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ANALYTICAL REPORT

Job Number: 180-44321-1

Job Description: Harley Davidson

For:
Groundwater Sciences Corporation
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Attention: Allan Miller

Approved for release.
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6/15/2016 4:40 PM

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Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits
*	LCS or LCSD is outside acceptance limits.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits
E	Result exceeded calibration range.

HPLC/IC

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
F1	MS and/or MSD Recovery is outside acceptance limits.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Metals

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

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

CASE NARRATIVE

Client: Groundwater Sciences Corporation

Project: Harley Davidson

Report Number: 180-44321-1 REVISED 2

NOTE: This report has been revised to report the corrected dilution factor: MW-CW-9-0/1-0 (180-44321-19).

NOTE: This report has been revised to report the correct dilution factor for sample HD-CW-15A-0/1-0 RA (180-44321-21 RA). The updated data sheets are included in this revision. The re-analysis run confirmed the matrix interference on the surrogates.

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 05/21/2015; the samples arrived in good condition, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 3.6º C, 3.6º C and 5.1º C.

VOALTILES

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

Sample resulted with not quantifiable results because samples were over the calibration curve for tetrachloroethane. HD-CW-20-0/1-0 (180-44321-23) and HD-MW-96S-0/1-0 (180-44321-25). These results are reported from the higher dilution.

Surrogate recovery for the following sample was outside control limits: HD-CW-20-0/1-0 (180-44321-23). Evidence of matrix interference was present; a re-analysis was performed at a dilution due to the level of target compounds detected. All surrogates recovered within QC limits. Both sets of data have been reported.

Surrogate recovery for the following sample was outside control limits: HD-CW-15A-0/1-0 (180-44321-21). Evidence of matrix interference was present; a re-analysis was performed. The re-analysis also shows surrogate recoveries outside QB limits. Both runs were reported.

Toluene-d8 (Surr) failed the surrogate recovery criteria high for HD-COD-SW-16-0/1-0 (180-44321-10). As the recovery was high and the sample was non-detect for all target compounds, all data was reported.

Methylene Chloride was detected in method blank MB 180-143153/7 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.

Methylene Chloride was detected in method blank MB 180-143337/4 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.

The laboratory control sample (LCS) for batch 143153 recovered outside control limits for the following analyte: Methyl tert-butyl ether. This analyte was biased high in the LCS and was not detected in the associated samples; therefore, the data have been reported.

The laboratory control sample (LCS) for 143442 recovered outside control limits for the following analyte: Chloromethane. A low-level LCS (LODV), spiked at the reporting limit (RL), was prepared with this batch. The affected target analytes recovered within acceptance

limits; therefore, the LODV demonstrates the analytical system had sufficient sensitivity to detect the compounds had they been present. Since the affected target compounds were not detected in the samples, the data have been reported and qualified.

1,1,1-Trichloroethane and 1,1-Dichloroethane failed the recovery criteria high for the MS of sample HD-QC2-0/1-1 (180-44321-18) in batch 180-143422. Several analytes failed the recovery criteria high for the MSD of sample HD-QC2-0/1-1 (180-44321-18) in batch 180-143422.

1,1-Dichloroethene, Tetrachloroethene and Vinyl chloride failed the recovery criteria low for the MS of sample HD-COD-SW-6-0/1-0 (180-44321-1) in batch 180-143153. cis-1,3-Dichloropropene and Methyl tert-butyl ether failed the recovery criteria high. Several analytes exceeded the RPD limit for the MS/MSD of sample HD-COD-SW-6-0/1-0 (180-44321-1) in batch 180-143153.

Trichloroethene failed the recovery criteria high for the MS/MSD of sample HD-MW-95-0/1-0 (180-44321-24) in batch 180-143337.

METALS (ICP/MS)

Calcium was detected in method blank MB 180-142539/1-A 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.

Calcium and Potassium were detected in method blank MB 180-142542/1-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

ALKALINITY

Bicarbonate Alkalinity as CaCO3 and Total Alkalinity as CaCO3 to pH 4.5 were detected in method blank MB 180-143418/2 at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Bicarbonate Alkalinity as CaCO3 and Total Alkalinity as CaCO3 to pH 4.5 were detected in method blank MB 180-143420/2 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

Samples HD-COD-SW-26-0/1-0 (180-744321-13), HD-CW-18-0/1-0 (180-44321-28) and HD-MW-50D-0/1-0 (180-44321-29) required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Chloride and Nitrate as N were detected in method blank MB 180-142454/35 at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Chloride and Nitrate as N were detected in method blank MB 180-142454/6 at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged. If the associated sample reported a result above the MDL and/or RL, the result has been flagged.

Chloride failed the recovery criteria low for the MSD of sample HD-COD-SW-28-0/1-0 (180-44321-15) in batch 180-142454.

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: 180-44321-1

Client Sample ID: HD-COD-SW-6-0/1-0 — Lab Sample ID: 180-44321-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	0.32	J B	1.0	0.13	ug/L	1		8260C	Total/NA
Nitrate as N	1.7	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	95	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	17		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	48000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	3100		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	8400		500	1.2	ug/L	1		6020A	Total/NA
Sodium	40000		500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	140	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	140	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-COD-SW-7-0/1-0 — Lab Sample ID: 180-44321-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	2.5	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	65	B	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	39000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	5600		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	9600		500	1.2	ug/L	1		6020A	Total/NA
Sodium	39000		500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	100	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	100	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-COD-SW-8-0/1-0 — Lab Sample ID: 180-44321-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	0.31	J B	1.0	0.13	ug/L	1		8260C	Total/NA
Nitrate as N	2.6	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	53	B	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	34000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	5800		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	7000		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	99	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	99	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-COD-SW-9-0/1-0 — Lab Sample ID: 180-44321-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	0.26	J B	1.0	0.13	ug/L	1		8260C	Total/NA
Nitrate as N	3.4	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	93	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	40		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	54000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	9700		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	10000		500	1.2	ug/L	1		6020A	Total/NA
Sodium	48000		500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	170	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: HD-COD-SW-9-0/1-0 (Continued) — Lab Sample ID: 180-44321-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Bicarbonate Alkalinity as CaCO3	170	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-COD-SW-10-0/1-0 — Lab Sample ID: 180-44321-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	2.3	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	120	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	28		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	83000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	7700		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	13000		500	1.2	ug/L	1		6020A	Total/NA
Sodium	45000		500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	190	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	190	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-COD-SW-11-0/1-0 — Lab Sample ID: 180-44321-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	4.2	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	75	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	21		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	69000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	2200		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	15000		500	1.2	ug/L	1		6020A	Total/NA
Sodium	31000		500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	190	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	190	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-COD-SW-12-0/1-0 — Lab Sample ID: 180-44321-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	2.9	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	120	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	42		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	65000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	17000		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	10000		500	1.2	ug/L	1		6020A	Total/NA
Sodium	64000		500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	160	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	160	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-COD-SW-13-0/1-0 — Lab Sample ID: 180-44321-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	2.3	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	50	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	33		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	35000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	5600		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	7100		500	1.2	ug/L	1		6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: HD-COD-SW-13-0/1-0 (Continued) — Lab Sample ID: 180-44321-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	35000		500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	83	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	83	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-COD-SW-15-0/1-0 — Lab Sample ID: 180-44321-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1.7		1.0	0.24	ug/L	1		8260C	Total/NA
Trichloroethene	1.2		1.0	0.14	ug/L	1		8260C	Total/NA
Nitrate as N	3.8	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	150	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	35		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	87000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	5200		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	16000		500	1.2	ug/L	1		6020A	Total/NA
Sodium	54000		500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	190	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	190	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-COD-SW-16-0/1-0 — Lab Sample ID: 180-44321-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	2.5	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	55	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	37		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	38000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	5700		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	7500		500	1.2	ug/L	1		6020A	Total/NA
Sodium	36000		500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	100	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	100	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-COD-SW-17-0/1-0 — Lab Sample ID: 180-44321-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.98	J	1.0	0.24	ug/L	1		8260C	Total/NA
Trichloroethene	0.94	J	1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	1.4		1.0	0.15	ug/L	1		8260C	Total/NA
Nitrate as N	3.3	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	130	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	33		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	89000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	5200		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	16000		500	1.2	ug/L	1		6020A	Total/NA
Sodium	53000		500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	230	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	230	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-COD-SW-20-0/1-0 — Lab Sample ID: 180-44321-12

This Detection Summary does not include radiochemical test results.

Client Sample ID: HD-COD-SW-20-0/1-0 (Continued) — Lab Sample ID: 180-44321-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	1.9	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	110	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	16		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	51000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	2700		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	9200		500	1.2	ug/L	1		6020A	Total/NA
Sodium	44000		500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	140	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	140	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-COD-SW-26-0/1-0 — Lab Sample ID: 180-44321-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	3.7	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	230	B	5.0	0.98	mg/L	5		300.0	Total/NA
Sulfate	27		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	110000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	3100		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	16000		500	1.2	ug/L	1		6020A	Total/NA
Sodium	91000		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-COD-SW-27-0/1-0 — Lab Sample ID: 180-44321-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.75	J	1.0	0.17	ug/L	1		8260C	Total/NA
Nitrate as N	2.8	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	81	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	38		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	52000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	6400		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	11000		500	1.2	ug/L	1		6020A	Total/NA
Sodium	43000		500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	150	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	150	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-COD-SW-28-0/1-0 — Lab Sample ID: 180-44321-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Nitrate as N	3.4	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	96	B F1	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	38		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	130000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	11000		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	24000		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	160	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	160	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-44321-1

Client Sample ID: HD-COD-SW-29-0/1-0 — Lab Sample ID: 180-44321-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	0.20	J B	1.0	0.13	ug/L	1		8260C	Total/NA
Trichloroethene	0.16	J	1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	0.17	J	1.0	0.15	ug/L	1		8260C	Total/NA
Nitrate as N	2.6	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	52	B	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	34000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	5900		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	6900		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	99	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	99	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-QC3-0/1-2 — Lab Sample ID: 180-44321-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	1.0	B	1.0	0.13	ug/L	1		8260C	Total/NA

Client Sample ID: HD-QC2-0/1-1 — Lab Sample ID: 180-44321-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	1.4		1.0	0.24	ug/L	1		8260C	Total/NA
Trichloroethene	1.1		1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	1.6		1.0	0.15	ug/L	1		8260C	Total/NA
Nitrate as N	3.3	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	130	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	33		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	84000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	5000		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	16000		500	1.2	ug/L	1		6020A	Total/NA
Sodium	53000		500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	250	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	250	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-CW-9-0/1-0 — Lab Sample ID: 180-44321-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	5.4	J	13	3.7	ug/L	12.5		8260C	Total/NA
Methylene Chloride	11	J B	13	1.6	ug/L	12.5		8260C	Total/NA
1,1-Dichloroethane	4.0	J	13	1.5	ug/L	12.5		8260C	Total/NA
cis-1,2-Dichloroethene	92		13	3.0	ug/L	12.5		8260C	Total/NA
1,1,1-Trichloroethane	22		13	3.6	ug/L	12.5		8260C	Total/NA
Trichloroethene	160		13	1.8	ug/L	12.5		8260C	Total/NA
Tetrachloroethene	450		13	1.9	ug/L	12.5		8260C	Total/NA
Nitrate as N	3.6	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	180	B	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	86000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	12000		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	19000		500	1.2	ug/L	1		6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: HD-CW-9-0/1-0 (Continued) — Lab Sample ID: 180-44321-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	72000		500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	210	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	210	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-CW-13-0/1-0 — Lab Sample ID: 180-44321-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	10	J	25	7.4	ug/L	25		8260C	Total/NA
Methylene Chloride	24	J B	25	3.1	ug/L	25		8260C	Total/NA
1,1-Dichloroethane	4.6	J	25	2.9	ug/L	25		8260C	Total/NA
cis-1,2-Dichloroethene	320		25	5.9	ug/L	25		8260C	Total/NA
1,1,1-Trichloroethane	17	J	25	7.2	ug/L	25		8260C	Total/NA
Trichloroethene	210		25	3.6	ug/L	25		8260C	Total/NA
Tetrachloroethene	150		25	3.7	ug/L	25		8260C	Total/NA
Nitrate as N	3.2	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	140	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	35		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	120000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	12000		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	16000		500	1.2	ug/L	1		6020A	Total/NA
Sodium	44000		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-CW-15A-0/1-0 — Lab Sample ID: 180-44321-21

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	1500		250	74	ug/L	250		8260C	Total/NA
cis-1,2-Dichloroethene	6100		250	59	ug/L	250		8260C	Total/NA
1,1,1-Trichloroethane	7600		250	72	ug/L	250		8260C	Total/NA
Trichloroethene	4600		250	36	ug/L	250		8260C	Total/NA
Tetrachloroethene	1700		250	37	ug/L	250		8260C	Total/NA
1,1-Dichloroethene - RA	1400		250	74	ug/L	250		8260C	Total/NA
cis-1,2-Dichloroethene - RA	6600		250	59	ug/L	250		8260C	Total/NA
1,1,1-Trichloroethane - RA	6900		250	72	ug/L	250		8260C	Total/NA
Trichloroethene - RA	2700		250	36	ug/L	250		8260C	Total/NA
Tetrachloroethene - RA	1800		250	37	ug/L	250		8260C	Total/NA
Nitrate as N	3.2	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	170	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	100		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	140000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	9100		500	5.8	ug/L	1		6020A	Total/NA
Magnesium	16000		500	1.2	ug/L	1		6020A	Total/NA
Sodium	54000		500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	200	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	200	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-CW-17-0/1-0 — Lab Sample ID: 180-44321-22

This Detection Summary does not include radiochemical test results.

Client Sample ID: HD-CW-17-0/1-0 (Continued) — Lab Sample ID: 180-44321-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	1.4	J	3.0	0.89	ug/L	3		8260C	Total/NA
cis-1,2-Dichloroethene	34		3.0	0.71	ug/L	3		8260C	Total/NA
1,1,1-Trichloroethane	6.4		3.0	0.86	ug/L	3		8260C	Total/NA
Trichloroethene	26		3.0	0.43	ug/L	3		8260C	Total/NA
Tetrachloroethene	9.8		3.0	0.45	ug/L	3		8260C	Total/NA
Nitrate as N	2.1	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	100	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	38		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	100000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	4900	B	500	5.8	ug/L	1		6020A	Total/NA
Magnesium	11000		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	230	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	230	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-CW-20-0/1-0 — Lab Sample ID: 180-44321-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	17		5.0	1.5	ug/L	5		8260C	Total/NA
cis-1,2-Dichloroethene	130		5.0	1.2	ug/L	5		8260C	Total/NA
1,1,1-Trichloroethane	75		5.0	1.4	ug/L	5		8260C	Total/NA
Trichloroethene	290	E	5.0	0.72	ug/L	5		8260C	Total/NA
Tetrachloroethene	NQ		5.0	0.74	ug/L	5		8260C	Total/NA
Methylene Chloride - DL	48	J B	50	6.3	ug/L	50		8260C	Total/NA
1,1-Dichloroethane - DL	9.9	J	50	5.8	ug/L	50		8260C	Total/NA
cis-1,2-Dichloroethene - DL	140		50	12	ug/L	50		8260C	Total/NA
1,1,1-Trichloroethane - DL	57		50	14	ug/L	50		8260C	Total/NA
Trichloroethene - DL	580		50	7.2	ug/L	50		8260C	Total/NA
Tetrachloroethene - DL	1200		50	7.4	ug/L	50		8260C	Total/NA
Nitrate as N	3.1	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	160	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	29		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	87000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	6000	B	500	5.8	ug/L	1		6020A	Total/NA
Magnesium	18000		500	1.2	ug/L	1		6020A	Total/NA
Sodium	62000		500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	230	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	230	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-MW-95-0/1-0 — Lab Sample ID: 180-44321-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	0.58	J B	1.0	0.13	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	6.1		1.0	0.24	ug/L	1		8260C	Total/NA
Trichloroethene	2.8	F1	1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	1.9		1.0	0.15	ug/L	1		8260C	Total/NA
Nitrate as N	0.84	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	52	B	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	96000	B	500	2.8	ug/L	1		6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: HD-MW-95-0/1-0 (Continued) — Lab Sample ID: 180-44321-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Potassium	2700	B	500	5.8	ug/L	1		6020A	Total/NA
Magnesium	8000		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	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-96S-0/1-0 — Lab Sample ID: 180-44321-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.38	J	1.0	0.30	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	1.3		1.0	0.29	ug/L	1		8260C	Total/NA
Trichloroethene	28		1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	NQ		1.0	0.15	ug/L	1		8260C	Total/NA
Methylene Chloride - DL	4.6	J B	10	1.3	ug/L	10		8260C	Total/NA
cis-1,2-Dichloroethene - DL	26		10	2.4	ug/L	10		8260C	Total/NA
Trichloroethene - DL	80		10	1.4	ug/L	10		8260C	Total/NA
Tetrachloroethene - DL	200		10	1.5	ug/L	10		8260C	Total/NA
Nitrate as N	3.6	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	140	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	51		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	120000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	7000	B	500	5.8	ug/L	1		6020A	Total/NA
Magnesium	17000		500	1.2	ug/L	1		6020A	Total/NA
Sodium	56000		500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	310	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	310	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-MW-96D-0/1-0 — Lab Sample ID: 180-44321-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	3.5	J	10	3.0	ug/L	10		8260C	Total/NA
cis-1,2-Dichloroethene	140		10	2.4	ug/L	10		8260C	Total/NA
1,1,1-Trichloroethane	14		10	2.9	ug/L	10		8260C	Total/NA
Trichloroethene	310		10	1.4	ug/L	10		8260C	Total/NA
Tetrachloroethene	150		10	1.5	ug/L	10		8260C	Total/NA
Nitrate as N	3.8	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	120	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	44		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	110000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	4400	B	500	5.8	ug/L	1		6020A	Total/NA
Magnesium	15000		500	1.2	ug/L	1		6020A	Total/NA
Sodium	40000		500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	270	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	270	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-MW-97-0/1-0 — Lab Sample ID: 180-44321-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	8.6	J	25	7.4	ug/L	25		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: HD-MW-97-0/1-0 (Continued) — Lab Sample ID: 180-44321-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	23	J B	25	3.1	ug/L	25		8260C	Total/NA
cis-1,2-Dichloroethene	240		25	5.9	ug/L	25		8260C	Total/NA
1,1,1-Trichloroethane	11	J	25	7.2	ug/L	25		8260C	Total/NA
Trichloroethene	470		25	3.6	ug/L	25		8260C	Total/NA
Tetrachloroethene	79		25	3.7	ug/L	25		8260C	Total/NA
Nitrate as N	1.8	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	120	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	29		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	88000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	6400	B	500	5.8	ug/L	1		6020A	Total/NA
Magnesium	16000		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	230	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	230	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-CW-18-0/1-0 — Lab Sample ID: 180-44321-28

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	0.80	J	1.0	0.30	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	1.2		1.0	0.12	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	30		1.0	0.24	ug/L	1		8260C	Total/NA
Trichloroethene	6.6		1.0	0.14	ug/L	1		8260C	Total/NA
Tetrachloroethene	0.34	J	1.0	0.15	ug/L	1		8260C	Total/NA
Nitrate as N	0.085	J B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	240	B	5.0	0.98	mg/L	5		300.0	Total/NA
Sulfate	280		5.0	1.1	mg/L	5		300.0	Total/NA
Calcium	95000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	11000	B	500	5.8	ug/L	1		6020A	Total/NA
Magnesium	42000		500	1.2	ug/L	1		6020A	Total/NA
Sodium	150000		500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	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-50D-0/1-0 — Lab Sample ID: 180-44321-29

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vinyl chloride	40	J	130	28	ug/L	125		8260C	Total/NA
1,1-Dichloroethene	370		130	37	ug/L	125		8260C	Total/NA
Methylene Chloride	110	J B	130	16	ug/L	125		8260C	Total/NA
1,1-Dichloroethane	760		130	15	ug/L	125		8260C	Total/NA
cis-1,2-Dichloroethene	4900		130	30	ug/L	125		8260C	Total/NA
1,1,1-Trichloroethane	340		130	36	ug/L	125		8260C	Total/NA
Trichloroethene	6200		130	18	ug/L	125		8260C	Total/NA
Tetrachloroethene	550		130	19	ug/L	125		8260C	Total/NA
Nitrate as N	0.022	J B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	99	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	250		5.0	1.1	mg/L	5		300.0	Total/NA
Calcium	150000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	2300	B	500	5.8	ug/L	1		6020A	Total/NA
Magnesium	45000		500	1.2	ug/L	1		6020A	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: HD-MW-50D-0/1-0 (Continued) — Lab Sample ID: 180-44321-29

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	17000		500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	340	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	340	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-MW-51S-0/1-0 — Lab Sample ID: 180-44321-30

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethene	46	J	50	15	ug/L	50		8260C	Total/NA
Methylene Chloride	24	J B	50	6.3	ug/L	50		8260C	Total/NA
cis-1,2-Dichloroethene	620		50	12	ug/L	50		8260C	Total/NA
1,1,1-Trichloroethane	95		50	14	ug/L	50		8260C	Total/NA
Trichloroethene	720		50	7.2	ug/L	50		8260C	Total/NA
Tetrachloroethene	480		50	7.4	ug/L	50		8260C	Total/NA
Nitrate as N	2.8	B	0.10	0.0062	mg/L	1		300.0	Total/NA
Chloride	160	B	1.0	0.20	mg/L	1		300.0	Total/NA
Sulfate	59		1.0	0.21	mg/L	1		300.0	Total/NA
Calcium	110000	B	500	2.8	ug/L	1		6020A	Total/NA
Potassium	7700	B	500	5.8	ug/L	1		6020A	Total/NA
Magnesium	14000		500	1.2	ug/L	1		6020A	Total/NA
Sodium	44000		500	3.8	ug/L	1		6020A	Total/NA
Total Alkalinity as CaCO3 to pH 4.5	200	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA
Bicarbonate Alkalinity as CaCO3	200	B	5.0	0.41	mg/L	1		SM 2320B	Total/NA

Client Sample ID: HD-QC4-0/1-2 — Lab Sample ID: 180-44321-31

No Detections.

