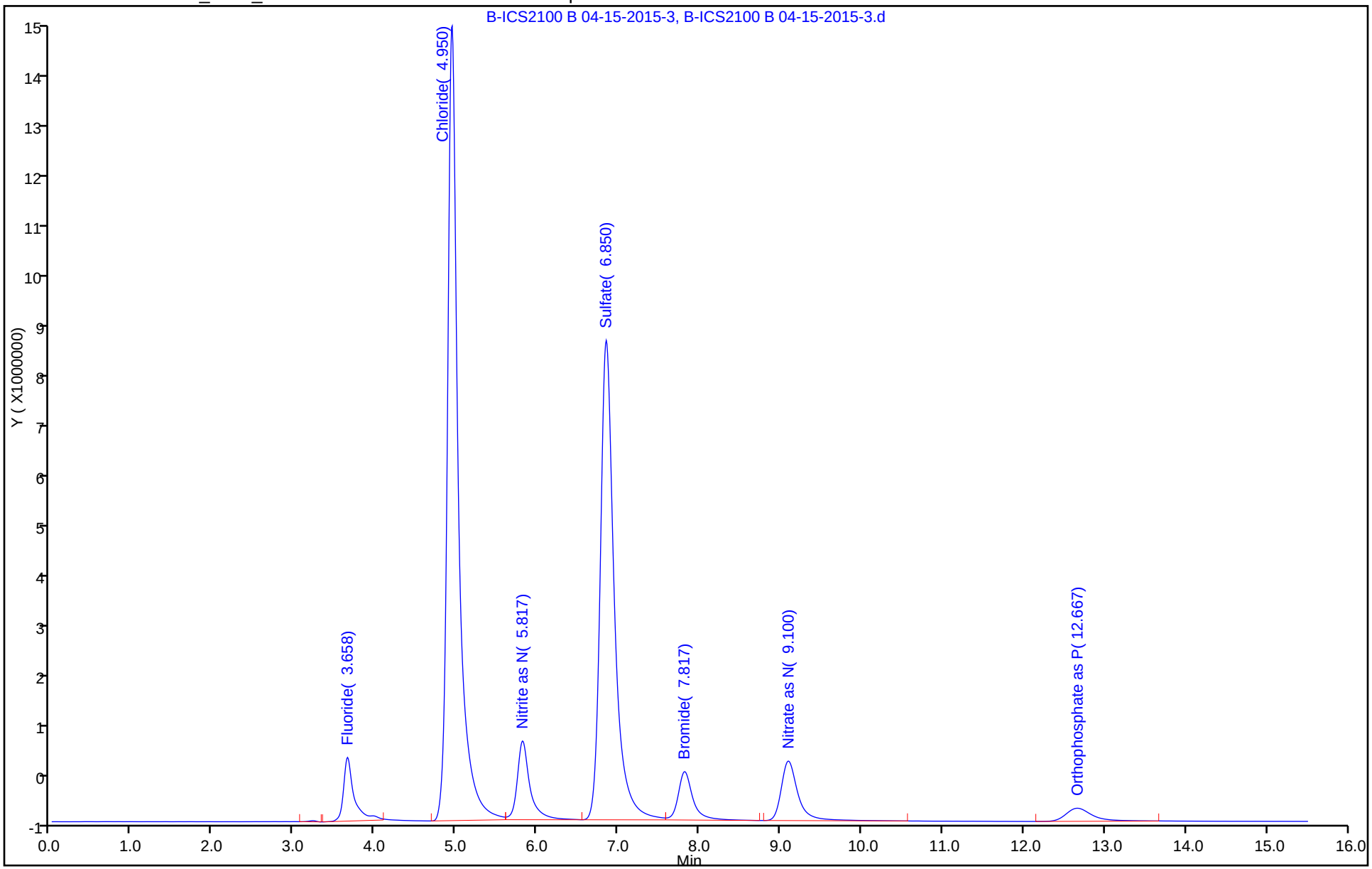
ICSTDL3_00209 Amount Added: 1.00 Units: mL

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	1769232H	2.00	2.01	
5 Nitrate as N	9.083	9.083	0.000	31996419	0.5000	0.4917	
6 Orthophosphate as P	12.633	12.633	0.000	11815310	0.5000	0.5030	

Reagents:

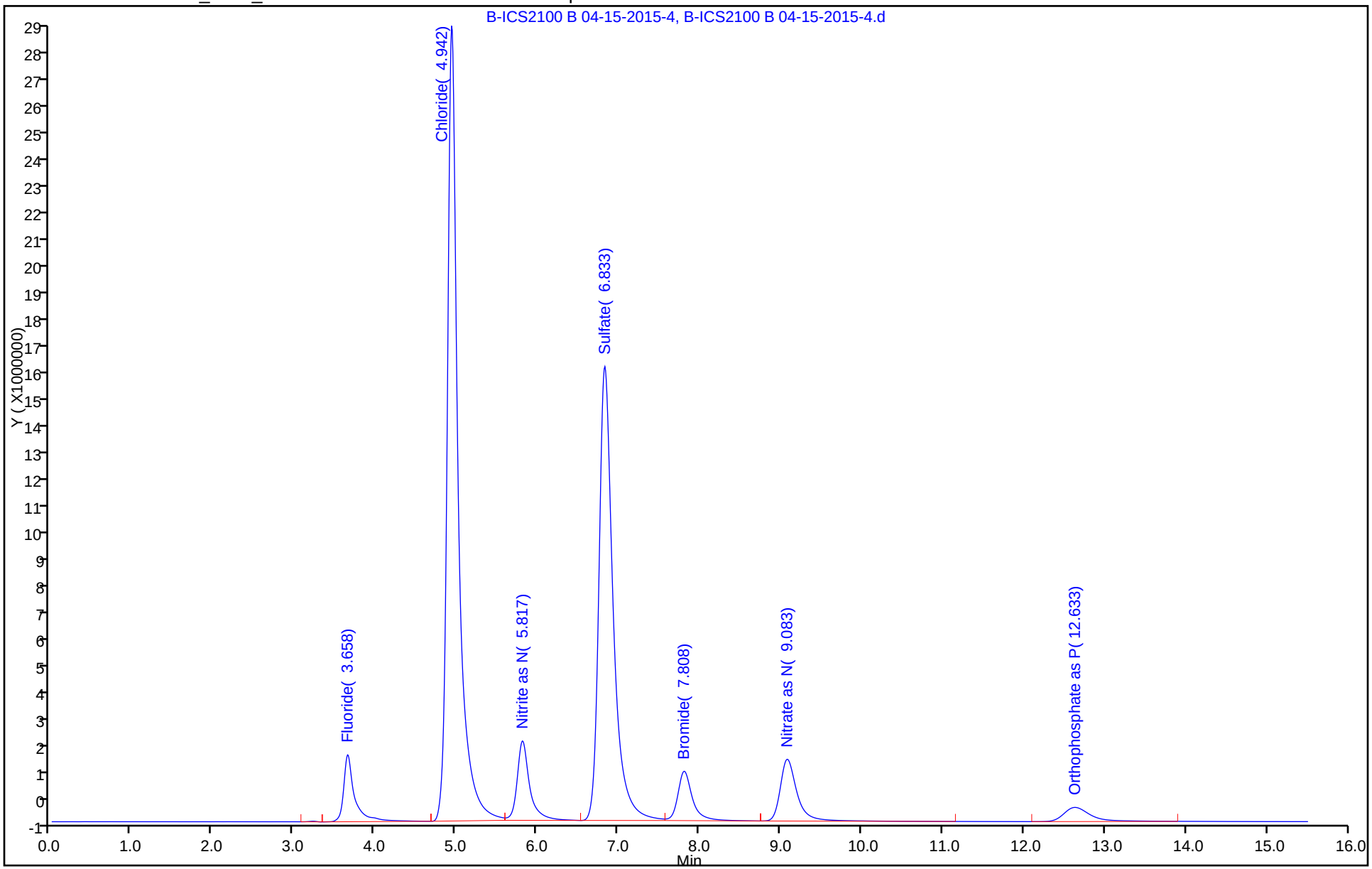
ICSTDL4_00143 Amount Added: 1.00 Units: mL

Report Date: 16-Apr-2015 12:08:33 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-4.d

Injection Date:	15-Apr-2015 16:19:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	icrt L4			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-5.d
Lims ID: ic L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 15-Apr-2015 16:36:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006484-005
Misc. Info.: 13847 ic l5
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 16-Apr-2015 12:08:33 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK011

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.667	3.658	0.009	45839580	1.00	1.05	
2 Chloride	4.942	4.942	0.000	534948618	20.0	20.1	
7 Nitrite as N	5.817	5.817	0.000	61339242	1.00	1.05	
3 Sulfate	6.808	6.833	-0.025	397746587	20.0	20.2	
4 Bromide	7.808	7.808	0.000	3636676	4.00	4.13	H
5 Nitrate as N	9.067	9.083	-0.016	65497209	1.00	1.00	
6 Orthophosphate as P	12.600	12.633	-0.033	24921352	1.00	0.9871	

Reagents:

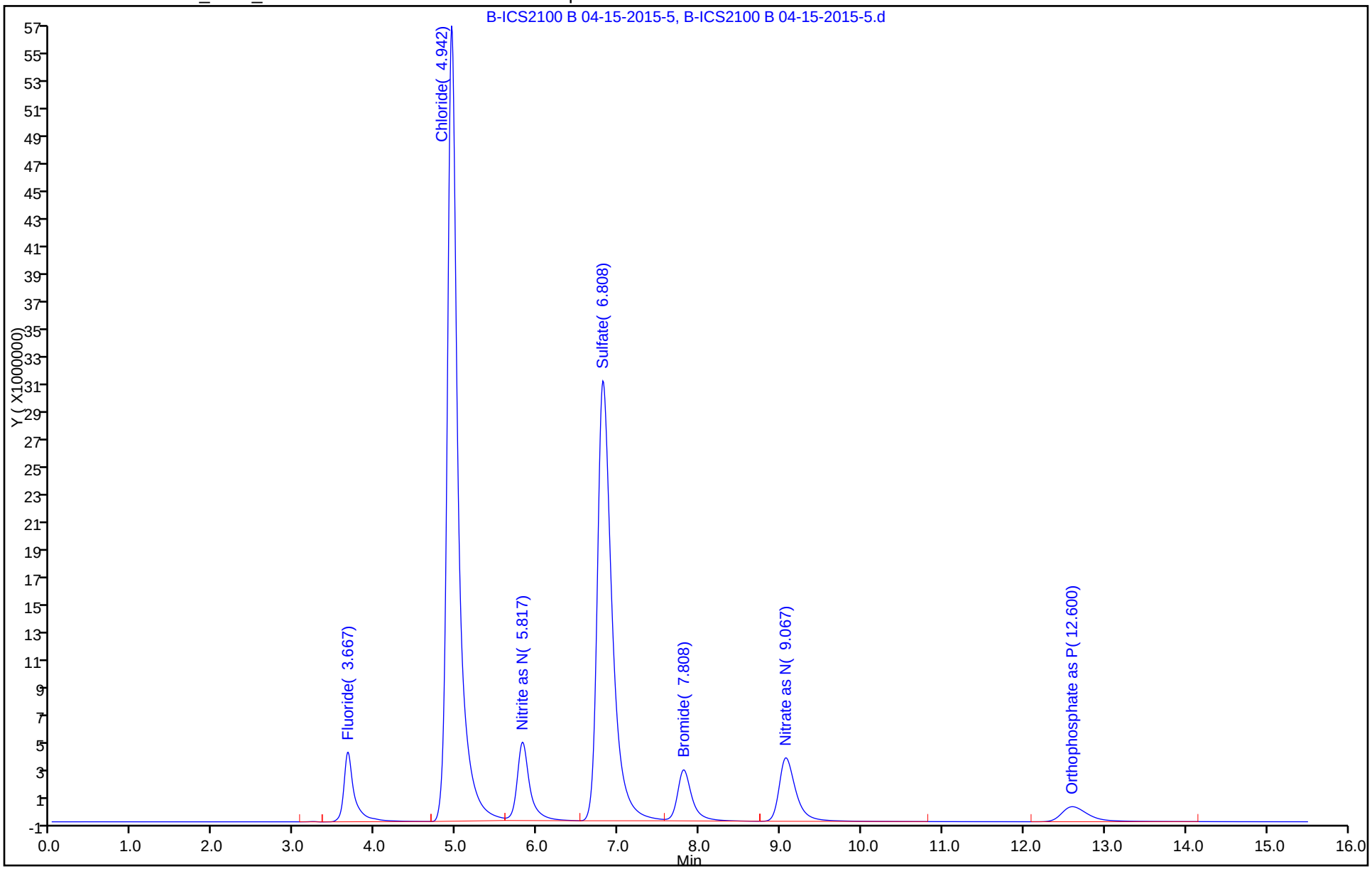
ICSTDL5_00145 Amount Added: 1.00 Units: mL

Report Date: 16-Apr-2015 12:08:33 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-5.d

Injection Date:	15-Apr-2015 16:36:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ic L5			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-6.d
Lims ID: ic L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 15-Apr-2015 16:53:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0006484-006
Misc. Info.: 10546 ic l6
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 16-Apr-2015 12:08:33 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK011

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.667	3.658	0.009	111221925	2.50	2.56	
2 Chloride	4.933	4.942	-0.009	1333007108	50.0	50.0	
7 Nitrite as N	5.817	5.817	0.000	144706410	2.50	2.49	
3 Sulfate	6.750	6.833	-0.083	978862804	50.0	50.1	
4 Bromide	7.783	7.808	-0.025	9154030H	10.0	10.4	
5 Nitrate as N	9.017	9.083	-0.066	166133672	2.50	2.52	
6 Orthophosphate as P	12.467	12.633	-0.166	66171182	2.50	2.51	

Reagents:

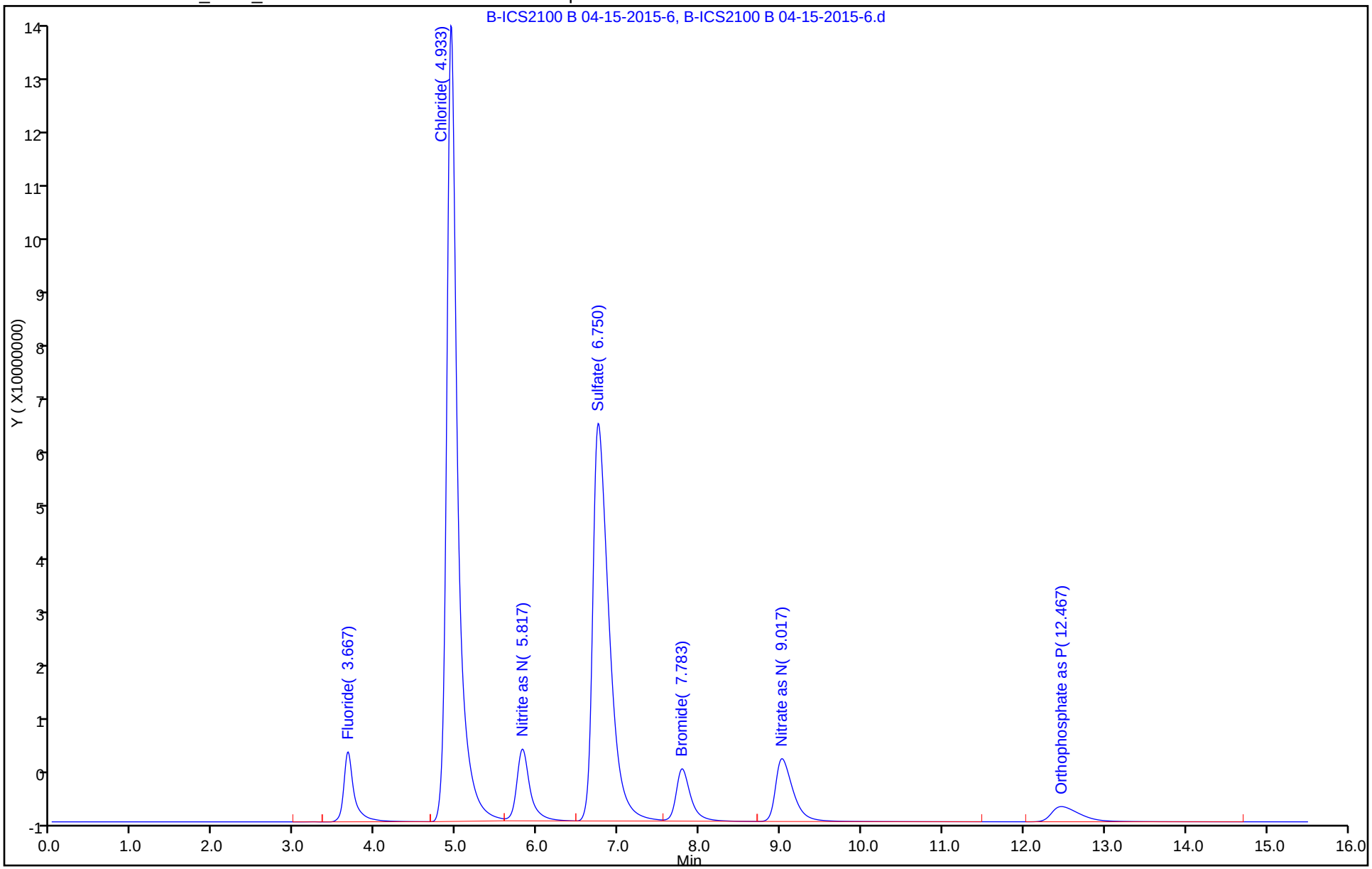
ICSTDL6_00213 Amount Added: 1.00 Units: mL

Report Date: 16-Apr-2015 12:08:33 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-6.d

Injection Date:	15-Apr-2015 16:53:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ic L6			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



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:

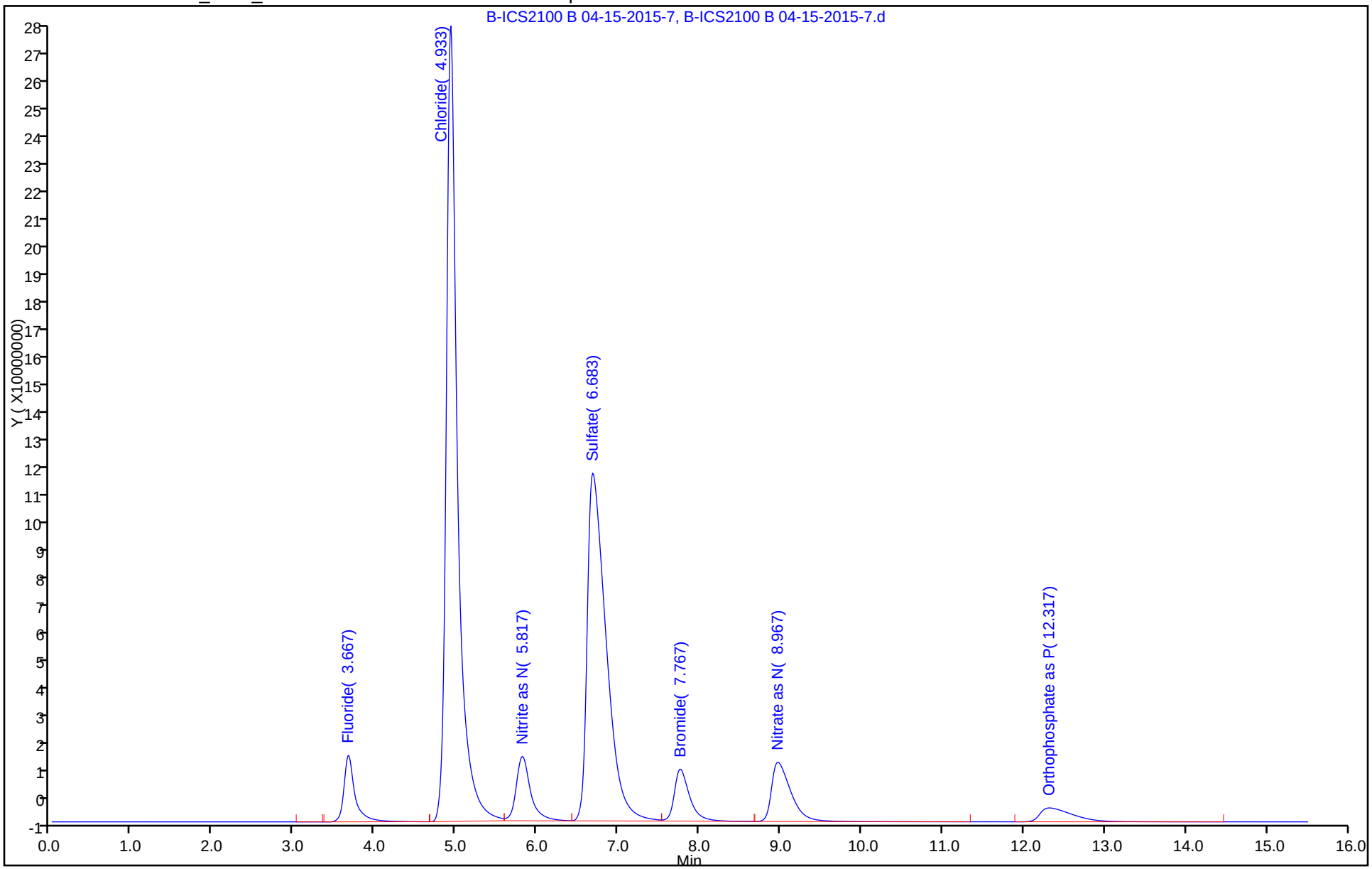
ICSTDL7_00141 Amount Added: 1.00 Units: mL

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	26049842H	30.0	29.5	
5 Nitrate as N	8.917	9.083	-0.166	505352191	7.50	7.64	
6 Orthophosphate as P	12.183	12.633	-0.450	202100715	7.50	7.53	

Reagents:

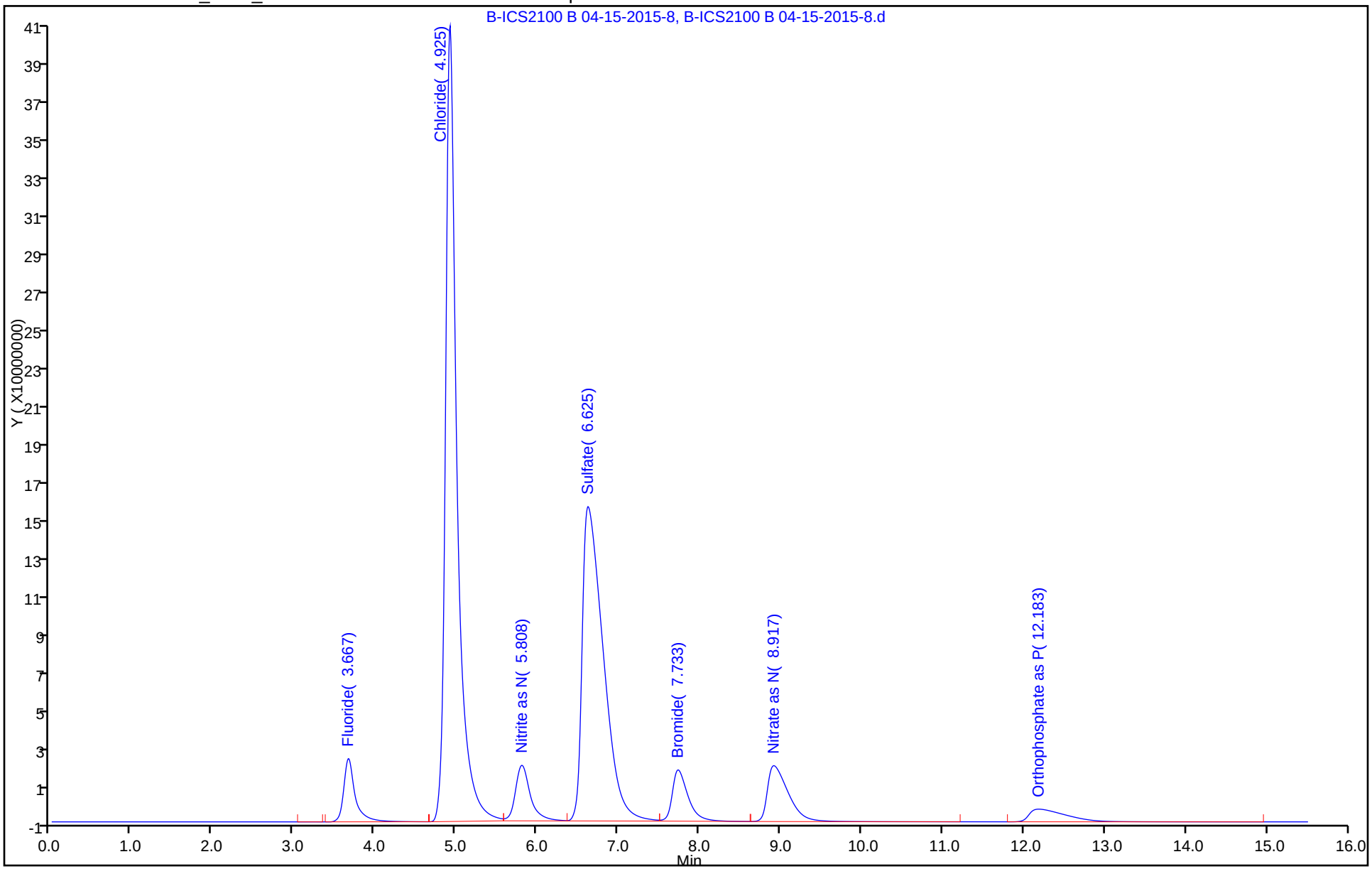
ICSTDL8_00112 Amount Added: 1.00 Units: mL

Report Date: 16-Apr-2015 12:08:34 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-8.d

Injection Date:	15-Apr-2015 17:28:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ic L8			Worklist Smp#:	8
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



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:

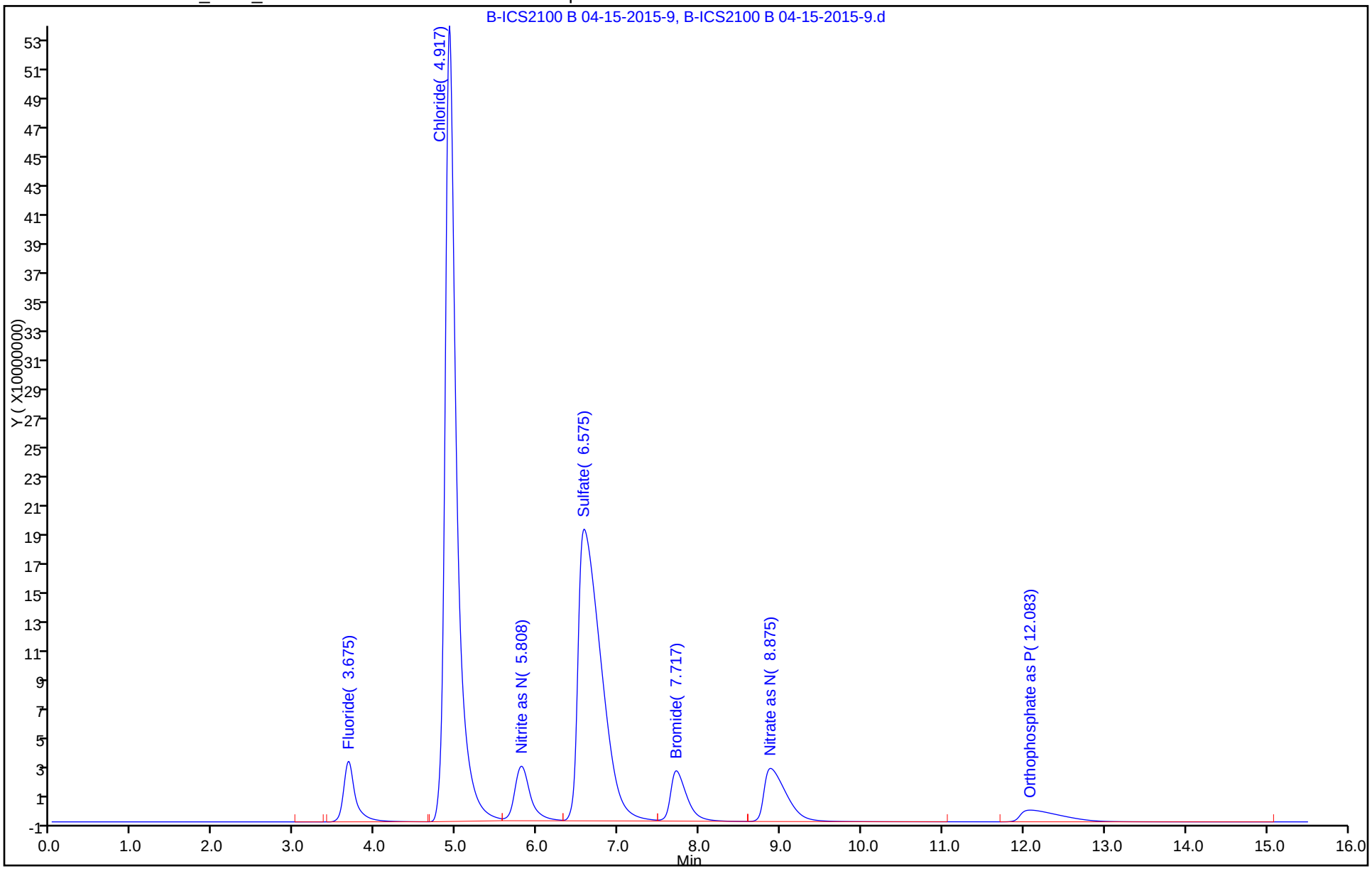
ICSTDL9_00115 Amount Added: 1.00 Units: mL

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.: 180-44203-1

SDG No.:

Lab Sample ID: ICV 180-142093/2 Calibration Date: 05/19/2015 11:40

Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44

GC Column: AS-18 ID: Calib End Date: 04/15/2015 17:45

Lab File ID: B-ICS2100 B 05-19-2015-2.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		43401175		3.00	3.00	-0.1	10.0
Chloride	Lin2		25920372		58.3	60.0	-2.8	10.0
Nitrite as N	Lin2	62099531	57271427		2.97	3.00	-1.2	10.0
Sulfate	Lin2		19156724		58.8	60.0	-2.0	10.0
Bromide	Lin2		869331		11.8	12.0	-1.5	10.0
Nitrate as N	Lin2		63344311		2.88	3.00	-4.1	10.0
Orthophosphate as P	Lin2		22804659		2.59	3.00	-13.6*	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Lab Sample ID: ICV 180-142093/2 Calibration Date: 05/19/2015 11:40

Instrument ID: CHICS2100B Calib Start Date: 04/15/2015 15:44

GC Column: AS-18 ID: Calib End Date: 04/15/2015 17:45

Lab File ID: B-ICS2100 B 05-19-2015-2.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.66	3.31	4.01
Chloride	4.91	4.57	5.27
Nitrite as N	5.76	5.53	6.03
Sulfate	6.67	6.33	7.03
Bromide	7.70	7.36	8.06
Nitrate as N	8.90	8.66	9.16
Orthophosphate as P	12.18	11.71	12.71

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\B-ICS2100 B 05-19-2015-2.d
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 19-May-2015 11:40:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007007-002
Misc. Info.: 2 icv
Operator ID: Instrument ID: CHICS2100B
Sublist:

Method: \\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 20-May-2015 16:57:41 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: XAWRK002

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	130203525	3.00	3.00	
2 Chloride	4.908	4.917	-0.009	1555222348	60.0	58.3	
7 Nitrite as N	5.758	5.775	-0.017	171883006	3.00	2.97	
3 Sulfate	6.667	6.683	-0.016	1149403463	60.0	58.8	
4 Bromide	7.700	7.708	-0.008	10431969H	12.0	11.8	
5 Nitrate as N	8.900	8.908	-0.008	190032932	3.00	2.88	
6 Orthophosphate as P	12.183	12.208	-0.025	68413976	3.00	2.59	

Reagents:

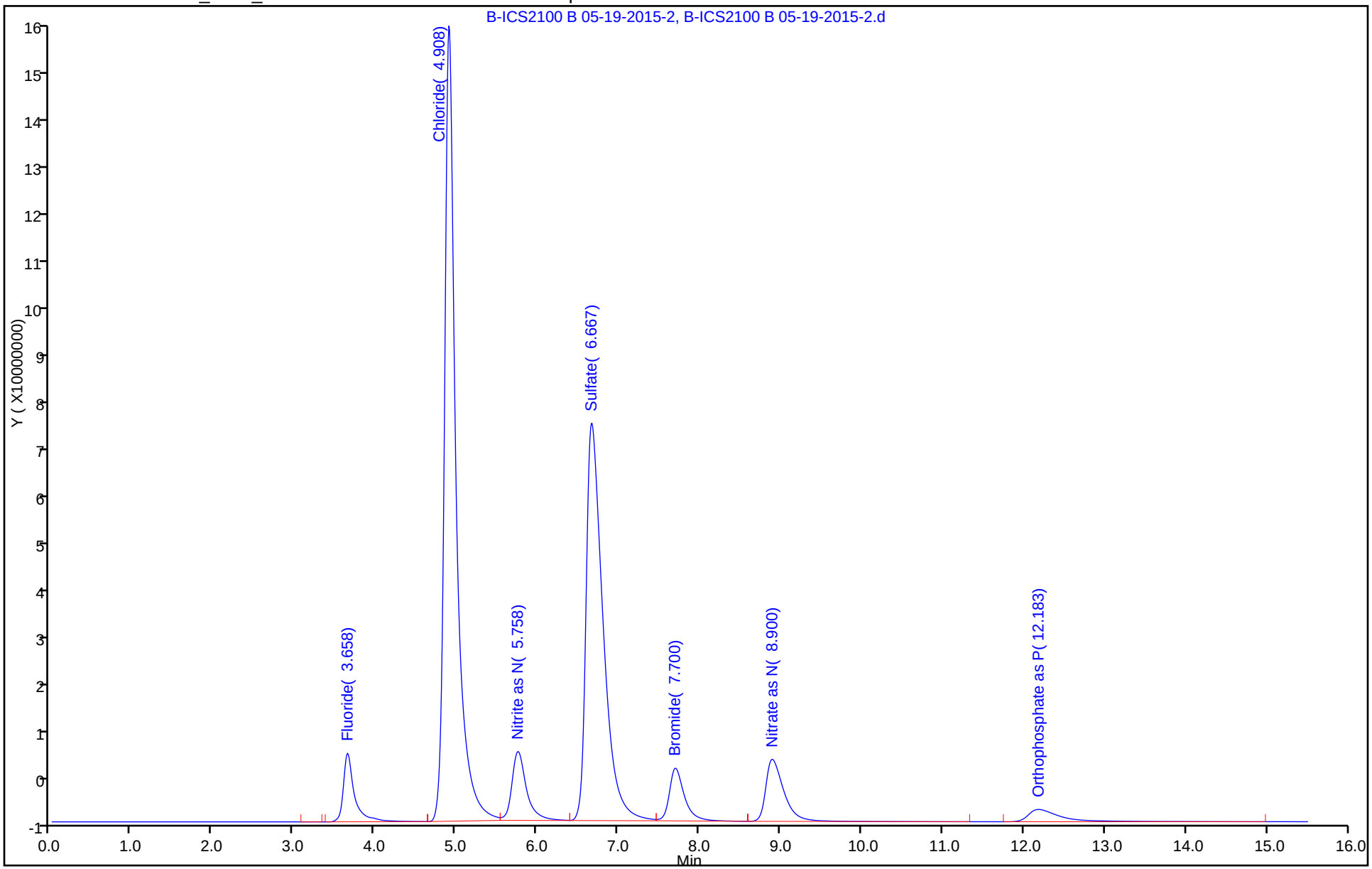
icicv_01274 Amount Added: 1.00 Units: mL

Report Date: 20-May-2015 16:57:41 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\B-ICS2100 B 05-19-2015-2.d

Injection Date:	19-May-2015 11:40:00	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.: 180-44203-1

SDG No.:

Lab Sample ID: CCV 180-142093/3 Calibration Date: 05/19/2015 11:58

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 05-19-2015-3.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		43271950		2.49	2.50	-0.4	10.0
Chloride	Lin2		26626338		49.9	50.0	-0.1	10.0
Nitrite as N	Lin2	62099531	57386520		2.47	2.50	-1.1	10.0
Sulfate	Lin2		19497592		49.8	50.0	-0.3	10.0
Bromide	Lin2		898756		10.2	10.0	1.9	10.0
Nitrate as N	Lin2		66171772		2.51	2.50	0.3	10.0
Orthophosphate as P	Lin2		23517653		2.24	2.50	-10.5*	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Lab Sample ID: CCV 180-142093/3 Calibration Date: 05/19/2015 11:58

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 05-19-2015-3.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.66	3.31	4.01
Chloride	4.92	4.57	5.27
Nitrite as N	5.78	5.53	6.03
Sulfate	6.68	6.33	7.03
Bromide	7.71	7.36	8.06
Nitrate as N	8.91	8.66	9.16
Orthophosphate as P	12.21	11.71	12.71

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\B-ICS2100 B 05-19-2015-3.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 19-May-2015 11:58:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007007-003
Misc. Info.: 3 ccv
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 20-May-2015 16:57:41 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: XAWRK002

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	108179875	2.50	2.49	
2 Chloride	4.917	4.917	0.000	1331316895	50.0	49.9	
7 Nitrite as N	5.775	5.775	0.000	143466301	2.50	2.47	
3 Sulfate	6.683	6.683	0.000	974879576	50.0	49.8	
4 Bromide	7.708	7.708	0.000	8987555	10.0	10.2	H
5 Nitrate as N	8.908	8.908	0.000	165429431	2.50	2.51	
6 Orthophosphate as P	12.208	12.208	0.000	58794132	2.50	2.24	

Reagents:

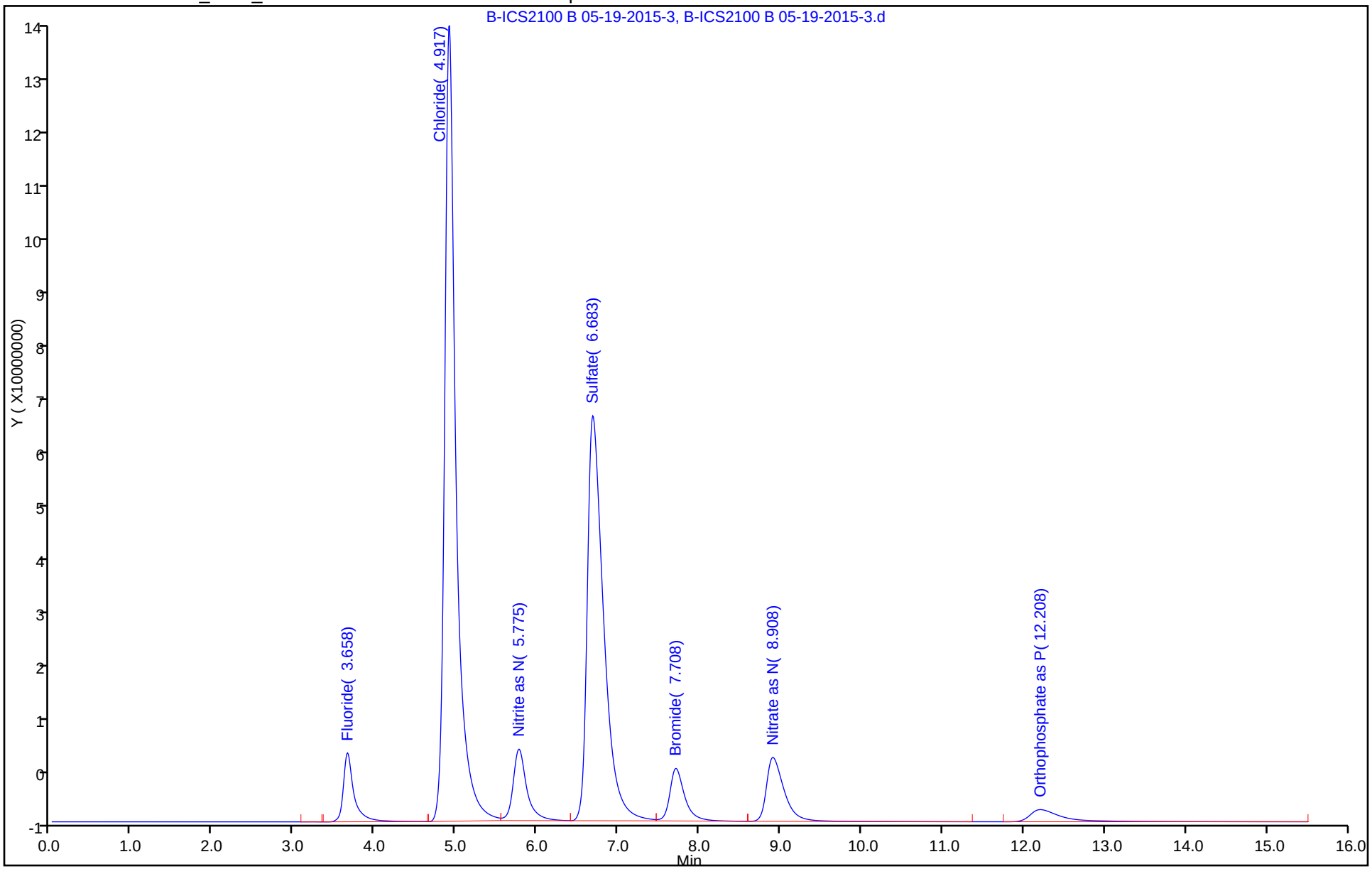
icccv_01242 Amount Added: 1.00 Units: mL

Report Date: 20-May-2015 16:57:41 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\B-ICS2100 B 05-19-2015-3.d

Injection Date:	19-May-2015 11:58:00	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.: 180-44203-1

SDG No.:

Lab Sample ID: CCV 180-142093/15 Calibration Date: 05/19/2015 15:52

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 05-19-2015-15.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		43784067		2.52	2.50	0.8	10.0
Chloride	Lin2		26993993		50.6	50.0	1.3	10.0
Nitrite as N	Lin2	62099531	58639991		2.53	2.50	1.1	10.0
Sulfate	Lin2		19725188		50.4	50.0	0.9	10.0
Bromide	Lin2		908631		10.3	10.0	3.0	10.0
Nitrate as N	Lin2		66929399		2.53	2.50	1.4	10.0
Orthophosphate as P	Lin2		22480426		2.14	2.50	-14.3*	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Lab Sample ID: CCV 180-142093/15 Calibration Date: 05/19/2015 15:52

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 05-19-2015-15.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.66	3.31	4.01
Chloride	4.92	4.57	5.27
Nitrite as N	5.78	5.53	6.03
Sulfate	6.68	6.33	7.03
Bromide	7.71	7.36	8.06
Nitrate as N	8.91	8.66	9.16
Orthophosphate as P	12.18	11.68	12.68

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\B-ICS2100 B 05-19-2015-15.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 19-May-2015 15:52:00 ALS Bottle#: 0 Worklist Smp#: 15
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007007-015
Misc. Info.: 15 ccv
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 20-May-2015 17:00:05 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: XAWRK002

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	109460167	2.50	2.52	
2 Chloride	4.917	4.917	0.000	1349699636	50.0	50.6	
7 Nitrite as N	5.775	5.775	0.000	146599977	2.50	2.53	
3 Sulfate	6.683	6.683	0.000	986259405	50.0	50.4	
4 Bromide	7.708	7.708	0.000	9086312	10.0	10.3	H
5 Nitrate as N	8.908	8.908	0.000	167323498	2.50	2.53	
6 Orthophosphate as P	12.175	12.175	0.000	56201066	2.50	2.14	

Reagents:

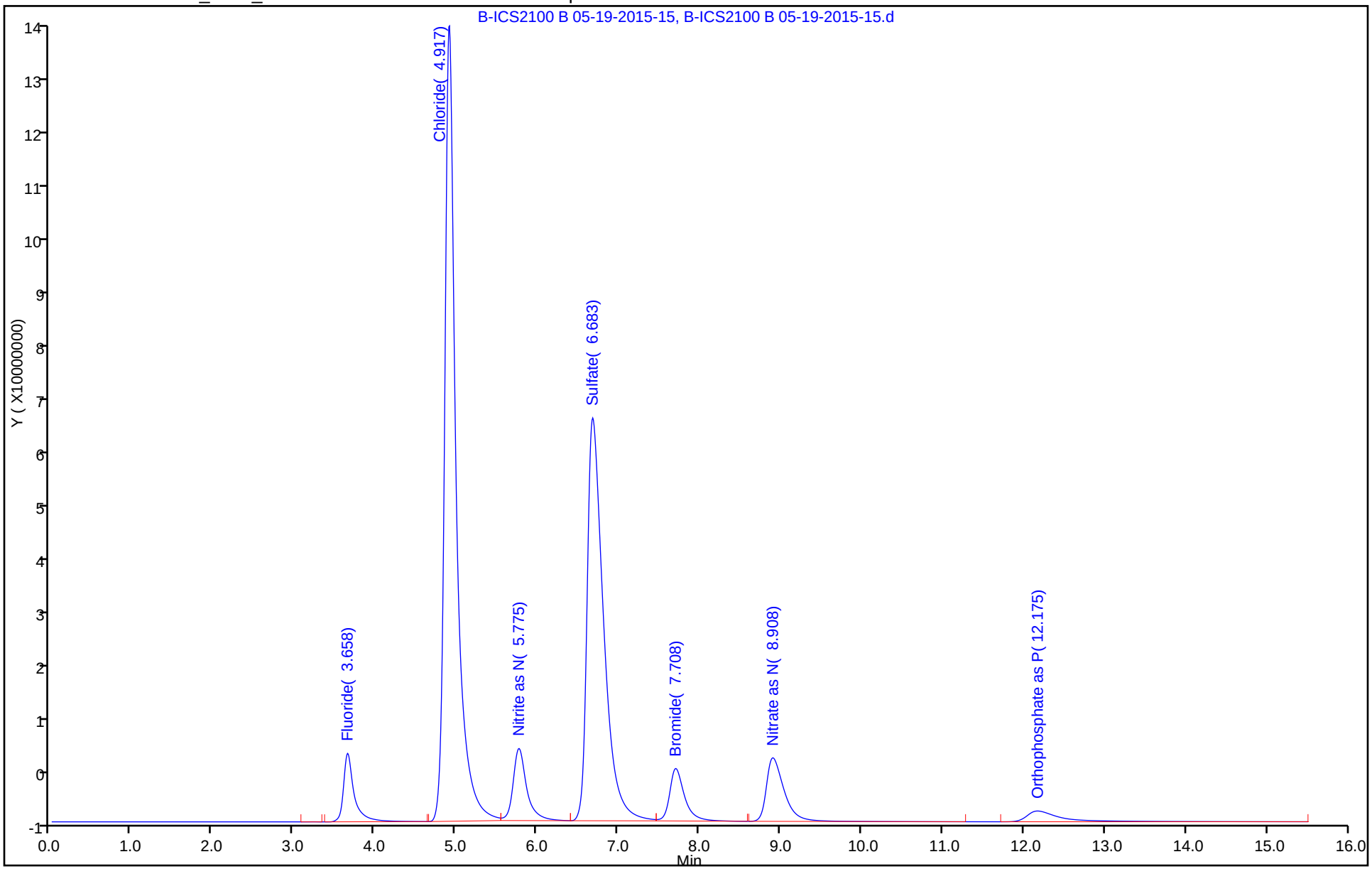
icccv_01242 Amount Added: 1.00 Units: mL

Report Date: 20-May-2015 17:00:05 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\B-ICS2100 B 05-19-2015-15.d

Injection Date:	19-May-2015 15:52:00	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.: 180-44203-1

SDG No.:

Lab Sample ID: CCV 180-142093/27 Calibration Date: 05/19/2015 19:19

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 05-19-2015-27.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		43077672		2.48	2.50	-0.9	10.0
Chloride	Lin2		26623625		49.9	50.0	-0.1	10.0
Nitrite as N	Lin2	62099531	57887416		2.49	2.50	-0.2	10.0
Sulfate	Lin2		19437009		49.7	50.0	-0.6	10.0
Bromide	Lin2		890973		10.1	10.0	1.0	10.0
Nitrate as N	Lin2		65936218		2.50	2.50	-0.1	10.0
Orthophosphate as P	Lin2		22438716		2.14	2.50	-14.5*	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Lab Sample ID: CCV 180-142093/27 Calibration Date: 05/19/2015 19:19

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 05-19-2015-27.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.66	3.31	4.01
Chloride	4.91	4.56	5.26
Nitrite as N	5.78	5.53	6.03
Sulfate	6.69	6.34	7.04
Bromide	7.71	7.36	8.06
Nitrate as N	8.91	8.66	9.16
Orthophosphate as P	12.17	11.67	12.67

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\B-ICS2100 B 05-19-2015-27.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 19-May-2015 19:19:00 ALS Bottle#: 0 Worklist Smp#: 27
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007007-027
Misc. Info.: 27 ccv
Operator ID: Instrument ID: CHICS2100B
Sublist: chrom-300_9056_CHIC2100B*sub1

Method: \\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 20-May-2015 17:00:09 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK002

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	107694179	2.50	2.48	
2 Chloride	4.908	4.908	0.000	1331181239	50.0	49.9	
7 Nitrite as N	5.775	5.775	0.000	144718540	2.50	2.49	
3 Sulfate	6.692	6.692	0.000	971850449	50.0	49.7	
4 Bromide	7.708	7.708	0.000	8909728	10.0	10.1	H
5 Nitrate as N	8.908	8.908	0.000	164840544	2.50	2.50	
6 Orthophosphate as P	12.167	12.167	0.000	56096791	2.50	2.14	

Reagents:

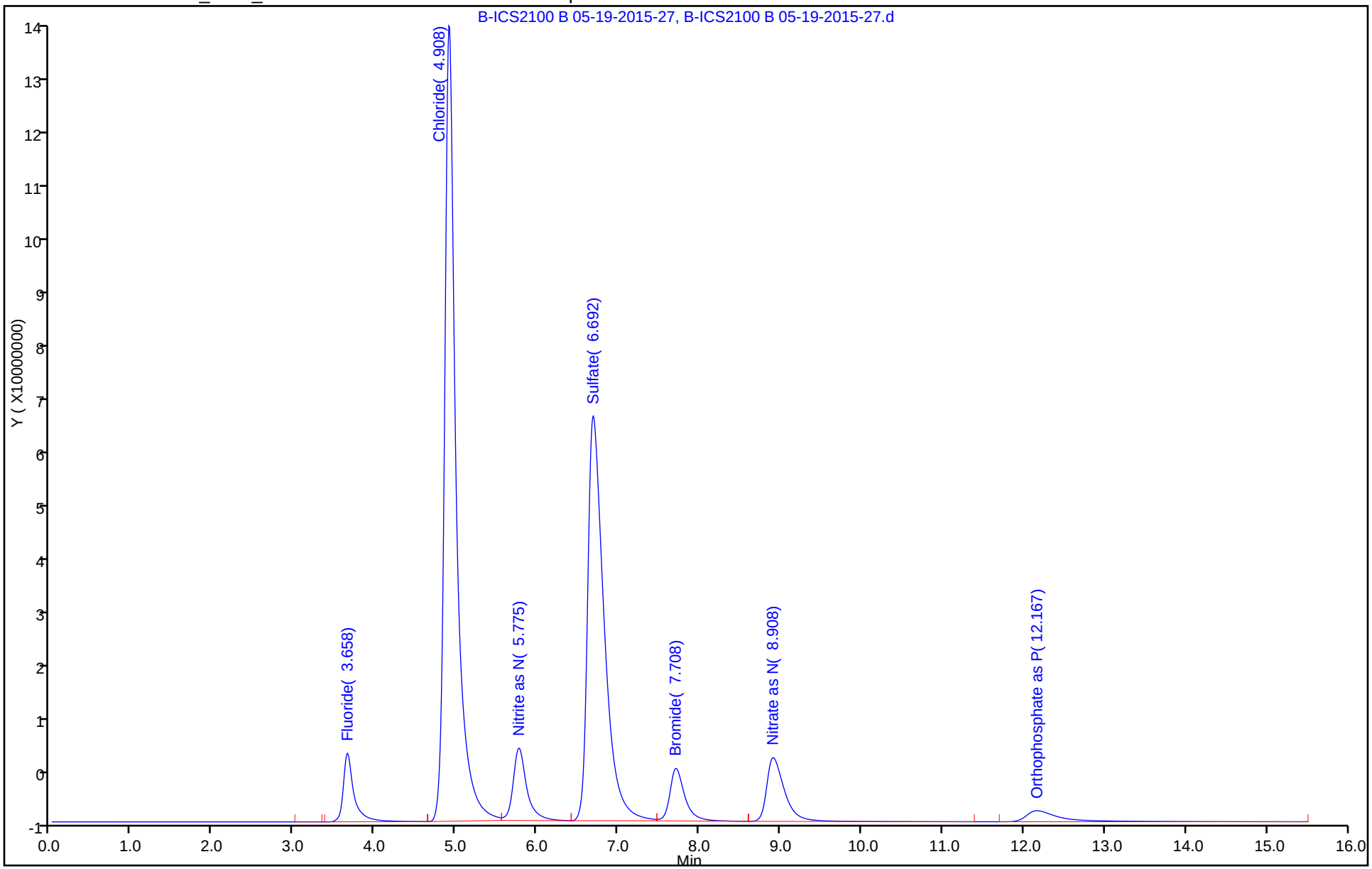
icccv_01242 Amount Added: 1.00 Units: mL

Report Date: 20-May-2015 17:00:09 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\B-ICS2100 B 05-19-2015-27.d

Injection Date:	19-May-2015 19:19:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	27
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-142093/6

Matrix: Water Lab File ID: B-ICS2100 B 05-19-2015-6.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/19/2015 12:51

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142093 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.00946	J	0.10	0.0062
16887-00-6	Chloride	1.0	U	1.0	0.20
14808-79-8	Sulfate	1.0	U	1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\B-ICS2100 B 05-19-2015-6.d
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 19-May-2015 12:51:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007007-006
Misc. Info.: 6 MB
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 20-May-2015 16:57:35 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: XAWRK002

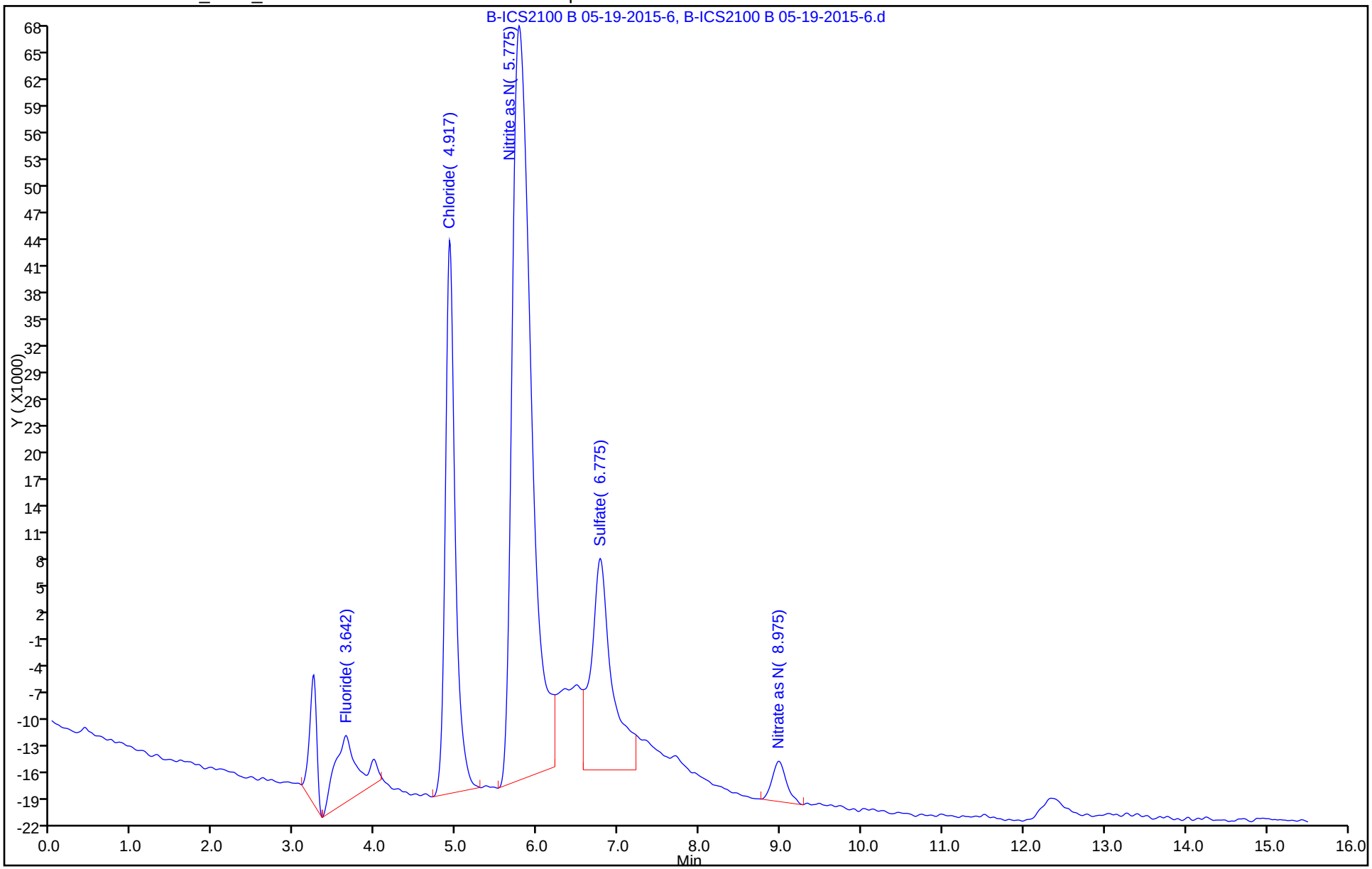
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.642	3.658	-0.016	151659		0.000219	
2 Chloride	4.917	4.917	0.000	526693		0.0801	
7 Nitrite as N	5.775	5.775	0.000	1390166		0.007242	
3 Sulfate	6.775	6.683	0.092	424531		-0.1791	
4 Bromide		7.708				ND	
5 Nitrate as N	8.975	8.908	0.067	55008		0.009460	
6 Orthophosphate as P		12.175				ND	

Report Date: 20-May-2015 16:57:40 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\B-ICS2100 B 05-19-2015-6.d

Injection Date:	19-May-2015 12:51:00	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.: 180-44203-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-142093/4

Matrix: Water Lab File ID: B-ICS2100 B 05-19-2015-4.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/19/2015 12:15

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142093 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.00962	J	0.10	0.0062
16887-00-6	Chloride	1.0	U	1.0	0.20
14808-79-8	Sulfate	1.0	U	1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\B-ICS2100 B 05-19-2015-4.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 19-May-2015 12:15:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007007-004
Misc. Info.: 4 ccb
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 20-May-2015 16:57:35 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: XAWRK002

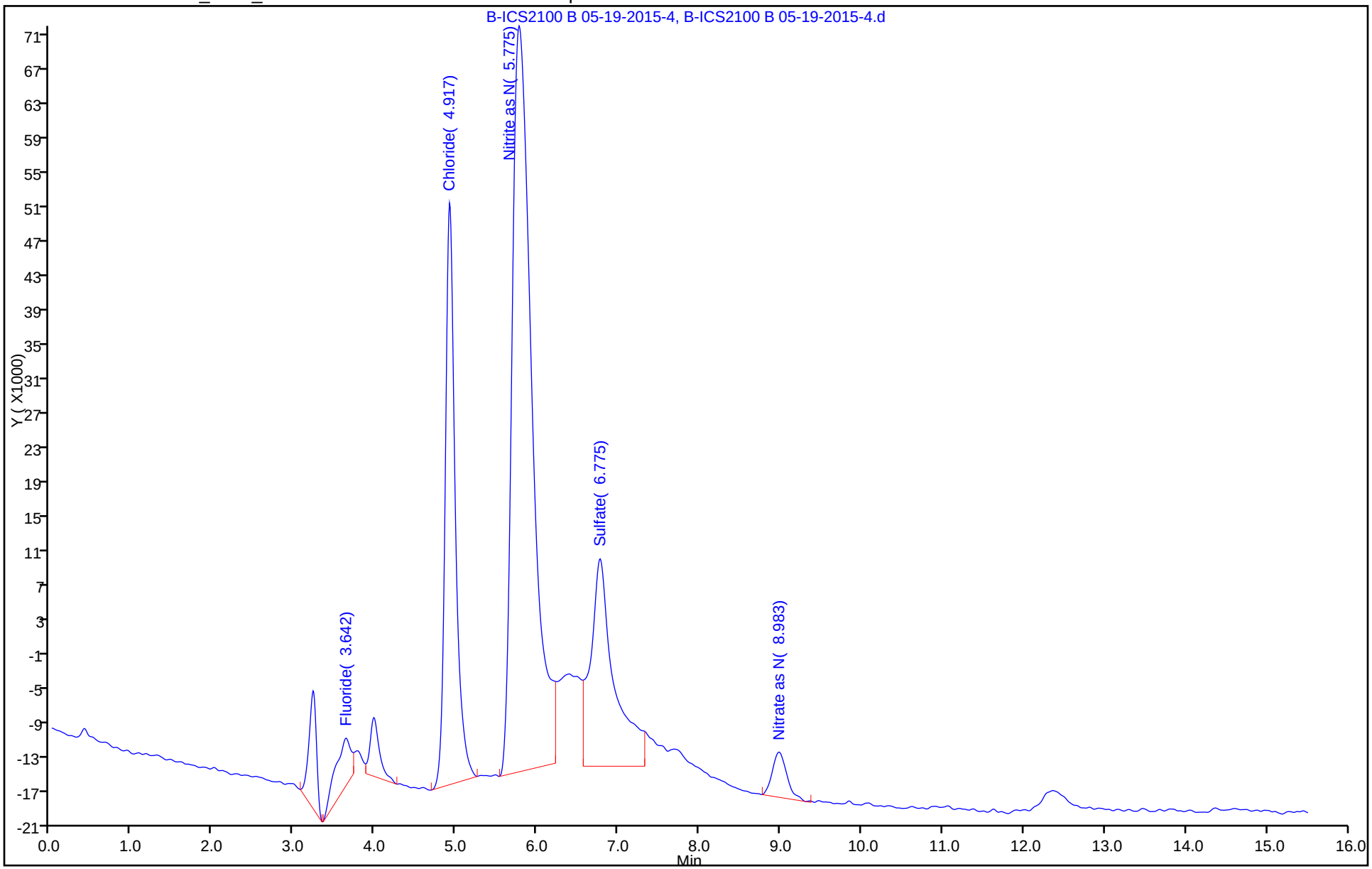
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.642	3.658	-0.016	77925		-0.001480	
2 Chloride	4.917	4.917	0.000	580304		0.0821	
7 Nitrite as N	5.775	5.775	0.000	1476516		0.008740	
3 Sulfate	6.775	6.683	0.092	485774		-0.1759	
4 Bromide		7.708				ND	
5 Nitrate as N	8.983	8.908	0.075	65450		0.009618	
6 Orthophosphate as P		12.175				ND	

Report Date: 20-May-2015 16:57:40 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\B-ICS2100 B 05-19-2015-4.d

Injection Date:	19-May-2015 12:15:00	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.: 180-44203-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-142093/16

Matrix: Water Lab File ID: B-ICS2100 B 05-19-2015-16.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/19/2015 16:09

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142093 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.00985	J	0.10	0.0062
16887-00-6	Chloride	1.0	U	1.0	0.20
14808-79-8	Sulfate	1.0	U	1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\B-ICS2100 B 05-19-2015-16.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 19-May-2015 16:09:00 ALS Bottle#: 0 Worklist Smp#: 16
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007007-016
Misc. Info.: 16 ccb
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 20-May-2015 17:00:05 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: XAWRK002

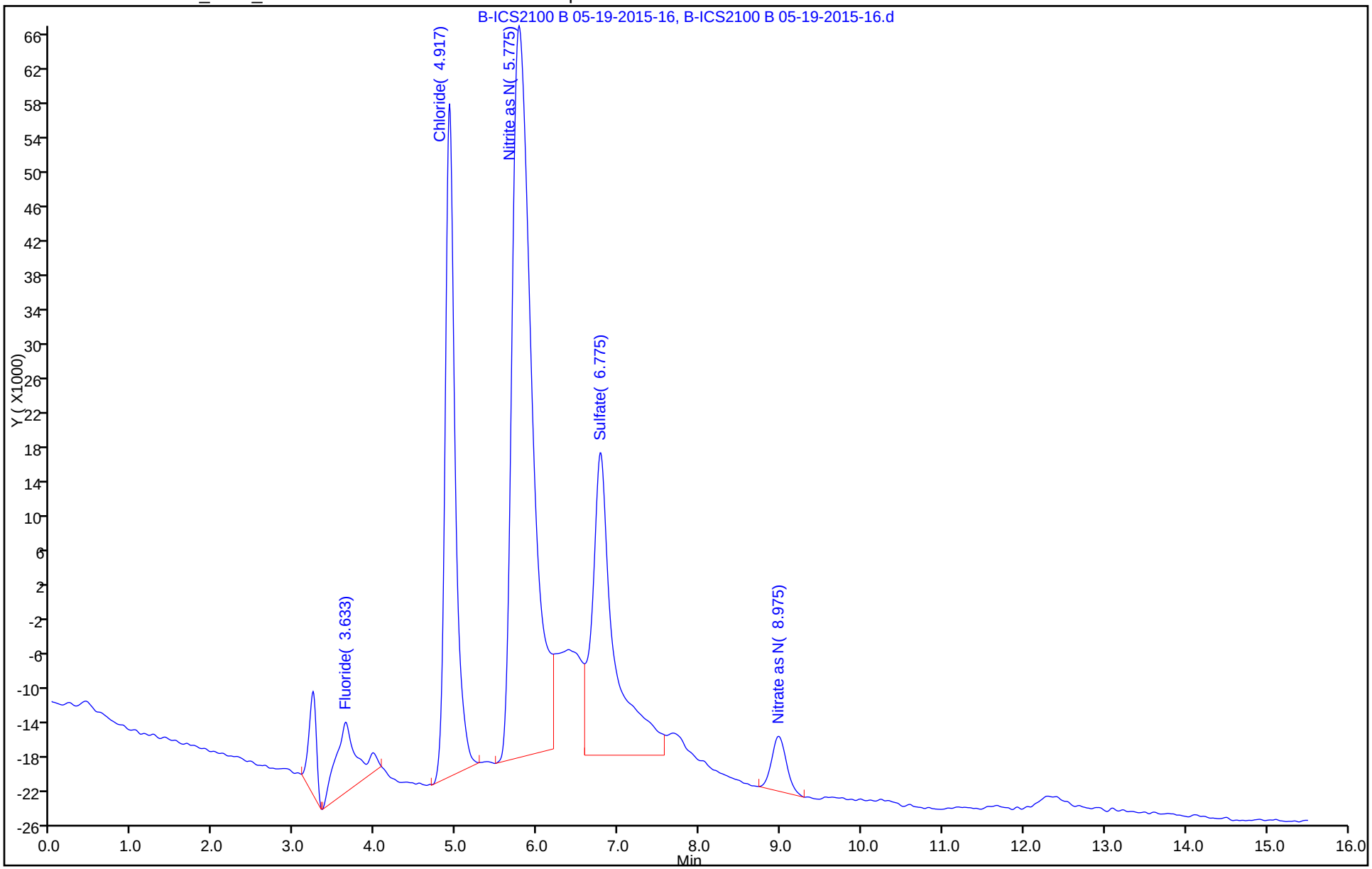
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.633	3.658	-0.025	148363		0.000143	
2 Chloride	4.917	4.917	0.000	664903		0.0853	
7 Nitrite as N	5.775	5.775	0.000	1440068		0.008108	
3 Sulfate	6.775	6.683	0.092	655273		-0.1672	
4 Bromide		7.708				ND	
5 Nitrate as N	8.975	8.908	0.067	80741		0.009849	
6 Orthophosphate as P		12.175				ND	

Report Date: 20-May-2015 17:00:05 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\B-ICS2100 B 05-19-2015-16.d

Injection Date:	19-May-2015 16:09:00	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.: 180-44203-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-142093/28

Matrix: Water Lab File ID: B-ICS2100 B 05-19-2015-28.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/19/2015 19:37

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142093 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.00954	J	0.10	0.0062
16887-00-6	Chloride	1.0	U	1.0	0.20
14808-79-8	Sulfate	1.0	U	1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\B-ICS2100 B 05-19-2015-28.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 19-May-2015 19:37:00 ALS Bottle#: 0 Worklist Smp#: 28
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007007-028
Misc. Info.: 28 ccb
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 20-May-2015 17:00:09 Calib Date: 15-Apr-2015 17:45:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHICS2100B\20150415-6484.b\B-ICS2100 B 04-15-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK002

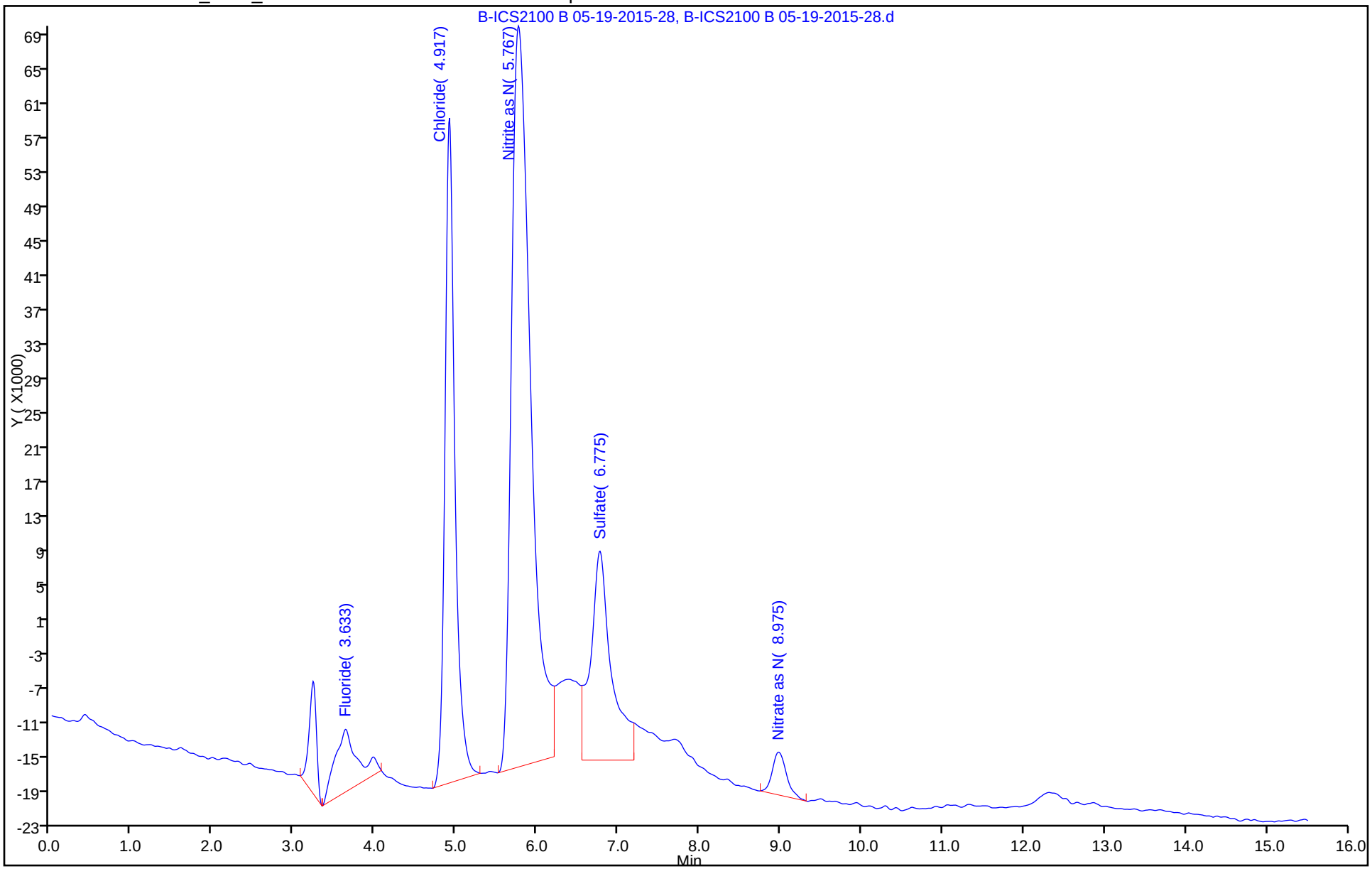
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.633	3.658	-0.025	140185		-0.00004527	
2 Chloride	4.917	4.908	0.009	657391		0.0850	
7 Nitrite as N	5.767	5.775	-0.008	1422199		0.007798	
3 Sulfate	6.775	6.692	0.083	434261		-0.1786	
4 Bromide		7.708				ND	
5 Nitrate as N	8.975	8.908	0.067	60425		0.009542	
6 Orthophosphate as P		12.167				ND	

Report Date: 20-May-2015 17:00:10 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\B-ICS2100 B 05-19-2015-28.d

Injection Date:	19-May-2015 19:37:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	28
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-142093/5

Matrix: Water Lab File ID: B-ICS2100 B 05-19-2015-5.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/19/2015 12:33

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142093 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.44		0.10	0.0062
16887-00-6	Chloride	48.8		1.0	0.20
14808-79-8	Sulfate	48.0		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\B-ICS2100 B 05-19-2015-5.d
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 19-May-2015 12:33:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007007-005
Misc. Info.: 5 LCS
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 20-May-2015 16:57:35 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: XAWRK002

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	104671572	2.50	2.41	
2 Chloride	4.908	4.917	-0.009	1301842753	50.0	48.8	
7 Nitrite as N	5.775	5.775	0.000	139940595	2.50	2.41	
3 Sulfate	6.692	6.683	0.009	937893958	50.0	48.0	
4 Bromide	7.708	7.708	0.000	8783052H	10.0	9.95	
5 Nitrate as N	8.908	8.908	0.000	161172032	2.50	2.44	
6 Orthophosphate as P	12.217	12.175	0.042	55862134	2.50	2.13	

Reagents:

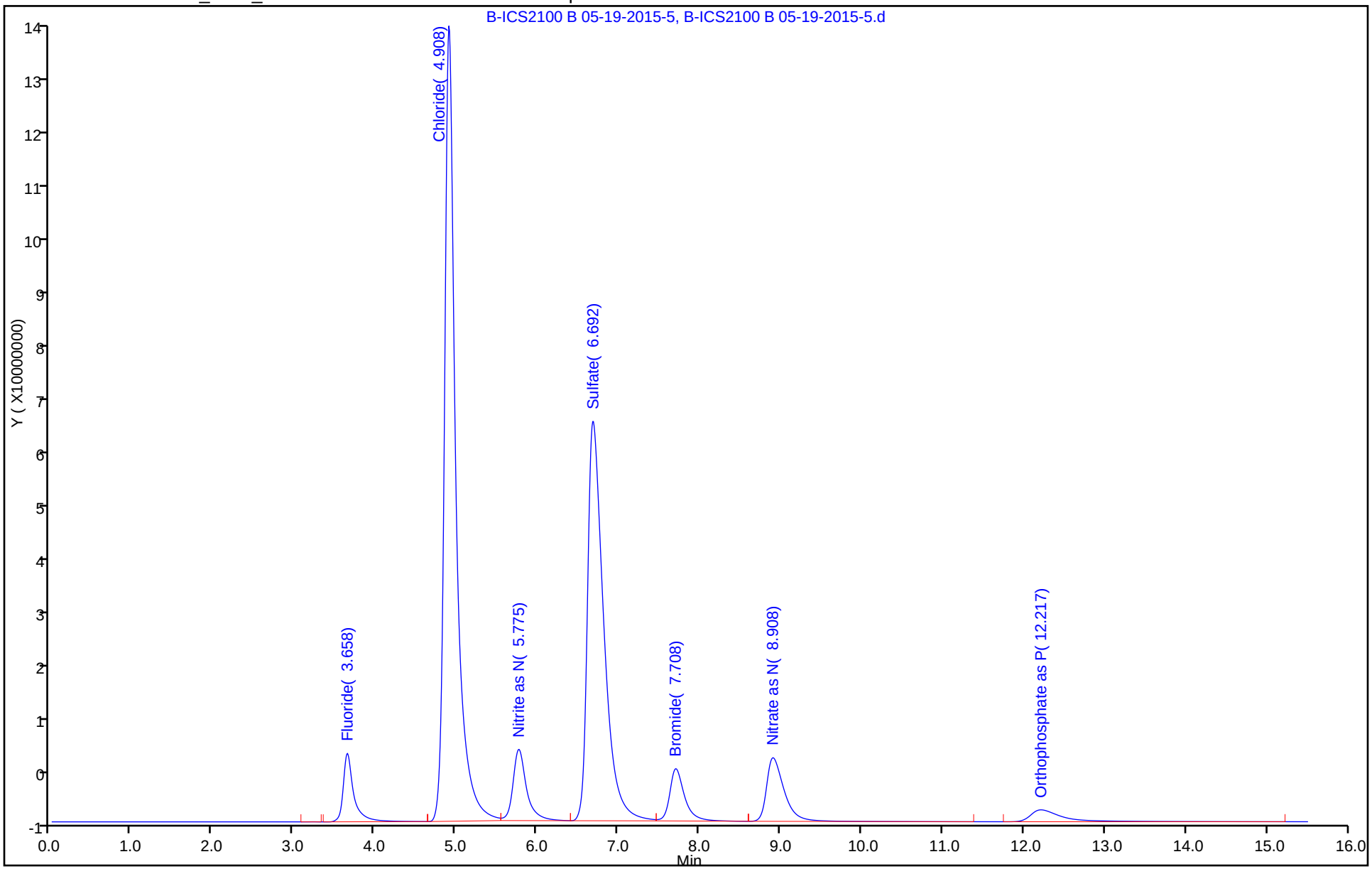
icccv_01242 Amount Added: 1.00 Units: mL

Report Date: 20-May-2015 16:57:40 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\B-ICS2100 B 05-19-2015-5.d

Injection Date:	19-May-2015 12:33:00	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.: 180-44203-1

SDG No.:

Client Sample ID: HD-MW-99S-0/1-0 MS | Lab Sample ID: 180-44203-3 MS

Matrix: Water | Lab File ID: B-ICS2100 B 05-19-2015-11.d

Analysis Method: 300.0 | Date Collected: 05/18/2015 09:55

Extraction Method: | Date Extracted:

Sample wt/vol: 1(mL) | Date Analyzed: 05/19/2015 14:42

Con. Extract Vol.: | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: AS-18 ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 142093 | Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	4.02		0.10	0.0062
16887-00-6	Chloride	119		1.0	0.20
14808-79-8	Sulfate	53.6		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\B-ICS2100 B 05-19-2015-11.d
Lims ID: 180-44203-A-3 MS
Client ID: HD-MW-99S-0/1-0
Sample Type: MS
Inject. Date: 19-May-2015 14:42:00 ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007007-011
Misc. Info.: 11 180-44203-a-3 ms
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 20-May-2015 17:00:02 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: XAWRK002

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.650	3.658	-0.008	53887992	1.25	1.24	
2 Chloride	4.892	4.917	-0.025	3184525704	25.0	119.4	
7 Nitrite as N	5.733	5.775	-0.042	77413447	1.25	1.33	
3 Sulfate	6.667	6.683	-0.016	1048459903	25.0	53.6	
4 Bromide	7.708	7.708	0.000	4351539H	5.00	4.94	
5 Nitrate as N	8.867	8.908	-0.041	265970450	1.25	4.02	
6 Orthophosphate as P	12.675	12.208	0.467	17140167	1.25	0.6997	

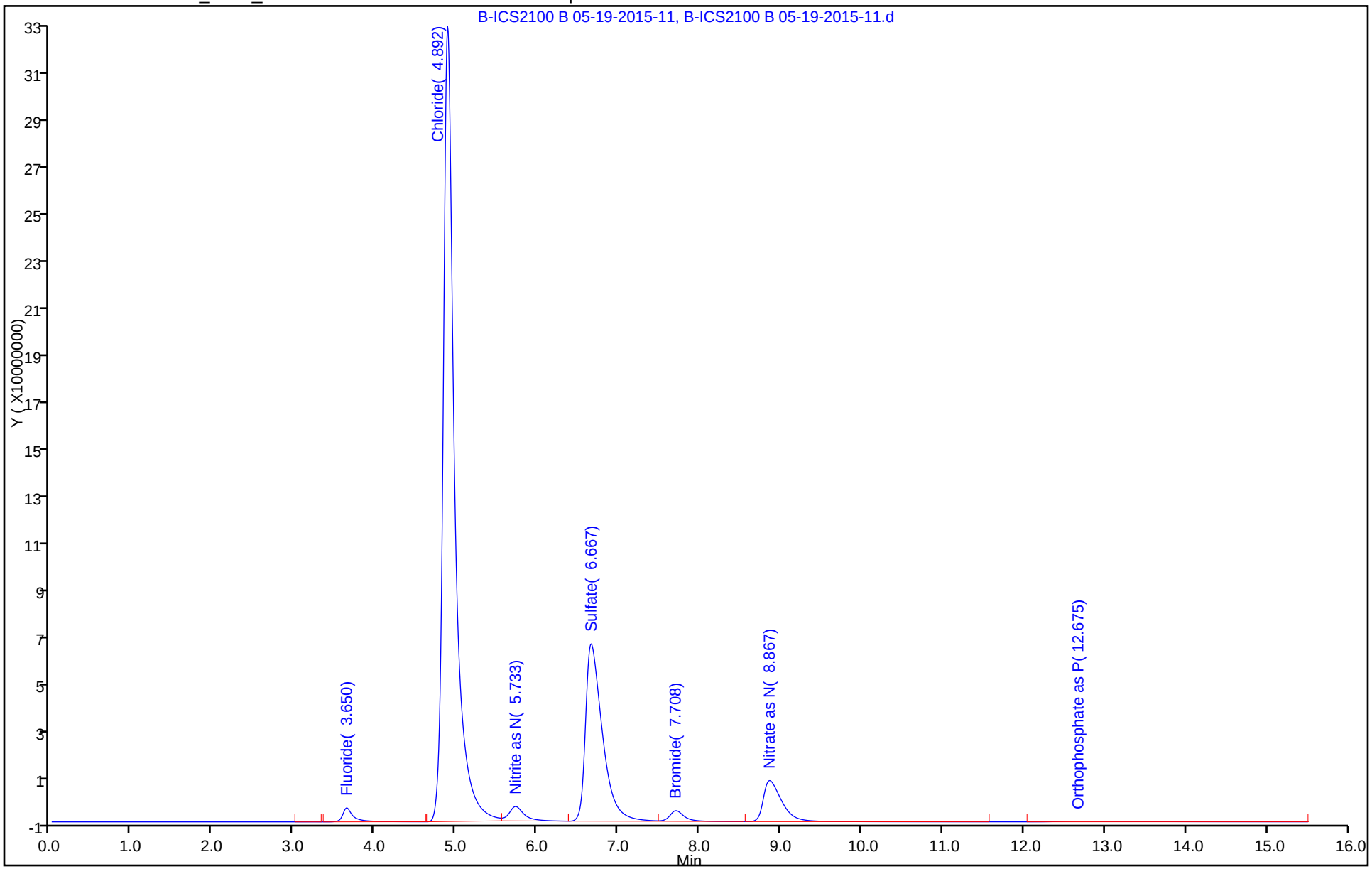
Reagents:

ICPRIMARYSTA_00006 Amount Added: 0.15 Units: mL
ICPRIMARYSTDB_00008 Amount Added: 0.15 Units: mL

Report Date: 20-May-2015 17:00:03 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\B-ICS2100 B 05-19-2015-11.d				
Injection Date:	19-May-2015 14:42:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	180-44203-A-3 MS			Worklist Smp#:	11
Client ID:	HD-MW-99S-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.: 180-44203-1

SDG No.:

Client Sample ID: HD-MW-99S-0/1-0 MSD Lab Sample ID: 180-44203-3 MSD

Matrix: Water Lab File ID: B-ICS2100 B 05-19-2015-12.d

Analysis Method: 300.0 Date Collected: 05/18/2015 09:55

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/19/2015 15:00

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142093 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	4.31		0.10	0.0062
16887-00-6	Chloride	128		1.0	0.20
14808-79-8	Sulfate	57.4		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\B-ICS2100 B 05-19-2015-12.d
Lims ID: 180-44203-A-3 MSD
Client ID: HD-MW-99S-0/1-0
Sample Type: MSD
Inject. Date: 19-May-2015 15:00:00 ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007007-012
Misc. Info.: 12 180-44203-a-3 msd
Operator ID: Instrument ID: CHICS2100B

Method: \\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\300_9056_CHIC2100B.m
Limit Group: GC Anions ICAL
Last Update: 20-May-2015 17:00:02 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: XAWRK002

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.650	3.658	-0.008	57871051	1.25	1.33	
2 Chloride	4.900	4.917	-0.017	3407643051	25.0	127.7	
7 Nitrite as N	5.733	5.775	-0.042	83741471	1.25	1.44	
3 Sulfate	6.667	6.683	-0.016	1121685193	25.0	57.4	
4 Bromide	7.717	7.708	0.009	4672377H	5.00	5.30	
5 Nitrate as N	8.867	8.908	-0.041	284991848	1.25	4.31	
6 Orthophosphate as P	12.692	12.208	0.484	18224418	1.25	0.7397	

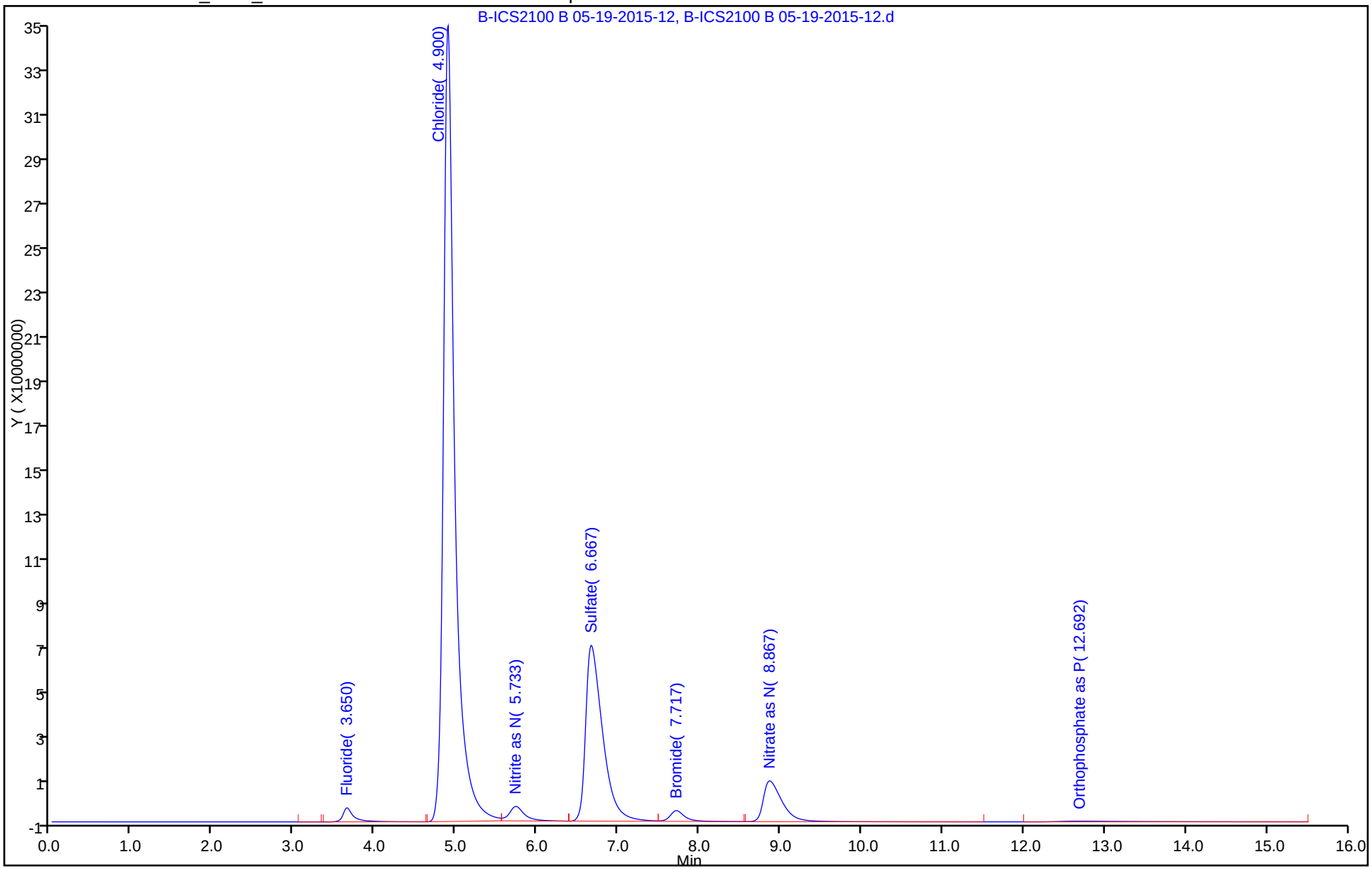
Reagents:

ICPRIMARYSTDB_00008 Amount Added: 0.15 Units: mL
ICPRIMARYSTA_00006 Amount Added: 0.15 Units: mL

Report Date: 20-May-2015 17:00:04 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHICS2100B\20150519-7007.b\B-ICS2100 B 05-19-2015-12.d				
Injection Date:	19-May-2015 15:00:00	Instrument ID:	CHICS2100B	Operator ID:	
Lims ID:	180-44203-A-3 MSD			Worklist Smp#:	12
Client ID:	HD-MW-99S-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100B	Limit Group:	GC Anions ICAL		



HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

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.: 180-44203-1

SDG No.:

Instrument ID: CHICS2100B Start Date: 05/19/2015 11:23

Analysis Batch Number: 142093 End Date: 05/19/2015 19:37

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		05/19/2015 11:23	1		AS-18
ICV 180-142093/2		05/19/2015 11:40	1	B-ICS2100 B 05-19-2015-2.d	AS-18
CCV 180-142093/3		05/19/2015 11:58	1	B-ICS2100 B 05-19-2015-3.d	AS-18
CCB 180-142093/4		05/19/2015 12:15	1	B-ICS2100 B 05-19-2015-4.d	AS-18
LCS 180-142093/5		05/19/2015 12:33	1	B-ICS2100 B 05-19-2015-5.d	AS-18
MB 180-142093/6		05/19/2015 12:51	1	B-ICS2100 B 05-19-2015-6.d	AS-18
ZZZZZ		05/19/2015 13:12	1		AS-18
180-44203-1	HD-MW-98S-0/1-0	05/19/2015 13:50	1	B-ICS2100 B 05-19-2015-8.d	AS-18
180-44203-2	HD-MW-98I-0/1-0	05/19/2015 14:08	1	B-ICS2100 B 05-19-2015-9.d	AS-18
180-44203-3	HD-MW-99S-0/1-0	05/19/2015 14:25	1	B-ICS2100 B 05-19-2015-10.d	AS-18
180-44203-3 MS	HD-MW-99S-0/1-0 MS	05/19/2015 14:42	1	B-ICS2100 B 05-19-2015-11.d	AS-18
180-44203-3 MSD	HD-MW-99S-0/1-0 MSD	05/19/2015 15:00	1	B-ICS2100 B 05-19-2015-12.d	AS-18
180-44203-4	HD-MW-145A-0/1-0	05/19/2015 15:17	1	B-ICS2100 B 05-19-2015-13.d	AS-18
180-44203-5	HD-QC1-0/1-1	05/19/2015 15:34	1	B-ICS2100 B 05-19-2015-14.d	AS-18
CCV 180-142093/15		05/19/2015 15:52	1	B-ICS2100 B 05-19-2015-15.d	AS-18
CCB 180-142093/16		05/19/2015 16:09	1	B-ICS2100 B 05-19-2015-16.d	AS-18
180-44203-7	HD-MW-93S-0/1-0	05/19/2015 16:26	1	B-ICS2100 B 05-19-2015-17.d	AS-18
180-44203-8	HD-MW-93D-0/1-0	05/19/2015 16:44	1	B-ICS2100 B 05-19-2015-18.d	AS-18
ZZZZZ		05/19/2015 17:01	25		AS-18
ZZZZZ		05/19/2015 17:18	250		AS-18
ZZZZZ		05/19/2015 17:35	50		AS-18
ZZZZZ		05/19/2015 17:53	500		AS-18
ZZZZZ		05/19/2015 18:10	50		AS-18
ZZZZZ		05/19/2015 18:27	500		AS-18
ZZZZZ		05/19/2015 18:45	1		AS-18
ZZZZZ		05/19/2015 19:02	10		AS-18
CCV 180-142093/27		05/19/2015 19:19	1	B-ICS2100 B 05-19-2015-27.d	AS-18
CCB 180-142093/28		05/19/2015 19:37	1	B-ICS2100 B 05-19-2015-28.d	AS-18

300.0

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Pittsburgh Job Number: 180-44203-1

SDG No.:

Project: Harley Davidson

Client Sample ID	Lab Sample ID
HD-MW-98S-0/1-0	180-44203-1
HD-MW-98I-0/1-0	180-44203-2
HD-MW-99S-0/1-0	180-44203-3
HD-MW-145A-0/1-0	180-44203-4
HD-QC1-0/1-1	180-44203-5
HD-MW-93S-0/1-0	180-44203-7
HD-MW-93D-0/1-0	180-44203-8

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-98S-0/1-0 Lab Sample ID: 180-44203-1

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG ID.:

Matrix: Water Date Sampled: 05/18/2015 12:50

Reporting Basis: WET Date Received: 05/19/2015 08:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	110000	500	2.8	ug/L			1	6020A
7440-09-7	Potassium	2800	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	11000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	23000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-98I-0/1-0 Lab Sample ID: 180-44203-2

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG ID.:

Matrix: Water Date Sampled: 05/18/2015 13:45

Reporting Basis: WET Date Received: 05/19/2015 08:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	100000	500	2.8	ug/L			1	6020A
7440-09-7	Potassium	2700	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	11000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	21000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-99S-0/1-0 Lab Sample ID: 180-44203-3

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG ID.:

Matrix: Water Date Sampled: 05/18/2015 09:55

Reporting Basis: WET Date Received: 05/19/2015 08:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	95000	500	2.8	ug/L			1	6020A
7440-09-7	Potassium	3500	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	13000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	34000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-145A-0/1-0 Lab Sample ID: 180-44203-4

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG ID.:

Matrix: Water Date Sampled: 05/18/2015 11:25

Reporting Basis: WET Date Received: 05/19/2015 08:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	84000	500	2.8	ug/L			1	6020A
7440-09-7	Potassium	4700	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	16000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	49000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-QC1-0/1-1 Lab Sample ID: 180-44203-5

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG ID.:

Matrix: Water Date Sampled: 05/18/2015 08:00

Reporting Basis: WET Date Received: 05/19/2015 08:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	84000	500	2.8	ug/L			1	6020A
7440-09-7	Potassium	4700	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	16000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	51000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-93S-0/1-0 Lab Sample ID: 180-44203-7

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG ID.:

Matrix: Water Date Sampled: 05/18/2015 12:27

Reporting Basis: WET Date Received: 05/19/2015 08:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	61000	500	2.8	ug/L			1	6020A
7440-09-7	Potassium	9300	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	15000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	61000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-93D-0/1-0 Lab Sample ID: 180-44203-8

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG ID.:

Matrix: Water Date Sampled: 05/18/2015 10:22

Reporting Basis: WET Date Received: 05/19/2015 08:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	63000	500	2.8	ug/L			1	6020A
7440-09-7	Potassium	4500	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	13000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	35000	500	3.8	ug/L			1	6020A

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

ICV Source: MICVX_00032 Concentration Units: ug/L

CCV Source: MCCV1X_00075

Analyte	ICV 180-142993/5 05/27/2015 11:01				CCV 180-142993/10 05/27/2015 11:22				CCV 180-142993/57 05/27/2015 14:37			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	40700		40000	102	46200		50000	92	49500		50000	99
Magnesium	39500		40000	99	45600		50000	91	48300		50000	97
Potassium	40700		40000	102	45800		50000	92	48900		50000	98
Sodium	39000		40000	97	45200		50000	90	48900		50000	98

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

ICV Source: MICVX_00032 Concentration Units: ug/L

CCV Source: MCCV1X_00075

Analyte	CCV 180-142993/69 05/27/2015 15:28				CCV 180-142993/81 05/27/2015 16:18							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	48100		50000	96	48200		50000	96				
Magnesium	46500		50000	93	46100		50000	92				
Potassium	46700		50000	93	47900		50000	96				
Sodium	45300		50000	91	45500		50000	91				

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.: 180-44203-1

SDG No.:

Method: 6020A Instrument ID: M

Lab Sample ID: CRI 180-142993/7 Concentration Units: ug/L

CRQL Check Standard Source: MCRIX_00066

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Calcium	500	508		102	70-130
Potassium	500	432	J	86	70-130
Magnesium	500	547		109	70-130
Sodium	500	423	J	85	70-130

Lab Sample ID: CRI 180-142993/124 Concentration Units: ug/L

CRQL Check Standard Source: MCRIX_00066

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Calcium	500	515		103	70-130
Potassium	500	473	J	95	70-130
Magnesium	500	552		110	70-130
Sodium	500	432	J	86	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.: 180-44203-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 180-142993/6 05/27/2015 11:04		CCB1 180-142993/11 05/27/2015 11:25		CCB5 180-142993/58 05/27/2015 14:43		CCB6 180-142993/70 05/27/2015 15:35	
		Found	C	Found	C	Found	C	Found	C
Calcium	500	500	U	500	U	8.02	J	7.69	J
Magnesium	500	2.38	J	2.47	J	2.72	J	2.93	J
Potassium	500	500	U	500	U	500	U	500	U
Sodium	500	4.88	J	7.51	J	500	U	500	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB7 180-142993/82 05/27/2015 16:25							
		Found	C	Found	C	Found	C	Found	C
Calcium	500	7.06	J						
Magnesium	500	3.65	J						
Potassium	500	500	U						
Sodium	500	6.39	J						

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 180-142245/1-A

Instrument Code: M Batch No.: 142993

CAS No.	Analyte	Concentration	C	Q	Method
7440-70-2	Calcium	500	U		6020A
7440-09-7	Potassium	500	U		6020A
7439-95-4	Magnesium	500	U		6020A
7440-23-5	Sodium	500	U		6020A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Lab Sample ID: ICSA 180-142993/8 Instrument ID: M

Lab File ID: M50527A.xml ICS Source: MICSAX_00067

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Calcium	**100000**	**97310**	**97**
Magnesium	**100000**	**96160**	**96**
Potassium	**100000**	**96260**	**96**
Sodium	**100000**	**95270**	**95**
Aluminum	*100000*	*90070*	*90*
Antimony		*0.243*	
Arsenic		*0.107*	
Barium		*0.135*	
Beryllium		*0.0300*	
Boron		*0.263*	
Cadmium		*0.272*	
Chromium		*0.114*	
Cobalt		*0.0910*	
Copper		*1.35*	
Iron	*100000*	*97610*	*98*
Lead		*0.221*	
Manganese		*0.533*	
Molybdenum	*2000*	*2139*	*107*
Nickel		*-0.287*	
Selenium		*-0.158*	
Silicon		*-15.2*	
Silver		*0.0910*	
Strontium		*0.692*	
Thallium		*0.0200*	
Tin		*0.147*	
Titanium	*2000*	*2047*	*102*
Vanadium		*-0.348*	
Zinc		*2.95*	

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.: 180-44203-1

SDG No.:

Lab Sample ID: ICSAB 180-142993/9 Instrument ID: M

Lab File ID: M50527A.xml ICS Source: MICSABX_00071

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Calcium	**100000**	**98993**	**99**
Magnesium	**100000**	**99730**	**100**
Potassium	**100000**	**97193**	**97**
Sodium	**100000**	**99400**	**99**
Aluminum	*100000*	*92657*	*93*
Antimony	*20.0*	*21.2*	*106*
Arsenic	*20.0*	*21.5*	*108*
Barium	*20.0*	*19.9*	*100*
Beryllium	*20.0*	*20.6*	*103*
Boron	*50.0*	*48.9*	*98*
Cadmium	*20.0*	*20.3*	*101*
Chromium	*20.0*	*19.7*	*98*
Cobalt	*20.0*	*19.7*	*99*
Copper	*20.0*	*20.8*	*104*
Iron	*100000*	*99127*	*99*
Lead	*20.0*	*22.3*	*111*
Manganese	*22.5*	*22.1*	*98*
Molybdenum	*2000*	*2238*	*112*
Nickel	*20.0*	*19.0*	*95*
Selenium	*50.0*	*54.5*	*109*
Silicon	*500*	*556*	*111*
Silver	*20.0*	*19.6*	*98*
Strontium	*25.0*	*21.5*	*86*
Thallium	*20.0*	*22.1*	*110*
Tin	*100*	*103*	*103*
Titanium	*2000*	*2062*	*103*
Vanadium	*20.0*	*19.3*	*97*
Zinc	*25.0*	*23.4*	*94*

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

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: HD-MW-99S-0/1-0 MS Lab ID: 180-44203-3 MS

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

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	131000		95000		50000	72	75-125	F1	6020A
Potassium	44700		3500		50000	82	75-125		6020A
Magnesium	50500		13000		50000	75	75-125		6020A
Sodium	71800		34000		50000	76	75-125		6020A

SSR = Spiked Sample Result

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

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: HD-MW-99S-0/1-0 MSD Lab ID: 180-44203-3 MSD

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

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	136000		50000	81	75-125	4	20		6020A
Potassium	46400		50000	86	75-125	4	20		6020A
Magnesium	53200		50000	81	75-125	5	20		6020A
Sodium	74100		50000	80	75-125	3	20		6020A

SDR = Sample Duplicate Result

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

FORM VD - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 180-142245/2-A

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

Sample Matrix: Water LCS Source: MTAPITTMSA_00024

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Calcium	50000	45900		92	80	120		6020A
Potassium	50000	43300		87	80	120		6020A
Magnesium	50000	42800		86	80	120		6020A
Sodium	50000	41600		83	80	120		6020A

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

FORM VIIA - IN

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Pittsburgh Job Number: 180-44203-1

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: 180-44203-1

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: 180-44203-1

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.: 180-44203-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 180-142245/1-A	05/20/2015 12:06	142245		50	50
LCS 180-142245/2-A	05/20/2015 12:06	142245		50	50
180-44203-1	05/20/2015 12:06	142245		50	50
180-44203-2	05/20/2015 12:06	142245		50	50
180-44203-3	05/20/2015 12:06	142245		50	50
180-44203-3 MS	05/20/2015 12:06	142245		50	50
180-44203-3 MSD	05/20/2015 12:06	142245		50	50
180-44203-4	05/20/2015 12:06	142245		50	50
180-44203-5	05/20/2015 12:06	142245		50	50
180-44203-7	05/20/2015 12:06	142245		50	50
180-44203-8	05/20/2015 12:06	142245		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Instrument ID: M Analysis Method: 6020A

Start Date: 05/27/2015 08:27 End Date: 05/27/2015 19:47

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	K	Mg	Na																						
ITUNE 180-142993/1			08:27																										
STD1 180-142993/2 IC	1		10:50	X	X	X	X																						
STD2 180-142993/3 IC	1		10:53	X	X	X	X																						
STD3 180-142993/4 IC	1		10:57	X	X	X	X																						
ICV 180-142993/5	1		11:01	X	X	X	X																						
ICB 180-142993/6	1		11:04	X	X	X	X																						
CRI 180-142993/7	1		11:08	X	X	X	X																						
ICSA 180-142993/8	1		11:12	X	X	X	X																						
ICSAB 180-142993/9	1		11:15	X	X	X	X																						
CCV 180-142993/10	1		11:22	X	X	X	X																						
CCB1 180-142993/11	1		11:25	X	X	X	X																						
ZZZZZZ			11:29																										
ZZZZZZ			11:37																										
ZZZZZZ			11:41																										
ZZZZZZ			11:44																										
ZZZZZZ			11:48																										
ZZZZZZ			11:52																										
ZZZZZZ			11:56																										
ZZZZZZ			12:00																										
ZZZZZZ			12:03																										
CCV 180-142993/21			12:11																										
CCB2 180-142993/22			12:17																										
ZZZZZZ			12:21																										
ZZZZZZ			12:25																										
ZZZZZZ			12:29																										
ZZZZZZ			12:36																										
ZZZZZZ			12:39																										
ZZZZZZ			12:43																										
ZZZZZZ			12:47																										
ZZZZZZ			12:51																										
ZZZZZZ			12:55																										
ZZZZZZ			12:58																										
CCV 180-142993/33			13:02																										
CCB3 180-142993/34			13:06																										
ZZZZZZ			13:11																										
ZZZZZZ			13:14																										
ZZZZZZ			13:18																										
ZZZZZZ			13:22																										
ZZZZZZ			13:26																										
ZZZZZZ			13:30																										
ZZZZZZ			13:33																										
ZZZZZZ			13:37																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Instrument ID: M Analysis Method: 6020A

Start Date: 05/27/2015 08:27 End Date: 05/27/2015 19:47

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	K	Mg	Na																						
ZZZZZZ			13:41																										
ZZZZZZ			13:48																										
CCV 180-142993/45			13:52																										
CCB4 180-142993/46			13:55																										
ZZZZZZ			13:59																										
ZZZZZZ			14:03																										
ZZZZZZ			14:06																										
ZZZZZZ			14:10																										
ZZZZZZ			14:14																										
ZZZZZZ			14:18																										
ZZZZZZ			14:22																										
ZZZZZZ			14:26																										
ZZZZZZ			14:29																										
ZZZZZZ			14:33																										
CCV 180-142993/57	1		14:37	X	X	X	X																						
CCB5 180-142993/58	1		14:43	X	X	X	X																						
ZZZZZZ			14:47																										
ZZZZZZ			14:51																										
ZZZZZZ			14:55																										
ZZZZZZ			14:59																										
MB 180-142245/1-A	1	R	15:05	X	X	X	X																						
LCS 180-142245/2-A	1	R	15:09	X	X	X	X																						
180-44203-1	1	T	15:13	X	X	X	X																						
180-44203-2	1	T	15:17	X	X	X	X																						
180-44203-3	1	T	15:21	X	X	X	X																						
ZZZZZZ			15:24																										
CCV 180-142993/69	1		15:28	X	X	X	X																						
CCB6 180-142993/70	1		15:35	X	X	X	X																						
180-44203-3 MS	1	T	15:39	X	X	X	X																						
180-44203-3 MSD	1	T	15:42	X	X	X	X																						
ZZZZZZ			15:46																										
180-44203-4	1	T	15:50	X	X	X	X																						
180-44203-5	1	T	15:54	X	X	X	X																						
180-44203-7	1	T	15:59	X	X	X	X																						
180-44203-8	1	T	16:03	X	X	X	X																						
ZZZZZZ			16:07																										
ZZZZZZ			16:11																										
ZZZZZZ			16:15																										
CCV 180-142993/81	1		16:18	X	X	X	X																						
CCB7 180-142993/82	1		16:25	X	X	X	X																						
ZZZZZZ			16:29																										
ZZZZZZ			16:33																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Instrument ID: M Analysis Method: 6020A

Start Date: 05/27/2015 08:27 End Date: 05/27/2015 19:47

Lab Sample Id	D/F	Type	Time	Analytes																									
				Ca	K	Mg	Na																						
ZZZZZZ			16:36																										
ZZZZZZ			16:40																										
ZZZZZZ			16:44																										
ZZZZZZ			16:48																										
ZZZZZZ			16:52																										
ZZZZZZ			16:58																										
ZZZZZZ			17:08																										
CCV 180-142993/92			17:12																										
CCB8 180-142993/93			17:19																										
ZZZZZZ			17:23																										
ZZZZZZ			17:26																										
ZZZZZZ			17:30																										
ZZZZZZ			17:34																										
ZZZZZZ			17:38																										
ZZZZZZ			17:42																										
ZZZZZZ			17:45																										
ZZZZZZ			17:49																										
ZZZZZZ			17:53																										
ZZZZZZ			17:57																										
CCV 180-142993/104			18:04																										
CCB9 180-142993/105			18:11																										
ZZZZZZ			18:14																										
ZZZZZZ			18:18																										
ZZZZZZ			18:22																										
ZZZZZZ			18:26																										
ZZZZZZ			18:30																										
ZZZZZZ			18:33																										
ZZZZZZ			18:37																										
ZZZZZZ			18:41																										
ZZZZZZ			18:45																										
ZZZZZZ			18:49																										
CCV 180-142993/116			18:56																										
CCB10 180-142993/117			19:02																										
ZZZZZZ			19:06																										
ZZZZZZ			19:10																										
ZZZZZZ			19:14																										
ZZZZZZ			19:18																										
ZZZZZZ			19:21																										
ZZZZZZ			19:25																										
CRI 180-142993/124	1		19:36	X	X	X	X																						
CCV 180-142993/125			19:40																										
CCB11 180-142993/126			19:47																										

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Instrument ID: M Analysis Method: 6020A

Start Date: 05/27/2015 08:27 End Date: 05/27/2015 19:47

Lab Sample Id	D/F	Type	Time	Analytes																								
				Ca	K	Mg	Na																					

Prep Types:
R = Total Recoverable
T = Total/NA

FORM XIII-IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

ICP-MS Instrument ID: M Start Date: 05/27/2015 End Date: 05/27/2015

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 180-142993/2 I	10:50	100		100		100		100		100	
STD2 180-142993/3 I	10:53	96		100		91		86		86	
STD3 180-142993/4 I	10:57	96		95		86		85		83	
ICV 180-142993/5	11:01	95		93		93		83		95	
ICB 180-142993/6	11:04	95		95		92		93		92	
CRI 180-142993/7	11:08	109		107		102		93		102	
ICSA 180-142993/8	11:12	76		85		81		77		80	
ICSAB 180-142993/9	11:15	70		79		73		70		72	
CCV 180-142993/10	11:22	86		97		83		83		91	
CCB1 180-142993/11	11:25	84		88		87		89		90	
CCV 180-142993/57	14:37	74		75		72		71		68	
CCB5 180-142993/58	14:43	114		100		83		84		79	
MB 180-142245/1-A	15:05	111		96		81		81		76	
LCS 180-142245/2-A	15:09	57		56		57		58		62	
180-44203-1	15:13	64		57		59		61		62	
180-44203-2	15:17	66		58		60		62		64	
180-44203-3	15:21	68		57		60		61		63	
CCV 180-142993/69	15:28	91		79		71		67		62	
CCB6 180-142993/70	15:35	113		98		84		86		81	
180-44203-3 MS	15:39	71		62		64		63		65	
180-44203-3 MSD	15:42	68		60		61		61		62	
180-44203-4	15:50	64		56		59		60		62	
180-44203-5	15:54	63		55		58		60		61	
180-44203-7	15:59	66		57		60		61		63	
180-44203-8	16:03	67		58		59		60		60	
CCV 180-142993/81	16:18	100		88		80		75		70	
CCB7 180-142993/82	16:25	115		100		80		79		73	
CRI 180-142993/124	19:36	90		67		53		54		56	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

ICP-MS Instrument ID: M Start Date: 05/27/2015 End Date: 05/27/2015

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 180-142993/2 I	10:50	100		100		100					
STD2 180-142993/3 I	10:53	89		90		87					
STD3 180-142993/4 I	10:57	80		79		68					
ICV 180-142993/5	11:01	83		82		77					
ICB 180-142993/6	11:04	93		93		91					
CRI 180-142993/7	11:08	95		95		92					
ICSA 180-142993/8	11:12	87		88		92					
ICSAB 180-142993/9	11:15	77		77		65					
CCV 180-142993/10	11:22	88		88		87					
CCB1 180-142993/11	11:25	94		95		91					
CCV 180-142993/57	14:37	79		80		72					
CCB5 180-142993/58	14:43	78		77		74					
MB 180-142245/1-A	15:05	74		73		66					
LCS 180-142245/2-A	15:09	63		62		45					
180-44203-1	15:13	72		73		66					
180-44203-2	15:17	74		76		69					
180-44203-3	15:21	74		76		70					
CCV 180-142993/69	15:28	63		66		53					
CCB6 180-142993/70	15:35	79		79		78					
180-44203-3 MS	15:39	77		78		69					
180-44203-3 MSD	15:42	73		74		64					
180-44203-4	15:50	71		72		61					
180-44203-5	15:54	73		74		67					
180-44203-7	15:59	75		77		71					
180-44203-8	16:03	69		69		59					
CCV 180-142993/81	16:18	74		80		74					
CCB7 180-142993/82	16:25	70		68		61					
CRI 180-142993/124	19:36	51		51		48					

Dilution Corrected Concentrations

STD1 1565410 INT STD 5/27/2015 10:50:48 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:51:07	104.695%	0.005	0.190	0.085	0.000	0.031	0.091	0.094
2	10:51:27	98.100%	0.009	0.217	-0.070	0.000	0.009	0.309	-0.175
3	10:51:46	97.205%	-0.014	-0.407	-0.015	0.000	-0.040	-0.400	0.081
x		100.000%	-0.000	-0.000	-0.000	0.000	-0.000	0.000	-0.000
σ		4.091%	0.013	0.353	0.078	0.000	0.036	0.363	0.151
%RSD		4.091	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:51:07	0.054	-0.335	0.000	0.102	2.832	-0.325	101.944%	-0.027
2	10:51:27	0.005	-0.578	0.000	0.359	-0.917	0.331	98.882%	-0.003
3	10:51:46	-0.058	0.913	0.000	-0.460	-1.914	-0.007	99.175%	0.029
x		0.000	0.000	0.000	0.000	-0.000	-0.000	100.000%	-0.000
σ		0.056	0.800	0.000	0.419	2.502	0.328	1.690%	0.028
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	1.690	0.000
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:51:07	-0.005	-0.006	-0.007	0.133	0.043	-0.001	0.003	0.004
2	10:51:27	0.001	0.011	0.008	-0.597	-0.020	-0.002	-0.002	-0.002
3	10:51:46	0.004	-0.005	-0.001	0.464	-0.023	0.003	-0.002	-0.002
x		-0.000	0.000	-0.000	-0.000	-0.000	-0.000	0.000	0.000
σ		0.005	0.009	0.008	0.543	0.037	0.003	0.003	0.003
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:51:07	0.004	0.056	0.027	-0.019	0.091	-0.072	0.000	0.000
2	10:51:27	0.005	-0.055	-0.036	0.008	-0.158	-0.007	0.000	-0.000
3	10:51:46	-0.009	-0.002	0.009	0.012	0.067	0.079	0.000	-0.000
x		-0.000	-0.000	0.000	0.000	-0.000	-0.000	0.000	0.000
σ		0.008	0.056	0.032	0.017	0.137	0.076	0.000	0.000
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:51:07	98.853%	-0.170	-0.128	99.095%	0.001	0.004	0.034	0.024
2	10:51:27	100.482%	0.108	0.058	100.222%	-0.007	-0.003	-0.028	-0.018
3	10:51:46	100.665%	0.062	0.069	100.683%	0.006	-0.001	-0.006	-0.006
x		100.000%	0.000	-0.000	100.000%	0.000	0.000	-0.000	-0.000
σ		0.998%	0.149	0.111	0.817%	0.007	0.003	0.031	0.021
%RSD		0.998	0.000	0.000	0.817	0.000	0.000	0.000	0.000
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:51:07	98.921%	-0.018	0.002	0.001	0.001	0.004	98.588%	98.509%
2	10:51:27	100.518%	0.000	0.002	-0.007	0.001	0.000	100.168%	99.818%
3	10:51:46	100.562%	0.018	-0.003	0.005	-0.002	-0.004	101.244%	101.673%
x		100.000%	-0.000	0.000	-0.000	0.000	0.000	100.000%	100.000%
σ		0.935%	0.018	0.003	0.006	0.002	0.004	1.336%	1.590%
%RSD		0.935	0.000	0.000	0.000	0.000	0.000	1.336	1.590
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:51:07	0.000	-0.001	0.001	-0.000	0.000	100.331%		
2	10:51:27	-0.000	-0.000	-0.003	0.001	-0.000	99.950%		
3	10:51:46	0.000	0.001	0.002	-0.000	0.000	99.719%		
x		-0.000	0.000	-0.000	0.000	-0.000	100.000%		
σ		0.000	0.001	0.003	0.001	0.000	0.309%		
%RSD		0.000	0.000	0.000	0.000	0.000	0.309		

STD2 1558995 5/27/2015 10:53:58 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	10:53:58	97.001%	192.400	0.749	0.555	0.000	96880.000	96400.000	96350.000
2	10:54:17	94.272%	205.300	0.689	0.414	0.000	102800.000	102600.000	102400.000
3	10:54:36	95.282%	202.300	0.302	0.422	0.000	100300.000	101000.000	101200.000
x		95.519%	200.000	0.580	0.464	0.000	100000.000	100000.000	100000.000
σ		1.380%	6.736	0.243	0.079	0.000	2993.000	3209.000	3219.000
%RSD		1.445	3.368	41.800	17.120	0.000	2.993	3.209	3.219
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:53:58	972.400	3.242	0.000	96120.000	95300.000	95410.000	100.837%	0.187
2	10:54:17	1002.000	7.360	0.000	101300.000	102400.000	102100.000	98.806%	0.139
3	10:54:36	1026.000	9.399	0.000	102600.000	102300.000	102500.000	99.162%	0.149
x		1000.000	6.667	0.000	100000.000	100000.000	100000.000	99.602%	0.158
σ		26.680	3.137	0.000	3419.000	4073.000	3982.000	1.085%	0.026
%RSD		2.668	47.050	0.000	3.419	4.073	3.982	1.089	16.170
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:53:58	193.200	193.300	968.100	48930.000	48390.000	194.100	194.900	196.700
2	10:54:17	201.900	202.100	1007.000	49990.000	50300.000	198.900	201.200	199.500
3	10:54:36	204.900	204.700	1024.000	51080.000	51310.000	207.000	204.000	203.800
x		200.000	200.000	1000.000	50000.000	50000.000	200.000	200.000	200.000
σ		6.051	5.965	28.890	1079.000	1486.000	6.557	4.657	3.542
%RSD		3.026	2.982	2.889	2.159	2.971	3.279	2.329	1.771
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:53:58	197.200	196.000	196.200	198.000	198.000	200.500	0.000	198.500
2	10:54:17	199.600	201.800	200.300	201.300	199.300	199.300	0.000	199.500
3	10:54:36	203.200	202.100	203.500	200.700	202.800	200.100	0.000	202.000
x		200.000	200.000	200.000	200.000	200.000	200.000	0.000	200.000
σ		3.005	3.423	3.685	1.791	2.473	0.596	0.000	1.805
%RSD		1.503	1.712	1.842	0.895	1.236	0.298	0.000	0.902
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:53:58	90.721%	-0.081	-0.091	86.159%	198.700	199.200	199.700	199.300
2	10:54:17	91.225%	0.222	0.147	85.990%	201.100	201.000	200.300	201.200
3	10:54:36	91.124%	0.476	0.400	86.360%	200.200	199.800	200.000	199.400
x		91.023%	0.206	0.152	86.170%	200.000	200.000	200.000	200.000
σ		0.267%	0.279	0.246	0.185%	1.185	0.912	0.273	1.062
%RSD		0.293	135.500	161.200	0.215	0.592	0.456	0.136	0.531
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:53:58	85.569%	0.060	0.184	0.187	198.600	198.200	89.486%	90.115%
2	10:54:17	85.528%	0.120	0.225	0.214	201.100	201.600	89.471%	89.455%
3	10:54:36	86.699%	0.175	0.205	0.209	200.300	200.100	88.639%	89.172%
x		85.932%	0.118	0.204	0.204	200.000	200.000	89.199%	89.581%
σ		0.664%	0.058	0.020	0.014	1.241	1.707	0.484%	0.484%
%RSD		0.773	48.820	9.998	6.969	0.620	0.853	0.543	0.540
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:53:58	190.200	190.600	188.600	190.300	189.600	92.206%		
2	10:54:17	201.700	201.400	199.800	201.900	201.200	86.667%		
3	10:54:36	208.100	208.000	211.600	207.800	209.200	82.702%		
x		200.000	200.000	200.000	200.000	200.000	87.191%		
σ		9.070	8.803	11.520	8.900	9.890	4.774%		
%RSD		4.535	4.401	5.759	4.450	4.945	5.475		

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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	10:57:34	100.929%	0.007	198.200	198.200	0.000	33.410	23.620	24.380
2	10:57:53	95.372%	0.036	200.100	199.300	0.000	31.830	21.810	23.620
3	10:58:12	91.642%	0.048	201.700	202.600	0.000	31.280	19.120	21.900
x		95.981%	0.030	200.000	200.000	0.000	32.170	21.520	23.300
σ		4.673%	0.021	1.782	2.300	0.000	1.108	2.268	1.274
%RSD		4.869	68.260	0.891	1.150	0.000	3.443	10.540	5.469
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:57:34	44.590	9741.000	0.000	21.330	38.610	112.100	99.151%	197.800
2	10:57:53	48.670	10010.000	0.000	19.040	42.490	106.300	95.149%	200.300
3	10:58:12	47.600	10250.000	0.000	19.580	41.040	108.300	91.684%	202.000
x		46.950	10000.000	0.000	19.980	40.710	108.900	95.328%	200.000
σ		2.117	252.400	0.000	1.199	1.963	2.920	3.737%	2.102
%RSD		4.509	2.524	0.000	6.000	4.821	2.681	3.920	1.051
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:57:34	0.037	0.024	0.369	32.050	40.070	0.039	0.217	0.246
2	10:57:53	0.056	0.070	0.390	29.330	33.860	0.034	0.202	0.209
3	10:58:12	0.039	0.025	0.354	27.110	31.890	0.039	0.151	0.261
x		0.044	0.040	0.371	29.500	35.280	0.037	0.190	0.239
σ		0.010	0.027	0.018	2.470	4.268	0.003	0.035	0.027
%RSD		23.490	66.840	4.827	8.374	12.100	7.837	18.180	11.210
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:57:34	0.308	3.546	3.636	0.571	1.893	1.949	0.000	0.110
2	10:57:53	0.268	3.753	3.743	1.071	2.621	3.077	0.000	0.105
3	10:58:12	0.235	3.706	3.920	1.015	2.621	2.908	0.000	0.105
x		0.270	3.668	3.766	0.886	2.378	2.645	0.000	0.107
σ		0.037	0.108	0.143	0.274	0.420	0.609	0.000	0.003
%RSD		13.590	2.954	3.806	30.920	17.680	23.010	0.000	2.704
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:57:34	87.818%	195.400	195.700	87.073%	0.094	0.096	0.127	-0.455
2	10:57:53	85.362%	199.100	200.100	84.238%	0.099	0.126	0.086	-0.545
3	10:58:12	85.008%	205.600	204.300	83.944%	0.101	0.109	0.114	-0.458
x		86.063%	200.000	200.000	85.085%	0.098	0.110	0.109	-0.486
σ		1.530%	5.155	4.306	1.728%	0.004	0.015	0.021	0.051
%RSD		1.778	2.578	2.153	2.031	3.742	13.710	19.440	10.590
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:57:34	83.536%	194.300	194.800	194.000	0.168	0.334	80.192%	78.724%
2	10:57:53	82.865%	201.400	200.600	201.100	0.155	0.321	80.411%	77.756%
3	10:58:12	81.639%	204.300	204.600	205.000	0.113	0.279	80.133%	78.889%
x		82.680%	200.000	200.000	200.000	0.146	0.311	80.246%	78.456%
σ		0.962%	5.161	4.891	5.567	0.029	0.028	0.146%	0.612%
%RSD		1.163	2.580	2.445	2.784	19.740	9.085	0.182	0.780
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:57:34	0.067	0.080	0.113	0.096	0.102	68.785%		
2	10:57:53	0.066	0.079	0.094	0.105	0.107	67.816%		
3	10:58:12	0.069	0.079	0.096	0.099	0.101	67.516%		
x		0.067	0.079	0.101	0.100	0.104	68.039%		
σ		0.002	0.001	0.010	0.005	0.003	0.664%		
%RSD		2.248	1.167	10.310	4.559	3.245	0.975		

ICV 1578172 5/27/2015 11:01:11 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	11:01:11	96.818%	83.330	81.760	83.480	0.000	39450.000	38700.000	39600.000
2	11:01:30	96.272%	80.090	81.990	82.380	0.000	39110.000	39300.000	39120.000
3	11:01:50	90.588%	80.380	81.400	82.700	0.000	38300.000	38980.000	39820.000
x		94.560%	101.582%	102.146%	103.570%	0.000	97.384%	97.490%	98.774%
σ		3.450%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		3.649	2.205	0.363	0.684	0.000	1.519	0.770	0.905

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:01:11	493.600	4504.000	0.000	40800.000	40020.000	41020.000	92.624%	83.270
2	11:01:30	487.600	4489.000	0.000	40430.000	39570.000	40470.000	94.177%	84.820
3	11:01:50	501.500	4633.000	0.000	40920.000	40570.000	40740.000	91.095%	84.700
x		123.556%	113.549%	0.000	101.794%	100.135%	101.859%	92.632%	105.329%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.541%	n/a
%RSD		1.415	1.746	0.000	0.628	1.249	0.674	1.664	1.020

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:01:11	81.680	82.490	412.100	20180.000	20530.000	82.070	81.300	82.150
2	11:01:30	80.740	80.550	409.100	19730.000	20110.000	79.700	79.690	81.050
3	11:01:50	81.640	82.370	413.400	19970.000	20150.000	79.050	79.080	79.290
x		101.691%	102.257%	102.879%	99.798%	101.310%	100.340%	100.032%	101.041%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		0.653	1.333	0.540	1.149	1.158	1.978	1.435	1.783

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:01:11	80.450	85.320	86.600	81.890	84.470	83.940	0.000	78.170
2	11:01:30	78.780	85.130	84.620	81.110	83.930	82.670	0.000	78.840
3	11:01:50	78.300	85.980	83.890	81.010	83.740	82.060	0.000	79.130
x		98.970%	106.846%	106.295%	101.668%	105.056%	103.616%	0.000	98.394%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.423	0.522	1.653	0.591	0.451	1.154	0.000	0.624

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:01:11	92.081%	81.760	83.100	82.155%	77.270	75.460	74.730	72.400
2	11:01:30	93.062%	82.810	85.650	83.092%	78.020	77.160	76.500	72.870
3	11:01:50	93.840%	84.070	85.530	84.262%	78.290	76.540	74.530	72.650
x		92.994%	103.598%	105.953%	83.170%	97.323%	95.486%	94.068%	90.801%
σ		0.881%	n/a	n/a	1.055%	n/a	n/a	n/a	n/a
%RSD		0.947	1.393	1.699	1.269	0.679	1.128	1.441	0.324

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:01:11	92.444%	72.260	77.830	78.720	75.480	76.570	78.742%	78.116%
2	11:01:30	95.191%	72.010	77.330	78.270	75.020	75.970	84.269%	83.559%
3	11:01:50	97.759%	72.830	78.220	78.360	74.990	76.600	85.770%	84.946%
x		95.131%	90.458%	97.242%	98.066%	93.952%	95.472%	82.927%	82.207%
σ		2.658%	n/a	n/a	n/a	n/a	n/a	3.701%	3.610%
%RSD		2.794	0.585	0.573	0.304	0.365	0.468	4.463	4.392

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:01:11	81.420	84.570	80.690	77.370	79.440	73.557%
2	11:01:30	83.460	87.740	83.390	78.840	81.780	78.156%
3	11:01:50	85.010	89.690	85.570	81.400	83.950	80.204%
x		104.123%	109.165%	104.021%	99.006%	102.153%	77.306%
σ		n/a	n/a	n/a	n/a	n/a	3.404%
%RSD		2.165	2.956	2.940	2.577	2.764	4.403

ICB 5/27/2015 11:04:50 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	11:04:50	98.322%	-0.015	0.133	0.090	0.000	5.779	2.736	3.614
2	11:05:09	95.301%	-0.014	0.396	0.150	0.000	4.734	1.373	1.771
3	11:05:29	90.775%	-0.003	0.185	0.197	0.000	4.129	1.690	1.764
x		94.799%	-0.010	0.238	0.146	0.000	4.881	1.933	2.383
σ		3.798%	0.007	0.140	0.053	0.000	0.835	0.713	1.066
%RSD		4.007	62.810	58.640	36.650	0.000	17.100	36.900	44.730
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:04:50	0.033	-5.816	0.000	4.090	1.014	3.371	100.000%	0.039
2	11:05:09	0.198	-3.754	0.000	4.655	0.333	0.862	92.680%	-0.007
3	11:05:29	-0.130	-2.510	0.000	5.749	3.666	3.743	90.823%	0.030
x		0.033	-4.027	0.000	4.831	1.671	2.658	94.501%	0.021
σ		0.164	1.670	0.000	0.844	1.761	1.567	4.852%	0.025
%RSD		492.200	41.460	0.000	17.460	105.400	58.940	5.134	116.700
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:04:50	0.003	0.003	0.031	5.168	8.494	0.005	0.010	-0.008
2	11:05:09	0.003	-0.023	0.018	5.378	10.130	0.004	0.003	0.004
3	11:05:29	0.001	-0.008	0.014	6.145	7.106	0.002	0.015	0.012
x		0.002	-0.009	0.021	5.564	8.575	0.003	0.009	0.003
σ		0.001	0.013	0.009	0.514	1.511	0.002	0.006	0.010
%RSD		56.340	138.000	42.120	9.248	17.630	49.320	64.550	398.500
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:04:50	0.008	-0.090	-0.015	0.250	0.720	0.922	0.000	0.005
2	11:05:09	0.026	-0.071	0.032	0.487	1.080	1.417	0.000	0.007
3	11:05:29	-0.012	0.005	0.086	0.519	1.294	1.139	0.000	0.005
x		0.007	-0.052	0.034	0.419	1.031	1.159	0.000	0.006
σ		0.019	0.050	0.051	0.147	0.290	0.248	0.000	0.001
%RSD		260.400	96.490	146.900	35.070	28.110	21.420	0.000	19.170
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:04:50	92.233%	1.198	1.005	93.096%	0.018	0.017	-0.005	-0.002
2	11:05:09	91.927%	1.438	1.526	92.563%	0.012	0.015	0.008	-0.006
3	11:05:29	91.801%	1.749	1.555	92.299%	0.023	0.018	0.022	0.012
x		91.987%	1.462	1.362	92.653%	0.018	0.017	0.008	0.001
σ		0.222%	0.277	0.309	0.406%	0.005	0.001	0.013	0.010
%RSD		0.242	18.910	22.700	0.438	30.700	7.646	158.900	658.400
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:04:50	92.001%	0.029	0.133	0.081	0.003	0.010	90.909%	90.871%
2	11:05:09	92.287%	0.121	0.164	0.137	0.002	0.003	93.185%	93.358%
3	11:05:29	92.203%	0.186	0.171	0.128	0.011	0.006	94.023%	94.183%
x		92.164%	0.112	0.156	0.115	0.005	0.006	92.706%	92.804%
σ		0.147%	0.079	0.020	0.030	0.005	0.004	1.611%	1.724%
%RSD		0.159	70.490	12.750	26.260	91.840	55.150	1.738	1.857
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:04:50	0.028	0.026	0.011	0.011	0.011	91.430%		
2	11:05:09	0.028	0.023	0.012	0.009	0.011	90.906%		
3	11:05:29	0.019	0.030	0.018	0.017	0.015	90.337%		
x		0.025	0.027	0.014	0.012	0.012	90.891%		
σ		0.005	0.004	0.004	0.004	0.003	0.546%		
%RSD		21.380	13.360	26.250	34.150	23.190	0.601		

CRI 1554040 5/27/2015 11:08:29 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:08:29	112.885%	0.851	16.490	17.400	0.000	415.400	496.000	543.900
2	11:08:48	105.153%	0.877	19.340	17.430	0.000	440.100	499.300	553.700
3	11:09:07	108.399%	0.676	18.220	17.310	0.000	413.600	494.600	544.100
x		108.812%	80.129%	90.087%	86.903%	0.000	84.600%	99.330%	109.446%
σ		3.882%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		3.568	13.680	7.975	0.346	0.000	3.499	0.480	1.029

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:08:29	37.690	435.400	0.000	430.600	477.900	506.800	107.892%	4.594
2	11:08:48	38.110	444.000	0.000	440.300	471.300	514.100	105.304%	4.670
3	11:09:07	36.710	424.200	0.000	425.300	434.600	503.300	108.510%	4.270
x		125.015%	86.903%	0.000	86.413%	92.253%	101.620%	107.235%	90.229%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.701%	n/a
%RSD		1.915	2.284	0.000	1.756	5.050	1.083	1.586	4.715

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:08:29	0.758	1.781	4.900	40.890	49.690	0.466	1.006	1.840
2	11:08:48	0.841	1.797	4.825	40.930	48.490	0.461	1.010	1.958
3	11:09:07	0.848	1.663	4.871	40.400	48.550	0.450	0.894	1.916
x		81.561%	87.349%	97.305%	81.483%	97.819%	91.786%	97.012%	95.235%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		6.111	4.196	0.781	0.727	1.376	1.835	6.789	3.123

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:08:29	1.737	6.210	6.106	1.071	4.248	4.960	0.000	4.573
2	11:08:48	1.991	5.856	6.264	1.049	4.634	5.048	0.000	4.531
3	11:09:07	1.864	6.121	6.149	1.180	4.339	5.156	0.000	4.633
x		93.209%	121.245%	123.463%	109.961%	88.148%	101.089%	0.000	91.581%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		6.797	3.031	1.329	6.380	4.576	1.944	0.000	1.125

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:08:29	101.395%	4.002	4.071	92.456%	0.991	0.971	0.958	0.868
2	11:08:48	102.913%	4.170	4.311	92.805%	0.996	0.989	1.015	0.954
3	11:09:07	102.979%	4.334	4.333	93.609%	1.068	0.987	0.981	0.921
x		102.429%	83.375%	84.769%	92.957%	101.839%	98.246%	98.452%	91.442%
σ		0.896%	n/a	n/a	0.591%	n/a	n/a	n/a	n/a
%RSD		0.875	3.978	3.424	0.636	4.266	1.015	2.919	4.723

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:08:29	101.377%	4.140	1.836	1.888	9.137	9.169	93.057%	92.985%
2	11:08:48	102.219%	4.157	1.894	1.902	9.311	9.256	94.795%	94.862%
3	11:09:07	103.394%	4.276	1.851	1.849	9.424	9.312	95.985%	96.294%
x		102.330%	83.816%	93.036%	93.972%	92.905%	92.457%	94.612%	94.713%
σ		1.013%	n/a	n/a	n/a	n/a	n/a	1.472%	1.660%
%RSD		0.990	1.774	1.612	1.447	1.560	0.781	1.556	1.752

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:08:29	1.019	1.115	1.076	1.047	1.089	91.564%
2	11:08:48	1.077	1.107	1.107	1.084	1.108	91.966%
3	11:09:07	1.066	1.120	1.126	1.118	1.130	92.727%
x		105.375%	111.378%	110.320%	108.299%	110.912%	92.086%
σ		n/a	n/a	n/a	n/a	n/a	0.591%
%RSD		2.896	0.559	2.265	3.274	1.860	0.642

ICSA 1578047 5/27/2015 11:12:07 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	11:12:07	81.730%	0.050	0.214	0.117	0.000	90540.000	91570.000	93910.000
2	11:12:26	74.307%	0.029	0.428	0.441	0.000	97640.000	97760.000	96170.000
3	11:12:45	71.857%	0.010	0.704	0.233	0.000	97620.000	98530.000	98400.000
x		75.965%	0.030	0.449	0.263	0.000	95270.000	95950.000	96160.000
σ		5.141%	0.020	0.246	0.164	0.000	4090.000	3817.000	2242.000
%RSD		6.767	67.360	54.800	62.250	0.000	4.294	3.978	2.331
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:12:07	87220.000	-19.140	0.000	92470.000	91950.000	93770.000	88.462%	2011.000
2	11:12:26	89680.000	-14.500	0.000	97030.000	96310.000	99030.000	83.286%	2061.000
3	11:12:45	93290.000	-11.970	0.000	99280.000	97300.000	99120.000	81.953%	2069.000
x		90070.000	-15.200	0.000	96260.000	95190.000	97310.000	84.567%	2047.000
σ		3052.000	3.639	0.000	3470.000	2845.000	3066.000	3.438%	31.660
%RSD		3.389	23.940	0.000	3.605	2.989	3.151	4.065	1.547
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:12:07	-0.261	0.068	0.502	95130.000	94420.000	0.100	-0.233	1.497
2	11:12:26	-0.378	0.159	0.540	98440.000	98260.000	0.080	-0.286	1.431
3	11:12:45	-0.405	0.116	0.558	99240.000	97740.000	0.092	-0.342	1.416
x		-0.348	0.114	0.533	97610.000	96810.000	0.091	-0.287	1.448
σ		0.077	0.045	0.028	2176.000	2083.000	0.010	0.055	0.043
%RSD		22.030	39.690	5.342	2.230	2.152	10.710	19.010	2.986
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:12:07	1.321	2.867	2.268	0.104	-0.354	0.239	0.000	0.685
2	11:12:26	1.352	2.945	2.271	0.116	-0.181	0.202	0.000	0.699
3	11:12:45	1.374	3.031	2.413	0.100	0.061	0.177	0.000	0.693
x		1.349	2.947	2.317	0.107	-0.158	0.206	0.000	0.692
σ		0.026	0.082	0.083	0.008	0.209	0.031	0.000	0.007
%RSD		1.949	2.778	3.577	7.764	132.300	15.030	0.000	1.007
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:12:07	81.409%	1104.000	2112.000	77.530%	0.096	0.084	0.370	0.229
2	11:12:26	81.193%	1116.000	2148.000	77.367%	0.091	0.087	0.337	0.324
3	11:12:45	80.162%	1124.000	2159.000	77.068%	0.086	0.105	0.109	0.221
x		80.921%	1115.000	2139.000	77.322%	0.091	0.092	0.272	0.258
σ		0.666%	10.280	24.490	0.235%	0.005	0.012	0.142	0.058
%RSD		0.823	0.922	1.145	0.303	5.223	12.700	52.150	22.310
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:12:07	79.480%	0.128	0.202	0.160	0.131	0.140	86.605%	87.634%
2	11:12:26	80.305%	0.121	0.247	0.213	0.093	0.139	87.113%	88.307%
3	11:12:45	80.473%	0.193	0.280	0.227	0.109	0.125	88.224%	88.395%
x		80.086%	0.147	0.243	0.200	0.111	0.135	87.314%	88.112%
σ		0.532%	0.040	0.039	0.036	0.019	0.008	0.828%	0.416%
%RSD		0.664	27.100	16.200	17.760	16.900	6.304	0.948	0.472
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:12:07	0.014	0.018	0.217	0.195	0.200	101.839%		
2	11:12:26	0.016	0.021	0.219	0.220	0.223	90.088%		
3	11:12:45	0.016	0.020	0.245	0.228	0.240	84.721%		
x		0.015	0.020	0.227	0.215	0.221	92.216%		
σ		0.001	0.002	0.016	0.017	0.021	8.755%		
%RSD		7.879	7.739	6.913	7.916	9.274	9.494		

ICSAB 1578158 5/27/2015 11:15:46 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	11:15:46	74.290%	21.020	46.570	49.580	0.000	101300.000	101500.000	100100.000
2	11:16:05	68.963%	20.310	47.120	50.240	0.000	100400.000	100400.000	102900.000
3	11:16:25	67.895%	20.540	45.930	46.740	0.000	96500.000	96100.000	96190.000
x		70.383%	103.104%	93.079%	97.705%	0.000	99.402%	99.324%	99.754%
σ		3.426%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		4.867	1.758	1.280	3.800	0.000	2.567	2.865	3.394
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:15:46	92910.000	554.600	0.000	96760.000	95300.000	98410.000	80.988%	2060.000
2	11:16:05	95780.000	573.800	0.000	100100.000	99130.000	101100.000	77.561%	2087.000
3	11:16:25	89280.000	539.300	0.000	94720.000	94960.000	97470.000	77.937%	2038.000
x		92.657%	111.184%	0.000	97.180%	96.462%	99.002%	78.828%	103.074%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.880%	n/a
%RSD		3.518	3.112	0.000	2.775	2.401	1.922	2.384	1.195
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:15:46	19.240	19.340	21.850	98290.000	98360.000	19.600	19.330	20.890
2	11:16:05	19.910	20.130	22.630	101100.000	101700.000	20.100	19.120	21.200
3	11:16:25	18.890	19.480	21.720	97990.000	98640.000	19.520	18.400	20.770
x		96.749%	98.240%	95.941%	99.134%	99.576%	98.688%	94.759%	104.762%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		2.681	2.143	2.240	1.749	1.880	1.590	2.564	1.064
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:15:46	20.960	23.190	22.930	20.990	54.800	54.910	0.000	21.250
2	11:16:05	20.560	23.570	23.560	22.020	54.560	54.340	0.000	21.600
3	11:16:25	20.740	23.560	22.740	21.550	54.260	54.030	0.000	21.580
x		103.775%	93.759%	92.308%	107.607%	109.080%	108.854%	0.000	107.385%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		0.958	0.910	1.858	2.391	0.497	0.811	0.000	0.905
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:15:46	73.914%	1165.000	2205.000	70.240%	19.420	19.400	19.890	20.280
2	11:16:05	73.461%	1181.000	2246.000	70.112%	19.640	19.590	20.510	20.110
3	11:16:25	72.775%	1184.000	2263.000	69.175%	19.660	19.540	20.440	20.100
x		73.383%	58.824%	111.892%	69.842%	97.873%	97.556%	101.407%	100.814%
σ		0.574%	n/a	n/a	0.582%	n/a	n/a	n/a	n/a
%RSD		0.782	0.867	1.322	0.833	0.677	0.517	1.662	0.490
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:15:46	71.545%	102.200	20.890	21.060	20.290	19.490	76.649%	75.825%
2	11:16:05	71.845%	103.300	21.260	21.480	19.530	20.070	77.478%	77.414%
3	11:16:25	71.431%	104.300	21.440	21.440	20.590	20.140	77.080%	77.292%
x		71.607%	103.266%	105.969%	106.624%	100.685%	99.501%	77.069%	76.844%
σ		0.214%	n/a	n/a	n/a	n/a	n/a	0.415%	0.885%
%RSD		0.299	1.044	1.329	1.081	2.732	1.806	0.538	1.151
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:15:46	19.960	20.540	20.890	20.440	20.880	68.453%		
2	11:16:05	21.740	22.680	22.530	22.440	22.720	63.647%		
3	11:16:25	22.000	23.030	23.140	22.900	23.250	61.969%		
x		106.172%	110.407%	110.921%	109.628%	111.418%	64.690%		
σ		n/a	n/a	n/a	n/a	n/a	3.366%		
%RSD		5.229	6.115	5.256	5.976	5.572	5.203		

CCV 1558997 5/27/2015 11:22:22 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	11:22:22	85.689%	96.260	97.240	97.170	0.000	46300.000	46220.000	46510.000
2	11:22:41	88.871%	92.300	84.090	89.080	0.000	43610.000	44070.000	44200.000
3	11:23:01	81.836%	96.100	90.310	96.670	0.000	45670.000	46040.000	46020.000
x		85.465%	94.889%	90.544%	94.305%	0.000	90.381%	90.885%	91.152%
σ		3.523%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		4.122	2.365	7.266	4.807	0.000	3.109	2.620	2.670

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:22:22	558.800	4932.000	0.000	45640.000	44830.000	45680.000	99.494%	93.780
2	11:22:41	537.400	4610.000	0.000	45690.000	45030.000	45810.000	95.655%	95.000
3	11:23:01	552.300	4875.000	0.000	46120.000	46330.000	47110.000	94.620%	97.020
x		109.900%	96.114%	0.000	91.633%	90.796%	92.398%	96.590%	95.268%
σ		n/a	n/a	0.000	n/a	n/a	n/a	2.568%	n/a
%RSD		1.997	3.582	0.000	0.568	1.788	1.714	2.658	1.719

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:22:22	91.790	92.210	470.100	23500.000	23520.000	91.560	93.710	95.800
2	11:22:41	94.690	94.860	485.600	24360.000	24100.000	95.920	97.540	97.550
3	11:23:01	93.920	95.800	478.900	23620.000	23600.000	93.730	94.660	95.570
x		93.468%	94.290%	95.638%	95.314%	94.965%	93.738%	95.302%	96.310%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.607	1.971	1.629	1.949	1.314	2.324	2.089	1.125

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:22:22	96.410	95.230	96.670	100.400	105.300	105.600	0.000	105.100
2	11:22:41	96.840	98.160	98.710	102.900	104.500	107.000	0.000	107.400
3	11:23:01	95.150	97.500	97.990	99.850	105.000	104.700	0.000	106.600
x		96.133%	96.965%	97.792%	101.035%	104.945%	105.788%	0.000	106.356%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		0.913	1.584	1.060	1.585	0.395	1.081	0.000	1.104

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:22:22	83.736%	105.700	106.800	83.287%	97.180	96.770	96.430	94.150
2	11:22:41	82.878%	110.000	110.500	82.959%	98.150	97.050	97.120	94.610
3	11:23:01	83.236%	110.300	111.600	83.357%	99.010	97.520	98.230	95.290
x		83.284%	108.659%	109.646%	83.201%	98.112%	97.115%	97.257%	94.686%
σ		0.431%	n/a	n/a	0.212%	n/a	n/a	n/a	n/a
%RSD		0.518	2.347	2.295	0.255	0.937	0.390	0.934	0.604

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:22:22	89.904%	93.380	89.810	90.930	94.840	96.620	86.321%	86.205%
2	11:22:41	91.097%	94.640	90.750	91.460	97.950	99.020	87.901%	88.650%
3	11:23:01	91.109%	95.460	92.210	92.220	97.630	97.580	89.239%	89.268%
x		90.703%	94.496%	90.924%	91.537%	96.809%	97.742%	87.820%	88.041%
σ		0.693%	n/a	n/a	n/a	n/a	n/a	1.461%	1.620%
%RSD		0.764	1.108	1.326	0.710	1.767	1.232	1.663	1.840

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:22:22	100.200	106.400	102.300	100.400	102.700	85.688%
2	11:22:41	103.100	109.700	105.200	103.800	105.600	87.025%
3	11:23:01	103.900	110.800	108.000	106.400	107.600	88.117%
x		102.424%	108.937%	105.146%	103.530%	105.324%	86.943%
σ		n/a	n/a	n/a	n/a	n/a	1.216%
%RSD		1.890	2.099	2.702	2.885	2.324	1.399

CCB1 5/27/2015 11:25:53 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:26:12	81.086%	-0.007	-0.393	0.428	0.000	8.458	2.248	3.071
2	11:26:31	85.357%	-0.036	0.153	0.123	0.000	7.326	1.439	2.339
3	11:26:50	84.753%	0.001	0.158	0.065	0.000	6.754	1.792	1.987
x		83.732%	-0.014	-0.027	0.205	0.000	7.513	1.826	2.466
σ		2.311%	0.020	0.317	0.195	0.000	0.868	0.405	0.553
%RSD		2.760	137.900	1160.000	94.860	0.000	11.550	22.200	22.440

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:26:12	0.343	-30.010	0.000	5.670	-0.596	3.294	89.686%	0.044
2	11:26:31	0.276	-31.630	0.000	4.626	5.259	1.079	85.752%	0.113
3	11:26:50	-0.002	-35.260	0.000	2.155	3.839	0.734	89.012%	0.129
x		0.206	-32.300	0.000	4.150	2.834	1.703	88.150%	0.096
σ		0.183	2.690	0.000	1.805	3.054	1.389	2.104%	0.045
%RSD		88.780	8.327	0.000	43.480	107.800	81.610	2.386	47.150

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:26:12	0.011	-0.003	0.023	11.730	13.180	0.002	0.004	0.020
2	11:26:31	0.015	0.013	0.017	8.019	14.830	0.001	0.002	0.017
3	11:26:50	0.003	-0.017	0.025	6.529	10.210	0.005	0.017	0.023
x		0.010	-0.002	0.022	8.761	12.740	0.003	0.008	0.020
σ		0.006	0.015	0.004	2.681	2.340	0.002	0.008	0.003
%RSD		65.120	614.200	18.290	30.600	18.360	79.930	101.700	16.180

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:26:12	0.011	-0.034	-0.023	0.242	0.862	1.096	0.000	0.007
2	11:26:31	-0.000	-0.044	0.055	0.298	0.734	1.088	0.000	0.003
3	11:26:50	0.023	-0.044	0.053	0.299	0.636	1.066	0.000	0.007
x		0.011	-0.041	0.028	0.280	0.744	1.083	0.000	0.006
σ		0.012	0.006	0.045	0.032	0.114	0.015	0.000	0.003
%RSD		104.900	13.710	158.200	11.600	15.250	1.429	0.000	46.460

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:26:12	86.220%	3.679	3.516	88.159%	0.013	0.019	0.066	0.041
2	11:26:31	87.374%	4.357	4.354	88.838%	0.013	0.011	0.049	0.037
3	11:26:50	87.431%	4.185	4.151	89.226%	0.011	0.015	-0.016	-0.008
x		87.008%	4.074	4.007	88.741%	0.012	0.015	0.033	0.023
σ		0.683%	0.352	0.437	0.540%	0.001	0.004	0.043	0.027
%RSD		0.785	8.652	10.910	0.608	11.620	27.490	131.800	116.100

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:26:12	88.127%	0.218	1.177	1.195	0.009	0.012	92.818%	92.651%
2	11:26:31	89.816%	0.285	1.235	1.205	-0.006	0.005	93.685%	95.034%
3	11:26:50	90.775%	0.234	1.205	1.265	0.002	0.006	95.695%	96.528%
x		89.573%	0.245	1.206	1.222	0.002	0.008	94.066%	94.738%
σ		1.341%	0.035	0.029	0.038	0.008	0.004	1.476%	1.955%
%RSD		1.497	14.290	2.382	3.120	451.400	49.360	1.569	2.064

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:26:12	0.043	0.042	0.014	0.017	0.014	90.097%
2	11:26:31	0.039	0.037	0.017	0.013	0.012	90.464%
3	11:26:50	0.034	0.037	0.015	0.006	0.012	90.828%
x		0.039	0.039	0.015	0.012	0.013	90.463%
σ		0.005	0.003	0.002	0.005	0.001	0.366%
%RSD		12.230	7.235	9.890	45.140	8.639	0.404

MB 180-142738/1-A 5/27/2015 11:29:42 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	11:30:01	83.919%	0.011	-0.330	-0.139	0.000	3.917	1.117	0.715
2	11:30:21	82.050%	0.022	-0.210	0.141	0.000	3.378	0.012	0.256
3	11:30:41	82.330%	-0.017	-0.026	-0.238	0.000	3.336	0.008	0.180
x		82.766%	0.005	-0.189	-0.079	0.000	3.544	0.379	0.384
σ		1.008%	0.020	0.153	0.196	0.000	0.324	0.639	0.289
%RSD		1.218	385.800	81.080	249.700	0.000	9.145	168.500	75.370

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:30:01	0.212	-43.950	0.000	1.905	1.793	-0.077	86.361%	0.075
2	11:30:21	-0.117	-43.410	0.000	0.791	-1.575	0.848	84.704%	0.078
3	11:30:41	-0.251	-44.130	0.000	0.936	-1.584	-0.917	85.041%	0.027
x		-0.052	-43.830	0.000	1.211	-0.455	-0.048	85.369%	0.060
σ		0.239	0.376	0.000	0.606	1.947	0.883	0.876%	0.028
%RSD		459.500	0.859	0.000	50.080	427.800	1826.000	1.026	47.270

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:30:01	-0.012	0.000	0.004	-0.923	2.881	0.000	0.018	0.000
2	11:30:21	-0.017	-0.021	0.007	-0.421	3.053	-0.002	0.009	-0.009
3	11:30:41	-0.014	-0.013	0.006	-1.182	3.820	-0.000	0.015	0.017
x		-0.014	-0.011	0.005	-0.842	3.251	-0.000	0.014	0.003
σ		0.002	0.011	0.002	0.387	0.500	0.001	0.005	0.013
%RSD		16.810	94.570	31.250	45.950	15.390	238.200	32.970	432.100

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:30:01	-0.003	1.129	1.143	0.020	0.036	0.114	0.000	0.003
2	11:30:21	-0.007	1.115	0.972	-0.001	0.156	0.239	0.000	0.006
3	11:30:41	0.026	1.164	1.064	0.058	-0.218	0.130	0.000	0.003
x		0.005	1.136	1.060	0.026	-0.009	0.161	0.000	0.004
σ		0.018	0.025	0.086	0.029	0.191	0.068	0.000	0.002
%RSD		335.700	2.207	8.095	115.300	2166.000	42.400	0.000	48.150

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:30:01	86.372%	1.028	0.894	87.882%	-0.014	-0.003	0.007	0.006
2	11:30:21	86.227%	1.401	1.308	87.587%	-0.001	0.002	-0.004	-0.003
3	11:30:41	86.894%	1.194	1.372	88.002%	-0.010	-0.003	0.019	0.020
x		86.498%	1.208	1.191	87.824%	-0.008	-0.002	0.007	0.008
σ		0.351%	0.187	0.259	0.213%	0.007	0.003	0.011	0.012
%RSD		0.405	15.470	21.770	0.243	82.390	179.300	151.600	154.500

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:30:01	88.755%	-0.010	0.568	0.560	0.003	0.003	92.885%	93.229%
2	11:30:21	89.358%	0.024	0.562	0.560	-0.006	0.008	93.711%	94.438%
3	11:30:41	88.912%	0.053	0.554	0.547	-0.003	0.005	94.236%	95.306%
x		89.009%	0.022	0.561	0.556	-0.002	0.005	93.611%	94.324%
σ		0.313%	0.031	0.007	0.008	0.005	0.003	0.681%	1.043%
%RSD		0.351	139.900	1.246	1.354	211.300	47.730	0.728	1.106

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:30:01	0.005	0.010	0.022	0.029	0.025	91.427%
2	11:30:21	0.001	0.011	0.017	0.018	0.019	91.672%
3	11:30:41	0.011	0.011	0.017	0.023	0.019	89.643%
x		0.006	0.011	0.019	0.023	0.021	90.914%
σ		0.005	0.001	0.003	0.005	0.003	1.107%
%RSD		90.810	7.856	17.210	23.270	16.430	1.218

LCS 180-142738/2-A 5/27/2015 11:37:17 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:37:37	62.591%	49.620	923.500	911.700	0.000	44740.000	45020.000	44960.000
2	11:37:56	63.138%	48.400	898.700	895.300	0.000	44390.000	44040.000	44290.000
3	11:38:15	57.591%	47.580	893.200	907.900	0.000	46190.000	46990.000	46450.000
x		61.107%	48.530	905.200	905.000	0.000	45110.000	45350.000	45230.000
σ		3.057%	1.028	16.140	8.553	0.000	953.200	1503.000	1106.000
%RSD		5.003	2.117	1.783	0.945	0.000	2.113	3.314	2.446

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:37:37	1758.000	9621.000	0.000	46830.000	46260.000	47150.000	69.319%	966.600
2	11:37:56	1741.000	9597.000	0.000	45850.000	46510.000	47330.000	67.008%	966.800
3	11:38:15	1793.000	9830.000	0.000	46370.000	46210.000	48300.000	67.229%	984.200
x		1764.000	9683.000	0.000	46350.000	46330.000	47590.000	67.852%	972.500
σ		26.670	127.900	0.000	492.400	159.500	618.000	1.275%	10.130
%RSD		1.512	1.321	0.000	1.062	0.344	1.298	1.879	1.041

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:37:37	475.900	187.800	476.500	966.900	1138.000	419.200	460.200	229.400
2	11:37:56	475.700	187.800	493.000	992.900	1200.000	439.200	479.700	238.000
3	11:38:15	477.600	192.700	484.200	974.600	1162.000	425.900	463.700	233.500
x		476.400	189.500	484.600	978.100	1167.000	428.100	467.900	233.600
σ		1.043	2.815	8.268	13.380	31.280	10.190	10.370	4.347
%RSD		0.219	1.486	1.706	1.367	2.682	2.380	2.216	1.861