Client Sample ID: HD-QC1-0/1-4 — Lab Sample ID: 180-44321-32

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	2.6	J	5.0	2.5	ug/L	1		8260C	Total/NA
2-Butanone (MEK)	2.2	J	5.0	0.55	ug/L	1		8260C	Total/NA

Client Sample ID: HD-QC1-0/1-3 — Lab Sample ID: 180-44321-33

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone (MEK)	1.7	J	5.0	0.55	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

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

Client Sample ID: HD-COD-SW-6-0/1-0
Date Collected: 05/20/15 10:45
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U F2	1.0	0.28	ug/L			05/29/15 12:01	1
Vinyl chloride	1.0	U F1 F2	1.0	0.23	ug/L			05/29/15 12:01	1
Bromomethane	1.0	U	1.0	0.31	ug/L			05/29/15 12:01	1
Chloroethane	1.0	U	1.0	0.21	ug/L			05/29/15 12:01	1
1,1-Dichloroethene	1.0	U F1 F2	1.0	0.30	ug/L			05/29/15 12:01	1
Acetone	5.0	U F2	5.0	2.5	ug/L			05/29/15 12:01	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			05/29/15 12:01	1
Methylene Chloride	**0.32**	**J B**	1.0	0.13	ug/L			05/29/15 12:01	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			05/29/15 12:01	1
Methyl tert-butyl ether	1.0	U * F1	1.0	0.18	ug/L			05/29/15 12:01	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			05/29/15 12:01	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			05/29/15 12:01	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			05/29/15 12:01	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			05/29/15 12:01	1
Chloroform	1.0	U	1.0	0.17	ug/L			05/29/15 12:01	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			05/29/15 12:01	1
Carbon tetrachloride	1.0	U F2	1.0	0.14	ug/L			05/29/15 12:01	1
Benzene	1.0	U	1.0	0.11	ug/L			05/29/15 12:01	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/29/15 12:01	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			05/29/15 12:01	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			05/29/15 12:01	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			05/29/15 12:01	1
cis-1,3-Dichloropropene	1.0	U F1	1.0	0.19	ug/L			05/29/15 12:01	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			05/29/15 12:01	1
Toluene	1.0	U	1.0	0.15	ug/L			05/29/15 12:01	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			05/29/15 12:01	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/29/15 12:01	1
Tetrachloroethene	1.0	U F1	1.0	0.15	ug/L			05/29/15 12:01	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			05/29/15 12:01	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			05/29/15 12:01	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			05/29/15 12:01	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			05/29/15 12:01	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			05/29/15 12:01	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			05/29/15 12:01	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			05/29/15 12:01	1
Styrene	1.0	U	1.0	0.097	ug/L			05/29/15 12:01	1
Bromoform	1.0	U	1.0	0.19	ug/L			05/29/15 12:01	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			05/29/15 12:01	1
Acrylonitrile	20	U	20	0.55	ug/L			05/29/15 12:01	1
1,4-Dioxane	200	U	200	34	ug/L			05/29/15 12:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*64 - 135*		*05/29/15 12:01*	*1*
Toluene-d8 (Surr)	*112*		*71 - 118*		*05/29/15 12:01*	*1*
4-Bromofluorobenzene (Surr)	*104*		*70 - 118*		*05/29/15 12:01*	*1*
Dibromofluoromethane (Surr)	*101*		*70 - 128*		*05/29/15 12:01*	*1*

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

Client Sample ID: HD-COD-SW-7-0/1-0
Date Collected: 05/20/15 13:35
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			05/31/15 18:50	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			05/31/15 18:50	1
Bromomethane	1.0	U	1.0	0.31	ug/L			05/31/15 18:50	1
Chloroethane	1.0	U	1.0	0.21	ug/L			05/31/15 18:50	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			05/31/15 18:50	1
Acetone	5.0	U	5.0	2.5	ug/L			05/31/15 18:50	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			05/31/15 18:50	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			05/31/15 18:50	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			05/31/15 18:50	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			05/31/15 18:50	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			05/31/15 18:50	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			05/31/15 18:50	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			05/31/15 18:50	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			05/31/15 18:50	1
Chloroform	1.0	U	1.0	0.17	ug/L			05/31/15 18:50	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			05/31/15 18:50	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			05/31/15 18:50	1
Benzene	1.0	U	1.0	0.11	ug/L			05/31/15 18:50	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/31/15 18:50	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			05/31/15 18:50	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			05/31/15 18:50	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			05/31/15 18:50	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			05/31/15 18:50	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			05/31/15 18:50	1
Toluene	1.0	U	1.0	0.15	ug/L			05/31/15 18:50	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			05/31/15 18:50	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/31/15 18:50	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			05/31/15 18:50	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			05/31/15 18:50	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			05/31/15 18:50	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			05/31/15 18:50	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			05/31/15 18:50	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			05/31/15 18:50	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			05/31/15 18:50	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			05/31/15 18:50	1
Styrene	1.0	U	1.0	0.097	ug/L			05/31/15 18:50	1
Bromoform	1.0	U	1.0	0.19	ug/L			05/31/15 18:50	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			05/31/15 18:50	1
Acrylonitrile	20	U	20	0.55	ug/L			05/31/15 18:50	1
1,4-Dioxane	200	U	200	34	ug/L			05/31/15 18:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*91*		*64 - 135*		*05/31/15 18:50*	*1*
Toluene-d8 (Surr)	*112*		*71 - 118*		*05/31/15 18:50*	*1*
4-Bromofluorobenzene (Surr)	*97*		*70 - 118*		*05/31/15 18:50*	*1*
Dibromofluoromethane (Surr)	*100*		*70 - 128*		*05/31/15 18:50*	*1*

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

Client Sample ID: HD-COD-SW-8-0/1-0
Date Collected: 05/20/15 09:10
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			05/29/15 12:28	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			05/29/15 12:28	1
Bromomethane	1.0	U	1.0	0.31	ug/L			05/29/15 12:28	1
Chloroethane	1.0	U	1.0	0.21	ug/L			05/29/15 12:28	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			05/29/15 12:28	1
Acetone	5.0	U	5.0	2.5	ug/L			05/29/15 12:28	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			05/29/15 12:28	1
Methylene Chloride	**0.31**	**J B**	1.0	0.13	ug/L			05/29/15 12:28	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			05/29/15 12:28	1
Methyl tert-butyl ether	1.0	U *	1.0	0.18	ug/L			05/29/15 12:28	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			05/29/15 12:28	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			05/29/15 12:28	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			05/29/15 12:28	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			05/29/15 12:28	1
Chloroform	1.0	U	1.0	0.17	ug/L			05/29/15 12:28	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			05/29/15 12:28	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			05/29/15 12:28	1
Benzene	1.0	U	1.0	0.11	ug/L			05/29/15 12:28	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/29/15 12:28	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			05/29/15 12:28	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			05/29/15 12:28	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			05/29/15 12:28	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			05/29/15 12:28	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			05/29/15 12:28	1
Toluene	1.0	U	1.0	0.15	ug/L			05/29/15 12:28	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			05/29/15 12:28	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/29/15 12:28	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			05/29/15 12:28	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			05/29/15 12:28	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			05/29/15 12:28	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			05/29/15 12:28	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			05/29/15 12:28	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			05/29/15 12:28	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			05/29/15 12:28	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			05/29/15 12:28	1
Styrene	1.0	U	1.0	0.097	ug/L			05/29/15 12:28	1
Bromoform	1.0	U	1.0	0.19	ug/L			05/29/15 12:28	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			05/29/15 12:28	1
Acrylonitrile	20	U	20	0.55	ug/L			05/29/15 12:28	1
1,4-Dioxane	200	U	200	34	ug/L			05/29/15 12:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*91*		*64 - 135*		*05/29/15 12:28*	*1*
Toluene-d8 (Surr)	*111*		*71 - 118*		*05/29/15 12:28*	*1*
4-Bromofluorobenzene (Surr)	*103*		*70 - 118*		*05/29/15 12:28*	*1*
Dibromofluoromethane (Surr)	*101*		*70 - 128*		*05/29/15 12:28*	*1*

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

Client Sample ID: HD-COD-SW-9-0/1-0
Date Collected: 05/20/15 11:50
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			05/29/15 12:56	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			05/29/15 12:56	1
Bromomethane	1.0	U	1.0	0.31	ug/L			05/29/15 12:56	1
Chloroethane	1.0	U	1.0	0.21	ug/L			05/29/15 12:56	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			05/29/15 12:56	1
Acetone	5.0	U	5.0	2.5	ug/L			05/29/15 12:56	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			05/29/15 12:56	1
Methylene Chloride	**0.26**	**J B**	1.0	0.13	ug/L			05/29/15 12:56	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			05/29/15 12:56	1
Methyl tert-butyl ether	1.0	U *	1.0	0.18	ug/L			05/29/15 12:56	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			05/29/15 12:56	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			05/29/15 12:56	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			05/29/15 12:56	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			05/29/15 12:56	1
Chloroform	1.0	U	1.0	0.17	ug/L			05/29/15 12:56	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			05/29/15 12:56	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			05/29/15 12:56	1
Benzene	1.0	U	1.0	0.11	ug/L			05/29/15 12:56	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/29/15 12:56	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			05/29/15 12:56	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			05/29/15 12:56	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			05/29/15 12:56	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			05/29/15 12:56	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			05/29/15 12:56	1
Toluene	1.0	U	1.0	0.15	ug/L			05/29/15 12:56	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			05/29/15 12:56	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/29/15 12:56	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			05/29/15 12:56	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			05/29/15 12:56	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			05/29/15 12:56	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			05/29/15 12:56	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			05/29/15 12:56	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			05/29/15 12:56	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			05/29/15 12:56	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			05/29/15 12:56	1
Styrene	1.0	U	1.0	0.097	ug/L			05/29/15 12:56	1
Bromoform	1.0	U	1.0	0.19	ug/L			05/29/15 12:56	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			05/29/15 12:56	1
Acrylonitrile	20	U	20	0.55	ug/L			05/29/15 12:56	1
1,4-Dioxane	200	U	200	34	ug/L			05/29/15 12:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*77*		*64 - 135*		*05/29/15 12:56*	*1*
Toluene-d8 (Surr)	*97*		*71 - 118*		*05/29/15 12:56*	*1*
4-Bromofluorobenzene (Surr)	*86*		*70 - 118*		*05/29/15 12:56*	*1*
Dibromofluoromethane (Surr)	*82*		*70 - 128*		*05/29/15 12:56*	*1*

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

Client Sample ID: HD-COD-SW-10-0/1-0
Date Collected: 05/20/15 09:45
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			05/29/15 15:32	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			05/29/15 15:32	1
Bromomethane	1.0	U	1.0	0.31	ug/L			05/29/15 15:32	1
Chloroethane	1.0	U	1.0	0.21	ug/L			05/29/15 15:32	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			05/29/15 15:32	1
Acetone	5.0	U	5.0	2.5	ug/L			05/29/15 15:32	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			05/29/15 15:32	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			05/29/15 15:32	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			05/29/15 15:32	1
Methyl tert-butyl ether	1.0	U *	1.0	0.18	ug/L			05/29/15 15:32	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			05/29/15 15:32	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			05/29/15 15:32	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			05/29/15 15:32	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			05/29/15 15:32	1
Chloroform	1.0	U	1.0	0.17	ug/L			05/29/15 15:32	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			05/29/15 15:32	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			05/29/15 15:32	1
Benzene	1.0	U	1.0	0.11	ug/L			05/29/15 15:32	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/29/15 15:32	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			05/29/15 15:32	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			05/29/15 15:32	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			05/29/15 15:32	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			05/29/15 15:32	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			05/29/15 15:32	1
Toluene	1.0	U	1.0	0.15	ug/L			05/29/15 15:32	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			05/29/15 15:32	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/29/15 15:32	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			05/29/15 15:32	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			05/29/15 15:32	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			05/29/15 15:32	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			05/29/15 15:32	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			05/29/15 15:32	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			05/29/15 15:32	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			05/29/15 15:32	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			05/29/15 15:32	1
Styrene	1.0	U	1.0	0.097	ug/L			05/29/15 15:32	1
Bromoform	1.0	U	1.0	0.19	ug/L			05/29/15 15:32	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			05/29/15 15:32	1
Acrylonitrile	20	U	20	0.55	ug/L			05/29/15 15:32	1
1,4-Dioxane	200	U	200	34	ug/L			05/29/15 15:32	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*83*		*64 - 135*		*05/29/15 15:32*	*1*
Toluene-d8 (Surr)	*100*		*71 - 118*		*05/29/15 15:32*	*1*
4-Bromofluorobenzene (Surr)	*92*		*70 - 118*		*05/29/15 15:32*	*1*
Dibromofluoromethane (Surr)	*92*		*70 - 128*		*05/29/15 15:32*	*1*

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

Client Sample ID: HD-COD-SW-11-0/1-0
Date Collected: 05/20/15 12:15
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			05/29/15 16:00	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			05/29/15 16:00	1
Bromomethane	1.0	U	1.0	0.31	ug/L			05/29/15 16:00	1
Chloroethane	1.0	U	1.0	0.21	ug/L			05/29/15 16:00	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			05/29/15 16:00	1
Acetone	5.0	U	5.0	2.5	ug/L			05/29/15 16:00	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			05/29/15 16:00	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			05/29/15 16:00	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			05/29/15 16:00	1
Methyl tert-butyl ether	1.0	U *	1.0	0.18	ug/L			05/29/15 16:00	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			05/29/15 16:00	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			05/29/15 16:00	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			05/29/15 16:00	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			05/29/15 16:00	1
Chloroform	1.0	U	1.0	0.17	ug/L			05/29/15 16:00	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			05/29/15 16:00	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			05/29/15 16:00	1
Benzene	1.0	U	1.0	0.11	ug/L			05/29/15 16:00	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/29/15 16:00	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			05/29/15 16:00	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			05/29/15 16:00	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			05/29/15 16:00	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			05/29/15 16:00	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			05/29/15 16:00	1
Toluene	1.0	U	1.0	0.15	ug/L			05/29/15 16:00	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			05/29/15 16:00	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/29/15 16:00	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			05/29/15 16:00	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			05/29/15 16:00	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			05/29/15 16:00	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			05/29/15 16:00	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			05/29/15 16:00	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			05/29/15 16:00	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			05/29/15 16:00	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			05/29/15 16:00	1
Styrene	1.0	U	1.0	0.097	ug/L			05/29/15 16:00	1
Bromoform	1.0	U	1.0	0.19	ug/L			05/29/15 16:00	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			05/29/15 16:00	1
Acrylonitrile	20	U	20	0.55	ug/L			05/29/15 16:00	1
1,4-Dioxane	200	U	200	34	ug/L			05/29/15 16:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*64 - 135*		*05/29/15 16:00*	*1*
Toluene-d8 (Surr)	*114*		*71 - 118*		*05/29/15 16:00*	*1*
4-Bromofluorobenzene (Surr)	*101*		*70 - 118*		*05/29/15 16:00*	*1*
Dibromofluoromethane (Surr)	*98*		*70 - 128*		*05/29/15 16:00*	*1*

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

Client Sample ID: HD-COD-SW-12-0/1-0
Date Collected: 05/20/15 12:30
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			05/29/15 16:27	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			05/29/15 16:27	1
Bromomethane	1.0	U	1.0	0.31	ug/L			05/29/15 16:27	1
Chloroethane	1.0	U	1.0	0.21	ug/L			05/29/15 16:27	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			05/29/15 16:27	1
Acetone	5.0	U	5.0	2.5	ug/L			05/29/15 16:27	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			05/29/15 16:27	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			05/29/15 16:27	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			05/29/15 16:27	1
Methyl tert-butyl ether	1.0	U *	1.0	0.18	ug/L			05/29/15 16:27	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			05/29/15 16:27	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			05/29/15 16:27	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			05/29/15 16:27	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			05/29/15 16:27	1
Chloroform	1.0	U	1.0	0.17	ug/L			05/29/15 16:27	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			05/29/15 16:27	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			05/29/15 16:27	1
Benzene	1.0	U	1.0	0.11	ug/L			05/29/15 16:27	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/29/15 16:27	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			05/29/15 16:27	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			05/29/15 16:27	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			05/29/15 16:27	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			05/29/15 16:27	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			05/29/15 16:27	1
Toluene	1.0	U	1.0	0.15	ug/L			05/29/15 16:27	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			05/29/15 16:27	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/29/15 16:27	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			05/29/15 16:27	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			05/29/15 16:27	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			05/29/15 16:27	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			05/29/15 16:27	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			05/29/15 16:27	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			05/29/15 16:27	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			05/29/15 16:27	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			05/29/15 16:27	1
Styrene	1.0	U	1.0	0.097	ug/L			05/29/15 16:27	1
Bromoform	1.0	U	1.0	0.19	ug/L			05/29/15 16:27	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			05/29/15 16:27	1
Acrylonitrile	20	U	20	0.55	ug/L			05/29/15 16:27	1
1,4-Dioxane	200	U	200	34	ug/L			05/29/15 16:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*64 - 135*		*05/29/15 16:27*	*1*
Toluene-d8 (Surr)	*112*		*71 - 118*		*05/29/15 16:27*	*1*
4-Bromofluorobenzene (Surr)	*103*		*70 - 118*		*05/29/15 16:27*	*1*
Dibromofluoromethane (Surr)	*103*		*70 - 128*		*05/29/15 16:27*	*1*

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

Client Sample ID: HD-COD-SW-13-0/1-0
Date Collected: 05/20/15 09:35
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			05/31/15 19:17	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			05/31/15 19:17	1
Bromomethane	1.0	U	1.0	0.31	ug/L			05/31/15 19:17	1
Chloroethane	1.0	U	1.0	0.21	ug/L			05/31/15 19:17	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			05/31/15 19:17	1
Acetone	5.0	U	5.0	2.5	ug/L			05/31/15 19:17	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			05/31/15 19:17	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			05/31/15 19:17	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			05/31/15 19:17	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			05/31/15 19:17	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			05/31/15 19:17	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			05/31/15 19:17	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			05/31/15 19:17	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			05/31/15 19:17	1
Chloroform	1.0	U	1.0	0.17	ug/L			05/31/15 19:17	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			05/31/15 19:17	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			05/31/15 19:17	1
Benzene	1.0	U	1.0	0.11	ug/L			05/31/15 19:17	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/31/15 19:17	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			05/31/15 19:17	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			05/31/15 19:17	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			05/31/15 19:17	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			05/31/15 19:17	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			05/31/15 19:17	1
Toluene	1.0	U	1.0	0.15	ug/L			05/31/15 19:17	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			05/31/15 19:17	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/31/15 19:17	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			05/31/15 19:17	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			05/31/15 19:17	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			05/31/15 19:17	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			05/31/15 19:17	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			05/31/15 19:17	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			05/31/15 19:17	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			05/31/15 19:17	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			05/31/15 19:17	1
Styrene	1.0	U	1.0	0.097	ug/L			05/31/15 19:17	1
Bromoform	1.0	U	1.0	0.19	ug/L			05/31/15 19:17	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			05/31/15 19:17	1
Acrylonitrile	20	U	20	0.55	ug/L			05/31/15 19:17	1
1,4-Dioxane	200	U	200	34	ug/L			05/31/15 19:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*93*		*64 - 135*		*05/31/15 19:17*	*1*
Toluene-d8 (Surr)	*117*		*71 - 118*		*05/31/15 19:17*	*1*
4-Bromofluorobenzene (Surr)	*106*		*70 - 118*		*05/31/15 19:17*	*1*
Dibromofluoromethane (Surr)	*105*		*70 - 128*		*05/31/15 19:17*	*1*

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

Client Sample ID: HD-COD-SW-15-0/1-0
Date Collected: 05/20/15 12:40
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			05/29/15 17:49	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			05/29/15 17:49	1
Bromomethane	1.0	U	1.0	0.31	ug/L			05/29/15 17:49	1
Chloroethane	1.0	U	1.0	0.21	ug/L			05/29/15 17:49	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			05/29/15 17:49	1
Acetone	5.0	U	5.0	2.5	ug/L			05/29/15 17:49	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			05/29/15 17:49	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			05/29/15 17:49	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			05/29/15 17:49	1
Methyl tert-butyl ether	1.0	U *	1.0	0.18	ug/L			05/29/15 17:49	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			05/29/15 17:49	1
cis-1,2-Dichloroethene	**1.7**		1.0	0.24	ug/L			05/29/15 17:49	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			05/29/15 17:49	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			05/29/15 17:49	1
Chloroform	1.0	U	1.0	0.17	ug/L			05/29/15 17:49	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			05/29/15 17:49	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			05/29/15 17:49	1
Benzene	1.0	U	1.0	0.11	ug/L			05/29/15 17:49	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/29/15 17:49	1
Trichloroethene	**1.2**		1.0	0.14	ug/L			05/29/15 17:49	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			05/29/15 17:49	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			05/29/15 17:49	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			05/29/15 17:49	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			05/29/15 17:49	1
Toluene	1.0	U	1.0	0.15	ug/L			05/29/15 17:49	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			05/29/15 17:49	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/29/15 17:49	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			05/29/15 17:49	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			05/29/15 17:49	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			05/29/15 17:49	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			05/29/15 17:49	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			05/29/15 17:49	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			05/29/15 17:49	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			05/29/15 17:49	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			05/29/15 17:49	1
Styrene	1.0	U	1.0	0.097	ug/L			05/29/15 17:49	1
Bromoform	1.0	U	1.0	0.19	ug/L			05/29/15 17:49	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			05/29/15 17:49	1
Acrylonitrile	20	U	20	0.55	ug/L			05/29/15 17:49	1
1,4-Dioxane	200	U	200	34	ug/L			05/29/15 17:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*64 - 135*		*05/29/15 17:49*	*1*
Toluene-d8 (Surr)	*110*		*71 - 118*		*05/29/15 17:49*	*1*
4-Bromofluorobenzene (Surr)	*98*		*70 - 118*		*05/29/15 17:49*	*1*
Dibromofluoromethane (Surr)	*102*		*70 - 128*		*05/29/15 17:49*	*1*

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

Client Sample ID: HD-COD-SW-16-0/1-0
Date Collected: 05/20/15 10:10
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			05/29/15 18:17	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			05/29/15 18:17	1
Bromomethane	1.0	U	1.0	0.31	ug/L			05/29/15 18:17	1
Chloroethane	1.0	U	1.0	0.21	ug/L			05/29/15 18:17	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			05/29/15 18:17	1
Acetone	5.0	U	5.0	2.5	ug/L			05/29/15 18:17	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			05/29/15 18:17	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			05/29/15 18:17	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			05/29/15 18:17	1
Methyl tert-butyl ether	1.0	U *	1.0	0.18	ug/L			05/29/15 18:17	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			05/29/15 18:17	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			05/29/15 18:17	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			05/29/15 18:17	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			05/29/15 18:17	1
Chloroform	1.0	U	1.0	0.17	ug/L			05/29/15 18:17	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			05/29/15 18:17	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			05/29/15 18:17	1
Benzene	1.0	U	1.0	0.11	ug/L			05/29/15 18:17	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/29/15 18:17	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			05/29/15 18:17	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			05/29/15 18:17	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			05/29/15 18:17	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			05/29/15 18:17	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			05/29/15 18:17	1
Toluene	1.0	U	1.0	0.15	ug/L			05/29/15 18:17	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			05/29/15 18:17	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/29/15 18:17	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			05/29/15 18:17	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			05/29/15 18:17	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			05/29/15 18:17	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			05/29/15 18:17	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			05/29/15 18:17	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			05/29/15 18:17	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			05/29/15 18:17	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			05/29/15 18:17	1
Styrene	1.0	U	1.0	0.097	ug/L			05/29/15 18:17	1
Bromoform	1.0	U	1.0	0.19	ug/L			05/29/15 18:17	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			05/29/15 18:17	1
Acrylonitrile	20	U	20	0.55	ug/L			05/29/15 18:17	1
1,4-Dioxane	200	U	200	34	ug/L			05/29/15 18:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*64 - 135*		*05/29/15 18:17*	*1*
Toluene-d8 (Surr)	*120*	*X*	*71 - 118*		*05/29/15 18:17*	*1*
4-Bromofluorobenzene (Surr)	*107*		*70 - 118*		*05/29/15 18:17*	*1*
Dibromofluoromethane (Surr)	*114*		*70 - 128*		*05/29/15 18:17*	*1*

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

Client Sample ID: HD-COD-SW-17-0/1-0
Date Collected: 05/20/15 10:25
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			05/29/15 18:44	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			05/29/15 18:44	1
Bromomethane	1.0	U	1.0	0.31	ug/L			05/29/15 18:44	1
Chloroethane	1.0	U	1.0	0.21	ug/L			05/29/15 18:44	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			05/29/15 18:44	1
Acetone	5.0	U	5.0	2.5	ug/L			05/29/15 18:44	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			05/29/15 18:44	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			05/29/15 18:44	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			05/29/15 18:44	1
Methyl tert-butyl ether	1.0	U *	1.0	0.18	ug/L			05/29/15 18:44	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			05/29/15 18:44	1
cis-1,2-Dichloroethene	**0.98**	**J**	1.0	0.24	ug/L			05/29/15 18:44	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			05/29/15 18:44	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			05/29/15 18:44	1
Chloroform	1.0	U	1.0	0.17	ug/L			05/29/15 18:44	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			05/29/15 18:44	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			05/29/15 18:44	1
Benzene	1.0	U	1.0	0.11	ug/L			05/29/15 18:44	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/29/15 18:44	1
Trichloroethene	**0.94**	**J**	1.0	0.14	ug/L			05/29/15 18:44	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			05/29/15 18:44	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			05/29/15 18:44	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			05/29/15 18:44	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			05/29/15 18:44	1
Toluene	1.0	U	1.0	0.15	ug/L			05/29/15 18:44	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			05/29/15 18:44	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/29/15 18:44	1
Tetrachloroethene	**1.4**		1.0	0.15	ug/L			05/29/15 18:44	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			05/29/15 18:44	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			05/29/15 18:44	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			05/29/15 18:44	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			05/29/15 18:44	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			05/29/15 18:44	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			05/29/15 18:44	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			05/29/15 18:44	1
Styrene	1.0	U	1.0	0.097	ug/L			05/29/15 18:44	1
Bromoform	1.0	U	1.0	0.19	ug/L			05/29/15 18:44	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			05/29/15 18:44	1
Acrylonitrile	20	U	20	0.55	ug/L			05/29/15 18:44	1
1,4-Dioxane	200	U	200	34	ug/L			05/29/15 18:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*64 - 135*		*05/29/15 18:44*	*1*
Toluene-d8 (Surr)	*117*		*71 - 118*		*05/29/15 18:44*	*1*
4-Bromofluorobenzene (Surr)	*106*		*70 - 118*		*05/29/15 18:44*	*1*
Dibromofluoromethane (Surr)	*108*		*70 - 128*		*05/29/15 18:44*	*1*