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:37:37	227.100	465.300	465.100	37.040	10.410	10.430	0.000	856.800
2	11:37:56	237.300	478.100	475.800	37.150	10.630	10.530	0.000	861.300
3	11:38:15	233.100	473.900	468.400	37.790	10.620	10.590	0.000	865.000
x		232.500	472.500	469.800	37.330	10.560	10.520	0.000	861.000
σ		5.085	6.516	5.515	0.404	0.126	0.078	0.000	4.139
%RSD		2.187	1.379	1.174	1.083	1.197	0.744	0.000	0.481

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:37:37	70.071%	888.800	935.700	66.553%	43.910	43.250	44.290	41.720
2	11:37:56	71.140%	906.800	947.400	68.004%	43.990	43.520	43.970	41.660
3	11:38:15	71.295%	929.700	965.900	68.134%	44.440	44.050	45.000	41.620
x		70.835%	908.400	949.700	67.564%	44.110	43.610	44.420	41.670
σ		0.666%	20.520	15.190	0.878%	0.287	0.406	0.523	0.052
%RSD		0.941	2.258	1.600	1.299	0.650	0.931	1.177	0.125

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:37:37	73.575%	1588.000	453.400	458.700	1035.000	1821.000	61.085%	70.985%
2	11:37:56	75.604%	1598.000	459.900	464.300	1033.000	1840.000	63.068%	74.010%
3	11:38:15	76.712%	1599.000	462.000	464.300	1028.000	1833.000	65.018%	76.859%
x		75.297%	1595.000	458.400	462.400	1032.000	1831.000	63.057%	73.951%
σ		1.591%	5.976	4.503	3.204	3.537	9.943	1.967%	2.938%
%RSD		2.113	0.375	0.982	0.693	0.343	0.543	3.119	3.972

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:37:37	41.800	42.080	16.880	16.670	16.930	61.444%
2	11:37:56	44.130	45.980	18.290	18.040	18.380	62.245%
3	11:38:15	46.570	48.070	19.130	18.970	19.240	63.415%
x		44.170	45.380	18.100	17.900	18.180	62.368%
σ		2.386	3.040	1.134	1.154	1.168	0.991%
%RSD		5.402	6.700	6.268	6.449	6.422	1.589

LCSD 180-142738/3-A 5/27/2015 11:41:04 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	11:41:24	63.539%	48.070	902.600	909.100	0.000	45740.000	44580.000	44660.000
2	11:41:43	66.006%	46.800	876.300	874.300	0.000	44230.000	44510.000	43980.000
3	11:42:02	61.946%	46.800	891.500	903.000	0.000	46300.000	45740.000	47040.000
x		63.830%	47.220	890.200	895.500	0.000	45420.000	44940.000	45230.000
σ		2.045%	0.734	13.210	18.580	0.000	1070.000	689.900	1605.000
%RSD		3.204	1.554	1.485	2.075	0.000	2.355	1.535	3.548

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:41:24	1760.000	9655.000	0.000	46920.000	47050.000	47520.000	70.041%	973.700
2	11:41:43	1725.000	9373.000	0.000	46690.000	46550.000	47560.000	68.856%	971.000
3	11:42:02	1784.000	9626.000	0.000	48270.000	49060.000	48380.000	66.367%	987.300
x		1756.000	9551.000	0.000	47300.000	47560.000	47820.000	68.422%	977.300
σ		29.490	155.100	0.000	852.300	1328.000	486.400	1.875%	8.745
%RSD		1.680	1.624	0.000	1.802	2.793	1.017	2.741	0.895

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:41:24	461.600	188.100	467.800	961.200	1143.000	404.300	457.300	228.000
2	11:41:43	454.800	187.400	465.800	962.100	1147.000	410.800	471.200	232.800
3	11:42:02	469.200	191.900	479.900	1003.000	1190.000	479.100	482.600	240.200
x		461.900	189.100	471.200	975.400	1160.000	431.400	470.400	233.700
σ		7.181	2.452	7.661	23.950	26.130	41.450	12.690	6.170
%RSD		1.555	1.297	1.626	2.455	2.253	9.608	2.698	2.640

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:41:24	228.400	461.800	459.500	36.680	10.090	9.793	0.000	858.900
2	11:41:43	228.700	463.200	459.300	36.850	10.080	9.633	0.000	852.600
3	11:42:02	236.700	476.500	473.000	38.340	11.100	10.250	0.000	869.000
x		231.300	467.200	463.900	37.290	10.420	9.893	0.000	860.200
σ		4.672	8.110	7.849	0.916	0.589	0.322	0.000	8.275
%RSD		2.020	1.736	1.692	2.457	5.651	3.250	0.000	0.962

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:41:24	74.336%	881.500	879.700	78.555%	42.440	42.370	43.130	42.160
2	11:41:43	75.040%	895.300	886.200	78.843%	42.620	42.530	43.250	41.970
3	11:42:02	74.085%	917.700	910.200	78.743%	43.340	43.150	44.090	42.610
x		74.487%	898.200	892.000	78.714%	42.800	42.690	43.490	42.250
σ		0.495%	18.240	16.040	0.146%	0.476	0.412	0.525	0.328
%RSD		0.665	2.030	1.799	0.186	1.112	0.966	1.207	0.776

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:41:24	81.135%	1575.000	459.400	463.200	974.900	1789.000	71.458%	85.204%
2	11:41:43	82.364%	1581.000	431.500	422.700	977.700	1784.000	72.598%	87.264%
3	11:42:02	82.134%	1596.000	435.600	470.900	982.000	1798.000	72.866%	87.358%
x		81.878%	1584.000	442.100	452.300	978.200	1790.000	72.307%	86.609%
σ		0.653%	11.080	15.070	25.920	3.589	7.242	0.748%	1.217%
%RSD		0.798	0.700	3.408	5.731	0.367	0.405	1.034	1.405

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:41:24	43.220	46.200	18.720	18.750	18.940	80.946%
2	11:41:43	46.070	49.040	19.880	19.440	19.820	78.894%
3	11:42:02	47.510	50.520	20.710	20.300	20.720	78.009%
x		45.600	48.580	19.770	19.500	19.830	79.283%
σ		2.185	2.193	0.997	0.776	0.887	1.507%
%RSD		4.792	4.514	5.045	3.982	4.476	1.901

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:45:11	68.282%	22.270	73.650	73.570	0.000	25330.000	27480.000	27680.000
2	11:45:31	71.064%	21.450	73.080	68.380	0.000	25030.000	26860.000	27460.000
3	11:45:50	67.136%	20.750	65.570	65.520	0.000	24960.000	27510.000	27080.000
x		68.827%	21.490	70.770	69.160	0.000	25110.000	27280.000	27410.000
σ		2.020%	0.759	4.508	4.076	0.000	195.400	368.000	302.600
%RSD		2.934	3.532	6.370	5.894	0.000	0.778	1.349	1.104

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:45:11	43230.000	4367.000	0.000	3266.000	67710.000	67870.000	90.520%	27.210
2	11:45:31	41110.000	4185.000	0.000	3321.000	68380.000	68780.000	87.449%	27.840
3	11:45:50	41370.000	4241.000	0.000	3303.000	69500.000	70280.000	86.173%	137.900
x		41900.000	4264.000	0.000	3297.000	68530.000	68980.000	88.047%	64.330
σ		1157.000	93.240	0.000	27.580	905.000	1213.000	2.235%	63.750
%RSD		2.760	2.186	0.000	0.837	1.321	1.759	2.538	99.100

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:45:11	7.357	38.310	2613.000	118600.000	117000.000	291.500	526.800	377.600
2	11:45:31	7.794	38.690	2690.000	120900.000	121100.000	304.800	545.100	385.100
3	11:45:50	7.984	39.570	2736.000	124000.000	123400.000	304.900	550.300	388.000
x		7.711	38.860	2679.000	121200.000	120500.000	300.400	540.700	383.600
σ		0.322	0.649	62.050	2711.000	3250.000	7.716	12.320	5.353
%RSD		4.171	1.671	2.316	2.238	2.697	2.569	2.279	1.396

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:45:11	376.300	1770.000	1787.000	49.160	22.630	24.810	0.000	550.400
2	11:45:31	383.300	1818.000	1821.000	49.320	22.790	23.840	0.000	559.300
3	11:45:50	389.600	1818.000	1820.000	49.960	22.320	23.710	0.000	557.400
x		383.100	1802.000	1810.000	49.480	22.580	24.120	0.000	555.700
σ		6.654	27.720	19.630	0.419	0.238	0.604	0.000	4.667
%RSD		1.737	1.538	1.085	0.847	1.056	2.505	0.000	0.840

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:45:11	0.000	12.910	12.940	83.825%	0.014	0.019	6.315	5.987
2	11:45:31	0.000	13.690	14.170	84.209%	0.011	0.018	6.278	5.985
3	11:45:50	0.000	13.070	13.270	85.147%	0.003	0.022	6.225	6.201
x		0.000	13.220	13.460	84.394%	0.010	0.020	6.273	6.058
σ		0.000	0.411	0.637	0.680%	0.006	0.002	0.045	0.124
%RSD		0.000	3.112	4.734	0.806	57.820	10.980	0.723	2.043

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:45:11	95.239%	3.453	0.273	0.269	26.700	26.530	104.695%	105.786%
2	11:45:31	95.625%	3.598	0.270	0.290	27.030	26.600	106.215%	108.140%
3	11:45:50	97.289%	3.218	0.266	0.239	26.710	26.810	109.070%	109.488%
x		96.051%	3.423	0.270	0.266	26.810	26.650	106.660%	107.805%
σ		1.090%	0.192	0.003	0.026	0.188	0.145	2.221%	1.873%
%RSD		1.134	5.596	1.285	9.638	0.701	0.546	2.083	1.738

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:45:11	1.086	1.105	3.967	3.489	3.729	100.528%
2	11:45:31	1.039	1.061	4.229	3.830	4.085	94.618%
3	11:45:50	0.932	1.030	4.364	4.045	4.228	93.354%
x		1.019	1.065	4.187	3.788	4.014	96.167%
σ		0.079	0.037	0.202	0.281	0.257	3.829%
%RSD		7.742	3.501	4.817	7.410	6.409	3.982

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:49:00	75.085%	0.112	185.000	189.000	0.000	20710.000	2378.000	2608.000
2	11:49:19	75.166%	0.049	186.000	181.800	0.000	19630.000	2376.000	2556.000
3	11:49:38	68.813%	0.126	184.900	188.800	0.000	21000.000	2474.000	2720.000
x		73.021%	0.095	185.300	186.500	0.000	20450.000	2409.000	2628.000
σ		3.645%	0.041	0.604	4.110	0.000	721.700	55.920	83.640
%RSD		4.991	42.900	0.326	2.203	0.000	3.530	2.321	3.183
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:49:00	886.900	2142.000	0.000	3173.000	7953.000	8603.000	80.252%	50.820
2	11:49:19	890.900	2150.000	0.000	3210.000	8120.000	8666.000	81.462%	52.120
3	11:49:38	957.300	2236.000	0.000	3249.000	8234.000	9142.000	77.059%	53.150
x		911.700	2176.000	0.000	3211.000	8102.000	8804.000	79.591%	52.030
σ		39.550	52.090	0.000	37.720	141.700	294.700	2.275%	1.170
%RSD		4.338	2.394	0.000	1.175	1.749	3.347	2.858	2.248
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:49:00	66.700	1.541	129.500	1395.000	1509.000	1.127	6.540	33.570
2	11:49:19	67.230	1.549	127.000	1346.000	1494.000	1.144	6.476	33.620
3	11:49:38	68.170	1.617	133.200	1423.000	1545.000	1.228	6.427	34.710
x		67.360	1.569	129.900	1388.000	1516.000	1.166	6.481	33.970
σ		0.745	0.042	3.153	38.640	26.340	0.054	0.057	0.648
%RSD		1.107	2.655	2.427	2.784	1.737	4.614	0.879	1.907
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:49:00	34.100	94.320	94.570	4.323	0.458	1.034	0.000	61.440
2	11:49:19	33.360	92.210	93.090	4.760	0.313	0.908	0.000	61.770
3	11:49:38	33.430	95.430	95.140	5.058	0.764	0.944	0.000	63.090
x		33.630	93.990	94.260	4.714	0.512	0.962	0.000	62.100
σ		0.409	1.636	1.060	0.370	0.231	0.065	0.000	0.875
%RSD		1.217	1.741	1.125	7.840	45.060	6.711	0.000	1.408
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:49:00	81.397%	4.946	4.979	82.474%	-0.013	-0.005	0.127	0.094
2	11:49:19	79.953%	5.396	5.229	80.723%	-0.011	0.001	0.054	0.071
3	11:49:38	79.461%	5.336	5.371	80.193%	-0.007	0.003	0.152	0.113
x		80.270%	5.226	5.193	81.130%	-0.010	-0.000	0.111	0.092
σ		1.006%	0.245	0.198	1.194%	0.003	0.004	0.051	0.021
%RSD		1.254	4.683	3.821	1.471	30.440	902.800	46.200	22.930
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:49:00	83.089%	1.606	0.282	0.306	33.540	33.690	90.782%	92.276%
2	11:49:19	81.925%	1.835	0.319	0.313	33.310	33.120	90.942%	91.935%
3	11:49:38	81.809%	1.793	0.303	0.299	34.000	33.850	89.555%	90.530%
x		82.274%	1.745	0.301	0.306	33.610	33.550	90.426%	91.580%
σ		0.708%	0.122	0.018	0.007	0.350	0.382	0.759%	0.926%
%RSD		0.861	6.976	6.100	2.342	1.040	1.139	0.839	1.011
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:49:00	0.156	0.154	3.223	2.884	3.043	93.755%		
2	11:49:19	0.155	0.179	3.488	2.945	3.243	90.062%		
3	11:49:38	0.152	0.177	3.586	3.192	3.342	87.579%		
x		0.154	0.170	3.432	3.007	3.209	90.465%		
σ		0.002	0.014	0.188	0.163	0.152	3.108%		
%RSD		1.287	8.182	5.467	5.413	4.740	3.436		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:52:48	60.029%	0.074	38110.000	36660.000	0.000	203200.000	147600.000	149600.000
2	11:53:07	56.720%	0.040	38220.000	37220.000	0.000	210100.000	150700.000	148400.000
3	11:53:26	57.979%	0.092	38690.000	36240.000	0.000	202900.000	147600.000	145400.000
x		58.243%	0.069	38340.000	36710.000	0.000	205400.000	148600.000	147800.000
σ		1.670%	0.026	308.000	492.800	0.000	4086.000	1796.000	2172.000
%RSD		2.868	37.960	0.803	1.342	0.000	1.989	1.208	1.470

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:52:48	625.700	4394.000	0.000	33910.000	1617000.000	1669000.000	72.549%	35.030
2	11:53:07	556.400	4381.000	0.000	34150.000	1620000.000	1672000.000	72.292%	34.360
3	11:53:26	551.300	4312.000	0.000	34200.000	1616000.000	1673000.000	71.707%	36.880
x		577.800	4363.000	0.000	34090.000	1618000.000	1671000.000	72.183%	35.420
σ		41.570	43.910	0.000	153.600	2064.000	2020.000	0.432%	1.305
%RSD		7.195	1.007	0.000	0.451	0.128	0.121	0.598	3.683

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:52:48	24.060	1.551	294.100	831.600	5485.000	3.618	27.760	11.820
2	11:53:07	24.280	1.589	298.800	820.800	5337.000	3.686	26.510	11.400
3	11:53:26	24.520	1.531	300.300	833.300	5255.000	3.560	26.090	12.030
x		24.290	1.557	297.700	828.600	5359.000	3.621	26.790	11.750
σ		0.232	0.029	3.259	6.760	116.300	0.063	0.869	0.323
%RSD		0.957	1.894	1.094	0.816	2.171	1.746	3.245	2.747

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:52:48	12.000	34.120	34.260	33.900	8.777	151.100	0.000	3012.000
2	11:53:07	11.800	35.370	33.640	32.300	8.956	150.500	0.000	3013.000
3	11:53:26	12.370	34.800	34.670	33.140	8.386	150.600	0.000	3005.000
x		12.060	34.770	34.190	33.110	8.706	150.700	0.000	3010.000
σ		0.288	0.626	0.519	0.798	0.291	0.337	0.000	4.378
%RSD		2.387	1.800	1.518	2.411	3.348	0.224	0.000	0.145

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:52:48	68.874%	20.290	20.310	62.140%	0.008	0.016	0.938	0.824
2	11:53:07	68.947%	21.080	21.170	62.263%	0.007	0.009	1.019	1.016
3	11:53:26	68.931%	21.500	21.490	62.434%	0.004	0.004	0.879	0.941
x		68.917%	20.950	20.990	62.279%	0.006	0.010	0.945	0.927
σ		0.038%	0.613	0.608	0.148%	0.002	0.006	0.070	0.097
%RSD		0.055	2.927	2.897	0.237	32.510	58.260	7.435	10.420

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:52:48	65.005%	1.556	1.191	1.229	135.500	135.000	72.396%	71.725%
2	11:53:07	64.236%	1.868	1.380	1.320	138.800	137.300	72.144%	71.709%
3	11:53:26	65.130%	1.766	1.306	1.338	136.000	138.000	71.627%	71.935%
x		64.790%	1.730	1.292	1.296	136.800	136.700	72.056%	71.790%
σ		0.484%	0.159	0.096	0.059	1.765	1.576	0.392%	0.126%
%RSD		0.747	9.189	7.397	4.524	1.291	1.153	0.544	0.176

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:52:48	0.925	0.947	2.104	1.755	1.907	55.938%
2	11:53:07	0.981	1.054	2.113	1.865	1.997	54.290%
3	11:53:26	0.991	1.110	2.017	1.785	1.919	54.593%
x		0.966	1.037	2.078	1.802	1.941	54.941%
σ		0.036	0.083	0.053	0.057	0.049	0.878%
%RSD		3.679	8.024	2.549	3.162	2.519	1.597

600-111842-H-1-A 5/27/2015 11:56:17 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:56:37	74.666%	0.071	94.310	94.050	0.000	9078.000	1747.000	1878.000
2	11:56:57	67.805%	0.049	95.470	95.060	0.000	9419.000	1792.000	1928.000
3	11:57:16	69.500%	0.013	89.790	88.610	0.000	9084.000	1785.000	1936.000
x		70.657%	0.044	93.190	92.570	0.000	9194.000	1775.000	1914.000
σ		3.574%	0.029	3.001	3.470	0.000	195.200	24.330	31.590
%RSD		5.058	66.350	3.220	3.748	0.000	2.123	1.371	1.651

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:56:37	50.390	3915.000	0.000	2164.000	34730.000	35480.000	74.175%	0.769
2	11:56:57	53.440	4059.000	0.000	2227.000	34610.000	36490.000	72.168%	4.762
3	11:57:16	55.000	3899.000	0.000	2198.000	35330.000	36260.000	69.444%	0.734
x		52.940	3957.000	0.000	2197.000	34890.000	36080.000	71.929%	2.089
σ		2.346	88.010	0.000	31.800	387.200	528.600	2.375%	2.315
%RSD		4.431	2.224	0.000	1.448	1.110	1.465	3.301	110.900

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:56:37	0.785	0.129	612.500	249.300	340.300	0.700	0.664	0.959
2	11:56:57	0.821	0.141	623.400	251.500	348.800	0.717	0.601	1.011
3	11:57:16	0.692	0.086	621.500	255.000	350.900	0.784	0.667	1.029
x		0.766	0.119	619.200	251.900	346.700	0.734	0.644	1.000
σ		0.066	0.029	5.827	2.853	5.604	0.045	0.037	0.036
%RSD		8.671	24.370	0.941	1.133	1.616	6.098	5.821	3.615

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:56:37	0.994	3.614	3.447	0.717	-0.555	0.757	0.000	270.500
2	11:56:57	1.008	3.442	3.403	0.880	-0.232	1.034	0.000	268.900
3	11:57:16	0.968	3.569	3.707	0.688	-0.444	0.599	0.000	268.600
x		0.990	3.542	3.519	0.762	-0.410	0.797	0.000	269.300
σ		0.020	0.089	0.165	0.103	0.165	0.220	0.000	1.025
%RSD		2.038	2.521	4.674	13.560	40.090	27.630	0.000	0.381

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:56:37	68.151%	1.823	1.728	68.155%	-0.017	-0.012	0.188	0.178
2	11:56:57	67.524%	2.133	1.985	67.333%	-0.018	-0.005	0.156	0.131
3	11:57:16	68.046%	2.149	2.078	67.949%	-0.023	-0.015	0.234	0.174
x		67.907%	2.035	1.930	67.812%	-0.019	-0.011	0.192	0.161
σ		0.336%	0.184	0.181	0.428%	0.003	0.005	0.039	0.026
%RSD		0.494	9.018	9.394	0.631	14.590	47.940	20.370	16.230

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:56:37	66.354%	0.632	0.076	0.028	30.480	30.960	69.045%	68.166%
2	11:56:57	67.422%	0.770	0.042	0.064	31.430	30.930	68.789%	68.370%
3	11:57:16	67.857%	0.804	0.071	0.078	30.320	30.690	71.826%	70.782%
x		67.211%	0.736	0.063	0.057	30.740	30.860	69.887%	69.106%
σ		0.773%	0.091	0.018	0.026	0.598	0.150	1.685%	1.455%
%RSD		1.150	12.440	29.140	45.330	1.946	0.486	2.411	2.106

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:56:37	0.050	0.060	0.292	0.245	0.279	57.259%
2	11:56:57	0.053	0.052	0.268	0.267	0.282	54.544%
3	11:57:16	0.044	0.045	0.345	0.262	0.310	55.525%
x		0.049	0.052	0.302	0.258	0.290	55.776%
σ		0.004	0.007	0.040	0.011	0.017	1.375%
%RSD		8.634	14.210	13.180	4.367	5.783	2.464

600-111843-I-1-A 5/27/2015 12:00:07 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:00:26	61.620%	0.146	554.200	554.100	0.000	405400.000	19150.000	19390.000
2	12:00:46	62.202%	0.083	545.600	561.300	0.000	402900.000	19080.000	18830.000
3	12:01:05	59.269%	0.090	574.500	579.700	0.000	416800.000	20060.000	19980.000
x		61.030%	0.106	558.100	565.000	0.000	408400.000	19430.000	19400.000
σ		1.553%	0.035	14.830	13.180	0.000	7406.000	549.000	574.500
%RSD		2.545	32.920	2.657	2.333	0.000	1.813	2.826	2.961

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:00:26	622.400	11190.000	0.000	3633.000	93390.000	95690.000	72.826%	15.550
2	12:00:46	607.400	10990.000	0.000	3695.000	97030.000	97820.000	69.957%	18.180
3	12:01:05	644.300	11250.000	0.000	3787.000	99030.000	99770.000	66.614%	17.020
x		624.700	11140.000	0.000	3705.000	96480.000	97760.000	69.799%	16.920
σ		18.560	136.800	0.000	77.320	2861.000	2044.000	3.109%	1.317
%RSD		2.971	1.228	0.000	2.087	2.966	2.091	4.454	7.786

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:00:26	3.444	0.452	2456.000	2200.000	2580.000	9.232	8.424	3.742
2	12:00:46	3.683	0.464	2498.000	2304.000	2667.000	9.574	8.502	3.954
3	12:01:05	3.762	0.465	2526.000	2315.000	2767.000	9.673	8.682	4.037
x		3.630	0.460	2493.000	2273.000	2671.000	9.493	8.536	3.911
σ		0.166	0.007	35.240	63.180	93.460	0.232	0.132	0.153
%RSD		4.573	1.542	1.414	2.779	3.499	2.438	1.547	3.899

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:00:26	1.440	8.459	8.248	6.703	-0.091	2.640	0.000	1039.000
2	12:00:46	1.471	8.480	8.359	6.454	-0.135	2.147	0.000	1038.000
3	12:01:05	1.523	8.659	8.580	6.725	0.300	2.314	0.000	1046.000
x		1.478	8.533	8.396	6.627	0.025	2.367	0.000	1041.000
σ		0.042	0.110	0.169	0.151	0.239	0.250	0.000	4.227
%RSD		2.825	1.293	2.015	2.276	963.900	10.580	0.000	0.406

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:00:26	71.971%	2.062	1.945	66.591%	-0.009	-0.004	0.039	0.042
2	12:00:46	72.651%	2.213	2.210	66.491%	-0.002	-0.003	0.084	0.073
3	12:01:05	72.733%	2.467	2.377	66.918%	0.006	-0.009	0.036	0.032
x		72.452%	2.247	2.177	66.667%	-0.002	-0.005	0.053	0.049
σ		0.418%	0.205	0.218	0.223%	0.007	0.003	0.027	0.021
%RSD		0.577	9.121	10.020	0.335	414.900	64.590	50.840	43.380

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:00:26	68.761%	0.599	0.274	0.242	67.930	67.190	78.477%	79.311%
2	12:00:46	69.620%	0.647	0.299	0.299	68.790	68.500	79.878%	81.104%
3	12:01:05	70.320%	0.639	0.276	0.279	68.710	68.400	80.970%	83.048%
x		69.567%	0.628	0.283	0.273	68.480	68.030	79.775%	81.154%
σ		0.781%	0.026	0.014	0.029	0.473	0.730	1.250%	1.869%
%RSD		1.122	4.112	4.877	10.640	0.690	1.072	1.566	2.303

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:00:26	0.031	0.036	0.850	0.738	0.806	74.654%
2	12:00:46	0.035	0.045	0.866	0.875	0.873	73.161%
3	12:01:05	0.040	0.039	1.073	0.874	0.951	73.046%
x		0.036	0.040	0.930	0.829	0.877	73.621%
σ		0.005	0.005	0.124	0.079	0.072	0.897%
%RSD		13.310	12.140	13.350	9.482	8.249	1.219

180-44402-C-3-A 5/27/2015 12:03:57 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:04:16	75.376%	-0.003	29.120	28.360	0.000	42470.000	235.500	256.300
2	12:04:35	69.659%	-0.010	30.300	28.610	0.000	43390.000	235.600	257.800
3	12:04:54	70.101%	-0.033	30.910	27.600	0.000	41550.000	235.000	259.900
x		71.712%	-0.015	30.110	28.190	0.000	42470.000	235.400	258.000
σ		3.181%	0.015	0.909	0.525	0.000	922.200	0.309	1.833
%RSD		4.435	102.300	3.019	1.862	0.000	2.172	0.131	0.711

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:04:16	4.299	10.980	0.000	128.200	862.000	923.900	77.980%	0.190
2	12:04:35	4.393	10.930	0.000	130.600	903.200	945.400	75.959%	0.212
3	12:04:54	4.180	10.260	0.000	129.100	934.900	938.300	76.886%	0.236
x		4.291	10.720	0.000	129.300	900.000	935.900	76.941%	0.213
σ		0.107	0.399	0.000	1.196	36.520	10.930	1.012%	0.023
%RSD		2.487	3.724	0.000	0.925	4.058	1.167	1.315	10.770

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:04:16	-0.250	0.017	13.960	47.670	49.510	0.163	0.841	0.450
2	12:04:35	0.149	-0.017	14.140	44.470	49.940	0.154	0.784	0.439
3	12:04:54	0.006	0.032	13.960	44.700	48.060	0.149	0.852	0.459
x		-0.032	0.011	14.020	45.610	49.170	0.155	0.825	0.449
σ		0.202	0.025	0.107	1.785	0.982	0.007	0.036	0.010
%RSD		638.900	230.200	0.765	3.914	1.997	4.642	4.371	2.319

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:04:16	0.138	0.431	0.446	0.740	18.930	20.280	0.000	4.513
2	12:04:35	0.120	0.486	0.602	0.815	19.030	19.900	0.000	4.530
3	12:04:54	0.100	0.590	0.428	1.085	19.790	21.180	0.000	4.546
x		0.119	0.502	0.492	0.880	19.250	20.450	0.000	4.530
σ		0.019	0.081	0.095	0.182	0.473	0.657	0.000	0.016
%RSD		15.880	16.090	19.390	20.650	2.455	3.214	0.000	0.363

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:04:16	77.666%	0.107	0.070	78.883%	-0.020	-0.016	0.034	0.023
2	12:04:35	77.981%	0.205	0.266	78.344%	-0.020	-0.016	-0.013	-0.019
3	12:04:54	76.757%	0.342	0.307	77.964%	-0.024	-0.012	-0.019	-0.011
x		77.468%	0.218	0.214	78.397%	-0.021	-0.015	0.001	-0.002
σ		0.636%	0.118	0.126	0.462%	0.002	0.002	0.029	0.022
%RSD		0.820	54.340	58.890	0.589	11.650	16.810	2929.000	918.000

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:04:16	80.517%	0.236	-0.021	-0.013	1.045	0.871	87.801%	89.672%
2	12:04:35	81.123%	0.279	-0.002	-0.029	0.904	0.937	89.126%	90.007%
3	12:04:54	81.262%	0.306	-0.004	-0.036	0.897	0.862	90.642%	91.446%
x		80.967%	0.274	-0.009	-0.026	0.949	0.890	89.190%	90.375%
σ		0.396%	0.035	0.010	0.012	0.083	0.041	1.421%	0.943%
%RSD		0.489	12.830	113.800	45.920	8.783	4.566	1.594	1.043

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:04:16	0.014	0.021	0.028	0.033	0.031	89.482%
2	12:04:35	0.017	0.021	0.031	0.027	0.031	88.068%
3	12:04:54	0.023	0.025	0.035	0.027	0.032	86.493%
x		0.018	0.023	0.032	0.029	0.031	88.014%
σ		0.005	0.002	0.003	0.003	0.001	1.495%
%RSD		26.590	10.360	10.800	11.870	2.972	1.698

CCV 1558997 5/27/2015 12:11:28 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	12:11:28	100.882%	92.700	103.700	102.900	0.000	43720.000	45440.000	45340.000
2	12:11:48	101.549%	93.560	107.800	108.100	0.000	47480.000	47730.000	47480.000
3	12:12:07	93.944%	94.700	112.900	111.200	0.000	46870.000	48000.000	49350.000
x		98.792%	93.651%	108.117%	107.422%	0.000	92.045%	94.108%	94.787%
σ		4.211%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		4.263	1.070	4.231	3.905	0.000	4.384	2.993	4.234

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:11:28	468.000	4833.000	0.000	47500.000	47840.000	47900.000	95.787%	102.700
2	12:11:48	502.700	5135.000	0.000	51310.000	50920.000	51910.000	90.439%	109.300
3	12:12:07	516.800	5234.000	0.000	50490.000	50370.000	51500.000	90.523%	106.100
x		99.170%	101.349%	0.000	99.537%	99.424%	100.872%	92.250%	106.057%
σ		n/a	n/a	0.000	n/a	n/a	n/a	3.063%	n/a
%RSD		5.076	4.129	0.000	4.027	3.304	4.368	3.321	3.115

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:11:28	98.970	100.000	488.300	24590.000	24980.000	97.420	98.930	99.880
2	12:11:48	105.900	106.900	535.800	26630.000	26450.000	107.300	106.800	107.600
3	12:12:07	102.800	103.400	518.100	25660.000	25630.000	102.400	104.200	104.100
x		102.547%	103.452%	102.812%	102.521%	102.744%	102.360%	103.311%	103.871%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		3.383	3.330	4.674	3.985	2.875	4.824	3.867	3.744

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:11:28	101.400	98.940	98.640	101.600	106.800	104.500	0.000	104.400
2	12:11:48	105.800	103.000	103.000	105.700	109.100	109.600	0.000	108.800
3	12:12:07	104.500	102.900	103.100	105.700	110.100	108.000	0.000	107.200
x		103.878%	101.606%	101.582%	104.336%	108.694%	107.327%	0.000	106.777%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.174	2.269	2.511	2.259	1.539	2.432	0.000	2.077

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:11:28	83.203%	100.300	100.800	80.733%	99.150	98.060	98.280	96.380
2	12:11:48	82.866%	104.300	104.900	79.838%	103.700	102.800	102.700	100.200
3	12:12:07	83.216%	105.000	106.100	80.466%	102.600	101.400	100.600	100.200
x		83.095%	103.179%	103.933%	80.346%	101.832%	100.762%	100.542%	98.930%
σ		0.198%	n/a	n/a	0.459%	n/a	n/a	n/a	n/a
%RSD		0.239	2.426	2.648	0.572	2.342	2.429	2.194	2.230

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:11:28	84.558%	95.530	90.640	90.090	95.990	97.600	82.964%	83.074%
2	12:11:48	82.921%	100.600	94.380	95.250	102.600	101.100	82.950%	82.500%
3	12:12:07	84.161%	99.890	93.670	94.150	100.700	100.400	83.757%	83.847%
x		83.880%	98.675%	92.899%	93.160%	99.756%	99.708%	83.224%	83.140%
σ		0.854%	n/a	n/a	n/a	n/a	n/a	0.462%	0.676%
%RSD		1.018	2.780	2.139	2.917	3.394	1.865	0.555	0.813

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:11:28	99.820	104.800	100.600	99.610	101.100	80.305%
2	12:11:48	106.500	111.700	106.900	105.300	107.600	76.866%
3	12:12:07	106.500	111.700	108.100	107.800	109.000	75.629%
x		104.271%	109.390%	105.226%	104.232%	105.899%	77.600%
σ		n/a	n/a	n/a	n/a	n/a	2.423%
%RSD		3.699	3.661	3.840	4.015	4.021	3.122

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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	12:18:16	81.710%	0.002	16.250	16.520	0.000	9.217	1.487	1.764
2	12:18:35	83.951%	0.001	15.830	15.640	0.000	8.320	0.977	1.691
3	12:18:55	78.823%	-0.025	14.540	15.560	0.000	8.356	1.199	1.280
x		81.495%	-0.007	15.540	15.910	0.000	8.631	1.221	1.578
σ		2.571%	0.016	0.890	0.532	0.000	0.508	0.256	0.261
%RSD		3.154	215.500	5.728	3.345	0.000	5.888	20.940	16.520

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:16	0.310	-61.040	0.000	3.787	8.038	5.673	90.951%	-0.028
2	12:18:35	0.037	-62.330	0.000	3.286	10.650	4.177	87.888%	0.011
3	12:18:55	0.116	-62.060	0.000	3.917	7.580	3.188	85.880%	-0.061
x		0.154	-61.810	0.000	3.663	8.755	4.346	88.240%	-0.026
σ		0.140	0.683	0.000	0.333	1.656	1.251	2.554%	0.036
%RSD		90.980	1.105	0.000	9.096	18.910	28.790	2.894	140.000

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:16	0.006	-0.016	0.020	-1.815	2.588	0.004	0.005	0.039
2	12:18:35	-0.003	-0.019	0.021	-0.572	3.064	0.005	-0.001	0.022
3	12:18:55	0.027	0.010	0.018	-0.295	2.737	0.003	0.002	0.012
x		0.010	-0.008	0.020	-0.894	2.796	0.004	0.002	0.025
σ		0.015	0.016	0.002	0.810	0.244	0.001	0.003	0.014
%RSD		153.600	199.200	9.274	90.580	8.715	22.970	140.000	55.650

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:16	0.024	0.028	0.011	0.102	0.113	0.371	0.000	0.016
2	12:18:35	0.019	0.033	0.067	0.154	0.034	0.670	0.000	0.011
3	12:18:55	0.028	-0.048	0.090	0.146	0.285	0.381	0.000	0.006
x		0.024	0.004	0.056	0.134	0.144	0.474	0.000	0.011
σ		0.004	0.045	0.041	0.028	0.128	0.170	0.000	0.005
%RSD		18.150	1126.000	73.270	21.030	89.190	35.860	0.000	43.050

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:16	80.570%	0.609	0.556	81.021%	-0.012	-0.011	-0.001	0.007
2	12:18:35	81.820%	0.936	0.890	82.395%	-0.016	-0.006	0.010	0.004
3	12:18:55	82.830%	1.018	1.039	83.777%	-0.005	-0.007	0.041	0.022
x		81.740%	0.854	0.828	82.397%	-0.011	-0.008	0.017	0.011
σ		1.132%	0.217	0.247	1.378%	0.005	0.003	0.022	0.010
%RSD		1.385	25.370	29.860	1.672	48.370	33.200	130.300	89.390

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:16	78.729%	0.271	0.703	0.716	0.003	0.019	77.770%	77.455%
2	12:18:35	82.262%	0.317	0.723	0.680	0.005	0.004	82.646%	82.120%
3	12:18:55	84.181%	0.358	0.708	0.706	-0.002	0.004	84.985%	84.159%
x		81.724%	0.315	0.711	0.701	0.002	0.009	81.800%	81.245%
σ		2.766%	0.044	0.011	0.018	0.004	0.009	3.681%	3.436%
%RSD		3.384	13.850	1.485	2.598	191.700	93.580	4.501	4.230

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:16	0.022	0.021	0.001	0.009	0.005	66.611%
2	12:18:35	0.017	0.030	0.006	0.002	0.005	72.896%
3	12:18:55	0.018	0.028	0.006	0.009	0.008	76.021%
x		0.019	0.026	0.004	0.007	0.006	71.843%
σ		0.003	0.005	0.003	0.004	0.002	4.793%
%RSD		15.120	17.500	62.980	62.380	37.490	6.671

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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	12:22:07	76.568%	-0.045	20.400	19.540	0.000	42000.000	209.700	227.800
2	12:22:26	77.268%	-0.004	16.360	19.200	0.000	41390.000	196.400	220.600
3	12:22:45	75.292%	-0.003	18.940	18.680	0.000	42010.000	204.900	226.200
x		76.376%	-0.017	18.570	19.140	0.000	41800.000	203.700	224.900
σ		1.002%	0.024	2.046	0.433	0.000	359.000	6.759	3.815
%RSD		1.312	138.600	11.020	2.262	0.000	0.859	3.319	1.697
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:22:07	91.810	2.770	0.000	135.800	1242.000	1299.000	81.360%	0.086
2	12:22:26	88.790	2.431	0.000	136.700	1202.000	1289.000	79.480%	0.211
3	12:22:45	90.000	0.028	0.000	134.500	1182.000	1319.000	77.044%	0.111
x		90.200	1.743	0.000	135.700	1209.000	1303.000	79.294%	0.136
σ		1.522	1.495	0.000	1.097	30.810	15.550	2.164%	0.066
%RSD		1.688	85.780	0.000	0.808	2.549	1.194	2.729	48.640
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:22:07	0.058	0.065	12.180	98.240	101.400	0.141	0.439	0.499
2	12:22:26	-0.035	0.042	12.400	98.010	105.700	0.144	0.456	0.512
3	12:22:45	-0.164	0.057	12.340	95.810	102.100	0.148	0.409	0.412
x		-0.047	0.054	12.310	97.350	103.100	0.144	0.435	0.474
σ		0.112	0.012	0.115	1.338	2.282	0.004	0.024	0.054
%RSD		238.500	21.850	0.936	1.374	2.214	2.428	5.426	11.480
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:22:07	0.110	1.091	1.253	0.351	8.925	9.727	0.000	4.305
2	12:22:26	0.174	0.976	1.117	0.456	8.639	9.745	0.000	4.174
3	12:22:45	0.150	1.095	1.196	0.574	9.253	10.090	0.000	4.243
x		0.145	1.054	1.188	0.460	8.939	9.856	0.000	4.240
σ		0.032	0.068	0.068	0.111	0.307	0.207	0.000	0.066
%RSD		22.290	6.411	5.743	24.180	3.434	2.105	0.000	1.548
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:22:07	78.015%	-0.216	-0.313	79.726%	-0.010	0.001	0.073	0.040
2	12:22:26	78.732%	-0.150	-0.122	79.309%	-0.021	-0.001	-0.021	-0.006
3	12:22:45	77.848%	-0.123	-0.104	78.887%	-0.010	-0.011	-0.036	-0.024
x		78.198%	-0.163	-0.180	79.308%	-0.014	-0.004	0.006	0.003
σ		0.470%	0.047	0.116	0.420%	0.006	0.006	0.059	0.033
%RSD		0.601	29.090	64.290	0.529	46.170	169.400	1065.000	1029.000
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:22:07	81.050%	0.076	0.304	0.311	0.400	0.326	86.713%	87.917%
2	12:22:26	81.401%	0.098	0.311	0.241	0.339	0.284	87.509%	88.088%
3	12:22:45	82.185%	0.093	0.316	0.303	0.257	0.312	89.039%	89.838%
x		81.545%	0.089	0.310	0.285	0.332	0.307	87.754%	88.614%
σ		0.581%	0.012	0.006	0.039	0.072	0.021	1.182%	1.063%
%RSD		0.713	13.450	1.851	13.520	21.550	6.821	1.347	1.200
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:22:07	0.002	0.010	0.060	0.048	0.050	92.243%		
2	12:22:26	0.007	0.009	0.063	0.060	0.065	88.099%		
3	12:22:45	0.006	0.011	0.069	0.056	0.060	86.907%		
x		0.005	0.010	0.064	0.055	0.058	89.083%		
σ		0.003	0.001	0.005	0.006	0.008	2.801%		
%RSD		50.590	14.180	7.520	11.030	13.240	3.144		

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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	12:25:55	66.739%	21.890	138.000	136.000	0.000	29780.000	27360.000	27320.000
2	12:26:15	67.229%	21.230	128.500	130.100	0.000	28850.000	26880.000	26990.000
3	12:26:34	67.327%	21.920	129.600	129.400	0.000	29370.000	27590.000	27430.000
x		67.098%	21.680	132.000	131.800	0.000	29330.000	27280.000	27250.000
σ		0.315%	0.391	5.232	3.656	0.000	466.000	361.400	225.900
%RSD		0.469	1.805	3.963	2.773	0.000	1.589	1.325	0.829

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:25:55	41180.000	3756.000	0.000	2977.000	66020.000	66890.000	88.591%	11.580
2	12:26:15	40300.000	3711.000	0.000	3047.000	68350.000	69280.000	85.937%	12.510
3	12:26:34	40460.000	3813.000	0.000	3100.000	70080.000	68940.000	84.442%	11.930
x		40650.000	3760.000	0.000	3041.000	68150.000	68370.000	86.323%	12.010
σ		470.000	50.750	0.000	61.710	2034.000	1294.000	2.101%	0.468
%RSD		1.156	1.350	0.000	2.029	2.985	1.893	2.434	3.900

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:25:55	2.095	37.360	2573.000	111200.000	109900.000	294.300	529.300	373.700
2	12:26:15	2.320	38.230	2621.000	112500.000	112300.000	296.000	533.300	376.700
3	12:26:34	2.359	37.970	2601.000	110200.000	110000.000	293.600	537.900	378.000
x		2.258	37.850	2598.000	111300.000	110700.000	294.600	533.500	376.100
σ		0.143	0.442	24.170	1171.000	1368.000	1.254	4.315	2.228
%RSD		6.315	1.169	0.930	1.052	1.236	0.426	0.809	0.592

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:25:55	367.900	1747.000	1746.000	29.560	21.000	23.140	0.000	542.200
2	12:26:15	374.700	1790.000	1790.000	30.120	20.760	23.570	0.000	547.900
3	12:26:34	379.500	1784.000	1797.000	30.120	21.410	24.110	0.000	548.500
x		374.000	1773.000	1778.000	29.940	21.060	23.610	0.000	546.200
σ		5.828	23.300	27.870	0.326	0.331	0.488	0.000	3.484
%RSD		1.558	1.314	1.568	1.089	1.573	2.066	0.000	0.638

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:25:55	0.000	0.017	-0.023	79.176%	-0.018	-0.011	6.126	5.881
2	12:26:15	0.000	0.094	0.079	79.897%	-0.015	-0.007	6.141	5.922
3	12:26:34	0.000	0.223	0.092	81.097%	-0.015	-0.010	6.266	5.889
x		0.000	0.111	0.050	80.056%	-0.016	-0.009	6.178	5.897
σ		0.000	0.104	0.063	0.970%	0.002	0.002	0.077	0.022
%RSD		0.000	93.530	127.100	1.212	10.080	18.570	1.249	0.366

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:25:55	91.319%	0.245	0.268	0.254	19.680	19.960	101.159%	102.207%
2	12:26:15	92.112%	0.306	0.304	0.306	19.870	19.540	103.667%	104.975%
3	12:26:34	93.253%	0.369	0.292	0.276	19.960	19.880	105.909%	107.406%
x		92.228%	0.306	0.288	0.279	19.840	19.800	103.578%	104.863%
σ		0.972%	0.062	0.018	0.026	0.142	0.223	2.376%	2.602%
%RSD		1.054	20.260	6.345	9.254	0.717	1.129	2.294	2.481

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:25:55	0.502	0.518	2.148	1.946	2.037	99.644%
2	12:26:15	0.541	0.592	2.411	2.162	2.271	93.310%
3	12:26:34	0.585	0.628	2.451	2.163	2.323	91.117%
x		0.543	0.579	2.336	2.090	2.211	94.690%
σ		0.041	0.056	0.165	0.125	0.152	4.428%
%RSD		7.570	9.703	7.041	5.979	6.885	4.676

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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	12:29:42	86.133%	4.427	32.090	29.680	0.000	5882.000	5619.000	5637.000
2	12:30:01	83.711%	4.345	33.770	32.250	0.000	5840.000	5512.000	5486.000
3	12:30:20	86.076%	4.101	29.580	30.240	0.000	5781.000	5454.000	5574.000
x		85.306%	4.291	31.810	30.720	0.000	5834.000	5528.000	5566.000
σ		1.382%	0.170	2.111	1.354	0.000	50.830	83.390	75.910
%RSD		1.621	3.955	6.635	4.405	0.000	0.871	1.508	1.364
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:29:42	8302.000	762.500	0.000	632.500	14380.000	14760.000	92.488%	2.393
2	12:30:01	8107.000	750.000	0.000	622.300	13870.000	14200.000	94.604%	2.486
3	12:30:20	8118.000	753.500	0.000	620.700	14050.000	14490.000	93.369%	2.268
x		8176.000	755.300	0.000	625.200	14100.000	14480.000	93.487%	2.382
σ		109.900	6.432	0.000	6.391	257.000	278.200	1.063%	0.109
%RSD		1.344	0.852	0.000	1.022	1.822	1.920	1.137	4.576
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:29:42	0.566	7.623	517.000	21990.000	21920.000	57.050	103.500	73.170
2	12:30:01	0.260	7.687	524.200	22180.000	22110.000	58.350	106.400	74.420
3	12:30:20	0.462	7.434	512.100	22110.000	21680.000	56.690	105.400	74.640
x		0.429	7.581	517.800	22090.000	21900.000	57.360	105.100	74.080
σ		0.156	0.132	6.093	97.590	212.400	0.876	1.464	0.791
%RSD		36.260	1.736	1.177	0.442	0.970	1.528	1.393	1.068
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:29:42	72.520	326.600	326.600	5.360	2.447	3.579	0.000	92.000
2	12:30:01	73.860	328.400	331.200	5.432	2.943	3.684	0.000	93.180
3	12:30:20	73.590	329.600	328.800	5.249	2.814	3.762	0.000	93.410
x		73.320	328.200	328.900	5.347	2.735	3.675	0.000	92.860
σ		0.712	1.477	2.318	0.092	0.258	0.092	0.000	0.754
%RSD		0.971	0.450	0.705	1.724	9.418	2.494	0.000	0.812
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:29:42	111.172%	-0.275	-0.320	88.591%	-0.023	-0.012	1.386	1.249
2	12:30:01	110.147%	-0.194	-0.212	88.362%	-0.024	-0.011	1.256	1.242
3	12:30:20	111.240%	-0.183	-0.129	89.335%	-0.029	-0.016	1.382	1.333
x		110.853%	-0.217	-0.220	88.762%	-0.025	-0.013	1.341	1.275
σ		0.612%	0.050	0.096	0.509%	0.003	0.002	0.074	0.051
%RSD		0.552	23.110	43.430	0.573	13.150	18.890	5.529	3.987
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:29:42	89.108%	0.060	0.160	0.150	4.229	4.249	96.530%	96.803%
2	12:30:01	89.530%	0.127	0.188	0.188	4.262	4.300	96.519%	96.927%
3	12:30:20	90.571%	0.114	0.186	0.168	4.458	4.389	97.496%	96.805%
x		89.737%	0.101	0.178	0.169	4.316	4.313	96.848%	96.845%
σ		0.753%	0.035	0.015	0.019	0.124	0.070	0.561%	0.071%
%RSD		0.839	35.200	8.663	11.270	2.864	1.634	0.579	0.073
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:29:42	0.117	0.135	0.477	0.446	0.448	91.241%		
2	12:30:01	0.122	0.143	0.490	0.424	0.469	89.484%		
3	12:30:20	0.115	0.144	0.502	0.434	0.479	86.833%		
x		0.118	0.141	0.490	0.434	0.465	89.186%		
σ		0.004	0.005	0.012	0.011	0.016	2.219%		
%RSD		3.032	3.523	2.548	2.485	3.360	2.488		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:36:26	81.470%	0.003	9.953	9.083	0.000	2.361	-0.111	0.130
2	12:36:45	80.483%	-0.026	9.552	9.535	0.000	1.954	-0.638	-0.363
3	12:37:05	77.569%	-0.045	9.004	10.040	0.000	1.785	-0.429	-0.446
x		79.841%	-0.022	9.503	9.551	0.000	2.034	-0.393	-0.227
σ		2.028%	0.024	0.477	0.476	0.000	0.296	0.266	0.311
%RSD		2.540	106.200	5.015	4.989	0.000	14.570	67.590	137.300

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:36:26	0.177	-81.240	0.000	-0.248	3.035	0.141	85.128%	0.003
2	12:36:45	0.001	-80.760	0.000	-0.030	-1.583	-0.766	85.127%	-0.048
3	12:37:05	-0.084	-80.620	0.000	-0.176	2.009	-0.067	83.400%	0.031
x		0.031	-80.870	0.000	-0.151	1.154	-0.231	84.552%	-0.005
σ		0.133	0.326	0.000	0.111	2.425	0.475	0.997%	0.040
%RSD		424.000	0.403	0.000	73.530	210.200	206.100	1.180	840.200

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:36:26	-0.010	-0.032	0.008	0.013	3.877	-0.001	0.000	-0.000
2	12:36:45	-0.011	-0.024	-0.003	-0.835	5.079	-0.000	0.016	-0.001
3	12:37:05	-0.007	-0.004	0.006	-0.945	3.623	0.001	-0.006	0.004
x		-0.009	-0.020	0.004	-0.589	4.193	0.000	0.003	0.001
σ		0.002	0.014	0.006	0.524	0.778	0.001	0.012	0.003
%RSD		18.540	71.910	160.300	89.010	18.560	747.100	347.100	274.500

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:36:26	0.026	-0.464	-0.395	-0.048	-0.201	-0.105	0.000	0.003
2	12:36:45	-0.004	-0.474	-0.487	0.060	-0.003	0.147	0.000	0.006
3	12:37:05	0.051	-0.422	-0.380	0.023	0.170	0.148	0.000	0.006
x		0.025	-0.453	-0.421	0.012	-0.011	0.063	0.000	0.005
σ		0.028	0.028	0.058	0.055	0.186	0.146	0.000	0.001
%RSD		113.700	6.119	13.790	476.300	1636.000	230.500	0.000	30.730

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:36:26	77.684%	-0.273	-0.347	77.833%	-0.022	-0.012	0.011	0.011
2	12:36:45	78.707%	-0.163	-0.262	79.326%	-0.019	-0.015	0.014	0.017
3	12:37:05	78.893%	-0.065	-0.194	80.024%	-0.020	-0.014	0.010	0.006
x		78.428%	-0.167	-0.268	79.061%	-0.020	-0.014	0.012	0.012
σ		0.651%	0.104	0.077	1.119%	0.001	0.001	0.002	0.005
%RSD		0.830	62.170	28.690	1.415	7.279	10.790	19.520	47.130

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:36:26	74.793%	0.036	0.113	0.104	-0.007	0.002	72.667%	70.842%
2	12:36:45	76.661%	0.038	0.113	0.131	-0.007	-0.003	75.525%	74.338%
3	12:37:05	78.369%	0.101	0.129	0.114	-0.008	0.009	77.891%	76.730%
x		76.607%	0.058	0.118	0.116	-0.007	0.003	75.361%	73.970%
σ		1.788%	0.037	0.009	0.013	0.000	0.006	2.616%	2.961%
%RSD		2.334	63.440	7.777	11.500	4.152	221.200	3.471	4.003

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:36:26	-0.001	0.005	-0.004	-0.005	-0.003	53.572%
2	12:36:45	0.006	0.005	0.003	0.000	-0.001	56.516%
3	12:37:05	0.004	0.007	0.001	0.004	0.002	59.927%
x		0.003	0.006	0.000	-0.000	-0.001	56.672%
σ		0.003	0.001	0.004	0.005	0.003	3.180%
%RSD		115.400	24.790	9835.000	1278.000	264.100	5.612

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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	12:40:11	84.819%	0.010	8.737	8.497	0.000	1.955	-0.358	-0.296
2	12:40:30	79.309%	0.063	9.630	8.595	0.000	1.601	-0.451	-0.151
3	12:40:50	81.309%	-0.007	8.293	8.639	0.000	1.778	-0.126	-0.125
x		81.812%	0.022	8.886	8.577	0.000	1.778	-0.311	-0.191
σ		2.789%	0.036	0.681	0.073	0.000	0.177	0.167	0.092
%RSD		3.410	164.800	7.661	0.846	0.000	9.953	53.740	48.380
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:40:11	-0.134	-82.530	0.000	-2.158	2.825	2.278	87.747%	-0.062
2	12:40:30	-0.185	-81.800	0.000	-2.364	2.917	0.428	86.820%	-0.073
3	12:40:50	-0.261	-81.870	0.000	-0.565	2.057	1.461	82.466%	-0.020
x		-0.193	-82.060	0.000	-1.696	2.600	1.389	85.678%	-0.052
σ		0.064	0.403	0.000	0.985	0.472	0.927	2.819%	0.028
%RSD		33.150	0.491	0.000	58.070	18.160	66.760	3.291	54.270
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:40:11	-0.004	-0.013	0.010	-3.711	1.296	0.002	-0.007	0.011
2	12:40:30	0.017	-0.001	0.005	-3.226	0.173	0.002	-0.001	0.012
3	12:40:50	0.000	-0.012	0.001	-1.372	1.368	0.001	-0.000	0.021
x		0.004	-0.009	0.005	-2.770	0.946	0.002	-0.003	0.015
σ		0.011	0.007	0.005	1.234	0.670	0.001	0.004	0.006
%RSD		258.600	73.750	85.340	44.570	70.880	33.580	139.800	39.050
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:40:11	0.006	0.043	0.034	-0.035	-0.195	-0.038	0.000	0.006
2	12:40:30	0.001	-0.054	-0.025	-0.016	-0.155	-0.007	0.000	0.005
3	12:40:50	0.032	-0.083	-0.047	-0.021	-0.327	0.008	0.000	0.005
x		0.013	-0.031	-0.013	-0.024	-0.226	-0.013	0.000	0.005
σ		0.016	0.066	0.042	0.010	0.090	0.024	0.000	0.001
%RSD		129.700	211.200	327.200	41.500	39.710	186.100	0.000	14.990
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:40:11	83.260%	-0.418	-0.428	84.278%	-0.024	-0.018	0.027	0.021
2	12:40:30	83.150%	-0.331	-0.379	85.452%	-0.020	-0.015	-0.009	-0.001
3	12:40:50	85.461%	-0.294	-0.332	86.484%	-0.024	-0.018	-0.005	-0.009
x		83.957%	-0.348	-0.380	85.404%	-0.023	-0.017	0.004	0.004
σ		1.304%	0.064	0.048	1.103%	0.002	0.002	0.020	0.015
%RSD		1.553	18.340	12.640	1.292	9.518	9.536	480.700	414.400
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:40:11	84.770%	-0.022	0.064	0.036	0.007	0.006	86.741%	86.404%
2	12:40:30	85.373%	-0.002	0.086	0.041	0.004	0.014	89.340%	89.009%
3	12:40:50	87.042%	0.026	0.061	0.055	-0.009	0.007	90.216%	90.679%
x		85.728%	0.001	0.071	0.044	0.001	0.009	88.766%	88.697%
σ		1.177%	0.024	0.013	0.010	0.009	0.005	1.807%	2.155%
%RSD		1.373	2768.000	19.050	22.940	1243.000	51.940	2.036	2.429
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:40:11	-0.002	0.004	0.004	0.003	0.004	85.127%		
2	12:40:30	0.004	0.005	0.000	0.002	0.004	86.307%		
3	12:40:50	0.001	0.008	0.002	0.004	0.004	86.917%		
x		0.001	0.006	0.002	0.003	0.004	86.117%		
σ		0.003	0.002	0.002	0.001	0.000	0.910%		
%RSD		233.200	39.960	104.200	28.360	6.021	1.057		

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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	12:43:58	51.975%	56.210	1100.000	1138.000	0.000	50270.000	49380.000	49860.000
2	12:44:18	51.639%	59.430	1122.000	1149.000	0.000	50830.000	51710.000	51680.000
3	12:44:37	48.702%	55.520	1115.000	1196.000	0.000	50820.000	52070.000	53080.000
x		50.772%	57.060	1112.000	1161.000	0.000	50640.000	51050.000	51540.000
σ		1.801%	2.086	11.480	30.540	0.000	319.000	1458.000	1611.000
%RSD		3.546	3.656	1.032	2.630	0.000	0.630	2.855	3.126
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:43:58	1886.000	10490.000	0.000	53490.000	53760.000	54220.000	56.276%	1126.000
2	12:44:18	2005.000	10890.000	0.000	54560.000	56080.000	55810.000	54.976%	1138.000
3	12:44:37	2022.000	10950.000	0.000	54610.000	55800.000	56080.000	53.794%	1123.000
x		1971.000	10780.000	0.000	54220.000	55210.000	55370.000	55.015%	1129.000
σ		74.010	246.100	0.000	632.800	1266.000	1003.000	1.241%	7.475
%RSD		3.755	2.284	0.000	1.167	2.293	1.812	2.256	0.662
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:43:58	520.400	215.000	524.500	1064.000	1256.000	514.100	506.700	249.400
2	12:44:18	523.700	213.800	525.400	1058.000	1274.000	445.400	503.100	248.200
3	12:44:37	523.900	218.300	530.600	1077.000	1275.000	453.100	506.800	249.600
x		522.700	215.700	526.800	1066.000	1268.000	470.900	505.500	249.100
σ		1.989	2.360	3.337	9.888	10.540	37.640	2.090	0.746
%RSD		0.381	1.094	0.633	0.927	0.831	7.995	0.413	0.299
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:43:58	249.100	478.700	472.900	36.960	9.385	10.110	0.000	852.500
2	12:44:18	246.100	475.900	472.100	37.010	9.728	10.910	0.000	857.100
3	12:44:37	248.400	484.700	476.000	36.920	9.950	10.440	0.000	847.200
x		247.900	479.800	473.700	36.960	9.688	10.490	0.000	852.200
σ		1.559	4.493	2.094	0.042	0.285	0.398	0.000	4.983
%RSD		0.629	0.937	0.442	0.113	2.939	3.794	0.000	0.585
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:43:58	71.225%	969.600	976.800	71.045%	44.430	43.800	42.490	40.190
2	12:44:18	71.135%	972.900	979.400	71.050%	44.460	43.580	43.100	40.720
3	12:44:37	71.227%	988.600	986.900	70.737%	44.860	43.580	43.290	41.220
x		71.195%	977.000	981.000	70.944%	44.580	43.650	42.960	40.710
σ		0.052%	10.130	5.248	0.180%	0.242	0.129	0.418	0.513
%RSD		0.074	1.037	0.535	0.253	0.542	0.295	0.974	1.259
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:43:58	81.711%	1505.000	430.300	432.900	899.200	1646.000	79.096%	86.218%
2	12:44:18	82.349%	1512.000	437.600	438.900	901.200	1649.000	80.590%	88.029%
3	12:44:37	83.680%	1509.000	435.300	438.000	902.100	1647.000	81.298%	89.656%
x		82.580%	1509.000	434.400	436.600	900.800	1647.000	80.328%	87.968%
σ		1.005%	3.485	3.772	3.260	1.491	1.523	1.124%	1.720%
%RSD		1.217	0.231	0.868	0.747	0.166	0.092	1.400	1.955
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:43:58	49.920	53.690	21.930	21.670	22.110	73.615%		
2	12:44:18	51.370	55.390	22.100	21.870	22.370	74.691%		
3	12:44:37	51.900	55.660	22.300	21.870	22.380	76.185%		
x		51.060	54.910	22.110	21.810	22.290	74.830%		
σ		1.027	1.068	0.186	0.114	0.153	1.290%		
%RSD		2.012	1.945	0.840	0.523	0.687	1.724		

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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	12:47:46	54.165%	56.900	1185.000	1194.000	0.000	53210.000	52090.000	52800.000
2	12:48:05	54.342%	55.240	1139.000	1183.000	0.000	49770.000	50250.000	51990.000
3	12:48:24	51.948%	56.920	1160.000	1146.000	0.000	51580.000	52550.000	51490.000
x		53.485%	56.350	1162.000	1174.000	0.000	51520.000	51630.000	52090.000
σ		1.334%	0.961	23.000	25.040	0.000	1722.000	1214.000	662.600
%RSD		2.494	1.706	1.980	2.133	0.000	3.342	2.352	1.272

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:47:46	2020.000	11120.000	0.000	53430.000	54570.000	54420.000	57.951%	1105.000
2	12:48:05	1905.000	10440.000	0.000	52910.000	53320.000	54540.000	55.337%	1114.000
3	12:48:24	1996.000	10820.000	0.000	52370.000	53980.000	54170.000	55.127%	1117.000
x		1974.000	10790.000	0.000	52900.000	53950.000	54380.000	56.138%	1112.000
σ		61.040	340.000	0.000	531.800	624.900	193.000	1.573%	6.170
%RSD		3.093	3.150	0.000	1.005	1.158	0.355	2.802	0.555

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:47:46	514.400	207.800	521.200	1057.000	1281.000	459.300	524.900	251.800
2	12:48:05	517.500	215.700	523.600	1082.000	1293.000	455.900	521.800	260.300
3	12:48:24	541.300	216.800	519.600	1055.000	1233.000	445.900	501.100	246.300
x		524.400	213.400	521.500	1065.000	1269.000	453.700	515.900	252.800
σ		14.740	4.937	2.030	15.060	31.530	6.983	12.970	7.067
%RSD		2.810	2.313	0.389	1.414	2.485	1.539	2.514	2.795

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:47:46	246.800	476.700	472.500	36.860	9.323	9.870	0.000	846.200
2	12:48:05	247.400	474.000	470.800	36.310	9.327	9.492	0.000	833.200
3	12:48:24	241.700	471.100	460.800	36.170	9.383	9.398	0.000	837.900
x		245.300	473.900	468.000	36.450	9.344	9.586	0.000	839.100
σ		3.135	2.799	6.328	0.362	0.034	0.250	0.000	6.538
%RSD		1.278	0.591	1.352	0.992	0.362	2.604	0.000	0.779

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:47:46	73.786%	958.700	965.300	74.639%	44.050	42.900	42.650	40.180
2	12:48:05	74.473%	961.400	975.500	73.220%	44.220	42.940	43.070	40.470
3	12:48:24	73.029%	969.100	975.400	72.408%	44.260	43.420	42.640	40.360
x		73.763%	963.100	972.000	73.422%	44.180	43.090	42.790	40.340
σ		0.722%	5.375	5.861	1.129%	0.112	0.289	0.245	0.145
%RSD		0.979	0.558	0.603	1.537	0.254	0.671	0.572	0.359

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:47:46	84.305%	1502.000	423.700	424.400	898.900	1639.000	81.174%	88.437%
2	12:48:05	84.488%	1495.000	424.400	428.100	890.700	1639.000	81.584%	89.664%
3	12:48:24	83.382%	1501.000	422.900	426.100	898.700	1647.000	80.914%	88.743%
x		84.058%	1499.000	423.700	426.200	896.100	1642.000	81.224%	88.948%
σ		0.593%	3.973	0.720	1.853	4.628	4.726	0.338%	0.639%
%RSD		0.705	0.265	0.170	0.435	0.516	0.288	0.416	0.718

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:47:46	49.990	53.800	21.520	21.260	21.580	76.818%
2	12:48:05	50.770	54.550	21.400	21.210	21.700	76.396%
3	12:48:24	50.860	54.710	21.580	21.020	21.730	75.956%
x		50.540	54.350	21.500	21.160	21.670	76.390%
σ		0.476	0.487	0.090	0.131	0.078	0.431%
%RSD		0.943	0.896	0.416	0.617	0.362	0.564

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:51:34	78.865%	0.016	27.010	25.750	0.000	3538.000	7178.000	7181.000
2	12:51:53	75.127%	0.040	25.030	25.430	0.000	3646.000	7366.000	7318.000
3	12:52:12	70.320%	-0.010	23.360	25.720	0.000	3638.000	7629.000	7448.000
x		74.771%	0.015	25.130	25.640	0.000	3607.000	7391.000	7316.000
σ		4.283%	0.025	1.827	0.176	0.000	60.250	226.200	133.500
%RSD		5.729	163.600	7.271	0.686	0.000	1.670	3.061	1.825
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:51:34	6.440	3364.000	0.000	834.600	66820.000	67570.000	69.737%	0.424
2	12:51:53	6.607	3495.000	0.000	853.200	68470.000	68150.000	67.546%	0.836
3	12:52:12	6.429	3466.000	0.000	869.900	68010.000	70360.000	64.815%	0.612
x		6.492	3442.000	0.000	852.600	67770.000	68690.000	67.366%	0.624
σ		0.100	68.560	0.000	17.670	850.400	1477.000	2.466%	0.206
%RSD		1.539	1.992	0.000	2.072	1.255	2.150	3.661	32.990
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:51:34	0.064	0.488	5.553	3.098	192.100	0.121	-0.080	0.513
2	12:51:53	-1.517	0.523	5.666	2.239	181.100	0.107	-0.115	0.423
3	12:52:12	-0.010	0.564	5.504	2.966	190.300	0.126	-0.110	0.457
x		-0.488	0.525	5.574	2.768	187.800	0.118	-0.102	0.465
σ		0.892	0.038	0.083	0.462	5.914	0.010	0.019	0.045
%RSD		183.000	7.220	1.495	16.710	3.149	8.221	18.370	9.744
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:51:34	0.490	1.166	1.041	0.600	-0.209	0.488	0.000	252.800
2	12:51:53	0.531	0.992	0.817	0.364	-0.382	0.423	0.000	243.800
3	12:52:12	0.383	1.014	0.932	0.586	-0.476	0.364	0.000	257.800
x		0.468	1.057	0.930	0.517	-0.355	0.425	0.000	251.500
σ		0.076	0.095	0.112	0.133	0.135	0.062	0.000	7.103
%RSD		16.290	8.950	12.030	25.650	38.040	14.580	0.000	2.825
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:51:34	69.723%	6.116	5.997	70.826%	-0.011	-0.000	-0.017	-0.006
2	12:51:53	68.415%	6.589	6.449	70.058%	-0.009	-0.006	-0.015	-0.009
3	12:52:12	67.455%	5.987	5.826	68.196%	-0.012	-0.005	-0.043	-0.030
x		68.531%	6.231	6.091	69.693%	-0.010	-0.004	-0.025	-0.015
σ		1.138%	0.317	0.322	1.353%	0.002	0.003	0.015	0.013
%RSD		1.661	5.084	5.290	1.941	14.490	79.090	61.670	87.190
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:51:34	70.956%	2.140	0.565	0.549	93.270	94.740	77.464%	77.693%
2	12:51:53	70.918%	2.146	0.615	0.567	93.600	93.960	78.079%	78.625%
3	12:52:12	70.257%	1.950	0.585	0.606	95.330	95.370	77.299%	77.322%
x		70.710%	2.079	0.588	0.574	94.060	94.690	77.614%	77.880%
σ		0.393%	0.112	0.025	0.029	1.109	0.706	0.411%	0.671%
%RSD		0.556	5.377	4.283	5.032	1.179	0.745	0.529	0.862
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:51:34	0.389	0.409	0.024	0.025	0.024	64.857%		
2	12:51:53	0.311	0.309	0.029	0.029	0.023	64.541%		
3	12:52:12	0.248	0.281	0.021	0.024	0.024	65.292%		
x		0.316	0.333	0.025	0.026	0.024	64.896%		
σ		0.071	0.067	0.004	0.003	0.001	0.377%		
%RSD		22.340	20.270	17.040	10.490	2.135	0.581		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:55:22	71.968%	0.066	27.050	24.940	0.000	5121.000	7037.000	7123.000
2	12:55:41	67.313%	0.004	24.940	26.510	0.000	5177.000	7526.000	7326.000
3	12:56:00	64.981%	-0.030	28.980	27.320	0.000	5193.000	7454.000	7444.000
x		68.087%	0.013	26.990	26.260	0.000	5164.000	7339.000	7298.000
σ		3.557%	0.049	2.022	1.211	0.000	37.370	264.000	162.100
%RSD		5.224	370.600	7.490	4.613	0.000	0.724	3.598	2.221

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:55:22	7.603	3583.000	0.000	951.500	67630.000	68590.000	64.888%	0.416
2	12:55:41	6.258	3640.000	0.000	991.700	70270.000	71270.000	60.840%	0.571
3	12:56:00	6.068	3567.000	0.000	964.100	68810.000	70480.000	60.656%	0.328
x		6.643	3597.000	0.000	969.100	68900.000	70120.000	62.128%	0.439
σ		0.837	38.460	0.000	20.570	1321.000	1381.000	2.392%	0.123
%RSD		12.600	1.069	0.000	2.123	1.917	1.970	3.850	28.070

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:55:22	-0.080	0.483	15.930	1.131	193.100	0.112	-0.050	0.693
2	12:55:41	-0.424	0.458	16.110	1.382	201.200	0.139	-0.031	0.767
3	12:56:00	-0.280	0.432	16.020	0.457	194.500	0.132	-0.126	0.620
x		-0.261	0.458	16.020	0.990	196.300	0.128	-0.069	0.693
σ		0.173	0.025	0.092	0.478	4.313	0.014	0.050	0.074
%RSD		66.230	5.535	0.571	48.320	2.197	10.860	72.560	10.610

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:55:22	0.697	2.562	2.705	-0.257	-0.251	0.169	0.000	253.300
2	12:55:41	0.717	2.863	2.409	0.274	-0.502	0.357	0.000	253.500
3	12:56:00	0.595	2.678	2.329	0.900	-0.073	0.355	0.000	251.200
x		0.669	2.701	2.481	0.306	-0.275	0.294	0.000	252.700
σ		0.065	0.152	0.198	0.579	0.216	0.108	0.000	1.271
%RSD		9.759	5.625	7.983	189.500	78.300	36.690	0.000	0.503

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:55:22	63.193%	1.755	1.636	63.572%	-0.011	-0.017	0.009	0.013
2	12:55:41	63.305%	2.086	1.966	63.103%	-0.010	-0.007	0.005	-0.011
3	12:56:00	61.865%	2.165	2.041	62.606%	-0.017	-0.005	0.025	0.004
x		62.787%	2.002	1.881	63.094%	-0.012	-0.010	0.013	0.002
σ		0.801%	0.218	0.216	0.483%	0.004	0.007	0.011	0.012
%RSD		1.276	10.870	11.460	0.766	30.270	68.470	80.060	607.000

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:55:22	63.187%	1.009	0.484	0.515	95.470	95.690	66.511%	65.760%
2	12:55:41	63.224%	1.067	0.527	0.487	94.770	94.820	67.824%	66.663%
3	12:56:00	63.247%	1.086	0.543	0.533	96.540	96.410	66.765%	66.360%
x		63.219%	1.054	0.518	0.512	95.590	95.640	67.033%	66.261%
σ		0.030%	0.040	0.030	0.023	0.888	0.794	0.696%	0.459%
%RSD		0.048	3.794	5.876	4.477	0.929	0.830	1.038	0.693

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:55:22	0.086	0.087	0.024	0.022	0.024	46.741%
2	12:55:41	0.086	0.102	0.018	0.025	0.022	45.903%
3	12:56:00	0.082	0.091	0.026	0.023	0.028	46.237%
x		0.085	0.093	0.023	0.023	0.025	46.294%
σ		0.002	0.008	0.004	0.002	0.003	0.422%
%RSD		2.794	8.627	18.560	6.468	13.270	0.911

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:59:10	67.374%	0.016	30.340	31.520	0.000	8936.000	7889.000	8023.000
2	12:59:29	62.316%	0.009	31.940	30.130	0.000	9033.000	8044.000	8251.000
3	12:59:49	60.891%	-0.016	34.250	30.710	0.000	9002.000	8119.000	8111.000
x		63.527%	0.003	32.180	30.780	0.000	8990.000	8017.000	8128.000
σ		3.407%	0.017	1.970	0.697	0.000	49.600	117.400	114.700
%RSD		5.363	589.800	6.124	2.265	0.000	0.552	1.465	1.411

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:59:10	16.150	3436.000	0.000	3015.000	67750.000	68420.000	60.842%	0.573
2	12:59:29	14.880	3438.000	0.000	3022.000	69200.000	70230.000	57.709%	0.516
3	12:59:49	14.660	3328.000	0.000	3035.000	67930.000	70130.000	55.656%	0.482
x		15.230	3401.000	0.000	3024.000	68300.000	69590.000	58.069%	0.524
σ		0.808	63.440	0.000	10.090	791.200	1019.000	2.612%	0.046
%RSD		5.302	1.865	0.000	0.334	1.158	1.464	4.497	8.797

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:59:10	0.198	0.499	101.000	10.700	202.900	0.256	0.196	0.851
2	12:59:29	1.373	0.426	102.200	10.360	198.700	0.238	0.105	0.824
3	12:59:49	0.937	0.430	102.000	8.850	189.900	0.237	0.055	0.809
x		0.836	0.452	101.800	9.971	197.200	0.244	0.119	0.828
σ		0.594	0.041	0.652	0.986	6.605	0.011	0.071	0.022
%RSD		71.020	9.071	0.640	9.884	3.350	4.364	59.980	2.623

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:59:10	0.841	1.198	1.305	0.588	-0.653	0.283	0.000	253.600
2	12:59:29	0.759	1.304	1.151	0.448	-0.569	0.528	0.000	256.100
3	12:59:49	0.815	1.489	1.283	1.340	-0.023	0.407	0.000	256.100
x		0.805	1.330	1.246	0.792	-0.415	0.406	0.000	255.200
σ		0.042	0.147	0.084	0.480	0.342	0.122	0.000	1.449
%RSD		5.169	11.060	6.699	60.640	82.400	30.140	0.000	0.568

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:59:10	59.829%	1.600	1.477	60.028%	-0.016	-0.010	0.003	0.008
2	12:59:29	59.510%	1.773	1.797	59.024%	-0.013	-0.019	-0.004	-0.000
3	12:59:49	58.376%	1.985	1.770	57.769%	-0.019	-0.015	-0.004	0.008
x		59.238%	1.786	1.682	58.940%	-0.016	-0.015	-0.001	0.005
σ		0.764%	0.193	0.177	1.132%	0.003	0.004	0.004	0.005
%RSD		1.289	10.770	10.550	1.920	18.020	29.340	293.700	87.690

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:59:10	57.783%	0.912	0.447	0.459	117.000	116.600	59.108%	57.499%
2	12:59:29	57.739%	0.944	0.474	0.439	120.100	118.300	58.905%	57.821%
3	12:59:49	57.947%	0.946	0.447	0.445	117.300	116.100	59.417%	57.200%
x		57.823%	0.934	0.456	0.448	118.100	117.000	59.143%	57.507%
σ		0.110%	0.019	0.016	0.011	1.735	1.182	0.258%	0.310%
%RSD		0.190	2.006	3.462	2.398	1.469	1.010	0.436	0.539

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:59:10	0.058	0.064	0.050	0.051	0.047	33.359%
2	12:59:29	0.064	0.070	0.057	0.050	0.058	34.740%
3	12:59:49	0.073	0.055	0.051	0.045	0.052	31.624%
x		0.065	0.063	0.053	0.049	0.052	33.241%
σ		0.007	0.008	0.004	0.003	0.005	1.562%
%RSD		11.170	12.130	7.327	6.747	10.440	4.698

CCV 1558997 5/27/2015 1:02:47 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	13:02:47	86.684%	106.600	106.700	110.100	0.000	48790.000	49460.000	48000.000
2	13:03:06	85.106%	103.700	106.800	103.700	0.000	46950.000	47760.000	48910.000
3	13:03:25	85.940%	100.600	105.300	99.840	0.000	46930.000	48200.000	48200.000
x		85.910%	103.628%	106.272%	104.561%	0.000	95.110%	96.944%	96.740%
σ		0.789%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.919	2.918	0.782	4.960	0.000	2.245	1.812	0.995

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:02:47	531.100	5189.000	0.000	47380.000	45800.000	47990.000	87.456%	98.250
2	13:03:06	576.100	5023.000	0.000	48760.000	48490.000	50080.000	84.992%	100.700
3	13:03:25	532.100	5112.000	0.000	49350.000	48470.000	50060.000	84.038%	102.900
x		109.280%	102.161%	0.000	96.991%	95.177%	98.751%	85.496%	100.631%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.764%	n/a
%RSD		4.706	1.631	0.000	2.087	3.249	2.432	2.063	2.315

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:02:47	97.760	98.080	520.500	25440.000	26430.000	100.600	101.900	104.700
2	13:03:06	97.520	100.400	535.000	25840.000	27010.000	101.800	103.900	103.300
3	13:03:25	100.400	100.400	530.000	26190.000	27020.000	101.100	104.400	103.800
x		98.558%	99.610%	105.701%	103.289%	107.270%	101.165%	103.400%	103.903%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.619	1.331	1.396	1.461	1.262	0.594	1.304	0.706

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:02:47	105.400	104.700	104.500	105.700	110.200	110.600	0.000	106.300
2	13:03:06	103.700	103.500	103.500	107.400	109.000	109.300	0.000	108.700
3	13:03:25	103.500	104.000	104.100	105.700	108.000	108.800	0.000	108.300
x		104.191%	104.043%	104.022%	106.276%	109.035%	109.553%	0.000	107.765%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.041	0.571	0.514	0.934	1.007	0.845	0.000	1.176

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:02:47	70.375%	101.000	100.900	67.161%	96.450	94.770	95.070	93.430
2	13:03:06	70.707%	102.600	102.100	67.156%	97.170	96.980	95.790	95.020
3	13:03:25	70.793%	103.700	103.700	67.344%	97.910	96.350	96.820	95.720
x		70.625%	102.426%	102.240%	67.220%	97.177%	96.035%	95.892%	94.723%
σ		0.221%	n/a	n/a	0.107%	n/a	n/a	n/a	n/a
%RSD		0.312	1.300	1.402	0.159	0.750	1.186	0.915	1.237

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:02:47	68.620%	95.030	90.560	91.390	99.160	99.360	55.757%	51.118%
2	13:03:06	69.273%	95.630	90.330	91.090	100.400	100.500	57.119%	53.217%
3	13:03:25	69.447%	95.940	91.360	92.040	100.600	101.500	57.126%	53.423%
x		69.114%	95.537%	90.752%	91.506%	100.045%	100.444%	56.667%	52.586%
σ		0.436%	n/a	n/a	n/a	n/a	n/a	0.788%	1.276%
%RSD		0.631	0.485	0.597	0.528	0.781	1.052	1.391	2.426

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:02:47	103.000	95.740	94.170	91.190	92.680	30.818%
2	13:03:06	105.800	98.490	97.570	94.380	95.630	31.174%
3	13:03:25	105.000	97.690	96.660	95.040	95.880	31.095%
x		104.619%	97.308%	96.132%	93.535%	94.731%	31.029%
σ		n/a	n/a	n/a	n/a	n/a	0.187%
%RSD		1.380	1.458	1.832	2.204	1.877	0.602

CCB3 5/27/2015 1:06:18 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:06:38	91.800%	0.014	5.750	6.687	0.000	3.949	2.367	2.843
2	13:06:57	91.654%	-0.020	5.622	5.720	0.000	3.262	1.547	1.969
3	13:07:16	92.546%	-0.021	6.869	5.278	0.000	3.009	1.391	1.588
x		92.000%	-0.009	6.080	5.895	0.000	3.407	1.768	2.133
σ		0.479%	0.020	0.686	0.721	0.000	0.486	0.524	0.643
%RSD		0.520	214.900	11.280	12.230	0.000	14.280	29.660	30.160
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:06:38	0.337	-78.410	0.000	4.121	5.725	7.377	91.774%	-0.005
2	13:06:57	0.166	-78.190	0.000	4.875	8.340	6.411	88.015%	0.048
3	13:07:16	0.155	-78.200	0.000	5.501	7.225	6.704	87.990%	-0.001
x		0.220	-78.260	0.000	4.832	7.096	6.831	89.260%	0.014
σ		0.102	0.125	0.000	0.691	1.312	0.495	2.177%	0.029
%RSD		46.520	0.160	0.000	14.290	18.490	7.246	2.439	209.900
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:06:38	0.031	-0.041	0.026	7.719	15.500	0.009	0.021	0.029
2	13:06:57	0.009	-0.001	0.011	7.849	12.260	0.006	0.009	0.032
3	13:07:16	0.048	-0.001	0.021	6.021	11.550	0.005	0.015	0.028
x		0.029	-0.015	0.019	7.196	13.110	0.006	0.015	0.030
σ		0.020	0.023	0.007	1.020	2.103	0.002	0.006	0.002
%RSD		67.200	159.500	38.690	14.170	16.050	35.760	40.150	7.606
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:06:38	0.028	0.182	0.237	0.231	0.891	0.864	0.000	0.010
2	13:06:57	0.053	0.209	0.410	0.394	1.150	0.899	0.000	0.014
3	13:07:16	0.049	0.281	0.436	0.340	0.967	1.124	0.000	0.009
x		0.043	0.224	0.361	0.322	1.002	0.962	0.000	0.011
σ		0.014	0.051	0.108	0.083	0.133	0.141	0.000	0.003
%RSD		31.390	22.900	29.950	25.760	13.280	14.680	0.000	23.960
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:06:38	77.529%	1.715	1.794	78.207%	0.004	-0.000	0.038	0.026
2	13:06:57	79.353%	2.015	1.872	80.283%	0.003	0.010	0.049	0.041
3	13:07:16	80.423%	1.979	1.746	81.182%	0.003	0.005	0.041	0.034
x		79.102%	1.903	1.804	79.891%	0.003	0.005	0.043	0.033
σ		1.464%	0.164	0.063	1.526%	0.001	0.005	0.005	0.008
%RSD		1.850	8.597	3.513	1.909	15.480	103.800	12.660	22.670
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:06:38	73.735%	0.297	1.163	1.035	0.028	0.022	68.733%	66.523%
2	13:06:57	75.760%	0.337	1.171	1.180	0.004	0.023	73.307%	70.937%
3	13:07:16	77.925%	0.348	1.135	1.108	0.010	0.016	75.872%	74.035%
x		75.807%	0.328	1.157	1.107	0.014	0.020	72.637%	70.498%
σ		2.095%	0.027	0.019	0.073	0.012	0.004	3.616%	3.775%
%RSD		2.764	8.126	1.647	6.556	89.410	19.480	4.979	5.355
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:06:38	0.045	0.064	0.028	0.020	0.019	48.870%		
2	13:06:57	0.058	0.074	0.015	0.021	0.019	54.649%		
3	13:07:16	0.043	0.058	0.014	0.023	0.016	60.246%		
x		0.049	0.065	0.019	0.021	0.018	54.588%		
σ		0.008	0.008	0.007	0.002	0.002	5.688%		
%RSD		16.060	12.780	39.620	7.748	11.020	10.421		

180-44240-G-4-B 5/27/2015 1:11:00 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:11:20	76.487%	0.018	27.530	27.090	0.000	8974.000	7470.000	7608.000
2	13:11:39	73.611%	-0.001	27.980	27.170	0.000	9061.000	7317.000	7380.000
3	13:11:58	71.584%	-0.033	27.410	26.150	0.000	8835.000	7008.000	7084.000
x		73.894%	-0.005	27.640	26.800	0.000	8957.000	7265.000	7357.000
σ		2.464%	0.026	0.299	0.566	0.000	113.500	235.600	263.100
%RSD		3.334	480.200	1.081	2.110	0.000	1.268	3.244	3.576

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:11:20	12.270	3265.000	0.000	1445.000	68660.000	67960.000	66.747%	0.654
2	13:11:39	11.840	3113.000	0.000	1385.000	64120.000	65560.000	67.160%	0.333
3	13:11:58	12.350	3084.000	0.000	1362.000	64100.000	65610.000	65.942%	0.341
x		12.150	3154.000	0.000	1397.000	65630.000	66380.000	66.616%	0.443
σ		0.277	97.370	0.000	42.420	2628.000	1368.000	0.619%	0.183
%RSD		2.275	3.087	0.000	3.036	4.005	2.061	0.930	41.360

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:11:20	1.163	0.340	73.020	8.631	196.500	0.219	0.069	0.880
2	13:11:39	0.730	0.283	69.950	4.805	181.300	0.176	0.032	0.799
3	13:11:58	0.802	0.403	72.620	5.649	178.800	0.205	0.167	0.740
x		0.898	0.342	71.860	6.362	185.500	0.200	0.089	0.806
σ		0.232	0.060	1.671	2.010	9.588	0.022	0.070	0.070
%RSD		25.810	17.450	2.325	31.600	5.168	10.840	78.210	8.739

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:11:20	0.963	2.401	2.248	0.953	-0.408	0.482	0.000	238.600
2	13:11:39	0.880	1.922	2.105	0.752	-0.315	0.617	0.000	253.000
3	13:11:58	0.806	1.911	2.278	0.728	-0.552	0.500	0.000	254.100
x		0.883	2.078	2.210	0.811	-0.425	0.533	0.000	248.600
σ		0.078	0.280	0.093	0.124	0.120	0.074	0.000	8.630
%RSD		8.868	13.480	4.196	15.220	28.110	13.800	0.000	3.472

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:11:20	69.306%	1.053	1.108	70.784%	-0.018	-0.008	0.026	0.027
2	13:11:39	69.428%	1.210	1.330	70.193%	-0.015	-0.009	0.024	0.021
3	13:11:58	68.357%	1.292	1.279	69.432%	-0.012	-0.005	-0.070	-0.050
x		69.030%	1.185	1.239	70.136%	-0.015	-0.007	-0.007	-0.001
σ		0.587%	0.122	0.116	0.678%	0.003	0.002	0.055	0.043
%RSD		0.850	10.250	9.384	0.967	19.730	32.230	798.700	6555.000

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:11:20	71.487%	0.717	2.623	2.700	99.010	99.140	79.549%	80.322%
2	13:11:39	72.612%	0.687	2.443	2.367	98.630	98.490	81.220%	82.253%
3	13:11:58	72.269%	0.791	2.201	2.164	98.160	98.270	82.069%	82.888%
x		72.123%	0.732	2.422	2.410	98.600	98.630	80.946%	81.821%
σ		0.577%	0.054	0.212	0.271	0.424	0.452	1.282%	1.337%
%RSD		0.800	7.327	8.749	11.230	0.430	0.458	1.584	1.633

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:11:20	0.032	0.028	0.047	0.041	0.046	70.493%
2	13:11:39	0.024	0.032	0.049	0.043	0.047	72.151%
3	13:11:58	0.029	0.027	0.048	0.050	0.046	73.209%
x		0.029	0.029	0.048	0.045	0.046	71.951%
σ		0.004	0.003	0.001	0.005	0.000	1.369%
%RSD		14.050	9.955	1.310	10.900	0.938	1.902

180-44240-G-5-B 5/27/2015 1:14:49 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	13:15:09	78.508%	0.036	31.460	28.250	0.000	10200.000	7883.000	8014.000
2	13:15:28	73.545%	-0.001	24.290	28.450	0.000	9910.000	7866.000	7968.000
3	13:15:47	76.602%	0.039	26.560	28.750	0.000	9827.000	7565.000	7670.000
x		76.219%	0.025	27.440	28.480	0.000	9979.000	7771.000	7884.000
σ		2.504%	0.022	3.663	0.250	0.000	197.000	178.900	186.500
%RSD		3.285	90.250	13.350	0.879	0.000	1.974	2.302	2.365

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:15:09	12.110	3143.000	0.000	2325.000	65950.000	67720.000	66.637%	0.337
2	13:15:28	10.770	3137.000	0.000	2293.000	66220.000	67980.000	66.633%	0.321
3	13:15:47	12.460	2948.000	0.000	2270.000	65150.000	66540.000	64.722%	0.497
x		11.780	3076.000	0.000	2296.000	65770.000	67410.000	65.997%	0.385
σ		0.895	110.600	0.000	27.450	556.900	763.100	1.105%	0.098
%RSD		7.594	3.596	0.000	1.196	0.847	1.132	1.674	25.350

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:15:09	1.011	0.357	117.500	9.862	200.800	0.212	0.103	0.683
2	13:15:28	-0.052	0.381	115.500	9.211	183.900	0.232	0.194	0.727
3	13:15:47	0.026	0.371	117.500	8.365	183.200	0.251	0.136	0.651
x		0.328	0.369	116.800	9.146	189.300	0.232	0.144	0.687
σ		0.593	0.012	1.160	0.751	9.965	0.019	0.046	0.038
%RSD		180.600	3.250	0.993	8.208	5.264	8.332	32.020	5.539

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:15:09	0.728	0.891	0.679	1.094	-0.533	0.418	0.000	273.900
2	13:15:28	0.700	0.742	0.694	1.182	-0.303	0.656	0.000	268.700
3	13:15:47	0.693	0.845	0.935	0.805	-0.709	0.476	0.000	268.500
x		0.707	0.826	0.769	1.027	-0.515	0.517	0.000	270.300
σ		0.019	0.076	0.144	0.197	0.203	0.124	0.000	3.040
%RSD		2.656	9.229	18.700	19.190	39.500	24.080	0.000	1.125

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:15:09	68.957%	1.033	0.935	70.542%	-0.018	-0.019	-0.064	-0.032
2	13:15:28	68.673%	1.132	1.112	69.908%	-0.019	-0.008	0.024	0.007
3	13:15:47	68.652%	1.036	1.092	69.576%	-0.016	-0.015	0.016	0.010
x		68.760%	1.067	1.046	70.009%	-0.018	-0.014	-0.008	-0.005
σ		0.170%	0.057	0.097	0.491%	0.002	0.006	0.049	0.023
%RSD		0.248	5.320	9.277	0.701	8.619	41.870	634.500	484.400

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:15:09	70.674%	0.523	1.027	1.091	104.400	105.800	80.964%	81.621%
2	13:15:28	72.143%	0.545	1.094	1.069	103.700	102.000	82.253%	82.793%
3	13:15:47	71.520%	0.505	1.016	0.988	103.700	103.500	82.221%	84.187%
x		71.445%	0.524	1.046	1.049	103.900	103.700	81.813%	82.867%
σ		0.737%	0.020	0.042	0.054	0.385	1.903	0.735%	1.284%
%RSD		1.032	3.839	4.012	5.163	0.371	1.834	0.898	1.550

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:15:09	0.016	0.015	0.033	0.025	0.034	76.339%
2	13:15:28	0.011	0.016	0.035	0.036	0.036	72.220%
3	13:15:47	0.018	0.024	0.041	0.038	0.039	73.141%
x		0.015	0.018	0.036	0.033	0.036	73.900%
σ		0.004	0.005	0.004	0.007	0.002	2.162%
%RSD		24.700	26.660	10.730	20.480	6.906	2.925

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:18:58	72.769%	-0.000	30.050	29.830	0.000	10820.000	8968.000	8978.000
2	13:19:17	75.378%	-0.002	29.240	28.380	0.000	10440.000	8506.000	8767.000
3	13:19:37	68.163%	0.003	29.460	29.370	0.000	10670.000	8777.000	8897.000
x		72.103%	0.000	29.580	29.200	0.000	10640.000	8750.000	8881.000
σ		3.653%	0.003	0.417	0.740	0.000	187.400	232.100	106.400
%RSD		5.067	1053.000	1.409	2.536	0.000	1.761	2.652	1.198
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:18:58	6.934	3529.000	0.000	5226.000	68590.000	68600.000	65.378%	0.623
2	13:19:17	6.597	3336.000	0.000	5191.000	68330.000	70360.000	63.433%	0.460
3	13:19:37	6.858	3403.000	0.000	5341.000	68250.000	70190.000	63.446%	0.644
x		6.796	3423.000	0.000	5253.000	68390.000	69720.000	64.086%	0.576
σ		0.177	97.640	0.000	78.770	182.100	968.200	1.119%	0.101
%RSD		2.603	2.853	0.000	1.500	0.266	1.389	1.747	17.510
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:18:58	0.849	0.342	123.000	6.066	194.500	0.300	0.290	0.934
2	13:19:17	0.037	0.350	129.100	8.378	210.000	0.346	0.313	1.038
3	13:19:37	1.217	0.363	124.800	5.311	195.600	0.347	0.334	0.993
x		0.701	0.352	125.700	6.585	200.000	0.331	0.312	0.988
σ		0.604	0.011	3.140	1.598	8.634	0.026	0.022	0.052
%RSD		86.120	3.134	2.499	24.270	4.316	7.999	7.100	5.261
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:18:58	1.147	1.854	2.147	1.251	-0.626	0.287	0.000	283.700
2	13:19:17	1.029	2.019	1.928	0.918	-0.740	0.552	0.000	290.500
3	13:19:37	1.055	2.202	2.202	1.515	-0.658	0.519	0.000	287.000
x		1.077	2.025	2.093	1.228	-0.675	0.453	0.000	287.100
σ		0.062	0.174	0.145	0.299	0.059	0.144	0.000	3.434
%RSD		5.767	8.596	6.943	24.350	8.687	31.880	0.000	1.196
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:18:58	66.066%	1.199	1.152	67.130%	-0.023	-0.017	0.056	0.027
2	13:19:17	65.201%	1.400	1.464	66.034%	-0.017	-0.010	0.018	0.017
3	13:19:37	65.017%	1.362	1.393	65.313%	-0.021	-0.011	0.027	0.025
x		65.428%	1.320	1.336	66.159%	-0.020	-0.013	0.033	0.023
σ		0.560%	0.107	0.163	0.915%	0.003	0.004	0.020	0.005
%RSD		0.856	8.092	12.230	1.383	15.250	30.900	58.950	23.330
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:18:58	68.448%	0.393	0.682	0.693	118.400	118.000	75.955%	76.934%
2	13:19:17	67.107%	0.507	0.750	0.674	121.300	122.000	75.958%	76.634%
3	13:19:37	66.902%	0.467	0.711	0.674	121.100	120.200	75.570%	77.143%
x		67.486%	0.456	0.714	0.680	120.200	120.000	75.827%	76.903%
σ		0.840%	0.058	0.034	0.011	1.618	2.004	0.223%	0.256%
%RSD		1.244	12.750	4.775	1.599	1.345	1.670	0.294	0.332
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:18:58	0.008	0.017	0.043	0.036	0.034	68.159%		
2	13:19:17	0.014	0.012	0.042	0.035	0.037	68.604%		
3	13:19:37	0.014	0.016	0.042	0.047	0.041	64.737%		
x		0.012	0.015	0.042	0.039	0.037	67.166%		
σ		0.003	0.002	0.001	0.006	0.003	2.116%		
%RSD		26.500	15.930	2.021	15.860	9.330	3.150		

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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	13:22:46	72.643%	0.022	22.440	22.760	0.000	6332.000	7413.000	7465.000
2	13:23:05	60.902%	-0.029	22.040	25.150	0.000	6514.000	7619.000	7632.000
3	13:23:24	61.554%	0.009	20.200	23.250	0.000	6417.000	8242.000	7570.000
x		65.033%	0.001	21.560	23.720	0.000	6421.000	7758.000	7556.000
σ		6.599%	0.027	1.193	1.261	0.000	91.430	431.800	84.330
%RSD		10.146	3035.000	5.533	5.315	0.000	1.424	5.566	1.116

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:22:46	6.274	3956.000	0.000	886.500	74620.000	76070.000	58.869%	0.197
2	13:23:05	6.586	4017.000	0.000	880.300	72230.000	76870.000	58.014%	0.311
3	13:23:24	6.964	3981.000	0.000	873.500	75400.000	75620.000	57.104%	0.448
x		6.608	3985.000	0.000	880.100	74080.000	76190.000	57.996%	0.319
σ		0.345	30.980	0.000	6.511	1653.000	630.400	0.882%	0.126
%RSD		5.225	0.777	0.000	0.740	2.232	0.827	1.521	39.460

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:22:46	0.173	0.414	1.138	23.470	250.100	0.084	-0.161	0.393
2	13:23:05	0.560	0.387	1.127	19.200	221.500	0.080	-0.100	0.441
3	13:23:24	-0.580	0.356	1.129	18.500	214.200	0.091	-0.226	0.486
x		0.051	0.386	1.131	20.390	228.600	0.085	-0.163	0.440
σ		0.580	0.029	0.006	2.687	18.990	0.006	0.063	0.047
%RSD		1138.000	7.537	0.526	13.180	8.308	6.674	38.790	10.640

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:22:46	0.464	1.160	1.170	0.771	-0.530	0.507	0.000	243.300
2	13:23:05	0.600	1.168	1.548	-0.057	-0.442	0.375	0.000	244.100
3	13:23:24	0.534	1.066	1.146	0.111	-0.677	0.340	0.000	243.900
x		0.532	1.131	1.288	0.275	-0.550	0.407	0.000	243.800
σ		0.068	0.057	0.226	0.438	0.119	0.088	0.000	0.400
%RSD		12.780	5.045	17.530	159.200	21.600	21.680	0.000	0.164

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:22:46	60.322%	0.406	0.336	61.615%	-0.020	-0.016	0.017	0.028
2	13:23:05	60.480%	0.662	0.547	60.835%	-0.019	-0.014	-0.004	0.010
3	13:23:24	59.547%	0.698	0.567	60.143%	-0.023	-0.018	-0.035	-0.037
x		60.116%	0.589	0.483	60.865%	-0.021	-0.016	-0.008	0.000
σ		0.500%	0.160	0.128	0.737%	0.002	0.002	0.026	0.034
%RSD		0.831	27.100	26.510	1.210	10.760	12.730	345.500	12650.000

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:22:46	61.198%	0.459	0.528	0.571	98.340	98.960	64.780%	64.550%
2	13:23:05	60.693%	0.601	0.626	0.618	98.850	99.770	65.626%	64.619%
3	13:23:24	60.568%	0.588	0.561	0.607	100.700	98.660	65.708%	64.577%
x		60.819%	0.549	0.572	0.599	99.290	99.130	65.371%	64.582%
σ		0.334%	0.079	0.050	0.024	1.242	0.572	0.513%	0.035%
%RSD		0.548	14.310	8.745	4.059	1.251	0.577	0.785	0.054

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:22:46	0.008	0.014	0.031	0.028	0.031	47.382%
2	13:23:05	0.013	0.015	0.036	0.043	0.039	47.073%
3	13:23:24	0.012	0.018	0.030	0.024	0.033	45.456%
x		0.011	0.016	0.032	0.032	0.034	46.637%
σ		0.003	0.002	0.003	0.010	0.004	1.034%
%RSD		25.480	14.440	10.790	29.900	11.960	2.217

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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	13:26:32	62.906%	-0.005	23.470	24.700	0.000	6657.000	7142.000	7115.000
2	13:26:52	63.406%	0.008	21.840	25.200	0.000	6364.000	6738.000	6947.000
3	13:27:12	58.827%	-0.015	24.660	26.320	0.000	6758.000	8309.000	6896.000
x		61.713%	-0.004	23.320	25.410	0.000	6593.000	7396.000	6986.000
σ		2.512%	0.011	1.416	0.831	0.000	204.700	815.400	114.500
%RSD		4.070	292.400	6.069	3.272	0.000	3.105	11.020	1.639

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:26:32	5.691	3835.000	0.000	1029.000	69980.000	70870.000	58.303%	0.292
2	13:26:52	5.633	3709.000	0.000	1053.000	72920.000	73930.000	56.381%	0.361
3	13:27:12	6.119	3754.000	0.000	1052.000	72460.000	72910.000	54.731%	0.316
x		5.814	3766.000	0.000	1045.000	71790.000	72570.000	56.471%	0.323
σ		0.265	63.890	0.000	13.310	1578.000	1557.000	1.788%	0.035
%RSD		4.565	1.697	0.000	1.274	2.199	2.145	3.166	10.880

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:26:32	-1.019	0.339	21.540	-3.272	199.600	0.130	0.034	0.520
2	13:26:52	-0.027	0.409	21.670	-3.287	187.600	0.134	0.074	0.539
3	13:27:12	-0.844	0.345	21.950	-5.470	182.700	0.119	-0.142	0.488
x		-0.630	0.364	21.720	-4.010	189.900	0.127	-0.011	0.515
σ		0.530	0.039	0.210	1.265	8.716	0.008	0.115	0.026
%RSD		84.110	10.660	0.967	31.550	4.588	6.232	1009.000	5.043

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:26:32	0.767	2.211	1.711	0.136	-0.666	0.159	0.000	244.400
2	13:26:52	0.537	2.441	2.152	0.095	-0.579	0.151	0.000	248.400
3	13:27:12	0.458	1.945	2.414	0.595	-0.850	0.362	0.000	245.900
x		0.588	2.199	2.092	0.275	-0.698	0.224	0.000	246.200
σ		0.161	0.248	0.355	0.277	0.138	0.120	0.000	1.986
%RSD		27.320	11.290	16.970	100.700	19.790	53.470	0.000	0.806

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:26:32	58.761%	0.313	0.331	60.839%	-0.022	-0.014	0.013	0.013
2	13:26:52	59.712%	0.512	0.441	61.549%	-0.021	-0.014	-0.002	-0.000
3	13:27:12	59.584%	0.526	0.439	60.724%	-0.012	-0.012	0.056	0.043
x		59.352%	0.450	0.403	61.037%	-0.018	-0.013	0.022	0.019
σ		0.516%	0.119	0.063	0.447%	0.005	0.001	0.030	0.022
%RSD		0.869	26.450	15.580	0.732	27.960	6.873	137.200	121.500

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:26:32	61.819%	0.490	0.362	0.422	95.910	96.050	69.042%	68.742%
2	13:26:52	63.000%	0.555	0.442	0.368	96.130	95.580	70.926%	71.619%
3	13:27:12	63.667%	0.610	0.382	0.416	95.080	95.280	73.185%	73.746%
x		62.828%	0.552	0.395	0.402	95.710	95.640	71.051%	71.369%
σ		0.936%	0.060	0.042	0.029	0.551	0.389	2.074%	2.511%
%RSD		1.490	10.920	10.590	7.291	0.576	0.407	2.920	3.518

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:26:32	0.013	0.015	0.059	0.051	0.062	56.337%
2	13:26:52	0.008	0.012	0.059	0.061	0.057	60.070%
3	13:27:12	0.010	0.014	0.074	0.048	0.055	63.305%
x		0.010	0.014	0.064	0.053	0.058	59.904%
σ		0.002	0.002	0.008	0.007	0.003	3.487%
%RSD		21.640	12.030	13.000	13.130	5.599	5.821

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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	13:30:20	67.732%	-0.020	19.620	21.400	0.000	4234.000	6495.000	5547.000
2	13:30:39	65.840%	-0.006	20.680	22.200	0.000	4321.000	6802.000	7286.000
3	13:30:58	61.541%	0.009	22.250	19.520	0.000	4208.000	6690.000	7149.000
x		65.038%	-0.006	20.850	21.040	0.000	4254.000	6662.000	6660.000
σ		3.173%	0.014	1.323	1.375	0.000	58.800	155.100	966.900
%RSD		4.878	260.900	6.345	6.536	0.000	1.382	2.329	14.520

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:30:20	5.265	3011.000	0.000	760.800	64890.000	65290.000	58.263%	0.363
2	13:30:39	5.650	2995.000	0.000	790.600	66870.000	66790.000	55.874%	0.307
3	13:30:58	5.445	2942.000	0.000	770.400	64070.000	65770.000	56.983%	0.337
x		5.453	2983.000	0.000	774.000	65280.000	65950.000	57.040%	0.336
σ		0.193	35.870	0.000	15.190	1440.000	764.400	1.195%	0.028
%RSD		3.532	1.202	0.000	1.963	2.206	1.159	2.096	8.447

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:30:20	0.563	0.416	110.300	-2.026	172.300	0.182	0.759	0.515
2	13:30:39	0.462	0.457	110.000	-2.470	165.400	0.170	0.538	0.561
3	13:30:58	-0.141	0.431	109.400	-4.300	167.700	0.178	0.454	0.433
x		0.294	0.435	109.900	-2.932	168.500	0.176	0.584	0.503
σ		0.381	0.021	0.442	1.206	3.507	0.006	0.158	0.065
%RSD		129.200	4.796	0.402	41.120	2.082	3.445	27.050	12.910

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:30:20	0.587	2.191	2.575	0.403	-0.643	0.399	0.000	229.200
2	13:30:39	0.656	2.337	2.060	0.458	-0.684	0.138	0.000	229.200
3	13:30:58	0.578	1.987	1.986	0.091	-0.493	0.264	0.000	231.800
x		0.607	2.172	2.207	0.318	-0.607	0.267	0.000	230.100
σ		0.043	0.176	0.321	0.198	0.100	0.130	0.000	1.501
%RSD		7.070	8.116	14.530	62.260	16.550	48.840	0.000	0.653

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:30:20	62.853%	0.101	0.147	64.000%	-0.024	-0.018	0.007	0.005
2	13:30:39	63.630%	0.287	0.251	64.376%	-0.020	-0.017	-0.000	0.001
3	13:30:58	61.810%	0.294	0.257	64.345%	-0.021	-0.015	0.001	0.006
x		62.764%	0.228	0.218	64.241%	-0.022	-0.017	0.002	0.004
σ		0.913%	0.110	0.062	0.209%	0.002	0.001	0.004	0.003
%RSD		1.455	48.230	28.280	0.325	10.380	6.635	152.800	69.880

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:30:20	66.025%	0.300	0.185	0.208	79.120	78.680	75.909%	77.485%
2	13:30:39	66.954%	0.309	0.211	0.203	77.940	79.590	76.938%	78.976%
3	13:30:58	67.868%	0.317	0.190	0.232	78.300	78.100	78.725%	80.127%
x		66.949%	0.309	0.195	0.214	78.450	78.790	77.190%	78.863%
σ		0.922%	0.009	0.014	0.015	0.605	0.753	1.425%	1.325%
%RSD		1.377	2.853	7.136	7.146	0.771	0.956	1.846	1.680

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:30:20	0.004	0.010	0.049	0.055	0.054	68.534%
2	13:30:39	0.007	0.014	0.051	0.046	0.050	69.906%
3	13:30:58	0.008	0.009	0.059	0.043	0.042	71.537%
x		0.006	0.011	0.053	0.048	0.049	69.992%
σ		0.002	0.002	0.005	0.007	0.006	1.503%
%RSD		30.970	22.240	9.864	13.740	12.020	2.147

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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	13:34:06	67.210%	-0.008	33.070	34.890	0.000	7891.000	6220.000	6344.000
2	13:34:25	65.394%	-0.043	31.480	34.780	0.000	8093.000	6405.000	6364.000
3	13:34:44	65.033%	-0.030	31.720	33.540	0.000	7881.000	7342.000	6407.000
x		65.879%	-0.027	32.090	34.400	0.000	7955.000	6656.000	6372.000
σ		1.167%	0.018	0.854	0.747	0.000	119.400	602.000	32.210
%RSD		1.771	66.180	2.662	2.170	0.000	1.500	9.045	0.506

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:34:06	8.024	2748.000	0.000	13630.000	65670.000	66170.000	59.407%	0.283
2	13:34:25	8.426	2844.000	0.000	13630.000	66530.000	67590.000	58.045%	0.384
3	13:34:44	8.091	2731.000	0.000	13870.000	68030.000	67880.000	55.991%	0.477
x		8.181	2774.000	0.000	13710.000	66740.000	67220.000	57.815%	0.381
σ		0.216	60.980	0.000	142.500	1191.000	914.800	1.720%	0.097
%RSD		2.634	2.198	0.000	1.039	1.785	1.361	2.975	25.380

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:34:06	0.901	0.418	25.410	4.082	186.700	0.248	0.649	1.613
2	13:34:25	0.512	0.442	26.430	4.657	183.200	0.270	0.670	1.542
3	13:34:44	0.597	0.352	26.810	4.177	173.400	0.273	0.652	1.600
x		0.670	0.404	26.220	4.305	181.100	0.264	0.657	1.585
σ		0.205	0.047	0.723	0.308	6.879	0.014	0.011	0.038
%RSD		30.550	11.610	2.759	7.157	3.798	5.235	1.744	2.390

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:34:06	1.452	2.345	2.232	1.392	-0.592	0.425	0.000	182.600
2	13:34:25	1.531	2.140	2.023	0.704	-0.672	0.732	0.000	182.800
3	13:34:44	1.699	2.458	2.580	0.469	-0.631	0.296	0.000	185.900
x		1.560	2.314	2.278	0.855	-0.632	0.485	0.000	183.800
σ		0.126	0.161	0.281	0.480	0.040	0.224	0.000	1.879
%RSD		8.078	6.965	12.340	56.080	6.294	46.190	0.000	1.023

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:34:06	62.547%	1.235	1.226	64.418%	-0.023	-0.017	0.026	0.031
2	13:34:25	62.971%	1.436	1.353	65.265%	-0.024	-0.015	0.003	0.002
3	13:34:44	62.486%	1.460	1.290	64.113%	-0.019	-0.011	0.030	0.026
x		62.668%	1.377	1.290	64.599%	-0.022	-0.014	0.020	0.020
σ		0.264%	0.124	0.064	0.597%	0.002	0.003	0.015	0.016
%RSD		0.422	9.001	4.939	0.924	11.460	22.450	73.970	80.180

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:34:06	66.655%	0.260	0.319	0.286	64.740	65.410	77.073%	78.060%
2	13:34:25	67.464%	0.342	0.339	0.314	65.000	65.040	77.972%	80.163%
3	13:34:44	67.123%	0.306	0.316	0.327	66.340	67.040	78.057%	79.990%
x		67.081%	0.303	0.325	0.309	65.360	65.830	77.701%	79.405%
σ		0.406%	0.041	0.012	0.021	0.859	1.065	0.545%	1.168%
%RSD		0.606	13.490	3.772	6.738	1.314	1.617	0.702	1.471

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:34:06	0.011	0.010	0.058	0.059	0.063	69.847%
2	13:34:25	0.011	0.011	0.078	0.053	0.065	71.796%
3	13:34:44	0.015	0.011	0.068	0.077	0.072	74.518%
x		0.012	0.010	0.068	0.063	0.067	72.054%
σ		0.003	0.000	0.010	0.012	0.005	2.346%
%RSD		22.360	3.249	14.570	19.500	6.985	3.256

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:37:53	69.587%	-0.021	24.830	22.610	0.000	5218.000	7086.000	7242.000
2	13:38:12	70.571%	-0.010	21.900	22.880	0.000	5207.000	7254.000	7450.000
3	13:38:31	67.928%	-0.020	18.820	22.240	0.000	5169.000	7117.000	7012.000
x		69.362%	-0.017	21.850	22.580	0.000	5198.000	7152.000	7235.000
σ		1.336%	0.006	3.005	0.319	0.000	25.850	89.650	219.200
%RSD		1.926	36.400	13.750	1.415	0.000	0.497	1.253	3.029
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:37:53	7.353	3596.000	0.000	957.400	69450.000	71060.000	61.167%	0.273
2	13:38:12	7.952	3680.000	0.000	954.200	71380.000	70990.000	59.510%	0.426
3	13:38:31	7.424	3555.000	0.000	956.600	71770.000	71970.000	57.858%	0.404
x		7.576	3610.000	0.000	956.100	70870.000	71340.000	59.512%	0.367
σ		0.327	63.810	0.000	1.658	1241.000	549.300	1.654%	0.083
%RSD		4.318	1.768	0.000	0.173	1.751	0.770	2.780	22.520
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:37:53	0.326	0.466	14.600	-0.333	198.000	0.134	0.157	0.526
2	13:38:12	-0.836	0.430	15.060	-4.725	190.300	0.127	0.114	0.564
3	13:38:31	0.429	0.483	14.810	-6.340	188.200	0.123	0.085	0.606
x		-0.027	0.460	14.820	-3.799	192.200	0.128	0.118	0.565
σ		0.703	0.027	0.234	3.108	5.153	0.005	0.036	0.040
%RSD		2597.000	5.843	1.580	81.810	2.681	4.145	30.570	7.095
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:37:53	0.696	2.910	3.396	-0.124	-0.649	0.321	0.000	256.400
2	13:38:12	0.680	2.792	2.774	0.250	-0.890	0.191	0.000	255.400
3	13:38:31	0.621	2.758	2.514	-0.590	-0.639	0.486	0.000	255.500
x		0.666	2.820	2.895	-0.155	-0.726	0.333	0.000	255.800
σ		0.039	0.080	0.453	0.421	0.142	0.148	0.000	0.577
%RSD		5.904	2.833	15.650	272.100	19.550	44.340	0.000	0.226
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:37:53	61.460%	0.108	0.021	63.279%	-0.026	-0.012	0.006	0.016
2	13:38:12	61.766%	0.136	0.096	63.586%	-0.023	-0.016	0.071	0.047
3	13:38:31	61.686%	0.154	0.115	63.386%	-0.025	-0.013	0.029	0.032
x		61.637%	0.133	0.077	63.417%	-0.025	-0.013	0.035	0.032
σ		0.159%	0.023	0.049	0.156%	0.001	0.002	0.033	0.015
%RSD		0.257	17.230	63.790	0.246	4.749	15.620	92.490	47.470
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:37:53	65.568%	0.300	0.186	0.194	93.500	94.490	75.032%	75.602%
2	13:38:12	65.161%	0.327	0.244	0.227	96.320	95.530	75.445%	76.553%
3	13:38:31	64.989%	0.294	0.248	0.241	95.110	95.550	75.047%	76.427%
x		65.239%	0.307	0.226	0.221	94.980	95.190	75.175%	76.194%
σ		0.297%	0.018	0.034	0.025	1.416	0.610	0.234%	0.517%
%RSD		0.456	5.785	15.230	11.120	1.491	0.640	0.312	0.678
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:37:53	0.005	0.006	0.148	0.142	0.132	67.431%		
2	13:38:12	0.003	0.007	0.122	0.128	0.136	67.972%		
3	13:38:31	0.005	0.006	0.131	0.134	0.137	67.294%		
x		0.004	0.007	0.134	0.135	0.135	67.566%		
σ		0.001	0.000	0.013	0.007	0.003	0.359%		
%RSD		23.240	5.184	10.000	5.466	2.261	0.531		

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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	13:41:40	79.251%	0.005	6.054	5.470	0.000	1097.000	1713.000	1870.000
2	13:41:59	76.062%	-0.024	5.977	5.520	0.000	1086.000	1709.000	1822.000
3	13:42:18	74.080%	-0.001	5.211	5.724	0.000	1058.000	1712.000	1849.000
x		76.464%	-0.007	5.747	5.571	0.000	1080.000	1711.000	1847.000
σ		2.609%	0.015	0.466	0.134	0.000	20.140	1.851	23.900
%RSD		3.412	229.600	8.108	2.412	0.000	1.864	0.108	1.294
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:41:40	1.143	724.700	0.000	199.000	13770.000	15030.000	70.945%	-0.005
2	13:41:59	1.204	698.000	0.000	194.700	13380.000	15010.000	70.700%	0.011
3	13:42:18	1.050	708.100	0.000	199.700	13920.000	15540.000	65.422%	-0.029
x		1.132	710.300	0.000	197.800	13690.000	15190.000	69.022%	-0.008
σ		0.078	13.510	0.000	2.701	283.000	301.300	3.121%	0.020
%RSD		6.871	1.902	0.000	1.365	2.067	1.983	4.521	259.800
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:41:40	0.078	0.036	2.761	-10.270	38.420	0.024	0.036	0.106
2	13:41:59	0.266	0.066	2.755	-11.630	37.010	0.028	0.038	0.092
3	13:42:18	0.200	0.064	2.982	-8.529	41.350	0.033	0.059	0.097
x		0.181	0.055	2.833	-10.140	38.930	0.029	0.044	0.098
σ		0.095	0.017	0.129	1.556	2.215	0.004	0.013	0.007
%RSD		52.340	30.560	4.552	15.340	5.689	15.540	29.320	7.175
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:41:40	0.073	0.290	0.369	-0.023	-1.111	-0.058	0.000	49.510
2	13:41:59	0.093	0.062	0.353	-0.056	-0.791	-0.057	0.000	49.180
3	13:42:18	0.099	0.148	0.098	0.227	-0.838	0.079	0.000	50.830
x		0.088	0.167	0.274	0.049	-0.914	-0.012	0.000	49.840
σ		0.013	0.115	0.152	0.155	0.173	0.079	0.000	0.871
%RSD		15.280	69.160	55.720	315.900	18.890	655.400	0.000	1.747
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:41:40	65.652%	-0.486	-0.480	67.795%	-0.025	-0.019	0.018	0.019
2	13:41:59	65.587%	-0.405	-0.314	67.124%	-0.026	-0.016	-0.028	-0.006
3	13:42:18	64.216%	-0.310	-0.390	65.602%	-0.019	-0.020	-0.007	-0.005
x		65.151%	-0.401	-0.394	66.840%	-0.023	-0.018	-0.006	0.003
σ		0.811%	0.088	0.083	1.124%	0.004	0.002	0.023	0.014
%RSD		1.245	22.040	21.120	1.681	16.670	12.450	406.000	507.500
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:41:40	66.923%	-0.006	-0.043	-0.051	18.830	18.720	68.173%	67.886%
2	13:41:59	66.515%	0.006	-0.026	-0.036	19.080	19.070	68.914%	68.489%
3	13:42:18	64.082%	0.041	-0.041	-0.020	18.750	19.830	67.855%	67.234%
x		65.840%	0.014	-0.037	-0.036	18.890	19.200	68.314%	67.870%
σ		1.536%	0.025	0.009	0.015	0.171	0.566	0.544%	0.628%
%RSD		2.334	180.600	24.570	42.560	0.906	2.947	0.796	0.925
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:41:40	-0.001	0.005	0.026	0.016	0.019	60.538%		
2	13:41:59	0.000	0.001	0.023	0.027	0.024	58.231%		
3	13:42:18	0.002	0.004	0.027	0.028	0.030	54.697%		
x		0.000	0.003	0.025	0.023	0.025	57.822%		
σ		0.001	0.002	0.002	0.007	0.005	2.942%		
%RSD		245.000	72.200	8.512	29.040	21.500	5.088		

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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	13:48:24	92.657%	-0.029	2.467	2.189	0.000	-0.636	-0.715	-0.378
2	13:48:43	96.816%	0.002	1.840	1.743	0.000	-0.724	-0.718	-0.510
3	13:49:02	94.633%	-0.013	2.091	1.800	0.000	-0.665	-0.704	-0.545
x		94.702%	-0.013	2.133	1.911	0.000	-0.675	-0.712	-0.477
σ		2.080%	0.016	0.315	0.243	0.000	0.045	0.007	0.088
%RSD		2.197	119.500	14.780	12.710	0.000	6.663	1.044	18.470

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:48:24	-0.208	-86.160	0.000	-4.659	0.447	-0.062	90.261%	-0.063
2	13:48:43	-0.275	-86.030	0.000	-2.739	0.556	0.059	87.725%	-0.086
3	13:49:02	-0.206	-85.650	0.000	-1.135	-0.414	0.105	84.067%	-0.085
x		-0.230	-85.940	0.000	-2.844	0.196	0.034	87.351%	-0.078
σ		0.039	0.266	0.000	1.765	0.532	0.087	3.114%	0.013
%RSD		17.080	0.310	0.000	62.040	270.800	254.500	3.565	16.830

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:48:24	-0.059	-0.045	-0.003	-12.830	-2.091	-0.001	0.009	-0.014
2	13:48:43	-0.048	-0.036	0.003	-11.890	-1.613	-0.002	0.006	-0.010
3	13:49:02	0.024	-0.037	-0.004	-10.320	-1.986	-0.002	-0.003	-0.000
x		-0.028	-0.039	-0.002	-11.680	-1.897	-0.002	0.004	-0.008
σ		0.045	0.005	0.004	1.264	0.251	0.001	0.006	0.007
%RSD		161.100	12.770	233.200	10.820	13.250	43.450	158.900	89.550

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:48:24	0.005	-0.517	-0.449	-0.010	-0.795	0.112	0.000	0.004
2	13:48:43	-0.003	-0.377	-0.388	-0.083	-0.642	-0.104	0.000	0.002
3	13:49:02	0.027	-0.415	-0.407	-0.060	-0.770	-0.101	0.000	0.004
x		0.010	-0.436	-0.414	-0.051	-0.736	-0.031	0.000	0.004
σ		0.015	0.072	0.031	0.037	0.082	0.123	0.000	0.001
%RSD		154.900	16.550	7.567	73.850	11.180	398.000	0.000	31.900

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:48:24	76.604%	-0.603	-0.652	79.016%	-0.030	-0.019	0.028	0.024
2	13:48:43	78.319%	-0.558	-0.605	80.193%	-0.024	-0.018	0.063	0.042
3	13:49:02	78.486%	-0.576	-0.573	79.800%	-0.016	-0.012	0.021	0.018
x		77.803%	-0.579	-0.610	79.669%	-0.023	-0.016	0.038	0.028
σ		1.042%	0.023	0.040	0.599%	0.007	0.004	0.023	0.013
%RSD		1.339	3.922	6.530	0.752	31.810	25.030	60.420	44.430

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:48:24	76.702%	-0.098	-0.082	-0.091	0.010	0.013	78.044%	77.802%
2	13:48:43	77.682%	-0.123	-0.079	-0.087	-0.011	0.005	80.871%	80.228%
3	13:49:02	78.648%	-0.118	-0.079	-0.077	0.009	0.005	81.806%	80.670%
x		77.677%	-0.113	-0.080	-0.085	0.003	0.008	80.240%	79.567%
σ		0.973%	0.013	0.002	0.007	0.012	0.005	1.959%	1.544%
%RSD		1.252	11.850	2.328	8.493	463.200	63.950	2.442	1.940

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:48:24	-0.003	-0.002	0.001	0.003	0.001	78.581%
2	13:48:43	-0.002	0.002	-0.001	0.002	0.001	77.434%
3	13:49:02	-0.004	0.002	-0.006	0.000	-0.001	77.760%
x		-0.003	0.001	-0.002	0.002	0.000	77.925%
σ		0.001	0.002	0.003	0.001	0.001	0.591%
%RSD		36.330	351.800	185.100	70.610	669.800	0.759

CCV 1558997 5/27/2015 1:52:00 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:52:00	98.120%	98.740	102.900	103.600	0.000	47270.000	47120.000	48250.000
2	13:52:20	93.601%	101.600	95.650	100.600	0.000	46520.000	47280.000	48470.000
3	13:52:39	90.790%	105.300	104.600	105.500	0.000	49180.000	50450.000	50270.000
x		94.170%	101.875%	101.067%	103.207%	0.000	95.308%	96.573%	97.986%
σ		3.698%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		3.927	3.242	4.722	2.410	0.000	2.880	3.886	2.263

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:52:00	543.000	4985.000	0.000	48250.000	46980.000	48980.000	86.614%	99.840
2	13:52:20	535.400	4929.000	0.000	49060.000	47650.000	49280.000	88.323%	102.000
3	13:52:39	562.500	5197.000	0.000	51530.000	49900.000	51070.000	83.167%	105.500
x		109.395%	100.736%	0.000	99.226%	96.350%	99.558%	86.035%	102.438%
σ		n/a	n/a	0.000	n/a	n/a	n/a	2.626%	n/a
%RSD		2.558	2.807	0.000	3.439	3.174	2.270	3.052	2.786

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:52:00	97.770	98.410	489.900	24960.000	24650.000	97.550	99.160	99.140
2	13:52:20	97.980	98.440	500.900	24770.000	24630.000	97.050	98.740	99.200
3	13:52:39	101.100	102.200	509.000	25630.000	25600.000	101.200	101.500	101.600
x		98.962%	99.692%	99.987%	100.472%	99.828%	98.604%	99.803%	99.979%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.901	2.200	1.919	1.800	2.224	2.308	1.494	1.396

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:52:00	99.580	94.140	96.800	99.690	101.200	102.900	0.000	98.940
2	13:52:20	99.540	96.080	96.680	98.230	102.000	100.600	0.000	100.500
3	13:52:39	100.000	98.600	98.360	99.820	102.800	101.200	0.000	100.100
x		99.722%	96.275%	97.281%	99.243%	102.008%	101.588%	0.000	99.835%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		0.275	2.325	0.966	0.890	0.757	1.175	0.000	0.802

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:52:00	77.595%	90.420	90.410	78.199%	95.160	96.620	97.600	98.800
2	13:52:20	77.177%	90.750	91.790	77.906%	96.980	99.000	99.840	101.500
3	13:52:39	78.686%	92.480	92.730	78.779%	96.020	97.370	98.930	101.700
x		77.819%	91.218%	91.643%	78.295%	96.054%	97.662%	98.789%	100.655%
σ		0.779%	n/a	n/a	0.444%	n/a	n/a	n/a	n/a
%RSD		1.001	1.215	1.275	0.567	0.946	1.244	1.141	1.606

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:52:00	71.120%	97.430	91.840	91.590	98.370	99.440	71.075%	80.049%
2	13:52:20	71.154%	100.300	93.180	93.830	101.600	101.300	72.437%	81.316%
3	13:52:39	72.577%	99.740	93.030	93.480	100.900	101.500	72.861%	82.754%
x		71.617%	99.158%	92.684%	92.966%	100.289%	100.764%	72.124%	81.373%
σ		0.831%	n/a	n/a	n/a	n/a	n/a	0.934%	1.353%
%RSD		1.161	1.535	0.790	1.296	1.688	1.142	1.294	1.663

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:52:00	90.200	96.590	92.480	91.240	92.770	80.910%
2	13:52:20	94.280	100.300	97.400	94.870	96.970	80.116%
3	13:52:39	95.710	102.300	98.830	97.580	99.380	79.150%
x		93.397%	99.749%	96.238%	94.564%	96.371%	80.058%
σ		n/a	n/a	n/a	n/a	n/a	0.881%
%RSD		3.060	2.916	3.465	3.363	3.472	1.101

CCB4 5/27/2015 1:55:32 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:55:51	114.701%	-0.020	1.432	1.475	0.000	3.857	2.633	2.859
2	13:56:10	107.153%	0.004	1.775	1.349	0.000	3.572	2.570	2.617
3	13:56:29	110.465%	-0.005	1.794	1.196	0.000	3.468	2.111	2.458
x		110.773%	-0.007	1.667	1.340	0.000	3.632	2.438	2.645
σ		3.783%	0.012	0.204	0.139	0.000	0.201	0.285	0.202
%RSD		3.415	181.300	12.240	10.410	0.000	5.538	11.690	7.630
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:55:51	0.078	-79.960	0.000	1.155	5.686	6.108	101.789%	-0.026
2	13:56:10	0.095	-79.110	0.000	2.736	12.140	5.210	97.398%	-0.011
3	13:56:29	0.041	-79.630	0.000	1.063	5.095	6.168	97.620%	0.032
x		0.071	-79.570	0.000	1.651	7.642	5.829	98.936%	-0.002
σ		0.028	0.430	0.000	0.941	3.910	0.537	2.474%	0.030
%RSD		38.760	0.541	0.000	56.970	51.170	9.211	2.500	1881.000
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:55:51	0.030	-0.024	0.033	4.988	13.050	0.005	0.008	0.037
2	13:56:10	0.003	-0.036	0.022	3.752	11.120	0.002	0.034	0.019
3	13:56:29	0.039	-0.014	0.030	0.182	8.866	0.006	0.008	0.027
x		0.024	-0.025	0.029	2.974	11.010	0.004	0.017	0.028
σ		0.018	0.011	0.005	2.495	2.094	0.002	0.015	0.009
%RSD		76.140	44.900	19.080	83.910	19.020	49.330	90.280	31.740
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:55:51	0.022	0.369	0.543	0.254	0.700	1.211	0.000	0.024
2	13:56:10	0.053	0.482	0.624	0.354	0.713	1.236	0.000	0.019
3	13:56:29	0.033	0.675	0.640	0.301	0.678	1.182	0.000	0.008
x		0.036	0.509	0.602	0.303	0.697	1.210	0.000	0.017
σ		0.016	0.155	0.052	0.050	0.018	0.027	0.000	0.008
%RSD		43.240	30.440	8.680	16.620	2.557	2.219	0.000	49.330
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:55:51	85.507%	1.231	1.162	87.393%	0.006	0.007	0.080	0.060
2	13:56:10	86.658%	1.373	1.403	87.906%	-0.007	0.001	0.077	0.053
3	13:56:29	87.033%	1.394	1.228	88.511%	-0.006	0.004	0.080	0.055
x		86.399%	1.333	1.264	87.937%	-0.002	0.004	0.079	0.056
σ		0.795%	0.088	0.125	0.559%	0.007	0.003	0.002	0.004
%RSD		0.920	6.624	9.864	0.636	317.500	79.260	2.196	6.470
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:55:51	82.638%	0.189	0.935	0.925	0.012	0.012	81.622%	82.086%
2	13:56:10	82.938%	0.199	0.961	0.967	0.008	0.021	82.957%	82.927%
3	13:56:29	84.128%	0.147	0.933	0.967	-0.012	0.019	84.294%	83.328%
x		83.235%	0.178	0.943	0.953	0.003	0.017	82.958%	82.780%
σ		0.788%	0.027	0.016	0.024	0.013	0.005	1.336%	0.634%
%RSD		0.947	15.310	1.681	2.560	468.000	27.520	1.611	0.766
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:55:51	0.031	0.030	0.018	0.012	0.016	83.190%		
2	13:56:10	0.024	0.035	0.010	0.018	0.015	82.172%		
3	13:56:29	0.030	0.035	0.022	0.023	0.018	80.636%		
x		0.028	0.033	0.016	0.018	0.016	81.999%		
σ		0.004	0.003	0.006	0.005	0.001	1.286%		
%RSD		14.210	9.179	38.090	30.380	7.074	1.568		

LCS 180-142246/2-A 5/27/2015 1:59:22 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:59:41	69.732%	51.800	969.100	976.600	0.000	44220.000	44610.000	44920.000
2	14:00:00	68.679%	47.090	944.500	983.600	0.000	43850.000	44120.000	44190.000
3	14:00:20	65.377%	48.550	950.600	941.400	0.000	42030.000	43120.000	44870.000
x		67.929%	49.150	954.700	967.200	0.000	43370.000	43950.000	44660.000
σ		2.272%	2.410	12.840	22.620	0.000	1174.000	760.200	405.100
%RSD		3.344	4.904	1.345	2.339	0.000	2.706	1.730	0.907

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:59:41	1782.000	9402.000	0.000	47660.000	48710.000	49450.000	61.286%	1009.000
2	14:00:00	1744.000	9391.000	0.000	46340.000	47770.000	49270.000	57.649%	1010.000
3	14:00:20	1744.000	9196.000	0.000	46860.000	48740.000	49450.000	57.062%	995.500
x		1757.000	9329.000	0.000	46950.000	48410.000	49390.000	58.666%	1005.000
σ		22.300	116.000	0.000	664.900	549.000	104.700	2.288%	8.169
%RSD		1.269	1.243	0.000	1.416	1.134	0.212	3.900	0.813

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:59:41	487.700	195.200	495.400	997.600	1178.000	446.800	475.700	236.900
2	14:00:00	494.100	195.900	502.400	1011.000	1221.000	486.500	496.400	240.700
3	14:00:20	493.500	192.900	497.700	998.200	1164.000	434.100	473.100	234.400
x		491.800	194.700	498.500	1002.000	1188.000	455.800	481.700	237.300
σ		3.493	1.580	3.598	7.554	29.700	27.290	12.790	3.176
%RSD		0.710	0.812	0.722	0.754	2.500	5.987	2.654	1.338

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:59:41	235.400	452.000	451.500	35.120	9.769	9.881	0.000	860.200
2	14:00:00	236.700	460.000	455.400	36.090	9.379	9.881	0.000	856.500
3	14:00:20	235.700	453.400	453.600	34.920	8.949	10.570	0.000	861.300
x		235.900	455.100	453.500	35.380	9.366	10.110	0.000	859.300
σ		0.700	4.285	1.945	0.626	0.410	0.397	0.000	2.531
%RSD		0.296	0.942	0.429	1.771	4.377	3.923	0.000	0.295

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:59:41	65.015%	954.500	989.200	64.762%	43.440	43.250	43.230	39.680
2	14:00:00	64.284%	960.700	996.500	64.299%	43.510	42.880	41.550	39.200
3	14:00:20	62.425%	975.300	1006.000	62.788%	43.720	43.090	43.490	40.030
x		63.908%	963.500	997.300	63.950%	43.560	43.070	42.760	39.640
σ		1.335%	10.670	8.491	1.032%	0.147	0.188	1.052	0.414
%RSD		2.090	1.107	0.851	1.614	0.338	0.437	2.460	1.044

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:59:41	69.659%	1553.000	426.700	428.600	919.700	1646.000	70.070%	70.886%
2	14:00:00	69.652%	1542.000	428.200	430.100	918.600	1636.000	70.598%	70.993%
3	14:00:20	69.728%	1551.000	427.700	429.200	915.800	1629.000	70.928%	71.338%
x		69.680%	1549.000	427.500	429.300	918.000	1637.000	70.532%	71.073%
σ		0.042%	6.019	0.764	0.748	2.001	8.258	0.433%	0.236%
%RSD		0.060	0.389	0.179	0.174	0.218	0.504	0.613	0.332

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:59:41	51.180	54.150	21.700	21.560	21.940	56.183%
2	14:00:00	51.380	54.360	21.890	21.470	21.930	56.107%
3	14:00:20	51.520	54.290	21.660	21.270	21.710	55.907%
x		51.360	54.270	21.750	21.430	21.860	56.065%
σ		0.170	0.108	0.124	0.149	0.130	0.142%
%RSD		0.331	0.200	0.570	0.695	0.595	0.254

LCSD 180-142246/3-A 5/27/2015 2:03:10 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:03:30	56.008%	48.220	984.500	1018.000	0.000	43980.000	44550.000	44520.000
2	14:03:49	54.123%	49.650	964.800	950.000	0.000	43020.000	43870.000	44490.000
3	14:04:08	52.589%	48.640	914.400	930.700	0.000	42180.000	43340.000	44460.000
x		54.240%	48.840	954.500	966.400	0.000	43060.000	43920.000	44490.000
σ		1.713%	0.735	36.150	46.130	0.000	899.800	606.100	31.730
%RSD		3.157	1.506	3.787	4.773	0.000	2.090	1.380	0.071

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:03:30	1735.000	9384.000	0.000	46080.000	47940.000	50010.000	52.805%	957.500
2	14:03:49	1745.000	9221.000	0.000	46010.000	48130.000	49430.000	47.949%	1003.000
3	14:04:08	1759.000	9138.000	0.000	47210.000	48060.000	49320.000	49.308%	986.600
x		1747.000	9248.000	0.000	46430.000	48040.000	49580.000	50.021%	982.500
σ		12.210	125.400	0.000	673.500	95.650	373.100	2.505%	23.220
%RSD		0.699	1.356	0.000	1.451	0.199	0.752	5.008	2.363

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:03:30	477.400	188.300	505.800	989.900	1142.000	465.800	459.100	229.800
2	14:03:49	496.800	200.900	531.400	1039.000	1193.000	495.300	488.200	243.400
3	14:04:08	494.100	196.900	525.800	1028.000	1195.000	486.700	485.200	243.200
x		489.400	195.400	521.000	1019.000	1177.000	482.600	477.500	238.800
σ		10.510	6.483	13.440	25.830	30.210	15.160	16.030	7.801
%RSD		2.148	3.318	2.580	2.535	2.568	3.141	3.356	3.267

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:03:30	231.500	454.600	452.200	35.860	8.954	10.220	0.000	865.000
2	14:03:49	242.000	481.000	468.100	36.860	10.150	9.968	0.000	876.500
3	14:04:08	237.400	474.500	465.800	36.470	9.119	10.330	0.000	865.600
x		237.000	470.000	462.000	36.390	9.408	10.180	0.000	869.000
σ		5.293	13.760	8.602	0.506	0.649	0.188	0.000	6.460
%RSD		2.233	2.926	1.862	1.392	6.897	1.843	0.000	0.743

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:03:30	57.341%	951.100	1011.000	57.530%	43.210	42.290	42.790	39.380
2	14:03:49	57.349%	964.300	1025.000	56.828%	43.780	42.770	43.560	39.640
3	14:04:08	57.492%	970.300	1015.000	57.695%	43.330	43.040	43.000	39.870
x		57.394%	961.900	1017.000	57.351%	43.440	42.700	43.120	39.630
σ		0.085%	9.846	7.274	0.460%	0.304	0.380	0.395	0.245
%RSD		0.148	1.024	0.715	0.802	0.699	0.890	0.917	0.618

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:03:30	62.296%	1566.000	424.800	426.900	1639.000	1680.000	62.727%	62.152%
2	14:03:49	62.781%	1579.000	435.400	437.300	1667.000	1690.000	63.885%	64.202%
3	14:04:08	63.602%	1557.000	433.000	433.500	1651.000	1669.000	66.299%	66.198%
x		62.893%	1567.000	431.000	432.600	1653.000	1679.000	64.304%	64.184%
σ		0.660%	11.060	5.541	5.244	14.230	10.590	1.822%	2.023%
%RSD		1.050	0.706	1.286	1.212	0.861	0.630	2.834	3.151

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:03:30	50.780	52.090	21.230	21.250	21.450	43.197%
2	14:03:49	52.960	53.980	21.580	21.340	21.850	44.740%
3	14:04:08	52.880	54.380	21.720	21.420	21.810	47.914%
x		52.210	53.480	21.510	21.330	21.700	45.284%
σ		1.239	1.219	0.254	0.084	0.223	2.405%
%RSD		2.373	2.280	1.182	0.393	1.026	5.311

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:07:19	68.781%	0.026	22.950	23.780	0.000	3648.000	7393.000	7589.000
2	14:07:38	67.334%	0.098	21.190	21.530	0.000	3659.000	7244.000	7288.000
3	14:07:57	64.122%	0.031	22.600	21.540	0.000	3745.000	7345.000	7310.000
x		66.745%	0.052	22.250	22.280	0.000	3684.000	7327.000	7396.000
σ		2.384%	0.040	0.932	1.294	0.000	53.310	76.240	168.000
%RSD		3.572	77.760	4.189	5.808	0.000	1.447	1.040	2.271
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:07:19	183.300	3554.000	0.000	897.800	68050.000	68740.000	62.001%	1.779
2	14:07:38	177.500	3566.000	0.000	880.200	68110.000	70580.000	59.643%	2.207
3	14:07:57	183.900	3594.000	0.000	911.000	68780.000	70450.000	58.887%	2.182
x		181.600	3571.000	0.000	896.300	68310.000	69920.000	60.177%	2.056
σ		3.515	20.230	0.000	15.440	402.200	1027.000	1.624%	0.240
%RSD		1.936	0.567	0.000	1.723	0.589	1.469	2.699	11.680
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:07:19	0.701	0.511	77.680	270.100	444.300	0.413	0.190	1.032
2	14:07:38	-0.321	0.497	78.750	272.000	452.300	0.450	0.229	1.110
3	14:07:57	1.090	0.459	79.060	263.600	432.100	0.398	0.127	0.990
x		0.490	0.489	78.500	268.500	442.900	0.420	0.182	1.044
σ		0.729	0.027	0.724	4.411	10.170	0.027	0.051	0.061
%RSD		148.800	5.602	0.922	1.643	2.296	6.412	28.120	5.817
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:07:19	1.051	8.646	8.375	0.561	-0.599	0.291	0.000	254.500
2	14:07:38	0.984	7.978	8.627	0.388	-0.835	0.143	0.000	257.400
3	14:07:57	1.006	7.976	8.328	0.471	-0.889	0.464	0.000	255.500
x		1.014	8.200	8.443	0.474	-0.774	0.299	0.000	255.800
σ		0.034	0.386	0.161	0.087	0.154	0.160	0.000	1.454
%RSD		3.388	4.712	1.905	18.280	19.910	53.570	0.000	0.569
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:07:19	62.381%	5.044	4.761	64.470%	-0.016	-0.013	0.036	0.037
2	14:07:38	62.388%	5.340	5.211	63.240%	-0.019	-0.014	0.013	0.029
3	14:07:57	61.964%	4.637	4.580	62.419%	-0.022	-0.009	-0.017	-0.000
x		62.244%	5.007	4.851	63.377%	-0.019	-0.012	0.011	0.022
σ		0.243%	0.353	0.325	1.032%	0.003	0.003	0.027	0.020
%RSD		0.390	7.046	6.697	1.629	15.300	21.210	255.800	89.430
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:07:19	65.707%	1.575	0.342	0.269	102.800	102.000	73.625%	75.214%
2	14:07:38	65.777%	1.468	0.340	0.310	104.100	104.600	76.070%	76.675%
3	14:07:57	64.808%	1.354	0.303	0.282	105.900	105.600	76.000%	77.194%
x		65.431%	1.466	0.328	0.287	104.200	104.100	75.232%	76.361%
σ		0.540%	0.110	0.022	0.021	1.556	1.829	1.391%	1.026%
%RSD		0.826	7.510	6.695	7.327	1.493	1.758	1.850	1.344
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:07:19	0.371	0.385	0.967	0.829	0.932	68.016%		
2	14:07:38	0.285	0.305	0.944	0.887	0.935	68.926%		
3	14:07:57	0.245	0.241	0.993	0.904	0.936	72.260%		
x		0.301	0.311	0.968	0.874	0.934	69.734%		
σ		0.064	0.072	0.025	0.039	0.002	2.234%		
%RSD		21.450	23.230	2.563	4.503	0.214	3.204		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:11:08	69.110%	0.151	24.700	25.680	0.000	5171.000	7281.000	7456.000
2	14:11:27	63.464%	0.119	23.900	23.440	0.000	5242.000	7432.000	7557.000
3	14:11:46	67.936%	0.027	21.750	23.800	0.000	5199.000	7198.000	7400.000
x		66.837%	0.099	23.450	24.310	0.000	5204.000	7304.000	7471.000
σ		2.979%	0.065	1.523	1.204	0.000	35.670	119.000	79.370
%RSD		4.458	64.930	6.495	4.954	0.000	0.685	1.629	1.062
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:11:08	390.200	3906.000	0.000	992.500	72420.000	73630.000	61.419%	3.563
2	14:11:27	389.800	4065.000	0.000	1046.000	75560.000	76120.000	58.157%	4.400
3	14:11:46	390.500	4012.000	0.000	1016.000	73510.000	75890.000	57.429%	3.308
x		390.200	3994.000	0.000	1018.000	73830.000	75210.000	59.002%	3.757
σ		0.331	81.200	0.000	26.840	1596.000	1376.000	2.125%	0.571
%RSD		0.085	2.033	0.000	2.636	2.162	1.830	3.602	15.210
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:11:08	1.653	0.684	209.100	600.100	844.100	0.950	0.631	1.756
2	14:11:27	1.243	0.671	218.200	621.800	855.400	0.966	0.596	1.866
3	14:11:46	0.662	0.575	211.000	612.900	848.400	0.964	0.589	1.749
x		1.186	0.643	212.800	611.600	849.300	0.960	0.606	1.791
σ		0.498	0.059	4.805	10.920	5.671	0.009	0.023	0.066
%RSD		42.010	9.230	2.259	1.786	0.668	0.929	3.748	3.673
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:11:08	1.912	4.034	4.153	0.474	-0.771	0.156	0.000	252.600
2	14:11:27	1.876	3.894	4.311	0.491	-0.760	0.159	0.000	257.500
3	14:11:46	1.807	4.172	4.012	0.488	-0.909	0.156	0.000	256.700
x		1.865	4.033	4.159	0.484	-0.813	0.157	0.000	255.600
σ		0.054	0.139	0.150	0.009	0.083	0.001	0.000	2.625
%RSD		2.873	3.451	3.599	1.835	10.210	0.952	0.000	1.027
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:11:08	62.962%	1.117	1.033	64.056%	-0.021	-0.017	0.148	0.117
2	14:11:27	62.520%	1.217	1.293	63.373%	-0.015	-0.018	0.047	0.075
3	14:11:46	62.871%	1.446	1.346	63.292%	-0.024	-0.016	0.010	0.017
x		62.785%	1.260	1.224	63.574%	-0.020	-0.017	0.068	0.070
σ		0.233%	0.169	0.168	0.420%	0.005	0.001	0.071	0.050
%RSD		0.372	13.400	13.690	0.660	23.360	7.231	104.900	72.430
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:11:08	64.881%	0.560	0.194	0.164	117.900	117.400	75.603%	76.430%
2	14:11:27	66.057%	0.538	0.215	0.191	116.300	117.300	76.301%	78.181%
3	14:11:46	65.281%	0.512	0.185	0.197	115.300	117.100	77.000%	78.309%
x		65.406%	0.537	0.198	0.184	116.500	117.300	76.301%	77.640%
σ		0.598%	0.024	0.016	0.017	1.309	0.193	0.699%	1.050%
%RSD		0.914	4.498	7.885	9.502	1.123	0.165	0.915	1.352
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:11:08	0.093	0.095	2.552	2.289	2.388	68.420%		
2	14:11:27	0.085	0.099	2.403	2.191	2.397	69.992%		
3	14:11:46	0.092	0.095	2.545	2.300	2.433	70.321%		
x		0.090	0.096	2.500	2.260	2.406	69.577%		
σ		0.005	0.003	0.084	0.060	0.024	1.016%		
%RSD		5.264	2.664	3.353	2.644	1.002	1.460		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:14:56	70.242%	0.453	23.300	26.720	0.000	8744.000	7862.000	8012.000
2	14:15:16	66.237%	0.529	25.450	26.220	0.000	8941.000	8177.000	8167.000
3	14:15:35	66.279%	0.375	25.690	25.100	0.000	8926.000	8028.000	7841.000
x		67.586%	0.452	24.810	26.010	0.000	8870.000	8022.000	8007.000
σ		2.300%	0.077	1.319	0.829	0.000	109.600	157.600	163.300
%RSD		3.404	17.060	5.317	3.186	0.000	1.235	1.964	2.039
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:14:56	1013.000	3850.000	0.000	2792.000	80520.000	82250.000	61.812%	6.569
2	14:15:16	1051.000	3937.000	0.000	2801.000	82380.000	82520.000	60.517%	6.302
3	14:15:35	1007.000	3816.000	0.000	2787.000	81050.000	82960.000	59.038%	6.910
x		1024.000	3868.000	0.000	2793.000	81320.000	82580.000	60.456%	6.594
σ		23.890	62.170	0.000	7.137	954.600	356.000	1.388%	0.305
%RSD		2.334	1.607	0.000	0.256	1.174	0.431	2.296	4.620
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:14:56	5.326	1.147	1154.000	3767.000	4188.000	5.558	3.536	7.014
2	14:15:16	5.304	1.164	1151.000	3738.000	4218.000	5.633	3.447	6.917
3	14:15:35	5.161	1.116	1147.000	3702.000	4199.000	5.612	3.907	7.046
x		5.264	1.142	1150.000	3736.000	4202.000	5.601	3.630	6.992
σ		0.089	0.024	3.195	32.590	15.100	0.039	0.244	0.067
%RSD		1.700	2.133	0.278	0.872	0.359	0.697	6.724	0.963
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:14:56	7.025	17.230	18.020	1.751	-1.157	0.350	0.000	249.900
2	14:15:16	7.156	16.640	17.050	1.707	-0.975	0.471	0.000	252.300
3	14:15:35	7.122	17.380	16.740	1.989	-0.745	0.313	0.000	267.800
x		7.101	17.080	17.270	1.816	-0.959	0.378	0.000	256.700
σ		0.068	0.387	0.670	0.152	0.207	0.083	0.000	9.711
%RSD		0.954	2.264	3.880	8.351	21.560	21.810	0.000	3.783
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:14:56	67.451%	0.344	0.281	63.954%	-0.018	-0.010	0.309	0.300
2	14:15:16	67.715%	0.504	0.505	63.764%	-0.017	-0.014	0.189	0.243
3	14:15:35	66.491%	0.485	0.436	62.771%	-0.022	-0.016	0.169	0.223
x		67.219%	0.444	0.407	63.496%	-0.019	-0.014	0.222	0.256
σ		0.644%	0.087	0.115	0.636%	0.003	0.003	0.076	0.040
%RSD		0.958	19.660	28.210	1.001	14.550	20.320	34.090	15.760
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:14:56	65.846%	0.286	0.150	0.094	221.500	223.400	76.137%	77.349%
2	14:15:16	65.334%	0.291	0.168	0.156	223.300	224.000	76.752%	78.099%
3	14:15:35	64.867%	0.316	0.158	0.148	225.200	225.800	77.069%	78.092%
x		65.349%	0.297	0.159	0.133	223.300	224.400	76.652%	77.847%
σ		0.490%	0.016	0.009	0.033	1.833	1.232	0.474%	0.431%
%RSD		0.750	5.468	5.678	25.200	0.821	0.549	0.618	0.554
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:14:56	0.067	0.069	14.240	12.680	13.620	69.124%		
2	14:15:16	0.068	0.073	13.900	12.700	13.500	70.026%		
3	14:15:35	0.055	0.068	13.990	12.860	13.540	69.861%		
x		0.064	0.070	14.040	12.740	13.550	69.671%		
σ		0.007	0.003	0.176	0.098	0.058	0.480%		
%RSD		11.610	3.572	1.252	0.769	0.429	0.690		

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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	14:18:44	70.082%	0.138	22.290	26.070	0.000	9779.000	8240.000	8089.000
2	14:19:03	66.964%	0.135	26.300	27.310	0.000	9692.000	8294.000	8056.000
3	14:19:23	63.790%	0.168	24.590	26.310	0.000	9861.000	8321.000	8263.000
x		66.945%	0.147	24.390	26.560	0.000	9777.000	8285.000	8136.000
σ		3.146%	0.019	2.009	0.655	0.000	84.330	40.920	111.600
%RSD		4.699	12.650	8.237	2.466	0.000	0.863	0.494	1.372

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:18:44	373.300	3541.000	0.000	1590.000	71220.000	72620.000	61.444%	4.694
2	14:19:03	381.900	3591.000	0.000	1602.000	72930.000	74280.000	58.446%	3.732
3	14:19:23	387.800	3604.000	0.000	1608.000	71990.000	73660.000	58.119%	3.605
x		381.000	3579.000	0.000	1600.000	72040.000	73520.000	59.336%	4.010
σ		7.314	33.300	0.000	9.192	856.200	839.700	1.833%	0.596
%RSD		1.920	0.930	0.000	0.575	1.188	1.142	3.089	14.850

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:18:44	2.614	0.554	313.800	782.600	1021.000	1.007	0.694	1.777
2	14:19:03	1.715	0.582	332.100	827.100	1096.000	1.079	0.922	1.893
3	14:19:23	1.069	0.576	324.600	811.500	1068.000	1.052	0.647	1.705
x		1.799	0.571	323.500	807.100	1062.000	1.046	0.754	1.792
σ		0.776	0.015	9.231	22.600	38.140	0.036	0.147	0.095
%RSD		43.130	2.582	2.854	2.800	3.592	3.488	19.480	5.317

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:18:44	1.952	3.433	3.944	0.377	-0.815	0.090	0.000	266.500
2	14:19:03	1.820	3.479	3.138	0.836	-0.857	0.249	0.000	275.600
3	14:19:23	1.760	3.487	3.228	0.878	-1.141	0.349	0.000	269.400
x		1.844	3.466	3.437	0.697	-0.938	0.229	0.000	270.500
σ		0.098	0.029	0.442	0.278	0.177	0.131	0.000	4.645
%RSD		5.338	0.841	12.860	39.920	18.940	57.090	0.000	1.717

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:18:44	61.181%	0.537	0.386	61.247%	-0.027	-0.020	0.093	0.072
2	14:19:03	59.940%	0.766	0.736	60.737%	-0.024	-0.015	0.072	0.033
3	14:19:23	60.370%	0.889	0.781	60.497%	-0.019	-0.015	0.078	0.067
x		60.497%	0.731	0.634	60.827%	-0.023	-0.017	0.081	0.058
σ		0.630%	0.178	0.216	0.383%	0.004	0.003	0.010	0.021
%RSD		1.042	24.430	34.120	0.630	17.970	17.540	12.940	36.720

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:18:44	61.343%	0.300	0.158	0.125	122.600	122.800	68.570%	69.014%
2	14:19:03	60.483%	0.333	0.170	0.159	125.700	126.100	68.563%	68.766%
3	14:19:23	61.114%	0.286	0.120	0.137	122.600	124.400	67.978%	68.440%
x		60.980%	0.306	0.149	0.141	123.600	124.500	68.370%	68.740%
σ		0.445%	0.024	0.026	0.017	1.795	1.667	0.340%	0.288%
%RSD		0.730	7.714	17.380	12.320	1.452	1.339	0.497	0.419

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:18:44	0.034	0.043	2.437	2.170	2.315	58.263%
2	14:19:03	0.064	0.053	2.593	2.307	2.443	56.256%
3	14:19:23	0.045	0.048	2.560	2.297	2.418	54.767%
x		0.047	0.048	2.530	2.258	2.392	56.428%
σ		0.015	0.005	0.083	0.077	0.068	1.754%
%RSD		32.130	10.480	3.263	3.389	2.840	3.109

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:22:32	71.689%	0.012	25.640	26.790	0.000	10950.000	9072.000	8802.000
2	14:22:52	66.921%	0.076	27.650	28.750	0.000	10920.000	8978.000	9007.000
3	14:23:11	65.296%	0.043	25.450	28.390	0.000	10850.000	8886.000	9009.000
x		67.969%	0.043	26.250	27.970	0.000	10900.000	8979.000	8939.000
σ		3.323%	0.032	1.222	1.041	0.000	51.550	92.640	119.000
%RSD		4.889	73.440	4.656	3.722	0.000	0.473	1.032	1.331

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:22:32	436.500	3766.000	0.000	2437.000	68580.000	71050.000	59.084%	6.418
2	14:22:52	434.700	3938.000	0.000	2452.000	69210.000	70580.000	57.709%	6.388
3	14:23:11	423.800	3808.000	0.000	2456.000	69110.000	71170.000	55.785%	6.317
x		431.700	3837.000	0.000	2448.000	68970.000	70940.000	57.526%	6.374
σ		6.875	89.610	0.000	10.030	335.700	310.000	1.657%	0.052
%RSD		1.593	2.335	0.000	0.410	0.487	0.437	2.881	0.811

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:22:32	1.457	0.869	279.500	902.800	1117.000	0.640	0.798	1.469
2	14:22:52	0.787	0.781	272.100	866.800	1100.000	0.658	0.704	1.317
3	14:23:11	0.925	0.777	278.300	879.200	1113.000	0.682	0.773	1.303
x		1.057	0.809	276.600	883.000	1110.000	0.660	0.758	1.363
σ		0.354	0.052	4.003	18.280	9.234	0.021	0.048	0.092
%RSD		33.490	6.412	1.447	2.070	0.832	3.229	6.391	6.758

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:22:32	1.478	3.588	3.513	0.753	-0.914	0.315	0.000	294.400
2	14:22:52	1.367	3.786	3.259	1.274	-0.577	0.259	0.000	295.900
3	14:23:11	1.456	3.568	3.798	0.792	-0.672	0.352	0.000	295.700
x		1.434	3.647	3.523	0.940	-0.721	0.309	0.000	295.300
σ		0.059	0.121	0.270	0.290	0.174	0.047	0.000	0.818
%RSD		4.096	3.306	7.662	30.870	24.090	15.240	0.000	0.277

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:22:32	59.046%	0.829	0.761	58.625%	-0.024	-0.014	0.060	0.049
2	14:22:52	57.749%	1.019	0.906	58.227%	-0.024	-0.017	0.042	0.038
3	14:23:11	57.542%	0.990	0.937	58.371%	-0.019	-0.014	0.050	0.044
x		58.113%	0.946	0.868	58.408%	-0.022	-0.015	0.050	0.044
σ		0.815%	0.103	0.094	0.201%	0.003	0.002	0.009	0.005
%RSD		1.403	10.870	10.820	0.345	13.390	12.400	17.460	12.460