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

Client Sample ID: HD-COD-SW-20-0/1-0
Date Collected: 05/20/15 10:50
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-12
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			05/29/15 19:12	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			05/29/15 19:12	1
Bromomethane	1.0	U	1.0	0.31	ug/L			05/29/15 19:12	1
Chloroethane	1.0	U	1.0	0.21	ug/L			05/29/15 19:12	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			05/29/15 19:12	1
Acetone	5.0	U	5.0	2.5	ug/L			05/29/15 19:12	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			05/29/15 19:12	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			05/29/15 19:12	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			05/29/15 19:12	1
Methyl tert-butyl ether	1.0	U *	1.0	0.18	ug/L			05/29/15 19:12	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			05/29/15 19:12	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			05/29/15 19:12	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			05/29/15 19:12	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			05/29/15 19:12	1
Chloroform	1.0	U	1.0	0.17	ug/L			05/29/15 19:12	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			05/29/15 19:12	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			05/29/15 19:12	1
Benzene	1.0	U	1.0	0.11	ug/L			05/29/15 19:12	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/29/15 19:12	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			05/29/15 19:12	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			05/29/15 19:12	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			05/29/15 19:12	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			05/29/15 19:12	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			05/29/15 19:12	1
Toluene	1.0	U	1.0	0.15	ug/L			05/29/15 19:12	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			05/29/15 19:12	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/29/15 19:12	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			05/29/15 19:12	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			05/29/15 19:12	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			05/29/15 19:12	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			05/29/15 19:12	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			05/29/15 19:12	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			05/29/15 19:12	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			05/29/15 19:12	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			05/29/15 19:12	1
Styrene	1.0	U	1.0	0.097	ug/L			05/29/15 19:12	1
Bromoform	1.0	U	1.0	0.19	ug/L			05/29/15 19:12	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			05/29/15 19:12	1
Acrylonitrile	20	U	20	0.55	ug/L			05/29/15 19:12	1
1,4-Dioxane	200	U	200	34	ug/L			05/29/15 19:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*64 - 135*		*05/29/15 19:12*	*1*
Toluene-d8 (Surr)	*115*		*71 - 118*		*05/29/15 19:12*	*1*
4-Bromofluorobenzene (Surr)	*106*		*70 - 118*		*05/29/15 19:12*	*1*
Dibromofluoromethane (Surr)	*110*		*70 - 128*		*05/29/15 19:12*	*1*

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

Client Sample ID: HD-COD-SW-26-0/1-0
Date Collected: 05/20/15 13:15
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-13
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			05/31/15 19:44	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			05/31/15 19:44	1
Bromomethane	1.0	U	1.0	0.31	ug/L			05/31/15 19:44	1
Chloroethane	1.0	U	1.0	0.21	ug/L			05/31/15 19:44	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			05/31/15 19:44	1
Acetone	5.0	U	5.0	2.5	ug/L			05/31/15 19:44	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			05/31/15 19:44	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			05/31/15 19:44	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			05/31/15 19:44	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			05/31/15 19:44	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			05/31/15 19:44	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			05/31/15 19:44	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			05/31/15 19:44	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			05/31/15 19:44	1
Chloroform	1.0	U	1.0	0.17	ug/L			05/31/15 19:44	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			05/31/15 19:44	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			05/31/15 19:44	1
Benzene	1.0	U	1.0	0.11	ug/L			05/31/15 19:44	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/31/15 19:44	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			05/31/15 19:44	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			05/31/15 19:44	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			05/31/15 19:44	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			05/31/15 19:44	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			05/31/15 19:44	1
Toluene	1.0	U	1.0	0.15	ug/L			05/31/15 19:44	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			05/31/15 19:44	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/31/15 19:44	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			05/31/15 19:44	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			05/31/15 19:44	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			05/31/15 19:44	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			05/31/15 19:44	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			05/31/15 19:44	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			05/31/15 19:44	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			05/31/15 19:44	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			05/31/15 19:44	1
Styrene	1.0	U	1.0	0.097	ug/L			05/31/15 19:44	1
Bromoform	1.0	U	1.0	0.19	ug/L			05/31/15 19:44	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			05/31/15 19:44	1
Acrylonitrile	20	U	20	0.55	ug/L			05/31/15 19:44	1
1,4-Dioxane	200	U	200	34	ug/L			05/31/15 19:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*64 - 135*		*05/31/15 19:44*	*1*
Toluene-d8 (Surr)	*118*		*71 - 118*		*05/31/15 19:44*	*1*
4-Bromofluorobenzene (Surr)	*107*		*70 - 118*		*05/31/15 19:44*	*1*
Dibromofluoromethane (Surr)	*107*		*70 - 128*		*05/31/15 19:44*	*1*

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

Client Sample ID: HD-COD-SW-27-0/1-0
Date Collected: 05/20/15 12:50
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-14
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			05/31/15 20:12	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			05/31/15 20:12	1
Bromomethane	1.0	U	1.0	0.31	ug/L			05/31/15 20:12	1
Chloroethane	1.0	U	1.0	0.21	ug/L			05/31/15 20:12	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			05/31/15 20:12	1
Acetone	5.0	U	5.0	2.5	ug/L			05/31/15 20:12	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			05/31/15 20:12	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			05/31/15 20:12	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			05/31/15 20:12	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			05/31/15 20:12	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			05/31/15 20:12	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			05/31/15 20:12	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			05/31/15 20:12	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			05/31/15 20:12	1
Chloroform	**0.75**	**J**	1.0	0.17	ug/L			05/31/15 20:12	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			05/31/15 20:12	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			05/31/15 20:12	1
Benzene	1.0	U	1.0	0.11	ug/L			05/31/15 20:12	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/31/15 20:12	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			05/31/15 20:12	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			05/31/15 20:12	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			05/31/15 20:12	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			05/31/15 20:12	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			05/31/15 20:12	1
Toluene	1.0	U	1.0	0.15	ug/L			05/31/15 20:12	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			05/31/15 20:12	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/31/15 20:12	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			05/31/15 20:12	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			05/31/15 20:12	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			05/31/15 20:12	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			05/31/15 20:12	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			05/31/15 20:12	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			05/31/15 20:12	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			05/31/15 20:12	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			05/31/15 20:12	1
Styrene	1.0	U	1.0	0.097	ug/L			05/31/15 20:12	1
Bromoform	1.0	U	1.0	0.19	ug/L			05/31/15 20:12	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			05/31/15 20:12	1
Acrylonitrile	20	U	20	0.55	ug/L			05/31/15 20:12	1
1,4-Dioxane	200	U	200	34	ug/L			05/31/15 20:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*64 - 135*		*05/31/15 20:12*	*1*
Toluene-d8 (Surr)	*115*		*71 - 118*		*05/31/15 20:12*	*1*
4-Bromofluorobenzene (Surr)	*106*		*70 - 118*		*05/31/15 20:12*	*1*
Dibromofluoromethane (Surr)	*107*		*70 - 128*		*05/31/15 20:12*	*1*

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

Client Sample ID: HD-COD-SW-28-0/1-0
Date Collected: 05/20/15 12:05
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-15
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			05/31/15 14:59	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			05/31/15 14:59	1
Bromomethane	1.0	U	1.0	0.31	ug/L			05/31/15 14:59	1
Chloroethane	1.0	U	1.0	0.21	ug/L			05/31/15 14:59	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			05/31/15 14:59	1
Acetone	5.0	U	5.0	2.5	ug/L			05/31/15 14:59	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			05/31/15 14:59	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			05/31/15 14:59	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			05/31/15 14:59	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			05/31/15 14:59	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			05/31/15 14:59	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			05/31/15 14:59	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			05/31/15 14:59	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			05/31/15 14:59	1
Chloroform	1.0	U	1.0	0.17	ug/L			05/31/15 14:59	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			05/31/15 14:59	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			05/31/15 14:59	1
Benzene	1.0	U	1.0	0.11	ug/L			05/31/15 14:59	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/31/15 14:59	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			05/31/15 14:59	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			05/31/15 14:59	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			05/31/15 14:59	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			05/31/15 14:59	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			05/31/15 14:59	1
Toluene	1.0	U	1.0	0.15	ug/L			05/31/15 14:59	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			05/31/15 14:59	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/31/15 14:59	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			05/31/15 14:59	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			05/31/15 14:59	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			05/31/15 14:59	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			05/31/15 14:59	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			05/31/15 14:59	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			05/31/15 14:59	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			05/31/15 14:59	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			05/31/15 14:59	1
Styrene	1.0	U	1.0	0.097	ug/L			05/31/15 14:59	1
Bromoform	1.0	U	1.0	0.19	ug/L			05/31/15 14:59	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			05/31/15 14:59	1
Acrylonitrile	20	U	20	0.55	ug/L			05/31/15 14:59	1
1,4-Dioxane	200	U	200	34	ug/L			05/31/15 14:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*64 - 135*		*05/31/15 14:59*	*1*
Toluene-d8 (Surr)	*102*		*71 - 118*		*05/31/15 14:59*	*1*
4-Bromofluorobenzene (Surr)	*91*		*70 - 118*		*05/31/15 14:59*	*1*
Dibromofluoromethane (Surr)	*97*		*70 - 128*		*05/31/15 14:59*	*1*

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

Client Sample ID: HD-COD-SW-29-0/1-0
Date Collected: 05/20/15 08:47
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-16
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			05/31/15 19:14	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			05/31/15 19:14	1
Bromomethane	1.0	U	1.0	0.31	ug/L			05/31/15 19:14	1
Chloroethane	1.0	U	1.0	0.21	ug/L			05/31/15 19:14	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			05/31/15 19:14	1
Acetone	5.0	U	5.0	2.5	ug/L			05/31/15 19:14	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			05/31/15 19:14	1
Methylene Chloride	**0.20**	**J B**	1.0	0.13	ug/L			05/31/15 19:14	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			05/31/15 19:14	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			05/31/15 19:14	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			05/31/15 19:14	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			05/31/15 19:14	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			05/31/15 19:14	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			05/31/15 19:14	1
Chloroform	1.0	U	1.0	0.17	ug/L			05/31/15 19:14	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			05/31/15 19:14	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			05/31/15 19:14	1
Benzene	1.0	U	1.0	0.11	ug/L			05/31/15 19:14	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/31/15 19:14	1
Trichloroethene	**0.16**	**J**	1.0	0.14	ug/L			05/31/15 19:14	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			05/31/15 19:14	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			05/31/15 19:14	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			05/31/15 19:14	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			05/31/15 19:14	1
Toluene	1.0	U	1.0	0.15	ug/L			05/31/15 19:14	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			05/31/15 19:14	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/31/15 19:14	1
Tetrachloroethene	**0.17**	**J**	1.0	0.15	ug/L			05/31/15 19:14	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			05/31/15 19:14	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			05/31/15 19:14	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			05/31/15 19:14	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			05/31/15 19:14	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			05/31/15 19:14	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			05/31/15 19:14	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			05/31/15 19:14	1
Styrene	1.0	U	1.0	0.097	ug/L			05/31/15 19:14	1
Bromoform	1.0	U	1.0	0.19	ug/L			05/31/15 19:14	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			05/31/15 19:14	1
Acrylonitrile	20	U	20	0.55	ug/L			05/31/15 19:14	1
1,4-Dioxane	200	U	200	34	ug/L			05/31/15 19:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*64 - 135*		*05/31/15 19:14*	*1*
Toluene-d8 (Surr)	*82*		*71 - 118*		*05/31/15 19:14*	*1*
4-Bromofluorobenzene (Surr)	*97*		*70 - 118*		*05/31/15 19:14*	*1*
Dibromofluoromethane (Surr)	*97*		*70 - 128*		*05/31/15 19:14*	*1*

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

Client Sample ID: HD-QC3-0/1-2
Date Collected: 05/20/15 12:00
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-17
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			05/31/15 15:38	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			05/31/15 15:38	1
Bromomethane	1.0	U	1.0	0.31	ug/L			05/31/15 15:38	1
Chloroethane	1.0	U	1.0	0.21	ug/L			05/31/15 15:38	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			05/31/15 15:38	1
Acetone	5.0	U	5.0	2.5	ug/L			05/31/15 15:38	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			05/31/15 15:38	1
Methylene Chloride	**1.0**	**B**	1.0	0.13	ug/L			05/31/15 15:38	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			05/31/15 15:38	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			05/31/15 15:38	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			05/31/15 15:38	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			05/31/15 15:38	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			05/31/15 15:38	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			05/31/15 15:38	1
Chloroform	1.0	U	1.0	0.17	ug/L			05/31/15 15:38	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			05/31/15 15:38	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			05/31/15 15:38	1
Benzene	1.0	U	1.0	0.11	ug/L			05/31/15 15:38	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/31/15 15:38	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			05/31/15 15:38	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			05/31/15 15:38	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			05/31/15 15:38	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			05/31/15 15:38	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			05/31/15 15:38	1
Toluene	1.0	U	1.0	0.15	ug/L			05/31/15 15:38	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			05/31/15 15:38	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/31/15 15:38	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			05/31/15 15:38	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			05/31/15 15:38	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			05/31/15 15:38	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			05/31/15 15:38	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			05/31/15 15:38	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			05/31/15 15:38	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			05/31/15 15:38	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			05/31/15 15:38	1
Styrene	1.0	U	1.0	0.097	ug/L			05/31/15 15:38	1
Bromoform	1.0	U	1.0	0.19	ug/L			05/31/15 15:38	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			05/31/15 15:38	1
Acrylonitrile	20	U	20	0.55	ug/L			05/31/15 15:38	1
1,4-Dioxane	200	U	200	34	ug/L			05/31/15 15:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*64 - 135*		*05/31/15 15:38*	*1*
Toluene-d8 (Surr)	*86*		*71 - 118*		*05/31/15 15:38*	*1*
4-Bromofluorobenzene (Surr)	*113*		*70 - 118*		*05/31/15 15:38*	*1*
Dibromofluoromethane (Surr)	*106*		*70 - 128*		*05/31/15 15:38*	*1*

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

Client Sample ID: HD-QC2-0/1-1
Date Collected: 05/20/15 08:00
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-18
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U *	1.0	0.28	ug/L			06/01/15 15:45	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			06/01/15 15:45	1
Bromomethane	1.0	U	1.0	0.31	ug/L			06/01/15 15:45	1
Chloroethane	1.0	U	1.0	0.21	ug/L			06/01/15 15:45	1
1,1-Dichloroethene	1.0	U F1	1.0	0.30	ug/L			06/01/15 15:45	1
Acetone	5.0	U F1	5.0	2.5	ug/L			06/01/15 15:45	1
Carbon disulfide	1.0	U F1	1.0	0.21	ug/L			06/01/15 15:45	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			06/01/15 15:45	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			06/01/15 15:45	1
Methyl tert-butyl ether	1.0	U F1	1.0	0.18	ug/L			06/01/15 15:45	1
1,1-Dichloroethane	1.0	U F1	1.0	0.12	ug/L			06/01/15 15:45	1
cis-1,2-Dichloroethene	**1.4**		1.0	0.24	ug/L			06/01/15 15:45	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			06/01/15 15:45	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			06/01/15 15:45	1
Chloroform	1.0	U	1.0	0.17	ug/L			06/01/15 15:45	1
1,1,1-Trichloroethane	1.0	U F1	1.0	0.29	ug/L			06/01/15 15:45	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			06/01/15 15:45	1
Benzene	1.0	U	1.0	0.11	ug/L			06/01/15 15:45	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			06/01/15 15:45	1
Trichloroethene	**1.1**		1.0	0.14	ug/L			06/01/15 15:45	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			06/01/15 15:45	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			06/01/15 15:45	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			06/01/15 15:45	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			06/01/15 15:45	1
Toluene	1.0	U	1.0	0.15	ug/L			06/01/15 15:45	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			06/01/15 15:45	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			06/01/15 15:45	1
Tetrachloroethene	**1.6**		1.0	0.15	ug/L			06/01/15 15:45	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			06/01/15 15:45	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			06/01/15 15:45	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			06/01/15 15:45	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			06/01/15 15:45	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			06/01/15 15:45	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			06/01/15 15:45	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			06/01/15 15:45	1
Styrene	1.0	U	1.0	0.097	ug/L			06/01/15 15:45	1
Bromoform	1.0	U	1.0	0.19	ug/L			06/01/15 15:45	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			06/01/15 15:45	1
Acrylonitrile	20	U	20	0.55	ug/L			06/01/15 15:45	1
1,4-Dioxane	200	U	200	34	ug/L			06/01/15 15:45	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*64 - 135*		*06/01/15 15:45*	*1*
Toluene-d8 (Surr)	*114*		*71 - 118*		*06/01/15 15:45*	*1*
4-Bromofluorobenzene (Surr)	*106*		*70 - 118*		*06/01/15 15:45*	*1*
Dibromofluoromethane (Surr)	*102*		*70 - 128*		*06/01/15 15:45*	*1*

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

Client Sample ID: HD-CW-9-0/1-0
Date Collected: 05/20/15 10:10
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-19
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	13	U	13	3.5	ug/L			05/31/15 17:14	12.5
Vinyl chloride	13	U	13	2.8	ug/L			05/31/15 17:14	12.5
Bromomethane	13	U	13	3.9	ug/L			05/31/15 17:14	12.5
Chloroethane	13	U	13	2.7	ug/L			05/31/15 17:14	12.5
1,1-Dichloroethene	**5.4**	**J**	13	3.7	ug/L			05/31/15 17:14	12.5
Acetone	63	U	63	31	ug/L			05/31/15 17:14	12.5
Carbon disulfide	13	U	13	2.7	ug/L			05/31/15 17:14	12.5
Methylene Chloride	**11**	**J B**	13	1.6	ug/L			05/31/15 17:14	12.5
trans-1,2-Dichloroethene	13	U	13	2.1	ug/L			05/31/15 17:14	12.5
Methyl tert-butyl ether	13	U	13	2.3	ug/L			05/31/15 17:14	12.5
1,1-Dichloroethane	**4.0**	**J**	13	1.5	ug/L			05/31/15 17:14	12.5
cis-1,2-Dichloroethene	**92**		13	3.0	ug/L			05/31/15 17:14	12.5
Bromochloromethane	13	U	13	2.3	ug/L			05/31/15 17:14	12.5
2-Butanone (MEK)	63	U	63	6.8	ug/L			05/31/15 17:14	12.5
Chloroform	13	U	13	2.1	ug/L			05/31/15 17:14	12.5
1,1,1-Trichloroethane	**22**		13	3.6	ug/L			05/31/15 17:14	12.5
Carbon tetrachloride	13	U	13	1.7	ug/L			05/31/15 17:14	12.5
Benzene	13	U	13	1.3	ug/L			05/31/15 17:14	12.5
1,2-Dichloroethane	13	U	13	2.6	ug/L			05/31/15 17:14	12.5
Trichloroethene	**160**		13	1.8	ug/L			05/31/15 17:14	12.5
1,2-Dichloropropane	13	U	13	1.2	ug/L			05/31/15 17:14	12.5
Bromodichloromethane	13	U	13	1.6	ug/L			05/31/15 17:14	12.5
cis-1,3-Dichloropropene	13	U	13	2.3	ug/L			05/31/15 17:14	12.5
4-Methyl-2-pentanone (MIBK)	63	U	63	6.6	ug/L			05/31/15 17:14	12.5
Toluene	13	U	13	1.9	ug/L			05/31/15 17:14	12.5
trans-1,3-Dichloropropene	13	U	13	1.9	ug/L			05/31/15 17:14	12.5
1,1,2-Trichloroethane	13	U	13	2.5	ug/L			05/31/15 17:14	12.5
Tetrachloroethene	**450**		13	1.9	ug/L			05/31/15 17:14	12.5
2-Hexanone	63	U	63	2.0	ug/L			05/31/15 17:14	12.5
Dibromochloromethane	13	U	13	1.7	ug/L			05/31/15 17:14	12.5
1,2-Dibromoethane (EDB)	13	U	13	2.3	ug/L			05/31/15 17:14	12.5
Chlorobenzene	13	U	13	1.7	ug/L			05/31/15 17:14	12.5
1,1,1,2-Tetrachloroethane	13	U	13	3.5	ug/L			05/31/15 17:14	12.5
Ethylbenzene	13	U	13	2.8	ug/L			05/31/15 17:14	12.5
Xylenes, Total	38	U	38	6.1	ug/L			05/31/15 17:14	12.5
Styrene	13	U	13	1.2	ug/L			05/31/15 17:14	12.5
Bromoform	13	U	13	2.4	ug/L			05/31/15 17:14	12.5
1,1,2,2-Tetrachloroethane	13	U	13	2.5	ug/L			05/31/15 17:14	12.5
Acrylonitrile	250	U	250	6.8	ug/L			05/31/15 17:14	12.5
1,4-Dioxane	2500	U	2500	430	ug/L			05/31/15 17:14	12.5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*64 - 135*		*05/31/15 17:14*	*12.5*
Toluene-d8 (Surr)	*80*		*71 - 118*		*05/31/15 17:14*	*12.5*
4-Bromofluorobenzene (Surr)	*92*		*70 - 118*		*05/31/15 17:14*	*12.5*
Dibromofluoromethane (Surr)	*104*		*70 - 128*		*05/31/15 17:14*	*12.5*

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

Client Sample ID: HD-CW-13-0/1-0
Date Collected: 05/20/15 10:15
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-20
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	25	U	25	7.1	ug/L			05/31/15 17:38	25
Vinyl chloride	25	U	25	5.7	ug/L			05/31/15 17:38	25
Bromomethane	25	U	25	7.8	ug/L			05/31/15 17:38	25
Chloroethane	25	U	25	5.4	ug/L			05/31/15 17:38	25
1,1-Dichloroethene	**10**	**J**	25	7.4	ug/L			05/31/15 17:38	25
Acetone	130	U	130	63	ug/L			05/31/15 17:38	25
Carbon disulfide	25	U	25	5.3	ug/L			05/31/15 17:38	25
Methylene Chloride	**24**	**J B**	25	3.1	ug/L			05/31/15 17:38	25
trans-1,2-Dichloroethene	25	U	25	4.2	ug/L			05/31/15 17:38	25
Methyl tert-butyl ether	25	U	25	4.6	ug/L			05/31/15 17:38	25
1,1-Dichloroethane	**4.6**	**J**	25	2.9	ug/L			05/31/15 17:38	25
cis-1,2-Dichloroethene	**320**		25	5.9	ug/L			05/31/15 17:38	25
Bromochloromethane	25	U	25	4.5	ug/L			05/31/15 17:38	25
2-Butanone (MEK)	130	U	130	14	ug/L			05/31/15 17:38	25
Chloroform	25	U	25	4.3	ug/L			05/31/15 17:38	25
1,1,1-Trichloroethane	**17**	**J**	25	7.2	ug/L			05/31/15 17:38	25
Carbon tetrachloride	25	U	25	3.4	ug/L			05/31/15 17:38	25
Benzene	25	U	25	2.6	ug/L			05/31/15 17:38	25
1,2-Dichloroethane	25	U	25	5.3	ug/L			05/31/15 17:38	25
Trichloroethene	**210**		25	3.6	ug/L			05/31/15 17:38	25
1,2-Dichloropropane	25	U	25	2.4	ug/L			05/31/15 17:38	25
Bromodichloromethane	25	U	25	3.3	ug/L			05/31/15 17:38	25
cis-1,3-Dichloropropene	25	U	25	4.7	ug/L			05/31/15 17:38	25
4-Methyl-2-pentanone (MIBK)	130	U	130	13	ug/L			05/31/15 17:38	25
Toluene	25	U	25	3.8	ug/L			05/31/15 17:38	25
trans-1,3-Dichloropropene	25	U	25	3.7	ug/L			05/31/15 17:38	25
1,1,2-Trichloroethane	25	U	25	5.0	ug/L			05/31/15 17:38	25
Tetrachloroethene	**150**		25	3.7	ug/L			05/31/15 17:38	25
2-Hexanone	130	U	130	4.0	ug/L			05/31/15 17:38	25
Dibromochloromethane	25	U	25	3.4	ug/L			05/31/15 17:38	25
1,2-Dibromoethane (EDB)	25	U	25	4.5	ug/L			05/31/15 17:38	25
Chlorobenzene	25	U	25	3.4	ug/L			05/31/15 17:38	25
1,1,1,2-Tetrachloroethane	25	U	25	6.9	ug/L			05/31/15 17:38	25
Ethylbenzene	25	U	25	5.7	ug/L			05/31/15 17:38	25
Xylenes, Total	75	U	75	12	ug/L			05/31/15 17:38	25
Styrene	25	U	25	2.4	ug/L			05/31/15 17:38	25
Bromoform	25	U	25	4.8	ug/L			05/31/15 17:38	25
1,1,2,2-Tetrachloroethane	25	U	25	5.0	ug/L			05/31/15 17:38	25
Acrylonitrile	500	U	500	14	ug/L			05/31/15 17:38	25
1,4-Dioxane	5000	U	5000	860	ug/L			05/31/15 17:38	25