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:22:32	56.397%	0.247	0.106	0.101	115.300	115.000	61.129%	59.994%
2	14:22:52	57.172%	0.280	0.121	0.125	114.100	114.000	60.771%	60.060%
3	14:23:11	56.862%	0.274	0.132	0.140	115.900	115.800	61.700%	60.856%
x		56.810%	0.267	0.120	0.122	115.100	114.900	61.200%	60.303%
σ		0.390%	0.017	0.013	0.020	0.887	0.911	0.469%	0.480%
%RSD		0.687	6.514	10.530	16.070	0.770	0.793	0.766	0.796

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:22:32	0.040	0.044	1.095	0.960	1.026	41.814%
2	14:22:52	0.041	0.033	1.061	0.950	0.997	40.530%
3	14:23:11	0.030	0.042	1.058	1.002	0.997	41.738%
x		0.037	0.040	1.071	0.970	1.007	41.361%
σ		0.006	0.006	0.021	0.028	0.017	0.721%
%RSD		16.140	14.810	1.929	2.857	1.674	1.742

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:26:19	64.643%	0.178	28.130	28.140	0.000	10670.000	9337.000	9729.000
2	14:26:39	61.429%	0.216	32.930	27.620	0.000	10700.000	9558.000	9424.000
3	14:26:59	56.831%	0.153	28.380	27.220	0.000	10950.000	9500.000	9438.000
x		60.968%	0.182	29.810	27.660	0.000	10780.000	9465.000	9530.000
σ		3.926%	0.032	2.701	0.461	0.000	150.100	114.600	172.600
%RSD		6.440	17.420	9.059	1.666	0.000	1.393	1.211	1.811

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:26:19	725.700	3992.000	0.000	4145.000	71570.000	73160.000	56.779%	5.218
2	14:26:39	700.700	3906.000	0.000	4176.000	71480.000	73740.000	54.264%	5.556
3	14:26:59	745.400	3977.000	0.000	4260.000	73090.000	74980.000	54.410%	5.759
x		724.000	3958.000	0.000	4194.000	72050.000	73960.000	55.151%	5.511
σ		22.410	45.710	0.000	59.320	904.300	928.100	1.412%	0.273
%RSD		3.095	1.155	0.000	1.414	1.255	1.255	2.560	4.961

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:26:19	2.045	1.007	660.100	1896.000	2214.000	2.680	2.163	4.351
2	14:26:39	1.912	0.924	667.900	1932.000	2253.000	2.677	1.942	4.228
3	14:26:59	2.582	0.975	663.900	1881.000	2135.000	2.459	1.821	4.305
x		2.180	0.969	664.000	1903.000	2201.000	2.606	1.975	4.295
σ		0.354	0.042	3.908	26.500	59.740	0.127	0.173	0.062
%RSD		16.260	4.335	0.589	1.392	2.715	4.879	8.781	1.441

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:26:19	4.243	9.933	9.659	1.441	-0.689	0.304	0.000	301.100
2	14:26:39	4.317	9.795	9.595	1.955	-0.709	0.444	0.000	299.100
3	14:26:59	4.412	9.953	10.170	1.369	-0.945	0.195	0.000	301.200
x		4.324	9.894	9.808	1.588	-0.781	0.314	0.000	300.500
σ		0.085	0.086	0.314	0.319	0.142	0.125	0.000	1.232
%RSD		1.966	0.873	3.199	20.100	18.200	39.860	0.000	0.410

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:26:19	56.940%	0.432	0.200	54.961%	-0.015	-0.014	0.138	0.095
2	14:26:39	55.976%	0.601	0.312	53.866%	-0.026	-0.018	0.059	0.067
3	14:26:59	55.399%	0.513	0.449	53.216%	-0.024	-0.015	0.078	0.085
x		56.105%	0.515	0.320	54.014%	-0.022	-0.016	0.091	0.082
σ		0.778%	0.085	0.125	0.882%	0.006	0.002	0.041	0.014
%RSD		1.387	16.480	38.920	1.632	25.680	12.120	45.170	17.070

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:26:19	57.419%	0.303	0.127	0.144	154.800	156.200	53.646%	51.147%
2	14:26:39	57.267%	0.286	0.112	0.135	154.700	157.400	52.268%	50.382%
3	14:26:59	56.748%	0.350	0.144	0.154	157.800	157.400	51.842%	50.292%
x		57.144%	0.313	0.128	0.144	155.800	157.000	52.585%	50.607%
σ		0.352%	0.033	0.016	0.009	1.769	0.714	0.943%	0.470%
%RSD		0.616	10.590	12.450	6.336	1.136	0.455	1.794	0.928

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:26:19	0.033	0.031	4.931	4.447	4.740	36.623%
2	14:26:39	0.021	0.030	4.964	4.310	4.677	34.037%
3	14:26:59	0.032	0.027	5.073	4.461	4.790	32.569%
x		0.029	0.030	4.989	4.406	4.736	34.410%
σ		0.007	0.002	0.074	0.083	0.057	2.052%
%RSD		23.760	7.432	1.493	1.884	1.195	5.964

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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	14:30:08	64.330%	0.019	21.970	22.790	0.000	6505.000	8074.000	7832.000
2	14:30:27	61.634%	-0.042	20.310	22.310	0.000	6916.000	8452.000	8235.000
3	14:30:46	59.561%	0.065	22.040	20.110	0.000	6441.000	8007.000	8005.000
x		61.842%	0.014	21.440	21.740	0.000	6621.000	8178.000	8024.000
σ		2.391%	0.053	0.978	1.429	0.000	257.400	240.000	202.300
%RSD		3.866	382.000	4.562	6.575	0.000	3.888	2.935	2.521

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:30:08	268.100	4139.000	0.000	945.500	74650.000	76840.000	56.510%	2.762
2	14:30:27	317.800	4341.000	0.000	972.300	78620.000	80000.000	54.031%	2.652
3	14:30:46	276.100	4230.000	0.000	962.000	77150.000	80390.000	53.893%	2.797
x		287.400	4237.000	0.000	959.900	76810.000	79080.000	54.811%	2.737
σ		26.670	101.200	0.000	13.560	2007.000	1945.000	1.473%	0.076
%RSD		9.282	2.390	0.000	1.413	2.613	2.460	2.687	2.767

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:30:08	0.814	0.504	77.790	369.600	568.700	0.532	0.404	1.328
2	14:30:27	1.121	0.509	81.580	371.900	595.700	0.548	0.322	1.426
3	14:30:46	0.196	0.500	81.190	363.500	550.800	0.542	0.307	1.260
x		0.711	0.504	80.180	368.300	571.700	0.541	0.344	1.338
σ		0.471	0.004	2.085	4.323	22.570	0.008	0.052	0.084
%RSD		66.320	0.852	2.600	1.174	3.948	1.444	15.180	6.256

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:30:08	1.295	2.796	3.309	-0.723	-0.719	0.216	0.000	255.200
2	14:30:27	1.391	3.102	3.234	-0.077	-0.763	0.125	0.000	254.100
3	14:30:46	1.363	2.744	3.095	-0.505	-0.591	0.094	0.000	254.700
x		1.350	2.880	3.213	-0.435	-0.691	0.145	0.000	254.700
σ		0.049	0.194	0.108	0.329	0.090	0.063	0.000	0.564
%RSD		3.650	6.719	3.375	75.490	12.960	43.670	0.000	0.221

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:30:08	53.718%	0.001	-0.098	53.425%	-0.029	-0.016	-0.007	0.004
2	14:30:27	53.388%	0.207	0.030	52.903%	-0.026	-0.009	0.072	0.052
3	14:30:46	53.455%	0.145	0.208	52.293%	-0.021	-0.015	0.018	0.019
x		53.520%	0.118	0.046	52.874%	-0.025	-0.014	0.028	0.025
σ		0.174%	0.105	0.154	0.566%	0.004	0.004	0.040	0.025
%RSD		0.326	89.630	331.600	1.071	16.500	30.220	146.700	99.180

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:30:08	54.596%	0.194	0.055	0.042	112.600	111.900	46.417%	43.091%
2	14:30:27	55.323%	0.268	0.083	0.055	114.400	111.900	47.138%	43.859%
3	14:30:46	55.913%	0.256	0.062	0.074	114.100	113.300	48.939%	46.020%
x		55.277%	0.239	0.067	0.057	113.700	112.400	47.498%	44.323%
σ		0.660%	0.040	0.014	0.016	0.971	0.825	1.299%	1.519%
%RSD		1.194	16.590	21.470	27.850	0.855	0.734	2.735	3.426

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:30:08	0.007	0.012	0.723	0.750	0.703	33.625%
2	14:30:27	0.016	0.007	0.777	0.713	0.739	33.489%
3	14:30:46	0.016	0.014	0.785	0.709	0.730	36.346%
x		0.013	0.011	0.762	0.724	0.724	34.487%
σ		0.006	0.004	0.034	0.023	0.019	1.611%
%RSD		41.940	33.130	4.418	3.133	2.617	4.672

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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	14:33:54	69.289%	0.037	21.680	21.590	0.000	6354.000	7020.000	7136.000
2	14:34:14	62.887%	0.071	22.150	22.370	0.000	6354.000	7056.000	7143.000
3	14:34:33	62.456%	0.060	22.340	23.010	0.000	6515.000	6989.000	6966.000
x		64.877%	0.056	22.050	22.320	0.000	6408.000	7021.000	7082.000
σ		3.827%	0.017	0.342	0.714	0.000	92.880	33.510	100.200
%RSD		5.899	30.650	1.551	3.197	0.000	1.450	0.477	1.415

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:33:54	286.800	3786.000	0.000	1050.000	70350.000	72320.000	56.697%	2.273
2	14:34:14	296.600	3969.000	0.000	1061.000	73260.000	74970.000	56.119%	2.411
3	14:34:33	282.200	4001.000	0.000	1083.000	74220.000	75130.000	52.693%	2.466
x		288.500	3919.000	0.000	1065.000	72610.000	74140.000	55.169%	2.384
σ		7.383	116.000	0.000	16.890	2017.000	1580.000	2.164%	0.099
%RSD		2.559	2.960	0.000	1.586	2.777	2.131	3.923	4.167

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:33:54	0.377	0.526	224.100	522.900	729.300	0.913	0.635	1.766
2	14:34:14	0.805	0.475	223.200	491.600	710.300	0.809	0.573	1.770
3	14:34:33	0.818	0.540	229.400	531.000	724.400	0.868	0.665	1.668
x		0.667	0.514	225.600	515.100	721.300	0.863	0.624	1.734
σ		0.251	0.034	3.361	20.800	9.844	0.052	0.047	0.058
%RSD		37.630	6.642	1.490	4.039	1.365	6.048	7.513	3.325

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:33:54	1.929	4.271	4.340	0.758	-0.970	0.172	0.000	245.800
2	14:34:14	1.738	4.016	3.752	0.465	-0.873	0.068	0.000	243.700
3	14:34:33	1.701	4.226	4.412	0.217	-0.932	0.251	0.000	245.900
x		1.789	4.171	4.168	0.480	-0.925	0.163	0.000	245.100
σ		0.122	0.136	0.362	0.271	0.049	0.092	0.000	1.267
%RSD		6.828	3.266	8.689	56.520	5.287	56.130	0.000	0.517

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:33:54	58.214%	0.079	-0.112	59.319%	-0.027	-0.015	0.063	0.066
2	14:34:14	57.858%	0.013	0.033	58.910%	-0.022	-0.017	0.033	0.048
3	14:34:33	58.466%	0.114	-0.002	58.792%	-0.017	-0.016	0.040	0.039
x		58.180%	0.069	-0.027	59.007%	-0.022	-0.016	0.045	0.051
σ		0.306%	0.051	0.075	0.277%	0.005	0.001	0.016	0.014
%RSD		0.526	74.270	278.000	0.469	22.180	5.540	34.710	26.870

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:33:54	59.865%	0.239	0.066	0.058	114.400	114.500	68.468%	69.394%
2	14:34:14	60.686%	0.240	0.049	0.097	114.700	115.000	70.392%	71.264%
3	14:34:33	60.995%	0.336	0.043	0.065	112.400	114.600	71.034%	72.389%
x		60.515%	0.272	0.053	0.073	113.900	114.700	69.965%	71.016%
σ		0.584%	0.055	0.012	0.021	1.228	0.228	1.335%	1.513%
%RSD		0.964	20.340	22.090	28.120	1.079	0.199	1.908	2.131

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:33:54	0.017	0.015	1.936	1.871	1.911	59.622%
2	14:34:14	0.018	0.018	2.023	1.831	1.942	61.811%
3	14:34:33	0.021	0.019	2.004	1.854	1.947	63.697%
x		0.019	0.018	1.988	1.852	1.933	61.710%
σ		0.002	0.002	0.046	0.020	0.019	2.039%
%RSD		11.360	11.980	2.291	1.100	0.999	3.305

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:37:31	75.997%	102.400	106.200	104.100	0.000	48870.000	48940.000	46880.000
2	14:37:50	73.869%	108.200	102.100	106.200	0.000	48390.000	49550.000	49130.000
3	14:38:09	71.582%	109.600	107.900	106.700	0.000	49420.000	48930.000	48740.000
x		73.816%	106.731%	105.412%	105.628%	0.000	97.790%	98.285%	96.494%
σ		2.208%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		2.991	3.574	2.817	1.306	0.000	1.048	0.717	2.490

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:37:31	528.000	4884.000	0.000	47680.000	46790.000	48050.000	75.542%	97.270
2	14:37:50	548.700	5116.000	0.000	49510.000	48450.000	49520.000	74.466%	101.300
3	14:38:09	554.600	5174.000	0.000	49540.000	49470.000	50930.000	73.730%	102.300
x		108.750%	101.165%	0.000	97.815%	96.478%	98.996%	74.579%	100.266%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.911%	n/a
%RSD		2.571	3.035	0.000	2.175	2.803	2.910	1.222	2.633

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:37:31	94.140	94.000	482.600	24390.000	24260.000	93.850	95.500	95.020
2	14:37:50	98.760	100.600	508.500	25440.000	25520.000	100.400	98.580	98.040
3	14:38:09	99.320	100.600	505.500	25430.000	25510.000	99.530	100.400	101.300
x		97.407%	98.370%	99.777%	100.345%	100.386%	97.914%	98.178%	98.109%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		2.918	3.845	2.844	2.389	2.900	3.620	2.542	3.185

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:37:31	94.660	92.490	93.510	94.830	99.310	98.500	0.000	96.500
2	14:37:50	99.520	97.550	95.890	97.110	104.400	100.900	0.000	101.000
3	14:38:09	100.100	95.900	96.990	98.010	101.500	100.300	0.000	100.900
x		98.093%	95.313%	95.465%	96.651%	101.706%	99.924%	0.000	99.479%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		3.043	2.706	1.864	1.694	2.489	1.272	0.000	2.598

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:37:31	71.750%	89.370	89.800	71.005%	96.020	96.350	96.910	98.640
2	14:37:50	71.632%	93.130	93.800	70.382%	98.810	99.620	102.800	102.900
3	14:38:09	71.691%	93.790	94.370	71.345%	98.410	99.390	102.200	103.000
x		71.691%	92.095%	92.655%	70.911%	97.749%	98.452%	100.642%	101.497%
σ		0.059%	n/a	n/a	0.488%	n/a	n/a	n/a	n/a
%RSD		0.082	2.586	2.687	0.688	1.542	1.853	3.225	2.436

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:37:31	67.341%	96.510	91.460	90.600	91.680	93.550	78.110%	78.877%
2	14:37:50	67.775%	100.000	93.660	92.280	95.730	96.030	78.533%	79.195%
3	14:38:09	67.625%	101.300	93.290	92.950	97.110	95.670	80.552%	81.209%
x		67.580%	99.278%	92.801%	91.945%	94.842%	95.082%	79.065%	79.760%
σ		0.221%	n/a	n/a	n/a	n/a	n/a	1.305%	1.265%
%RSD		0.327	2.496	1.271	1.314	2.979	1.412	1.651	1.585

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:37:31	99.790	106.800	102.700	101.400	103.300	72.030%
2	14:37:50	103.900	110.700	107.100	106.500	108.200	71.754%
3	14:38:09	105.000	111.900	108.600	108.000	109.900	71.207%
x		102.879%	109.803%	106.145%	105.271%	107.121%	71.664%
σ		n/a	n/a	n/a	n/a	n/a	0.419%
%RSD		2.651	2.418	2.897	3.298	3.206	0.585

CCB5 5/27/2015 2:43:59 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:18	109.702%	-0.026	1.010	1.065	0.000	3.513	3.002	3.185
2	14:44:37	121.309%	-0.002	1.567	0.830	0.000	3.225	2.855	2.478
3	14:44:56	111.225%	0.016	0.640	0.654	0.000	2.961	2.288	2.481
x		114.079%	-0.004	1.072	0.850	0.000	3.233	2.715	2.715
σ		6.308%	0.021	0.467	0.206	0.000	0.276	0.377	0.407
%RSD		5.530	550.700	43.560	24.280	0.000	8.546	13.880	15.010

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:18	1.287	-78.510	0.000	-0.725	9.344	7.509	103.430%	-0.079
2	14:44:37	1.461	-78.380	0.000	0.722	6.047	7.321	97.680%	-0.011
3	14:44:56	0.389	-78.350	0.000	-0.120	8.015	9.238	98.240%	-0.078
x		1.046	-78.410	0.000	-0.041	7.802	8.023	99.783%	-0.056
σ		0.575	0.084	0.000	0.727	1.659	1.057	3.171%	0.039
%RSD		55.020	0.107	0.000	1764.000	21.260	13.170	3.178	68.940

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:18	-0.007	-0.035	0.047	-4.318	4.281	0.008	0.005	0.043
2	14:44:37	-0.034	-0.038	0.046	-2.079	5.216	0.002	0.029	0.029
3	14:44:56	0.001	-0.035	0.020	-2.801	3.614	0.004	0.020	0.036
x		-0.013	-0.036	0.038	-3.066	4.370	0.005	0.018	0.036
σ		0.018	0.001	0.015	1.143	0.804	0.003	0.012	0.007
%RSD		137.100	4.038	39.900	37.280	18.410	64.300	67.660	20.030

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:18	0.018	0.562	0.661	0.032	-0.470	0.262	0.000	0.024
2	14:44:37	0.020	0.596	0.460	0.040	-0.212	0.464	0.000	0.020
3	14:44:56	0.048	0.606	0.618	0.120	-0.251	0.258	0.000	0.015
x		0.029	0.588	0.579	0.064	-0.311	0.328	0.000	0.020
σ		0.016	0.023	0.106	0.049	0.139	0.118	0.000	0.005
%RSD		57.370	3.913	18.300	76.010	44.650	35.950	0.000	24.100

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:18	83.006%	0.249	0.128	85.452%	-0.015	-0.006	0.065	0.046
2	14:44:37	83.997%	0.471	0.323	84.262%	-0.001	-0.007	0.131	0.094
3	14:44:56	83.223%	0.385	0.362	83.443%	-0.016	-0.006	0.044	0.041
x		83.409%	0.368	0.271	84.386%	-0.011	-0.006	0.080	0.061
σ		0.521%	0.112	0.126	1.010%	0.009	0.001	0.046	0.029
%RSD		0.624	30.360	46.350	1.197	81.130	8.055	57.130	48.520

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:18	79.401%	0.035	0.635	0.634	0.048	0.017	77.670%	76.852%
2	14:44:37	78.704%	0.080	0.666	0.624	0.027	0.039	77.553%	77.561%
3	14:44:56	78.637%	0.073	0.661	0.672	0.003	0.029	77.687%	77.672%
x		78.914%	0.062	0.654	0.643	0.026	0.028	77.637%	77.362%
σ		0.423%	0.024	0.016	0.025	0.023	0.011	0.073%	0.445%
%RSD		0.536	38.820	2.511	3.870	87.060	39.020	0.094	0.575

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:44:18	0.020	0.025	0.017	0.009	0.013	75.834%
2	14:44:37	0.027	0.023	0.011	0.022	0.015	74.066%
3	14:44:56	0.025	0.023	0.012	0.019	0.010	71.007%
x		0.024	0.023	0.013	0.017	0.013	73.636%
σ		0.004	0.001	0.003	0.006	0.003	2.442%
%RSD		14.780	5.852	21.740	38.550	20.240	3.316

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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	14:48:08	76.324%	0.029	20.730	19.930	0.000	4777.000	6490.000	6539.000
2	14:48:27	68.514%	0.003	23.500	20.470	0.000	4924.000	6822.000	6637.000
3	14:48:46	64.861%	0.031	19.100	18.640	0.000	4656.000	7214.000	6570.000
x		69.900%	0.021	21.110	19.680	0.000	4786.000	6842.000	6582.000
σ		5.856%	0.015	2.224	0.943	0.000	134.500	362.100	50.150
%RSD		8.378	73.640	10.530	4.790	0.000	2.811	5.293	0.762

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:48:08	243.900	3407.000	0.000	952.000	72120.000	73670.000	61.380%	3.122
2	14:48:27	257.700	3382.000	0.000	929.400	72190.000	73240.000	59.458%	2.523
3	14:48:46	256.600	3348.000	0.000	908.600	70120.000	72430.000	58.482%	3.569
x		252.700	3379.000	0.000	930.000	71480.000	73120.000	59.773%	3.071
σ		7.649	29.850	0.000	21.710	1180.000	628.700	1.474%	0.524
%RSD		3.026	0.883	0.000	2.335	1.650	0.860	2.466	17.080

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:48:08	0.121	0.579	447.400	901.500	1144.000	0.828	0.484	1.471
2	14:48:27	0.974	0.489	426.600	874.700	1136.000	0.794	0.492	1.388
3	14:48:46	0.851	0.451	422.900	869.800	1076.000	0.827	0.350	1.368
x		0.649	0.506	432.300	882.000	1119.000	0.817	0.442	1.409
σ		0.461	0.066	13.200	17.050	37.690	0.019	0.080	0.055
%RSD		71.080	12.980	3.053	1.934	3.369	2.381	18.090	3.883

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:48:08	1.508	3.347	3.543	1.143	-0.446	0.837	0.000	252.200
2	14:48:27	1.458	3.293	3.630	0.469	-0.315	0.331	0.000	253.100
3	14:48:46	1.478	3.223	3.346	0.724	-0.623	0.703	0.000	254.500
x		1.482	3.288	3.507	0.778	-0.461	0.624	0.000	253.300
σ		0.025	0.062	0.146	0.341	0.155	0.262	0.000	1.168
%RSD		1.705	1.880	4.152	43.750	33.530	42.020	0.000	0.461

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:48:08	59.994%	0.644	0.609	60.798%	-0.005	-0.007	0.070	0.066
2	14:48:27	59.615%	0.675	0.610	60.716%	-0.003	-0.006	0.008	0.032
3	14:48:46	58.779%	0.818	0.614	59.376%	-0.003	-0.000	0.013	0.017
x		59.463%	0.712	0.611	60.297%	-0.003	-0.004	0.030	0.038
σ		0.622%	0.093	0.003	0.798%	0.001	0.004	0.035	0.025
%RSD		1.045	13.060	0.422	1.324	30.460	81.190	113.800	66.100

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:48:08	59.020%	0.524	2.649	2.658	108.100	107.800	63.672%	64.070%
2	14:48:27	60.007%	0.543	2.438	2.493	105.700	104.700	65.951%	65.852%
3	14:48:46	59.953%	0.516	2.227	2.131	105.000	104.000	65.951%	65.945%
x		59.660%	0.528	2.438	2.427	106.300	105.500	65.191%	65.289%
σ		0.555%	0.014	0.211	0.269	1.589	2.060	1.315%	1.057%
%RSD		0.930	2.626	8.655	11.090	1.496	1.952	2.018	1.618

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:48:08	0.024	0.033	1.337	1.283	1.283	55.020%
2	14:48:27	0.031	0.035	1.380	1.302	1.354	52.201%
3	14:48:46	0.022	0.033	1.888	1.294	1.503	51.854%
x		0.026	0.033	1.535	1.293	1.380	53.025%
σ		0.005	0.001	0.306	0.009	0.112	1.737%
%RSD		17.980	2.943	19.960	0.715	8.148	3.275

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:51:55	61.381%	0.420	37.070	33.460	0.000	7581.000	7085.000	7046.000
2	14:52:14	59.686%	0.473	32.230	33.210	0.000	7554.000	7843.000	7095.000
3	14:52:33	58.303%	0.446	32.520	33.210	0.000	7342.000	7580.000	6705.000
x		59.790%	0.447	33.940	33.300	0.000	7492.000	7503.000	6949.000
σ		1.541%	0.026	2.712	0.145	0.000	131.100	385.300	212.600
%RSD		2.578	5.903	7.990	0.437	0.000	1.749	5.135	3.059

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:51:55	4438.000	8645.000	0.000	13540.000	61620.000	64600.000	57.419%	76.080
2	14:52:14	4364.000	8412.000	0.000	13710.000	62870.000	64300.000	56.344%	77.920
3	14:52:33	4286.000	8435.000	0.000	13520.000	62480.000	64760.000	53.606%	78.490
x		4363.000	8497.000	0.000	13590.000	62320.000	64550.000	55.789%	77.500
σ		75.980	128.400	0.000	102.300	637.800	232.200	1.966%	1.260
%RSD		1.742	1.511	0.000	0.753	1.023	0.360	3.523	1.626

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:51:55	10.160	6.320	655.500	8799.000	9621.000	6.206	8.588	12.830
2	14:52:14	9.661	6.480	646.900	8913.000	9553.000	6.089	8.603	12.250
3	14:52:33	9.919	6.572	670.200	9174.000	9987.000	6.307	8.951	12.920
x		9.912	6.457	657.500	8962.000	9720.000	6.201	8.714	12.660
σ		0.247	0.128	11.780	192.300	233.200	0.109	0.206	0.364
%RSD		2.495	1.975	1.791	2.146	2.399	1.760	2.360	2.874

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:51:55	12.570	58.610	58.210	3.390	-0.634	0.625	0.000	170.900
2	14:52:14	12.020	59.160	58.760	2.988	-0.469	0.644	0.000	172.800
3	14:52:33	12.760	59.370	58.400	4.076	-0.569	0.884	0.000	172.400
x		12.450	59.050	58.460	3.485	-0.557	0.718	0.000	172.000
σ		0.388	0.395	0.279	0.550	0.083	0.145	0.000	0.979
%RSD		3.115	0.669	0.476	15.780	14.900	20.140	0.000	0.569

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:51:55	61.357%	1.704	1.747	59.222%	0.001	0.006	0.242	0.259
2	14:52:14	60.706%	2.037	1.945	59.214%	0.002	0.020	0.288	0.291
3	14:52:33	61.882%	1.900	1.925	59.089%	0.005	0.009	0.260	0.261
x		61.315%	1.880	1.872	59.175%	0.002	0.012	0.264	0.270
σ		0.589%	0.167	0.109	0.074%	0.002	0.007	0.023	0.018
%RSD		0.961	8.892	5.822	0.126	81.200	63.940	8.881	6.582

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:51:55	58.644%	1.100	0.837	0.901	145.800	146.800	66.621%	66.399%
2	14:52:14	60.312%	1.119	0.934	0.871	148.100	146.500	68.659%	69.356%
3	14:52:33	61.009%	1.154	0.820	0.808	146.100	145.900	71.254%	72.323%
x		59.988%	1.124	0.863	0.860	146.700	146.400	68.845%	69.360%
σ		1.215%	0.027	0.062	0.047	1.247	0.500	2.322%	2.962%
%RSD		2.026	2.433	7.126	5.502	0.850	0.342	3.373	4.271

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:51:55	0.085	0.097	34.890	31.960	33.720	57.050%
2	14:52:14	0.086	0.106	36.240	32.930	34.950	59.299%
3	14:52:33	0.111	0.107	35.960	32.810	34.760	62.237%
x		0.094	0.103	35.700	32.560	34.480	59.529%
σ		0.015	0.005	0.718	0.530	0.662	2.601%
%RSD		15.590	5.260	2.010	1.628	1.920	4.370

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:55:43	65.351%	0.066	23.070	22.280	0.000	5425.000	7487.000	7554.000
2	14:56:02	62.727%	0.033	22.640	23.560	0.000	5404.000	7323.000	7389.000
3	14:56:21	62.063%	0.034	21.060	22.100	0.000	5167.000	7319.000	7380.000
x		63.380%	0.044	22.260	22.650	0.000	5332.000	7377.000	7441.000
σ		1.739%	0.019	1.060	0.796	0.000	143.400	95.720	98.060
%RSD		2.743	41.800	4.764	3.516	0.000	2.689	1.298	1.318

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:55:43	278.300	3967.000	0.000	1005.000	71550.000	74660.000	60.676%	2.628
2	14:56:02	272.800	3841.000	0.000	1017.000	74300.000	73130.000	58.797%	2.891
3	14:56:21	265.300	3874.000	0.000	1023.000	74510.000	73010.000	56.988%	2.985
x		272.200	3894.000	0.000	1015.000	73450.000	73600.000	58.821%	2.835
σ		6.558	65.280	0.000	9.294	1653.000	919.800	1.844%	0.185
%RSD		2.410	1.676	0.000	0.915	2.251	1.250	3.135	6.535

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:55:43	1.580	0.492	136.900	453.100	631.700	0.596	0.324	15.750
2	14:56:02	0.538	0.536	138.800	451.200	625.700	0.593	0.394	15.910
3	14:56:21	1.825	0.543	141.600	460.000	626.700	0.605	0.215	16.130
x		1.314	0.524	139.100	454.800	628.100	0.598	0.311	15.930
σ		0.683	0.028	2.404	4.638	3.207	0.006	0.090	0.188
%RSD		51.990	5.257	1.728	1.020	0.511	1.040	28.960	1.182

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:55:43	16.050	15.730	15.860	-0.233	-0.842	0.367	0.000	242.800
2	14:56:02	15.810	15.610	15.700	-0.346	-0.684	0.523	0.000	257.000
3	14:56:21	15.940	15.650	15.690	0.264	-0.701	0.474	0.000	259.700
x		15.930	15.660	15.750	-0.105	-0.742	0.455	0.000	253.200
σ		0.124	0.061	0.094	0.325	0.086	0.080	0.000	9.080
%RSD		0.779	0.387	0.597	309.400	11.650	17.570	0.000	3.586

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:55:43	61.152%	-0.158	-0.112	62.245%	-0.022	-0.009	0.030	0.039
2	14:56:02	61.571%	0.012	-0.000	62.673%	-0.024	-0.013	0.042	0.035
3	14:56:21	60.358%	0.056	0.042	61.660%	-0.016	-0.008	0.067	0.052
x		61.027%	-0.030	-0.023	62.193%	-0.021	-0.010	0.046	0.042
σ		0.616%	0.113	0.080	0.509%	0.004	0.003	0.019	0.009
%RSD		1.010	380.400	342.700	0.818	20.400	26.140	41.180	20.990

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:55:43	63.788%	0.140	0.273	0.316	108.900	109.900	73.982%	75.123%
2	14:56:02	64.536%	0.207	0.311	0.280	109.600	109.700	75.036%	76.381%
3	14:56:21	64.465%	0.218	0.260	0.299	108.900	111.000	76.291%	77.540%
x		64.263%	0.188	0.281	0.298	109.100	110.200	75.103%	76.348%
σ		0.413%	0.042	0.027	0.018	0.408	0.681	1.156%	1.209%
%RSD		0.642	22.340	9.427	5.942	0.374	0.618	1.539	1.583

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:55:43	0.008	0.017	2.102	1.961	2.034	70.005%
2	14:56:02	0.017	0.014	2.237	1.959	2.120	70.138%
3	14:56:21	0.010	0.014	2.136	1.973	2.072	71.485%
x		0.012	0.015	2.158	1.964	2.075	70.543%
σ		0.005	0.002	0.070	0.007	0.043	0.819%
%RSD		39.060	11.720	3.240	0.377	2.058	1.161

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:59:30	83.001%	-0.026	4.184	4.864	0.000	1063.000	1674.000	1812.000
2	14:59:50	83.799%	-0.008	3.864	5.322	0.000	1051.000	1725.000	1910.000
3	15:00:09	85.164%	-0.008	5.141	4.547	0.000	1076.000	1697.000	1846.000
x		83.988%	-0.014	4.396	4.911	0.000	1063.000	1699.000	1856.000
σ		1.094%	0.011	0.664	0.390	0.000	12.260	25.670	49.790
%RSD		1.302	75.960	15.110	7.939	0.000	1.152	1.511	2.683
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:59:30	52.500	755.100	0.000	203.600	13920.000	15210.000	75.932%	0.354
2	14:59:50	55.080	772.100	0.000	203.700	14220.000	15530.000	74.886%	0.617
3	15:00:09	52.530	718.700	0.000	203.000	14120.000	15260.000	73.726%	0.425
x		53.370	748.600	0.000	203.400	14090.000	15330.000	74.848%	0.465
σ		1.478	27.290	0.000	0.381	156.500	174.500	1.104%	0.136
%RSD		2.770	3.645	0.000	0.187	1.111	1.138	1.474	29.160
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:59:30	0.182	0.101	27.610	80.090	126.600	0.113	0.038	3.436
2	14:59:50	0.400	0.111	27.430	80.790	126.300	0.124	0.048	3.530
3	15:00:09	0.214	0.089	27.980	80.200	125.600	0.121	0.093	3.380
x		0.265	0.100	27.680	80.360	126.200	0.120	0.060	3.449
σ		0.118	0.011	0.283	0.377	0.496	0.006	0.029	0.076
%RSD		44.510	11.280	1.022	0.469	0.393	4.879	48.830	2.195
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:59:30	3.367	2.534	2.463	-0.035	-0.688	0.083	0.000	50.530
2	14:59:50	3.484	2.775	2.721	0.041	-0.661	-0.051	0.000	50.330
3	15:00:09	3.358	2.462	2.429	-0.036	-0.848	0.048	0.000	50.820
x		3.403	2.591	2.538	-0.010	-0.732	0.027	0.000	50.560
σ		0.070	0.164	0.160	0.044	0.101	0.070	0.000	0.244
%RSD		2.068	6.321	6.290	431.400	13.790	260.000	0.000	0.482
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:59:30	70.907%	-0.479	-0.513	74.275%	-0.026	-0.018	0.022	0.021
2	14:59:50	72.219%	-0.412	-0.439	73.401%	-0.021	-0.021	-0.027	0.005
3	15:00:09	71.387%	-0.390	-0.442	74.133%	-0.026	-0.019	0.009	0.008
x		71.504%	-0.427	-0.465	73.936%	-0.024	-0.020	0.001	0.011
σ		0.663%	0.046	0.042	0.469%	0.003	0.002	0.025	0.008
%RSD		0.928	10.780	8.948	0.635	10.610	8.852	1838.000	73.980
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:59:30	72.614%	-0.091	-0.053	-0.058	21.590	21.990	78.984%	78.874%
2	14:59:50	73.206%	-0.078	-0.056	-0.069	21.670	21.790	79.815%	80.998%
3	15:00:09	73.691%	-0.072	-0.042	-0.055	22.010	22.200	80.360%	81.502%
x		73.170%	-0.080	-0.051	-0.061	21.760	21.990	79.720%	80.458%
σ		0.540%	0.009	0.007	0.008	0.223	0.205	0.693%	1.395%
%RSD		0.737	11.700	14.630	12.560	1.025	0.933	0.869	1.734
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:59:30	-0.002	0.000	0.389	0.314	0.367	79.524%		
2	14:59:50	-0.001	0.001	0.403	0.379	0.401	78.084%		
3	15:00:09	-0.004	0.001	0.396	0.378	0.398	78.127%		
x		-0.002	0.001	0.396	0.357	0.389	78.578%		
σ		0.001	0.001	0.007	0.037	0.019	0.819%		
%RSD		49.140	68.760	1.781	10.500	4.904	1.042		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:06:15	113.300%	0.001	0.717	0.490	0.000	-0.149	-0.440	-0.205
2	15:06:35	112.688%	-0.027	0.622	0.561	0.000	-0.435	-0.639	-0.433
3	15:06:54	106.398%	-0.010	1.097	0.432	0.000	-0.188	-0.783	-0.596
x		110.795%	-0.012	0.812	0.494	0.000	-0.258	-0.621	-0.411
σ		3.821%	0.014	0.251	0.065	0.000	0.155	0.172	0.197
%RSD		3.448	119.400	30.940	13.060	0.000	60.190	27.690	47.780

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:06:15	-0.291	-85.560	0.000	-2.188	1.205	2.708	95.391%	-0.110
2	15:06:35	-0.269	-84.680	0.000	-2.543	7.314	0.886	95.512%	-0.043
3	15:06:54	-0.212	-83.480	0.000	-2.515	0.138	1.417	96.844%	-0.088
x		-0.257	-84.570	0.000	-2.415	2.886	1.670	95.916%	-0.080
σ		0.041	1.044	0.000	0.197	3.872	0.937	0.807%	0.034
%RSD		15.740	1.234	0.000	8.168	134.200	56.100	0.841	42.760

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:06:15	0.020	-0.035	0.014	-9.674	-0.961	-0.000	0.004	-0.020
2	15:06:35	-0.008	-0.035	0.005	-8.981	-0.936	-0.002	-0.002	0.010
3	15:06:54	0.020	-0.034	0.005	-10.030	-1.700	-0.002	0.007	0.004
x		0.011	-0.034	0.008	-9.562	-1.199	-0.001	0.003	-0.002
σ		0.016	0.001	0.005	0.534	0.434	0.001	0.004	0.016
%RSD		155.400	1.703	67.250	5.584	36.210	62.980	159.100	783.600

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:06:15	-0.019	1.827	2.084	-0.007	-0.726	0.057	0.000	0.005
2	15:06:35	0.036	1.922	2.065	-0.052	-0.863	0.099	0.000	0.010
3	15:06:54	0.000	1.992	1.817	-0.061	-0.773	-0.067	0.000	0.003
x		0.006	1.914	1.989	-0.040	-0.787	0.029	0.000	0.006
σ		0.028	0.083	0.149	0.029	0.070	0.086	0.000	0.004
%RSD		503.800	4.314	7.504	73.230	8.844	295.300	0.000	61.160

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:06:15	80.172%	-0.553	-0.640	80.899%	-0.027	-0.019	0.007	0.012
2	15:06:35	80.767%	-0.518	-0.568	81.619%	-0.022	-0.021	0.058	0.042
3	15:06:54	80.815%	-0.490	-0.568	81.152%	-0.027	-0.014	0.038	0.038
x		80.585%	-0.520	-0.592	81.223%	-0.025	-0.018	0.035	0.031
σ		0.358%	0.031	0.041	0.365%	0.003	0.004	0.026	0.016
%RSD		0.444	5.997	7.003	0.450	12.100	22.340	74.050	52.680

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:06:15	75.013%	-0.125	-0.072	-0.082	0.004	0.004	73.772%	71.844%
2	15:06:35	74.932%	-0.103	-0.076	-0.086	0.007	-0.001	74.512%	72.959%
3	15:06:54	76.409%	-0.115	-0.055	-0.056	-0.004	0.004	74.819%	73.156%
x		75.451%	-0.114	-0.068	-0.074	0.002	0.002	74.368%	72.653%
σ		0.830%	0.011	0.011	0.016	0.006	0.002	0.538%	0.708%
%RSD		1.101	9.367	16.540	21.360	231.500	106.700	0.724	0.974

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:06:15	0.001	0.006	0.008	0.014	0.009	67.077%
2	15:06:35	0.003	0.003	0.006	0.008	0.007	65.301%
3	15:06:54	-0.001	0.003	0.007	0.008	0.006	64.602%
x		0.001	0.004	0.007	0.010	0.007	65.660%
σ		0.002	0.002	0.001	0.004	0.001	1.276%
%RSD		249.600	41.390	17.000	38.070	19.510	1.944

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:10:04	62.737%	48.750	905.700	907.600	0.000	39380.000	40700.000	41450.000
2	15:10:24	57.247%	49.160	946.700	990.700	0.000	42860.000	43620.000	42820.000
3	15:10:43	51.939%	53.470	1001.000	963.400	0.000	42640.000	43420.000	44230.000
x		57.308%	50.460	951.100	953.900	0.000	41620.000	42580.000	42830.000
σ		5.399%	2.611	47.650	42.390	0.000	1950.000	1631.000	1392.000
%RSD		9.422	5.175	5.010	4.444	0.000	4.684	3.829	3.250
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:10:04	1612.000	8721.000	0.000	42840.000	44110.000	45710.000	57.333%	925.000
2	15:10:24	1664.000	9151.000	0.000	43610.000	43710.000	46000.000	55.268%	946.300
3	15:10:43	1733.000	9046.000	0.000	43430.000	44500.000	45860.000	53.759%	935.700
x		1670.000	8973.000	0.000	43300.000	44110.000	45860.000	55.453%	935.600
σ		60.640	224.200	0.000	401.200	395.700	149.300	1.795%	10.650
%RSD		3.632	2.499	0.000	0.927	0.897	0.326	3.236	1.138
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:10:04	474.900	184.700	490.800	958.300	1146.000	466.900	460.800	226.600
2	15:10:24	470.500	184.100	473.400	942.500	1098.000	453.500	445.000	225.400
3	15:10:43	469.100	182.900	490.100	956.500	1125.000	460.800	458.100	227.100
x		471.500	183.900	484.800	952.400	1123.000	460.400	454.600	226.400
σ		3.045	0.892	9.814	8.617	23.710	6.723	8.443	0.903
%RSD		0.646	0.485	2.024	0.905	2.112	1.460	1.857	0.399
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:10:04	229.100	444.900	442.600	34.550	8.302	9.431	0.000	881.000
2	15:10:24	226.300	441.700	435.000	33.690	8.641	9.142	0.000	873.400
3	15:10:43	226.200	443.800	441.800	34.460	8.417	9.083	0.000	870.800
x		227.200	443.400	439.800	34.240	8.454	9.219	0.000	875.100
σ		1.660	1.633	4.182	0.473	0.173	0.186	0.000	5.267
%RSD		0.731	0.368	0.951	1.381	2.044	2.022	0.000	0.602
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:10:04	56.797%	976.200	1021.000	57.546%	43.210	42.770	42.990	39.480
2	15:10:24	56.965%	983.900	1043.000	57.446%	43.150	42.740	44.100	40.180
3	15:10:43	56.518%	978.700	1035.000	57.482%	43.380	42.820	43.270	39.150
x		56.760%	979.600	1033.000	57.491%	43.250	42.780	43.450	39.600
σ		0.226%	3.883	10.810	0.051%	0.123	0.039	0.582	0.526
%RSD		0.397	0.396	1.046	0.088	0.285	0.091	1.338	1.328
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:10:04	61.801%	1604.000	436.200	436.600	1668.000	1698.000	61.660%	61.063%
2	15:10:24	61.673%	1606.000	435.900	438.600	1668.000	1691.000	62.332%	62.656%
3	15:10:43	63.129%	1596.000	434.400	438.800	1650.000	1678.000	63.675%	63.618%
x		62.201%	1602.000	435.500	438.000	1662.000	1689.000	62.556%	62.446%
σ		0.806%	5.056	0.953	1.205	10.380	10.270	1.026%	1.290%
%RSD		1.296	0.316	0.219	0.275	0.625	0.608	1.641	2.066
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:10:04	51.830	53.030	21.460	21.490	21.740	44.002%		
2	15:10:24	53.380	54.470	21.540	21.600	21.700	43.657%		
3	15:10:43	52.250	53.910	21.550	21.340	21.830	46.190%		
x		52.480	53.800	21.520	21.480	21.760	44.616%		
σ		0.801	0.727	0.050	0.130	0.068	1.374%		
%RSD		1.526	1.351	0.233	0.605	0.314	3.079		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:13:53	65.235%	0.067	32.530	33.460	0.000	22200.000	10710.000	10620.000
2	15:14:13	64.884%	0.019	31.930	33.900	0.000	23170.000	10790.000	10990.000
3	15:14:32	60.315%	0.037	34.270	34.360	0.000	23670.000	11620.000	11330.000
x		63.478%	0.041	32.910	33.910	0.000	23010.000	11040.000	10980.000
σ		2.745%	0.024	1.215	0.447	0.000	746.900	501.900	355.500
%RSD		4.324	59.550	3.691	1.319	0.000	3.246	4.546	3.238
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:13:53	22.130	3939.000	0.000	2799.000	102300.000	106100.000	57.818%	1.142
2	15:14:13	23.810	3987.000	0.000	2839.000	105600.000	107000.000	56.539%	0.849
3	15:14:32	23.490	4087.000	0.000	2889.000	106000.000	107300.000	55.094%	1.065
x		23.140	4004.000	0.000	2842.000	104600.000	106800.000	56.484%	1.019
σ		0.895	75.630	0.000	45.100	2051.000	594.700	1.363%	0.152
%RSD		3.866	1.889	0.000	1.587	1.960	0.557	2.413	14.910
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:13:53	0.240	1.839	3.370	111.000	383.500	0.280	0.230	0.544
2	15:14:13	0.139	1.788	3.503	107.500	395.000	0.199	0.030	0.595
3	15:14:32	1.051	1.831	3.337	107.000	370.100	0.225	0.187	0.542
x		0.477	1.819	3.403	108.500	382.900	0.235	0.149	0.560
σ		0.500	0.027	0.088	2.166	12.450	0.041	0.105	0.030
%RSD		104.800	1.482	2.579	1.997	3.252	17.610	70.840	5.396
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:13:53	0.547	0.932	0.753	0.170	0.129	0.891	0.000	215.600
2	15:14:13	0.613	0.641	0.532	-0.174	-0.173	0.893	0.000	213.800
3	15:14:32	0.535	0.591	0.509	-0.141	0.009	0.800	0.000	211.900
x		0.565	0.721	0.598	-0.048	-0.012	0.862	0.000	213.700
σ		0.042	0.184	0.135	0.190	0.152	0.053	0.000	1.841
%RSD		7.354	25.490	22.530	391.900	1265.000	6.204	0.000	0.861
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:13:53	58.992%	5.566	5.757	60.789%	-0.022	-0.009	0.009	-0.003
2	15:14:13	59.175%	6.011	6.171	61.107%	-0.015	-0.010	-0.019	-0.022
3	15:14:32	59.406%	5.398	5.164	61.333%	-0.014	-0.011	-0.022	-0.021
x		59.191%	5.659	5.697	61.076%	-0.017	-0.010	-0.011	-0.015
σ		0.207%	0.317	0.506	0.274%	0.004	0.001	0.017	0.011
%RSD		0.350	5.596	8.884	0.448	25.490	9.192	162.800	70.310
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:13:53	61.330%	1.742	0.174	0.169	36.810	36.470	70.542%	71.059%
2	15:14:13	62.729%	1.575	0.123	0.199	34.990	35.660	72.435%	73.281%
3	15:14:32	62.461%	1.297	0.207	0.202	35.950	35.870	73.067%	74.696%
x		62.174%	1.538	0.168	0.190	35.920	36.000	72.015%	73.012%
σ		0.742%	0.225	0.042	0.018	0.908	0.415	1.314%	1.833%
%RSD		1.194	14.630	25.040	9.588	2.528	1.154	1.825	2.511
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:13:53	0.342	0.358	0.123	0.106	0.112	66.491%		
2	15:14:13	0.257	0.270	0.134	0.129	0.124	64.542%		
3	15:14:32	0.177	0.210	0.109	0.117	0.114	66.382%		
x		0.259	0.280	0.122	0.117	0.116	65.805%		
σ		0.082	0.075	0.012	0.011	0.007	1.095%		
%RSD		31.870	26.730	10.160	9.775	5.663	1.665		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:17:42	67.556%	0.016	29.790	29.110	0.000	20700.000	10900.000	10860.000
2	15:18:03	65.736%	-0.018	28.350	28.610	0.000	20850.000	11190.000	11250.000
3	15:18:22	63.529%	0.008	27.110	29.620	0.000	20890.000	11060.000	11180.000
x		65.607%	0.002	28.420	29.110	0.000	20810.000	11050.000	11100.000
σ		2.017%	0.018	1.341	0.502	0.000	95.250	146.700	207.200
%RSD		3.074	1145.000	4.718	1.725	0.000	0.458	1.328	1.868

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:17:42	12.680	4218.000	0.000	2690.000	99290.000	102200.000	59.963%	0.547
2	15:18:03	13.250	4335.000	0.000	2802.000	104100.000	105600.000	55.852%	0.631
3	15:18:22	13.170	4246.000	0.000	2716.000	103600.000	105000.000	56.683%	0.771
x		13.030	4266.000	0.000	2736.000	102300.000	104300.000	57.499%	0.650
σ		0.309	61.360	0.000	58.800	2644.000	1825.000	2.174%	0.113
%RSD		2.371	1.438	0.000	2.149	2.584	1.750	3.780	17.410

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:17:42	-1.695	1.792	12.680	36.410	313.200	0.170	0.156	0.584
2	15:18:03	-0.418	1.700	13.230	39.090	317.600	0.171	0.213	0.566
3	15:18:22	-0.620	1.742	12.720	32.600	290.800	0.178	0.152	0.610
x		-0.911	1.745	12.870	36.030	307.200	0.173	0.174	0.587
σ		0.686	0.046	0.306	3.265	14.320	0.004	0.034	0.022
%RSD		75.330	2.622	2.379	9.061	4.663	2.542	19.780	3.787

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:17:42	0.543	1.309	0.994	-0.006	-0.009	0.593	0.000	225.700
2	15:18:03	0.508	1.227	1.276	-0.268	-0.162	0.766	0.000	229.700
3	15:18:22	0.434	1.406	1.307	0.236	0.018	0.638	0.000	227.700
x		0.495	1.314	1.192	-0.013	-0.051	0.666	0.000	227.700
σ		0.056	0.089	0.173	0.252	0.097	0.090	0.000	1.967
%RSD		11.290	6.801	14.480	2004.000	189.200	13.510	0.000	0.864

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:17:42	60.502%	1.310	1.377	62.541%	-0.022	-0.011	0.022	0.015
2	15:18:03	60.106%	1.688	1.534	61.821%	-0.014	-0.015	0.056	0.041
3	15:18:22	60.237%	1.585	1.534	62.432%	-0.022	-0.020	0.018	0.021
x		60.282%	1.527	1.481	62.265%	-0.020	-0.015	0.032	0.026
σ		0.202%	0.195	0.091	0.388%	0.005	0.005	0.021	0.014
%RSD		0.334	12.790	6.120	0.624	23.610	29.970	64.780	52.510

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:17:42	63.222%	0.366	0.088	0.107	42.630	42.080	73.473%	74.649%
2	15:18:03	63.407%	0.431	0.120	0.094	43.130	43.760	74.727%	75.775%
3	15:18:22	64.369%	0.367	0.114	0.123	42.480	42.840	75.019%	77.038%
x		63.666%	0.388	0.107	0.108	42.750	42.890	74.406%	75.821%
σ		0.616%	0.038	0.017	0.014	0.341	0.842	0.822%	1.195%
%RSD		0.968	9.695	15.640	13.130	0.798	1.962	1.104	1.576

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:17:42	0.052	0.062	0.133	0.119	0.130	68.033%
2	15:18:03	0.054	0.058	0.124	0.122	0.123	69.856%
3	15:18:22	0.055	0.058	0.128	0.115	0.122	69.403%
x		0.054	0.059	0.129	0.119	0.125	69.097%
σ		0.002	0.002	0.005	0.003	0.004	0.949%
%RSD		3.313	3.980	3.607	2.772	3.208	1.373

180-44203-B-3-A 5/27/2015 3:21:11 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:21:31	68.253%	-0.031	32.740	35.360	0.000	35480.000	13460.000	13170.000
2	15:21:50	66.348%	0.017	34.050	32.170	0.000	33640.000	12580.000	12930.000
3	15:22:09	69.013%	-0.055	28.770	31.410	0.000	32620.000	12350.000	12490.000
x		67.871%	-0.023	31.850	32.980	0.000	33910.000	12800.000	12860.000
σ		1.373%	0.037	2.752	2.095	0.000	1450.000	588.900	348.800
%RSD		2.023	159.100	8.639	6.352	0.000	4.276	4.602	2.712

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:21:31	15.290	4479.000	0.000	3579.000	93230.000	96020.000	57.420%	1.001
2	15:21:50	16.280	4324.000	0.000	3440.000	92620.000	95430.000	56.942%	0.805
3	15:22:09	15.200	4243.000	0.000	3349.000	90710.000	93840.000	55.095%	0.757
x		15.590	4348.000	0.000	3456.000	92190.000	95100.000	56.486%	0.854
σ		0.596	119.800	0.000	115.600	1316.000	1131.000	1.228%	0.129
%RSD		3.823	2.755	0.000	3.343	1.428	1.189	2.173	15.130

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:21:31	0.021	3.754	9.382	49.220	304.700	0.172	0.089	0.769
2	15:21:50	0.446	3.561	9.293	45.180	301.800	0.135	-0.006	0.712
3	15:22:09	0.591	3.646	9.550	45.530	281.000	0.168	0.017	0.666
x		0.352	3.653	9.408	46.650	295.800	0.158	0.034	0.716
σ		0.296	0.097	0.131	2.239	12.930	0.020	0.049	0.051
%RSD		84.100	2.647	1.387	4.799	4.371	12.640	147.400	7.188

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:21:31	0.630	5.399	5.396	-0.548	-0.973	0.537	0.000	195.400
2	15:21:50	0.686	4.974	5.392	0.039	-0.806	0.697	0.000	192.800
3	15:22:09	0.598	4.683	4.810	-0.917	-0.825	0.418	0.000	194.500
x		0.638	5.019	5.200	-0.475	-0.868	0.551	0.000	194.200
σ		0.045	0.360	0.337	0.482	0.092	0.140	0.000	1.297
%RSD		6.978	7.175	6.484	101.400	10.550	25.420	0.000	0.668

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:21:31	59.791%	1.939	1.987	61.644%	-0.024	-0.015	0.064	0.034
2	15:21:50	59.353%	2.183	2.075	60.755%	-0.016	-0.013	-0.040	-0.040
3	15:22:09	59.413%	2.014	2.094	60.538%	-0.014	-0.013	0.025	0.008
x		59.519%	2.045	2.052	60.979%	-0.018	-0.013	0.016	0.001
σ		0.237%	0.125	0.057	0.586%	0.005	0.001	0.052	0.038
%RSD		0.399	6.110	2.762	0.961	28.030	6.979	321.800	7209.000

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:21:31	61.786%	0.273	0.061	0.037	39.980	40.000	72.029%	74.830%
2	15:21:50	63.101%	0.283	0.040	0.069	38.330	39.390	74.246%	75.831%
3	15:22:09	63.063%	0.341	0.061	0.077	39.110	39.280	75.434%	76.363%
x		62.650%	0.299	0.054	0.061	39.140	39.550	73.903%	75.674%
σ		0.749%	0.037	0.012	0.021	0.822	0.387	1.728%	0.778%
%RSD		1.195	12.310	22.000	35.060	2.100	0.978	2.338	1.029

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:21:31	0.028	0.036	0.101	0.100	0.102	70.543%
2	15:21:50	0.031	0.032	0.118	0.103	0.114	68.089%
3	15:22:09	0.018	0.038	0.110	0.094	0.103	69.721%
x		0.026	0.035	0.110	0.099	0.106	69.451%
σ		0.007	0.003	0.009	0.005	0.007	1.249%
%RSD		25.640	7.884	7.759	4.732	6.629	1.798

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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	15:25:18	90.316%	0.016	7.534	6.983	0.000	7141.000	3059.000	3327.000
2	15:25:37	86.838%	-0.018	8.200	6.667	0.000	7355.000	3084.000	3342.000
3	15:25:56	82.349%	-0.016	6.593	6.686	0.000	7315.000	3077.000	3323.000
x		86.501%	-0.006	7.442	6.779	0.000	7271.000	3073.000	3331.000
σ		3.994%	0.019	0.808	0.177	0.000	113.700	13.000	9.721
%RSD		4.618	314.100	10.850	2.615	0.000	1.564	0.423	0.292

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:25:18	2.619	913.000	0.000	698.600	17700.000	18970.000	73.715%	0.035
2	15:25:37	2.942	909.200	0.000	716.400	18220.000	18840.000	71.830%	0.143
3	15:25:56	3.088	899.600	0.000	711.300	18240.000	19180.000	69.233%	0.106
x		2.883	907.300	0.000	708.800	18050.000	19000.000	71.592%	0.094
σ		0.240	6.898	0.000	9.190	309.100	173.900	2.251%	0.055
%RSD		8.321	0.760	0.000	1.297	1.712	0.915	3.144	58.070

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:25:18	0.045	0.660	1.832	1.255	68.140	0.032	0.050	0.183
2	15:25:37	0.005	0.715	1.878	2.643	68.070	0.031	0.024	0.197
3	15:25:56	0.290	0.713	1.869	0.827	65.030	0.029	0.002	0.164
x		0.113	0.696	1.859	1.575	67.080	0.030	0.025	0.182
σ		0.154	0.031	0.024	0.950	1.777	0.001	0.024	0.016
%RSD		136.100	4.484	1.297	60.290	2.649	4.281	95.150	9.038

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:25:18	0.121	1.078	0.895	-0.205	-0.916	-0.142	0.000	38.300
2	15:25:37	0.144	0.923	1.011	-0.168	-0.829	-0.044	0.000	38.190
3	15:25:56	0.159	0.882	0.977	0.160	-0.857	0.194	0.000	38.770
x		0.141	0.961	0.961	-0.071	-0.867	0.003	0.000	38.420
σ		0.019	0.103	0.059	0.201	0.045	0.172	0.000	0.307
%RSD		13.330	10.770	6.183	282.300	5.140	6109.000	0.000	0.799

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:25:18	67.633%	0.093	0.050	69.952%	-0.020	-0.018	0.061	0.047
2	15:25:37	67.498%	0.296	0.227	68.971%	-0.019	-0.017	0.025	0.022
3	15:25:56	66.861%	0.258	0.203	68.877%	-0.020	-0.018	0.032	0.033
x		67.331%	0.216	0.160	69.267%	-0.020	-0.018	0.040	0.034
σ		0.412%	0.108	0.096	0.595%	0.001	0.000	0.019	0.013
%RSD		0.612	50.180	59.910	0.859	3.680	2.531	48.240	37.940

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:25:18	67.323%	0.009	-0.071	-0.082	8.354	8.060	72.851%	72.551%
2	15:25:37	67.578%	0.018	-0.072	-0.078	7.641	7.899	72.505%	72.509%
3	15:25:56	67.884%	-0.005	-0.057	-0.074	8.313	7.837	72.579%	72.196%
x		67.595%	0.007	-0.067	-0.078	8.103	7.932	72.645%	72.418%
σ		0.281%	0.011	0.008	0.004	0.400	0.115	0.182%	0.194%
%RSD		0.416	151.400	12.470	5.311	4.941	1.453	0.251	0.268

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:25:18	0.015	0.013	0.033	0.036	0.039	63.100%
2	15:25:37	0.015	0.021	0.039	0.043	0.038	62.312%
3	15:25:56	0.012	0.019	0.047	0.040	0.047	61.815%
x		0.014	0.018	0.039	0.040	0.041	62.409%
σ		0.002	0.004	0.007	0.004	0.005	0.648%
%RSD		11.990	24.130	17.740	8.942	12.600	1.038

CCV 1558997 5/27/2015 3:28:54 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	15:28:54	93.213%	92.110	94.120	95.910	0.000	43610.000	44250.000	45600.000
2	15:29:14	91.262%	93.540	97.670	93.780	0.000	46060.000	46360.000	46300.000
3	15:29:33	87.502%	99.240	96.030	94.380	0.000	46350.000	46570.000	47710.000
x		90.659%	94.962%	95.941%	94.692%	0.000	90.681%	91.457%	93.074%
σ		2.903%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		3.202	3.972	1.854	1.158	0.000	3.318	2.801	2.309

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:28:54	510.300	4760.000	0.000	45420.000	44050.000	45770.000	82.285%	94.930
2	15:29:14	518.200	4889.000	0.000	47050.000	46430.000	48830.000	77.041%	97.420
3	15:29:33	525.600	4878.000	0.000	47480.000	47100.000	49820.000	78.191%	98.270
x		103.607%	96.848%	0.000	93.306%	91.723%	96.284%	79.172%	96.875%
σ		n/a	n/a	0.000	n/a	n/a	n/a	2.756%	n/a
%RSD		1.482	1.475	0.000	2.331	3.495	4.380	3.481	1.790

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:28:54	90.830	91.870	473.700	23420.000	23610.000	91.150	91.510	91.580
2	15:29:14	96.480	95.070	497.500	24580.000	25050.000	95.890	95.890	97.740
3	15:29:33	97.260	98.790	506.100	24840.000	25600.000	97.180	96.730	97.090
x		94.855%	95.244%	98.484%	97.124%	99.023%	94.739%	94.710%	95.470%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		3.702	3.636	3.408	3.122	4.144	3.347	2.955	3.546

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:28:54	92.290	90.720	90.000	95.470	97.800	97.810	0.000	94.080
2	15:29:14	98.150	96.250	95.250	96.300	98.480	97.780	0.000	96.600
3	15:29:33	97.440	95.020	94.290	96.140	97.600	97.380	0.000	96.140
x		95.959%	93.996%	93.182%	95.969%	97.963%	97.655%	0.000	95.604%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		3.330	3.090	3.005	0.460	0.469	0.246	0.000	1.402

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:28:54	70.505%	88.540	88.760	66.298%	95.300	96.270	96.930	98.200
2	15:29:14	71.038%	90.240	91.070	66.696%	96.550	97.780	99.430	101.300
3	15:29:33	72.789%	91.820	92.630	66.999%	97.610	97.700	99.370	102.000
x		71.444%	90.199%	90.819%	66.665%	96.485%	97.246%	98.575%	100.506%
σ		1.195%	n/a	n/a	0.352%	n/a	n/a	n/a	n/a
%RSD		1.673	1.818	2.146	0.528	1.200	0.874	1.450	2.015

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:28:54	61.327%	97.210	90.720	90.450	96.640	96.320	61.469%	65.236%
2	15:29:14	61.035%	99.980	94.040	93.780	99.610	99.440	62.764%	66.026%
3	15:29:33	62.123%	100.200	93.970	93.810	99.120	99.050	63.517%	67.012%
x		61.495%	99.119%	92.911%	92.681%	98.458%	98.269%	62.583%	66.091%
σ		0.563%	n/a	n/a	n/a	n/a	n/a	1.035%	0.890%
%RSD		0.915	1.669	2.038	2.084	1.615	1.731	1.655	1.347

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:28:54	95.820	99.130	96.840	95.620	97.300	54.095%
2	15:29:14	101.600	104.800	101.800	100.300	102.100	52.548%
3	15:29:33	101.600	105.500	103.500	102.000	103.900	52.956%
x		99.672%	103.136%	100.738%	99.313%	101.120%	53.200%
σ		n/a	n/a	n/a	n/a	n/a	0.802%
%RSD		3.345	3.383	3.454	3.332	3.391	1.507

CCB6 5/27/2015 3:35:23 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:35:42	114.755%	0.001	1.777	1.288	0.000	3.448	2.361	3.188
2	15:36:01	112.339%	-0.034	1.496	1.130	0.000	2.948	2.658	2.726
3	15:36:21	113.042%	-0.013	0.896	1.391	0.000	3.210	2.308	2.860
x		113.379%	-0.015	1.390	1.270	0.000	3.202	2.443	2.925
σ		1.242%	0.017	0.450	0.132	0.000	0.250	0.189	0.237
%RSD		1.096	113.100	32.390	10.350	0.000	7.816	7.726	8.117
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:35:42	0.201	-75.240	0.000	2.732	8.674	7.227	100.824%	-0.046
2	15:36:01	0.178	-75.780	0.000	3.189	11.910	8.131	98.700%	0.009
3	15:36:21	0.125	-74.970	0.000	3.400	10.340	7.710	95.730%	-0.043
x		0.168	-75.330	0.000	3.107	10.310	7.689	98.418%	-0.027
σ		0.039	0.412	0.000	0.341	1.617	0.452	2.559%	0.031
%RSD		23.160	0.547	0.000	10.990	15.690	5.884	2.600	117.000
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:35:42	0.002	-0.033	0.041	-5.502	3.508	0.007	0.028	0.045
2	15:36:01	-0.015	-0.037	0.019	-3.760	2.737	0.004	0.026	0.029
3	15:36:21	0.030	-0.061	0.034	-4.943	4.153	0.002	-0.006	0.041
x		0.006	-0.044	0.031	-4.735	3.466	0.005	0.016	0.038
σ		0.023	0.015	0.012	0.889	0.709	0.003	0.019	0.008
%RSD		385.200	34.430	36.680	18.780	20.460	56.900	116.900	21.020
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:35:42	0.055	0.542	0.581	0.032	-0.104	0.376	0.000	0.019
2	15:36:01	0.012	0.673	0.661	0.053	-0.285	0.343	0.000	0.016
3	15:36:21	0.048	0.674	0.666	0.129	-0.024	0.521	0.000	0.011
x		0.038	0.629	0.636	0.071	-0.138	0.413	0.000	0.016
σ		0.023	0.076	0.048	0.051	0.134	0.095	0.000	0.004
%RSD		60.010	12.070	7.527	71.570	97.070	22.970	0.000	25.690
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:35:42	83.887%	0.215	0.154	85.553%	-0.017	-0.015	0.054	0.042
2	15:36:01	84.597%	0.380	0.349	85.198%	-0.022	-0.011	0.014	0.021
3	15:36:21	84.820%	0.372	0.366	85.710%	-0.013	-0.006	0.086	0.064
x		84.435%	0.322	0.290	85.487%	-0.017	-0.011	0.051	0.043
σ		0.487%	0.093	0.118	0.263%	0.005	0.005	0.036	0.022
%RSD		0.577	28.830	40.600	0.307	26.860	45.250	69.670	50.660
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:35:42	79.547%	0.037	0.608	0.618	0.003	0.039	78.195%	77.233%
2	15:36:01	80.857%	0.083	0.620	0.579	0.002	0.024	79.603%	79.407%
3	15:36:21	81.849%	0.074	0.670	0.622	0.019	0.026	80.094%	79.563%
x		80.751%	0.065	0.633	0.606	0.008	0.030	79.297%	78.734%
σ		1.155%	0.024	0.033	0.024	0.010	0.008	0.985%	1.303%
%RSD		1.430	37.600	5.181	3.910	121.000	26.730	1.242	1.654
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:35:42	0.023	0.024	0.014	0.008	0.008	78.387%		
2	15:36:01	0.021	0.029	0.010	0.012	0.011	78.104%		
3	15:36:21	0.015	0.026	0.014	0.011	0.011	77.130%		
x		0.020	0.027	0.012	0.010	0.010	77.873%		
σ		0.004	0.002	0.003	0.002	0.002	0.659%		
%RSD		19.410	8.981	20.510	19.730	17.640	0.847		

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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	15:39:32	76.453%	41.560	829.100	846.700	0.000	69700.000	49180.000	48280.000
2	15:39:51	69.169%	42.360	873.600	868.800	0.000	70540.000	50230.000	51090.000
3	15:40:10	66.277%	44.190	891.100	888.400	0.000	75280.000	51710.000	52090.000
x		70.633%	42.700	864.600	868.000	0.000	71840.000	50370.000	50490.000
σ		5.244%	1.349	31.940	20.840	0.000	3011.000	1267.000	1974.000
%RSD		7.424	3.158	3.694	2.401	0.000	4.192	2.515	3.910
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:39:32	1443.000	11530.000	0.000	43700.000	123100.000	129400.000	64.370%	859.100
2	15:39:51	1516.000	12160.000	0.000	44950.000	127300.000	131300.000	60.878%	900.000
3	15:40:10	1550.000	12500.000	0.000	45400.000	129200.000	132000.000	60.107%	878.800
x		1503.000	12060.000	0.000	44690.000	126500.000	130900.000	61.785%	879.300
σ		54.680	491.700	0.000	879.000	3113.000	1317.000	2.271%	20.450
%RSD		3.639	4.077	0.000	1.967	2.461	1.006	3.676	2.326
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:39:32	429.400	175.700	451.200	934.800	1335.000	436.500	426.800	215.100
2	15:39:51	453.100	181.200	456.100	941.100	1362.000	443.900	435.000	215.800
3	15:40:10	442.500	174.400	443.500	915.600	1317.000	422.900	420.700	208.000
x		441.700	177.100	450.300	930.500	1338.000	434.400	427.500	212.900
σ		11.890	3.625	6.335	13.250	22.610	10.680	7.183	4.293
%RSD		2.692	2.047	1.407	1.424	1.689	2.458	1.680	2.016
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:39:32	210.500	406.900	402.600	33.960	8.518	9.421	0.000	1022.000
2	15:39:51	214.000	412.000	412.500	32.530	8.445	9.408	0.000	1016.000
3	15:40:10	207.000	402.500	404.300	33.550	8.735	9.984	0.000	1017.000
x		210.500	407.100	406.500	33.350	8.566	9.604	0.000	1018.000
σ		3.479	4.789	5.254	0.736	0.151	0.329	0.000	3.175
%RSD		1.653	1.176	1.293	2.207	1.762	3.424	0.000	0.312
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:39:32	63.849%	953.500	978.700	63.856%	44.590	43.850	45.410	42.940
2	15:39:51	63.600%	962.800	982.800	62.655%	44.540	44.550	45.260	43.370
3	15:40:10	63.455%	959.200	984.300	63.329%	44.050	44.290	44.750	42.390
x		63.635%	958.500	981.900	63.280%	44.400	44.230	45.140	42.900
σ		0.199%	4.683	2.895	0.602%	0.298	0.353	0.346	0.492
%RSD		0.313	0.488	0.295	0.951	0.672	0.799	0.767	1.148
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:39:32	64.188%	1681.000	457.800	457.200	950.000	1720.000	76.237%	77.158%
2	15:39:51	65.159%	1661.000	455.700	452.900	947.000	1723.000	76.182%	77.415%
3	15:40:10	66.002%	1653.000	450.500	449.700	934.000	1694.000	77.438%	79.145%
x		65.116%	1665.000	454.600	453.300	943.600	1712.000	76.619%	77.906%
σ		0.908%	14.440	3.770	3.773	8.521	15.980	0.710%	1.081%
%RSD		1.394	0.867	0.829	0.832	0.903	0.933	0.926	1.387
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:39:32	48.410	52.100	21.100	20.670	21.070	68.596%		
2	15:39:51	48.760	52.680	21.020	20.720	21.190	70.369%		
3	15:40:10	50.200	54.240	21.830	21.170	21.820	69.112%		
x		49.120	53.010	21.320	20.850	21.360	69.359%		
σ		0.946	1.107	0.444	0.273	0.400	0.912%		
%RSD		1.925	2.088	2.083	1.310	1.871	1.314		

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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	15:43:18	74.090%	42.500	846.600	844.800	0.000	71350.000	50830.000	51640.000
2	15:43:37	64.840%	47.340	965.200	960.500	0.000	75190.000	54360.000	53650.000
3	15:43:57	63.869%	42.770	902.100	905.000	0.000	75900.000	52840.000	54300.000
x		67.599%	44.200	904.700	903.500	0.000	74140.000	52670.000	53190.000
σ		5.642%	2.719	59.340	57.900	0.000	2448.000	1771.000	1384.000
%RSD		8.346	6.152	6.559	6.409	0.000	3.301	3.363	2.602
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:43:18	1541.000	12390.000	0.000	44990.000	131000.000	133600.000	60.606%	889.900
2	15:43:37	1632.000	13230.000	0.000	46230.000	135100.000	136800.000	59.985%	906.100
3	15:43:57	1574.000	13220.000	0.000	47960.000	134700.000	136600.000	58.341%	928.700
x		1582.000	12950.000	0.000	46390.000	133600.000	135700.000	59.644%	908.200
σ		45.920	483.200	0.000	1492.000	2263.000	1815.000	1.171%	19.480
%RSD		2.902	3.733	0.000	3.217	1.693	1.338	1.963	2.144
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:43:18	447.300	181.100	464.800	957.000	1369.000	443.400	431.900	216.900
2	15:43:37	442.100	180.600	456.500	941.700	1335.000	445.100	435.500	214.800
3	15:43:57	458.900	181.800	467.700	971.100	1375.000	448.400	436.400	218.300
x		449.400	181.200	463.000	956.600	1359.000	445.600	434.600	216.600
σ		8.564	0.641	5.839	14.700	21.540	2.555	2.404	1.787
%RSD		1.906	0.354	1.261	1.536	1.585	0.573	0.553	0.825
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:43:18	214.800	417.200	414.600	34.090	9.086	9.653	0.000	1049.000
2	15:43:37	213.500	419.700	414.600	34.110	8.706	10.240	0.000	1029.000
3	15:43:57	217.000	421.800	419.400	33.800	9.238	9.846	0.000	1036.000
x		215.100	419.600	416.200	34.000	9.010	9.912	0.000	1038.000
σ		1.788	2.268	2.770	0.177	0.274	0.297	0.000	10.220
%RSD		0.831	0.541	0.665	0.520	3.038	2.999	0.000	0.985
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:43:18	61.349%	969.500	1010.000	61.695%	44.660	44.850	46.050	43.320
2	15:43:37	60.983%	982.900	1013.000	61.018%	45.200	45.120	45.860	43.690
3	15:43:57	60.654%	984.900	1021.000	60.852%	44.560	44.780	45.190	43.790
x		60.995%	979.100	1014.000	61.188%	44.800	44.920	45.700	43.600
σ		0.348%	8.357	5.485	0.446%	0.345	0.179	0.454	0.247
%RSD		0.571	0.854	0.541	0.729	0.770	0.399	0.993	0.565
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:43:18	61.886%	1706.000	463.300	461.300	974.300	1761.000	72.719%	73.838%
2	15:43:37	61.913%	1705.000	466.700	464.100	978.500	1776.000	72.903%	74.573%
3	15:43:57	62.396%	1701.000	460.100	461.200	977.000	1769.000	72.328%	74.435%
x		62.065%	1704.000	463.400	462.200	976.600	1768.000	72.650%	74.282%
σ		0.287%	3.004	3.278	1.663	2.139	7.441	0.293%	0.390%
%RSD		0.463	0.176	0.707	0.360	0.219	0.421	0.404	0.525
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:43:18	50.830	53.780	21.460	21.460	21.680	63.578%		
2	15:43:37	51.320	54.600	21.670	21.500	21.870	63.885%		
3	15:43:57	50.930	54.310	21.430	21.570	21.840	63.830%		
x		51.030	54.230	21.520	21.510	21.800	63.764%		
σ		0.258	0.415	0.128	0.054	0.107	0.164%		
%RSD		0.506	0.766	0.594	0.249	0.488	0.257		

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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	15:47:06	66.062%	46.060	930.200	891.700	0.000	73510.000	53040.000	52310.000
2	15:47:25	59.403%	43.740	880.800	879.100	0.000	72210.000	50290.000	52280.000
3	15:47:44	58.816%	44.870	871.400	864.100	0.000	72440.000	50950.000	51110.000
x		61.427%	44.890	894.100	878.300	0.000	72720.000	51430.000	51900.000
σ		4.025%	1.159	31.610	13.800	0.000	694.600	1435.000	680.700
%RSD		6.552	2.582	3.535	1.572	0.000	0.955	2.790	1.312

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:47:06	1602.000	12900.000	0.000	45840.000	131900.000	135600.000	56.139%	951.300
2	15:47:25	1600.000	12840.000	0.000	46160.000	129600.000	133200.000	56.195%	925.500
3	15:47:44	1614.000	12920.000	0.000	46250.000	133300.000	135800.000	53.114%	942.500
x		1605.000	12890.000	0.000	46080.000	131600.000	134900.000	55.149%	939.800
σ		7.533	42.110	0.000	212.600	1871.000	1429.000	1.763%	13.110
%RSD		0.469	0.327	0.000	0.461	1.422	1.060	3.197	1.395

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:47:06	463.000	188.200	497.800	1017.000	1418.000	459.400	460.800	225.800
2	15:47:25	462.900	184.100	483.700	991.200	1387.000	416.700	439.000	213.300
3	15:47:44	472.600	189.100	491.300	1006.000	1371.000	452.600	444.900	221.400
x		466.200	187.100	490.900	1004.000	1392.000	442.900	448.300	220.200
σ		5.570	2.643	7.069	12.740	23.970	22.930	11.290	6.322
%RSD		1.195	1.413	1.440	1.269	1.722	5.177	2.518	2.872

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:47:06	224.500	441.800	438.900	35.580	8.758	10.270	0.000	1066.000
2	15:47:25	213.800	428.400	430.300	34.890	9.679	10.220	0.000	1062.000
3	15:47:44	220.600	437.200	441.900	35.730	9.670	10.280	0.000	1066.000
x		219.600	435.800	437.000	35.400	9.369	10.260	0.000	1065.000
σ		5.407	6.808	5.996	0.447	0.529	0.029	0.000	2.227
%RSD		2.462	1.562	1.372	1.263	5.647	0.286	0.000	0.209

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:47:06	57.747%	1006.000	1051.000	57.545%	40.200	40.750	46.270	43.770
2	15:47:25	56.308%	1016.000	1067.000	57.176%	40.440	40.830	46.830	43.730
3	15:47:44	56.257%	1008.000	1062.000	56.633%	40.350	40.480	47.450	43.750
x		56.771%	1010.000	1060.000	57.118%	40.330	40.690	46.850	43.750
σ		0.846%	5.567	8.573	0.458%	0.123	0.180	0.587	0.018
%RSD		1.490	0.551	0.809	0.802	0.304	0.442	1.254	0.042

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:47:06	57.975%	1767.000	471.900	472.300	1829.000	1832.000	66.200%	65.994%
2	15:47:25	57.940%	1778.000	471.700	471.100	1037.000	1840.000	66.324%	66.987%
3	15:47:44	57.368%	1786.000	473.100	471.400	1038.000	1836.000	66.492%	66.851%
x		57.761%	1777.000	472.200	471.600	1302.000	1836.000	66.339%	66.611%
σ		0.341%	9.347	0.796	0.623	457.100	3.839	0.146%	0.538%
%RSD		0.590	0.526	0.169	0.132	35.120	0.209	0.221	0.808

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:47:06	53.800	56.570	22.190	21.840	22.230	52.766%
2	15:47:25	54.070	56.940	22.260	22.260	22.570	52.972%
3	15:47:44	54.620	57.530	22.550	22.410	22.690	51.828%
x		54.160	57.010	22.330	22.170	22.500	52.522%
σ		0.419	0.484	0.192	0.295	0.234	0.609%
%RSD		0.773	0.848	0.857	1.332	1.041	1.160

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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	15:50:53	67.277%	0.040	38.710	41.370	0.000	47620.000	15180.000	15660.000
2	15:51:12	62.216%	0.021	42.810	42.070	0.000	50560.000	15940.000	15850.000
3	15:51:31	63.542%	-0.005	44.280	41.840	0.000	49480.000	15600.000	15860.000
x		64.345%	0.019	41.930	41.760	0.000	49220.000	15570.000	15790.000
σ		2.624%	0.022	2.884	0.360	0.000	1485.000	383.100	112.000
%RSD		4.078	119.000	6.879	0.863	0.000	3.017	2.460	0.710

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:50:53	47.700	3495.000	0.000	4619.000	81180.000	83700.000	57.953%	1.470
2	15:51:12	53.300	3689.000	0.000	4650.000	81160.000	85160.000	56.276%	1.496
3	15:51:31	50.120	3535.000	0.000	4729.000	82640.000	83870.000	55.030%	1.955
x		50.370	3573.000	0.000	4666.000	81660.000	84250.000	56.419%	1.640
σ		2.809	102.300	0.000	56.730	850.400	797.500	1.467%	0.273
%RSD		5.576	2.862	0.000	1.216	1.041	0.947	2.600	16.660

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:50:53	0.358	5.907	8.670	287.600	506.800	0.334	0.250	2.818
2	15:51:12	0.492	5.980	8.822	291.000	507.500	0.301	0.157	2.837
3	15:51:31	-0.659	5.801	8.625	292.200	504.400	0.288	0.300	2.723
x		0.064	5.896	8.706	290.300	506.200	0.308	0.235	2.793
σ		0.629	0.090	0.103	2.388	1.645	0.024	0.073	0.061
%RSD		983.000	1.519	1.184	0.823	0.325	7.660	30.910	2.179

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:50:53	2.698	3.410	3.743	0.161	-0.216	0.797	0.000	197.100
2	15:51:12	2.445	3.370	3.468	0.454	-0.055	0.890	0.000	198.400
3	15:51:31	2.610	3.276	3.152	-0.010	-0.051	0.872	0.000	197.400
x		2.584	3.352	3.455	0.202	-0.107	0.853	0.000	197.600
σ		0.128	0.069	0.296	0.235	0.094	0.049	0.000	0.659
%RSD		4.957	2.049	8.559	116.300	87.560	5.747	0.000	0.333

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:50:53	58.912%	13.830	13.890	60.673%	0.461	0.471	0.043	0.030
2	15:51:12	58.823%	14.590	14.240	60.195%	0.443	0.467	0.030	0.023
3	15:51:31	58.690%	13.810	13.740	59.715%	0.454	0.470	0.003	0.007
x		58.808%	14.080	13.960	60.194%	0.453	0.469	0.025	0.020
σ		0.112%	0.445	0.257	0.479%	0.009	0.002	0.021	0.012
%RSD		0.190	3.163	1.839	0.796	1.982	0.474	81.110	59.000

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:50:53	60.935%	1.907	4.931	4.877	38.270	37.570	69.228%	69.922%
2	15:51:12	61.899%	1.853	4.498	4.456	37.600	37.710	71.099%	72.022%
3	15:51:31	61.926%	1.690	3.890	3.974	37.750	37.600	71.997%	73.326%
x		61.587%	1.817	4.440	4.436	37.870	37.630	70.775%	71.757%
σ		0.564%	0.113	0.523	0.452	0.349	0.069	1.412%	1.717%
%RSD		0.916	6.204	11.780	10.180	0.920	0.183	1.996	2.393

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:50:53	0.108	0.128	0.160	0.139	0.148	58.981%
2	15:51:12	0.106	0.121	0.166	0.147	0.147	60.308%
3	15:51:31	0.091	0.116	0.146	0.136	0.143	62.846%
x		0.102	0.122	0.157	0.141	0.146	60.711%
σ		0.009	0.006	0.011	0.006	0.003	1.964%
%RSD		8.811	4.860	6.699	4.041	1.836	3.234

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:54:41	65.629%	0.006	41.700	39.900	0.000	51270.000	15580.000	15640.000
2	15:55:00	61.637%	-0.016	38.990	41.070	0.000	50260.000	15530.000	15460.000
3	15:55:20	62.634%	0.021	35.940	43.370	0.000	51260.000	15850.000	15900.000
x		63.300%	0.004	38.880	41.440	0.000	50930.000	15650.000	15670.000
σ		2.077%	0.019	2.884	1.767	0.000	582.800	175.200	222.300
%RSD		3.282	516.000	7.418	4.263	0.000	1.144	1.119	1.419
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:54:41	50.550	3566.000	0.000	4690.000	82200.000	84180.000	55.907%	1.506
2	15:55:00	51.460	3451.000	0.000	4589.000	81200.000	84050.000	54.661%	1.717
3	15:55:20	55.610	3718.000	0.000	4832.000	82800.000	85030.000	53.385%	1.420
x		52.540	3578.000	0.000	4704.000	82060.000	84420.000	54.651%	1.548
σ		2.699	134.000	0.000	122.200	806.500	531.000	1.261%	0.153
%RSD		5.137	3.744	0.000	2.597	0.983	0.629	2.307	9.886
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:54:41	0.744	5.634	8.313	294.300	497.800	0.306	0.259	2.076
2	15:55:00	-0.442	5.625	8.504	297.400	510.100	0.282	0.230	2.013
3	15:55:20	0.508	5.582	8.469	292.000	497.100	0.284	0.147	2.095
x		0.270	5.614	8.429	294.600	501.700	0.291	0.212	2.061
σ		0.627	0.028	0.101	2.673	7.350	0.014	0.058	0.043
%RSD		232.200	0.496	1.203	0.907	1.465	4.688	27.480	2.066
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:54:41	1.935	2.333	2.364	0.005	-0.206	0.636	0.000	198.200
2	15:55:00	1.810	2.697	2.273	0.142	-0.473	0.675	0.000	199.500
3	15:55:20	1.994	2.395	2.213	-0.100	-0.479	0.632	0.000	198.000
x		1.913	2.475	2.283	0.016	-0.386	0.648	0.000	198.600
σ		0.094	0.195	0.076	0.121	0.156	0.024	0.000	0.816
%RSD		4.910	7.868	3.335	780.600	40.340	3.644	0.000	0.411
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:54:41	58.584%	9.562	9.456	60.254%	0.443	0.462	0.013	0.035
2	15:55:00	57.725%	9.516	9.823	59.394%	0.457	0.429	0.010	0.022
3	15:55:20	58.695%	9.555	9.758	59.705%	0.442	0.457	-0.020	-0.008
x		58.335%	9.544	9.679	59.785%	0.447	0.449	0.001	0.016
σ		0.531%	0.025	0.196	0.435%	0.008	0.018	0.018	0.022
%RSD		0.911	0.264	2.026	0.728	1.901	3.918	1440.000	136.300
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:54:41	60.816%	0.695	1.509	1.504	37.850	37.950	72.124%	73.513%
2	15:55:00	61.183%	0.725	1.424	1.425	37.900	37.510	72.736%	74.105%
3	15:55:20	61.576%	0.712	1.236	1.246	37.480	38.300	72.874%	75.082%
x		61.192%	0.711	1.390	1.392	37.740	37.920	72.578%	74.233%
σ		0.380%	0.015	0.140	0.132	0.228	0.397	0.399%	0.792%
%RSD		0.621	2.121	10.050	9.480	0.605	1.048	0.550	1.067
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:54:41	0.054	0.054	0.180	0.144	0.161	66.651%		
2	15:55:00	0.057	0.064	0.153	0.153	0.156	67.243%		
3	15:55:20	0.050	0.060	0.183	0.158	0.169	68.163%		
x		0.053	0.059	0.172	0.152	0.162	67.352%		
σ		0.003	0.005	0.017	0.007	0.007	0.762%		
%RSD		6.325	9.202	9.711	4.556	4.156	1.131		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:00:08	66.744%	-0.055	50.450	51.510	0.000	61300.000	14830.000	15010.000
2	16:00:27	65.623%	-0.006	50.370	50.550	0.000	60270.000	14550.000	14830.000
3	16:00:46	65.971%	-0.019	51.540	51.640	0.000	61310.000	14990.000	14840.000
x		66.113%	-0.027	50.790	51.230	0.000	60960.000	14790.000	14890.000
σ		0.573%	0.025	0.652	0.592	0.000	600.300	221.300	105.000
%RSD		0.867	94.680	1.283	1.156	0.000	0.985	1.497	0.705

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:00:08	24.390	4203.000	0.000	9280.000	58510.000	60040.000	59.847%	0.637
2	16:00:27	24.710	4138.000	0.000	9470.000	60610.000	62480.000	57.101%	0.895
3	16:00:46	25.030	4143.000	0.000	9249.000	59620.000	61830.000	55.234%	0.793
x		24.710	4161.000	0.000	9333.000	59580.000	61450.000	57.394%	0.775
σ		0.320	36.190	0.000	119.600	1051.000	1262.000	2.321%	0.130
%RSD		1.296	0.870	0.000	1.282	1.763	2.053	4.043	16.800

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:00:08	1.204	5.492	1.526	14.750	183.900	0.236	0.382	0.754
2	16:00:27	0.134	5.606	1.568	14.840	185.200	0.256	0.660	0.794
3	16:00:46	0.471	5.665	1.453	15.270	174.000	0.229	0.536	0.757
x		0.603	5.588	1.516	14.950	181.000	0.240	0.526	0.768
σ		0.547	0.088	0.058	0.278	6.123	0.014	0.139	0.022
%RSD		90.720	1.569	3.842	1.859	3.382	5.739	26.500	2.867

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:00:08	0.456	3.913	3.919	0.162	-0.513	0.663	0.000	152.200
2	16:00:27	0.430	4.021	3.666	-0.280	-0.267	0.936	0.000	156.500
3	16:00:46	0.459	4.050	3.950	0.214	-0.205	0.629	0.000	153.600
x		0.449	3.995	3.845	0.032	-0.328	0.743	0.000	154.100
σ		0.016	0.072	0.156	0.272	0.163	0.168	0.000	2.159
%RSD		3.524	1.800	4.052	846.300	49.660	22.620	0.000	1.401

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:00:08	60.932%	1.271	1.339	61.785%	-0.029	-0.018	0.004	0.005
2	16:00:27	59.522%	1.600	1.549	60.795%	-0.027	-0.014	-0.006	-0.014
3	16:00:46	59.702%	1.599	1.551	61.620%	-0.021	-0.019	0.015	0.012
x		60.052%	1.490	1.479	61.400%	-0.026	-0.017	0.004	0.001
σ		0.767%	0.190	0.122	0.531%	0.004	0.003	0.010	0.013
%RSD		1.278	12.720	8.243	0.864	15.810	16.050	232.400	1061.000

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:00:08	63.487%	0.457	0.991	0.957	38.280	39.300	74.683%	76.828%
2	16:00:27	62.983%	0.479	1.063	1.028	38.900	39.240	74.322%	76.485%
3	16:00:46	62.897%	0.415	1.012	0.965	38.330	37.720	75.088%	76.482%
x		63.122%	0.450	1.022	0.983	38.500	38.750	74.698%	76.598%
σ		0.319%	0.033	0.037	0.039	0.348	0.895	0.383%	0.199%
%RSD		0.505	7.254	3.617	3.955	0.903	2.309	0.513	0.260

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:00:08	0.039	0.048	0.100	0.096	0.093	72.359%
2	16:00:27	0.036	0.045	0.089	0.077	0.089	71.589%
3	16:00:46	0.040	0.040	0.096	0.082	0.092	69.846%
x		0.038	0.044	0.095	0.085	0.091	71.265%
σ		0.002	0.004	0.006	0.010	0.002	1.287%
%RSD		5.858	9.785	6.098	11.470	2.409	1.806

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:03:57	66.938%	0.028	46.590	48.960	0.000	34580.000	12970.000	13260.000
2	16:04:16	68.660%	-0.043	45.570	50.430	0.000	35460.000	12890.000	12580.000
3	16:04:35	65.829%	-0.007	51.390	50.080	0.000	34050.000	12730.000	12880.000
x		67.142%	-0.007	47.850	49.830	0.000	34700.000	12860.000	12910.000
σ		1.426%	0.036	3.107	0.769	0.000	710.700	123.900	341.300
%RSD		2.125	493.700	6.493	1.543	0.000	2.048	0.963	2.644

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:03:57	6.870	3392.000	0.000	4557.000	61540.000	63150.000	59.491%	0.481
2	16:04:16	6.605	3440.000	0.000	4512.000	61810.000	62760.000	58.902%	0.451
3	16:04:35	6.539	3404.000	0.000	4538.000	61240.000	63740.000	56.915%	0.395
x		6.672	3412.000	0.000	4536.000	61530.000	63220.000	58.436%	0.442
σ		0.175	25.150	0.000	22.380	287.700	495.400	1.350%	0.044
%RSD		2.625	0.737	0.000	0.493	0.468	0.784	2.310	9.946

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:03:57	-1.067	0.614	272.700	13.390	206.700	0.360	0.873	0.521
2	16:04:16	-0.888	0.742	274.300	10.720	191.300	0.364	0.735	0.593
3	16:04:35	-0.439	0.696	283.100	13.020	188.200	0.369	0.703	0.484
x		-0.798	0.684	276.700	12.380	195.400	0.364	0.770	0.533
σ		0.324	0.065	5.597	1.443	9.923	0.004	0.090	0.056
%RSD		40.530	9.449	2.023	11.660	5.079	1.224	11.730	10.430

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:03:57	0.374	3.964	4.143	0.124	-1.050	-0.072	0.000	167.100
2	16:04:16	0.407	3.978	4.049	0.063	-0.996	0.353	0.000	166.800
3	16:04:35	0.485	4.121	3.632	0.352	-0.851	0.139	0.000	167.000
x		0.422	4.021	3.942	0.180	-0.966	0.140	0.000	167.000
σ		0.057	0.087	0.272	0.153	0.103	0.212	0.000	0.147
%RSD		13.580	2.156	6.906	84.960	10.640	151.500	0.000	0.088

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:03:57	58.425%	0.441	0.362	59.985%	-0.020	-0.018	0.021	0.021
2	16:04:16	58.446%	0.535	0.524	60.355%	-0.025	-0.017	0.050	0.044
3	16:04:35	58.536%	0.556	0.644	60.082%	-0.023	-0.018	0.056	0.054
x		58.469%	0.511	0.510	60.141%	-0.023	-0.018	0.043	0.040
σ		0.059%	0.062	0.141	0.192%	0.003	0.001	0.019	0.017
%RSD		0.101	12.050	27.730	0.320	11.190	4.810	43.530	42.460

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:03:57	59.661%	0.258	0.587	0.573	36.300	36.820	68.098%	68.965%
2	16:04:16	60.198%	0.346	0.561	0.612	36.650	36.050	68.941%	69.030%
3	16:04:35	60.389%	0.358	0.570	0.591	35.670	36.040	69.382%	69.256%
x		60.083%	0.321	0.573	0.592	36.200	36.300	68.807%	69.083%
σ		0.377%	0.055	0.013	0.019	0.497	0.449	0.653%	0.153%
%RSD		0.628	17.110	2.320	3.285	1.373	1.236	0.948	0.221

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:03:57	0.034	0.044	0.054	0.053	0.057	59.648%
2	16:04:16	0.048	0.051	0.058	0.055	0.065	59.833%
3	16:04:35	0.039	0.052	0.061	0.061	0.062	58.761%
x		0.040	0.049	0.058	0.057	0.061	59.414%
σ		0.007	0.005	0.004	0.004	0.004	0.573%
%RSD		17.350	9.267	6.447	7.363	6.758	0.965

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:07:45	74.185%	-0.002	80.640	86.710	0.000	216400.000	26200.000	26330.000
2	16:08:05	74.163%	-0.002	88.010	89.260	0.000	213100.000	25860.000	26090.000
3	16:08:24	72.736%	-0.011	85.610	85.600	0.000	223700.000	26610.000	26040.000
x		73.695%	-0.005	84.750	87.190	0.000	217700.000	26220.000	26150.000
σ		0.830%	0.006	3.761	1.875	0.000	5406.000	376.000	155.100
%RSD		1.127	111.700	4.437	2.150	0.000	2.483	1.434	0.593
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:07:45	1.642	-17.770	0.000	7934.000	9883.000	10610.000	73.082%	0.051
2	16:08:05	2.026	-15.100	0.000	8053.000	10240.000	11080.000	71.029%	-0.050
3	16:08:24	2.027	-14.350	0.000	8141.000	10360.000	11270.000	67.528%	0.032
x		1.898	-15.740	0.000	8043.000	10160.000	10980.000	70.546%	0.011
σ		0.222	1.799	0.000	104.100	246.500	341.500	2.808%	0.054
%RSD		11.680	11.430	0.000	1.295	2.426	3.109	3.980	487.900
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:07:45	-0.029	0.266	105.400	-2.144	33.540	0.330	0.728	1.559
2	16:08:05	0.121	0.272	107.300	-2.555	33.520	0.266	0.676	1.486
3	16:08:24	0.054	0.291	113.200	0.078	38.840	0.344	0.824	1.577
x		0.049	0.276	108.700	-1.540	35.300	0.314	0.743	1.541
σ		0.075	0.013	4.045	1.416	3.068	0.042	0.075	0.048
%RSD		153.600	4.662	3.722	91.950	8.691	13.410	10.140	3.135
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:07:45	0.291	1.823	1.689	0.265	-0.535	1.148	0.000	162.400
2	16:08:05	0.279	1.814	1.667	0.320	-0.430	1.510	0.000	163.700
3	16:08:24	0.258	1.762	2.145	0.161	-0.381	1.340	0.000	166.600
x		0.276	1.799	1.833	0.248	-0.449	1.333	0.000	164.300
σ		0.017	0.033	0.270	0.081	0.078	0.181	0.000	2.155
%RSD		6.135	1.822	14.710	32.520	17.480	13.560	0.000	1.312
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:07:45	63.852%	0.307	0.268	63.879%	-0.025	-0.021	0.049	0.053
2	16:08:05	64.382%	0.390	0.424	63.884%	-0.025	-0.020	0.044	0.032
3	16:08:24	64.488%	0.498	0.449	64.006%	-0.024	-0.021	0.096	0.074
x		64.241%	0.398	0.380	63.923%	-0.025	-0.021	0.063	0.053
σ		0.341%	0.096	0.098	0.072%	0.001	0.001	0.029	0.021
%RSD		0.530	24.150	25.790	0.112	3.089	4.354	45.110	39.030
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:07:45	60.712%	-0.025	0.039	0.015	7.854	7.428	63.904%	63.202%
2	16:08:05	62.151%	-0.018	0.065	0.005	7.485	7.553	64.384%	63.077%
3	16:08:24	61.252%	-0.006	0.040	0.025	7.549	7.630	63.733%	63.422%
x		61.371%	-0.016	0.048	0.015	7.629	7.537	64.007%	63.234%
σ		0.727%	0.010	0.015	0.010	0.198	0.102	0.337%	0.175%
%RSD		1.185	60.650	30.570	67.090	2.589	1.351	0.527	0.277
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:07:45	0.012	0.015	0.030	0.031	0.030	51.207%		
2	16:08:05	0.018	0.015	0.026	0.031	0.032	47.383%		
3	16:08:24	0.017	0.022	0.032	0.026	0.029	45.551%		
x		0.016	0.017	0.029	0.029	0.030	48.047%		
σ		0.003	0.004	0.003	0.003	0.001	2.886%		
%RSD		20.280	23.700	9.810	10.860	3.785	6.007		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:11:34	75.947%	-0.003	75.970	76.130	0.000	200300.000	23950.000	24080.000
2	16:11:54	77.559%	0.006	74.100	81.060	0.000	201200.000	23420.000	23510.000
3	16:12:13	73.673%	-0.012	75.250	78.190	0.000	199300.000	23730.000	23850.000
x		75.726%	-0.003	75.110	78.460	0.000	200200.000	23700.000	23810.000
σ		1.952%	0.009	0.941	2.479	0.000	951.500	264.700	288.600
%RSD		2.578	316.800	1.252	3.159	0.000	0.475	1.117	1.212

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:11:34	0.120	-13.970	0.000	7259.000	9780.000	10340.000	72.950%	-0.066
2	16:11:54	0.163	-14.920	0.000	7317.000	9953.000	10420.000	71.390%	-0.080
3	16:12:13	0.063	-15.620	0.000	7296.000	9508.000	10600.000	72.007%	-0.081
x		0.115	-14.840	0.000	7291.000	9747.000	10450.000	72.116%	-0.076
σ		0.050	0.829	0.000	29.340	224.300	130.200	0.786%	0.008
%RSD		43.630	5.584	0.000	0.402	2.301	1.246	1.090	10.830

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:11:34	-0.002	0.113	320.000	-5.327	31.410	6.663	4.020	1.321
2	16:11:54	0.191	0.120	328.200	-5.178	31.350	6.510	4.007	1.354
3	16:12:13	-0.119	0.131	325.300	-4.065	31.750	6.701	4.108	1.481
x		0.023	0.121	324.500	-4.857	31.500	6.625	4.045	1.385
σ		0.157	0.009	4.179	0.689	0.210	0.101	0.055	0.084
%RSD		670.400	7.321	1.288	14.190	0.668	1.527	1.352	6.080

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:11:34	0.153	0.632	0.910	0.360	-0.385	1.317	0.000	154.600
2	16:11:54	0.138	0.612	0.957	0.152	-0.533	0.899	0.000	155.600
3	16:12:13	0.180	0.773	0.673	0.210	-0.465	0.985	0.000	156.000
x		0.157	0.672	0.847	0.241	-0.461	1.067	0.000	155.400
σ		0.021	0.088	0.153	0.107	0.074	0.221	0.000	0.678
%RSD		13.430	13.070	18.010	44.610	16.040	20.700	0.000	0.436

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:11:34	66.499%	-0.318	-0.316	66.243%	-0.026	-0.018	0.058	0.039
2	16:11:54	67.422%	-0.201	-0.290	67.063%	-0.025	-0.018	0.029	0.020
3	16:12:13	68.648%	-0.241	-0.273	68.619%	-0.026	-0.021	0.054	0.039
x		67.523%	-0.254	-0.293	67.308%	-0.026	-0.019	0.047	0.033
σ		1.078%	0.060	0.022	1.207%	0.001	0.002	0.016	0.011
%RSD		1.597	23.540	7.567	1.793	3.480	10.230	33.150	33.040

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:11:34	64.565%	-0.020	-0.027	-0.044	6.464	6.510	67.941%	67.245%
2	16:11:54	66.298%	-0.040	-0.033	-0.041	6.433	6.816	70.411%	70.759%
3	16:12:13	68.061%	-0.040	-0.029	-0.037	6.448	6.714	73.109%	72.875%
x		66.308%	-0.033	-0.030	-0.040	6.448	6.680	70.487%	70.293%
σ		1.748%	0.012	0.003	0.004	0.015	0.156	2.585%	2.844%
%RSD		2.636	35.130	10.280	8.712	0.238	2.332	3.667	4.045

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:11:34	0.014	0.010	0.029	0.022	0.024	56.124%
2	16:11:54	0.012	0.017	0.028	0.028	0.029	57.441%
3	16:12:13	0.014	0.014	0.035	0.027	0.028	59.777%
x		0.013	0.014	0.031	0.026	0.027	57.781%
σ		0.001	0.003	0.004	0.003	0.003	1.850%
%RSD		10.710	23.280	12.350	11.380	9.968	3.201

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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	16:15:23	82.644%	-0.026	76.320	81.870	0.000	193400.000	23210.000	22910.000
2	16:15:42	81.776%	-0.045	76.610	77.420	0.000	199700.000	23940.000	23490.000
3	16:16:01	79.022%	-0.055	79.210	78.780	0.000	197600.000	23280.000	23800.000
x		81.147%	-0.042	77.380	79.360	0.000	196900.000	23480.000	23400.000
σ		1.891%	0.015	1.592	2.284	0.000	3199.000	404.500	452.300
%RSD		2.330	34.550	2.057	2.879	0.000	1.625	1.723	1.933
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:15:23	-0.117	5.781	0.000	7395.000	9783.000	10580.000	80.067%	0.010
2	16:15:42	-0.103	8.221	0.000	7449.000	9785.000	10810.000	76.263%	-0.054
3	16:16:01	-0.058	8.216	0.000	7404.000	9949.000	10860.000	78.245%	-0.015
x		-0.093	7.406	0.000	7416.000	9839.000	10750.000	78.192%	-0.020
σ		0.031	1.407	0.000	28.820	95.100	147.100	1.902%	0.032
%RSD		33.290	19.000	0.000	0.389	0.967	1.368	2.433	165.800
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:15:23	-0.067	0.045	252.100	-0.221	36.440	2.222	1.865	1.341
2	16:15:42	0.183	0.033	251.700	-2.435	35.000	2.239	1.994	1.443
3	16:16:01	-0.043	0.055	257.400	-0.781	39.010	2.255	2.046	1.402
x		0.024	0.044	253.800	-1.146	36.820	2.239	1.968	1.396
σ		0.138	0.011	3.181	1.151	2.032	0.016	0.093	0.051
%RSD		563.600	23.930	1.253	100.500	5.519	0.732	4.736	3.676
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:15:23	0.203	1.252	1.452	0.065	-0.546	0.972	0.000	155.400
2	16:15:42	0.219	1.494	1.387	0.129	-0.806	0.809	0.000	155.000
3	16:16:01	0.210	1.489	1.265	0.231	-0.612	1.068	0.000	155.500
x		0.210	1.411	1.368	0.141	-0.655	0.949	0.000	155.300
σ		0.008	0.139	0.095	0.084	0.135	0.131	0.000	0.239
%RSD		3.691	9.810	6.946	59.250	20.610	13.790	0.000	0.154
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:15:23	70.946%	-0.388	-0.334	70.445%	-0.029	-0.021	-0.007	-0.000
2	16:15:42	71.394%	-0.346	-0.325	70.940%	-0.027	-0.021	0.045	0.027
3	16:16:01	72.334%	-0.229	-0.255	71.526%	-0.025	-0.019	0.093	0.073
x		71.558%	-0.321	-0.305	70.970%	-0.027	-0.020	0.044	0.033
σ		0.709%	0.083	0.043	0.541%	0.002	0.001	0.050	0.037
%RSD		0.990	25.740	14.080	0.762	7.606	5.081	115.300	111.400
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:15:23	69.905%	-0.069	-0.035	-0.038	10.230	10.050	75.305%	75.474%
2	16:15:42	70.870%	-0.068	-0.045	-0.049	10.280	10.290	76.833%	77.282%
3	16:16:01	72.138%	-0.054	-0.041	-0.034	10.150	10.260	78.159%	78.797%
x		70.971%	-0.064	-0.040	-0.040	10.220	10.200	76.766%	77.185%
σ		1.120%	0.008	0.005	0.008	0.066	0.133	1.428%	1.664%
%RSD		1.578	13.100	11.480	18.820	0.642	1.301	1.860	2.155
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:15:23	-0.000	0.004	0.020	0.030	0.030	68.245%		
2	16:15:42	0.003	0.007	0.030	0.026	0.029	67.246%		
3	16:16:01	0.006	0.004	0.045	0.033	0.036	67.955%		
x		0.003	0.005	0.031	0.030	0.032	67.815%		
σ		0.003	0.002	0.013	0.004	0.004	0.514%		
%RSD		107.000	37.130	40.110	11.750	12.060	0.758		

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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	16:18:59	99.189%	95.630	98.760	99.310	0.000	45170.000	45100.000	46520.000
2	16:19:18	96.839%	98.300	97.100	97.600	0.000	46410.000	46790.000	47080.000
3	16:19:37	103.082%	92.940	93.340	94.870	0.000	44950.000	45750.000	44700.000
x		99.703%	95.622%	96.398%	97.262%	0.000	91.020%	91.761%	92.197%
σ		3.153%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		3.163	2.804	2.883	2.301	0.000	1.727	1.850	2.700
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:18:59	523.900	4782.000	0.000	45890.000	44810.000	46500.000	92.347%	95.930
2	16:19:18	534.300	4872.000	0.000	48570.000	48070.000	48990.000	86.343%	99.050
3	16:19:37	518.100	4874.000	0.000	49220.000	48360.000	49170.000	84.403%	102.000
x		105.086%	96.854%	0.000	95.787%	94.159%	96.436%	87.698%	98.987%
σ		n/a	n/a	0.000	n/a	n/a	n/a	4.141%	n/a
%RSD		1.556	1.080	0.000	3.688	4.190	3.091	4.722	3.057
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:18:59	91.730	92.620	455.000	22900.000	22880.000	90.730	93.200	93.020
2	16:19:18	97.520	97.700	481.200	24350.000	23950.000	94.480	96.900	96.980
3	16:19:37	98.310	99.100	496.900	24740.000	24690.000	99.860	100.100	97.200
x		95.853%	96.474%	95.542%	95.972%	95.358%	95.025%	96.729%	95.733%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		3.749	3.533	4.427	4.037	3.811	4.827	3.566	2.457
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:18:59	91.720	88.520	88.490	93.250	96.520	96.460	0.000	93.820
2	16:19:18	94.490	93.830	94.160	95.640	97.720	97.330	0.000	95.740
3	16:19:37	98.710	94.390	95.370	96.770	99.630	98.100	0.000	96.130
x		94.974%	92.248%	92.672%	95.218%	97.960%	97.297%	0.000	95.230%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		3.702	3.517	3.962	1.887	1.601	0.842	0.000	1.298
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:18:59	79.760%	89.010	89.150	75.044%	96.650	96.200	97.740	98.870
2	16:19:18	79.590%	90.360	91.030	75.238%	96.840	98.800	99.900	101.000
3	16:19:37	81.046%	92.340	93.260	75.671%	97.580	98.800	100.300	101.200
x		80.132%	90.572%	91.145%	75.318%	97.022%	97.935%	99.321%	100.383%
σ		0.796%	n/a	n/a	0.321%	n/a	n/a	n/a	n/a
%RSD		0.994	1.847	2.256	0.427	0.510	1.532	1.392	1.307
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:18:59	69.818%	98.270	91.310	91.540	97.170	97.590	72.969%	78.578%
2	16:19:18	70.217%	99.380	92.250	91.890	97.450	98.510	74.414%	79.807%
3	16:19:37	70.193%	100.400	93.830	94.200	100.500	99.430	75.696%	81.502%
x		70.076%	99.336%	92.463%	92.544%	98.361%	98.511%	74.360%	79.962%
σ		0.224%	n/a	n/a	n/a	n/a	n/a	1.365%	1.468%
%RSD		0.319	1.048	1.376	1.561	1.855	0.935	1.835	1.836
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:18:59	96.270	102.800	99.310	97.770	99.720	74.529%		
2	16:19:18	99.610	106.900	102.100	101.300	103.200	74.174%		
3	16:19:37	100.800	108.200	104.500	103.100	105.000	74.085%		
x		98.886%	105.971%	101.988%	100.709%	102.637%	74.263%		
σ		n/a	n/a	n/a	n/a	n/a	0.235%		
%RSD		2.368	2.658	2.569	2.674	2.620	0.316		

CCB7 5/27/2015 4:25:27 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	16:25:46	122.647%	-0.035	1.452	1.596	0.000	6.727	2.990	3.859
2	16:26:05	112.411%	-0.012	1.420	1.766	0.000	6.030	3.097	3.673
3	16:26:24	109.468%	0.025	1.069	1.284	0.000	6.398	2.947	3.412
x		114.842%	-0.008	1.314	1.549	0.000	6.385	3.011	3.648
σ		6.918%	0.030	0.213	0.245	0.000	0.349	0.078	0.225
%RSD		6.024	397.300	16.190	15.790	0.000	5.465	2.575	6.159
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:25:46	0.068	-72.770	0.000	3.526	9.268	7.285	103.497%	-0.058
2	16:26:05	0.192	-73.380	0.000	4.192	7.812	7.780	99.979%	-0.003
3	16:26:24	0.086	-73.130	0.000	4.674	6.178	6.125	96.808%	0.034
x		0.116	-73.090	0.000	4.131	7.752	7.063	100.095%	-0.009
σ		0.067	0.308	0.000	0.576	1.546	0.849	3.346%	0.047
%RSD		57.990	0.421	0.000	13.950	19.940	12.020	3.343	525.600
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:25:46	-0.025	-0.050	0.049	-5.177	5.616	0.004	0.022	0.019
2	16:26:05	0.005	-0.033	0.039	-2.616	6.453	0.007	0.009	0.026
3	16:26:24	-0.018	-0.052	0.050	-3.845	5.502	0.007	0.016	0.034
x		-0.013	-0.045	0.046	-3.879	5.857	0.006	0.016	0.026
σ		0.016	0.010	0.006	1.281	0.519	0.001	0.007	0.007
%RSD		124.200	22.890	13.430	33.010	8.866	23.960	42.550	27.690
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:25:46	0.014	0.521	0.664	0.129	-0.377	0.505	0.000	0.017
2	16:26:05	0.061	0.586	0.563	0.194	-0.106	0.439	0.000	0.026
3	16:26:24	0.026	0.701	0.772	0.244	-0.240	0.703	0.000	0.016
x		0.034	0.603	0.666	0.189	-0.241	0.549	0.000	0.020
σ		0.024	0.091	0.104	0.058	0.136	0.137	0.000	0.006
%RSD		71.780	15.120	15.650	30.460	56.280	25.010	0.000	28.090
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:25:46	81.011%	0.349	0.246	81.199%	-0.012	-0.015	0.116	0.081
2	16:26:05	80.074%	0.566	0.538	78.743%	-0.019	-0.009	0.020	0.018
3	16:26:24	79.175%	0.676	0.580	78.379%	-0.011	-0.003	0.031	0.037
x		80.087%	0.530	0.455	79.440%	-0.014	-0.009	0.056	0.045
σ		0.918%	0.166	0.182	1.534%	0.005	0.006	0.053	0.033
%RSD		1.146	31.310	40.040	1.931	31.900	61.550	95.100	71.900
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:25:46	73.494%	0.045	0.773	0.793	0.012	0.026	69.491%	68.008%
2	16:26:05	72.857%	0.132	0.833	0.846	0.020	0.028	69.836%	67.909%
3	16:26:24	73.282%	0.158	0.837	0.805	0.020	0.024	69.343%	67.786%
x		73.211%	0.112	0.814	0.815	0.017	0.026	69.557%	67.901%
σ		0.325%	0.059	0.036	0.028	0.004	0.002	0.253%	0.111%
%RSD		0.443	52.750	4.410	3.443	25.560	8.327	0.363	0.164
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:25:46	0.032	0.033	0.010	0.007	0.011	62.680%		
2	16:26:05	0.026	0.038	0.002	0.012	0.012	60.739%		
3	16:26:24	0.031	0.034	0.012	0.021	0.013	58.824%		
x		0.030	0.035	0.008	0.013	0.012	60.747%		
σ		0.003	0.003	0.005	0.007	0.001	1.928%		
%RSD		10.580	8.316	67.130	50.200	9.630	3.174		

180-44387-Q-4-A @10 5/27/2015 4:29:17 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:29:36	104.616%	-0.032	4780.000	4295.000	0.000	19910.000	15030.000	14830.000
2	16:29:55	105.827%	-0.010	4978.000	4203.000	0.000	19850.000	15190.000	15190.000
3	16:30:14	103.861%	-0.039	4751.000	4172.000	0.000	19650.000	14930.000	14880.000
x		104.768%	-0.027	4837.000	4223.000	0.000	19800.000	15050.000	14970.000
σ		0.992%	0.015	123.700	63.990	0.000	134.000	134.300	195.100
%RSD		0.947	56.830	2.558	1.515	0.000	0.677	0.892	1.303

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:29:36	56.460	375.400	0.000	3307.000	165700.000	162500.000	95.244%	3.603
2	16:29:55	77.190	387.700	0.000	3371.000	171500.000	167200.000	94.098%	3.734
3	16:30:14	58.560	387.500	0.000	3410.000	170000.000	166800.000	92.693%	3.738
x		64.070	383.500	0.000	3363.000	169100.000	165500.000	94.012%	3.692
σ		11.410	7.016	0.000	51.740	3016.000	2623.000	1.278%	0.077
%RSD		17.810	1.829	0.000	1.539	1.784	1.585	1.359	2.090

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:29:36	2.488	0.070	29.730	84.070	774.200	0.454	2.938	1.260
2	16:29:55	2.355	0.122	30.130	83.710	736.400	0.427	2.934	1.292
3	16:30:14	2.429	0.090	30.290	84.820	725.900	0.437	2.762	1.377
x		2.424	0.094	30.050	84.200	745.500	0.439	2.878	1.310
σ		0.067	0.027	0.289	0.567	25.400	0.014	0.101	0.060
%RSD		2.743	28.440	0.962	0.673	3.407	3.088	3.499	4.593

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:29:36	1.500	4.091	4.084	2.940	0.843	14.280	0.000	316.500
2	16:29:55	1.454	4.084	4.068	2.949	1.016	14.250	0.000	318.100
3	16:30:14	1.539	4.041	4.389	3.107	0.658	13.840	0.000	317.300
x		1.498	4.072	4.180	2.999	0.839	14.120	0.000	317.300
σ		0.042	0.027	0.180	0.094	0.179	0.248	0.000	0.816
%RSD		2.831	0.661	4.317	3.138	21.320	1.757	0.000	0.257

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:29:36	75.425%	1.496	1.523	71.861%	-0.016	-0.010	0.178	0.153
2	16:29:55	76.433%	1.465	1.512	73.181%	-0.018	-0.011	0.169	0.168
3	16:30:14	78.014%	1.509	1.557	74.845%	-0.019	-0.012	0.174	0.157
x		76.624%	1.490	1.531	73.296%	-0.017	-0.011	0.173	0.159
σ		1.305%	0.022	0.023	1.496%	0.001	0.001	0.005	0.008
%RSD		1.703	1.505	1.519	2.040	8.301	10.810	2.666	4.979

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:29:36	66.994%	0.002	1.006	0.950	13.620	13.720	64.379%	63.103%
2	16:29:55	69.019%	0.046	1.186	1.127	13.890	13.730	67.432%	65.704%
3	16:30:14	70.781%	0.036	1.058	1.022	13.470	13.560	70.035%	68.281%
x		68.932%	0.028	1.083	1.033	13.660	13.670	67.282%	65.696%
σ		1.895%	0.023	0.093	0.089	0.211	0.094	2.831%	2.589%
%RSD		2.749	81.730	8.553	8.605	1.543	0.687	4.207	3.941

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:29:36	0.093	0.095	0.196	0.155	0.165	55.861%
2	16:29:55	0.096	0.108	0.190	0.151	0.170	57.615%
3	16:30:14	0.099	0.099	0.218	0.185	0.192	59.627%
x		0.096	0.101	0.201	0.164	0.176	57.701%
σ		0.003	0.007	0.015	0.018	0.014	1.884%
%RSD		2.823	6.657	7.354	11.190	8.039	3.266

180-43772-E-8-A @10 5/27/2015 4:33:03 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	16:33:23	96.050%	-0.014	92.140	93.520	0.000	207900.000	25130.000	25460.000
2	16:33:42	94.378%	0.029	91.040	92.200	0.000	211400.000	25240.000	25750.000
3	16:34:01	94.045%	-0.004	90.130	87.750	0.000	211200.000	25280.000	25300.000
x		94.824%	0.004	91.100	91.160	0.000	210200.000	25220.000	25500.000
σ		1.075%	0.022	1.002	3.024	0.000	1945.000	79.560	228.600
%RSD		1.133	619.500	1.100	3.317	0.000	0.925	0.316	0.896

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:33:23	-0.096	34.660	0.000	7984.000	9471.000	10380.000	90.069%	-0.051
2	16:33:42	-0.078	36.160	0.000	8106.000	9859.000	10680.000	87.553%	-0.000
3	16:34:01	-0.122	33.460	0.000	8203.000	9945.000	10710.000	85.015%	0.041
x		-0.099	34.760	0.000	8098.000	9758.000	10590.000	87.546%	-0.003
σ		0.022	1.354	0.000	110.200	252.500	179.900	2.527%	0.046
%RSD		22.320	3.894	0.000	1.360	2.588	1.699	2.887	1377.000

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:33:23	-0.103	0.015	69.630	-5.111	39.050	1.237	1.215	1.429
2	16:33:42	-0.063	0.050	72.170	-3.825	36.970	1.281	1.567	1.504
3	16:34:01	0.006	0.050	70.470	-3.862	34.790	1.218	1.296	1.501
x		-0.054	0.039	70.760	-4.266	36.940	1.245	1.359	1.478
σ		0.055	0.021	1.296	0.732	2.131	0.033	0.184	0.043
%RSD		103.000	53.370	1.832	17.160	5.768	2.611	13.560	2.893

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:33:23	0.244	0.485	0.363	0.334	-0.388	1.679	0.000	157.200
2	16:33:42	0.263	0.347	0.354	0.578	-0.087	1.348	0.000	163.900
3	16:34:01	0.258	0.259	0.228	0.356	-0.370	1.564	0.000	160.200
x		0.255	0.364	0.315	0.423	-0.282	1.530	0.000	160.400
σ		0.010	0.114	0.076	0.135	0.169	0.168	0.000	3.355
%RSD		3.828	31.370	24.010	31.920	59.850	10.990	0.000	2.091

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:33:23	76.325%	-0.069	-0.108	74.980%	-0.020	-0.016	0.070	0.047
2	16:33:42	76.023%	0.042	-0.009	74.558%	-0.020	-0.012	0.065	0.052
3	16:34:01	77.174%	-0.049	-0.068	75.884%	-0.021	-0.013	0.095	0.068
x		76.507%	-0.025	-0.062	75.141%	-0.020	-0.013	0.077	0.056
σ		0.597%	0.059	0.050	0.678%	0.001	0.002	0.016	0.011
%RSD		0.780	233.900	81.120	0.902	2.492	16.240	20.510	18.970

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:33:23	71.744%	-0.041	0.264	0.278	9.769	9.525	74.472%	74.441%
2	16:33:42	72.277%	0.011	0.323	0.324	9.362	9.460	75.433%	75.690%
3	16:34:01	73.206%	-0.024	0.279	0.255	9.779	9.343	77.612%	77.791%
x		72.409%	-0.018	0.289	0.286	9.636	9.443	75.839%	75.974%
σ		0.740%	0.027	0.031	0.035	0.238	0.092	1.609%	1.693%
%RSD		1.022	148.700	10.710	12.280	2.467	0.977	2.121	2.228

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:33:23	0.009	0.013	0.015	0.014	0.015	71.512%
2	16:33:42	0.007	0.013	0.018	0.023	0.018	67.913%
3	16:34:01	0.017	0.019	0.021	0.020	0.021	65.431%
x		0.011	0.015	0.018	0.019	0.018	68.286%
σ		0.005	0.004	0.003	0.005	0.003	3.058%
%RSD		45.950	23.660	16.670	23.430	15.830	4.478

180-43772-E-10-A @10 5/27/2015 4:36:51 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	16:37:10	93.746%	0.046	98.090	99.970	0.000	217500.000	26660.000	27170.000
2	16:37:29	94.140%	-0.038	96.390	98.510	0.000	218000.000	26580.000	27130.000
3	16:37:48	91.988%	-0.046	92.880	95.450	0.000	219400.000	26410.000	26470.000
x		93.292%	-0.013	95.790	97.980	0.000	218300.000	26550.000	26920.000
σ		1.146%	0.051	2.657	2.305	0.000	992.900	124.700	388.000
%RSD		1.228	397.900	2.774	2.352	0.000	0.455	0.470	1.441
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:37:10	0.053	22.970	0.000	8259.000	9668.000	10600.000	91.928%	-0.075
2	16:37:29	-0.029	21.290	0.000	8421.000	9883.000	10870.000	87.392%	-0.012
3	16:37:48	-0.038	21.770	0.000	8432.000	9881.000	10960.000	86.485%	-0.024
x		-0.004	22.010	0.000	8371.000	9811.000	10810.000	88.602%	-0.037
σ		0.050	0.867	0.000	96.920	123.400	184.800	2.916%	0.034
%RSD		1125.000	3.941	0.000	1.158	1.257	1.710	3.291	90.590
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:37:10	0.007	0.044	37.680	-6.858	35.540	0.503	0.316	1.462
2	16:37:29	-0.006	0.013	38.300	-5.215	35.000	0.531	0.501	1.576
3	16:37:48	0.014	0.033	39.430	-5.984	34.730	0.514	0.476	1.554
x		0.005	0.030	38.470	-6.019	35.090	0.516	0.431	1.531
σ		0.010	0.016	0.888	0.822	0.416	0.014	0.100	0.060
%RSD		194.300	52.030	2.309	13.660	1.185	2.687	23.290	3.938
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:37:10	0.195	1.788	1.541	0.268	-0.604	1.224	0.000	169.800
2	16:37:29	0.160	1.690	1.643	0.459	-0.573	1.620	0.000	171.500
3	16:37:48	0.158	1.595	1.621	0.104	-0.424	1.519	0.000	172.400
x		0.171	1.691	1.602	0.277	-0.534	1.455	0.000	171.200
σ		0.021	0.097	0.053	0.178	0.096	0.206	0.000	1.294
%RSD		12.240	5.709	3.337	64.180	17.960	14.150	0.000	0.756
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:37:10	76.732%	-0.212	-0.284	75.384%	-0.024	-0.014	0.089	0.067
2	16:37:29	77.720%	-0.218	-0.191	75.331%	-0.025	-0.018	0.028	0.024
3	16:37:48	78.241%	-0.138	-0.183	75.908%	-0.023	-0.025	0.081	0.054
x		77.564%	-0.189	-0.219	75.541%	-0.024	-0.019	0.066	0.049
σ		0.767%	0.044	0.056	0.319%	0.001	0.006	0.033	0.022
%RSD		0.988	23.490	25.490	0.422	3.903	29.740	50.710	45.630
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:37:10	73.903%	-0.088	0.169	0.142	5.115	5.071	77.596%	77.624%
2	16:37:29	74.290%	-0.068	0.198	0.173	5.150	4.885	78.986%	80.055%
3	16:37:48	75.293%	-0.066	0.156	0.145	5.010	5.277	79.198%	80.100%
x		74.495%	-0.074	0.174	0.153	5.092	5.078	78.593%	79.260%
σ		0.718%	0.012	0.021	0.017	0.073	0.196	0.870%	1.416%
%RSD		0.963	16.090	12.260	10.990	1.437	3.865	1.107	1.787
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:37:10	0.002	0.003	0.024	0.028	0.024	72.116%		
2	16:37:29	0.001	0.005	0.035	0.022	0.027	71.228%		
3	16:37:48	-0.003	0.007	0.032	0.025	0.027	69.855%		
x		-0.000	0.005	0.030	0.025	0.026	71.066%		
σ		0.003	0.002	0.006	0.003	0.002	1.139%		
%RSD		1760.000	45.540	18.800	11.940	7.657	1.603		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:40:58	106.307%	-0.055	20.360	21.940	0.000	43440.000	5287.000	5377.000
2	16:41:17	101.620%	0.007	22.400	22.080	0.000	46040.000	5712.000	5834.000
3	16:41:36	109.219%	0.003	21.350	20.990	0.000	44720.000	5378.000	5420.000
x		105.715%	-0.015	21.370	21.670	0.000	44730.000	5459.000	5544.000
σ		3.834%	0.035	1.023	0.590	0.000	1299.000	223.900	252.600
%RSD		3.626	237.100	4.785	2.724	0.000	2.903	4.101	4.557

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:40:58	0.155	-63.570	0.000	1663.000	1918.000	2120.000	98.461%	-0.078
2	16:41:17	0.313	-62.320	0.000	1791.000	2172.000	2266.000	94.211%	-0.088
3	16:41:36	0.281	-63.700	0.000	1719.000	2092.000	2230.000	94.308%	-0.042
x		0.250	-63.200	0.000	1724.000	2061.000	2206.000	95.660%	-0.069
σ		0.083	0.765	0.000	64.130	129.900	76.090	2.426%	0.024
%RSD		33.410	1.210	0.000	3.719	6.305	3.450	2.536	34.570

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:40:58	0.059	-0.017	7.814	-7.466	8.167	0.119	0.106	0.311
2	16:41:17	0.029	-0.008	7.946	-6.771	7.138	0.128	0.085	0.320
3	16:41:36	-0.036	0.012	8.053	-6.815	6.046	0.117	0.081	0.351
x		0.017	-0.004	7.938	-7.017	7.117	0.121	0.091	0.327
σ		0.049	0.015	0.120	0.389	1.061	0.006	0.013	0.021
%RSD		278.700	349.000	1.514	5.544	14.900	4.889	14.800	6.347

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:40:58	0.031	0.132	0.198	0.029	-0.653	0.294	0.000	33.650
2	16:41:17	0.040	0.198	0.267	0.141	-0.295	0.463	0.000	35.000
3	16:41:36	0.028	0.238	0.373	-0.061	-0.623	0.226	0.000	34.070
x		0.033	0.189	0.279	0.037	-0.524	0.328	0.000	34.240
σ		0.006	0.054	0.088	0.101	0.199	0.122	0.000	0.689
%RSD		18.940	28.270	31.490	276.300	37.890	37.230	0.000	2.012

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:40:58	81.734%	-0.479	-0.543	81.843%	-0.023	-0.020	0.088	0.066
2	16:41:17	79.794%	-0.421	-0.478	79.160%	-0.027	-0.017	0.135	0.099
3	16:41:36	82.444%	-0.469	-0.487	81.231%	-0.027	-0.020	0.062	0.044
x		81.324%	-0.457	-0.503	80.744%	-0.026	-0.019	0.095	0.070
σ		1.372%	0.031	0.035	1.406%	0.002	0.002	0.037	0.028
%RSD		1.687	6.821	7.047	1.741	8.638	10.620	38.760	39.800

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:40:58	78.459%	-0.125	0.079	0.042	0.928	0.999	79.032%	79.186%
2	16:41:17	76.633%	-0.097	0.081	0.077	1.143	1.076	78.618%	78.606%
3	16:41:36	78.414%	-0.130	0.093	0.084	0.992	1.023	79.960%	79.762%
x		77.835%	-0.117	0.084	0.068	1.021	1.033	79.203%	79.185%
σ		1.042%	0.018	0.007	0.023	0.111	0.040	0.687%	0.578%
%RSD		1.338	15.270	8.779	33.260	10.820	3.826	0.868	0.730

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:40:58	-0.003	-0.001	0.017	0.018	0.015	75.604%
2	16:41:17	-0.001	0.002	0.021	0.024	0.019	70.760%
3	16:41:36	-0.001	0.002	0.013	0.018	0.017	69.242%
x		-0.002	0.001	0.017	0.020	0.017	71.869%
σ		0.001	0.002	0.004	0.003	0.002	3.323%
%RSD		70.370	127.600	23.980	16.530	10.430	4.624

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:44:46	92.857%	4.879	188.000	183.700	0.000	220800.000	30830.000	31010.000
2	16:45:05	90.051%	4.862	179.100	183.000	0.000	219300.000	30460.000	31110.000
3	16:45:24	88.615%	4.700	172.100	177.700	0.000	216900.000	30450.000	31250.000
x		90.508%	4.814	179.700	181.400	0.000	219000.000	30580.000	31120.000
σ		2.158%	0.099	7.959	3.270	0.000	2015.000	217.400	120.300
%RSD		2.384	2.056	4.429	1.802	0.000	0.920	0.711	0.387

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:44:46	184.000	1010.000	0.000	12330.000	13700.000	14660.000	91.998%	85.560
2	16:45:05	193.400	1005.000	0.000	12650.000	14200.000	15160.000	86.506%	91.240
3	16:45:24	195.100	1020.000	0.000	12580.000	14160.000	15170.000	83.648%	90.400
x		190.800	1012.000	0.000	12520.000	14020.000	15000.000	87.384%	89.070
σ		6.012	7.205	0.000	168.900	275.600	295.800	4.244%	3.067
%RSD		3.150	0.712	0.000	1.349	1.966	1.972	4.856	3.444

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:44:46	42.160	16.400	80.170	86.760	141.900	42.990	44.040	22.970
2	16:45:05	43.650	17.300	83.170	90.880	143.400	43.570	43.760	23.370
3	16:45:24	44.280	17.280	84.820	92.090	149.300	44.070	44.660	23.830
x		43.370	16.990	82.720	89.910	144.800	43.540	44.160	23.390
σ		1.087	0.514	2.358	2.796	3.937	0.544	0.459	0.433
%RSD		2.506	3.025	2.850	3.109	2.718	1.248	1.040	1.851

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:44:46	21.890	41.990	42.400	3.980	0.352	2.458	0.000	253.300
2	16:45:05	22.220	43.730	43.100	3.790	0.928	2.487	0.000	255.800
3	16:45:24	22.130	43.580	41.580	3.988	0.763	2.349	0.000	254.000
x		22.080	43.100	42.360	3.919	0.681	2.432	0.000	254.400
σ		0.173	0.965	0.764	0.112	0.296	0.073	0.000	1.275
%RSD		0.782	2.238	1.803	2.866	43.530	2.990	0.000	0.501

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:44:46	72.006%	88.070	88.070	70.006%	4.293	4.208	4.464	4.178
2	16:45:05	71.699%	88.210	89.090	69.449%	4.266	4.333	4.405	4.027
3	16:45:24	72.284%	89.030	89.730	69.068%	4.330	4.287	4.567	3.864
x		71.996%	88.440	88.970	69.508%	4.296	4.276	4.479	4.023
σ		0.292%	0.518	0.836	0.472%	0.032	0.063	0.082	0.157
%RSD		0.406	0.586	0.939	0.679	0.745	1.477	1.824	3.893

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:44:46	66.412%	176.100	45.760	45.780	178.900	178.900	67.511%	66.947%
2	16:45:05	66.890%	176.800	45.870	45.850	178.500	179.700	68.542%	67.980%
3	16:45:24	67.268%	175.100	46.100	45.870	181.700	179.100	68.698%	67.840%
x		66.856%	176.000	45.910	45.830	179.700	179.200	68.250%	67.589%
σ		0.429%	0.874	0.174	0.046	1.730	0.407	0.645%	0.561%
%RSD		0.642	0.497	0.380	0.100	0.963	0.227	0.945	0.829

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:44:46	4.013	4.272	1.821	1.802	1.795	61.688%
2	16:45:05	4.439	4.642	1.919	1.866	1.908	56.793%
3	16:45:24	4.628	4.780	2.052	1.966	2.018	53.515%
x		4.360	4.565	1.931	1.878	1.907	57.332%
σ		0.315	0.262	0.116	0.082	0.112	4.113%
%RSD		7.228	5.749	5.986	4.382	5.856	7.174

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:48:34	84.716%	4.821	179.900	173.600	0.000	218300.000	30400.000	29940.000
2	16:48:53	83.878%	4.562	177.600	182.300	0.000	228800.000	31750.000	31290.000
3	16:49:12	83.131%	4.696	181.100	187.600	0.000	223600.000	31660.000	31890.000
x		83.909%	4.693	179.500	181.200	0.000	223600.000	31270.000	31040.000
σ		0.793%	0.130	1.812	7.056	0.000	5291.000	753.700	999.700
%RSD		0.945	2.765	1.009	3.895	0.000	2.367	2.410	3.220
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:48:34	180.500	942.900	0.000	11780.000	13480.000	14650.000	87.028%	86.620
2	16:48:53	193.100	1019.000	0.000	12620.000	14030.000	15320.000	81.830%	87.880
3	16:49:12	193.600	996.900	0.000	12660.000	14290.000	15670.000	79.574%	91.040
x		189.100	986.300	0.000	12350.000	13930.000	15210.000	82.811%	88.510
σ		7.441	39.250	0.000	498.500	415.800	519.400	3.823%	2.280
%RSD		3.935	3.979	0.000	4.036	2.984	3.414	4.616	2.576
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:48:34	41.240	16.760	85.360	87.500	140.100	42.920	43.350	22.920
2	16:48:53	43.010	17.370	87.500	87.250	142.700	44.200	43.760	23.490
3	16:49:12	43.640	17.240	87.940	91.190	142.300	43.770	43.690	23.820
x		42.630	17.120	86.940	88.650	141.700	43.630	43.600	23.410
σ		1.243	0.322	1.382	2.206	1.372	0.655	0.218	0.457
%RSD		2.917	1.878	1.590	2.488	0.968	1.502	0.500	1.951
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:48:34	21.910	42.710	43.360	4.160	0.570	2.616	0.000	263.200
2	16:48:53	22.060	43.260	43.710	4.113	0.449	2.563	0.000	260.800
3	16:49:12	22.380	44.140	44.190	3.742	0.750	2.120	0.000	256.800
x		22.120	43.370	43.760	4.005	0.590	2.433	0.000	260.300
σ		0.238	0.721	0.416	0.229	0.152	0.272	0.000	3.234
%RSD		1.075	1.663	0.951	5.720	25.730	11.180	0.000	1.243
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:48:34	67.840%	91.070	91.450	65.438%	4.323	4.282	4.509	4.118
2	16:48:53	68.663%	91.830	91.540	66.142%	4.156	4.255	4.587	4.007
3	16:49:12	69.571%	91.400	92.100	67.361%	4.362	4.366	4.557	3.901
x		68.691%	91.430	91.700	66.314%	4.280	4.301	4.551	4.009
σ		0.866%	0.380	0.350	0.973%	0.110	0.058	0.040	0.108
%RSD		1.261	0.416	0.382	1.467	2.558	1.345	0.869	2.696
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:48:34	61.680%	179.100	46.780	47.040	185.200	183.400	60.345%	59.436%
2	16:48:53	63.927%	177.600	46.790	46.300	179.400	179.500	63.277%	61.935%
3	16:49:12	64.799%	177.900	47.150	47.000	181.100	180.900	66.112%	64.851%
x		63.468%	178.200	46.910	46.780	181.900	181.300	63.245%	62.074%
σ		1.609%	0.799	0.209	0.419	2.967	1.990	2.884%	2.710%
%RSD		2.535	0.449	0.447	0.896	1.631	1.098	4.559	4.366
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:48:34	4.561	4.434	1.797	1.776	1.826	45.720%		
2	16:48:53	4.638	4.667	2.064	1.988	2.024	46.233%		
3	16:49:12	4.852	4.958	1.979	2.023	2.033	47.940%		
x		4.683	4.686	1.947	1.929	1.961	46.631%		
σ		0.150	0.263	0.137	0.134	0.117	1.162%		
%RSD		3.214	5.608	7.014	6.939	5.955	2.492		

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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	16:52:22	88.174%	4.805	176.400	175.000	0.000	206500.000	28950.000	29190.000
2	16:52:41	83.136%	4.716	176.200	176.800	0.000	216400.000	30290.000	29970.000
3	16:53:00	81.652%	4.537	179.600	180.900	0.000	214400.000	29790.000	29910.000
x		84.321%	4.686	177.400	177.600	0.000	212400.000	29680.000	29690.000
σ		3.418%	0.137	1.867	3.044	0.000	5226.000	678.800	430.900
%RSD		4.054	2.914	1.052	1.714	0.000	2.460	2.287	1.451
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:52:22	189.300	986.700	0.000	12180.000	13940.000	14840.000	81.268%	91.490
2	16:52:41	194.300	1012.000	0.000	12490.000	14250.000	15390.000	79.201%	93.880
3	16:53:00	196.400	1024.000	0.000	12350.000	14400.000	15220.000	79.035%	90.690
x		193.400	1007.000	0.000	12340.000	14200.000	15150.000	79.834%	92.020
σ		3.638	18.930	0.000	155.300	234.200	279.400	1.244%	1.656
%RSD		1.881	1.879	0.000	1.258	1.650	1.845	1.558	1.800
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:52:22	44.350	17.640	84.310	90.650	145.100	44.590	45.440	24.080
2	16:52:41	45.620	18.020	84.520	93.130	138.900	46.210	45.080	23.930
3	16:53:00	44.240	17.850	84.960	92.020	142.800	45.980	45.880	24.350
x		44.740	17.840	84.600	91.930	142.300	45.590	45.470	24.120
σ		0.764	0.194	0.332	1.244	3.133	0.875	0.403	0.212
%RSD		1.708	1.086	0.392	1.353	2.203	1.918	0.886	0.880
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:52:22	22.380	44.100	44.270	3.875	0.683	2.260	0.000	246.300
2	16:52:41	23.120	44.580	45.200	4.101	0.458	2.163	0.000	244.400
3	16:53:00	23.130	44.850	45.140	4.057	0.597	2.089	0.000	245.200
x		22.870	44.510	44.870	4.011	0.579	2.171	0.000	245.300
σ		0.432	0.379	0.518	0.120	0.114	0.086	0.000	0.965
%RSD		1.887	0.852	1.154	2.991	19.600	3.947	0.000	0.394
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:52:22	72.422%	94.220	94.890	70.449%	3.903	3.965	4.775	4.093
2	16:52:41	73.320%	95.270	97.330	70.652%	4.044	3.985	4.592	4.342
3	16:53:00	73.628%	97.240	98.420	70.988%	3.932	4.017	4.705	4.169
x		73.123%	95.580	96.880	70.696%	3.960	3.989	4.691	4.201
σ		0.627%	1.534	1.809	0.272%	0.074	0.026	0.092	0.127
%RSD		0.857	1.605	1.867	0.385	1.873	0.655	1.964	3.031
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:52:22	69.415%	183.600	41.840	41.750	183.300	182.400	74.139%	73.334%
2	16:52:41	71.115%	184.400	41.840	41.480	182.200	184.800	75.299%	75.483%
3	16:53:00	72.306%	182.900	42.280	41.590	183.800	184.100	77.262%	77.516%
x		70.945%	183.600	41.990	41.610	183.100	183.700	75.567%	75.444%
σ		1.453%	0.748	0.256	0.137	0.810	1.243	1.579%	2.092%
%RSD		2.048	0.407	0.609	0.329	0.442	0.677	2.089	2.773
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:52:22	4.626	4.933	1.959	1.908	1.959	69.443%		
2	16:52:41	4.998	5.200	2.120	2.032	2.097	67.669%		
3	16:53:00	5.165	5.375	2.188	2.093	2.169	67.405%		
x		4.929	5.169	2.089	2.011	2.075	68.172%		
σ		0.276	0.222	0.117	0.094	0.106	1.108%		
%RSD		5.595	4.300	5.620	4.692	5.129	1.626		

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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	16:59:07	90.461%	-0.028	2.043	2.118	0.000	32.330	2.096	2.171
2	16:59:26	82.501%	0.032	1.396	1.772	0.000	29.180	1.301	1.881
3	16:59:46	87.796%	-0.000	2.237	1.840	0.000	24.690	1.746	1.613
x		86.919%	0.001	1.892	1.910	0.000	28.740	1.715	1.888
σ		4.052%	0.030	0.440	0.183	0.000	3.838	0.398	0.279
%RSD		4.661	2428.000	23.270	9.592	0.000	13.350	23.220	14.770
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:59:07	1.835	-65.270	0.000	0.592	11.000	15.200	71.687%	0.142
2	16:59:26	1.699	-64.740	0.000	-0.039	11.550	14.420	69.286%	0.259
3	16:59:46	1.912	-65.880	0.000	-0.978	14.080	15.980	70.200%	0.194
x		1.815	-65.300	0.000	-0.142	12.210	15.200	70.391%	0.198
σ		0.108	0.573	0.000	0.790	1.646	0.780	1.212%	0.058
%RSD		5.929	0.878	0.000	557.000	13.480	5.129	1.722	29.390
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:59:07	-0.171	0.521	0.075	-6.670	1.126	0.009	0.151	0.122
2	16:59:26	-0.849	0.566	0.078	-6.771	-0.377	0.002	0.118	0.146
3	16:59:46	0.888	0.461	0.079	-9.768	-1.333	0.012	0.129	0.156
x		-0.044	0.516	0.077	-7.736	-0.195	0.008	0.133	0.141
σ		0.875	0.053	0.002	1.760	1.240	0.005	0.017	0.017
%RSD		1992.000	10.210	2.289	22.760	637.100	65.560	12.850	12.210
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:59:07	0.162	1.708	1.601	0.443	-1.015	1.312	0.000	0.052
2	16:59:26	0.104	1.610	1.759	-0.011	-0.928	1.276	0.000	0.035
3	16:59:46	0.149	1.419	1.491	0.323	-0.871	1.357	0.000	0.048
x		0.138	1.579	1.617	0.252	-0.938	1.315	0.000	0.045
σ		0.030	0.147	0.135	0.235	0.073	0.041	0.000	0.009
%RSD		21.830	9.303	8.338	93.260	7.751	3.104	0.000	20.030
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:59:07	70.324%	0.770	0.839	72.297%	-0.025	-0.011	0.071	0.046
2	16:59:26	68.638%	1.196	1.131	70.086%	-0.023	-0.013	-0.048	-0.029
3	16:59:46	68.050%	0.985	0.987	70.899%	-0.017	-0.017	0.015	0.004
x		69.004%	0.984	0.986	71.094%	-0.021	-0.014	0.013	0.007
σ		1.180%	0.213	0.146	1.119%	0.004	0.003	0.060	0.037
%RSD		1.711	21.620	14.820	1.573	19.090	23.350	463.300	531.100
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:59:07	70.906%	2.625	2.618	2.542	0.114	0.090	78.240%	79.043%
2	16:59:26	71.297%	2.363	2.347	2.363	0.084	0.108	79.376%	80.521%
3	16:59:46	71.350%	2.123	2.046	1.996	0.109	0.074	80.599%	81.119%
x		71.184%	2.370	2.337	2.300	0.102	0.091	79.405%	80.228%
σ		0.243%	0.251	0.286	0.278	0.016	0.017	1.180%	1.069%
%RSD		0.341	10.590	12.250	12.100	15.790	18.770	1.486	1.332
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:59:07	0.014	0.021	0.002	0.011	0.009	73.392%		
2	16:59:26	0.017	0.021	0.020	0.015	0.012	73.775%		
3	16:59:46	0.013	0.016	0.015	0.014	0.013	75.136%		
x		0.015	0.019	0.013	0.013	0.011	74.101%		
σ		0.002	0.003	0.009	0.002	0.002	0.917%		
%RSD		14.280	14.160	72.390	16.440	19.950	1.237		

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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	17:09:13	92.667%	-0.038	744.100	744.400	0.000	17070.000	2.986	3.767
2	17:09:32	89.036%	-0.002	742.000	767.300	0.000	17040.000	3.055	3.498
3	17:09:51	92.389%	-0.046	756.100	745.200	0.000	17000.000	3.259	3.209
x		91.364%	-0.028	747.400	752.300	0.000	17040.000	3.100	3.492
σ		2.021%	0.024	7.574	12.970	0.000	33.320	0.142	0.279
%RSD		2.212	83.050	1.013	1.725	0.000	0.196	4.579	7.988

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:09:13	1.394	466.000	0.000	17310.000	91.480	143.200	86.076%	2.589
2	17:09:32	1.410	414.700	0.000	17890.000	132.700	141.700	83.044%	2.668
3	17:09:51	1.234	390.200	0.000	17750.000	112.400	135.900	80.438%	2.540
x		1.346	423.600	0.000	17650.000	112.200	140.300	83.186%	2.599
σ		0.098	38.680	0.000	304.500	20.590	3.830	2.822%	0.065
%RSD		7.248	9.130	0.000	1.725	18.350	2.730	3.393	2.495

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:09:13	-4.297	-14.730	0.056	-10.220	1.145	0.016	0.057	1.317
2	17:09:32	-4.303	-14.680	0.070	-10.340	0.623	0.011	0.071	1.380
3	17:09:51	-4.507	-15.450	0.055	-9.836	-0.512	0.008	0.067	1.362
x		-4.369	-14.950	0.061	-10.130	0.419	0.012	0.065	1.353
σ		0.120	0.430	0.009	0.265	0.848	0.004	0.008	0.033
%RSD		2.738	2.874	14.200	2.617	202.400	32.240	11.700	2.411

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:09:13	1.228	16.020	16.480	0.779	-0.378	0.589	0.000	0.126
2	17:09:32	1.208	17.130	16.380	0.685	-0.531	0.502	0.000	0.153
3	17:09:51	1.311	16.730	17.560	0.702	-0.528	0.557	0.000	0.142
x		1.249	16.630	16.810	0.722	-0.479	0.549	0.000	0.140
σ		0.055	0.563	0.653	0.050	0.087	0.044	0.000	0.014
%RSD		4.367	3.384	3.885	6.962	18.230	8.043	0.000	9.858

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:09:13	71.088%	1716.000	3199.000	72.379%	-0.012	-0.005	0.597	0.387
2	17:09:32	71.486%	1727.000	3228.000	71.797%	-0.008	-0.007	0.669	0.377
3	17:09:51	71.847%	1724.000	3220.000	72.502%	-0.022	-0.013	0.576	0.479
x		71.474%	1722.000	3216.000	72.226%	-0.014	-0.009	0.614	0.414
σ		0.380%	5.738	15.020	0.376%	0.007	0.004	0.049	0.056
%RSD		0.531	0.333	0.467	0.521	52.150	51.160	7.932	13.610

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:09:13	68.648%	0.563	0.323	0.303	0.073	0.069	68.641%	68.093%
2	17:09:32	69.331%	0.678	0.373	0.378	0.125	0.069	71.575%	70.373%
3	17:09:51	70.411%	0.623	0.372	0.327	0.051	0.072	72.762%	72.096%
x		69.463%	0.622	0.356	0.336	0.083	0.070	70.993%	70.187%
σ		0.889%	0.058	0.029	0.038	0.038	0.002	2.121%	2.008%
%RSD		1.280	9.309	8.134	11.390	46.200	2.709	2.988	2.861

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:09:13	0.016	0.021	1.062	0.882	0.964	65.236%
2	17:09:32	0.019	0.020	1.115	1.008	1.059	63.604%
3	17:09:51	0.011	0.015	1.150	1.059	1.079	63.920%
x		0.015	0.018	1.109	0.983	1.034	64.253%
σ		0.004	0.003	0.044	0.091	0.061	0.865%
%RSD		24.770	15.010	3.994	9.250	5.930	1.347

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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	17:12:50	104.590%	95.670	99.430	97.730	0.000	44350.000	44930.000	45040.000
2	17:13:09	101.846%	94.910	102.400	101.600	0.000	46230.000	46590.000	47390.000
3	17:13:28	100.558%	98.990	102.000	104.400	0.000	46560.000	47010.000	46930.000
x		102.332%	96.522%	101.280%	101.249%	0.000	91.427%	92.353%	92.907%
σ		2.059%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		2.012	2.248	1.594	3.300	0.000	2.611	2.386	2.682
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:12:50	502.300	4738.000	0.000	45760.000	45070.000	45920.000	91.117%	96.280
2	17:13:09	531.400	4947.000	0.000	47830.000	47070.000	48420.000	86.337%	99.730
3	17:13:28	516.900	4845.000	0.000	48160.000	46760.000	47250.000	88.894%	97.160
x		103.376%	96.869%	0.000	94.499%	92.605%	94.393%	88.783%	97.726%
σ		n/a	n/a	0.000	n/a	n/a	n/a	2.392%	n/a
%RSD		2.817	2.153	0.000	2.756	2.321	2.644	2.694	1.835
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:12:50	92.430	93.430	469.600	23450.000	23460.000	93.210	94.840	92.660
2	17:13:09	97.400	96.430	486.300	24620.000	24360.000	95.450	95.980	95.720
3	17:13:28	93.240	92.630	471.200	23600.000	23780.000	94.370	96.240	96.620
x		94.357%	94.162%	95.138%	95.571%	95.456%	94.344%	95.683%	95.000%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		2.827	2.129	1.943	2.664	1.916	1.190	0.777	2.182
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:12:50	92.440	90.240	88.170	93.500	96.340	95.860	0.000	92.480
2	17:13:09	95.920	93.790	94.040	96.060	98.490	98.360	0.000	94.500
3	17:13:28	95.000	92.120	92.880	94.400	94.450	95.450	0.000	95.550
x		94.453%	92.049%	91.699%	94.653%	96.423%	96.556%	0.000	94.176%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.909	1.928	3.389	1.368	2.095	1.636	0.000	1.658
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:12:50	79.062%	115.600	118.200	73.363%	94.910	95.570	96.440	97.840
2	17:13:09	78.920%	119.400	120.900	73.454%	96.780	98.150	98.430	100.600
3	17:13:28	80.255%	118.300	120.600	74.631%	97.180	98.070	98.250	101.400
x		79.412%	117.730%	119.882%	73.816%	96.293%	97.262%	97.708%	99.938%
σ		0.733%	n/a	n/a	0.707%	n/a	n/a	n/a	n/a
%RSD		0.923	1.654	1.253	0.958	1.258	1.511	1.124	1.867
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:12:50	67.906%	96.560	90.940	90.430	95.790	96.580	68.667%	73.727%
2	17:13:09	67.080%	99.170	92.950	93.240	98.090	98.910	70.035%	75.319%
3	17:13:28	68.385%	99.050	93.400	92.990	98.190	99.130	71.609%	77.040%
x		67.790%	98.262%	92.432%	92.222%	97.360%	98.204%	70.104%	75.362%
σ		0.660%	n/a	n/a	n/a	n/a	n/a	1.472%	1.657%
%RSD		0.973	1.498	1.414	1.686	1.394	1.437	2.100	2.199
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:12:50	95.440	101.700	97.660	97.130	98.140	67.965%		
2	17:13:09	99.170	105.500	102.500	100.900	102.900	67.722%		
3	17:13:28	100.200	107.200	104.300	103.300	104.800	68.564%		
x		98.266%	104.824%	101.457%	100.468%	101.964%	68.084%		
σ		n/a	n/a	n/a	n/a	n/a	0.433%		
%RSD		2.543	2.675	3.364	3.114	3.380	0.636		

CCB8 5/27/2015 5:19:17 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:19:36	121.783%	0.004	2.090	1.977	0.000	6.877	3.318	3.496
2	17:19:56	114.099%	0.001	1.994	2.041	0.000	6.252	3.301	3.358
3	17:20:15	116.335%	-0.000	2.137	1.510	0.000	6.651	3.446	3.554
x		117.406%	0.001	2.073	1.842	0.000	6.593	3.355	3.469
σ		3.952%	0.002	0.073	0.290	0.000	0.317	0.079	0.101
%RSD		3.366	150.700	3.520	15.720	0.000	4.801	2.366	2.909
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:19:36	0.154	-69.690	0.000	2.979	11.230	6.601	102.937%	-0.069
2	17:19:56	0.161	-68.570	0.000	3.082	3.719	7.539	102.527%	-0.079
3	17:20:15	0.158	-67.460	0.000	3.599	4.651	8.329	102.678%	-0.058
x		0.158	-68.580	0.000	3.220	6.534	7.490	102.714%	-0.068
σ		0.004	1.114	0.000	0.332	4.094	0.865	0.207%	0.010
%RSD		2.243	1.624	0.000	10.310	62.660	11.550	0.202	15.260
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:19:36	-0.000	-0.050	0.042	-2.525	5.378	0.005	0.027	0.040
2	17:19:56	0.012	-0.036	0.041	-4.767	4.121	0.008	0.019	0.037
3	17:20:15	-0.010	-0.032	0.035	-3.276	4.640	0.007	0.033	0.031
x		0.001	-0.039	0.040	-3.522	4.713	0.006	0.026	0.036
σ		0.011	0.009	0.004	1.141	0.632	0.001	0.007	0.005
%RSD		2162.000	23.070	9.735	32.400	13.400	23.070	26.890	13.730
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:19:36	0.029	0.587	0.585	0.054	-0.296	0.341	0.000	0.014
2	17:19:56	0.057	0.672	0.556	0.093	-0.226	0.545	0.000	0.021
3	17:20:15	0.045	0.496	0.695	0.180	0.088	0.629	0.000	0.013
x		0.044	0.585	0.612	0.109	-0.145	0.505	0.000	0.016
σ		0.014	0.088	0.073	0.064	0.204	0.148	0.000	0.004
%RSD		32.040	15.110	11.980	58.970	141.200	29.300	0.000	28.140
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:19:36	84.915%	2.784	2.795	85.324%	-0.017	-0.006	0.080	0.064
2	17:19:56	86.089%	3.423	3.367	85.913%	-0.021	-0.015	0.077	0.044
3	17:20:15	85.904%	3.551	3.553	85.982%	-0.009	-0.014	0.062	0.033
x		85.636%	3.253	3.238	85.740%	-0.016	-0.012	0.073	0.047
σ		0.631%	0.411	0.395	0.361%	0.006	0.005	0.010	0.016
%RSD		0.737	12.620	12.200	0.421	38.030	43.080	13.410	34.000
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:19:36	87.559%	0.041	0.679	0.639	-0.002	0.025	77.786%	77.862%
2	17:19:56	88.992%	0.101	0.705	0.649	0.037	0.012	79.979%	79.151%
3	17:20:15	89.445%	0.098	0.738	0.647	0.027	0.008	79.804%	79.055%
x		88.666%	0.080	0.707	0.645	0.021	0.015	79.190%	78.689%
σ		0.984%	0.034	0.030	0.005	0.020	0.009	1.219%	0.718%
%RSD		1.110	42.640	4.188	0.783	96.820	61.930	1.539	0.912
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:19:36	0.025	0.019	0.009	0.018	0.011	78.496%		
2	17:19:56	0.017	0.022	0.017	0.002	0.012	77.285%		
3	17:20:15	0.017	0.019	0.015	0.007	0.012	76.910%		
x		0.019	0.020	0.014	0.009	0.012	77.564%		
σ		0.005	0.002	0.004	0.008	0.000	0.829%		
%RSD		23.500	8.684	27.670	88.230	4.173	1.068		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:23:27	118.707%	-0.008	1.788	1.283	0.000	13.560	3.061	4.477
2	17:23:47	117.956%	-0.007	1.275	1.260	0.000	13.060	3.646	3.978
3	17:24:06	114.632%	-0.006	1.454	1.418	0.000	13.090	4.070	4.230
x		117.099%	-0.007	1.506	1.320	0.000	13.240	3.592	4.228
σ		2.169%	0.001	0.261	0.085	0.000	0.281	0.507	0.250
%RSD		1.852	12.240	17.300	6.462	0.000	2.119	14.100	5.901
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:23:27	4.455	-78.610	0.000	3.891	9.873	12.110	98.893%	0.075
2	17:23:47	4.044	-78.710	0.000	3.748	5.104	11.340	97.226%	0.067
3	17:24:06	4.207	-78.720	0.000	3.736	8.280	10.900	95.869%	0.058
x		4.235	-78.680	0.000	3.792	7.752	11.450	97.329%	0.067
σ		0.207	0.059	0.000	0.087	2.428	0.614	1.515%	0.009
%RSD		4.885	0.075	0.000	2.282	31.320	5.361	1.556	12.860
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:23:27	0.066	-0.006	0.257	-0.073	9.584	0.019	0.036	0.041
2	17:23:47	-0.017	0.003	0.275	0.729	9.217	0.014	0.040	0.062
3	17:24:06	-0.014	-0.019	0.240	0.200	9.521	0.011	0.043	0.050
x		0.012	-0.007	0.257	0.285	9.441	0.014	0.040	0.051
σ		0.047	0.011	0.017	0.407	0.196	0.004	0.003	0.011
%RSD		389.400	142.100	6.757	142.800	2.076	26.030	8.469	21.260
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:23:27	0.067	0.483	0.514	-0.000	-0.771	0.153	0.000	0.038
2	17:23:47	0.085	0.541	0.654	0.008	-0.519	0.140	0.000	0.041
3	17:24:06	0.052	0.578	0.388	0.047	-0.533	0.208	0.000	0.038
x		0.068	0.534	0.519	0.018	-0.608	0.167	0.000	0.039
σ		0.017	0.048	0.133	0.025	0.142	0.036	0.000	0.001
%RSD		24.450	8.979	25.720	138.500	23.340	21.540	0.000	3.275
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:23:27	78.027%	1.394	1.536	78.005%	-0.001	0.010	0.074	0.084
2	17:23:47	78.554%	1.947	1.966	78.423%	-0.005	0.008	0.142	0.106
3	17:24:06	79.649%	2.091	2.063	78.730%	0.001	0.018	0.114	0.089
x		78.743%	1.811	1.855	78.386%	-0.002	0.012	0.110	0.093
σ		0.827%	0.368	0.281	0.364%	0.003	0.005	0.034	0.011
%RSD		1.051	20.310	15.130	0.464	163.600	42.550	31.210	12.150
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:23:27	71.358%	1.578	0.644	0.674	0.044	0.082	69.915%	68.785%
2	17:23:47	72.725%	1.742	0.704	0.696	0.088	0.074	71.567%	69.978%
3	17:24:06	72.312%	1.731	0.662	0.696	0.066	0.077	70.377%	69.924%
x		72.132%	1.684	0.670	0.689	0.066	0.077	70.620%	69.563%
σ		0.701%	0.092	0.031	0.013	0.022	0.004	0.852%	0.674%
%RSD		0.972	5.455	4.568	1.849	33.550	5.494	1.207	0.969
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:23:27	0.009	0.009	0.028	0.042	0.033	73.352%		
2	17:23:47	0.009	0.011	0.047	0.037	0.041	68.099%		
3	17:24:06	0.013	0.013	0.037	0.051	0.046	64.095%		
x		0.010	0.011	0.037	0.043	0.040	68.515%		
σ		0.003	0.002	0.010	0.007	0.007	4.642%		
%RSD		25.640	16.900	25.540	17.180	16.380	6.776		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:27:16	75.412%	47.090	952.500	943.300	0.000	43500.000	43500.000	44200.000
2	17:27:35	68.436%	46.270	938.000	927.000	0.000	42100.000	42310.000	43320.000
3	17:27:55	63.438%	47.450	904.900	910.500	0.000	42750.000	44380.000	43600.000
x		69.095%	46.940	931.800	927.000	0.000	42790.000	43400.000	43710.000
σ		6.014%	0.606	24.420	16.380	0.000	698.700	1039.000	450.400
%RSD		8.704	1.291	2.621	1.767	0.000	1.633	2.395	1.030