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*64 - 135*		*05/31/15 17:38*	*25*
Toluene-d8 (Surr)	*78*		*71 - 118*		*05/31/15 17:38*	*25*
4-Bromofluorobenzene (Surr)	*102*		*70 - 118*		*05/31/15 17:38*	*25*
Dibromofluoromethane (Surr)	*97*		*70 - 128*		*05/31/15 17:38*	*25*

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

Client Sample ID: HD-CW-15A-0/1-0
Date Collected: 05/20/15 10:25
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-21
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	250	U *	250	71	ug/L			06/01/15 17:08	250
Vinyl chloride	250	U	250	57	ug/L			06/01/15 17:08	250
Bromomethane	250	U	250	78	ug/L			06/01/15 17:08	250
Chloroethane	250	U	250	54	ug/L			06/01/15 17:08	250
1,1-Dichloroethene	**1500**		250	74	ug/L			06/01/15 17:08	250
Acetone	1300	U	1300	630	ug/L			06/01/15 17:08	250
Carbon disulfide	250	U	250	53	ug/L			06/01/15 17:08	250
Methylene Chloride	250	U	250	31	ug/L			06/01/15 17:08	250
trans-1,2-Dichloroethene	250	U	250	42	ug/L			06/01/15 17:08	250
Methyl tert-butyl ether	250	U	250	46	ug/L			06/01/15 17:08	250
1,1-Dichloroethane	250	U	250	29	ug/L			06/01/15 17:08	250
cis-1,2-Dichloroethene	**6100**		250	59	ug/L			06/01/15 17:08	250
Bromochloromethane	250	U	250	45	ug/L			06/01/15 17:08	250
2-Butanone (MEK)	1300	U	1300	140	ug/L			06/01/15 17:08	250
Chloroform	250	U	250	43	ug/L			06/01/15 17:08	250
1,1,1-Trichloroethane	**7600**		250	72	ug/L			06/01/15 17:08	250
Carbon tetrachloride	250	U	250	34	ug/L			06/01/15 17:08	250
Benzene	250	U	250	26	ug/L			06/01/15 17:08	250
1,2-Dichloroethane	250	U	250	53	ug/L			06/01/15 17:08	250
Trichloroethene	**4600**		250	36	ug/L			06/01/15 17:08	250
1,2-Dichloropropane	250	U	250	24	ug/L			06/01/15 17:08	250
Bromodichloromethane	250	U	250	33	ug/L			06/01/15 17:08	250
cis-1,3-Dichloropropene	250	U	250	47	ug/L			06/01/15 17:08	250
4-Methyl-2-pentanone (MIBK)	1300	U	1300	130	ug/L			06/01/15 17:08	250
Toluene	250	U	250	38	ug/L			06/01/15 17:08	250
trans-1,3-Dichloropropene	250	U	250	37	ug/L			06/01/15 17:08	250
1,1,2-Trichloroethane	250	U	250	50	ug/L			06/01/15 17:08	250
Tetrachloroethene	**1700**		250	37	ug/L			06/01/15 17:08	250
2-Hexanone	1300	U	1300	40	ug/L			06/01/15 17:08	250
Dibromochloromethane	250	U	250	34	ug/L			06/01/15 17:08	250
1,2-Dibromoethane (EDB)	250	U	250	45	ug/L			06/01/15 17:08	250
Chlorobenzene	250	U	250	34	ug/L			06/01/15 17:08	250
1,1,1,2-Tetrachloroethane	250	U	250	69	ug/L			06/01/15 17:08	250
Ethylbenzene	250	U	250	57	ug/L			06/01/15 17:08	250
Xylenes, Total	750	U	750	120	ug/L			06/01/15 17:08	250
Styrene	250	U	250	24	ug/L			06/01/15 17:08	250
Bromoform	250	U	250	48	ug/L			06/01/15 17:08	250
1,1,2,2-Tetrachloroethane	250	U	250	50	ug/L			06/01/15 17:08	250
Acrylonitrile	5000	U	5000	140	ug/L			06/01/15 17:08	250
1,4-Dioxane	50000	U	50000	8600	ug/L			06/01/15 17:08	250

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*64 - 135*		*06/01/15 17:08*	*250*
Toluene-d8 (Surr)	*111*		*71 - 118*		*06/01/15 17:08*	*250*
4-Bromofluorobenzene (Surr)	*106*		*70 - 118*		*06/01/15 17:08*	*250*
Dibromofluoromethane (Surr)	*57*	*X*	*70 - 128*		*06/01/15 17:08*	*250*

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

Client Sample ID: HD-CW-17-0/1-0
Date Collected: 05/20/15 10:35
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-22
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	3.0	U *	3.0	0.85	ug/L			06/01/15 16:12	3
Vinyl chloride	3.0	U	3.0	0.68	ug/L			06/01/15 16:12	3
Bromomethane	3.0	U	3.0	0.94	ug/L			06/01/15 16:12	3
Chloroethane	3.0	U	3.0	0.64	ug/L			06/01/15 16:12	3
1,1-Dichloroethene	**1.4**	**J**	3.0	0.89	ug/L			06/01/15 16:12	3
Acetone	15	U	15	7.5	ug/L			06/01/15 16:12	3
Carbon disulfide	3.0	U	3.0	0.64	ug/L			06/01/15 16:12	3
Methylene Chloride	3.0	U	3.0	0.38	ug/L			06/01/15 16:12	3
trans-1,2-Dichloroethene	3.0	U	3.0	0.51	ug/L			06/01/15 16:12	3
Methyl tert-butyl ether	3.0	U	3.0	0.55	ug/L			06/01/15 16:12	3
1,1-Dichloroethane	3.0	U	3.0	0.35	ug/L			06/01/15 16:12	3
cis-1,2-Dichloroethene	**34**		3.0	0.71	ug/L			06/01/15 16:12	3
Bromochloromethane	3.0	U	3.0	0.54	ug/L			06/01/15 16:12	3
2-Butanone (MEK)	15	U	15	1.6	ug/L			06/01/15 16:12	3
Chloroform	3.0	U	3.0	0.51	ug/L			06/01/15 16:12	3
1,1,1-Trichloroethane	**6.4**		3.0	0.86	ug/L			06/01/15 16:12	3
Carbon tetrachloride	3.0	U	3.0	0.41	ug/L			06/01/15 16:12	3
Benzene	3.0	U	3.0	0.32	ug/L			06/01/15 16:12	3
1,2-Dichloroethane	3.0	U	3.0	0.64	ug/L			06/01/15 16:12	3
Trichloroethene	**26**		3.0	0.43	ug/L			06/01/15 16:12	3
1,2-Dichloropropane	3.0	U	3.0	0.28	ug/L			06/01/15 16:12	3
Bromodichloromethane	3.0	U	3.0	0.39	ug/L			06/01/15 16:12	3
cis-1,3-Dichloropropene	3.0	U	3.0	0.56	ug/L			06/01/15 16:12	3
4-Methyl-2-pentanone (MIBK)	15	U	15	1.6	ug/L			06/01/15 16:12	3
Toluene	3.0	U	3.0	0.45	ug/L			06/01/15 16:12	3
trans-1,3-Dichloropropene	3.0	U	3.0	0.44	ug/L			06/01/15 16:12	3
1,1,2-Trichloroethane	3.0	U	3.0	0.60	ug/L			06/01/15 16:12	3
Tetrachloroethene	**9.8**		3.0	0.45	ug/L			06/01/15 16:12	3
2-Hexanone	15	U	15	0.48	ug/L			06/01/15 16:12	3
Dibromochloromethane	3.0	U	3.0	0.41	ug/L			06/01/15 16:12	3
1,2-Dibromoethane (EDB)	3.0	U	3.0	0.54	ug/L			06/01/15 16:12	3
Chlorobenzene	3.0	U	3.0	0.41	ug/L			06/01/15 16:12	3
1,1,1,2-Tetrachloroethane	3.0	U	3.0	0.83	ug/L			06/01/15 16:12	3
Ethylbenzene	3.0	U	3.0	0.68	ug/L			06/01/15 16:12	3
Xylenes, Total	9.0	U	9.0	1.5	ug/L			06/01/15 16:12	3
Styrene	3.0	U	3.0	0.29	ug/L			06/01/15 16:12	3
Bromoform	3.0	U	3.0	0.57	ug/L			06/01/15 16:12	3
1,1,2,2-Tetrachloroethane	3.0	U	3.0	0.60	ug/L			06/01/15 16:12	3
Acrylonitrile	60	U	60	1.6	ug/L			06/01/15 16:12	3
1,4-Dioxane	600	U	600	100	ug/L			06/01/15 16:12	3

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*64 - 135*		*06/01/15 16:12*	*3*
Toluene-d8 (Surr)	*115*		*71 - 118*		*06/01/15 16:12*	*3*
4-Bromofluorobenzene (Surr)	*107*		*70 - 118*		*06/01/15 16:12*	*3*
Dibromofluoromethane (Surr)	*109*		*70 - 128*		*06/01/15 16:12*	*3*

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

Client Sample ID: HD-CW-20-0/1-0
Date Collected: 05/20/15 10:45
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-23
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	5.0	U *	5.0	1.4	ug/L			06/01/15 17:40	5
Vinyl chloride	5.0	U	5.0	1.1	ug/L			06/01/15 17:40	5
Bromomethane	5.0	U	5.0	1.6	ug/L			06/01/15 17:40	5
Chloroethane	5.0	U	5.0	1.1	ug/L			06/01/15 17:40	5
1,1-Dichloroethene	**17**		5.0	1.5	ug/L			06/01/15 17:40	5
Acetone	25	U	25	13	ug/L			06/01/15 17:40	5
Carbon disulfide	5.0	U	5.0	1.1	ug/L			06/01/15 17:40	5
Methylene Chloride	5.0	U	5.0	0.63	ug/L			06/01/15 17:40	5
trans-1,2-Dichloroethene	5.0	U	5.0	0.85	ug/L			06/01/15 17:40	5
Methyl tert-butyl ether	5.0	U	5.0	0.92	ug/L			06/01/15 17:40	5
1,1-Dichloroethane	5.0	U	5.0	0.58	ug/L			06/01/15 17:40	5
cis-1,2-Dichloroethene	**130**		5.0	1.2	ug/L			06/01/15 17:40	5
Bromochloromethane	5.0	U	5.0	0.90	ug/L			06/01/15 17:40	5
2-Butanone (MEK)	25	U	25	2.7	ug/L			06/01/15 17:40	5
Chloroform	5.0	U	5.0	0.85	ug/L			06/01/15 17:40	5
1,1,1-Trichloroethane	**75**		5.0	1.4	ug/L			06/01/15 17:40	5
Carbon tetrachloride	5.0	U	5.0	0.68	ug/L			06/01/15 17:40	5
Benzene	5.0	U	5.0	0.53	ug/L			06/01/15 17:40	5
1,2-Dichloroethane	5.0	U	5.0	1.1	ug/L			06/01/15 17:40	5
Trichloroethene	**290**	**E**	5.0	0.72	ug/L			06/01/15 17:40	5
1,2-Dichloropropane	5.0	U	5.0	0.47	ug/L			06/01/15 17:40	5
Bromodichloromethane	5.0	U	5.0	0.65	ug/L			06/01/15 17:40	5
cis-1,3-Dichloropropene	5.0	U	5.0	0.93	ug/L			06/01/15 17:40	5
4-Methyl-2-pentanone (MIBK)	25	U	25	2.6	ug/L			06/01/15 17:40	5
Toluene	5.0	U	5.0	0.75	ug/L			06/01/15 17:40	5
trans-1,3-Dichloropropene	5.0	U	5.0	0.74	ug/L			06/01/15 17:40	5
1,1,2-Trichloroethane	5.0	U	5.0	1.0	ug/L			06/01/15 17:40	5
Tetrachloroethene	**NQ**		5.0	0.74	ug/L			06/01/15 17:40	5
2-Hexanone	25	U	25	0.80	ug/L			06/01/15 17:40	5
Dibromochloromethane	5.0	U	5.0	0.68	ug/L			06/01/15 17:40	5
1,2-Dibromoethane (EDB)	5.0	U	5.0	0.90	ug/L			06/01/15 17:40	5
Chlorobenzene	5.0	U	5.0	0.68	ug/L			06/01/15 17:40	5
1,1,1,2-Tetrachloroethane	5.0	U	5.0	1.4	ug/L			06/01/15 17:40	5
Ethylbenzene	5.0	U	5.0	1.1	ug/L			06/01/15 17:40	5
Xylenes, Total	15	U	15	2.4	ug/L			06/01/15 17:40	5
Styrene	5.0	U	5.0	0.48	ug/L			06/01/15 17:40	5
Bromoform	5.0	U	5.0	0.96	ug/L			06/01/15 17:40	5
1,1,2,2-Tetrachloroethane	5.0	U	5.0	1.0	ug/L			06/01/15 17:40	5
Acrylonitrile	100	U	100	2.7	ug/L			06/01/15 17:40	5
1,4-Dioxane	1000	U	1000	170	ug/L			06/01/15 17:40	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*64 - 135*		*06/01/15 17:40*	*5*
Toluene-d8 (Surr)	*119*	*X*	*71 - 118*		*06/01/15 17:40*	*5*
4-Bromofluorobenzene (Surr)	*55*	*X*	*70 - 118*		*06/01/15 17:40*	*5*
Dibromofluoromethane (Surr)	*99*		*70 - 128*		*06/01/15 17:40*	*5*

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

Client Sample ID: HD-MW-95-0/1-0
Date Collected: 05/20/15 09:25
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-24
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			05/31/15 12:49	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			05/31/15 12:49	1
Bromomethane	1.0	U	1.0	0.31	ug/L			05/31/15 12:49	1
Chloroethane	1.0	U	1.0	0.21	ug/L			05/31/15 12:49	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			05/31/15 12:49	1
Acetone	5.0	U	5.0	2.5	ug/L			05/31/15 12:49	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			05/31/15 12:49	1
Methylene Chloride	**0.58**	**J B**	1.0	0.13	ug/L			05/31/15 12:49	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			05/31/15 12:49	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			05/31/15 12:49	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			05/31/15 12:49	1
cis-1,2-Dichloroethene	**6.1**		1.0	0.24	ug/L			05/31/15 12:49	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			05/31/15 12:49	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			05/31/15 12:49	1
Chloroform	1.0	U	1.0	0.17	ug/L			05/31/15 12:49	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			05/31/15 12:49	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			05/31/15 12:49	1
Benzene	1.0	U	1.0	0.11	ug/L			05/31/15 12:49	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/31/15 12:49	1
Trichloroethene	**2.8**	**F1**	1.0	0.14	ug/L			05/31/15 12:49	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			05/31/15 12:49	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			05/31/15 12:49	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			05/31/15 12:49	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			05/31/15 12:49	1
Toluene	1.0	U	1.0	0.15	ug/L			05/31/15 12:49	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			05/31/15 12:49	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/31/15 12:49	1
Tetrachloroethene	**1.9**		1.0	0.15	ug/L			05/31/15 12:49	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			05/31/15 12:49	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			05/31/15 12:49	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			05/31/15 12:49	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			05/31/15 12:49	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			05/31/15 12:49	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			05/31/15 12:49	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			05/31/15 12:49	1
Styrene	1.0	U	1.0	0.097	ug/L			05/31/15 12:49	1
Bromoform	1.0	U	1.0	0.19	ug/L			05/31/15 12:49	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			05/31/15 12:49	1
Acrylonitrile	20	U	20	0.55	ug/L			05/31/15 12:49	1
1,4-Dioxane	200	U	200	34	ug/L			05/31/15 12:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*64 - 135*		*05/31/15 12:49*	*1*
Toluene-d8 (Surr)	*97*		*71 - 118*		*05/31/15 12:49*	*1*
4-Bromofluorobenzene (Surr)	*117*		*70 - 118*		*05/31/15 12:49*	*1*
Dibromofluoromethane (Surr)	*114*		*70 - 128*		*05/31/15 12:49*	*1*

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

Client Sample ID: HD-MW-96S-0/1-0
Date Collected: 05/20/15 11:30
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-25
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U *	1.0	0.28	ug/L			06/01/15 18:08	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			06/01/15 18:08	1
Bromomethane	1.0	U	1.0	0.31	ug/L			06/01/15 18:08	1
Chloroethane	1.0	U	1.0	0.21	ug/L			06/01/15 18:08	1
1,1-Dichloroethene	**0.38**	**J**	1.0	0.30	ug/L			06/01/15 18:08	1
Acetone	5.0	U	5.0	2.5	ug/L			06/01/15 18:08	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			06/01/15 18:08	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			06/01/15 18:08	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			06/01/15 18:08	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			06/01/15 18:08	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			06/01/15 18:08	1
cis-1,2-Dichloroethene	**13**		1.0	0.24	ug/L			06/01/15 18:08	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			06/01/15 18:08	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			06/01/15 18:08	1
Chloroform	1.0	U	1.0	0.17	ug/L			06/01/15 18:08	1
1,1,1-Trichloroethane	**1.3**		1.0	0.29	ug/L			06/01/15 18:08	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			06/01/15 18:08	1
Benzene	1.0	U	1.0	0.11	ug/L			06/01/15 18:08	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			06/01/15 18:08	1
Trichloroethene	**28**		1.0	0.14	ug/L			06/01/15 18:08	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			06/01/15 18:08	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			06/01/15 18:08	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			06/01/15 18:08	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			06/01/15 18:08	1
Toluene	1.0	U	1.0	0.15	ug/L			06/01/15 18:08	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			06/01/15 18:08	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			06/01/15 18:08	1
Tetrachloroethene	**NQ**		1.0	0.15	ug/L			06/01/15 18:08	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			06/01/15 18:08	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			06/01/15 18:08	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			06/01/15 18:08	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			06/01/15 18:08	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			06/01/15 18:08	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			06/01/15 18:08	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			06/01/15 18:08	1
Styrene	1.0	U	1.0	0.097	ug/L			06/01/15 18:08	1
Bromoform	1.0	U	1.0	0.19	ug/L			06/01/15 18:08	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			06/01/15 18:08	1
Acrylonitrile	20	U	20	0.55	ug/L			06/01/15 18:08	1
1,4-Dioxane	200	U	200	34	ug/L			06/01/15 18:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*87*		*64 - 135*		*06/01/15 18:08*	*1*
Toluene-d8 (Surr)	*114*		*71 - 118*		*06/01/15 18:08*	*1*
4-Bromofluorobenzene (Surr)	*101*		*70 - 118*		*06/01/15 18:08*	*1*
Dibromofluoromethane (Surr)	*97*		*70 - 128*		*06/01/15 18:08*	*1*

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

Client Sample ID: HD-MW-96D-0/1-0
Date Collected: 05/20/15 10:50
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-26
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	10	U *	10	2.8	ug/L			06/01/15 16:40	10
Vinyl chloride	10	U	10	2.3	ug/L			06/01/15 16:40	10
Bromomethane	10	U	10	3.1	ug/L			06/01/15 16:40	10
Chloroethane	10	U	10	2.1	ug/L			06/01/15 16:40	10
1,1-Dichloroethene	**3.5**	**J**	10	3.0	ug/L			06/01/15 16:40	10
Acetone	50	U	50	25	ug/L			06/01/15 16:40	10
Carbon disulfide	10	U	10	2.1	ug/L			06/01/15 16:40	10
Methylene Chloride	10	U	10	1.3	ug/L			06/01/15 16:40	10
trans-1,2-Dichloroethene	10	U	10	1.7	ug/L			06/01/15 16:40	10
Methyl tert-butyl ether	10	U	10	1.8	ug/L			06/01/15 16:40	10
1,1-Dichloroethane	10	U	10	1.2	ug/L			06/01/15 16:40	10
cis-1,2-Dichloroethene	**140**		10	2.4	ug/L			06/01/15 16:40	10
Bromochloromethane	10	U	10	1.8	ug/L			06/01/15 16:40	10
2-Butanone (MEK)	50	U	50	5.5	ug/L			06/01/15 16:40	10
Chloroform	10	U	10	1.7	ug/L			06/01/15 16:40	10
1,1,1-Trichloroethane	**14**		10	2.9	ug/L			06/01/15 16:40	10
Carbon tetrachloride	10	U	10	1.4	ug/L			06/01/15 16:40	10
Benzene	10	U	10	1.1	ug/L			06/01/15 16:40	10
1,2-Dichloroethane	10	U	10	2.1	ug/L			06/01/15 16:40	10
Trichloroethene	**310**		10	1.4	ug/L			06/01/15 16:40	10
1,2-Dichloropropane	10	U	10	0.95	ug/L			06/01/15 16:40	10
Bromodichloromethane	10	U	10	1.3	ug/L			06/01/15 16:40	10
cis-1,3-Dichloropropene	10	U	10	1.9	ug/L			06/01/15 16:40	10
4-Methyl-2-pentanone (MIBK)	50	U	50	5.3	ug/L			06/01/15 16:40	10
Toluene	10	U	10	1.5	ug/L			06/01/15 16:40	10
trans-1,3-Dichloropropene	10	U	10	1.5	ug/L			06/01/15 16:40	10
1,1,2-Trichloroethane	10	U	10	2.0	ug/L			06/01/15 16:40	10
Tetrachloroethene	**150**		10	1.5	ug/L			06/01/15 16:40	10
2-Hexanone	50	U	50	1.6	ug/L			06/01/15 16:40	10
Dibromochloromethane	10	U	10	1.4	ug/L			06/01/15 16:40	10
1,2-Dibromoethane (EDB)	10	U	10	1.8	ug/L			06/01/15 16:40	10
Chlorobenzene	10	U	10	1.4	ug/L			06/01/15 16:40	10
1,1,1,2-Tetrachloroethane	10	U	10	2.8	ug/L			06/01/15 16:40	10
Ethylbenzene	10	U	10	2.3	ug/L			06/01/15 16:40	10
Xylenes, Total	30	U	30	4.9	ug/L			06/01/15 16:40	10
Styrene	10	U	10	0.97	ug/L			06/01/15 16:40	10
Bromoform	10	U	10	1.9	ug/L			06/01/15 16:40	10
1,1,2,2-Tetrachloroethane	10	U	10	2.0	ug/L			06/01/15 16:40	10
Acrylonitrile	200	U	200	5.5	ug/L			06/01/15 16:40	10
1,4-Dioxane	2000	U	2000	340	ug/L			06/01/15 16:40	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*64 - 135*		*06/01/15 16:40*	*10*
Toluene-d8 (Surr)	*110*		*71 - 118*		*06/01/15 16:40*	*10*
4-Bromofluorobenzene (Surr)	*102*		*70 - 118*		*06/01/15 16:40*	*10*
Dibromofluoromethane (Surr)	*99*		*70 - 128*		*06/01/15 16:40*	*10*