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:27:16	1740.000	7175.000	0.000	46880.000	48600.000	49610.000	61.384%	1030.000
2	17:27:35	1704.000	6996.000	0.000	46440.000	47100.000	48700.000	58.156%	1008.000
3	17:27:55	1750.000	7173.000	0.000	45260.000	46110.000	48270.000	58.288%	1003.000
x		1731.000	7115.000	0.000	46200.000	47270.000	48860.000	59.276%	1014.000
σ		24.030	102.800	0.000	837.900	1252.000	685.500	1.827%	14.100
%RSD		1.388	1.445	0.000	1.814	2.648	1.403	3.082	1.391

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:27:16	509.100	202.700	523.400	1063.000	1221.000	452.500	482.000	242.900
2	17:27:35	501.700	196.600	523.800	1066.000	1261.000	508.500	494.400	245.800
3	17:27:55	486.900	193.900	511.900	1020.000	1187.000	483.600	481.700	231.600
x		499.200	197.700	519.700	1049.000	1223.000	481.500	486.000	240.100
σ		11.290	4.494	6.760	25.640	37.370	28.070	7.244	7.508
%RSD		2.262	2.273	1.301	2.443	3.056	5.830	1.491	3.127

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:27:16	237.500	438.300	435.200	35.690	8.352	10.280	0.000	937.000
2	17:27:35	241.200	440.100	442.200	34.670	9.242	9.826	0.000	934.100
3	17:27:55	233.900	432.300	433.400	33.880	8.576	9.614	0.000	935.600
x		237.500	436.900	436.900	34.750	8.723	9.905	0.000	935.600
σ		3.675	4.100	4.641	0.907	0.463	0.339	0.000	1.408
%RSD		1.547	0.939	1.062	2.609	5.305	3.421	0.000	0.150

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:27:16	56.090%	1029.000	1071.000	60.263%	42.940	42.440	40.800	37.210
2	17:27:35	54.975%	1033.000	1070.000	59.511%	42.640	41.740	40.670	37.740
3	17:27:55	54.482%	1027.000	1076.000	59.611%	42.300	41.560	40.340	36.930
x		55.183%	1030.000	1072.000	59.795%	42.630	41.910	40.600	37.290
σ		0.824%	3.012	2.817	0.408%	0.322	0.466	0.235	0.410
%RSD		1.493	0.292	0.263	0.682	0.756	1.111	0.579	1.100

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:27:16	63.956%	1601.000	411.100	413.400	946.200	1663.000	62.566%	61.874%
2	17:27:35	64.553%	1578.000	411.700	413.900	1625.000	1659.000	63.470%	61.962%
3	17:27:55	65.013%	1580.000	408.700	410.000	1621.000	1638.000	63.210%	62.102%
x		64.507%	1587.000	410.500	412.500	1398.000	1653.000	63.082%	61.979%
σ		0.530%	12.640	1.616	2.114	390.900	13.700	0.465%	0.115%
%RSD		0.821	0.797	0.394	0.512	27.970	0.829	0.738	0.185

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:27:16	53.190	54.250	21.400	21.550	21.860	41.142%
2	17:27:35	53.030	54.270	21.480	21.340	21.810	41.168%
3	17:27:55	53.240	53.960	21.540	20.860	21.550	41.136%
x		53.150	54.160	21.470	21.250	21.740	41.149%
σ		0.112	0.173	0.069	0.354	0.168	0.017%
%RSD		0.211	0.319	0.320	1.668	0.772	0.041

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:31:04	82.319%	-0.017	74.020	78.250	0.000	193300.000	22610.000	22550.000
2	17:31:24	81.706%	-0.026	75.470	79.560	0.000	196600.000	23510.000	23700.000
3	17:31:43	82.126%	-0.016	74.500	78.430	0.000	199000.000	23860.000	23810.000
x		82.051%	-0.020	74.660	78.740	0.000	196300.000	23330.000	23350.000
σ		0.314%	0.005	0.739	0.710	0.000	2877.000	641.900	699.700
%RSD		0.382	27.710	0.989	0.902	0.000	1.466	2.752	2.996

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:31:04	0.070	9.720	0.000	7086.000	9378.000	10360.000	79.354%	0.052
2	17:31:24	-0.060	14.590	0.000	7468.000	9930.000	10700.000	75.438%	0.131
3	17:31:43	0.067	18.660	0.000	7607.000	10270.000	10960.000	75.002%	0.189
x		0.026	14.320	0.000	7387.000	9859.000	10670.000	76.598%	0.124
σ		0.074	4.474	0.000	269.800	449.600	300.000	2.397%	0.069
%RSD		289.800	31.240	0.000	3.652	4.560	2.810	3.129	55.660

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:31:04	0.017	0.021	246.300	-4.351	38.810	2.207	1.864	1.356
2	17:31:24	-0.225	0.012	252.600	-3.937	32.170	2.268	1.943	1.339
3	17:31:43	0.022	0.018	258.400	-3.875	35.350	2.227	1.903	1.430
x		-0.062	0.017	252.400	-4.055	35.450	2.234	1.903	1.375
σ		0.141	0.005	6.048	0.259	3.321	0.031	0.039	0.049
%RSD		228.400	26.830	2.396	6.376	9.369	1.392	2.071	3.532

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:31:04	0.216	1.382	1.296	0.176	-0.404	0.913	0.000	149.300
2	17:31:24	0.161	1.372	1.319	0.299	-0.758	1.368	0.000	152.800
3	17:31:43	0.182	1.305	1.367	0.613	-0.498	1.212	0.000	153.300
x		0.186	1.353	1.327	0.362	-0.553	1.164	0.000	151.800
σ		0.028	0.042	0.036	0.225	0.183	0.231	0.000	2.215
%RSD		14.830	3.079	2.749	62.090	33.160	19.850	0.000	1.459

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:31:04	0.000	3.483	3.386	68.956%	-0.024	-0.018	0.037	0.032
2	17:31:24	0.000	3.668	3.708	69.105%	-0.024	-0.011	0.024	0.024
3	17:31:43	0.000	3.633	3.569	69.804%	-0.009	-0.017	-0.013	-0.014
x		0.000	3.595	3.554	69.288%	-0.019	-0.015	0.016	0.014
σ		0.000	0.098	0.162	0.452%	0.009	0.004	0.026	0.025
%RSD		0.000	2.732	4.549	0.653	46.530	22.700	164.800	178.800

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:31:04	73.624%	1.027	0.157	0.162	10.170	9.863	71.669%	71.819%
2	17:31:24	74.899%	1.151	0.176	0.175	9.818	10.020	73.142%	73.244%
3	17:31:43	76.419%	0.949	0.155	0.147	9.797	9.799	75.149%	75.390%
x		74.980%	1.042	0.163	0.162	9.928	9.895	73.320%	73.484%
σ		1.399%	0.102	0.012	0.014	0.209	0.115	1.746%	1.798%
%RSD		1.866	9.783	7.171	8.615	2.101	1.164	2.382	2.447

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:31:04	0.132	0.136	0.031	0.022	0.027	66.474%
2	17:31:24	0.088	0.095	0.035	0.031	0.031	65.520%
3	17:31:43	0.085	0.088	0.033	0.032	0.029	65.371%
x		0.102	0.106	0.033	0.028	0.029	65.788%
σ		0.026	0.026	0.002	0.006	0.002	0.598%
%RSD		25.920	23.990	6.432	20.270	5.852	0.909

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:34:52	97.499%	0.002	4624.000	3930.000	0.000	19200.000	14360.000	14390.000
2	17:35:11	93.545%	0.013	4700.000	4038.000	0.000	19550.000	15030.000	14950.000
3	17:35:30	100.456%	-0.023	4691.000	3973.000	0.000	19450.000	14350.000	14310.000
x		97.167%	-0.003	4672.000	3980.000	0.000	19400.000	14580.000	14550.000
σ		3.468%	0.018	41.530	54.240	0.000	178.200	388.900	351.200
%RSD		3.569	620.600	0.889	1.363	0.000	0.918	2.667	2.414
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:34:52	56.710	371.100	0.000	3311.000	160500.000	165600.000	91.653%	3.871
2	17:35:11	59.400	406.400	0.000	3417.000	164800.000	171400.000	89.969%	3.295
3	17:35:30	58.590	381.200	0.000	3358.000	163200.000	168400.000	89.698%	3.494
x		58.240	386.200	0.000	3362.000	162800.000	168400.000	90.440%	3.553
σ		1.378	18.190	0.000	52.960	2188.000	2900.000	1.059%	0.293
%RSD		2.366	4.710	0.000	1.575	1.344	1.722	1.171	8.240
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:34:52	2.388	0.117	29.740	80.150	661.700	0.391	2.950	1.259
2	17:35:11	2.489	0.133	30.570	87.670	663.100	0.410	2.971	1.298
3	17:35:30	2.571	0.134	30.410	82.440	628.500	0.373	2.772	1.346
x		2.482	0.128	30.240	83.420	651.100	0.391	2.898	1.301
σ		0.092	0.009	0.443	3.856	19.570	0.018	0.109	0.044
%RSD		3.699	7.400	1.464	4.622	3.006	4.723	3.774	3.349
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:34:52	1.403	4.063	3.877	3.124	0.355	14.360	0.000	311.000
2	17:35:11	1.476	3.749	3.671	2.995	0.560	13.570	0.000	305.100
3	17:35:30	1.327	4.001	3.928	2.838	0.627	13.260	0.000	309.600
x		1.402	3.938	3.825	2.986	0.514	13.730	0.000	308.600
σ		0.074	0.167	0.136	0.143	0.142	0.565	0.000	3.062
%RSD		5.297	4.232	3.565	4.787	27.620	4.117	0.000	0.992
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:34:52	0.000	2.367	2.314	75.596%	-0.025	-0.018	0.132	0.123
2	17:35:11	0.000	2.490	2.222	77.917%	-0.029	-0.016	0.161	0.123
3	17:35:30	0.000	2.644	2.377	79.000%	-0.029	-0.020	0.150	0.117
x		0.000	2.500	2.304	77.504%	-0.028	-0.018	0.147	0.121
σ		0.000	0.139	0.078	1.739%	0.003	0.002	0.015	0.004
%RSD		0.000	5.554	3.385	2.244	9.238	10.950	9.932	3.147
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:34:52	81.581%	0.124	0.103	0.076	13.130	13.010	77.395%	77.565%
2	17:35:11	84.703%	0.166	0.117	0.080	13.000	12.850	80.180%	80.387%
3	17:35:30	86.130%	0.160	0.121	0.105	12.670	12.800	81.556%	81.486%
x		84.138%	0.150	0.114	0.087	12.930	12.890	79.710%	79.813%
σ		2.327%	0.023	0.009	0.016	0.239	0.111	2.120%	2.023%
%RSD		2.765	15.220	8.127	18.170	1.846	0.862	2.659	2.534
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:34:52	0.107	0.116	0.228	0.184	0.196	72.214%		
2	17:35:11	0.107	0.111	0.225	0.209	0.210	70.734%		
3	17:35:30	0.118	0.122	0.201	0.216	0.205	71.780%		
x		0.111	0.116	0.218	0.203	0.203	71.576%		
σ		0.006	0.006	0.014	0.017	0.007	0.761%		
%RSD		5.435	4.917	6.620	8.407	3.548	1.063		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:38:39	76.445%	59.840	748.800	763.900	0.000	38410.000	72960.000	72890.000
2	17:38:58	73.609%	56.410	723.800	732.200	0.000	37240.000	68950.000	70720.000
3	17:39:18	70.165%	59.310	752.800	743.900	0.000	37960.000	73650.000	73050.000
x		73.406%	58.520	741.800	746.700	0.000	37870.000	71850.000	72220.000
σ		3.145%	1.844	15.720	16.020	0.000	586.400	2541.000	1300.000
%RSD		4.284	3.152	2.120	2.146	0.000	1.548	3.536	1.800
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:38:39	264000.000	2969.000	0.000	53420.000	53720.000	55180.000	86.303%	3546.000
2	17:38:58	262700.000	2967.000	0.000	52900.000	53120.000	54580.000	88.923%	3539.000
3	17:39:18	268300.000	3030.000	0.000	52730.000	54420.000	55140.000	87.250%	3557.000
x		265000.000	2989.000	0.000	53020.000	53750.000	54970.000	87.492%	3547.000
σ		2921.000	35.780	0.000	361.900	648.100	334.700	1.327%	8.856
%RSD		1.102	1.197	0.000	0.683	1.206	0.609	1.517	0.250
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:38:39	1150.000	910.600	3655.000	321900.000	332500.000	482.100	790.500	776.800
2	17:38:58	1140.000	910.500	3538.000	310800.000	318900.000	465.000	758.200	753.700
3	17:39:18	1129.000	898.900	3593.000	314000.000	322800.000	465.100	773.200	744.200
x		1140.000	906.700	3595.000	315600.000	324700.000	470.700	774.000	758.200
σ		10.450	6.734	58.180	5706.000	6983.000	9.852	16.200	16.750
%RSD		0.916	0.743	1.618	1.808	2.150	2.093	2.094	2.209
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:38:39	848.200	5359.000	5489.000	92.960	12.990	19.810	0.000	1063.000
2	17:38:58	823.400	5275.000	5407.000	92.070	13.000	18.980	0.000	1049.000
3	17:39:18	828.600	5333.000	5442.000	92.530	13.540	18.540	0.000	1058.000
x		833.400	5322.000	5446.000	92.520	13.180	19.110	0.000	1057.000
σ		13.100	42.750	40.920	0.444	0.319	0.648	0.000	7.357
%RSD		1.571	0.803	0.751	0.480	2.421	3.390	0.000	0.696
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:38:39	0.000	897.500	942.800	67.583%	65.710	64.170	60.170	55.810
2	17:38:58	0.000	905.400	938.800	67.735%	66.020	64.960	58.910	54.940
3	17:39:18	0.000	900.200	944.000	68.182%	65.970	64.740	60.170	55.550
x		0.000	901.000	941.900	67.833%	65.900	64.620	59.750	55.430
σ		0.000	3.997	2.742	0.311%	0.168	0.408	0.728	0.446
%RSD		0.000	0.444	0.291	0.459	0.255	0.632	1.218	0.805
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:38:39	75.024%	1434.000	215.200	213.000	1472.000	2671.000	100.584%	100.501%
2	17:38:58	77.322%	1420.000	212.300	210.200	1467.000	2649.000	103.125%	102.723%
3	17:39:18	77.849%	1420.000	214.000	210.300	1461.000	2649.000	104.207%	104.245%
x		76.732%	1425.000	213.800	211.200	1467.000	2656.000	102.638%	102.490%
σ		1.502%	7.925	1.437	1.636	5.599	12.710	1.860%	1.883%
%RSD		1.958	0.556	0.672	0.775	0.382	0.478	1.812	1.837
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:38:39	50.890	54.970	4035.000	3661.000	3974.000	64.262%		
2	17:38:58	50.490	54.800	4010.000	3633.000	3955.000	66.468%		
3	17:39:18	50.360	54.460	3987.000	3617.000	3932.000	68.365%		
x		50.580	54.740	4011.000	3637.000	3954.000	66.365%		
σ		0.276	0.259	23.920	22.160	20.860	2.053%		
%RSD		0.546	0.474	0.596	0.609	0.528	3.094		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:42:27	76.619%	61.650	716.000	736.600	0.000	37410.000	70540.000	71470.000
2	17:42:46	74.635%	58.990	707.700	706.800	0.000	37640.000	71580.000	71470.000
3	17:43:05	74.647%	58.920	713.900	724.700	0.000	36860.000	69980.000	68990.000
x		75.300%	59.850	712.600	722.700	0.000	37300.000	70700.000	70640.000
σ		1.142%	1.557	4.322	15.000	0.000	397.800	814.100	1428.000
%RSD		1.517	2.602	0.607	2.076	0.000	1.066	1.152	2.021

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:42:27	263500.000	3100.000	0.000	52510.000	54290.000	54950.000	92.087%	3377.000
2	17:42:46	257600.000	3047.000	0.000	50910.000	53100.000	54790.000	90.358%	3339.000
3	17:43:05	252700.000	2926.000	0.000	50150.000	53150.000	53600.000	90.227%	3288.000
x		257900.000	3024.000	0.000	51190.000	53510.000	54450.000	90.891%	3334.000
σ		5412.000	88.850	0.000	1205.000	672.000	735.700	1.038%	44.890
%RSD		2.098	2.938	0.000	2.354	1.256	1.351	1.142	1.346

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:42:27	1165.000	939.000	3791.000	325000.000	336000.000	492.400	804.100	823.700
2	17:42:46	1142.000	931.500	3855.000	326100.000	334900.000	489.700	808.700	816.300
3	17:43:05	1132.000	921.600	3755.000	320400.000	330100.000	481.000	799.200	822.600
x		1146.000	930.700	3800.000	323800.000	333700.000	487.700	804.000	820.900
σ		16.990	8.727	50.900	3030.000	3118.000	5.990	4.735	4.011
%RSD		1.482	0.938	1.339	0.936	0.935	1.228	0.589	0.489

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:42:27	892.300	5281.000	5392.000	95.740	14.070	18.460	0.000	1047.000
2	17:42:46	865.500	5297.000	5455.000	96.100	13.840	20.220	0.000	1053.000
3	17:43:05	794.100	5290.000	5405.000	95.430	13.270	19.170	0.000	1051.000
x		850.600	5289.000	5417.000	95.760	13.730	19.280	0.000	1050.000
σ		50.720	7.831	33.190	0.338	0.410	0.886	0.000	3.191
%RSD		5.962	0.148	0.613	0.352	2.988	4.594	0.000	0.304

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:42:27	0.000	893.000	939.900	66.964%	69.330	67.770	60.820	56.850
2	17:42:46	0.000	892.700	942.500	67.027%	69.130	67.570	60.830	57.030
3	17:43:05	0.000	892.600	953.000	67.721%	68.520	67.590	60.130	56.510
x		0.000	892.800	945.100	67.237%	68.990	67.640	60.600	56.790
σ		0.000	0.244	6.963	0.420%	0.423	0.108	0.402	0.264
%RSD		0.000	0.027	0.737	0.624	0.613	0.160	0.663	0.465

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:42:27	73.457%	1437.000	208.200	207.900	1526.000	2756.000	95.615%	95.011%
2	17:42:46	73.914%	1429.000	209.000	207.100	1522.000	2741.000	97.725%	96.865%
3	17:43:05	74.739%	1423.000	208.700	206.600	1519.000	2727.000	97.729%	97.041%
x		74.037%	1430.000	208.600	207.200	1522.000	2741.000	97.023%	96.305%
σ		0.649%	7.129	0.379	0.660	3.693	14.430	1.220%	1.125%
%RSD		0.877	0.499	0.182	0.319	0.243	0.526	1.257	1.168

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:42:27	49.080	52.890	4106.000	3717.000	4044.000	60.776%
2	17:42:46	50.800	54.290	4229.000	3855.000	4177.000	59.972%
3	17:43:05	50.970	54.670	4209.000	3830.000	4144.000	59.264%
x		50.280	53.950	4181.000	3801.000	4122.000	60.004%
σ		1.049	0.934	66.130	73.310	69.120	0.757%
%RSD		2.086	1.732	1.582	1.929	1.677	1.261

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:46:15	78.597%	57.830	849.200	869.100	0.000	38840.000	65210.000	64900.000
2	17:46:34	78.823%	58.710	827.000	848.700	0.000	39510.000	66730.000	66990.000
3	17:46:53	72.951%	63.270	868.600	860.900	0.000	40220.000	67630.000	66920.000
x		76.790%	59.940	848.300	859.600	0.000	39520.000	66520.000	66270.000
σ		3.327%	2.923	20.820	10.310	0.000	690.000	1220.000	1185.000
%RSD		4.333	4.877	2.454	1.199	0.000	1.746	1.835	1.788
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:46:15	136100.000	9922.000	0.000	47630.000	53280.000	56540.000	89.100%	2604.000
2	17:46:34	137500.000	10430.000	0.000	50580.000	56940.000	58120.000	85.419%	2675.000
3	17:46:53	138200.000	10160.000	0.000	49350.000	55940.000	57400.000	83.241%	2658.000
x		137200.000	10170.000	0.000	49190.000	55390.000	57350.000	85.920%	2646.000
σ		1071.000	255.700	0.000	1483.000	1891.000	789.200	2.962%	36.820
%RSD		0.780	2.514	0.000	3.014	3.414	1.376	3.447	1.392
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:46:15	1056.000	792.000	3967.000	302300.000	310400.000	516.300	761.400	822.400
2	17:46:34	1076.000	801.000	3920.000	299200.000	311700.000	531.900	797.400	849.400
3	17:46:53	1067.000	817.300	4034.000	308600.000	314000.000	524.700	777.600	854.700
x		1066.000	803.400	3974.000	303400.000	312000.000	524.300	778.800	842.100
σ		9.828	12.810	57.110	4774.000	1849.000	7.788	18.020	17.300
%RSD		0.922	1.594	1.437	1.574	0.593	1.485	2.314	2.054
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:46:15	877.800	3286.000	3390.000	97.810	15.040	19.090	0.000	1029.000
2	17:46:34	882.300	3354.000	3503.000	98.870	14.610	19.820	0.000	1054.000
3	17:46:53	846.300	3362.000	3452.000	99.590	14.580	19.680	0.000	1048.000
x		868.800	3334.000	3448.000	98.760	14.750	19.530	0.000	1044.000
σ		19.590	41.940	56.470	0.896	0.258	0.386	0.000	13.020
%RSD		2.255	1.258	1.638	0.907	1.749	1.976	0.000	1.247
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:46:15	0.000	984.300	1055.000	64.643%	63.930	63.680	60.200	56.160
2	17:46:34	0.000	1004.000	1079.000	64.083%	65.070	64.390	62.140	57.750
3	17:46:53	0.000	1007.000	1082.000	64.249%	64.810	63.330	62.410	56.410
x		0.000	998.600	1072.000	64.325%	64.600	63.800	61.580	56.780
σ		0.000	12.500	14.600	0.288%	0.594	0.541	1.209	0.857
%RSD		0.000	1.252	1.361	0.447	0.920	0.848	1.963	1.509
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:46:15	68.237%	1686.000	422.600	416.700	1464.000	2590.000	83.924%	82.510%
2	17:46:34	67.520%	1710.000	432.200	428.500	1486.000	2635.000	86.272%	84.626%
3	17:46:53	67.964%	1701.000	429.500	427.200	1488.000	2636.000	86.425%	84.548%
x		67.907%	1699.000	428.100	424.100	1479.000	2620.000	85.540%	83.895%
σ		0.362%	12.290	4.963	6.485	13.060	26.000	1.402%	1.199%
%RSD		0.533	0.724	1.159	1.529	0.883	0.992	1.639	1.430
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:46:15	54.610	57.000	3217.000	2909.000	3154.000	45.056%		
2	17:46:34	54.500	57.150	3203.000	2892.000	3150.000	46.623%		
3	17:46:53	56.380	58.510	3292.000	2955.000	3204.000	44.691%		
x		55.160	57.550	3237.000	2919.000	3169.000	45.457%		
σ		1.056	0.835	47.770	32.390	30.240	1.026%		
%RSD		1.914	1.451	1.476	1.110	0.954	2.258		

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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	17:50:02	88.830%	5.729	10.680	10.890	0.000	318.800	5005.000	4457.000
2	17:50:21	81.192%	5.984	9.377	11.460	0.000	325.500	5084.000	4699.000
3	17:50:41	83.420%	5.396	9.022	9.462	0.000	311.600	4991.000	5444.000
x		84.480%	5.703	9.693	10.610	0.000	318.600	5027.000	4867.000
σ		3.928%	0.294	0.873	1.031	0.000	6.946	49.800	514.100
%RSD		4.650	5.163	9.007	9.718	0.000	2.180	0.991	10.560

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:50:02	13790.000	1968.000	0.000	904.100	4415.000	4798.000	74.852%	360.800
2	17:50:21	13760.000	1950.000	0.000	924.800	4472.000	4741.000	71.629%	361.700
3	17:50:41	13580.000	1927.000	0.000	889.800	4435.000	4746.000	69.179%	357.000
x		13710.000	1949.000	0.000	906.200	4441.000	4762.000	71.887%	359.900
σ		115.500	20.830	0.000	17.570	28.880	31.370	2.845%	2.520
%RSD		0.842	1.069	0.000	1.939	0.650	0.659	3.958	0.700

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:50:02	199.000	157.200	1114.000	236300.000	238300.000	38.960	87.350	96.230
2	17:50:21	196.000	157.900	1092.000	233500.000	235800.000	39.090	86.550	94.610
3	17:50:41	194.600	157.200	1129.000	240100.000	240600.000	39.180	87.910	96.780
x		196.500	157.400	1112.000	236600.000	238300.000	39.080	87.270	95.870
σ		2.237	0.398	18.770	3350.000	2405.000	0.112	0.684	1.124
%RSD		1.138	0.253	1.688	1.416	1.010	0.286	0.784	1.172

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:50:02	96.860	268.400	268.100	45.290	1.713	2.961	0.000	34.340
2	17:50:21	94.130	267.800	267.700	45.230	1.815	2.605	0.000	34.740
3	17:50:41	96.240	271.600	269.700	45.550	1.417	2.375	0.000	34.610
x		95.740	269.300	268.500	45.360	1.649	2.647	0.000	34.560
σ		1.431	2.041	1.042	0.170	0.207	0.295	0.000	0.204
%RSD		1.494	0.758	0.388	0.374	12.530	11.160	0.000	0.590

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:50:02	0.000	15.850	15.470	70.636%	0.142	0.149	0.799	0.710
2	17:50:21	0.000	15.860	16.170	69.198%	0.183	0.140	0.748	0.564
3	17:50:41	0.000	15.140	15.340	67.940%	0.163	0.166	0.753	0.579
x		0.000	15.610	15.660	69.258%	0.163	0.152	0.767	0.618
σ		0.000	0.411	0.443	1.349%	0.020	0.013	0.028	0.080
%RSD		0.000	2.634	2.831	1.948	12.500	8.895	3.694	13.010

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:50:02	75.236%	33.200	1.528	1.512	90.530	90.840	75.800%	76.092%
2	17:50:21	74.456%	33.310	1.606	1.547	90.770	90.900	75.847%	76.365%
3	17:50:41	74.042%	32.760	1.543	1.607	90.010	90.240	75.966%	76.439%
x		74.578%	33.090	1.559	1.556	90.440	90.660	75.871%	76.299%
σ		0.606%	0.292	0.041	0.048	0.389	0.365	0.086%	0.183%
%RSD		0.813	0.884	2.656	3.075	0.430	0.403	0.113	0.240

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:50:02	0.394	0.405	125.300	114.300	120.900	60.732%
2	17:50:21	0.376	0.392	124.700	114.800	120.800	62.718%
3	17:50:41	0.354	0.376	125.800	113.600	120.800	63.678%
x		0.375	0.391	125.200	114.200	120.800	62.376%
σ		0.020	0.014	0.537	0.643	0.027	1.502%
%RSD		5.336	3.651	0.429	0.563	0.022	2.409

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:53:50	86.527%	6.143	9.938	9.430	0.000	301.800	3005.000	3266.000
2	17:54:09	83.953%	6.929	8.873	9.087	0.000	299.700	3038.000	3319.000
3	17:54:28	83.578%	6.552	9.722	9.126	0.000	315.300	3121.000	3381.000
x		84.686%	6.541	9.511	9.214	0.000	305.600	3055.000	3322.000
σ		1.605%	0.393	0.563	0.188	0.000	8.494	59.620	57.670
%RSD		1.896	6.003	5.922	2.038	0.000	2.779	1.951	1.736

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:53:50	14020.000	2203.000	0.000	775.700	9801.000	10820.000	76.176%	360.500
2	17:54:09	13930.000	2184.000	0.000	815.900	10060.000	11110.000	71.608%	378.200
3	17:54:28	14510.000	2210.000	0.000	808.800	10380.000	11100.000	68.886%	381.600
x		14150.000	2199.000	0.000	800.100	10080.000	11010.000	72.223%	373.400
σ		310.600	13.920	0.000	21.450	292.100	166.200	3.684%	11.330
%RSD		2.194	0.633	0.000	2.681	2.897	1.510	5.101	3.035

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:53:50	193.500	170.800	1585.000	199500.000	197600.000	41.060	54.970	105.800
2	17:54:09	199.800	178.700	1658.000	204600.000	206500.000	42.740	58.220	109.700
3	17:54:28	205.600	182.900	1685.000	213200.000	212000.000	44.380	58.500	113.500
x		199.600	177.500	1643.000	205700.000	205400.000	42.730	57.230	109.700
σ		6.055	6.173	51.570	6925.000	7264.000	1.658	1.964	3.856
%RSD		3.033	3.478	3.139	3.366	3.537	3.880	3.431	3.515

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:53:50	106.000	285.600	284.700	39.280	0.905	2.130	0.000	43.450
2	17:54:09	109.900	293.900	295.300	39.630	0.660	1.880	0.000	43.950
3	17:54:28	111.900	299.800	305.500	40.430	0.776	1.996	0.000	45.200
x		109.200	293.100	295.100	39.780	0.780	2.002	0.000	44.200
σ		2.995	7.146	10.390	0.589	0.123	0.125	0.000	0.904
%RSD		2.742	2.438	3.519	1.481	15.700	6.246	0.000	2.045

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:53:50	0.000	11.660	11.900	66.871%	0.316	0.274	0.874	0.739
2	17:54:09	0.000	12.030	12.000	67.683%	0.325	0.304	0.801	0.567
3	17:54:28	0.000	12.440	12.410	67.422%	0.303	0.304	0.846	0.737
x		0.000	12.040	12.100	67.325%	0.314	0.294	0.841	0.681
σ		0.000	0.393	0.271	0.414%	0.011	0.017	0.037	0.099
%RSD		0.000	3.263	2.237	0.616	3.526	5.801	4.354	14.550

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:53:50	72.730%	31.450	1.208	1.101	243.300	242.500	74.129%	74.885%
2	17:54:09	73.040%	31.900	1.235	1.155	242.400	243.200	75.649%	76.572%
3	17:54:28	72.637%	32.280	1.262	1.252	247.600	248.200	76.202%	77.055%
x		72.802%	31.880	1.235	1.169	244.400	244.700	75.327%	76.171%
σ		0.211%	0.417	0.027	0.076	2.785	3.085	1.074%	1.139%
%RSD		0.290	1.307	2.155	6.526	1.140	1.261	1.425	1.495

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:53:50	0.293	0.305	58.070	52.740	55.800	64.227%
2	17:54:09	0.295	0.330	57.770	53.390	56.320	65.507%
3	17:54:28	0.292	0.303	57.320	51.780	55.020	68.165%
x		0.293	0.313	57.720	52.640	55.720	65.967%
σ		0.001	0.015	0.379	0.809	0.656	2.009%
%RSD		0.376	4.783	0.656	1.537	1.177	3.045

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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	17:57:38	88.845%	1.881	8.155	6.734	0.000	322.300	1982.000	2154.000
2	17:57:57	90.808%	1.862	6.273	7.141	0.000	313.300	1963.000	2162.000
3	17:58:16	88.123%	2.025	7.034	7.528	0.000	313.200	1929.000	2142.000
x		89.259%	1.923	7.154	7.134	0.000	316.300	1958.000	2153.000
σ		1.390%	0.089	0.947	0.397	0.000	5.218	26.930	9.998
%RSD		1.557	4.652	13.230	5.561	0.000	1.650	1.375	0.464

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:57:38	8830.000	2198.000	0.000	974.400	6052.000	6702.000	73.804%	509.800
2	17:57:57	8748.000	2118.000	0.000	951.200	6019.000	6472.000	69.934%	507.000
3	17:58:16	8798.000	2133.000	0.000	971.800	6208.000	6680.000	69.190%	497.500
x		8792.000	2150.000	0.000	965.800	6093.000	6618.000	70.976%	504.800
σ		41.090	42.420	0.000	12.690	101.100	127.200	2.477%	6.454
%RSD		0.467	1.974	0.000	1.314	1.659	1.921	3.490	1.279

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:57:38	96.760	49.270	640.400	63310.000	62690.000	23.260	22.530	39.380
2	17:57:57	95.960	48.520	658.500	64740.000	64470.000	22.810	22.530	41.400
3	17:58:16	96.540	49.310	664.100	63850.000	64460.000	23.080	22.090	39.970
x		96.420	49.030	654.300	63970.000	63870.000	23.050	22.380	40.250
σ		0.413	0.449	12.410	718.200	1023.000	0.227	0.256	1.039
%RSD		0.428	0.915	1.896	1.123	1.601	0.983	1.142	2.581

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:57:38	39.250	132.800	133.200	10.970	-0.278	1.286	0.000	23.000
2	17:57:57	41.100	136.000	136.000	10.970	0.105	0.928	0.000	23.700
3	17:58:16	38.990	135.000	132.500	10.800	-0.096	1.105	0.000	23.580
x		39.780	134.600	133.900	10.910	-0.090	1.106	0.000	23.430
σ		1.148	1.615	1.834	0.095	0.191	0.179	0.000	0.372
%RSD		2.886	1.200	1.370	0.874	212.700	16.170	0.000	1.589

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:57:38	0.000	3.723	3.770	67.859%	2.471	2.494	0.737	0.568
2	17:57:57	0.000	3.889	3.843	69.369%	2.494	2.369	0.630	0.420
3	17:58:16	0.000	3.873	3.851	68.903%	2.509	2.407	0.652	0.543
x		0.000	3.828	3.822	68.710%	2.491	2.423	0.673	0.510
σ		0.000	0.092	0.045	0.773%	0.019	0.064	0.057	0.079
%RSD		0.000	2.397	1.168	1.125	0.760	2.652	8.398	15.550

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:57:38	72.295%	34.510	0.605	0.584	114.700	115.600	73.982%	75.133%
2	17:57:57	74.340%	34.380	0.601	0.584	113.600	114.300	76.905%	78.283%
3	17:58:16	74.543%	34.200	0.581	0.590	113.900	114.800	77.041%	77.993%
x		73.726%	34.360	0.596	0.586	114.100	114.900	75.976%	77.136%
σ		1.243%	0.155	0.013	0.003	0.611	0.665	1.728%	1.741%
%RSD		1.686	0.452	2.113	0.584	0.536	0.579	2.275	2.256

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:57:38	0.277	0.300	73.000	67.620	71.590	65.256%
2	17:57:57	0.278	0.306	74.080	67.760	71.850	67.674%
3	17:58:16	0.276	0.300	73.870	67.660	71.430	69.005%
x		0.277	0.302	73.650	67.680	71.620	67.312%
σ		0.001	0.004	0.570	0.071	0.213	1.901%
%RSD		0.390	1.207	0.774	0.104	0.297	2.823

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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	18:04:23	95.805%	99.310	98.360	97.890	0.000	44800.000	46020.000	46360.000
2	18:04:42	93.748%	99.960	96.240	101.600	0.000	45650.000	47320.000	46450.000
3	18:05:01	90.188%	102.300	102.900	102.100	0.000	46200.000	47350.000	49330.000
x		93.247%	100.529%	99.175%	100.536%	0.000	91.096%	93.788%	94.757%
σ		2.842%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		3.048	1.566	3.438	2.292	0.000	1.549	1.621	3.565
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:04:23	520.000	5045.000	0.000	46930.000	45060.000	46500.000	83.918%	97.490
2	18:04:42	515.200	4894.000	0.000	48010.000	46720.000	48140.000	81.956%	96.540
3	18:05:01	535.700	5132.000	0.000	48310.000	46730.000	48930.000	81.076%	96.420
x		104.726%	100.479%	0.000	95.494%	92.343%	95.710%	82.317%	96.816%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.455%	n/a
%RSD		2.052	2.395	0.000	1.521	2.084	2.591	1.767	0.601
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:04:23	93.280	93.890	475.200	23600.000	23820.000	92.910	94.160	94.180
2	18:04:42	93.570	94.080	481.900	24040.000	24590.000	94.240	96.210	97.330
3	18:05:01	95.370	95.280	496.000	24480.000	24630.000	95.960	97.950	97.860
x		94.072%	94.416%	96.866%	96.166%	97.371%	94.371%	96.106%	96.456%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.202	0.796	2.192	1.827	1.876	1.621	1.974	2.064
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:04:23	93.640	91.430	91.100	96.970	100.300	98.110	0.000	93.390
2	18:04:42	96.790	93.340	93.870	97.040	96.800	99.270	0.000	94.820
3	18:05:01	96.150	94.090	93.250	95.920	97.580	95.250	0.000	94.370
x		95.525%	92.953%	92.738%	96.642%	98.211%	97.542%	0.000	94.192%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.739	1.473	1.568	0.652	1.850	2.121	0.000	0.779
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:04:23	69.974%	88.310	89.190	65.495%	94.190	95.540	96.760	98.830
2	18:04:42	71.066%	89.450	90.580	66.618%	94.810	96.470	98.840	99.930
3	18:05:01	71.445%	92.530	91.940	66.857%	95.860	97.380	97.800	100.300
x		70.828%	90.097%	90.573%	66.323%	94.954%	96.462%	97.799%	99.675%
σ		0.764%	n/a	n/a	0.727%	n/a	n/a	n/a	n/a
%RSD		1.079	2.419	1.520	1.097	0.889	0.954	1.067	0.756
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:04:23	57.461%	97.160	91.460	91.180	96.430	95.440	59.195%	60.804%
2	18:04:42	58.369%	99.530	92.770	92.470	97.640	97.410	59.466%	61.745%
3	18:05:01	59.291%	99.380	92.640	92.180	96.270	97.430	60.729%	62.363%
x		58.374%	98.691%	92.291%	91.943%	96.779%	96.759%	59.797%	61.637%
σ		0.915%	n/a	n/a	n/a	n/a	n/a	0.819%	0.785%
%RSD		1.567	1.350	0.782	0.738	0.777	1.183	1.369	1.274
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:04:23	90.700	93.960	90.400	89.960	91.460	53.023%		
2	18:04:42	94.280	98.000	94.960	93.250	95.500	52.361%		
3	18:05:01	97.530	101.500	98.470	97.540	99.080	51.041%		
x		94.169%	97.807%	94.610%	93.582%	95.348%	52.142%		
σ		n/a	n/a	n/a	n/a	n/a	1.009%		
%RSD		3.624	3.836	4.276	4.064	4.002	1.935		

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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	18:11:22	117.432%	-0.014	3.392	3.155	0.000	4.855	3.683	3.706
2	18:11:41	112.393%	-0.019	3.201	3.377	0.000	4.835	2.467	3.971
3	18:12:00	113.245%	0.016	2.700	3.009	0.000	4.496	3.124	3.622
x		114.357%	-0.006	3.098	3.180	0.000	4.729	3.091	3.767
σ		2.697%	0.019	0.357	0.185	0.000	0.201	0.609	0.182
%RSD		2.358	324.900	11.520	5.823	0.000	4.259	19.700	4.839
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:11:22	1.918	-68.450	0.000	7.325	13.430	9.771	95.304%	0.014
2	18:11:41	1.007	-67.900	0.000	6.758	9.484	6.574	94.536%	-0.019
3	18:12:00	0.871	-66.830	0.000	8.039	11.080	7.796	90.803%	0.090
x		1.265	-67.730	0.000	7.374	11.330	8.047	93.548%	0.028
σ		0.569	0.821	0.000	0.642	1.987	1.614	2.408%	0.056
%RSD		44.990	1.213	0.000	8.703	17.540	20.050	2.574	199.200
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:11:22	0.011	-0.049	0.099	3.307	10.480	0.011	0.013	0.052
2	18:11:41	0.003	-0.043	0.064	0.570	7.636	0.009	0.007	0.055
3	18:12:00	0.018	-0.020	0.068	1.059	7.782	0.010	0.011	0.043
x		0.011	-0.037	0.077	1.645	8.634	0.010	0.010	0.050
σ		0.007	0.016	0.019	1.459	1.604	0.001	0.003	0.006
%RSD		68.570	41.790	24.780	88.700	18.570	6.464	28.380	12.980
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:11:22	0.035	0.631	0.806	0.081	-0.189	0.262	0.000	0.024
2	18:11:41	0.051	0.720	0.668	0.185	-0.261	0.459	0.000	0.022
3	18:12:00	0.037	0.801	0.706	0.164	-0.014	0.421	0.000	0.019
x		0.041	0.718	0.727	0.143	-0.155	0.380	0.000	0.022
σ		0.008	0.085	0.071	0.055	0.127	0.104	0.000	0.002
%RSD		20.810	11.800	9.763	38.460	81.900	27.380	0.000	10.750
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:11:22	79.276%	0.262	0.237	80.072%	-0.010	-0.012	0.104	0.089
2	18:11:41	79.381%	0.524	0.470	79.942%	-0.012	-0.005	0.096	0.076
3	18:12:00	79.801%	0.400	0.380	80.504%	-0.015	-0.010	0.062	0.061
x		79.486%	0.395	0.362	80.173%	-0.012	-0.009	0.087	0.075
σ		0.278%	0.131	0.117	0.294%	0.003	0.003	0.022	0.014
%RSD		0.349	33.200	32.410	0.367	24.900	36.960	25.300	18.630
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:11:22	73.742%	0.078	0.627	0.674	0.042	0.047	72.054%	71.482%
2	18:11:41	75.003%	0.110	0.689	0.646	0.037	0.048	74.124%	73.371%
3	18:12:00	75.755%	0.082	0.687	0.685	0.007	0.043	74.674%	73.638%
x		74.833%	0.090	0.667	0.668	0.028	0.046	73.617%	72.831%
σ		1.017%	0.018	0.035	0.020	0.019	0.002	1.382%	1.175%
%RSD		1.359	19.600	5.249	2.982	65.370	5.392	1.877	1.614
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:11:22	0.022	0.024	0.036	0.037	0.035	71.778%		
2	18:11:41	0.021	0.032	0.025	0.025	0.025	71.745%		
3	18:12:00	0.021	0.029	0.030	0.021	0.024	71.776%		
x		0.021	0.029	0.030	0.028	0.028	71.766%		
σ		0.000	0.004	0.006	0.008	0.006	0.018%		
%RSD		1.605	13.640	18.700	29.660	22.250	0.026		

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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	18:15:13	85.072%	12.980	39.280	38.320	0.000	794.500	23410.000	23620.000
2	18:15:32	83.490%	13.770	39.210	35.750	0.000	798.900	23150.000	23630.000
3	18:15:51	76.294%	14.030	37.730	38.620	0.000	809.300	23820.000	24080.000
x		81.619%	13.590	38.740	37.560	0.000	800.900	23460.000	23780.000
σ		4.678%	0.547	0.878	1.581	0.000	7.632	339.800	264.000
%RSD		5.732	4.024	2.266	4.208	0.000	0.953	1.448	1.110

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:15:13	119000.000	2097.000	0.000	9890.000	16320.000	16880.000	84.195%	1843.000
2	18:15:32	112900.000	2032.000	0.000	9789.000	16180.000	17360.000	82.731%	1865.000
3	18:15:51	117000.000	2103.000	0.000	9993.000	16450.000	17110.000	82.183%	1882.000
x		116300.000	2077.000	0.000	9891.000	16310.000	17110.000	83.036%	1863.000
σ		3100.000	39.210	0.000	102.100	133.600	240.700	1.040%	19.530
%RSD		2.665	1.887	0.000	1.032	0.819	1.407	1.253	1.048

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:15:13	579.200	587.400	2459.000	244700.000	252200.000	149.700	347.400	795.000
2	18:15:32	572.000	583.100	2429.000	244400.000	249900.000	146.500	343.300	793.700
3	18:15:51	589.000	592.700	2434.000	242200.000	243900.000	144.500	331.900	764.400
x		580.100	587.700	2441.000	243800.000	248700.000	146.900	340.900	784.400
σ		8.543	4.799	16.130	1339.000	4284.000	2.637	8.037	17.320
%RSD		1.473	0.817	0.661	0.549	1.723	1.795	2.358	2.208

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:15:13	784.000	2492.000	2863.000	63.560	8.139	12.350	0.000	235.200
2	18:15:32	781.600	2516.000	2878.000	62.710	7.779	12.560	0.000	226.200
3	18:15:51	762.100	2475.000	2524.000	62.120	8.036	12.580	0.000	231.400
x		775.900	2494.000	2755.000	62.800	7.985	12.500	0.000	230.900
σ		12.010	20.620	200.400	0.724	0.186	0.131	0.000	4.511
%RSD		1.548	0.827	7.275	1.152	2.326	1.045	0.000	1.954

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:15:13	0.000	16.490	16.580	68.394%	26.790	26.200	19.570	17.990
2	18:15:32	0.000	16.690	16.620	68.505%	27.130	26.410	19.360	18.160
3	18:15:51	0.000	16.730	16.250	68.612%	27.150	26.410	18.980	18.300
x		0.000	16.630	16.480	68.504%	27.020	26.340	19.300	18.150
σ		0.000	0.127	0.200	0.109%	0.203	0.120	0.299	0.154
%RSD		0.000	0.763	1.210	0.159	0.752	0.455	1.549	0.848

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:15:13	74.175%	87.840	7.036	6.908	1046.000	1045.000	93.485%	94.597%
2	18:15:32	74.501%	88.270	6.849	6.888	1044.000	1049.000	95.151%	96.180%
3	18:15:51	75.560%	87.230	6.676	6.566	1037.000	1045.000	95.980%	97.236%
x		74.745%	87.780	6.854	6.788	1042.000	1046.000	94.872%	96.004%
σ		0.724%	0.525	0.180	0.192	5.101	2.173	1.271%	1.328%
%RSD		0.969	0.598	2.629	2.832	0.489	0.208	1.339	1.383

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	18:15:13	2.873	3.075	2944.000	2648.000	2889.000	64.955%
2	18:15:32	2.839	3.054	2936.000	2651.000	2884.000	66.751%
3	18:15:51	2.869	3.030	2967.000	2674.000	2902.000	67.184%
x		2.860	3.053	2949.000	2658.000	2892.000	66.297%
σ		0.018	0.022	15.940	14.470	9.230	1.182%
%RSD		0.640	0.727	0.540	0.544	0.319	1.783

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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	18:19:01	92.225%	14.020	45.890	42.960	0.000	1040.000	15170.000	14860.000
2	18:19:20	84.731%	14.240	43.170	41.740	0.000	1035.000	15250.000	15260.000
3	18:19:39	85.102%	14.060	38.980	42.050	0.000	1073.000	15570.000	15420.000
x		87.352%	14.100	42.680	42.250	0.000	1049.000	15330.000	15180.000
σ		4.223%	0.116	3.478	0.632	0.000	20.810	212.600	293.100
%RSD		4.835	0.826	8.148	1.497	0.000	1.983	1.386	1.931

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:19:01	98060.000	2080.000	0.000	7787.000	39720.000	42000.000	83.588%	1698.000
2	18:19:20	94470.000	2021.000	0.000	8012.000	40720.000	42290.000	80.464%	1698.000
3	18:19:39	95660.000	2045.000	0.000	8105.000	42160.000	42850.000	79.196%	1728.000
x		96060.000	2049.000	0.000	7968.000	40870.000	42380.000	81.083%	1708.000
σ		1824.000	30.000	0.000	163.400	1223.000	435.400	2.260%	17.140
%RSD		1.899	1.465	0.000	2.050	2.992	1.027	2.787	1.004

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:19:01	344.200	10690.000	4590.000	288800.000	288500.000	108.000	384.800	6534.000
2	18:19:20	268.200	10850.000	4590.000	291200.000	301200.000	109.300	389.600	6586.000
3	18:19:39	277.100	10860.000	4661.000	299400.000	300900.000	111.400	388.800	6585.000
x		296.500	10800.000	4614.000	293100.000	296900.000	109.600	387.700	6568.000
σ		41.580	92.000	40.960	5567.000	7237.000	1.748	2.574	30.160
%RSD		14.020	0.852	0.888	1.899	2.438	1.596	0.664	0.459

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:19:01	6227.000	5012.000	5176.000	158.100	23.210	27.750	0.000	688.900
2	18:19:20	6168.000	5115.000	5214.000	161.600	24.500	28.180	0.000	694.700
3	18:19:39	6341.000	5145.000	5257.000	159.600	24.170	27.640	0.000	703.700
x		6245.000	5091.000	5216.000	159.800	23.960	27.860	0.000	695.800
σ		88.260	69.720	40.540	1.727	0.671	0.286	0.000	7.452
%RSD		1.413	1.370	0.777	1.081	2.801	1.028	0.000	1.071

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:19:01	0.000	25.360	25.890	64.557%	59.180	58.540	412.400	407.600
2	18:19:20	0.000	25.600	26.160	64.374%	59.410	58.310	415.100	411.000
3	18:19:39	0.000	25.930	25.980	64.350%	58.780	58.380	414.400	409.400
x		0.000	25.630	26.010	64.427%	59.130	58.410	413.900	409.400
σ		0.000	0.285	0.137	0.113%	0.320	0.121	1.401	1.707
%RSD		0.000	1.111	0.526	0.176	0.542	0.208	0.339	0.417

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:19:01	69.489%	512.900	420.700	417.300	1971.000	3574.000	82.019%	82.804%
2	18:19:20	68.958%	516.000	422.200	419.600	1977.000	3587.000	82.706%	83.293%
3	18:19:39	69.242%	515.100	422.800	422.600	1994.000	3600.000	81.983%	83.126%
x		69.229%	514.700	421.900	419.900	1980.000	3587.000	82.236%	83.074%
σ		0.266%	1.575	1.124	2.655	11.760	12.910	0.408%	0.249%
%RSD		0.384	0.306	0.266	0.632	0.594	0.360	0.496	0.300

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	18:19:01	4.233	4.448	14040.000	12840.000	13870.000	59.797%
2	18:19:20	4.196	4.519	14130.000	12930.000	13950.000	60.021%
3	18:19:39	4.206	4.517	14180.000	12990.000	14030.000	59.339%
x		4.212	4.495	14120.000	12920.000	13950.000	59.719%
σ		0.019	0.040	68.400	72.790	79.200	0.348%
%RSD		0.448	0.896	0.484	0.563	0.568	0.582

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:22:49	86.498%	15.650	31.390	30.180	0.000	851.600	16890.000	16800.000
2	18:23:09	80.392%	16.330	33.070	32.190	0.000	895.100	16910.000	17200.000
3	18:23:28	74.317%	16.070	32.930	32.290	0.000	891.200	17080.000	16870.000
x		80.402%	16.020	32.460	31.550	0.000	879.300	16960.000	16960.000
σ		6.091%	0.342	0.936	1.191	0.000	24.080	106.700	214.800
%RSD		7.575	2.136	2.884	3.774	0.000	2.738	0.629	1.267

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:22:49	113800.000	1933.000	0.000	8284.000	18840.000	19970.000	79.964%	1889.000
2	18:23:09	116400.000	1963.000	0.000	8333.000	18430.000	19830.000	77.905%	1903.000
3	18:23:28	113600.000	1965.000	0.000	8422.000	18500.000	19800.000	78.212%	1875.000
x		114600.000	1954.000	0.000	8346.000	18590.000	19870.000	78.694%	1889.000
σ		1605.000	17.870	0.000	69.920	216.500	90.170	1.111%	14.090
%RSD		1.401	0.914	0.000	0.838	1.165	0.454	1.412	0.746

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:22:49	518.500	660.700	2412.000	252300.000	257000.000	111.300	251.800	718.400
2	18:23:09	527.100	653.200	2426.000	244800.000	251800.000	111.200	248.600	741.000
3	18:23:28	512.100	654.000	2409.000	245500.000	249100.000	108.700	246.000	738.600
x		519.200	655.900	2415.000	247600.000	252700.000	110.400	248.800	732.700
σ		7.534	4.119	9.055	4146.000	4023.000	1.461	2.927	12.450
%RSD		1.451	0.628	0.375	1.675	1.592	1.323	1.176	1.700

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:22:49	757.400	1979.000	1989.000	109.200	25.510	29.260	0.000	421.800
2	18:23:09	733.500	2004.000	2018.000	111.900	24.940	30.930	0.000	422.000
3	18:23:28	729.900	1983.000	1985.000	109.200	25.150	30.210	0.000	421.700
x		740.300	1989.000	1997.000	110.100	25.200	30.130	0.000	421.800
σ		14.970	13.510	18.060	1.569	0.284	0.841	0.000	0.177
%RSD		2.022	0.679	0.904	1.425	1.129	2.791	0.000	0.042

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:22:49	0.000	17.880	18.010	60.493%	47.920	47.200	17.840	17.380
2	18:23:09	0.000	18.030	17.950	60.784%	47.920	46.540	18.590	17.390
3	18:23:28	0.000	18.470	18.520	60.096%	47.590	46.960	18.270	17.190
x		0.000	18.130	18.160	60.458%	47.810	46.900	18.230	17.320
σ		0.000	0.309	0.313	0.345%	0.191	0.333	0.377	0.110
%RSD		0.000	1.703	1.721	0.571	0.399	0.710	2.065	0.635

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:22:49	63.269%	110.300	8.418	8.528	1272.000	1270.000	76.751%	77.015%
2	18:23:09	63.400%	111.600	8.661	8.517	1282.000	1270.000	77.832%	77.808%
3	18:23:28	62.949%	112.500	8.692	8.673	1284.000	1278.000	77.397%	77.305%
x		63.206%	111.500	8.590	8.572	1279.000	1273.000	77.327%	77.376%
σ		0.232%	1.127	0.150	0.087	6.334	4.866	0.544%	0.401%
%RSD		0.367	1.010	1.746	1.018	0.495	0.382	0.704	0.519

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	18:22:49	4.895	5.154	1773.000	1652.000	1764.000	47.657%
2	18:23:09	5.022	5.347	1815.000	1680.000	1795.000	47.361%
3	18:23:28	4.836	5.142	1779.000	1654.000	1772.000	47.117%
x		4.917	5.214	1789.000	1662.000	1777.000	47.378%
σ		0.095	0.115	22.770	15.440	16.120	0.271%
%RSD		1.933	2.204	1.273	0.929	0.907	0.571

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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	18:26:38	78.045%	14.920	30.790	32.380	0.000	832.300	25840.000	26340.000
2	18:26:57	77.562%	14.270	31.300	31.540	0.000	835.700	26460.000	26120.000
3	18:27:16	69.733%	16.070	33.200	32.950	0.000	904.200	27490.000	27740.000
x		75.113%	15.090	31.760	32.290	0.000	857.400	26600.000	26730.000
σ		4.666%	0.909	1.272	0.707	0.000	40.520	837.600	877.800
%RSD		6.212	6.027	4.006	2.190	0.000	4.726	3.149	3.284

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:26:38	133100.000	1836.000	0.000	10360.000	16850.000	18320.000	79.814%	1936.000
2	18:26:57	133100.000	1783.000	0.000	10390.000	17030.000	18010.000	77.936%	1936.000
3	18:27:16	136400.000	1878.000	0.000	10730.000	17180.000	18290.000	75.856%	1951.000
x		134200.000	1832.000	0.000	10500.000	17020.000	18210.000	77.869%	1941.000
σ		1912.000	47.720	0.000	204.400	166.700	171.900	1.980%	8.915
%RSD		1.425	2.605	0.000	1.948	0.980	0.944	2.542	0.459

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:26:38	672.000	750.800	3675.000	290900.000	295100.000	166.200	387.000	846.600
2	18:26:57	679.600	752.200	3692.000	295600.000	298500.000	162.400	386.500	859.000
3	18:27:16	696.200	768.000	3736.000	297000.000	300800.000	164.600	395.600	860.800
x		682.600	757.000	3701.000	294500.000	298100.000	164.400	389.700	855.500
σ		12.370	9.518	31.440	3169.000	2868.000	1.914	5.137	7.725
%RSD		1.812	1.257	0.849	1.076	0.962	1.164	1.318	0.903

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:26:38	881.700	2630.000	2966.000	81.410	9.702	14.390	0.000	272.500
2	18:26:57	909.400	2675.000	2712.000	82.720	9.860	13.860	0.000	277.100
3	18:27:16	908.900	2659.000	3007.000	80.970	9.876	14.480	0.000	271.100
x		900.000	2655.000	2895.000	81.700	9.813	14.240	0.000	273.600
σ		15.860	22.630	159.700	0.913	0.096	0.336	0.000	3.135
%RSD		1.763	0.853	5.515	1.117	0.981	2.358	0.000	1.146

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:26:38	0.000	16.010	16.730	59.286%	34.770	33.960	18.570	17.480
2	18:26:57	0.000	16.580	17.120	59.875%	34.200	34.050	18.470	17.760
3	18:27:16	0.000	16.780	16.820	60.489%	34.560	34.280	18.410	17.170
x		0.000	16.460	16.890	59.883%	34.510	34.100	18.480	17.470
σ		0.000	0.401	0.208	0.602%	0.287	0.166	0.081	0.293
%RSD		0.000	2.434	1.232	1.005	0.831	0.487	0.437	1.676

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:26:38	63.083%	98.730	6.202	6.036	1242.000	1240.000	78.852%	78.269%
2	18:26:57	64.724%	99.350	6.292	6.169	1250.000	1249.000	81.251%	80.857%
3	18:27:16	65.407%	99.210	6.162	6.155	1243.000	1240.000	82.883%	83.236%
x		64.405%	99.100	6.219	6.120	1245.000	1243.000	80.995%	80.788%
σ		1.194%	0.326	0.067	0.073	4.154	5.357	2.028%	2.484%
%RSD		1.855	0.329	1.071	1.197	0.334	0.431	2.503	3.075

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	18:26:38	3.292	3.497	3246.000	2954.000	3195.000	48.850%
2	18:26:57	3.213	3.540	3241.000	2950.000	3195.000	52.113%
3	18:27:16	3.294	3.514	3238.000	2945.000	3191.000	53.872%
x		3.266	3.517	3241.000	2950.000	3194.000	51.611%
σ		0.046	0.022	3.804	4.412	2.073	2.548%
%RSD		1.416	0.619	0.117	0.150	0.065	4.937

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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	18:30:27	77.823%	15.610	31.620	33.410	0.000	779.000	17930.000	17720.000
2	18:30:46	75.136%	15.670	37.090	36.290	0.000	811.200	18360.000	18250.000
3	18:31:05	67.877%	17.760	33.980	35.850	0.000	822.200	18810.000	18430.000
x		73.612%	16.350	34.230	35.180	0.000	804.100	18370.000	18130.000
σ		5.145%	1.222	2.744	1.554	0.000	22.440	441.600	372.000
%RSD		6.989	7.475	8.015	4.417	0.000	2.791	2.404	2.051

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:30:27	137100.000	1780.000	0.000	11000.000	17620.000	18060.000	78.497%	1777.000
2	18:30:46	143900.000	1842.000	0.000	11190.000	18180.000	18770.000	77.823%	1849.000
3	18:31:05	144400.000	1908.000	0.000	10960.000	17820.000	18850.000	77.602%	1802.000
x		141800.000	1843.000	0.000	11050.000	17870.000	18560.000	77.974%	1809.000
σ		4053.000	64.130	0.000	124.200	286.200	435.400	0.466%	36.800
%RSD		2.858	3.479	0.000	1.124	1.601	2.346	0.598	2.034

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:30:27	553.300	800.800	2493.000	300700.000	307400.000	131.000	257.600	798.200
2	18:30:46	565.100	823.100	2554.000	297900.000	306800.000	130.800	251.300	853.000
3	18:31:05	563.200	810.100	2508.000	298600.000	304100.000	127.700	246.400	832.800
x		560.500	811.300	2518.000	299100.000	306100.000	129.800	251.800	828.000
σ		6.339	11.180	31.770	1478.000	1783.000	1.832	5.618	27.760
%RSD		1.131	1.378	1.262	0.494	0.583	1.411	2.231	3.352

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:30:27	862.300	2357.000	2394.000	123.500	14.970	19.320	0.000	315.300
2	18:30:46	854.700	2374.000	2404.000	124.700	14.750	20.520	0.000	317.600
3	18:31:05	845.800	2356.000	2356.000	123.900	14.940	19.530	0.000	316.900
x		854.300	2362.000	2384.000	124.000	14.890	19.790	0.000	316.600
σ		8.238	9.813	25.430	0.619	0.121	0.641	0.000	1.182
%RSD		0.964	0.415	1.066	0.499	0.812	3.238	0.000	0.373

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:30:27	0.000	20.160	20.140	60.562%	84.800	83.910	15.480	14.820
2	18:30:46	0.000	19.800	20.100	60.848%	85.790	84.420	15.780	14.600
3	18:31:05	0.000	19.390	20.420	60.976%	85.310	84.890	15.820	14.770
x		0.000	19.780	20.220	60.795%	85.300	84.410	15.690	14.730
σ		0.000	0.382	0.173	0.212%	0.497	0.486	0.185	0.113
%RSD		0.000	1.932	0.856	0.348	0.583	0.576	1.181	0.764

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:30:27	65.473%	116.900	6.634	6.695	764.500	1363.000	85.459%	86.192%
2	18:30:46	66.473%	117.000	6.644	6.575	761.400	1370.000	86.727%	88.135%
3	18:31:05	66.548%	117.000	6.697	6.614	767.500	1373.000	87.214%	89.579%
x		66.165%	117.000	6.658	6.628	764.500	1368.000	86.466%	87.969%
σ		0.600%	0.062	0.034	0.061	3.052	4.700	0.906%	1.700%
%RSD		0.907	0.053	0.505	0.917	0.399	0.344	1.047	1.932

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	18:30:27	4.497	4.957	2029.000	1886.000	2026.000	57.407%
2	18:30:46	4.655	4.896	2024.000	1883.000	2026.000	59.433%
3	18:31:05	4.526	4.997	2020.000	1868.000	2012.000	60.459%
x		4.559	4.950	2024.000	1879.000	2021.000	59.100%
σ		0.084	0.051	4.440	9.616	7.916	1.553%
%RSD		1.837	1.028	0.219	0.512	0.392	2.628

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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	18:34:15	81.091%	16.050	31.700	32.190	0.000	748.200	17470.000	17430.000
2	18:34:34	79.622%	16.690	30.450	29.340	0.000	744.700	17230.000	17150.000
3	18:34:53	77.969%	16.640	29.770	31.500	0.000	752.200	17480.000	17700.000
x		79.561%	16.460	30.640	31.010	0.000	748.400	17390.000	17430.000
σ		1.562%	0.356	0.976	1.488	0.000	3.769	139.400	272.800
%RSD		1.963	2.162	3.185	4.797	0.000	0.504	0.801	1.565

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:34:15	159200.000	1974.000	0.000	11180.000	18230.000	18890.000	81.317%	1756.000
2	18:34:34	162900.000	1994.000	0.000	11290.000	18480.000	19200.000	81.160%	1746.000
3	18:34:53	165900.000	2017.000	0.000	11200.000	18240.000	19260.000	81.100%	1741.000
x		162700.000	1995.000	0.000	11220.000	18320.000	19120.000	81.192%	1748.000
σ		3323.000	21.610	0.000	57.560	140.000	197.700	0.112%	7.378
%RSD		2.043	1.083	0.000	0.513	0.764	1.034	0.138	0.422

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:34:15	524.700	1243.000	3704.000	302800.000	314100.000	142.400	223.200	825.700
2	18:34:34	518.100	1250.000	3723.000	304300.000	311500.000	140.300	221.600	813.800
3	18:34:53	537.000	1281.000	3720.000	306100.000	311600.000	143.200	224.900	831.500
x		526.600	1258.000	3716.000	304400.000	312400.000	142.000	223.200	823.700
σ		9.593	19.980	9.960	1680.000	1515.000	1.520	1.662	9.035
%RSD		1.822	1.588	0.268	0.552	0.485	1.070	0.745	1.097

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:34:15	888.200	2566.000	2566.000	86.090	8.036	14.610	0.000	266.900
2	18:34:34	883.300	2229.000	2546.000	83.880	7.725	13.110	0.000	256.200
3	18:34:53	790.500	2244.000	2558.000	86.300	8.441	14.240	0.000	257.900
x		854.000	2347.000	2557.000	85.420	8.067	13.990	0.000	260.400
σ		55.040	190.400	10.090	1.336	0.359	0.777	0.000	5.744
%RSD		6.445	8.114	0.395	1.564	4.445	5.559	0.000	2.206

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:34:15	0.000	18.830	19.350	61.180%	84.930	83.550	152.700	149.700
2	18:34:34	0.000	19.130	19.170	61.714%	84.460	83.740	154.200	149.500
3	18:34:53	0.000	19.620	20.000	60.652%	87.030	85.130	155.400	152.200
x		0.000	19.190	19.510	61.182%	85.480	84.140	154.100	150.400
σ		0.000	0.397	0.434	0.531%	1.369	0.863	1.350	1.501
%RSD		0.000	2.069	2.225	0.868	1.602	1.026	0.876	0.998

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:34:15	65.162%	128.300	9.769	9.689	850.800	1527.000	86.115%	87.931%
2	18:34:34	66.406%	126.300	9.736	9.568	848.400	1528.000	87.095%	89.094%
3	18:34:53	65.389%	128.500	9.967	9.800	862.900	1557.000	87.518%	88.920%
x		65.653%	127.700	9.824	9.686	854.000	1537.000	86.909%	88.648%
σ		0.662%	1.192	0.125	0.116	7.789	16.840	0.720%	0.627%
%RSD		1.009	0.933	1.270	1.200	0.912	1.096	0.828	0.708

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	18:34:15	3.667	3.965	1790.000	1653.000	1782.000	59.225%
2	18:34:34	3.684	3.965	1788.000	1655.000	1790.000	60.285%
3	18:34:53	3.591	3.928	1758.000	1623.000	1751.000	62.511%
x		3.647	3.953	1779.000	1643.000	1774.000	60.674%
σ		0.050	0.021	18.130	18.050	20.920	1.677%
%RSD		1.371	0.538	1.019	1.098	1.179	2.764

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:38:03	81.331%	15.500	33.090	30.670	0.000	826.900	27910.000	27890.000
2	18:38:22	79.820%	15.130	32.360	31.110	0.000	828.800	27820.000	28460.000
3	18:38:41	82.239%	14.670	29.790	32.470	0.000	831.200	28420.000	29200.000
x		81.130%	15.100	31.750	31.420	0.000	829.000	28050.000	28520.000
σ		1.222%	0.418	1.733	0.938	0.000	2.132	326.400	656.100
%RSD		1.506	2.769	5.458	2.985	0.000	0.257	1.164	2.301

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:38:03	130500.000	2094.000	0.000	11020.000	18790.000	19210.000	79.159%	1868.000
2	18:38:22	135200.000	2122.000	0.000	10980.000	18460.000	19480.000	77.114%	1924.000
3	18:38:41	129600.000	2045.000	0.000	11000.000	18200.000	19780.000	75.261%	1961.000
x		131800.000	2087.000	0.000	11000.000	18480.000	19490.000	77.178%	1918.000
σ		3028.000	39.040	0.000	21.700	294.200	282.500	1.949%	46.540
%RSD		2.298	1.871	0.000	0.197	1.592	1.449	2.526	2.427

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:38:03	654.600	750.100	3770.000	297000.000	307400.000	175.500	405.700	1452.000
2	18:38:22	654.600	758.900	3851.000	301800.000	305900.000	175.300	404.900	1495.000
3	18:38:41	669.500	768.000	4012.000	314800.000	322500.000	185.200	426.100	1528.000
x		659.500	759.000	3878.000	304500.000	311900.000	178.700	412.200	1492.000
σ		8.590	8.980	123.000	9206.000	9171.000	5.664	12.000	38.140
%RSD		1.302	1.183	3.171	3.023	2.940	3.170	2.912	2.557

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:38:03	1580.000	3034.000	3106.000	66.570	6.342	11.390	0.000	169.500
2	18:38:22	1628.000	3119.000	3514.000	68.490	7.326	11.820	0.000	171.300
3	18:38:41	1657.000	3138.000	3583.000	69.470	6.907	11.370	0.000	175.300
x		1622.000	3097.000	3401.000	68.180	6.858	11.530	0.000	172.000
σ		38.740	55.380	257.900	1.479	0.493	0.252	0.000	2.960
%RSD		2.389	1.788	7.582	2.169	7.195	2.189	0.000	1.721

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:38:03	0.000	18.030	18.800	59.592%	27.240	27.060	25.050	23.680
2	18:38:22	0.000	18.350	19.020	59.144%	27.370	27.290	25.720	24.320
3	18:38:41	0.000	18.470	18.830	58.506%	27.840	27.660	26.350	24.850
x		0.000	18.280	18.880	59.081%	27.480	27.340	25.710	24.290
σ		0.000	0.229	0.117	0.546%	0.317	0.299	0.649	0.586
%RSD		0.000	1.253	0.621	0.923	1.152	1.094	2.526	2.411

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:38:03	62.593%	104.700	6.620	6.789	1067.000	1068.000	81.082%	81.279%
2	18:38:22	63.237%	104.800	6.802	6.692	1071.000	1070.000	81.079%	81.421%
3	18:38:41	61.409%	107.300	6.949	6.875	1089.000	1096.000	80.845%	81.055%
x		62.413%	105.600	6.790	6.785	1076.000	1078.000	81.002%	81.252%
σ		0.927%	1.478	0.165	0.092	11.820	16.040	0.136%	0.184%
%RSD		1.486	1.399	2.430	1.349	1.099	1.488	0.168	0.227

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	18:38:03	2.986	3.171	3782.000	3392.000	3697.000	53.751%
2	18:38:22	3.093	3.199	3756.000	3373.000	3677.000	54.256%
3	18:38:41	2.975	3.109	3681.000	3311.000	3607.000	55.382%
x		3.018	3.160	3740.000	3359.000	3660.000	54.463%
σ		0.065	0.046	52.480	42.510	47.410	0.835%
%RSD		2.149	1.458	1.403	1.266	1.295	1.532

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:41:50	75.022%	15.510	29.630	28.470	0.000	720.200	18620.000	18860.000
2	18:42:09	74.989%	16.250	28.930	27.410	0.000	708.700	17690.000	17830.000
3	18:42:29	76.150%	15.560	27.560	28.250	0.000	721.200	17970.000	18210.000
x		75.387%	15.780	28.710	28.050	0.000	716.700	18100.000	18300.000
σ		0.661%	0.415	1.053	0.561	0.000	6.921	476.700	520.800
%RSD		0.876	2.628	3.669	2.001	0.000	0.966	2.634	2.846

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:41:50	123000.000	1827.000	0.000	9515.000	19010.000	20320.000	76.285%	1570.000
2	18:42:09	118000.000	1766.000	0.000	9287.000	18180.000	19760.000	75.863%	1544.000
3	18:42:29	119400.000	1774.000	0.000	9174.000	18270.000	20180.000	69.608%	1603.000
x		120200.000	1789.000	0.000	9325.000	18490.000	20080.000	73.919%	1572.000
σ		2570.000	33.130	0.000	173.600	458.300	292.400	3.739%	29.650
%RSD		2.139	1.852	0.000	1.862	2.479	1.456	5.058	1.885

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:41:50	559.800	793.600	2706.000	287200.000	292600.000	132.200	260.300	851.900
2	18:42:09	556.600	769.200	2693.000	287200.000	287000.000	133.000	258.800	842.700
3	18:42:29	569.100	794.700	2823.000	303100.000	307500.000	140.800	276.300	885.500
x		561.800	785.800	2741.000	292500.000	295700.000	135.300	265.100	860.000
σ		6.496	14.400	71.920	9145.000	10560.000	4.779	9.692	22.490
%RSD		1.156	1.832	2.624	3.127	3.571	3.531	3.656	2.615

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:41:50	893.700	2650.000	2655.000	91.100	10.690	15.220	0.000	251.300
2	18:42:09	878.200	2621.000	2698.000	89.550	10.930	15.210	0.000	255.300
3	18:42:29	925.300	2791.000	2797.000	92.750	10.620	15.940	0.000	256.700
x		899.100	2687.000	2717.000	91.130	10.750	15.460	0.000	254.400
σ		24.000	91.190	72.610	1.598	0.164	0.422	0.000	2.781
%RSD		2.669	3.393	2.673	1.753	1.523	2.729	0.000	1.093

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:41:50	0.000	18.790	18.980	54.167%	73.140	72.670	16.320	15.210
2	18:42:09	0.000	18.500	18.870	54.052%	73.040	72.240	15.460	14.950
3	18:42:29	0.000	18.860	19.230	54.134%	73.680	72.250	16.280	15.240
x		0.000	18.720	19.030	54.118%	73.290	72.390	16.020	15.130
σ		0.000	0.190	0.186	0.059%	0.347	0.246	0.487	0.156
%RSD		0.000	1.014	0.980	0.109	0.473	0.340	3.040	1.029

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:41:50	55.765%	105.000	27.050	26.910	1237.000	1229.000	68.137%	67.530%
2	18:42:09	56.387%	106.600	27.260	26.860	1238.000	1230.000	68.577%	68.666%
3	18:42:29	55.288%	107.200	27.670	27.350	1245.000	1236.000	68.662%	68.813%
x		55.813%	106.300	27.330	27.040	1240.000	1232.000	68.459%	68.336%
σ		0.551%	1.141	0.317	0.270	4.092	3.610	0.282%	0.702%
%RSD		0.988	1.074	1.161	0.997	0.330	0.293	0.412	1.027

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	18:41:50	3.472	3.747	2406.000	2230.000	2397.000	41.339%
2	18:42:09	3.454	3.676	2393.000	2227.000	2391.000	41.473%
3	18:42:29	3.604	3.771	2412.000	2228.000	2389.000	41.323%
x		3.510	3.731	2404.000	2228.000	2392.000	41.378%
σ		0.082	0.049	10.040	1.626	4.156	0.082%
%RSD		2.340	1.317	0.418	0.073	0.174	0.199

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:45:38	70.831%	13.560	26.900	27.640	0.000	977.600	22350.000	22140.000
2	18:45:57	64.403%	14.760	31.460	28.380	0.000	975.000	22990.000	23090.000
3	18:46:16	73.746%	12.850	28.720	25.510	0.000	898.300	21560.000	21390.000
x		69.660%	13.730	29.030	27.180	0.000	950.300	22300.000	22210.000
σ		4.780%	0.964	2.296	1.487	0.000	45.060	716.600	855.000
%RSD		6.862	7.025	7.910	5.473	0.000	4.741	3.213	3.850

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:45:38	151200.000	1597.000	0.000	12620.000	29490.000	31030.000	67.333%	2275.000
2	18:45:57	151300.000	1669.000	0.000	13090.000	29720.000	30790.000	65.105%	2338.000
3	18:46:16	151700.000	1595.000	0.000	12880.000	29970.000	31780.000	63.330%	2342.000
x		151400.000	1620.000	0.000	12860.000	29730.000	31200.000	65.256%	2318.000
σ		232.500	41.870	0.000	234.100	241.100	513.400	2.006%	37.850
%RSD		0.154	2.584	0.000	1.820	0.811	1.646	3.074	1.633