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

Client Sample ID: HD-MW-97-0/1-0
Date Collected: 05/20/15 12:50
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-27
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	25	U	25	7.1	ug/L			05/31/15 13:37	25
Vinyl chloride	25	U	25	5.7	ug/L			05/31/15 13:37	25
Bromomethane	25	U	25	7.8	ug/L			05/31/15 13:37	25
Chloroethane	25	U	25	5.4	ug/L			05/31/15 13:37	25
1,1-Dichloroethene	**8.6**	**J**	25	7.4	ug/L			05/31/15 13:37	25
Acetone	130	U	130	63	ug/L			05/31/15 13:37	25
Carbon disulfide	25	U	25	5.3	ug/L			05/31/15 13:37	25
Methylene Chloride	**23**	**J B**	25	3.1	ug/L			05/31/15 13:37	25
trans-1,2-Dichloroethene	25	U	25	4.2	ug/L			05/31/15 13:37	25
Methyl tert-butyl ether	25	U	25	4.6	ug/L			05/31/15 13:37	25
1,1-Dichloroethane	25	U	25	2.9	ug/L			05/31/15 13:37	25
cis-1,2-Dichloroethene	**240**		25	5.9	ug/L			05/31/15 13:37	25
Bromochloromethane	25	U	25	4.5	ug/L			05/31/15 13:37	25
2-Butanone (MEK)	130	U	130	14	ug/L			05/31/15 13:37	25
Chloroform	25	U	25	4.3	ug/L			05/31/15 13:37	25
1,1,1-Trichloroethane	**11**	**J**	25	7.2	ug/L			05/31/15 13:37	25
Carbon tetrachloride	25	U	25	3.4	ug/L			05/31/15 13:37	25
Benzene	25	U	25	2.6	ug/L			05/31/15 13:37	25
1,2-Dichloroethane	25	U	25	5.3	ug/L			05/31/15 13:37	25
Trichloroethene	**470**		25	3.6	ug/L			05/31/15 13:37	25
1,2-Dichloropropane	25	U	25	2.4	ug/L			05/31/15 13:37	25
Bromodichloromethane	25	U	25	3.3	ug/L			05/31/15 13:37	25
cis-1,3-Dichloropropene	25	U	25	4.7	ug/L			05/31/15 13:37	25
4-Methyl-2-pentanone (MIBK)	130	U	130	13	ug/L			05/31/15 13:37	25
Toluene	25	U	25	3.8	ug/L			05/31/15 13:37	25
trans-1,3-Dichloropropene	25	U	25	3.7	ug/L			05/31/15 13:37	25
1,1,2-Trichloroethane	25	U	25	5.0	ug/L			05/31/15 13:37	25
Tetrachloroethene	**79**		25	3.7	ug/L			05/31/15 13:37	25
2-Hexanone	130	U	130	4.0	ug/L			05/31/15 13:37	25
Dibromochloromethane	25	U	25	3.4	ug/L			05/31/15 13:37	25
1,2-Dibromoethane (EDB)	25	U	25	4.5	ug/L			05/31/15 13:37	25
Chlorobenzene	25	U	25	3.4	ug/L			05/31/15 13:37	25
1,1,1,2-Tetrachloroethane	25	U	25	6.9	ug/L			05/31/15 13:37	25
Ethylbenzene	25	U	25	5.7	ug/L			05/31/15 13:37	25
Xylenes, Total	75	U	75	12	ug/L			05/31/15 13:37	25
Styrene	25	U	25	2.4	ug/L			05/31/15 13:37	25
Bromoform	25	U	25	4.8	ug/L			05/31/15 13:37	25
1,1,2,2-Tetrachloroethane	25	U	25	5.0	ug/L			05/31/15 13:37	25
Acrylonitrile	500	U	500	14	ug/L			05/31/15 13:37	25
1,4-Dioxane	5000	U	5000	860	ug/L			05/31/15 13:37	25

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*84*		*64 - 135*		*05/31/15 13:37*	*25*
Toluene-d8 (Surr)	*81*		*71 - 118*		*05/31/15 13:37*	*25*
4-Bromofluorobenzene (Surr)	*110*		*70 - 118*		*05/31/15 13:37*	*25*
Dibromofluoromethane (Surr)	*91*		*70 - 128*		*05/31/15 13:37*	*25*

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

Client Sample ID: HD-CW-18-0/1-0
Date Collected: 05/20/15 14:00
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-28
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			05/31/15 14:01	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			05/31/15 14:01	1
Bromomethane	1.0	U	1.0	0.31	ug/L			05/31/15 14:01	1
Chloroethane	1.0	U	1.0	0.21	ug/L			05/31/15 14:01	1
1,1-Dichloroethene	**0.80**	**J**	1.0	0.30	ug/L			05/31/15 14:01	1
Acetone	5.0	U	5.0	2.5	ug/L			05/31/15 14:01	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			05/31/15 14:01	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			05/31/15 14:01	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			05/31/15 14:01	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			05/31/15 14:01	1
1,1-Dichloroethane	**1.2**		1.0	0.12	ug/L			05/31/15 14:01	1
cis-1,2-Dichloroethene	**30**		1.0	0.24	ug/L			05/31/15 14:01	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			05/31/15 14:01	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			05/31/15 14:01	1
Chloroform	1.0	U	1.0	0.17	ug/L			05/31/15 14:01	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			05/31/15 14:01	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			05/31/15 14:01	1
Benzene	1.0	U	1.0	0.11	ug/L			05/31/15 14:01	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/31/15 14:01	1
Trichloroethene	**6.6**		1.0	0.14	ug/L			05/31/15 14:01	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			05/31/15 14:01	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			05/31/15 14:01	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			05/31/15 14:01	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			05/31/15 14:01	1
Toluene	1.0	U	1.0	0.15	ug/L			05/31/15 14:01	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			05/31/15 14:01	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/31/15 14:01	1
Tetrachloroethene	**0.34**	**J**	1.0	0.15	ug/L			05/31/15 14:01	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			05/31/15 14:01	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			05/31/15 14:01	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			05/31/15 14:01	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			05/31/15 14:01	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			05/31/15 14:01	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			05/31/15 14:01	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			05/31/15 14:01	1
Styrene	1.0	U	1.0	0.097	ug/L			05/31/15 14:01	1
Bromoform	1.0	U	1.0	0.19	ug/L			05/31/15 14:01	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			05/31/15 14:01	1
Acrylonitrile	20	U	20	0.55	ug/L			05/31/15 14:01	1
1,4-Dioxane	200	U	200	34	ug/L			05/31/15 14:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*92*		*64 - 135*		*05/31/15 14:01*	*1*
Toluene-d8 (Surr)	*90*		*71 - 118*		*05/31/15 14:01*	*1*
4-Bromofluorobenzene (Surr)	*101*		*70 - 118*		*05/31/15 14:01*	*1*
Dibromofluoromethane (Surr)	*103*		*70 - 128*		*05/31/15 14:01*	*1*

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

Client Sample ID: HD-MW-50D-0/1-0
Date Collected: 05/20/15 10:07
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-29
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	130	U	130	35	ug/L			05/31/15 14:25	125
Vinyl chloride	**40**	**J**	130	28	ug/L			05/31/15 14:25	125
Bromomethane	130	U	130	39	ug/L			05/31/15 14:25	125
Chloroethane	130	U	130	27	ug/L			05/31/15 14:25	125
1,1-Dichloroethene	**370**		130	37	ug/L			05/31/15 14:25	125
Acetone	630	U	630	310	ug/L			05/31/15 14:25	125
Carbon disulfide	130	U	130	27	ug/L			05/31/15 14:25	125
Methylene Chloride	**110**	**J B**	130	16	ug/L			05/31/15 14:25	125
trans-1,2-Dichloroethene	130	U	130	21	ug/L			05/31/15 14:25	125
Methyl tert-butyl ether	130	U	130	23	ug/L			05/31/15 14:25	125
1,1-Dichloroethane	**760**		130	15	ug/L			05/31/15 14:25	125
cis-1,2-Dichloroethene	**4900**		130	30	ug/L			05/31/15 14:25	125
Bromochloromethane	130	U	130	23	ug/L			05/31/15 14:25	125
2-Butanone (MEK)	630	U	630	68	ug/L			05/31/15 14:25	125
Chloroform	130	U	130	21	ug/L			05/31/15 14:25	125
1,1,1-Trichloroethane	**340**		130	36	ug/L			05/31/15 14:25	125
Carbon tetrachloride	130	U	130	17	ug/L			05/31/15 14:25	125
Benzene	130	U	130	13	ug/L			05/31/15 14:25	125
1,2-Dichloroethane	130	U	130	26	ug/L			05/31/15 14:25	125
Trichloroethene	**6200**		130	18	ug/L			05/31/15 14:25	125
1,2-Dichloropropane	130	U	130	12	ug/L			05/31/15 14:25	125
Bromodichloromethane	130	U	130	16	ug/L			05/31/15 14:25	125
cis-1,3-Dichloropropene	130	U	130	23	ug/L			05/31/15 14:25	125
4-Methyl-2-pentanone (MIBK)	630	U	630	66	ug/L			05/31/15 14:25	125
Toluene	130	U	130	19	ug/L			05/31/15 14:25	125
trans-1,3-Dichloropropene	130	U	130	19	ug/L			05/31/15 14:25	125
1,1,2-Trichloroethane	130	U	130	25	ug/L			05/31/15 14:25	125
Tetrachloroethene	**550**		130	19	ug/L			05/31/15 14:25	125
2-Hexanone	630	U	630	20	ug/L			05/31/15 14:25	125
Dibromochloromethane	130	U	130	17	ug/L			05/31/15 14:25	125
1,2-Dibromoethane (EDB)	130	U	130	23	ug/L			05/31/15 14:25	125
Chlorobenzene	130	U	130	17	ug/L			05/31/15 14:25	125
1,1,1,2-Tetrachloroethane	130	U	130	35	ug/L			05/31/15 14:25	125
Ethylbenzene	130	U	130	28	ug/L			05/31/15 14:25	125
Xylenes, Total	380	U	380	61	ug/L			05/31/15 14:25	125
Styrene	130	U	130	12	ug/L			05/31/15 14:25	125
Bromoform	130	U	130	24	ug/L			05/31/15 14:25	125
1,1,2,2-Tetrachloroethane	130	U	130	25	ug/L			05/31/15 14:25	125
Acrylonitrile	2500	U	2500	68	ug/L			05/31/15 14:25	125
1,4-Dioxane	25000	U	25000	4300	ug/L			05/31/15 14:25	125

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*83*		*64 - 135*		*05/31/15 14:25*	*125*
Toluene-d8 (Surr)	*78*		*71 - 118*		*05/31/15 14:25*	*125*
4-Bromofluorobenzene (Surr)	*107*		*70 - 118*		*05/31/15 14:25*	*125*
Dibromofluoromethane (Surr)	*93*		*70 - 128*		*05/31/15 14:25*	*125*

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

Client Sample ID: HD-MW-51S-0/1-0
Date Collected: 05/20/15 12:31
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-30
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	50	U	50	14	ug/L			05/31/15 14:49	50
Vinyl chloride	50	U	50	11	ug/L			05/31/15 14:49	50
Bromomethane	50	U	50	16	ug/L			05/31/15 14:49	50
Chloroethane	50	U	50	11	ug/L			05/31/15 14:49	50
1,1-Dichloroethene	**46**	**J**	50	15	ug/L			05/31/15 14:49	50
Acetone	250	U	250	130	ug/L			05/31/15 14:49	50
Carbon disulfide	50	U	50	11	ug/L			05/31/15 14:49	50
Methylene Chloride	**24**	**J B**	50	6.3	ug/L			05/31/15 14:49	50
trans-1,2-Dichloroethene	50	U	50	8.5	ug/L			05/31/15 14:49	50
Methyl tert-butyl ether	50	U	50	9.2	ug/L			05/31/15 14:49	50
1,1-Dichloroethane	50	U	50	5.8	ug/L			05/31/15 14:49	50
cis-1,2-Dichloroethene	**620**		50	12	ug/L			05/31/15 14:49	50
Bromochloromethane	50	U	50	9.0	ug/L			05/31/15 14:49	50
2-Butanone (MEK)	250	U	250	27	ug/L			05/31/15 14:49	50
Chloroform	50	U	50	8.5	ug/L			05/31/15 14:49	50
1,1,1-Trichloroethane	**95**		50	14	ug/L			05/31/15 14:49	50
Carbon tetrachloride	50	U	50	6.8	ug/L			05/31/15 14:49	50
Benzene	50	U	50	5.3	ug/L			05/31/15 14:49	50
1,2-Dichloroethane	50	U	50	11	ug/L			05/31/15 14:49	50
Trichloroethene	**720**		50	7.2	ug/L			05/31/15 14:49	50
1,2-Dichloropropane	50	U	50	4.7	ug/L			05/31/15 14:49	50
Bromodichloromethane	50	U	50	6.5	ug/L			05/31/15 14:49	50
cis-1,3-Dichloropropene	50	U	50	9.3	ug/L			05/31/15 14:49	50
4-Methyl-2-pentanone (MIBK)	250	U	250	26	ug/L			05/31/15 14:49	50
Toluene	50	U	50	7.5	ug/L			05/31/15 14:49	50
trans-1,3-Dichloropropene	50	U	50	7.4	ug/L			05/31/15 14:49	50
1,1,2-Trichloroethane	50	U	50	10	ug/L			05/31/15 14:49	50
Tetrachloroethene	**480**		50	7.4	ug/L			05/31/15 14:49	50
2-Hexanone	250	U	250	8.0	ug/L			05/31/15 14:49	50
Dibromochloromethane	50	U	50	6.8	ug/L			05/31/15 14:49	50
1,2-Dibromoethane (EDB)	50	U	50	9.0	ug/L			05/31/15 14:49	50
Chlorobenzene	50	U	50	6.8	ug/L			05/31/15 14:49	50
1,1,1,2-Tetrachloroethane	50	U	50	14	ug/L			05/31/15 14:49	50
Ethylbenzene	50	U	50	11	ug/L			05/31/15 14:49	50
Xylenes, Total	150	U	150	24	ug/L			05/31/15 14:49	50
Styrene	50	U	50	4.8	ug/L			05/31/15 14:49	50
Bromoform	50	U	50	9.6	ug/L			05/31/15 14:49	50
1,1,2,2-Tetrachloroethane	50	U	50	10	ug/L			05/31/15 14:49	50
Acrylonitrile	1000	U	1000	27	ug/L			05/31/15 14:49	50
1,4-Dioxane	10000	U	10000	1700	ug/L			05/31/15 14:49	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*83*		*64 - 135*		*05/31/15 14:49*	*50*
Toluene-d8 (Surr)	*79*		*71 - 118*		*05/31/15 14:49*	*50*
4-Bromofluorobenzene (Surr)	*108*		*70 - 118*		*05/31/15 14:49*	*50*
Dibromofluoromethane (Surr)	*95*		*70 - 128*		*05/31/15 14:49*	*50*

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

Client Sample ID: HD-QC4-0/1-2
Date Collected: 05/20/15 12:01
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-31
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			05/31/15 10:42	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			05/31/15 10:42	1
Bromomethane	1.0	U	1.0	0.31	ug/L			05/31/15 10:42	1
Chloroethane	1.0	U	1.0	0.21	ug/L			05/31/15 10:42	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			05/31/15 10:42	1
Acetone	5.0	U	5.0	2.5	ug/L			05/31/15 10:42	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			05/31/15 10:42	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			05/31/15 10:42	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			05/31/15 10:42	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			05/31/15 10:42	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			05/31/15 10:42	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			05/31/15 10:42	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			05/31/15 10:42	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			05/31/15 10:42	1
Chloroform	1.0	U	1.0	0.17	ug/L			05/31/15 10:42	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			05/31/15 10:42	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			05/31/15 10:42	1
Benzene	1.0	U	1.0	0.11	ug/L			05/31/15 10:42	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/31/15 10:42	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			05/31/15 10:42	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			05/31/15 10:42	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			05/31/15 10:42	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			05/31/15 10:42	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			05/31/15 10:42	1
Toluene	1.0	U	1.0	0.15	ug/L			05/31/15 10:42	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			05/31/15 10:42	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/31/15 10:42	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			05/31/15 10:42	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			05/31/15 10:42	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			05/31/15 10:42	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			05/31/15 10:42	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			05/31/15 10:42	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			05/31/15 10:42	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			05/31/15 10:42	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			05/31/15 10:42	1
Styrene	1.0	U	1.0	0.097	ug/L			05/31/15 10:42	1
Bromoform	1.0	U	1.0	0.19	ug/L			05/31/15 10:42	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			05/31/15 10:42	1
Acrylonitrile	20	U	20	0.55	ug/L			05/31/15 10:42	1
1,4-Dioxane	200	U	200	34	ug/L			05/31/15 10:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*109*		*64 - 135*		*05/31/15 10:42*	*1*
Toluene-d8 (Surr)	*97*		*71 - 118*		*05/31/15 10:42*	*1*
4-Bromofluorobenzene (Surr)	*86*		*70 - 118*		*05/31/15 10:42*	*1*
Dibromofluoromethane (Surr)	*114*		*70 - 128*		*05/31/15 10:42*	*1*

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

Client Sample ID: HD-QC1-0/1-4
Date Collected: 05/20/15 08:20
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-32
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			05/31/15 16:02	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			05/31/15 16:02	1
Bromomethane	1.0	U	1.0	0.31	ug/L			05/31/15 16:02	1
Chloroethane	1.0	U	1.0	0.21	ug/L			05/31/15 16:02	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			05/31/15 16:02	1
Acetone	**2.6**	**J**	5.0	2.5	ug/L			05/31/15 16:02	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			05/31/15 16:02	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			05/31/15 16:02	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			05/31/15 16:02	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			05/31/15 16:02	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			05/31/15 16:02	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			05/31/15 16:02	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			05/31/15 16:02	1
2-Butanone (MEK)	**2.2**	**J**	5.0	0.55	ug/L			05/31/15 16:02	1
Chloroform	1.0	U	1.0	0.17	ug/L			05/31/15 16:02	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			05/31/15 16:02	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			05/31/15 16:02	1
Benzene	1.0	U	1.0	0.11	ug/L			05/31/15 16:02	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/31/15 16:02	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			05/31/15 16:02	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			05/31/15 16:02	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			05/31/15 16:02	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			05/31/15 16:02	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			05/31/15 16:02	1
Toluene	1.0	U	1.0	0.15	ug/L			05/31/15 16:02	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			05/31/15 16:02	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/31/15 16:02	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			05/31/15 16:02	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			05/31/15 16:02	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			05/31/15 16:02	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			05/31/15 16:02	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			05/31/15 16:02	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			05/31/15 16:02	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			05/31/15 16:02	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			05/31/15 16:02	1
Styrene	1.0	U	1.0	0.097	ug/L			05/31/15 16:02	1
Bromoform	1.0	U	1.0	0.19	ug/L			05/31/15 16:02	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			05/31/15 16:02	1
Acrylonitrile	20	U	20	0.55	ug/L			05/31/15 16:02	1
1,4-Dioxane	200	U	200	34	ug/L			05/31/15 16:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*64 - 135*		*05/31/15 16:02*	*1*
Toluene-d8 (Surr)	*89*		*71 - 118*		*05/31/15 16:02*	*1*
4-Bromofluorobenzene (Surr)	*108*		*70 - 118*		*05/31/15 16:02*	*1*
Dibromofluoromethane (Surr)	*107*		*70 - 128*		*05/31/15 16:02*	*1*

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

Client Sample ID: HD-QC1-0/1-3
Date Collected: 05/20/15 08:15
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-33
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	1.0	U	1.0	0.28	ug/L			05/31/15 16:26	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			05/31/15 16:26	1
Bromomethane	1.0	U	1.0	0.31	ug/L			05/31/15 16:26	1
Chloroethane	1.0	U	1.0	0.21	ug/L			05/31/15 16:26	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			05/31/15 16:26	1
Acetone	5.0	U	5.0	2.5	ug/L			05/31/15 16:26	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			05/31/15 16:26	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			05/31/15 16:26	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			05/31/15 16:26	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			05/31/15 16:26	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			05/31/15 16:26	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			05/31/15 16:26	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			05/31/15 16:26	1
2-Butanone (MEK)	**1.7**	**J**	5.0	0.55	ug/L			05/31/15 16:26	1
Chloroform	1.0	U	1.0	0.17	ug/L			05/31/15 16:26	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			05/31/15 16:26	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			05/31/15 16:26	1
Benzene	1.0	U	1.0	0.11	ug/L			05/31/15 16:26	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/31/15 16:26	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			05/31/15 16:26	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			05/31/15 16:26	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			05/31/15 16:26	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			05/31/15 16:26	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			05/31/15 16:26	1
Toluene	1.0	U	1.0	0.15	ug/L			05/31/15 16:26	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			05/31/15 16:26	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/31/15 16:26	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			05/31/15 16:26	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			05/31/15 16:26	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			05/31/15 16:26	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			05/31/15 16:26	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			05/31/15 16:26	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			05/31/15 16:26	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			05/31/15 16:26	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			05/31/15 16:26	1
Styrene	1.0	U	1.0	0.097	ug/L			05/31/15 16:26	1
Bromoform	1.0	U	1.0	0.19	ug/L			05/31/15 16:26	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			05/31/15 16:26	1
Acrylonitrile	20	U	20	0.55	ug/L			05/31/15 16:26	1
1,4-Dioxane	200	U	200	34	ug/L			05/31/15 16:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*64 - 135*		*05/31/15 16:26*	*1*
Toluene-d8 (Surr)	*89*		*71 - 118*		*05/31/15 16:26*	*1*
4-Bromofluorobenzene (Surr)	*113*		*70 - 118*		*05/31/15 16:26*	*1*
Dibromofluoromethane (Surr)	*106*		*70 - 128*		*05/31/15 16:26*	*1*

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

Client Sample ID: HD-CW-20-0/1-0
Date Collected: 05/20/15 10:45
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-23
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	50	U	50	14	ug/L			05/31/15 18:50	50
Vinyl chloride	50	U	50	11	ug/L			05/31/15 18:50	50
Bromomethane	50	U	50	16	ug/L			05/31/15 18:50	50
Chloroethane	50	U	50	11	ug/L			05/31/15 18:50	50
1,1-Dichloroethene	50	U	50	15	ug/L			05/31/15 18:50	50
Acetone	250	U	250	130	ug/L			05/31/15 18:50	50
Carbon disulfide	50	U	50	11	ug/L			05/31/15 18:50	50
Methylene Chloride	**48**	**J B**	50	6.3	ug/L			05/31/15 18:50	50
trans-1,2-Dichloroethene	50	U	50	8.5	ug/L			05/31/15 18:50	50
Methyl tert-butyl ether	50	U	50	9.2	ug/L			05/31/15 18:50	50
1,1-Dichloroethane	**9.9**	**J**	50	5.8	ug/L			05/31/15 18:50	50
cis-1,2-Dichloroethene	**140**		50	12	ug/L			05/31/15 18:50	50
Bromochloromethane	50	U	50	9.0	ug/L			05/31/15 18:50	50
2-Butanone (MEK)	250	U	250	27	ug/L			05/31/15 18:50	50
Chloroform	50	U	50	8.5	ug/L			05/31/15 18:50	50
1,1,1-Trichloroethane	**57**		50	14	ug/L			05/31/15 18:50	50
Carbon tetrachloride	50	U	50	6.8	ug/L			05/31/15 18:50	50
Benzene	50	U	50	5.3	ug/L			05/31/15 18:50	50
1,2-Dichloroethane	50	U	50	11	ug/L			05/31/15 18:50	50
Trichloroethene	**580**		50	7.2	ug/L			05/31/15 18:50	50
1,2-Dichloropropane	50	U	50	4.7	ug/L			05/31/15 18:50	50
Bromodichloromethane	50	U	50	6.5	ug/L			05/31/15 18:50	50
cis-1,3-Dichloropropene	50	U	50	9.3	ug/L			05/31/15 18:50	50
4-Methyl-2-pentanone (MIBK)	250	U	250	26	ug/L			05/31/15 18:50	50
Toluene	50	U	50	7.5	ug/L			05/31/15 18:50	50
trans-1,3-Dichloropropene	50	U	50	7.4	ug/L			05/31/15 18:50	50
1,1,2-Trichloroethane	50	U	50	10	ug/L			05/31/15 18:50	50
Tetrachloroethene	**1200**		50	7.4	ug/L			05/31/15 18:50	50
2-Hexanone	250	U	250	8.0	ug/L			05/31/15 18:50	50
Dibromochloromethane	50	U	50	6.8	ug/L			05/31/15 18:50	50
1,2-Dibromoethane (EDB)	50	U	50	9.0	ug/L			05/31/15 18:50	50
Chlorobenzene	50	U	50	6.8	ug/L			05/31/15 18:50	50
1,1,1,2-Tetrachloroethane	50	U	50	14	ug/L			05/31/15 18:50	50
Ethylbenzene	50	U	50	11	ug/L			05/31/15 18:50	50
Xylenes, Total	150	U	150	24	ug/L			05/31/15 18:50	50
Styrene	50	U	50	4.8	ug/L			05/31/15 18:50	50
Bromoform	50	U	50	9.6	ug/L			05/31/15 18:50	50
1,1,2,2-Tetrachloroethane	50	U	50	10	ug/L			05/31/15 18:50	50
Acrylonitrile	1000	U	1000	27	ug/L			05/31/15 18:50	50
1,4-Dioxane	10000	U	10000	1700	ug/L			05/31/15 18:50	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*89*		*64 - 135*		*05/31/15 18:50*	*50*
Toluene-d8 (Surr)	*78*		*71 - 118*		*05/31/15 18:50*	*50*
4-Bromofluorobenzene (Surr)	*93*		*70 - 118*		*05/31/15 18:50*	*50*
Dibromofluoromethane (Surr)	*101*		*70 - 128*		*05/31/15 18:50*	*50*

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

Client Sample ID: HD-MW-96S-0/1-0
Date Collected: 05/20/15 11:30
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-25
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	10	U	10	2.8	ug/L			05/31/15 19:38	10
Vinyl chloride	10	U	10	2.3	ug/L			05/31/15 19:38	10
Bromomethane	10	U	10	3.1	ug/L			05/31/15 19:38	10
Chloroethane	10	U	10	2.1	ug/L			05/31/15 19:38	10
1,1-Dichloroethene	10	U	10	3.0	ug/L			05/31/15 19:38	10
Acetone	50	U	50	25	ug/L			05/31/15 19:38	10
Carbon disulfide	10	U	10	2.1	ug/L			05/31/15 19:38	10
Methylene Chloride	**4.6**	**J B**	10	1.3	ug/L			05/31/15 19:38	10
trans-1,2-Dichloroethene	10	U	10	1.7	ug/L			05/31/15 19:38	10
Methyl tert-butyl ether	10	U	10	1.8	ug/L			05/31/15 19:38	10
1,1-Dichloroethane	10	U	10	1.2	ug/L			05/31/15 19:38	10
cis-1,2-Dichloroethene	**26**		10	2.4	ug/L			05/31/15 19:38	10
Bromochloromethane	10	U	10	1.8	ug/L			05/31/15 19:38	10
2-Butanone (MEK)	50	U	50	5.5	ug/L			05/31/15 19:38	10
Chloroform	10	U	10	1.7	ug/L			05/31/15 19:38	10
1,1,1-Trichloroethane	10	U	10	2.9	ug/L			05/31/15 19:38	10
Carbon tetrachloride	10	U	10	1.4	ug/L			05/31/15 19:38	10
Benzene	10	U	10	1.1	ug/L			05/31/15 19:38	10
1,2-Dichloroethane	10	U	10	2.1	ug/L			05/31/15 19:38	10
Trichloroethene	**80**		10	1.4	ug/L			05/31/15 19:38	10
1,2-Dichloropropane	10	U	10	0.95	ug/L			05/31/15 19:38	10
Bromodichloromethane	10	U	10	1.3	ug/L			05/31/15 19:38	10
cis-1,3-Dichloropropene	10	U	10	1.9	ug/L			05/31/15 19:38	10
4-Methyl-2-pentanone (MIBK)	50	U	50	5.3	ug/L			05/31/15 19:38	10
Toluene	10	U	10	1.5	ug/L			05/31/15 19:38	10
trans-1,3-Dichloropropene	10	U	10	1.5	ug/L			05/31/15 19:38	10
1,1,2-Trichloroethane	10	U	10	2.0	ug/L			05/31/15 19:38	10
Tetrachloroethene	**200**		10	1.5	ug/L			05/31/15 19:38	10
2-Hexanone	50	U	50	1.6	ug/L			05/31/15 19:38	10
Dibromochloromethane	10	U	10	1.4	ug/L			05/31/15 19:38	10
1,2-Dibromoethane (EDB)	10	U	10	1.8	ug/L			05/31/15 19:38	10
Chlorobenzene	10	U	10	1.4	ug/L			05/31/15 19:38	10
1,1,1,2-Tetrachloroethane	10	U	10	2.8	ug/L			05/31/15 19:38	10
Ethylbenzene	10	U	10	2.3	ug/L			05/31/15 19:38	10
Xylenes, Total	30	U	30	4.9	ug/L			05/31/15 19:38	10
Styrene	10	U	10	0.97	ug/L			05/31/15 19:38	10
Bromoform	10	U	10	1.9	ug/L			05/31/15 19:38	10
1,1,2,2-Tetrachloroethane	10	U	10	2.0	ug/L			05/31/15 19:38	10
Acrylonitrile	200	U	200	5.5	ug/L			05/31/15 19:38	10
1,4-Dioxane	2000	U	2000	340	ug/L			05/31/15 19:38	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*84*		*64 - 135*		*05/31/15 19:38*	*10*
Toluene-d8 (Surr)	*77*		*71 - 118*		*05/31/15 19:38*	*10*
4-Bromofluorobenzene (Surr)	*101*		*70 - 118*		*05/31/15 19:38*	*10*
Dibromofluoromethane (Surr)	*97*		*70 - 128*		*05/31/15 19:38*	*10*

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

Client Sample ID: HD-CW-15A-0/1-0
Date Collected: 05/20/15 10:25
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-21
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	250	U	250	71	ug/L			06/02/15 16:03	250
Vinyl chloride	250	U	250	57	ug/L			06/02/15 16:03	250
Bromomethane	250	U	250	78	ug/L			06/02/15 16:03	250
Chloroethane	250	U	250	54	ug/L			06/02/15 16:03	250
1,1-Dichloroethene	**1400**		250	74	ug/L			06/02/15 16:03	250
Acetone	1300	U	1300	630	ug/L			06/02/15 16:03	250
Carbon disulfide	250	U	250	53	ug/L			06/02/15 16:03	250
Methylene Chloride	250	U	250	31	ug/L			06/02/15 16:03	250
trans-1,2-Dichloroethene	250	U	250	42	ug/L			06/02/15 16:03	250
Methyl tert-butyl ether	250	U	250	46	ug/L			06/02/15 16:03	250
1,1-Dichloroethane	250	U	250	29	ug/L			06/02/15 16:03	250
cis-1,2-Dichloroethene	**6600**		250	59	ug/L			06/02/15 16:03	250
Bromochloromethane	250	U	250	45	ug/L			06/02/15 16:03	250
2-Butanone (MEK)	1300	U	1300	140	ug/L			06/02/15 16:03	250
Chloroform	250	U	250	43	ug/L			06/02/15 16:03	250
1,1,1-Trichloroethane	**6900**		250	72	ug/L			06/02/15 16:03	250
Carbon tetrachloride	250	U	250	34	ug/L			06/02/15 16:03	250
Benzene	250	U	250	26	ug/L			06/02/15 16:03	250
1,2-Dichloroethane	250	U	250	53	ug/L			06/02/15 16:03	250
Trichloroethene	**2700**		250	36	ug/L			06/02/15 16:03	250
1,2-Dichloropropane	250	U	250	24	ug/L			06/02/15 16:03	250
Bromodichloromethane	250	U	250	33	ug/L			06/02/15 16:03	250
cis-1,3-Dichloropropene	250	U	250	47	ug/L			06/02/15 16:03	250
4-Methyl-2-pentanone (MIBK)	1300	U	1300	130	ug/L			06/02/15 16:03	250
Toluene	250	U	250	38	ug/L			06/02/15 16:03	250
trans-1,3-Dichloropropene	250	U	250	37	ug/L			06/02/15 16:03	250
1,1,2-Trichloroethane	250	U	250	50	ug/L			06/02/15 16:03	250
Tetrachloroethene	**1800**		250	37	ug/L			06/02/15 16:03	250
2-Hexanone	1300	U	1300	40	ug/L			06/02/15 16:03	250
Dibromochloromethane	250	U	250	34	ug/L			06/02/15 16:03	250
1,2-Dibromoethane (EDB)	250	U	250	45	ug/L			06/02/15 16:03	250
Chlorobenzene	250	U	250	34	ug/L			06/02/15 16:03	250
1,1,1,2-Tetrachloroethane	250	U	250	69	ug/L			06/02/15 16:03	250
Ethylbenzene	250	U	250	57	ug/L			06/02/15 16:03	250
Xylenes, Total	750	U	750	120	ug/L			06/02/15 16:03	250
Styrene	250	U	250	24	ug/L			06/02/15 16:03	250
Bromoform	250	U	250	48	ug/L			06/02/15 16:03	250
1,1,2,2-Tetrachloroethane	250	U	250	50	ug/L			06/02/15 16:03	250
Acrylonitrile	5000	U	5000	140	ug/L			06/02/15 16:03	250
1,4-Dioxane	50000	U	50000	8600	ug/L			06/02/15 16:03	250

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*64 - 135*		*06/02/15 16:03*	*250*
Toluene-d8 (Surr)	*192*	*X*	*71 - 118*		*06/02/15 16:03*	*250*
4-Bromofluorobenzene (Surr)	*185*	*X*	*70 - 118*		*06/02/15 16:03*	*250*
Dibromofluoromethane (Surr)	*91*		*70 - 128*		*06/02/15 16:03*	*250*

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-COD-SW-6-0/1-0
Date Collected: 05/20/15 10:45
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	1.7	B	0.10	0.0062	mg/L			05/21/15 22:23	1
Chloride	95	B	1.0	0.20	mg/L			05/21/15 22:23	1
Sulfate	17		1.0	0.21	mg/L			05/21/15 22:23	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-COD-SW-7-0/1-0
Date Collected: 05/20/15 13:35
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.5	B	0.10	0.0062	mg/L			05/22/15 04:00	1
Chloride	65	B	1.0	0.20	mg/L			05/22/15 04:00	1
Sulfate	42		1.0	0.21	mg/L			05/22/15 04:00	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-COD-SW-8-0/1-0
Date Collected: 05/20/15 09:10
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.6	B	0.10	0.0062	mg/L			05/21/15 17:33	1
Chloride	53	B	1.0	0.20	mg/L			05/21/15 17:33	1
Sulfate	36		1.0	0.21	mg/L			05/21/15 17:33	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-COD-SW-9-0/1-0
Date Collected: 05/20/15 11:50
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	3.4	B	0.10	0.0062	mg/L			05/22/15 00:11	1
Chloride	93	B	1.0	0.20	mg/L			05/22/15 00:11	1
Sulfate	40		1.0	0.21	mg/L			05/22/15 00:11	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-COD-SW-10-0/1-0
Date Collected: 05/20/15 09:45
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.3	B	0.10	0.0062	mg/L			05/21/15 19:00	1
Chloride	120	B	1.0	0.20	mg/L			05/21/15 19:00	1
Sulfate	28		1.0	0.21	mg/L			05/21/15 19:00	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-COD-SW-11-0/1-0
Date Collected: 05/20/15 12:15
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	4.2	B	0.10	0.0062	mg/L			05/22/15 02:13	1
Chloride	75	B	1.0	0.20	mg/L			05/22/15 02:13	1
Sulfate	21		1.0	0.21	mg/L			05/22/15 02:13	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-COD-SW-12-0/1-0
Date Collected: 05/20/15 12:30
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.9	B	0.10	0.0062	mg/L			05/22/15 02:28	1
Chloride	120	B	1.0	0.20	mg/L			05/22/15 02:28	1
Sulfate	42		1.0	0.21	mg/L			05/22/15 02:28	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-44321-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-COD-SW-13-0/1-0
Date Collected: 05/20/15 09:35
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.3	B	0.10	0.0062	mg/L			05/21/15 18:42	1
Chloride	50	B	1.0	0.20	mg/L			05/21/15 18:42	1
Sulfate	33		1.0	0.21	mg/L			05/21/15 18:42	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-COD-SW-15-0/1-0
Date Collected: 05/20/15 12:40
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	3.8	B	0.10	0.0062	mg/L			05/22/15 02:59	1
Chloride	150	B	1.0	0.20	mg/L			05/22/15 02:59	1
Sulfate	35		1.0	0.21	mg/L			05/22/15 02:59	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-COD-SW-16-0/1-0
Date Collected: 05/20/15 10:10
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.5	B	0.10	0.0062	mg/L			05/21/15 20:09	1
Chloride	55	B	1.0	0.20	mg/L			05/21/15 20:09	1
Sulfate	37		1.0	0.21	mg/L			05/21/15 20:09	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-COD-SW-17-0/1-0
Date Collected: 05/20/15 10:25
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	3.3	B	0.10	0.0062	mg/L			05/21/15 21:35	1
Chloride	130	B	1.0	0.20	mg/L			05/21/15 21:35	1
Sulfate	33		1.0	0.21	mg/L			05/21/15 21:35	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-COD-SW-20-0/1-0
Date Collected: 05/20/15 10:50
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-12
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	1.9	B	0.10	0.0062	mg/L			05/21/15 23:25	1
Chloride	110	B	1.0	0.20	mg/L			05/21/15 23:25	1
Sulfate	16		1.0	0.21	mg/L			05/21/15 23:25	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-COD-SW-26-0/1-0
Date Collected: 05/20/15 13:15
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-13
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	3.7	B	0.10	0.0062	mg/L			05/22/15 03:45	1
Chloride	230	B	5.0	0.98	mg/L			05/22/15 07:26	5
Sulfate	27		1.0	0.21	mg/L			05/22/15 03:45	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-COD-SW-27-0/1-0
Date Collected: 05/20/15 12:50
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-14
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			05/22/15 03:14	1
Chloride	81	B	1.0	0.20	mg/L			05/22/15 03:14	1
Sulfate	38		1.0	0.21	mg/L			05/22/15 03:14	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-COD-SW-28-0/1-0
Date Collected: 05/20/15 12:05
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-15
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	3.4	B	0.10	0.0062	mg/L			05/22/15 00:56	1
Chloride	96	B F1	1.0	0.20	mg/L			05/22/15 00:56	1
Sulfate	38		1.0	0.21	mg/L			05/22/15 00:56	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-44321-1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-COD-SW-29-0/1-0
Date Collected: 05/20/15 08:47
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-16
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.6	B	0.10	0.0062	mg/L			05/21/15 17:16	1
Chloride	52	B	1.0	0.20	mg/L			05/21/15 17:16	1
Sulfate	36		1.0	0.21	mg/L			05/21/15 17:16	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-QC2-0/1-1
Date Collected: 05/20/15 08:00
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-18
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	3.3	B	0.10	0.0062	mg/L			05/21/15 16:58	1
Chloride	130	B	1.0	0.20	mg/L			05/21/15 16:58	1
Sulfate	33		1.0	0.21	mg/L			05/21/15 16:58	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-CW-9-0/1-0
Date Collected: 05/20/15 10:10
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-19
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			05/21/15 20:26	1
Chloride	180	B	1.0	0.20	mg/L			05/21/15 20:26	1
Sulfate	32		1.0	0.21	mg/L			05/21/15 20:26	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-CW-13-0/1-0
Date Collected: 05/20/15 10:15
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-20
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	3.2	B	0.10	0.0062	mg/L			05/21/15 20:44	1
Chloride	140	B	1.0	0.20	mg/L			05/21/15 20:44	1
Sulfate	35		1.0	0.21	mg/L			05/21/15 20:44	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-CW-15A-0/1-0
Date Collected: 05/20/15 10:25
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-21
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	3.2	B	0.10	0.0062	mg/L			05/21/15 21:53	1
Chloride	170	B	1.0	0.20	mg/L			05/21/15 21:53	1
Sulfate	100		1.0	0.21	mg/L			05/21/15 21:53	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-CW-17-0/1-0
Date Collected: 05/20/15 10:35
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-22
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	2.1	B	0.10	0.0062	mg/L			05/21/15 22:08	1
Chloride	100	B	1.0	0.20	mg/L			05/21/15 22:08	1
Sulfate	38		1.0	0.21	mg/L			05/21/15 22:08	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-CW-20-0/1-0
Date Collected: 05/20/15 10:45
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-23
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	3.1	B	0.10	0.0062	mg/L			05/21/15 23:09	1
Chloride	160	B	1.0	0.20	mg/L			05/21/15 23:09	1
Sulfate	29		1.0	0.21	mg/L			05/21/15 23:09	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-95-0/1-0
Date Collected: 05/20/15 09:25
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-24
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.84	B	0.10	0.0062	mg/L			05/21/15 17:50	1
Chloride	52	B	1.0	0.20	mg/L			05/21/15 17:50	1
Sulfate	32		1.0	0.21	mg/L			05/21/15 17:50	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-96S-0/1-0
Date Collected: 05/20/15 11:30
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-25
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			05/21/15 23:55	1
Chloride	140	B	1.0	0.20	mg/L			05/21/15 23:55	1
Sulfate	51		1.0	0.21	mg/L			05/21/15 23:55	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-96D-0/1-0
Date Collected: 05/20/15 10:50
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-26
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	3.8	B	0.10	0.0062	mg/L			05/21/15 23:40	1
Chloride	120	B	1.0	0.20	mg/L			05/21/15 23:40	1
Sulfate	44		1.0	0.21	mg/L			05/21/15 23:40	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-97-0/1-0
Date Collected: 05/20/15 12:50
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-27
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	1.8	B	0.10	0.0062	mg/L			05/22/15 03:29	1
Chloride	120	B	1.0	0.20	mg/L			05/22/15 03:29	1
Sulfate	29		1.0	0.21	mg/L			05/22/15 03:29	1

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-CW-18-0/1-0
Date Collected: 05/20/15 14:00
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-28
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.085	J B	0.10	0.0062	mg/L			05/22/15 04:15	1
Chloride	240	B	5.0	0.98	mg/L			05/22/15 04:31	5
Sulfate	280		5.0	1.1	mg/L			05/22/15 04:31	5

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-50D-0/1-0
Date Collected: 05/20/15 10:07
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-29
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	**0.022**	**J B**	0.10	0.0062	mg/L			05/21/15 19:52	1
Chloride	**99**	**B**	1.0	0.20	mg/L			05/21/15 19:52	1
Sulfate	**250**		5.0	1.1	mg/L			05/22/15 07:11	5