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:45:38	449.300	292.100	3746.000	312300.000	317100.000	137.700	193.800	538.400
2	18:45:57	472.600	308.300	3756.000	326600.000	326800.000	142.600	196.800	544.600
3	18:46:16	468.400	292.700	3826.000	322000.000	323000.000	141.300	199.900	558.700
x		463.500	297.700	3776.000	320300.000	322300.000	140.600	196.800	547.200
σ		12.420	9.196	43.470	7291.000	4914.000	2.539	3.018	10.410
%RSD		2.680	3.089	1.151	2.276	1.525	1.807	1.533	1.903

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:45:38	545.500	1673.000	1676.000	63.450	7.273	11.780	0.000	201.000
2	18:45:57	542.700	1689.000	1695.000	64.020	7.349	12.360	0.000	202.900
3	18:46:16	550.300	1730.000	1732.000	65.990	7.105	12.310	0.000	209.400
x		546.100	1697.000	1701.000	64.490	7.243	12.150	0.000	204.400
σ		3.836	29.120	28.520	1.331	0.125	0.325	0.000	4.398
%RSD		0.703	1.716	1.677	2.064	1.719	2.677	0.000	2.152

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:45:38	0.000	13.130	12.900	52.469%	9.017	9.025	5.757	4.882
2	18:45:57	0.000	12.990	13.290	52.781%	9.352	9.470	5.694	4.779
3	18:46:16	0.000	13.590	13.180	52.960%	9.311	9.198	5.652	4.791
x		0.000	13.240	13.120	52.737%	9.227	9.231	5.701	4.817
σ		0.000	0.314	0.197	0.248%	0.183	0.224	0.053	0.057
%RSD		0.000	2.376	1.498	0.471	1.978	2.429	0.923	1.176

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:45:38	54.783%	82.390	3.674	3.826	1220.000	1214.000	71.427%	71.320%
2	18:45:57	55.597%	84.100	3.925	3.852	1228.000	1227.000	73.776%	74.367%
3	18:46:16	56.204%	83.290	3.852	3.795	1226.000	1217.000	74.352%	75.290%
x		55.528%	83.260	3.817	3.824	1225.000	1219.000	73.185%	73.659%
σ		0.713%	0.853	0.129	0.028	4.302	6.925	1.550%	2.077%
%RSD		1.284	1.024	3.373	0.737	0.351	0.568	2.118	2.820

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	18:45:38	3.144	3.352	1568.000	1442.000	1554.000	44.587%
2	18:45:57	3.196	3.442	1558.000	1433.000	1545.000	47.650%
3	18:46:16	3.357	3.477	1569.000	1438.000	1551.000	48.917%
x		3.232	3.424	1565.000	1438.000	1550.000	47.051%
σ		0.111	0.065	5.747	4.531	4.466	2.226%
%RSD		3.427	1.885	0.367	0.315	0.288	4.731

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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	18:49:26	74.288%	9.870	42.280	43.490	0.000	726.200	27410.000	27430.000
2	18:49:45	69.643%	10.030	44.560	42.330	0.000	716.000	28160.000	27720.000
3	18:50:04	71.926%	9.232	41.280	40.320	0.000	727.800	27910.000	28120.000
x		71.952%	9.711	42.700	42.050	0.000	723.300	27830.000	27760.000
σ		2.322%	0.422	1.680	1.601	0.000	6.406	382.500	345.800
%RSD		3.228	4.350	3.933	3.807	0.000	0.886	1.374	1.246
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:49:26	79770.000	1911.000	0.000	18350.000	17830.000	19200.000	61.794%	3563.000
2	18:49:45	76560.000	1892.000	0.000	18460.000	17640.000	18990.000	62.491%	3521.000
3	18:50:04	76040.000	1898.000	0.000	18890.000	17620.000	19220.000	59.910%	3562.000
x		77460.000	1900.000	0.000	18560.000	17700.000	19140.000	61.398%	3549.000
σ		2020.000	9.613	0.000	284.400	114.000	128.000	1.335%	23.970
%RSD		2.608	0.506	0.000	1.532	0.644	0.669	2.175	0.675
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:49:26	431.000	346.400	4055.000	219600.000	222300.000	149.600	277.100	301.300
2	18:49:45	416.400	344.000	4024.000	223800.000	226800.000	148.100	270.100	295.200
3	18:50:04	434.500	344.300	4032.000	220300.000	223600.000	144.100	267.500	297.500
x		427.300	344.900	4037.000	221200.000	224200.000	147.300	271.600	298.000
σ		9.609	1.307	16.180	2255.000	2331.000	2.815	4.984	3.077
%RSD		2.249	0.379	0.401	1.019	1.039	1.911	1.835	1.032
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:49:26	301.800	1567.000	1556.000	32.780	3.916	7.384	0.000	119.500
2	18:49:45	289.400	1527.000	1518.000	33.280	3.296	7.030	0.000	118.000
3	18:50:04	297.800	1542.000	1542.000	33.150	3.484	7.237	0.000	119.500
x		296.300	1545.000	1539.000	33.070	3.565	7.217	0.000	119.000
σ		6.343	20.290	19.410	0.262	0.318	0.178	0.000	0.879
%RSD		2.141	1.313	1.262	0.792	8.924	2.470	0.000	0.739
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:49:26	0.000	12.050	12.410	53.669%	4.928	4.615	9.571	8.711
2	18:49:45	0.000	11.990	12.120	53.660%	4.658	4.787	9.208	8.773
3	18:50:04	0.000	12.170	12.490	53.847%	4.712	4.743	9.128	8.677
x		0.000	12.070	12.340	53.725%	4.766	4.715	9.303	8.720
σ		0.000	0.092	0.196	0.106%	0.143	0.089	0.236	0.049
%RSD		0.000	0.758	1.587	0.196	3.003	1.891	2.540	0.557
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:49:26	57.612%	73.660	3.135	3.187	769.200	770.100	70.941%	71.520%
2	18:49:45	57.916%	73.710	3.133	3.193	778.100	777.300	72.123%	73.148%
3	18:50:04	57.892%	73.180	3.280	3.155	778.400	777.300	73.051%	73.975%
x		57.807%	73.520	3.183	3.178	775.200	774.900	72.038%	72.881%
σ		0.169%	0.294	0.084	0.021	5.208	4.151	1.058%	1.249%
%RSD		0.293	0.400	2.635	0.646	0.672	0.536	1.468	1.714
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	18:49:26	2.247	2.476	1359.000	1231.000	1333.000	51.096%		
2	18:49:45	2.243	2.450	1355.000	1222.000	1327.000	52.568%		
3	18:50:04	2.282	2.431	1343.000	1217.000	1321.000	53.884%		
x		2.257	2.452	1352.000	1223.000	1327.000	52.516%		
σ		0.022	0.022	8.425	6.905	5.937	1.395%		
%RSD		0.955	0.910	0.623	0.564	0.447	2.656		

CCV 1558997 5/27/2015 6:56:11 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	18:56:11	79.564%	102.300	103.600	104.500	0.000	45490.000	46210.000	46910.000
2	18:56:30	81.411%	100.000	95.670	98.380	0.000	45420.000	45670.000	45450.000
3	18:56:50	79.447%	103.600	98.880	98.470	0.000	45090.000	46790.000	47450.000
x		80.141%	101.973%	99.373%	100.464%	0.000	90.660%	92.442%	93.204%
σ		1.102%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.375	1.783	3.999	3.517	0.000	0.467	1.208	2.229

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:56:11	525.300	5044.000	0.000	46570.000	45710.000	47080.000	69.192%	96.590
2	18:56:30	517.800	4957.000	0.000	47940.000	47280.000	48280.000	65.121%	102.100
3	18:56:50	531.000	5165.000	0.000	48610.000	48890.000	50570.000	65.032%	103.400
x		104.936%	101.108%	0.000	95.417%	94.580%	97.286%	66.448%	100.701%
σ		n/a	n/a	0.000	n/a	n/a	n/a	2.376%	n/a
%RSD		1.257	2.065	0.000	2.176	3.358	3.653	3.576	3.589

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:56:11	93.490	94.670	478.500	24120.000	24010.000	94.750	96.810	97.420
2	18:56:30	97.300	100.100	498.000	25360.000	25040.000	98.850	101.600	101.700
3	18:56:50	99.780	99.170	503.100	25330.000	25270.000	100.100	100.800	101.800
x		96.858%	97.993%	98.638%	99.740%	99.090%	97.916%	99.725%	100.298%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		3.270	2.979	2.634	2.842	2.715	2.876	2.561	2.490

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:56:11	96.850	90.660	90.720	95.120	97.830	96.630	0.000	92.650
2	18:56:30	102.100	95.140	93.900	96.790	96.470	97.410	0.000	95.100
3	18:56:50	99.900	93.370	96.870	96.200	96.990	96.560	0.000	93.770
x		99.606%	93.056%	93.829%	96.036%	97.096%	96.868%	0.000	93.840%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.630	2.421	3.276	0.883	0.711	0.486	0.000	1.308

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:56:11	59.786%	88.360	88.810	57.938%	94.250	95.670	97.000	98.840
2	18:56:30	59.787%	89.300	90.060	57.950%	95.870	96.870	97.050	101.300
3	18:56:50	61.160%	90.910	91.140	59.075%	95.620	96.510	97.480	99.980
x		60.244%	89.523%	90.006%	58.321%	95.244%	96.351%	97.177%	100.034%
σ		0.793%	n/a	n/a	0.653%	n/a	n/a	n/a	n/a
%RSD		1.317	1.441	1.296	1.120	0.917	0.638	0.275	1.223

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	18:56:11	52.976%	96.570	89.670	88.950	94.370	94.000	57.749%	61.501%
2	18:56:30	52.111%	99.350	91.620	92.200	97.370	96.830	58.549%	61.701%
3	18:56:50	53.292%	98.530	92.120	90.990	96.700	95.630	59.553%	62.603%
x		52.793%	98.148%	91.138%	90.714%	96.147%	95.488%	58.617%	61.935%
σ		0.611%	n/a	n/a	n/a	n/a	n/a	0.904%	0.587%
%RSD		1.158	1.458	1.425	1.809	1.638	1.492	1.542	0.948

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	18:56:11	92.650	98.180	95.180	93.460	95.110	61.505%
2	18:56:30	96.440	102.900	99.710	97.870	99.680	59.881%
3	18:56:50	98.930	104.500	101.800	99.520	101.700	58.487%
x		96.007%	101.891%	98.909%	96.948%	98.837%	59.958%
σ		n/a	n/a	n/a	n/a	n/a	1.510%
%RSD		3.291	3.249	3.435	3.232	3.423	2.519

CCB10 5/27/2015 7:02:51 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	19:03:11	90.188%	-0.011	1.677	1.912	0.000	4.433	3.168	4.162
2	19:03:30	84.436%	-0.017	1.837	2.049	0.000	4.657	2.812	3.951
3	19:03:49	88.002%	0.027	2.405	1.889	0.000	4.000	2.454	3.651
x		87.542%	-0.000	1.973	1.950	0.000	4.363	2.811	3.922
σ		2.904%	0.024	0.383	0.087	0.000	0.334	0.357	0.257
%RSD		3.317	8775.000	19.410	4.456	0.000	7.659	12.700	6.549
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:03:11	3.342	-67.150	0.000	4.294	7.655	6.445	75.812%	0.189
2	19:03:30	1.863	-65.770	0.000	4.760	4.163	6.155	72.508%	0.157
3	19:03:49	1.389	-67.550	0.000	5.047	12.550	7.470	70.883%	0.163
x		2.198	-66.830	0.000	4.700	8.121	6.690	73.068%	0.170
σ		1.019	0.933	0.000	0.380	4.210	0.691	2.512%	0.017
%RSD		46.360	1.396	0.000	8.091	51.840	10.330	3.437	9.969
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:03:11	0.019	-0.046	0.198	3.453	15.140	0.015	0.005	0.051
2	19:03:30	0.021	-0.025	0.149	2.217	13.500	0.024	0.006	0.047
3	19:03:49	-0.010	-0.039	0.173	0.376	13.460	0.015	0.056	0.058
x		0.010	-0.037	0.173	2.015	14.040	0.018	0.023	0.052
σ		0.017	0.011	0.025	1.548	0.961	0.005	0.029	0.006
%RSD		172.800	29.650	14.180	76.840	6.846	25.980	128.400	10.690
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:03:11	0.129	0.690	0.791	0.223	-0.163	0.494	0.000	0.026
2	19:03:30	0.061	0.651	0.704	0.205	-0.015	0.306	0.000	0.026
3	19:03:49	0.063	0.837	0.591	0.263	-0.168	0.570	0.000	0.020
x		0.085	0.726	0.695	0.230	-0.115	0.457	0.000	0.024
σ		0.039	0.098	0.100	0.030	0.087	0.136	0.000	0.003
%RSD		45.920	13.510	14.450	12.840	75.620	29.750	0.000	14.320
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:03:11	57.183%	0.012	0.054	59.080%	-0.013	-0.015	0.083	0.065
2	19:03:30	57.542%	0.208	0.148	60.015%	-0.011	-0.003	0.049	0.055
3	19:03:49	56.730%	0.204	0.168	58.892%	-0.012	0.002	0.082	0.076
x		57.152%	0.141	0.123	59.329%	-0.012	-0.005	0.071	0.065
σ		0.407%	0.112	0.061	0.602%	0.001	0.009	0.020	0.011
%RSD		0.712	79.260	49.440	1.014	9.509	178.800	27.550	16.800
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:03:11	53.283%	0.032	0.671	0.695	0.076	0.081	50.924%	49.306%
2	19:03:30	53.624%	0.076	0.759	0.731	0.028	0.039	51.617%	49.733%
3	19:03:49	53.000%	0.075	0.761	0.725	0.013	0.030	51.363%	51.030%
x		53.302%	0.061	0.731	0.717	0.039	0.050	51.301%	50.023%
σ		0.313%	0.025	0.052	0.020	0.033	0.027	0.350%	0.898%
%RSD		0.587	40.830	7.108	2.730	83.620	54.760	0.683	1.795
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:03:11	0.013	0.020	0.052	0.063	0.063	43.004%		
2	19:03:30	0.017	0.020	0.039	0.059	0.047	42.679%		
3	19:03:49	0.024	0.028	0.040	0.035	0.039	43.810%		
x		0.018	0.023	0.044	0.053	0.050	43.164%		
σ		0.005	0.004	0.007	0.015	0.012	0.582%		
%RSD		28.970	19.580	16.360	28.720	24.450	1.349		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:07:01	75.433%	13.460	50.800	50.660	0.000	591.200	18470.000	18280.000
2	19:07:21	67.871%	14.310	51.940	50.580	0.000	649.300	20200.000	20220.000
3	19:07:40	71.647%	12.950	47.780	48.260	0.000	574.800	17920.000	18140.000
x		71.650%	13.570	50.170	49.830	0.000	605.100	18870.000	18880.000
σ		3.781%	0.687	2.151	1.360	0.000	39.130	1190.000	1161.000
%RSD		5.277	5.058	4.287	2.728	0.000	6.466	6.306	6.149

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:07:01	105100.000	2006.000	0.000	13960.000	17910.000	18740.000	69.071%	2081.000
2	19:07:21	110900.000	2143.000	0.000	14770.000	19510.000	20060.000	66.098%	2191.000
3	19:07:40	104400.000	2034.000	0.000	14110.000	17950.000	18900.000	66.118%	2163.000
x		106800.000	2061.000	0.000	14280.000	18460.000	19240.000	67.096%	2145.000
σ		3574.000	72.530	0.000	431.100	908.700	721.200	1.711%	57.450
%RSD		3.347	3.519	0.000	3.018	4.923	3.749	2.550	2.678

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:07:01	418.500	985.800	1983.000	239800.000	243300.000	133.400	198.700	451.600
2	19:07:21	458.900	1068.000	2013.000	244600.000	247200.000	136.400	204.600	469.900
3	19:07:40	438.500	1046.000	2065.000	249300.000	254400.000	138.800	207.700	479.400
x		438.600	1033.000	2020.000	244600.000	248300.000	136.200	203.700	467.000
σ		20.180	42.600	41.180	4717.000	5676.000	2.731	4.560	14.120
%RSD		4.602	4.122	2.038	1.928	2.286	2.005	2.239	3.023

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:07:01	465.500	1728.000	1728.000	63.090	7.435	12.210	0.000	182.900
2	19:07:21	462.600	1721.000	1758.000	63.090	7.025	12.860	0.000	184.100
3	19:07:40	476.200	1745.000	1744.000	61.080	6.977	11.130	0.000	184.900
x		468.100	1731.000	1743.000	62.420	7.146	12.070	0.000	184.000
σ		7.164	12.580	14.590	1.159	0.252	0.874	0.000	0.998
%RSD		1.530	0.727	0.837	1.856	3.524	7.246	0.000	0.542

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:07:01	0.000	19.230	19.280	53.829%	15.650	15.360	15.250	14.970
2	19:07:21	0.000	18.730	19.630	53.491%	15.890	15.350	15.480	15.180
3	19:07:40	0.000	19.270	19.100	54.429%	15.520	15.050	15.900	14.770
x		0.000	19.070	19.340	53.916%	15.690	15.260	15.540	14.970
σ		0.000	0.303	0.273	0.475%	0.191	0.174	0.326	0.204
%RSD		0.000	1.588	1.414	0.881	1.217	1.143	2.100	1.362

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:07:01	56.767%	98.470	8.426	8.416	1041.000	1036.000	74.179%	74.675%
2	19:07:21	57.008%	100.700	8.360	8.376	1058.000	1065.000	75.677%	76.578%
3	19:07:40	58.710%	97.460	7.977	7.792	1037.000	1035.000	77.424%	78.478%
x		57.495%	98.860	8.254	8.195	1045.000	1045.000	75.760%	76.577%
σ		1.059%	1.633	0.242	0.349	11.520	16.820	1.624%	1.902%
%RSD		1.843	1.652	2.934	4.261	1.102	1.609	2.144	2.483

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	19:07:01	2.963	3.114	1021.000	944.900	1016.000	52.175%
2	19:07:21	2.872	3.116	1004.000	924.600	994.800	55.563%
3	19:07:40	2.965	3.284	1040.000	962.700	1034.000	54.255%
x		2.933	3.171	1022.000	944.100	1015.000	53.997%
σ		0.053	0.097	17.930	19.030	19.820	1.708%
%RSD		1.815	3.067	1.755	2.016	1.953	3.164

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:10:49	82.414%	9.403	55.060	52.310	0.000	604.000	11590.000	11470.000
2	19:11:09	77.744%	9.586	54.910	54.850	0.000	612.400	11620.000	11560.000
3	19:11:28	75.615%	9.410	57.380	55.830	0.000	646.800	11790.000	11670.000
x		78.591%	9.466	55.780	54.330	0.000	621.100	11670.000	11560.000
σ		3.478%	0.104	1.387	1.818	0.000	22.660	110.700	102.500
%RSD		4.426	1.094	2.486	3.347	0.000	3.649	0.949	0.887

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:10:49	66330.000	2498.000	0.000	9406.000	19410.000	20400.000	67.854%	1592.000
2	19:11:09	67420.000	2534.000	0.000	9581.000	20100.000	20610.000	66.755%	1565.000
3	19:11:28	69630.000	2649.000	0.000	10010.000	20640.000	21740.000	63.013%	1627.000
x		67790.000	2560.000	0.000	9667.000	20050.000	20910.000	65.874%	1595.000
σ		1685.000	78.870	0.000	313.700	613.200	721.900	2.538%	31.160
%RSD		2.485	3.081	0.000	3.245	3.058	3.452	3.852	1.954

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:10:49	298.100	221.000	3755.000	236400.000	238900.000	101.800	160.700	749.700
2	19:11:09	297.600	217.300	3715.000	231200.000	233300.000	100.300	158.500	738.400
3	19:11:28	308.200	235.400	3988.000	255300.000	251900.000	107.900	169.000	798.800
x		301.300	224.500	3819.000	241000.000	241400.000	103.300	162.700	762.300
σ		5.936	9.558	147.600	12690.000	9557.000	4.005	5.525	32.090
%RSD		1.970	4.257	3.864	5.266	3.959	3.877	3.395	4.210

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:10:49	742.600	3680.000	3732.000	42.590	4.137	8.066	0.000	189.600
2	19:11:09	750.600	3681.000	3746.000	42.270	3.565	7.599	0.000	192.700
3	19:11:28	793.300	3877.000	3909.000	43.950	4.127	8.135	0.000	204.500
x		762.200	3746.000	3795.000	42.940	3.943	7.934	0.000	195.600
σ		27.250	113.200	98.400	0.893	0.328	0.292	0.000	7.868
%RSD		3.575	3.022	2.593	2.080	8.309	3.675	0.000	4.022

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:10:49	0.000	7.438	7.674	55.710%	12.650	12.520	10.340	7.791
2	19:11:09	0.000	7.420	7.852	56.373%	12.740	12.560	10.410	7.638
3	19:11:28	0.000	7.855	8.118	55.054%	12.810	12.710	10.640	7.712
x		0.000	7.571	7.881	55.712%	12.730	12.600	10.460	7.714
σ		0.000	0.246	0.224	0.659%	0.082	0.102	0.161	0.076
%RSD		0.000	3.251	2.840	1.183	0.646	0.806	1.535	0.987

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:10:49	58.692%	790.800	32.340	31.960	972.100	1758.000	71.716%	72.488%
2	19:11:09	59.297%	796.900	32.230	32.250	969.200	1760.000	72.469%	73.679%
3	19:11:28	58.906%	805.800	32.900	32.770	988.800	1796.000	72.553%	74.455%
x		58.965%	797.800	32.490	32.330	976.700	1771.000	72.246%	73.541%
σ		0.307%	7.504	0.358	0.408	10.560	21.320	0.461%	0.991%
%RSD		0.521	0.941	1.104	1.262	1.081	1.203	0.638	1.347

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	19:10:49	1.637	1.774	3769.000	3508.000	3775.000	54.589%
2	19:11:09	1.632	1.780	3812.000	3550.000	3807.000	55.738%
3	19:11:28	1.664	1.780	3726.000	3473.000	3721.000	58.025%
x		1.644	1.778	3769.000	3510.000	3767.000	56.117%
σ		0.017	0.003	43.130	38.430	43.120	1.749%
%RSD		1.038	0.196	1.144	1.095	1.145	3.117

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:14:38	78.362%	9.085	43.910	43.340	0.000	601.200	14480.000	14130.000
2	19:14:57	75.194%	8.977	44.030	43.560	0.000	581.200	14270.000	14100.000
3	19:15:16	76.656%	9.266	42.290	44.910	0.000	603.500	15150.000	15110.000
x		76.738%	9.109	43.410	43.940	0.000	595.300	14640.000	14450.000
σ		1.586%	0.146	0.971	0.850	0.000	12.270	461.100	575.200
%RSD		2.066	1.603	2.238	1.933	0.000	2.061	3.150	3.981

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:14:38	66510.000	1858.000	0.000	12340.000	14050.000	14980.000	61.064%	1911.000
2	19:14:57	65010.000	1916.000	0.000	11970.000	13510.000	15140.000	61.809%	1905.000
3	19:15:16	68350.000	1912.000	0.000	12000.000	13760.000	15060.000	60.544%	1940.000
x		66620.000	1895.000	0.000	12100.000	13770.000	15060.000	61.139%	1919.000
σ		1673.000	32.490	0.000	203.600	266.800	79.260	0.636%	18.800
%RSD		2.511	1.715	0.000	1.682	1.937	0.526	1.040	0.980

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:14:38	377.000	404.500	2180.000	210500.000	210200.000	120.900	182.900	306.400
2	19:14:57	366.600	400.000	2183.000	211200.000	204900.000	116.900	175.800	296.400
3	19:15:16	371.000	403.100	2155.000	204900.000	207600.000	116.800	180.000	296.300
x		371.500	402.500	2173.000	208800.000	207600.000	118.200	179.500	299.700
σ		5.242	2.304	15.700	3474.000	2645.000	2.320	3.583	5.820
%RSD		1.411	0.572	0.723	1.664	1.274	1.963	1.995	1.942

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:14:38	300.400	1182.000	1192.000	43.290	3.406	7.741	0.000	124.700
2	19:14:57	290.600	1157.000	1148.000	40.350	3.529	7.229	0.000	123.800
3	19:15:16	295.400	1164.000	1166.000	42.530	3.764	7.769	0.000	124.200
x		295.500	1168.000	1169.000	42.060	3.567	7.580	0.000	124.200
σ		4.864	12.680	22.240	1.523	0.182	0.304	0.000	0.497
%RSD		1.646	1.086	1.903	3.622	5.101	4.010	0.000	0.400

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:14:38	0.000	13.060	13.150	53.971%	5.037	5.038	7.975	7.519
2	19:14:57	0.000	12.390	12.490	53.796%	5.091	4.966	8.114	7.300
3	19:15:16	0.000	12.650	12.790	53.809%	5.166	4.960	8.090	7.463
x		0.000	12.700	12.810	53.858%	5.098	4.988	8.060	7.427
σ		0.000	0.336	0.329	0.097%	0.065	0.043	0.074	0.114
%RSD		0.000	2.646	2.570	0.181	1.268	0.869	0.922	1.534

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:14:38	57.247%	69.600	2.595	2.704	625.800	626.900	70.352%	71.793%
2	19:14:57	57.334%	71.300	2.585	2.682	630.600	630.800	71.322%	73.288%
3	19:15:16	56.747%	71.030	2.623	2.629	629.800	636.400	71.926%	72.959%
x		57.109%	70.640	2.601	2.672	628.700	631.400	71.200%	72.680%
σ		0.317%	0.912	0.020	0.038	2.599	4.773	0.794%	0.786%
%RSD		0.554	1.291	0.758	1.437	0.413	0.756	1.116	1.081

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	19:14:38	2.297	2.488	837.900	776.500	830.700	54.554%
2	19:14:57	2.305	2.493	839.800	781.300	837.100	54.934%
3	19:15:16	2.304	2.519	842.800	781.500	837.800	55.107%
x		2.302	2.500	840.200	779.800	835.200	54.865%
σ		0.004	0.017	2.440	2.820	3.927	0.283%
%RSD		0.188	0.660	0.290	0.362	0.470	0.515

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:18:26	80.594%	12.780	29.970	31.870	0.000	538.200	13630.000	13730.000
2	19:18:46	74.558%	13.450	31.180	29.280	0.000	518.000	13230.000	12910.000
3	19:19:05	77.964%	13.030	28.620	29.250	0.000	541.100	13360.000	13130.000
x		77.705%	13.090	29.920	30.130	0.000	532.400	13400.000	13260.000
σ		3.026%	0.337	1.279	1.503	0.000	12.590	204.400	425.100
%RSD		3.894	2.573	4.273	4.987	0.000	2.365	1.525	3.206

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:18:26	103300.000	1600.000	0.000	10100.000	21340.000	22430.000	64.186%	1437.000
2	19:18:46	102600.000	1663.000	0.000	9767.000	20950.000	22130.000	63.462%	1506.000
3	19:19:05	98240.000	1578.000	0.000	9791.000	20930.000	22660.000	62.998%	1459.000
x		101400.000	1613.000	0.000	9886.000	21070.000	22400.000	63.548%	1467.000
σ		2722.000	44.370	0.000	185.100	233.000	267.300	0.599%	35.500
%RSD		2.686	2.750	0.000	1.873	1.106	1.193	0.942	2.419

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:18:26	327.300	3980.000	2931.000	280000.000	289600.000	154.800	210.200	678.000
2	19:18:46	327.000	4017.000	2966.000	278100.000	281700.000	148.500	200.900	650.000
3	19:19:05	357.200	4054.000	2972.000	282100.000	286900.000	144.900	198.600	661.300
x		337.100	4017.000	2956.000	280100.000	286100.000	149.400	203.200	663.100
σ		17.320	37.320	21.910	2007.000	4021.000	5.011	6.136	14.070
%RSD		5.139	0.929	0.741	0.717	1.406	3.354	3.019	2.122

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:18:26	690.800	2509.000	2481.000	74.640	6.782	10.920	0.000	216.700
2	19:18:46	656.600	2453.000	2512.000	75.130	6.781	12.170	0.000	218.600
3	19:19:05	661.400	2433.000	2451.000	74.420	6.081	11.640	0.000	218.500
x		669.600	2465.000	2481.000	74.730	6.548	11.580	0.000	217.900
σ		18.500	39.470	30.630	0.361	0.405	0.629	0.000	1.072
%RSD		2.763	1.601	1.234	0.483	6.182	5.438	0.000	0.492

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:18:26	0.000	19.000	19.790	50.773%	30.170	30.040	22.020	21.030
2	19:18:46	0.000	19.640	19.580	50.278%	30.510	30.400	21.810	20.530
3	19:19:05	0.000	19.490	19.480	50.230%	30.440	30.050	21.940	20.810
x		0.000	19.380	19.620	50.427%	30.370	30.170	21.920	20.790
σ		0.000	0.330	0.155	0.300%	0.182	0.203	0.107	0.251
%RSD		0.000	1.703	0.788	0.596	0.598	0.674	0.487	1.206

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:18:26	51.805%	166.500	15.790	15.670	1544.000	1528.000	66.385%	67.025%
2	19:18:46	52.646%	165.300	15.520	15.630	1514.000	1512.000	67.036%	67.015%
3	19:19:05	51.546%	168.200	15.880	15.660	1536.000	1570.000	66.271%	66.457%
x		51.999%	166.700	15.730	15.650	1531.000	1537.000	66.564%	66.832%
σ		0.575%	1.486	0.188	0.020	15.800	29.990	0.413%	0.325%
%RSD		1.106	0.892	1.193	0.128	1.031	1.951	0.620	0.487

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	19:18:26	3.108	3.281	961.300	891.300	949.800	47.441%
2	19:18:46	3.178	3.365	975.200	904.000	967.400	46.745%
3	19:19:05	3.129	3.294	971.300	898.200	956.700	46.339%
x		3.138	3.313	969.300	897.800	957.900	46.842%
σ		0.036	0.045	7.121	6.376	8.899	0.558%
%RSD		1.155	1.373	0.735	0.710	0.929	1.190

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:22:15	69.043%	17.490	34.640	32.880	0.000	654.100	17480.000	17520.000
2	19:22:34	68.051%	17.810	36.340	33.720	0.000	669.100	17760.000	18220.000
3	19:22:53	62.136%	17.280	35.510	34.570	0.000	705.900	19180.000	18490.000
x		66.410%	17.530	35.500	33.720	0.000	676.300	18140.000	18080.000
σ		3.735%	0.264	0.850	0.844	0.000	26.640	908.400	504.300
%RSD		5.624	1.507	2.393	2.502	0.000	3.939	5.007	2.790

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:22:15	117900.000	1913.000	0.000	11850.000	12710.000	13160.000	64.863%	1812.000
2	19:22:34	120100.000	1953.000	0.000	12120.000	12610.000	13740.000	56.400%	1964.000
3	19:22:53	124800.000	1987.000	0.000	12310.000	13070.000	14130.000	55.741%	1995.000
x		120900.000	1951.000	0.000	12090.000	12800.000	13680.000	59.001%	1924.000
σ		3545.000	36.920	0.000	229.900	240.900	485.900	5.087%	98.020
%RSD		2.932	1.892	0.000	1.902	1.883	3.552	8.621	5.095

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:22:15	371.500	269.100	2567.000	241800.000	243100.000	146.500	200.500	448.400
2	19:22:34	397.200	286.800	2749.000	258400.000	257200.000	152.600	216.000	481.800
3	19:22:53	398.200	290.600	2745.000	255200.000	251400.000	154.300	213.600	475.500
x		389.000	282.200	2687.000	251800.000	250600.000	151.200	210.100	468.600
σ		15.150	11.450	103.700	8817.000	7086.000	4.094	8.330	17.770
%RSD		3.894	4.058	3.858	3.502	2.828	2.709	3.965	3.792

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:22:15	459.300	2674.000	2674.000	54.000	6.243	11.590	0.000	150.300
2	19:22:34	481.400	2791.000	2805.000	57.680	5.955	11.120	0.000	156.700
3	19:22:53	468.400	2787.000	2814.000	57.480	5.659	12.170	0.000	154.800
x		469.700	2750.000	2764.000	56.390	5.953	11.630	0.000	153.900
σ		11.090	66.460	78.120	2.071	0.292	0.528	0.000	3.275
%RSD		2.360	2.417	2.826	3.673	4.906	4.542	0.000	2.127

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:22:15	0.000	13.510	13.430	47.086%	6.711	6.658	11.160	10.300
2	19:22:34	0.000	14.090	13.930	47.653%	6.885	6.650	10.130	10.060
3	19:22:53	0.000	14.360	14.100	47.272%	6.629	6.601	10.350	9.511
x		0.000	13.980	13.820	47.337%	6.742	6.636	10.550	9.955
σ		0.000	0.432	0.348	0.289%	0.130	0.031	0.545	0.403
%RSD		0.000	3.090	2.517	0.611	1.933	0.467	5.165	4.049

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:22:15	48.030%	95.830	4.594	4.603	1169.000	1158.000	61.308%	60.633%
2	19:22:34	48.544%	96.450	4.579	4.617	1170.000	1157.000	63.314%	63.163%
3	19:22:53	49.592%	96.390	4.613	4.685	1163.000	1155.000	65.073%	64.607%
x		48.722%	96.220	4.595	4.635	1167.000	1157.000	63.232%	62.801%
σ		0.796%	0.343	0.017	0.044	3.821	1.506	1.884%	2.011%
%RSD		1.634	0.356	0.366	0.946	0.327	0.130	2.980	3.203

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	19:22:15	2.864	3.038	833.300	774.700	819.200	36.506%
2	19:22:34	2.951	3.203	845.600	763.300	825.500	37.996%
3	19:22:53	2.975	3.153	835.400	763.700	820.600	40.453%
x		2.930	3.131	838.100	767.200	821.800	38.318%
σ		0.059	0.084	6.586	6.427	3.309	1.993%
%RSD		1.999	2.697	0.786	0.838	0.403	5.202

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:26:04	68.549%	13.110	27.390	29.520	0.000	855.200	27330.000	28570.000
2	19:26:23	66.315%	14.750	27.620	26.320	0.000	862.500	26990.000	27460.000
3	19:26:42	71.143%	12.950	26.800	27.790	0.000	864.800	27240.000	27400.000
x		68.669%	13.600	27.270	27.870	0.000	860.800	27190.000	27810.000
σ		2.416%	0.996	0.424	1.600	0.000	5.050	180.800	656.800
%RSD		3.519	7.322	1.556	5.741	0.000	0.587	0.665	2.362

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:26:04	105100.000	1515.000	0.000	9942.000	22930.000	23960.000	60.694%	1887.000
2	19:26:23	101700.000	1489.000	0.000	10010.000	22510.000	24460.000	57.194%	1875.000
3	19:26:42	104700.000	1522.000	0.000	9988.000	24040.000	24710.000	57.685%	1920.000
x		103800.000	1509.000	0.000	9979.000	23160.000	24380.000	58.524%	1894.000
σ		1839.000	17.280	0.000	33.430	789.700	382.600	1.895%	23.090
%RSD		1.771	1.145	0.000	0.335	3.410	1.569	3.237	1.219

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:26:04	434.500	435.200	3524.000	257800.000	254500.000	170.300	312.500	555.000
2	19:26:23	421.200	445.200	3524.000	258100.000	258600.000	170.600	328.400	556.600
3	19:26:42	438.400	445.800	3574.000	260800.000	266400.000	177.600	339.500	568.000
x		431.400	442.100	3541.000	258900.000	259800.000	172.800	326.800	559.900
σ		9.002	5.960	28.430	1638.000	6055.000	4.163	13.550	7.071
%RSD		2.087	1.348	0.803	0.633	2.330	2.409	4.148	1.263

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:26:04	552.300	2184.000	2186.000	48.340	4.971	9.641	0.000	150.200
2	19:26:23	558.000	2174.000	2222.000	49.630	5.450	9.858	0.000	150.400
3	19:26:42	572.700	2249.000	2216.000	50.060	5.408	9.764	0.000	154.000
x		561.000	2203.000	2208.000	49.350	5.276	9.754	0.000	151.500
σ		10.540	40.790	19.430	0.897	0.265	0.109	0.000	2.170
%RSD		1.879	1.852	0.880	1.818	5.027	1.116	0.000	1.432

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:26:04	0.000	13.820	14.720	49.661%	5.746	5.545	10.080	9.027
2	19:26:23	0.000	14.690	14.730	49.361%	5.670	5.487	9.766	9.031
3	19:26:42	0.000	14.990	15.120	49.486%	5.675	5.589	10.340	9.574
x		0.000	14.500	14.860	49.503%	5.697	5.540	10.060	9.211
σ		0.000	0.607	0.229	0.151%	0.042	0.051	0.287	0.315
%RSD		0.000	4.184	1.543	0.304	0.743	0.926	2.855	3.418

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:26:04	51.384%	53.870	4.837	4.562	892.800	896.000	66.681%	67.289%
2	19:26:23	51.115%	54.190	4.922	4.928	908.000	906.400	68.542%	68.738%
3	19:26:42	51.427%	55.020	5.007	4.927	914.800	925.100	68.499%	69.859%
x		51.309%	54.360	4.922	4.806	905.200	909.200	67.907%	68.629%
σ		0.169%	0.595	0.085	0.211	11.260	14.730	1.062%	1.289%
%RSD		0.329	1.094	1.728	4.396	1.244	1.620	1.564	1.878

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	19:26:04	2.454	2.664	942.700	861.500	928.500	47.025%
2	19:26:23	2.321	2.620	929.800	855.300	924.200	48.836%
3	19:26:42	2.459	2.640	923.100	843.800	911.800	50.426%
x		2.411	2.641	931.800	853.500	921.500	48.762%
σ		0.078	0.022	9.987	8.983	8.672	1.702%
%RSD		3.255	0.821	1.072	1.052	0.941	3.490

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:37:11	94.240%	1.023	21.110	17.650	0.000	427.500	499.900	548.100
2	19:37:30	88.695%	0.969	18.930	19.130	0.000	435.500	516.000	558.600
3	19:37:50	86.205%	1.090	18.720	18.790	0.000	433.700	496.400	550.300
x		89.713%	102.749%	97.929%	92.622%	0.000	86.449%	100.813%	110.467%
σ		4.113%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		4.584	5.878	6.748	4.182	0.000	0.977	2.073	1.000
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:37:11	36.740	411.000	0.000	457.600	475.200	502.900	68.649%	4.511
2	19:37:30	35.320	422.700	0.000	479.600	502.400	518.100	66.762%	4.765
3	19:37:50	36.030	424.000	0.000	480.500	445.800	523.800	66.180%	5.035
x		120.095%	83.849%	0.000	94.518%	94.893%	102.989%	67.197%	95.405%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.291%	n/a
%RSD		1.972	1.707	0.000	2.745	5.974	2.099	1.921	5.497
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:37:11	0.817	1.881	5.474	55.020	66.120	0.502	0.958	2.176
2	19:37:30	0.918	1.871	5.434	53.960	64.820	0.531	1.009	2.165
3	19:37:50	1.088	1.944	5.258	50.410	67.460	0.497	1.114	2.237
x		94.092%	94.940%	107.778%	106.258%	132.263%	102.012%	102.700%	109.621%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		14.590	2.091	2.129	4.546	1.994	3.637	7.742	1.771
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:37:11	2.216	6.120	5.941	1.165	4.784	5.314	0.000	4.994
2	19:37:30	2.239	6.199	5.991	1.095	4.245	5.195	0.000	4.948
3	19:37:50	2.127	6.057	6.154	1.060	4.784	5.155	0.000	5.020
x		109.719%	122.499%	120.571%	110.659%	92.089%	104.429%	0.000	99.748%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.694	1.160	1.848	4.807	6.758	1.583	0.000	0.730
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:37:11	53.624%	3.697	3.506	54.489%	0.993	0.893	1.065	0.881
2	19:37:30	53.154%	3.549	3.526	54.426%	0.921	1.025	1.111	0.992
3	19:37:50	52.889%	3.409	3.510	53.676%	0.932	0.959	0.962	0.965
x		53.222%	71.028%	70.280%	54.197%	94.863%	95.911%	104.587%	94.568%
σ		0.372%	n/a	n/a	0.452%	n/a	n/a	n/a	n/a
%RSD		0.699	4.053	0.309	0.835	4.128	6.898	7.331	6.100
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:37:11	55.961%	3.778	1.654	1.676	8.939	9.209	51.057%	50.732%
2	19:37:30	56.234%	3.792	1.683	1.702	8.908	9.003	51.472%	50.842%
3	19:37:50	56.176%	3.858	1.613	1.645	8.892	8.907	51.591%	50.856%
x		56.124%	76.185%	82.498%	83.710%	89.131%	90.397%	51.374%	50.810%
σ		0.144%	n/a	n/a	n/a	n/a	n/a	0.280%	0.068%
%RSD		0.256	1.121	2.147	1.696	0.269	1.710	0.546	0.133
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:37:11	0.955	1.039	1.084	0.994	1.016	48.919%		
2	19:37:30	1.033	1.037	1.069	1.030	1.032	48.030%		
3	19:37:50	0.947	1.041	1.029	1.028	1.036	47.485%		
x		97.831%	103.873%	106.083%	101.736%	102.800%	48.145%		
σ		n/a	n/a	n/a	n/a	n/a	0.724%		
%RSD		4.849	0.194	2.697	1.961	1.045	1.503		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:41:01	86.446%	108.100	105.700	100.400	0.000	46370.000	48190.000	48640.000
2	19:41:20	79.558%	103.200	104.600	109.900	0.000	48140.000	49030.000	50640.000
3	19:41:39	75.716%	106.100	104.000	95.990	0.000	46750.000	46990.000	47900.000
x		80.574%	105.817%	104.771%	102.101%	0.000	94.175%	96.138%	98.118%
σ		5.437%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		6.747	2.331	0.784	6.989	0.000	1.971	2.134	2.888

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:41:01	537.300	5242.000	0.000	50330.000	47730.000	50330.000	62.712%	103.500
2	19:41:20	559.400	5689.000	0.000	49850.000	48740.000	50190.000	62.602%	105.100
3	19:41:39	543.400	5389.000	0.000	49740.000	48860.000	51600.000	62.986%	103.800
x		109.342%	108.794%	0.000	99.948%	96.885%	101.414%	62.767%	104.131%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.198%	n/a
%RSD		2.091	4.189	0.000	0.626	1.282	1.536	0.315	0.781

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:41:01	101.100	101.900	523.700	26300.000	26820.000	103.000	102.500	104.000
2	19:41:20	101.100	100.800	520.600	25430.000	26420.000	99.810	103.200	102.300
3	19:41:39	100.000	100.500	521.500	25640.000	26830.000	101.400	103.500	102.300
x		100.719%	101.096%	104.388%	103.145%	106.770%	101.398%	103.061%	102.879%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		0.599	0.738	0.302	1.758	0.886	1.563	0.473	0.967

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:41:01	102.700	96.660	96.200	99.050	98.650	99.410	0.000	93.760
2	19:41:20	100.700	97.850	97.690	99.600	99.620	99.380	0.000	93.470
3	19:41:39	101.200	97.670	97.070	99.350	101.100	98.510	0.000	95.610
x		101.526%	97.392%	96.986%	99.335%	99.781%	99.098%	0.000	94.279%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		0.991	0.660	0.776	0.280	1.219	0.512	0.000	1.230

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:41:01	54.300%	90.790	90.260	50.427%	96.280	96.630	97.980	99.620
2	19:41:20	53.881%	91.870	91.480	50.372%	97.210	98.750	99.090	100.000
3	19:41:39	53.621%	93.220	93.630	50.374%	96.230	97.850	98.500	100.600
x		53.934%	91.959%	91.789%	50.391%	96.574%	97.743%	98.523%	100.081%
σ		0.342%	n/a	n/a	0.031%	n/a	n/a	n/a	n/a
%RSD		0.635	1.325	1.862	0.062	0.574	1.090	0.567	0.485

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:41:01	44.120%	99.000	91.570	92.060	96.290	95.620	45.540%	46.547%
2	19:41:20	44.191%	98.990	92.590	92.160	98.470	99.080	45.138%	46.005%
3	19:41:39	44.762%	99.170	92.120	92.230	96.370	97.090	45.872%	47.179%
x		44.358%	99.052%	92.092%	92.147%	97.044%	97.262%	45.517%	46.577%
σ		0.352%	n/a	n/a	n/a	n/a	n/a	0.368%	0.588%
%RSD		0.793	0.107	0.558	0.095	1.271	1.785	0.807	1.262

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	19:41:01	92.160	93.240	91.410	89.260	91.090	40.807%
2	19:41:20	94.010	96.900	95.140	92.930	94.710	38.435%
3	19:41:39	97.360	100.500	97.270	96.070	97.920	37.775%
x		94.511%	96.870%	94.605%	92.757%	94.577%	39.006%
σ		n/a	n/a	n/a	n/a	n/a	1.595%
%RSD		2.788	3.729	3.136	3.676	3.613	4.089

CCB11 5/27/2015 7:47:42 PM QC Status: PASS (Initial: FAIL)

User Pre-dilution: 1.000

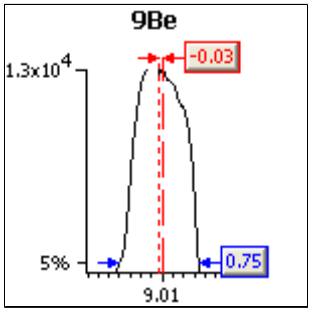
Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:48:01	98.569%	-0.006	1.239	1.244	0.000	4.698	3.766	4.120
2	19:48:20	94.161%	-0.029	2.286	1.404	0.000	4.616	3.342	3.532
3	19:48:39	96.045%	0.004	1.526	1.287	0.000	4.711	3.314	4.366
x		96.259%	-0.010	1.684	1.312	0.000	4.675	3.474	4.006
σ		2.212%	0.017	0.541	0.083	0.000	0.051	0.253	0.428
%RSD		2.298	163.200	32.140	6.319	0.000	1.100	7.282	10.690
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:48:01	2.269	-63.100	0.000	2.043	12.810	8.182	75.398%	0.033
2	19:48:20	1.117	-63.560	0.000	1.310	9.139	7.320	74.452%	0.049
3	19:48:39	1.011	-62.910	0.000	3.661	4.148	9.264	72.252%	0.083
x		1.465	-63.190	0.000	2.338	8.700	8.255	74.034%	0.055
σ		0.698	0.334	0.000	1.203	4.350	0.974	1.614%	0.026
%RSD		47.610	0.528	0.000	51.430	50.000	11.800	2.180	47.010
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:48:01	-0.060	-0.064	0.174	1.626	13.810	0.018	0.005	0.045
2	19:48:20	-0.019	-0.035	0.146	-0.130	11.190	0.010	0.029	0.041
3	19:48:39	0.016	-0.030	0.141	0.268	11.590	0.012	0.018	0.042
x		-0.021	-0.043	0.154	0.588	12.200	0.013	0.017	0.043
σ		0.038	0.019	0.018	0.921	1.414	0.004	0.012	0.002
%RSD		183.800	43.080	11.420	156.600	11.590	32.960	68.950	5.428
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:48:01	0.052	0.678	0.706	0.098	-0.472	0.409	0.000	0.023
2	19:48:20	0.056	0.768	0.720	0.279	-0.555	0.662	0.000	0.028
3	19:48:39	0.066	0.627	0.606	0.205	0.148	0.418	0.000	0.023
x		0.058	0.691	0.677	0.194	-0.293	0.496	0.000	0.025
σ		0.007	0.071	0.062	0.091	0.385	0.144	0.000	0.003
%RSD		11.620	10.270	9.211	46.920	131.200	28.930	0.000	10.880
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:48:01	59.502%	0.065	-0.060	62.858%	-0.020	0.001	0.101	0.078
2	19:48:20	59.929%	0.209	0.107	62.290%	-0.016	-0.008	0.056	0.039
3	19:48:39	59.437%	0.100	0.201	62.099%	-0.018	-0.006	0.024	0.021
x		59.623%	0.124	0.082	62.416%	-0.018	-0.004	0.060	0.046
σ		0.267%	0.075	0.132	0.395%	0.002	0.005	0.039	0.029
%RSD		0.448	60.390	160.700	0.633	11.500	112.700	64.650	62.190
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	19:48:01	57.112%	0.007	0.683	0.683	0.029	0.049	57.393%	57.251%
2	19:48:20	57.528%	0.067	0.714	0.712	0.029	0.037	59.213%	58.838%
3	19:48:39	57.600%	0.067	0.711	0.692	0.024	0.037	59.438%	59.464%
x		57.413%	0.047	0.703	0.696	0.027	0.041	58.681%	58.517%
σ		0.264%	0.035	0.017	0.015	0.003	0.007	1.122%	1.141%
%RSD		0.459	73.370	2.458	2.119	11.120	16.890	1.911	1.949
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	19:48:01	0.014	0.013	0.045	0.048	0.051	62.809%		
2	19:48:20	0.020	0.019	0.040	0.026	0.031	61.903%		
3	19:48:39	0.011	0.020	0.025	0.035	0.032	61.867%		
x		0.015	0.018	0.037	0.036	0.038	62.193%		
σ		0.005	0.004	0.010	0.011	0.011	0.534%		
%RSD		30.130	22.370	28.530	30.900	30.030	0.858		

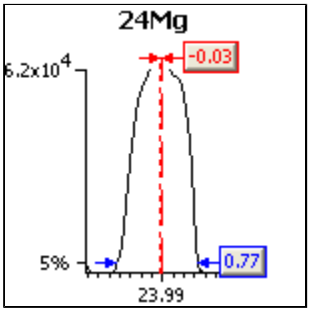
Performance Report

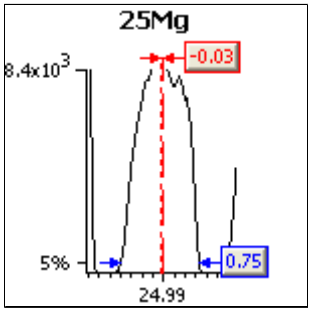
Sample details
Sample name : ITUNE
Acquired at : 5/27/2015 8:27:54 AM
Report name : EPA ILMO5.2/6020A 2.1 [3/15/2013 11:49:53 AM]

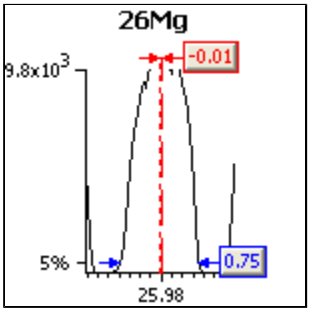
Mass Calibration verification

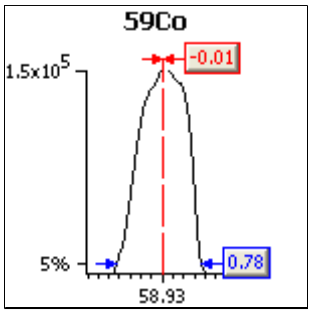
Acquisition parameters
Sweeps : 25
Dwell : 2.0 mSecs
Point spacing : 0.02 amu
Peak width measured at 5% of the peak maximum

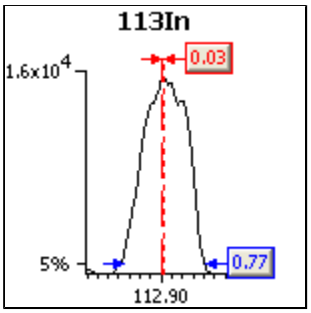


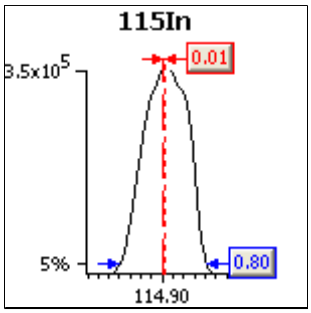


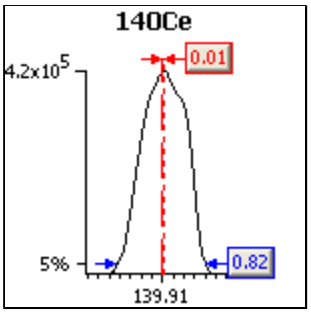


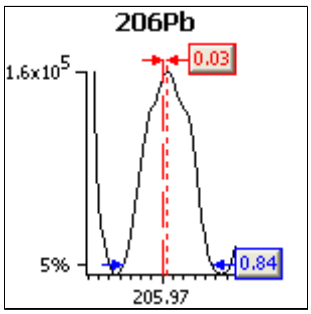


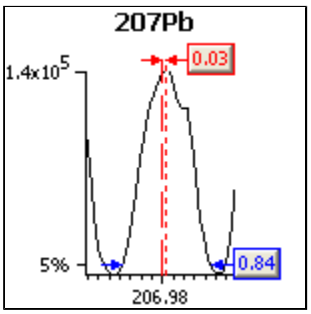


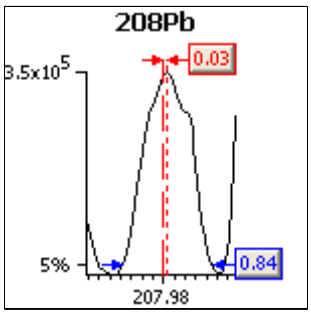












Analyte	Limits			Results	
	Max. width	Min. width	Max. error	Peak width	Peak error
9Be	0.90	0.45	0.10	0.75	-0.03
24Mg	0.90	0.45	0.10	0.77	-0.03
25Mg	0.90	0.45	0.10	0.75	-0.03
26Mg	0.90	0.45	0.10	0.75	-0.01
59Co	0.90	0.45	0.10	0.78	-0.01
113In	0.90	0.45	0.10	0.77	0.03
115In	0.90	0.45	0.10	0.80	0.01
140Ce	0.90	0.45	0.10	0.82	0.01
206Pb	0.90	0.45	0.10	0.84	0.03
207Pb	0.90	0.45	0.10	0.84	0.03
208Pb	0.90	0.45	0.10	0.84	0.03

Sample details
Sample name : ITUNE
Acquired at : 5/27/2015 8:27:54 AM
Report name : EPA ILMO5.2/6020A 2.1 [3/15/2013 11:49:53 AM]

Tune conditions

Major	
Extraction	-129
Lens 1	0.3
Focus	26.7
D1	-42.4
Pole Bias	3.0
Hexapole Bias	-3.0
Nebuliser	0.89
Sampling Depth	150

Minor	
Lens 2	-32.2
Lens 3	-163.9
Forward power	1404
Horizontal	74
Vertical	405
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	8:28:42 AM	0	12629	62453	8798	10167	381079	153015	3
2	8:30:07 AM	0	12827	63280	8672	10224	382382	154110	2
3	8:31:32 AM	0	12871	63612	8612	10276	382526	155798	3
4	8:32:58 AM	0	12645	64219	8753	10490	389635	157175	2
5	8:34:23 AM	0	13208	64861	8948	10688	391055	158956	2
x		0	12836	63685	8757	10369	385335	155811	2
σ		0.06	233.84	915.93	128.71	216.27	4635.02	2369.93	0.60
%RSD		104.583	1.822	1.438	1.470	2.086	1.203	1.521	24.845

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	8:28:42 AM	28	0	15878	369732	2339	431683	5276	160813
2	8:30:07 AM	28	0	16252	376602	2352	437632	5431	164334
3	8:31:32 AM	28	0	16367	379260	2310	441152	5363	166544
4	8:32:58 AM	27	0	16530	381602	2378	441617	5463	167638
5	8:34:23 AM	26	0	16198	373338	2285	434706	5343	160585
x		28	0	16245	376107	2333	437358	5375	163983
σ		1.12	0.05	241.45	4708.89	36.45	4237.84	74.08	3226.30
%RSD		4.042	35.355	1.486	1.252	1.563	0.969	1.378	1.967

Run	Time	207Pb	208Pb	220Bkg
Dwell (mSecs)		0.0	0.0	0.0
Limits	%RSD	5.0%	5.0%	-
	Countrate	>500	>500	<2500
1	8:28:42 AM	146584	348126	0
2	8:30:07 AM	150426	358218	0
3	8:31:32 AM	152800	362258	0
4	8:32:58 AM	152864	362825	0
5	8:34:23 AM	148078	348586	0
x		150150	356003	0
σ		2804.99	7204.61	0.14
%RSD		1.868	2.024	86.402

Ratio results

Run	Time	156Ce O/140Ce
Ratio limits		<0.0500
1	8:28:42 AM	0
2	8:30:07 AM	0

3	8:31:32 AM	0
4	8:32:58 AM	0
5	8:34:23 AM	0
x		0.0123
σ		0.00
%RSD		0.8477

Result : The performance report passed.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Batch Number: 142245 Batch Start Date: 05/20/15 13:10 Batch Analyst: Baikadi, Ashwin

Batch Method: 3005A Batch End Date: 05/20/15 17:10

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MTAPITTICPMS 00020	MTAPITTMSA 00024	MTAPITTMSC 00030	
MB 180-142245/1		3005A, 6020A		50 mL	50 mL				
LCS 180-142245/2		3005A, 6020A		50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	
180-44203-B-1	HD-MW-98S-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-44203-B-2	HD-MW-98I-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-44203-B-3	HD-MW-99S-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-44203-B-3 MS	HD-MW-99S-0/1-0	3005A, 6020A	T	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	
180-44203-B-3 MSD	HD-MW-99S-0/1-0	3005A, 6020A	T	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	
180-44203-B-4	HD-MW-145A-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-44203-B-5	HD-QC1-0/1-1	3005A, 6020A	T	50 mL	50 mL				
180-44203-B-7	HD-MW-93S-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-44203-B-8	HD-MW-93D-0/1-0	3005A, 6020A	T	50 mL	50 mL				

Batch Notes	
Batch Comment	Metals A2
First End time	17:10
Lot # of hydrochloric acid	2.5 ml 1533280
Lot # of Nitric Acid	1.0 ml 1513887
Hot Block ID number	#3
Oven, Bath or Block Temperature 1	95
Pipette ID	L1201611U
Person who witnessed spiking	AB
First Start time	13:10
ID number of the thermometer	IP2-14 CF=0.0 A2
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: 180-44203-1

SDG No.:

Project: Harley Davidson

Client Sample ID	Lab Sample ID
HD-MW-98S-0/1-0	180-44203-1
HD-MW-98I-0/1-0	180-44203-2
HD-MW-99S-0/1-0	180-44203-3
HD-MW-145A-0/1-0	180-44203-4
HD-QC1-0/1-1	180-44203-5
HD-MW-93S-0/1-0	180-44203-7
HD-MW-93D-0/1-0	180-44203-8

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-MW-98S-0/1-0 Lab Sample ID: 180-44203-1

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG ID.:

Matrix: Water Date Sampled: 05/18/2015 12:50

Reporting Basis: WET Date Received: 05/19/2015 08:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	290	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	290	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-MW-98I-0/1-0 Lab Sample ID: 180-44203-2

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG ID.:

Matrix: Water Date Sampled: 05/18/2015 13:45

Reporting Basis: WET Date Received: 05/19/2015 08:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	300	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	300	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-MW-99S-0/1-0 Lab Sample ID: 180-44203-3

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG ID.:

Matrix: Water Date Sampled: 05/18/2015 09:55

Reporting Basis: WET Date Received: 05/19/2015 08:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	260	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	260	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-MW-145A-0/1-0 Lab Sample ID: 180-44203-4

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG ID.:

Matrix: Water Date Sampled: 05/18/2015 11:25

Reporting Basis: WET Date Received: 05/19/2015 08:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	250	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	250	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-QC1-0/1-1 Lab Sample ID: 180-44203-5

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG ID.:

Matrix: Water Date Sampled: 05/18/2015 08:00

Reporting Basis: WET Date Received: 05/19/2015 08:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	240	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	240	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-MW-93S-0/1-0 Lab Sample ID: 180-44203-7

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG ID.:

Matrix: Water Date Sampled: 05/18/2015 12:27

Reporting Basis: WET Date Received: 05/19/2015 08:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	180	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	180	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-MW-93D-0/1-0 Lab Sample ID: 180-44203-8

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG ID.:

Matrix: Water Date Sampled: 05/18/2015 10:22

Reporting Basis: WET Date Received: 05/19/2015 08:50

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	180	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	180	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Analyst: CLL Batch Start Date: 05/21/2015

Reporting Units: mg/L Analytical Batch No.: 142343

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
13	CCV	05:36	Total Alkalinity as CaCO3 to pH 4.5	137	125	109	80-120		WALK125PPMCCV_00085
14	CCB	05:36	Total Alkalinity as CaCO3 to pH 4.5	2.01				J	
			Bicarbonate Alkalinity as CaCO3	2.01				J	
			Carbonate Alkalinity as CaCO3	5.0				U	

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

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 142343 Date: 05/21/2015 05:36							
SM 2320B	MB 180-142343/2	Total Alkalinity as CaCO3 to pH 4.5	2.01	J	mg/L	5.0	1
SM 2320B	MB 180-142343/2	Bicarbonate Alkalinity as CaCO3	2.01	J	mg/L	5.0	1
SM 2320B	MB 180-142343/2	Carbonate Alkalinity as CaCO3	5.0	U	mg/L	5.0	1

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 142343 Date: 05/21/2015 05:36								
SM 2320B	HD-MW-99S-0/1-0	180-44203-3	Total Alkalinity as CaCO3 to pH 4.5	260	mg/L			
SM 2320B	HD-MW-99S-0/1-0	180-44203-3 DU	Total Alkalinity as CaCO3 to pH 4.5	261	mg/L	2	20	
SM 2320B	HD-MW-99S-0/1-0	180-44203-3	Bicarbonate Alkalinity as CaCO3	260	mg/L			
SM 2320B	HD-MW-99S-0/1-0	180-44203-3 DU	Bicarbonate Alkalinity as CaCO3	261	mg/L	2	20	
SM 2320B	HD-MW-99S-0/1-0	180-44203-3	Carbonate Alkalinity as CaCO3	5.0	mg/L			U
SM 2320B	HD-MW-99S-0/1-0	180-44203-3 DU	Carbonate Alkalinity as CaCO3	5.0	mg/L	NC	20	U

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

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 142343	Date: 05/21/2015 05:36										
						LCS Source: WALK250PPMPi_00094					
SM 2320B	LCS 180-142343/1	Total Alkalinity as CaCO3 to pH 4.5	259		mg/L	250	104	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: 180-44203-1

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: 180-44203-1

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.: 180-44203-1

SDG No.:

Instrument ID: NOEQUIP　　Analysis Method: SM 2320B

Start Date: 05/21/2015 05:36　　End Date: 05/21/2015 05:36

Lab Sample Id	D/F	Type	Time	Analytes: Alk	BALKCC	CarAlk
LCS 180-142343/1	1	T	05:36	X		
MB 180-142343/2	1	T	05:36	X	X	X
180-44203-1	1	T	05:36	X	X	X
180-44203-2	1	T	05:36	X	X	X
180-44203-3	1	T	05:36	X	X	X
180-44203-3 DU	1	T	05:36	X	X	X
180-44203-4	1	T	05:36	X	X	X
180-44203-5	1	T	05:36	X	X	X
180-44203-7	1	T	05:36	X	X	X
180-44203-8	1	T	05:36	X	X	X
ZZZZZZ			05:36			
ZZZZZZ			05:36			
CCV 180-142343/13	1		05:36	X		
CCB 180-142343/14	1		05:36	X	X	X
ZZZZZZ			05:36			
ZZZZZZ			05:36			
ZZZZZZ			05:36			
ZZZZZZ			05:36			
ZZZZZZ			05:36			
ZZZZZZ			05:36			
ZZZZZZ			05:36			
ZZZZZZ			05:36			
ZZZZZZ			05:36			
ZZZZZZ			05:36			
CCV 180-142343/25			05:36			
CCB 180-142343/26			05:36			
ZZZZZZ			05:36			
ZZZZZZ			05:36			
ZZZZZZ			05:36			
ZZZZZZ			05:36			
ZZZZZZ			05:36			
ZZZZZZ			05:36			
ZZZZZZ			05:36			
ZZZZZZ			05:36			
ZZZZZZ			05:36			
ZZZZZZ			05:36			
CCV 180-142343/37			05:36			
CCB 180-142343/38			05:36			

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2320B

Start Date: 05/21/2015 05:36 End Date: 05/21/2015 05:36

Lab Sample Id	D/F	Type	Time	Analytes																									
				Alk	BALKCC	CarAlk																							
ZZZZZZ			05:36																										
CCV 180-142343/40			05:36																										
CCB 180-142343/41			05:36																										

Prep Types:
T = Total/NA

FORM XIII-IN

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Lab#052115AK

PITTSBURGH
ALKALINITY LOGSHEET
Method 2320B
NB-2015-022

Analyst: CLahuyde
Reviewed By: See DRC
pH Meter ID: Accumet XL 50 #9402132
pH 4 Start: 4.01

Date: 5-21-15
Date: ~~5-21-15~~ CW 5-21-15
AD Batch: ~~142345~~ 142343
pH 4 End: 4.02

Job Number(s): 44203-44240-44238-44271-44242-44243
44244-44245-44247

Calculations:

$$\text{Alkalinity as } CaCO_3 \text{ mg/L} = \frac{\text{(mL of } H_2SO_4\text{) (N)(50,000)}}{\text{mL of Sample}}$$

Alkalinity Relationships:

P = Phenolphthalein Alkalinity (pH 8.3)

T = Total Alkalinity

OH^- = Hydroxide Alkalinity as $CaCO_3$

$CO_3^{\ 2}$ = Carbonate Alkalinity as $CaCO_3$

HCO_3 = Bicarbonate Concentration as $CaCO_3$

Results	OH^-	$CO_3^{\ 2}$	HCO_3
P = 0	0	0	T
P < ½T	0	2P	T-2P

Results	OH^-	$CO_3^{\ 2}$	HCO_3
P = ½T	0	2P	0
P > ½T	2P-T	2(T-P)	0
P = T	T	0	0

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ALKALINITY LOGSHEET

Method 2320B

NB-2015-022

Sample ID	pH	Sample Volume	mL to pH 8.3	Ttl mL pH 4.5	N	T	P	OH^-	CO_3^2	HCO_3
LCS	10.70	50	6.8	12.9	.0201	259.29				
MB	5.10		0	0.1		2.01				
180-44203-1	6.86		0	14.6		293.46				
2	6.91		0	15.0		301.5				
3	7.25		0	12.8		257.28				
3X	7.29		0	13.0		261.3				
4	7.23		0	12.3		247.23				
5	7.18		0	11.9		239.19				
7	7.57		0	8.8		176.88				
8	7.36		0	8.9		178.89				
180-44240-1	8.09		0	11.2		225.12				
-2	8.16		0	10.5		211.05				
CCV	10.51		3.5	6.8		136.68				
CCB	5.18		0	0.1		2.01				
180-44240-3	7.87		0	10.3		207.03				
-4	8.07		0	11.8		237.18				
5	8.01		0	11.0		221.1				
5X	8.05		0	~~11.2~~ 11.4 (CM 5-21-15)		229.14				
6	7.88		0	10.4		209.04				
7	8.15		0	11.8		237.18				
8	8.07		0	12.5		251.25				
9	8.02		0	12.3		247.23				
10	7.61		0	9.1		182.91				
11	8.22		0	10.0		201				
CCV	10.53		3.4	6.8		136.68				
CCB	5.09		0	0.1		2.01				

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ALKALINITY LOGSHEET

Method 2320B

NB-2015-022

Sample ID	pH	Sample Volume	mL to pH 8.3	Ttl mL pH 4.5	N	T	P	OH^-	CO_3^{2}	HCO_3
LCS	10.77	50	6.9	13.0	.1020	26.3				
MB	5.18		0	0.1		2.01				
~~180-44238-1~~	~~6.90~~		~~0~~							
180-44271-1	6.58		0	1.0		20.1				
↓ -1X	6.59		0	1.0		20.1				
180-44242-1	8.38		3.2	16.9		339.69				
44243-1	3.46		0	0		ND				
44244-1	7.71		0	5.5		110.55				
4245-1	8.30		0	29.8		598.98				
↓ -2	7.10		0	2.9		58.29				
CCV	10.47		3.5	6.8		136.68				
CCB	5.29		0	0.1		2.01				
180-44247-1	3.51		0	0		ND				
CCV	10.54		3.6	6.8		136.68				
CCB	5.37	↓	0	0.1	↓	2.01				

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44203-1

SDG No.:

Batch Number: 142343 Batch Start Date: 05/21/15 05:36 Batch Analyst: Loheyde, Cheryl

Batch Method: SM 2320B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	Initial pH	BuretStart1	BuretStop1	TitrantVolume1	BuretStart2
LCS 180-142343/1		SM 2320B		50 mL	10.70 SU	0 mL	6.8 mL	6.8 mL	0 mL
MB 180-142343/2		SM 2320B		50 mL	5.10 SU	0 mL	0 mL	0 mL	0 mL
180-44203-A-1	HD-MW-98S-0/1-0	SM 2320B	T	50 mL	6.86 SU	0 mL	0 mL	0 mL	0 mL
180-44203-A-2	HD-MW-98I-0/1-0	SM 2320B	T	50 mL	6.91 SU	0 mL	0 mL	0 mL	0 mL
180-44203-A-3	HD-MW-99S-0/1-0	SM 2320B	T	50 mL	7.25 SU	0 mL	0 mL	0 mL	0 mL
180-44203-A-3 DU	HD-MW-99S-0/1-0	SM 2320B	T	50 mL	7.29 SU	0 mL	0 mL	0 mL	0 mL
180-44203-A-4	HD-MW-145A-0/1-0	SM 2320B	T	50 mL	7.23 SU	0 mL	0 mL	0 mL	0 mL
180-44203-A-5	HD-QC1-0/1-1	SM 2320B	T	50 mL	7.18 SU	0 mL	0 mL	0 mL	0 mL
180-44203-A-7	HD-MW-93S-0/1-0	SM 2320B	T	50 mL	7.57 SU	0 mL	0 mL	0 mL	0 mL
180-44203-A-8	HD-MW-93D-0/1-0	SM 2320B	T	50 mL	7.36 SU	0 mL	0 mL	0 mL	0 mL
CCV 180-142343/13		SM 2320B		50 mL	10.51 SU	0 mL	3.5 mL	3.5 mL	0 mL
CCB 180-142343/14		SM 2320B		50 mL	5.18 SU	0 mL	0 mL	0 mL	0 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	BuretStop2	TitrantVolume2	CalcMsg	carb	hydr	bCarb
LCS 180-142343/1		SM 2320B		6.1 mL	6.1 mL	Case 4	245.22 mg/L	14.07 mg/L	0 mg/L
MB 180-142343/2		SM 2320B		0.1 mL	0.1 mL	Case 1	0 mg/L	0 mg/L	2.01 mg/L
180-44203-A-1	HD-MW-98S-0/1-0	SM 2320B	T	14.6 mL	14.6 mL	Case 1	0 mg/L	0 mg/L	293.46 mg/L
180-44203-A-2	HD-MW-98I-0/1-0	SM 2320B	T	15.0 mL	15 mL	Case 1	0 mg/L	0 mg/L	301.5 mg/L
180-44203-A-3	HD-MW-99S-0/1-0	SM 2320B	T	12.8 mL	12.8 mL	Case 1	0 mg/L	0 mg/L	257.28 mg/L
180-44203-A-3 DU	HD-MW-99S-0/1-0	SM 2320B	T	13.0 mL	13 mL	Case 1	0 mg/L	0 mg/L	261.3 mg/L
180-44203-A-4	HD-MW-145A-0/1-0	SM 2320B	T	12.3 mL	12.3 mL	Case 1	0 mg/L	0 mg/L	247.23 mg/L
180-44203-A-5	HD-QC1-0/1-1	SM 2320B	T	11.9 mL	11.9 mL	Case 1	0 mg/L	0 mg/L	239.19 mg/L
180-44203-A-7	HD-MW-93S-0/1-0	SM 2320B	T	8.8 mL	8.8 mL	Case 1	0 mg/L	0 mg/L	176.88 mg/L
180-44203-A-8	HD-MW-93D-0/1-0	SM 2320B	T	8.9 mL	8.9 mL	Case 1	0 mg/L	0 mg/L	178.89 mg/L
CCV 180-142343/13		SM 2320B		3.3 mL	3.3 mL	Case 4	132.66 mg/L	4.0199999999999 8 mg/L	0 mg/L
CCB 180-142343/14		SM 2320B		0.1 mL	0.1 mL	Case 1	0 mg/L	0 mg/L	2.01 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.: 180-44203-1

SDG No.:

Batch Number: 142343 Batch Start Date: 05/21/15 05:36 Batch Analyst: Loheyde, Cheryl

Batch Method: SM 2320B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	pAlk	tAlk	FinalAmount	WALK125PPMCCV 00085	WALK250PPMPi 00094	
LCS 180-142343/1		SM 2320B		136.68 mg/L	259.29 mg/L	50 mL		50 mL	
MB 180-142343/2		SM 2320B		0 mg/L	2.01 mg/L	50 mL			
180-44203-A-1	HD-MW-98S-0/1-0	SM 2320B	T	0 mg/L	293.46 mg/L	50 mL			
180-44203-A-2	HD-MW-98I-0/1-0	SM 2320B	T	0 mg/L	301.5 mg/L	50 mL			
180-44203-A-3	HD-MW-99S-0/1-0	SM 2320B	T	0 mg/L	257.28 mg/L	50 mL			
180-44203-A-3 DU	HD-MW-99S-0/1-0	SM 2320B	T	0 mg/L	261.3 mg/L	50 mL			
180-44203-A-4	HD-MW-145A-0/1-0	SM 2320B	T	0 mg/L	247.23 mg/L	50 mL			
180-44203-A-5	HD-QC1-0/1-1	SM 2320B	T	0 mg/L	239.19 mg/L	50 mL			
180-44203-A-7	HD-MW-93S-0/1-0	SM 2320B	T	0 mg/L	176.88 mg/L	50 mL			
180-44203-A-8	HD-MW-93D-0/1-0	SM 2320B	T	0 mg/L	178.89 mg/L	50 mL			
CCV 180-142343/13		SM 2320B		70.35 mg/L	136.68 mg/L	50 mL	50 mL		
CCB 180-142343/14		SM 2320B		0 mg/L	2.01 mg/L	50 mL			

Batch Notes	
Batch Comment	PH 4 START: 4.01 PH 4 END: 4.02
pH Buffer 1 ID	1179927
pH Buffer 2 ID	1568035
pH Buffer 3 ID	1524103
pH Buffer 4 ID	1538765
pH Buffer 5 ID	1535729
Sulfuric Acid Lot Number	1543398
Sulfuric Acid Vendor	RICCA
Nominal Amount Used	50 mL
Normality of first Titrant	.0201 N

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents

TestAmerica Pittsburgh
301 Alpha Drive
Pittsburgh, PA 15238
phone 412.963.7058 fax 412.963.2470

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Jennifer S. Reese	Site Contact: Jennifer S. Reese	DateSubmitted: 5/18/2015	COC No: TAL2015051801
Groundwater Sciences Corporation	Tel/Fax: 717-901-8181 / (717) 657-1611	Lab Contact: Carrie Gamber	Carrier: FEDEX	1 of 1 COCs
2601 Market Place St. Suite 310	Analysis Turnaround Time			Job No. 10012.16.0005
Harrisburg, PA 17110	Calendar (C) or Work Days (W) _____			
(717) 901-8180 Phone	TAT if different from Below: Standard			
(717) 657-1611 FAX	■ 2 weeks			
Project Name: Restart Event 4	☐ 1 week			
Site: Harley-Davidson, York PA	☐ 5 days			
Quote # 18000557	☐ 1 day			

180-44203 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	VOCs (8260C)	Alkalinity (Carb/Bicarb), SO4, Cl, NO3 2320B/300.0	Total Na, Ca, K, and Mg (SW846 6020A)	Sample Specific Notes:
HD-MW-98S-0/1-0	5/18/15	12:50	Groundwater	Water	5	X	X	X	
HD-MW-98I-0/1-0	5/18/15	13:45	Groundwater	Water	5	X	X	X	
HD-MW-99S-0/1-0	5/18/15	9:55	Groundwater	Water	5	X	X	X	
HD-MW-145A-0/1-0	5/18/15	11:25	Groundwater	Water	5	X	X	X	
HD-MW-99S-0/1-0 MS	5/18/15	9:55	Groundwater	Water	5	X	X	X	
HD-MW-99S-0/1-0 MSD	5/18/15	9:55	Groundwater	Water	5	X	X	X	
HD-QC1-0/1-1	5/18/15	8:00	Groundwater	Water	5	X	X	X	
HD-QC1-0/1-2	5/18/15	12:00	Trip Blank	Water	2	X			
HD-MW-93S-0/1-0	5/18/15	12:27	Groundwater	Water	5	X	X	X	
HD-MW-93D-0/1-0	5/18/15	10:22	Groundwater	Water	5	X	X	X	
				Number of Containers		3	1	1	
Preservation Used: 1=Ice, 2=HCl; 3=H2SO4; 4=HNO3; 5=NaOH; 6=Unpreserved 7=Zinc Acetate & NaOH						2	1	4	
				Field Filter		N	N	N	

Possible Hazard Identification
■ *Non-Hazard* ☐ *Flammable* ☐ *Skin Irritant* ☐ *Poison B* ☐ *Unknown*

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ■ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Special Instructions/QC Requirements & Comments: **CLP Like Deliverables**

Relinquished by (Print and Sign)	Company: GSC	Date/Time: 5/18/15 1435	Received by:	Company: TAKOP	Date/Time: 5/18/15 1435
Relinquished by:	Company: TA	Date/Time: 5/18/15 1636	Received by:	Company: TA	Date/Time: 5/19/15 8:50
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

ORIGIN ID:KPDA (610) 337-9992
SAMPLE RECEIPT
TEST AMERICA
1008 WEST 9TH AVE

KING OF PRUSSIA, PA 19406
UNITED STATES US

SHIP DATE: 18MAY15
ACTWGT: 56.0 LB
CAD: 8490299/INET3610

BILL RECIPIENT

TO SAMPLE RECEIPT
TEST AMERICA - PITTSBURGH
301 ALPHA DR

PITTSBURGH PA 15238

(412) 963-7058 REF:
INV:

Uncorrected temp 1.8 °C
Thermometer ID 6

CF +1.0 Initials JW

PT-WI-SR-001 effective 7/26/13

FedEx Express

TUE - 19 MAY AA
STANDARD OVERNIGHT

TRK# 0201 7736 2839 0651

EV AGCA

15238
PA-US PIT

Login Sample Receipt Checklist

Client: Groundwater Sciences Corporation

Job Number: 180-44203-1

Login Number: 44203
List Number: 1
Creator: Watson, Debbie

List Source: TestAmerica Pittsburgh

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	