Method: 300.0 - Anions, Ion Chromatography

Client Sample ID: HD-MW-51S-0/1-0
Date Collected: 05/20/15 12:31
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-30
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			05/22/15 02:44	1
Chloride	160	B	1.0	0.20	mg/L			05/22/15 02:44	1
Sulfate	59		1.0	0.21	mg/L			05/22/15 02:44	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-COD-SW-6-0/1-0
Date Collected: 05/20/15 10:45
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	48000	B	500	2.8	ug/L		05/22/15 10:04	06/02/15 13:38	1
Potassium	3100		500	5.8	ug/L		05/22/15 10:04	06/02/15 13:38	1
Magnesium	8400		500	1.2	ug/L		05/22/15 10:04	06/02/15 13:38	1
Sodium	40000		500	3.8	ug/L		05/22/15 10:04	06/02/15 13:38	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-COD-SW-7-0/1-0
Date Collected: 05/20/15 13:35
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	39000	B	500	2.8	ug/L		05/22/15 10:04	06/02/15 13:57	1
Potassium	5600		500	5.8	ug/L		05/22/15 10:04	06/02/15 13:57	1
Magnesium	9600		500	1.2	ug/L		05/22/15 10:04	06/02/15 13:57	1
Sodium	39000		500	3.8	ug/L		05/22/15 10:04	06/02/15 13:57	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-COD-SW-8-0/1-0
Date Collected: 05/20/15 09:10
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	34000	B	500	2.8	ug/L		05/22/15 10:04	06/02/15 14:11	1
Potassium	5800		500	5.8	ug/L		05/22/15 10:04	06/02/15 14:11	1
Magnesium	7000		500	1.2	ug/L		05/22/15 10:04	06/02/15 14:11	1
Sodium	35000		500	3.8	ug/L		05/22/15 10:04	06/02/15 14:11	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-COD-SW-9-0/1-0
Date Collected: 05/20/15 11:50
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	54000	B	500	2.8	ug/L		05/22/15 10:04	06/02/15 14:15	1
Potassium	9700		500	5.8	ug/L		05/22/15 10:04	06/02/15 14:15	1
Magnesium	10000		500	1.2	ug/L		05/22/15 10:04	06/02/15 14:15	1
Sodium	48000		500	3.8	ug/L		05/22/15 10:04	06/02/15 14:15	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-COD-SW-10-0/1-0
Date Collected: 05/20/15 09:45
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	83000	B	500	2.8	ug/L		05/22/15 10:04	06/02/15 14:19	1
Potassium	7700		500	5.8	ug/L		05/22/15 10:04	06/02/15 14:19	1
Magnesium	13000		500	1.2	ug/L		05/22/15 10:04	06/02/15 14:19	1
Sodium	45000		500	3.8	ug/L		05/22/15 10:04	06/02/15 14:19	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-COD-SW-11-0/1-0
Date Collected: 05/20/15 12:15
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	69000	B	500	2.8	ug/L		05/22/15 10:04	06/02/15 14:23	1
Potassium	2200		500	5.8	ug/L		05/22/15 10:04	06/02/15 14:23	1
Magnesium	15000		500	1.2	ug/L		05/22/15 10:04	06/02/15 14:23	1
Sodium	31000		500	3.8	ug/L		05/22/15 10:04	06/02/15 14:23	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-COD-SW-12-0/1-0
Date Collected: 05/20/15 12:30
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	65000	B	500	2.8	ug/L		05/22/15 10:04	06/02/15 14:27	1
Potassium	17000		500	5.8	ug/L		05/22/15 10:04	06/02/15 14:27	1
Magnesium	10000		500	1.2	ug/L		05/22/15 10:04	06/02/15 14:27	1
Sodium	64000		500	3.8	ug/L		05/22/15 10:04	06/02/15 14:27	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-COD-SW-13-0/1-0
Date Collected: 05/20/15 09:35
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	35000	B	500	2.8	ug/L		05/22/15 10:04	06/02/15 14:31	1
Potassium	5600		500	5.8	ug/L		05/22/15 10:04	06/02/15 14:31	1
Magnesium	7100		500	1.2	ug/L		05/22/15 10:04	06/02/15 14:31	1
Sodium	35000		500	3.8	ug/L		05/22/15 10:04	06/02/15 14:31	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-COD-SW-15-0/1-0
Date Collected: 05/20/15 12:40
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	87000	B	500	2.8	ug/L		05/22/15 10:04	06/02/15 14:34	1
Potassium	5200		500	5.8	ug/L		05/22/15 10:04	06/02/15 14:34	1
Magnesium	16000		500	1.2	ug/L		05/22/15 10:04	06/02/15 14:34	1
Sodium	54000		500	3.8	ug/L		05/22/15 10:04	06/02/15 14:34	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-COD-SW-16-0/1-0
Date Collected: 05/20/15 10:10
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	38000	B	500	2.8	ug/L		05/22/15 10:04	06/02/15 14:38	1
Potassium	5700		500	5.8	ug/L		05/22/15 10:04	06/02/15 14:38	1
Magnesium	7500		500	1.2	ug/L		05/22/15 10:04	06/02/15 14:38	1
Sodium	36000		500	3.8	ug/L		05/22/15 10:04	06/02/15 14:38	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-COD-SW-17-0/1-0
Date Collected: 05/20/15 10:25
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	89000	B	500	2.8	ug/L		05/22/15 10:04	06/02/15 14:42	1
Potassium	5200		500	5.8	ug/L		05/22/15 10:04	06/02/15 14:42	1
Magnesium	16000		500	1.2	ug/L		05/22/15 10:04	06/02/15 14:42	1
Sodium	53000		500	3.8	ug/L		05/22/15 10:04	06/02/15 14:42	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-COD-SW-20-0/1-0
Date Collected: 05/20/15 10:50
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-12
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	51000	B	500	2.8	ug/L		05/22/15 10:04	06/02/15 14:46	1
Potassium	2700		500	5.8	ug/L		05/22/15 10:04	06/02/15 14:46	1
Magnesium	9200		500	1.2	ug/L		05/22/15 10:04	06/02/15 14:46	1
Sodium	44000		500	3.8	ug/L		05/22/15 10:04	06/02/15 14:46	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-COD-SW-26-0/1-0
Date Collected: 05/20/15 13:15
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-13
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	110000	B	500	2.8	ug/L		05/22/15 10:04	06/02/15 15:00	1
Potassium	3100		500	5.8	ug/L		05/22/15 10:04	06/02/15 15:00	1
Magnesium	16000		500	1.2	ug/L		05/22/15 10:04	06/02/15 15:00	1
Sodium	91000		500	3.8	ug/L		05/22/15 10:04	06/02/15 15:00	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-COD-SW-27-0/1-0
Date Collected: 05/20/15 12:50
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-14
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	52000	B	500	2.8	ug/L		05/22/15 10:04	06/02/15 15:04	1
Potassium	6400		500	5.8	ug/L		05/22/15 10:04	06/02/15 15:04	1
Magnesium	11000		500	1.2	ug/L		05/22/15 10:04	06/02/15 15:04	1
Sodium	43000		500	3.8	ug/L		05/22/15 10:04	06/02/15 15:04	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-COD-SW-28-0/1-0
Date Collected: 05/20/15 12:05
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-15
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	130000	B	500	2.8	ug/L		05/22/15 10:04	06/02/15 15:08	1
Potassium	11000		500	5.8	ug/L		05/22/15 10:04	06/02/15 15:08	1
Magnesium	24000		500	1.2	ug/L		05/22/15 10:04	06/02/15 15:08	1
Sodium	51000		500	3.8	ug/L		05/22/15 10:04	06/02/15 15:08	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-COD-SW-29-0/1-0
Date Collected: 05/20/15 08:47
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-16
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	34000	B	500	2.8	ug/L		05/22/15 10:04	06/02/15 15:11	1
Potassium	5900		500	5.8	ug/L		05/22/15 10:04	06/02/15 15:11	1
Magnesium	6900		500	1.2	ug/L		05/22/15 10:04	06/02/15 15:11	1
Sodium	35000		500	3.8	ug/L		05/22/15 10:04	06/02/15 15:11	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-QC2-0/1-1
Date Collected: 05/20/15 08:00
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-18
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	84000	B	500	2.8	ug/L		05/22/15 10:04	06/02/15 15:15	1
Potassium	5000		500	5.8	ug/L		05/22/15 10:04	06/02/15 15:15	1
Magnesium	16000		500	1.2	ug/L		05/22/15 10:04	06/02/15 15:15	1
Sodium	53000		500	3.8	ug/L		05/22/15 10:04	06/02/15 15:15	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-CW-9-0/1-0
Date Collected: 05/20/15 10:10
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-19
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	86000	B	500	2.8	ug/L		05/22/15 10:04	06/02/15 15:19	1
Potassium	12000		500	5.8	ug/L		05/22/15 10:04	06/02/15 15:19	1
Magnesium	19000		500	1.2	ug/L		05/22/15 10:04	06/02/15 15:19	1
Sodium	72000		500	3.8	ug/L		05/22/15 10:04	06/02/15 15:19	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-CW-13-0/1-0
Date Collected: 05/20/15 10:15
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-20
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	120000	B	500	2.8	ug/L		05/22/15 10:04	06/02/15 15:23	1
Potassium	12000		500	5.8	ug/L		05/22/15 10:04	06/02/15 15:23	1
Magnesium	16000		500	1.2	ug/L		05/22/15 10:04	06/02/15 15:23	1
Sodium	44000		500	3.8	ug/L		05/22/15 10:04	06/02/15 15:23	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-CW-15A-0/1-0
Date Collected: 05/20/15 10:25
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-21
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	140000	B	500	2.8	ug/L		05/22/15 10:04	06/02/15 15:27	1
Potassium	9100		500	5.8	ug/L		05/22/15 10:04	06/02/15 15:27	1
Magnesium	16000		500	1.2	ug/L		05/22/15 10:04	06/02/15 15:27	1
Sodium	54000		500	3.8	ug/L		05/22/15 10:04	06/02/15 15:27	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-CW-17-0/1-0
Date Collected: 05/20/15 10:35
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-22
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	100000	B	500	2.8	ug/L		05/22/15 10:06	06/02/15 15:51	1
Potassium	4900	B	500	5.8	ug/L		05/22/15 10:06	06/02/15 15:51	1
Magnesium	11000		500	1.2	ug/L		05/22/15 10:06	06/02/15 15:51	1
Sodium	35000		500	3.8	ug/L		05/22/15 10:06	06/02/15 15:51	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-CW-20-0/1-0
Date Collected: 05/20/15 10:45
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-23
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	87000	B	500	2.8	ug/L		05/22/15 10:06	06/02/15 15:55	1
Potassium	6000	B	500	5.8	ug/L		05/22/15 10:06	06/02/15 15:55	1
Magnesium	18000		500	1.2	ug/L		05/22/15 10:06	06/02/15 15:55	1
Sodium	62000		500	3.8	ug/L		05/22/15 10:06	06/02/15 15:55	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-95-0/1-0
Date Collected: 05/20/15 09:25
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-24
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	96000	B	500	2.8	ug/L		05/22/15 10:06	06/02/15 15:59	1
Potassium	2700	B	500	5.8	ug/L		05/22/15 10:06	06/02/15 15:59	1
Magnesium	8000		500	1.2	ug/L		05/22/15 10:06	06/02/15 15:59	1
Sodium	23000		500	3.8	ug/L		05/22/15 10:06	06/02/15 15:59	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-96S-0/1-0
Date Collected: 05/20/15 11:30
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-25
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	120000	B	500	2.8	ug/L		05/22/15 10:06	06/02/15 16:18	1
Potassium	7000	B	500	5.8	ug/L		05/22/15 10:06	06/02/15 16:18	1
Magnesium	17000		500	1.2	ug/L		05/22/15 10:06	06/02/15 16:18	1
Sodium	56000		500	3.8	ug/L		05/22/15 10:06	06/02/15 16:18	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-96D-0/1-0
Date Collected: 05/20/15 10:50
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-26
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	110000	B	500	2.8	ug/L		05/22/15 10:06	06/02/15 16:22	1
Potassium	4400	B	500	5.8	ug/L		05/22/15 10:06	06/02/15 16:22	1
Magnesium	15000		500	1.2	ug/L		05/22/15 10:06	06/02/15 16:22	1
Sodium	40000		500	3.8	ug/L		05/22/15 10:06	06/02/15 16:22	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-97-0/1-0
Date Collected: 05/20/15 12:50
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-27
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	88000	B	500	2.8	ug/L		05/22/15 10:06	06/02/15 16:26	1
Potassium	6400	B	500	5.8	ug/L		05/22/15 10:06	06/02/15 16:26	1
Magnesium	16000		500	1.2	ug/L		05/22/15 10:06	06/02/15 16:26	1
Sodium	35000		500	3.8	ug/L		05/22/15 10:06	06/02/15 16:26	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-CW-18-0/1-0
Date Collected: 05/20/15 14:00
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-28
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	95000	B	500	2.8	ug/L		05/22/15 10:06	06/02/15 16:40	1
Potassium	11000	B	500	5.8	ug/L		05/22/15 10:06	06/02/15 16:40	1
Magnesium	42000		500	1.2	ug/L		05/22/15 10:06	06/02/15 16:40	1
Sodium	150000		500	3.8	ug/L		05/22/15 10:06	06/02/15 16:40	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-50D-0/1-0
Date Collected: 05/20/15 10:07
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-29
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	150000	B	500	2.8	ug/L		05/22/15 10:06	06/02/15 16:44	1
Potassium	2300	B	500	5.8	ug/L		05/22/15 10:06	06/02/15 16:44	1
Magnesium	45000		500	1.2	ug/L		05/22/15 10:06	06/02/15 16:44	1
Sodium	17000		500	3.8	ug/L		05/22/15 10:06	06/02/15 16:44	1

Method: 6020A - Metals (ICP/MS)

Client Sample ID: HD-MW-51S-0/1-0
Date Collected: 05/20/15 12:31
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-30
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	110000	B	500	2.8	ug/L		05/22/15 10:06	06/02/15 16:47	1
Potassium	7700	B	500	5.8	ug/L		05/22/15 10:06	06/02/15 16:47	1
Magnesium	14000		500	1.2	ug/L		05/22/15 10:06	06/02/15 16:47	1
Sodium	44000		500	3.8	ug/L		05/22/15 10:06	06/02/15 16:47	1

General Chemistry

Client Sample ID: HD-COD-SW-6-0/1-0
Date Collected: 05/20/15 10:45
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**140**	**B**	5.0	0.41	mg/L			06/01/15 08:16	1
Bicarbonate Alkalinity as CaCO3	**140**	**B**	5.0	0.41	mg/L			06/01/15 08:16	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			06/01/15 08:16	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-44321-1

General Chemistry

Client Sample ID: HD-COD-SW-7-0/1-0
Date Collected: 05/20/15 13:35
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**100**	**B**	5.0	0.41	mg/L			06/01/15 08:16	1
Bicarbonate Alkalinity as CaCO3	**100**	**B**	5.0	0.41	mg/L			06/01/15 08:16	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			06/01/15 08:16	1

General Chemistry

Client Sample ID: HD-COD-SW-8-0/1-0
Date Collected: 05/20/15 09:10
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**99**	**B**	5.0	0.41	mg/L			06/01/15 08:16	1
Bicarbonate Alkalinity as CaCO3	**99**	**B**	5.0	0.41	mg/L			06/01/15 08:16	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			06/01/15 08:16	1

General Chemistry

Client Sample ID: HD-COD-SW-9-0/1-0
Date Collected: 05/20/15 11:50
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**170**	**B**	5.0	0.41	mg/L			06/01/15 08:16	1
Bicarbonate Alkalinity as CaCO3	**170**	**B**	5.0	0.41	mg/L			06/01/15 08:16	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			06/01/15 08:16	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-44321-1

General Chemistry

Client Sample ID: HD-COD-SW-10-0/1-0
Date Collected: 05/20/15 09:45
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**190**	**B**	5.0	0.41	mg/L			06/01/15 08:16	1
Bicarbonate Alkalinity as CaCO3	**190**	**B**	5.0	0.41	mg/L			06/01/15 08:16	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			06/01/15 08:16	1

General Chemistry

Client Sample ID: HD-COD-SW-11-0/1-0
Date Collected: 05/20/15 12:15
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-6
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**190**	**B**	5.0	0.41	mg/L			06/01/15 08:16	1
Bicarbonate Alkalinity as CaCO3	**190**	**B**	5.0	0.41	mg/L			06/01/15 08:16	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			06/01/15 08:16	1

General Chemistry

Client Sample ID: HD-COD-SW-12-0/1-0
Date Collected: 05/20/15 12:30
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-7
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**160**	**B**	5.0	0.41	mg/L			06/01/15 08:16	1
Bicarbonate Alkalinity as CaCO3	**160**	**B**	5.0	0.41	mg/L			06/01/15 08:16	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			06/01/15 08:16	1

General Chemistry

Client Sample ID: HD-COD-SW-13-0/1-0
Date Collected: 05/20/15 09:35
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-8
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**83**	**B**	5.0	0.41	mg/L			06/01/15 08:16	1
Bicarbonate Alkalinity as CaCO3	**83**	**B**	5.0	0.41	mg/L			06/01/15 08:16	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			06/01/15 08:16	1

General Chemistry

Client Sample ID: HD-COD-SW-15-0/1-0
Date Collected: 05/20/15 12:40
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-9
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**190**	**B**	5.0	0.41	mg/L			06/01/15 08:16	1
Bicarbonate Alkalinity as CaCO3	**190**	**B**	5.0	0.41	mg/L			06/01/15 08:16	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			06/01/15 08:16	1

General Chemistry

Client Sample ID: HD-COD-SW-16-0/1-0
Date Collected: 05/20/15 10:10
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-10
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**100**	**B**	5.0	0.41	mg/L			06/01/15 08:16	1
Bicarbonate Alkalinity as CaCO3	**100**	**B**	5.0	0.41	mg/L			06/01/15 08:16	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			06/01/15 08:16	1

General Chemistry

Client Sample ID: HD-COD-SW-17-0/1-0
Date Collected: 05/20/15 10:25
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-11
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**230**	**B**	5.0	0.41	mg/L			06/01/15 08:16	1
Bicarbonate Alkalinity as CaCO3	**230**	**B**	5.0	0.41	mg/L			06/01/15 08:16	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			06/01/15 08:16	1

General Chemistry

Client Sample ID: HD-COD-SW-20-0/1-0
Date Collected: 05/20/15 10:50
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-12
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**140**	**B**	5.0	0.41	mg/L			06/01/15 08:16	1
Bicarbonate Alkalinity as CaCO3	**140**	**B**	5.0	0.41	mg/L			06/01/15 08:16	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			06/01/15 08:16	1

General Chemistry

Client Sample ID: HD-COD-SW-26-0/1-0
Date Collected: 05/20/15 13:15
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-13
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			06/01/15 08:16	1
Bicarbonate Alkalinity as CaCO3	**260**	**B**	5.0	0.41	mg/L			06/01/15 08:16	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			06/01/15 08:16	1

General Chemistry

Client Sample ID: HD-COD-SW-27-0/1-0
Date Collected: 05/20/15 12:50
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-14
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**150**	**B**	5.0	0.41	mg/L			06/01/15 08:16	1
Bicarbonate Alkalinity as CaCO3	**150**	**B**	5.0	0.41	mg/L			06/01/15 08:16	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			06/01/15 08:16	1

General Chemistry

Client Sample ID: HD-COD-SW-28-0/1-0
Date Collected: 05/20/15 12:05
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-15
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**160**	**B**	5.0	0.41	mg/L			06/01/15 08:16	1
Bicarbonate Alkalinity as CaCO3	**160**	**B**	5.0	0.41	mg/L			06/01/15 08:16	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			06/01/15 08:16	1

General Chemistry

Client Sample ID: HD-COD-SW-29-0/1-0
Date Collected: 05/20/15 08:47
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-16
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**99**	**B**	5.0	0.41	mg/L			06/01/15 08:16	1
Bicarbonate Alkalinity as CaCO3	**99**	**B**	5.0	0.41	mg/L			06/01/15 08:16	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			06/01/15 08:16	1

General Chemistry

Client Sample ID: HD-QC2-0/1-1
Date Collected: 05/20/15 08:00
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-18
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			06/01/15 08:16	1
Bicarbonate Alkalinity as CaCO3	**250**	**B**	5.0	0.41	mg/L			06/01/15 08:16	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			06/01/15 08:16	1

General Chemistry

Client Sample ID: HD-CW-9-0/1-0
Date Collected: 05/20/15 10:10
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-19
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**210**	**B**	5.0	0.41	mg/L			06/01/15 08:16	1
Bicarbonate Alkalinity as CaCO3	**210**	**B**	5.0	0.41	mg/L			06/01/15 08:16	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			06/01/15 08:16	1

General Chemistry

Client Sample ID: HD-CW-13-0/1-0
Date Collected: 05/20/15 10:15
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-20
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			06/01/15 08:17	1
Bicarbonate Alkalinity as CaCO3	**290**	**B**	5.0	0.41	mg/L			06/01/15 08:17	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			06/01/15 08:17	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-44321-1

General Chemistry

Client Sample ID: HD-CW-15A-0/1-0
Date Collected: 05/20/15 10:25
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-21
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**200**	**B**	5.0	0.41	mg/L			06/01/15 08:17	1
Bicarbonate Alkalinity as CaCO3	**200**	**B**	5.0	0.41	mg/L			06/01/15 08:17	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			06/01/15 08:17	1

General Chemistry

Client Sample ID: HD-CW-17-0/1-0
Date Collected: 05/20/15 10:35
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-22
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**230**	**B**	5.0	0.41	mg/L			06/01/15 08:17	1
Bicarbonate Alkalinity as CaCO3	**230**	**B**	5.0	0.41	mg/L			06/01/15 08:17	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			06/01/15 08:17	1

General Chemistry

Client Sample ID: HD-CW-20-0/1-0
Date Collected: 05/20/15 10:45
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-23
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**230**	**B**	5.0	0.41	mg/L			06/01/15 08:17	1
Bicarbonate Alkalinity as CaCO3	**230**	**B**	5.0	0.41	mg/L			06/01/15 08:17	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			06/01/15 08:17	1

General Chemistry

Client Sample ID: HD-MW-95-0/1-0
Date Collected: 05/20/15 09:25
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-24
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			06/01/15 08:17	1
Bicarbonate Alkalinity as CaCO3	**260**	**B**	5.0	0.41	mg/L			06/01/15 08:17	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			06/01/15 08:17	1

General Chemistry

Client Sample ID: HD-MW-96S-0/1-0
Date Collected: 05/20/15 11:30
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-25
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**310**	**B**	5.0	0.41	mg/L			06/01/15 08:17	1
Bicarbonate Alkalinity as CaCO3	**310**	**B**	5.0	0.41	mg/L			06/01/15 08:17	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			06/01/15 08:17	1

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-44321-1

General Chemistry

Client Sample ID: HD-MW-96D-0/1-0
Date Collected: 05/20/15 10:50
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-26
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**270**	**B**	5.0	0.41	mg/L			06/01/15 08:17	1
Bicarbonate Alkalinity as CaCO3	**270**	**B**	5.0	0.41	mg/L			06/01/15 08:17	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			06/01/15 08:17	1

General Chemistry

Client Sample ID: HD-MW-97-0/1-0
Date Collected: 05/20/15 12:50
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-27
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**230**	**B**	5.0	0.41	mg/L			06/01/15 08:17	1
Bicarbonate Alkalinity as CaCO3	**230**	**B**	5.0	0.41	mg/L			06/01/15 08:17	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			06/01/15 08:17	1

General Chemistry

Client Sample ID: HD-CW-18-0/1-0
Date Collected: 05/20/15 14:00
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-28
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			06/01/15 08:17	1
Bicarbonate Alkalinity as CaCO3	**290**	**B**	5.0	0.41	mg/L			06/01/15 08:17	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			06/01/15 08:17	1

General Chemistry

Client Sample ID: HD-MW-50D-0/1-0
Date Collected: 05/20/15 10:07
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-29
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**340**	**B**	5.0	0.41	mg/L			06/01/15 08:17	1
Bicarbonate Alkalinity as CaCO3	**340**	**B**	5.0	0.41	mg/L			06/01/15 08:17	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			06/01/15 08:17	1

General Chemistry

Client Sample ID: HD-MW-51S-0/1-0
Date Collected: 05/20/15 12:31
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-30
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	**200**	**B**	5.0	0.41	mg/L			06/01/15 08:17	1
Bicarbonate Alkalinity as CaCO3	**200**	**B**	5.0	0.41	mg/L			06/01/15 08:17	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			06/01/15 08:17	1

Default Detection Limits

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-44321-1

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)

Prep: 3005A

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: 180-44321-1

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

Prep: 3005A

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: 180-44321-1

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

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	Client Sample ID	12DCE (64-135)	TOL (71-118)	BFB (70-118)	DBFM (70-128)
180-44321-1	HD-COD-SW-6-0/1-0	95	112	104	101
180-44321-1 MS	HD-COD-SW-6-0/1-0	123	94	108	109
180-44321-1 MSD	HD-COD-SW-6-0/1-0	108	102	103	100
180-44321-2	HD-COD-SW-7-0/1-0	91	112	97	100
180-44321-3	HD-COD-SW-8-0/1-0	91	111	103	101
180-44321-4	HD-COD-SW-9-0/1-0	77	97	86	82
180-44321-5	HD-COD-SW-10-0/1-0	83	100	92	92
180-44321-6	HD-COD-SW-11-0/1-0	92	114	101	98
180-44321-7	HD-COD-SW-12-0/1-0	97	112	103	103
180-44321-8	HD-COD-SW-13-0/1-0	93	117	106	105
180-44321-9	HD-COD-SW-15-0/1-0	97	110	98	102
180-44321-10	HD-COD-SW-16-0/1-0	106	120 X	107	114
180-44321-11	HD-COD-SW-17-0/1-0	103	117	106	108
180-44321-12	HD-COD-SW-20-0/1-0	104	115	106	110
180-44321-13	HD-COD-SW-26-0/1-0	101	118	107	107
180-44321-14	HD-COD-SW-27-0/1-0	97	115	106	107
180-44321-15	HD-COD-SW-28-0/1-0	87	102	91	97
180-44321-15 MS	HD-COD-SW-28-0/1-0	102	108	98	97
180-44321-15 MSD	HD-COD-SW-28-0/1-0	104	106	97	99
180-44321-16	HD-COD-SW-29-0/1-0	90	82	97	97
180-44321-17	HD-QC3-0/1-2	95	86	113	106
180-44321-18	HD-QC2-0/1-1	95	114	106	102
180-44321-18 MS	HD-QC2-0/1-1	96	112	105	100
180-44321-18 MSD	HD-QC2-0/1-1	102	112	105	100
180-44321-19	HD-CW-9-0/1-0	92	80	92	104
180-44321-20	HD-CW-13-0/1-0	88	78	102	97
180-44321-21	HD-CW-15A-0/1-0	95	111	106	57 X
180-44321-21 - RA	HD-CW-15A-0/1-0	90	192 X	185 X	91
180-44321-22	HD-CW-17-0/1-0	98	115	107	109
180-44321-23 - DL	HD-CW-20-0/1-0	89	78	93	101
180-44321-23	HD-CW-20-0/1-0	98	119 X	55 X	99
180-44321-24	HD-MW-95-0/1-0	102	97	117	114
180-44321-24 MS	HD-MW-95-0/1-0	101	100	100	114
180-44321-24 MSD	HD-MW-95-0/1-0	97	99	96	117
180-44321-25 - DL	HD-MW-96S-0/1-0	84	77	101	97
180-44321-25	HD-MW-96S-0/1-0	87	114	101	97
180-44321-26	HD-MW-96D-0/1-0	94	110	102	99
180-44321-27	HD-MW-97-0/1-0	84	81	110	91
180-44321-28	HD-CW-18-0/1-0	92	90	101	103
180-44321-29	HD-MW-50D-0/1-0	83	78	107	93
180-44321-30	HD-MW-51S-0/1-0	83	79	108	95
180-44321-31	HD-QC4-0/1-2	109	97	86	114
180-44321-32	HD-QC1-0/1-4	97	89	108	107
180-44321-33	HD-QC1-0/1-3	97	89	113	106
LCS 180-143153/13	Lab Control Sample	112	102	104	101
LCS 180-143337/7	Lab Control Sample	100	98	95	112
LCS 180-143339/11	Lab Control Sample	103	103	96	104
LCS 180-143422/8	Lab Control Sample	99	112	108	103
LCS 180-143527/10	Lab Control Sample	104	109	105	110

Surrogate Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-44321-1

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

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)
MB 180-143153/7	Method Blank	95	111	100	100
MB 180-143337/4	Method Blank	107	100	90	115
MB 180-143339/7	Method Blank	101	114	101	106
MB 180-143422/6	Method Blank	95	110	94	101
MB 180-143527/7	Method Blank	94	109	103	106

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 180-143153/7
Matrix: Water
Analysis Batch: 143153

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			05/29/15 11:33	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			05/29/15 11:33	1
Bromomethane	1.0	U	1.0	0.31	ug/L			05/29/15 11:33	1
Chloroethane	1.0	U	1.0	0.21	ug/L			05/29/15 11:33	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			05/29/15 11:33	1
Acetone	5.0	U	5.0	2.5	ug/L			05/29/15 11:33	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			05/29/15 11:33	1
Methylene Chloride	0.156	J	1.0	0.13	ug/L			05/29/15 11:33	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			05/29/15 11:33	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			05/29/15 11:33	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			05/29/15 11:33	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			05/29/15 11:33	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			05/29/15 11:33	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			05/29/15 11:33	1
Chloroform	1.0	U	1.0	0.17	ug/L			05/29/15 11:33	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			05/29/15 11:33	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			05/29/15 11:33	1
Benzene	1.0	U	1.0	0.11	ug/L			05/29/15 11:33	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/29/15 11:33	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			05/29/15 11:33	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			05/29/15 11:33	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			05/29/15 11:33	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			05/29/15 11:33	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			05/29/15 11:33	1
Toluene	1.0	U	1.0	0.15	ug/L			05/29/15 11:33	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			05/29/15 11:33	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/29/15 11:33	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			05/29/15 11:33	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			05/29/15 11:33	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			05/29/15 11:33	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			05/29/15 11:33	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			05/29/15 11:33	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			05/29/15 11:33	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			05/29/15 11:33	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			05/29/15 11:33	1
Styrene	1.0	U	1.0	0.097	ug/L			05/29/15 11:33	1
Bromoform	1.0	U	1.0	0.19	ug/L			05/29/15 11:33	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			05/29/15 11:33	1
Acrylonitrile	20	U	20	0.55	ug/L			05/29/15 11:33	1
1,4-Dioxane	200	U	200	34	ug/L			05/29/15 11:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*64 - 135*		*05/29/15 11:33*	*1*
Toluene-d8 (Surr)	*111*		*71 - 118*		*05/29/15 11:33*	*1*
4-Bromofluorobenzene (Surr)	*100*		*70 - 118*		*05/29/15 11:33*	*1*
Dibromofluoromethane (Surr)	*100*		*70 - 128*		*05/29/15 11:33*	*1*

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

Lab Sample ID: LCS 180-143153/13
Matrix: Water
Analysis Batch: 143153

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	7.48		ug/L		75	50 - 139
Vinyl chloride	10.0	5.91		ug/L		59	53 - 138
Bromomethane	10.0	6.58		ug/L		66	33 - 150
Chloroethane	10.0	4.70		ug/L		47	36 - 142
1,1-Dichloroethene	10.0	8.72		ug/L		87	65 - 136
Acetone	20.0	15.9		ug/L		80	22 - 150
Carbon disulfide	10.0	8.71		ug/L		87	54 - 132
Methylene Chloride	10.0	11.8		ug/L		118	63 - 129
trans-1,2-Dichloroethene	10.0	9.03		ug/L		90	73 - 126
Methyl tert-butyl ether	10.0	12.4	*	ug/L		124	64 - 123
1,1-Dichloroethane	10.0	11.0		ug/L		110	73 - 126
cis-1,2-Dichloroethene	10.0	11.2		ug/L		112	70 - 120
Bromochloromethane	10.0	11.0		ug/L		110	70 - 127
2-Butanone (MEK)	20.0	15.3		ug/L		76	39 - 138
Chloroform	10.0	10.9		ug/L		109	72 - 127
1,1,1-Trichloroethane	10.0	9.92		ug/L		99	63 - 133
Carbon tetrachloride	10.0	9.04		ug/L		90	55 - 150
Benzene	10.0	10.3		ug/L		103	80 - 120
1,2-Dichloroethane	10.0	11.6		ug/L		116	68 - 132
Trichloroethene	10.0	8.66		ug/L		87	73 - 120
1,2-Dichloropropane	10.0	11.5		ug/L		115	76 - 124
Bromodichloromethane	10.0	11.2		ug/L		112	66 - 130
cis-1,3-Dichloropropene	10.0	11.0		ug/L		110	66 - 120
4-Methyl-2-pentanone (MIBK)	20.0	18.0		ug/L		90	45 - 145
Toluene	10.0	9.39		ug/L		94	80 - 123
trans-1,3-Dichloropropene	10.0	10.5		ug/L		105	65 - 125
1,1,2-Trichloroethane	10.0	11.0		ug/L		110	77 - 127
Tetrachloroethene	10.0	8.13		ug/L		81	70 - 135
2-Hexanone	20.0	17.6		ug/L		88	25 - 132
Dibromochloromethane	10.0	10.2		ug/L		102	60 - 140
1,2-Dibromoethane (EDB)	10.0	10.7		ug/L		107	74 - 123
Chlorobenzene	10.0	10.3		ug/L		103	80 - 120
1,1,1,2-Tetrachloroethane	10.0	10.4		ug/L		104	63 - 140
Ethylbenzene	10.0	8.98		ug/L		90	72 - 126
Xylenes, Total	20.0	18.6		ug/L		93	76 - 128
Styrene	10.0	10.5		ug/L		105	71 - 127
Bromoform	10.0	9.74		ug/L		97	46 - 150
1,1,2,2-Tetrachloroethane	10.0	10.9		ug/L		109	62 - 125
Acrylonitrile	100	102		ug/L		102	30 - 140
1,4-Dioxane	200	227		ug/L		114	10 - 160

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*112*		*64 - 135*
Toluene-d8 (Surr)	*102*		*71 - 118*
4-Bromofluorobenzene (Surr)	*104*		*70 - 118*
Dibromofluoromethane (Surr)	*101*		*70 - 128*

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

Lab Sample ID: 180-44321-1 MS
Matrix: Water
Analysis Batch: 143153

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	1.0	U F2	10.0	6.02		ug/L		60	50 - 139
Vinyl chloride	1.0	U F1 F2	10.0	5.10	F1	ug/L		51	53 - 138
Bromomethane	1.0	U	10.0	6.47		ug/L		65	33 - 150
Chloroethane	1.0	U	10.0	4.09		ug/L		41	36 - 142
1,1-Dichloroethene	1.0	U F1 F2	10.0	6.14	F1	ug/L		61	65 - 136
Acetone	5.0	U F2	20.0	20.9		ug/L		104	22 - 150
Carbon disulfide	1.0	U	10.0	6.80		ug/L		68	54 - 132
Methylene Chloride	0.32	J B	10.0	12.2		ug/L		118	63 - 129
trans-1,2-Dichloroethene	1.0	U	10.0	8.16		ug/L		82	73 - 126
Methyl tert-butyl ether	1.0	U * F1	10.0	14.1	F1	ug/L		141	64 - 123
1,1-Dichloroethane	1.0	U	10.0	11.0		ug/L		110	73 - 126
cis-1,2-Dichloroethene	1.0	U	10.0	11.5		ug/L		115	70 - 120
Bromochloromethane	1.0	U	10.0	11.8		ug/L		118	70 - 127
2-Butanone (MEK)	5.0	U	20.0	18.7		ug/L		93	39 - 138
Chloroform	1.0	U	10.0	11.3		ug/L		113	72 - 127
1,1,1-Trichloroethane	1.0	U	10.0	7.95		ug/L		79	63 - 133
Carbon tetrachloride	1.0	U F2	10.0	6.64		ug/L		66	55 - 150
Benzene	1.0	U	10.0	10.3		ug/L		103	80 - 120
1,2-Dichloroethane	1.0	U	10.0	13.0		ug/L		130	68 - 132
Trichloroethene	1.0	U	10.0	8.43		ug/L		84	73 - 120
1,2-Dichloropropane	1.0	U	10.0	12.4		ug/L		124	76 - 124
Bromodichloromethane	1.0	U	10.0	12.6		ug/L		126	66 - 130
cis-1,3-Dichloropropene	1.0	U F1	10.0	12.5	F1	ug/L		125	66 - 120
4-Methyl-2-pentanone (MIBK)	5.0	U	20.0	19.1		ug/L		95	45 - 145
Toluene	1.0	U	10.0	8.50		ug/L		85	80 - 123
trans-1,3-Dichloropropene	1.0	U	10.0	10.1		ug/L		101	65 - 125
1,1,2-Trichloroethane	1.0	U	10.0	10.9		ug/L		109	77 - 127
Tetrachloroethene	1.0	U F1	10.0	6.92	F1	ug/L		69	70 - 135
2-Hexanone	5.0	U	20.0	17.9		ug/L		89	25 - 132
Dibromochloromethane	1.0	U	10.0	9.85		ug/L		99	60 - 140
1,2-Dibromoethane (EDB)	1.0	U	10.0	10.2		ug/L		102	74 - 123
Chlorobenzene	1.0	U	10.0	10.3		ug/L		103	80 - 120
1,1,1,2-Tetrachloroethane	1.0	U	10.0	10.0		ug/L		100	63 - 140
Ethylbenzene	1.0	U	10.0	8.86		ug/L		89	72 - 126
Xylenes, Total	3.0	U	20.0	18.7		ug/L		94	76 - 128
Styrene	1.0	U	10.0	10.6		ug/L		106	71 - 127
Bromoform	1.0	U	10.0	10.2		ug/L		102	46 - 150
1,1,2,2-Tetrachloroethane	1.0	U	10.0	10.9		ug/L		109	62 - 125
Acrylonitrile	20	U	100	137		ug/L		137	30 - 140
1,4-Dioxane	200	U	200	190	J	ug/L		95	10 - 160

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*123*		*64 - 135*
Toluene-d8 (Surr)	*94*		*71 - 118*
4-Bromofluorobenzene (Surr)	*108*		*70 - 118*
Dibromofluoromethane (Surr)	*109*		*70 - 128*

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

Lab Sample ID: 180-44321-1 MSD
Matrix: Water
Analysis Batch: 143153

Client Sample ID: HD-COD-SW-6-0/1-0
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 F2	10.0	9.84	F2	ug/L		98	50 - 139	48	35
Vinyl chloride	1.0	U F1 F2	10.0	8.29	F2	ug/L		83	53 - 138	48	35
Bromomethane	1.0	U	10.0	6.53		ug/L		65	33 - 150	1	35
Chloroethane	1.0	U	10.0	4.99		ug/L		50	36 - 142	20	35
1,1-Dichloroethene	1.0	U F1 F2	10.0	8.90	F2	ug/L		89	65 - 136	37	35
Acetone	5.0	U F2	20.0	14.1	F2	ug/L		70	22 - 150	39	35
Carbon disulfide	1.0	U	10.0	9.58		ug/L		96	54 - 132	34	35
Methylene Chloride	0.32	J B	10.0	10.9		ug/L		106	63 - 129	11	35
trans-1,2-Dichloroethene	1.0	U	10.0	9.18		ug/L		92	73 - 126	12	35
Methyl tert-butyl ether	1.0	U * F1	10.0	11.8		ug/L		118	64 - 123	18	35
1,1-Dichloroethane	1.0	U	10.0	10.8		ug/L		108	73 - 126	2	35
cis-1,2-Dichloroethene	1.0	U	10.0	10.9		ug/L		109	70 - 120	5	35
Bromochloromethane	1.0	U	10.0	10.1		ug/L		101	70 - 127	15	35
2-Butanone (MEK)	5.0	U	20.0	14.3		ug/L		71	39 - 138	26	35
Chloroform	1.0	U	10.0	10.7		ug/L		107	72 - 127	6	35
1,1,1-Trichloroethane	1.0	U	10.0	10.5		ug/L		105	63 - 133	28	35
Carbon tetrachloride	1.0	U F2	10.0	9.64	F2	ug/L		96	55 - 150	37	35
Benzene	1.0	U	10.0	10.4		ug/L		104	80 - 120	1	32
1,2-Dichloroethane	1.0	U	10.0	11.1		ug/L		111	68 - 132	16	32
Trichloroethene	1.0	U	10.0	9.29		ug/L		93	73 - 120	10	35
1,2-Dichloropropane	1.0	U	10.0	11.2		ug/L		112	76 - 124	10	34
Bromodichloromethane	1.0	U	10.0	11.0		ug/L		110	66 - 130	14	35
cis-1,3-Dichloropropene	1.0	U F1	10.0	10.8		ug/L		108	66 - 120	15	35
4-Methyl-2-pentanone (MIBK)	5.0	U	20.0	17.5		ug/L		88	45 - 145	9	35
Toluene	1.0	U	10.0	9.64		ug/L		96	80 - 123	13	35
trans-1,3-Dichloropropene	1.0	U	10.0	10.0		ug/L		100	65 - 125	1	35
1,1,2-Trichloroethane	1.0	U	10.0	10.4		ug/L		104	77 - 127	5	35
Tetrachloroethene	1.0	U F1	10.0	8.96		ug/L		90	70 - 135	26	35
2-Hexanone	5.0	U	20.0	16.2		ug/L		81	25 - 132	10	35
Dibromochloromethane	1.0	U	10.0	9.78		ug/L		98	60 - 140	1	35
1,2-Dibromoethane (EDB)	1.0	U	10.0	10.1		ug/L		101	74 - 123	1	35
Chlorobenzene	1.0	U	10.0	10.1		ug/L		101	80 - 120	2	29
1,1,1,2-Tetrachloroethane	1.0	U	10.0	9.85		ug/L		99	63 - 140	2	34
Ethylbenzene	1.0	U	10.0	9.40		ug/L		94	72 - 126	6	33
Xylenes, Total	3.0	U	20.0	18.9		ug/L		94	76 - 128	1	32
Styrene	1.0	U	10.0	10.0		ug/L		100	71 - 127	5	34
Bromoform	1.0	U	10.0	9.24		ug/L		92	46 - 150	9	35
1,1,2,2-Tetrachloroethane	1.0	U	10.0	9.82		ug/L		98	62 - 125	10	35
Acrylonitrile	20	U	100	114		ug/L		114	30 - 140	19	35
1,4-Dioxane	200	U	200	214		ug/L		107	10 - 160	12	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*108*		*64 - 135*
Toluene-d8 (Surr)	*102*		*71 - 118*
4-Bromofluorobenzene (Surr)	*103*		*70 - 118*
Dibromofluoromethane (Surr)	*100*		*70 - 128*

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

Lab Sample ID: MB 180-143337/4
Matrix: Water
Analysis Batch: 143337

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			05/31/15 09:47	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			05/31/15 09:47	1
Bromomethane	1.0	U	1.0	0.31	ug/L			05/31/15 09:47	1
Chloroethane	1.0	U	1.0	0.21	ug/L			05/31/15 09:47	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			05/31/15 09:47	1
Acetone	5.0	U	5.0	2.5	ug/L			05/31/15 09:47	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			05/31/15 09:47	1
Methylene Chloride	0.405	J	1.0	0.13	ug/L			05/31/15 09:47	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			05/31/15 09:47	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			05/31/15 09:47	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			05/31/15 09:47	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			05/31/15 09:47	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			05/31/15 09:47	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			05/31/15 09:47	1
Chloroform	1.0	U	1.0	0.17	ug/L			05/31/15 09:47	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			05/31/15 09:47	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			05/31/15 09:47	1
Benzene	1.0	U	1.0	0.11	ug/L			05/31/15 09:47	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/31/15 09:47	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			05/31/15 09:47	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			05/31/15 09:47	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			05/31/15 09:47	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			05/31/15 09:47	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			05/31/15 09:47	1
Toluene	1.0	U	1.0	0.15	ug/L			05/31/15 09:47	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			05/31/15 09:47	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/31/15 09:47	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			05/31/15 09:47	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			05/31/15 09:47	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			05/31/15 09:47	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			05/31/15 09:47	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			05/31/15 09:47	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			05/31/15 09:47	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			05/31/15 09:47	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			05/31/15 09:47	1
Styrene	1.0	U	1.0	0.097	ug/L			05/31/15 09:47	1
Bromoform	1.0	U	1.0	0.19	ug/L			05/31/15 09:47	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			05/31/15 09:47	1
Acrylonitrile	20	U	20	0.55	ug/L			05/31/15 09:47	1
1,4-Dioxane	200	U	200	34	ug/L			05/31/15 09:47	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*64 - 135*		*05/31/15 09:47*	*1*
Toluene-d8 (Surr)	*100*		*71 - 118*		*05/31/15 09:47*	*1*
4-Bromofluorobenzene (Surr)	*90*		*70 - 118*		*05/31/15 09:47*	*1*
Dibromofluoromethane (Surr)	*115*		*70 - 128*		*05/31/15 09:47*	*1*

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

Lab Sample ID: LCS 180-143337/7
Matrix: Water
Analysis Batch: 143337

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	10.0	10.0		ug/L		100	50 - 139
Vinyl chloride	10.0	10.6		ug/L		106	53 - 138
Bromomethane	10.0	10.4		ug/L		104	33 - 150
Chloroethane	10.0	11.9		ug/L		119	36 - 142
1,1-Dichloroethene	10.0	10.1		ug/L		101	65 - 136
Acetone	20.0	25.3		ug/L		126	22 - 150
Carbon disulfide	10.0	9.00		ug/L		90	54 - 132
Methylene Chloride	10.0	11.4		ug/L		114	63 - 129
trans-1,2-Dichloroethene	10.0	11.1		ug/L		111	73 - 126
Methyl tert-butyl ether	10.0	7.79		ug/L		78	64 - 123
1,1-Dichloroethane	10.0	9.54		ug/L		95	73 - 126
cis-1,2-Dichloroethene	10.0	9.93		ug/L		99	70 - 120
Bromochloromethane	10.0	11.1		ug/L		111	70 - 127
2-Butanone (MEK)	20.0	24.2		ug/L		121	39 - 138
Chloroform	10.0	10.6		ug/L		106	72 - 127
1,1,1-Trichloroethane	10.0	9.29		ug/L		93	63 - 133
Carbon tetrachloride	10.0	9.32		ug/L		93	55 - 150
Benzene	10.0	10.3		ug/L		103	80 - 120
1,2-Dichloroethane	10.0	10.3		ug/L		103	68 - 132
Trichloroethene	10.0	11.5		ug/L		115	73 - 120
1,2-Dichloropropane	10.0	9.55		ug/L		96	76 - 124
Bromodichloromethane	10.0	8.56		ug/L		86	66 - 130
cis-1,3-Dichloropropene	10.0	7.30		ug/L		73	66 - 120
4-Methyl-2-pentanone (MIBK)	20.0	15.5		ug/L		78	45 - 145
Toluene	10.0	9.80		ug/L		98	80 - 123
trans-1,3-Dichloropropene	10.0	6.60		ug/L		66	65 - 125
1,1,2-Trichloroethane	10.0	9.76		ug/L		98	77 - 127
Tetrachloroethene	10.0	11.4		ug/L		114	70 - 135
2-Hexanone	20.0	17.9		ug/L		89	25 - 132
Dibromochloromethane	10.0	9.10		ug/L		91	60 - 140
1,2-Dibromoethane (EDB)	10.0	9.43		ug/L		94	74 - 123
Chlorobenzene	10.0	10.6		ug/L		106	80 - 120
1,1,1,2-Tetrachloroethane	10.0	10.5		ug/L		105	63 - 140
Ethylbenzene	10.0	10.1		ug/L		101	72 - 126
Xylenes, Total	20.0	19.7		ug/L		98	76 - 128
Styrene	10.0	9.96		ug/L		100	71 - 127
Bromoform	10.0	7.67		ug/L		77	46 - 150
1,1,2,2-Tetrachloroethane	10.0	9.50		ug/L		95	62 - 125
Acrylonitrile	100	89.6		ug/L		90	30 - 140
1,4-Dioxane	200	166	J	ug/L		83	10 - 160

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*64 - 135*
Toluene-d8 (Surr)	*98*		*71 - 118*
4-Bromofluorobenzene (Surr)	*95*		*70 - 118*
Dibromofluoromethane (Surr)	*112*		*70 - 128*

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

Lab Sample ID: 180-44321-24 MS
Matrix: Water
Analysis Batch: 143337

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	1.0	U	10.0	10.3		ug/L		103	50 - 139
Vinyl chloride	1.0	U	10.0	10.7		ug/L		107	53 - 138
Bromomethane	1.0	U	10.0	9.34		ug/L		93	33 - 150
Chloroethane	1.0	U	10.0	11.7		ug/L		117	36 - 142
1,1-Dichloroethene	1.0	U	10.0	10.5		ug/L		105	65 - 136
Acetone	5.0	U	20.0	26.0		ug/L		130	22 - 150
Carbon disulfide	1.0	U	10.0	9.26		ug/L		93	54 - 132
Methylene Chloride	0.58	J B	10.0	11.1		ug/L		105	63 - 129
trans-1,2-Dichloroethene	1.0	U	10.0	11.0		ug/L		110	73 - 126
Methyl tert-butyl ether	1.0	U	10.0	8.33		ug/L		83	64 - 123
1,1-Dichloroethane	1.0	U	10.0	10.3		ug/L		103	73 - 126
cis-1,2-Dichloroethene	6.1		10.0	16.9		ug/L		108	70 - 120
Bromochloromethane	1.0	U	10.0	11.9		ug/L		119	70 - 127
2-Butanone (MEK)	5.0	U	20.0	23.7		ug/L		119	39 - 138
Chloroform	1.0	U	10.0	11.2		ug/L		112	72 - 127
1,1,1-Trichloroethane	1.0	U	10.0	9.98		ug/L		100	63 - 133
Carbon tetrachloride	1.0	U	10.0	9.49		ug/L		95	55 - 150
Benzene	1.0	U	10.0	10.7		ug/L		107	80 - 120
1,2-Dichloroethane	1.0	U	10.0	10.7		ug/L		107	68 - 132
Trichloroethene	2.8	F1	10.0	15.8	F1	ug/L		130	73 - 120
1,2-Dichloropropane	1.0	U	10.0	9.84		ug/L		98	76 - 124
Bromodichloromethane	1.0	U	10.0	9.18		ug/L		92	66 - 130
cis-1,3-Dichloropropene	1.0	U	10.0	7.89		ug/L		79	66 - 120
4-Methyl-2-pentanone (MIBK)	5.0	U	20.0	16.7		ug/L		83	45 - 145
Toluene	1.0	U	10.0	10.2		ug/L		102	80 - 123
trans-1,3-Dichloropropene	1.0	U	10.0	7.38		ug/L		74	65 - 125
1,1,2-Trichloroethane	1.0	U	10.0	9.81		ug/L		98	77 - 127
Tetrachloroethene	1.9		10.0	14.2		ug/L		123	70 - 135
2-Hexanone	5.0	U	20.0	18.3		ug/L		91	25 - 132
Dibromochloromethane	1.0	U	10.0	9.62		ug/L		96	60 - 140
1,2-Dibromoethane (EDB)	1.0	U	10.0	9.85		ug/L		98	74 - 123
Chlorobenzene	1.0	U	10.0	11.0		ug/L		110	80 - 120
1,1,1,2-Tetrachloroethane	1.0	U	10.0	11.0		ug/L		110	63 - 140
Ethylbenzene	1.0	U	10.0	10.9		ug/L		109	72 - 126
Xylenes, Total	3.0	U	20.0	21.2		ug/L		106	76 - 128
Styrene	1.0	U	10.0	10.5		ug/L		105	71 - 127
Bromoform	1.0	U	10.0	8.02		ug/L		80	46 - 150
1,1,2,2-Tetrachloroethane	1.0	U	10.0	9.89		ug/L		99	62 - 125
Acrylonitrile	20	U	100	93.0		ug/L		93	30 - 140
1,4-Dioxane	200	U	200	188	J	ug/L		94	10 - 160

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*101*		*64 - 135*
Toluene-d8 (Surr)	*100*		*71 - 118*
4-Bromofluorobenzene (Surr)	*100*		*70 - 118*
Dibromofluoromethane (Surr)	*114*		*70 - 128*

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

Lab Sample ID: 180-44321-24 MSD
Matrix: Water
Analysis Batch: 143337

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloromethane	1.0	U	10.0	11.0		ug/L		110	50 - 139	6	35
Vinyl chloride	1.0	U	10.0	11.2		ug/L		112	53 - 138	5	35
Bromomethane	1.0	U	10.0	10.3		ug/L		103	33 - 150	10	35
Chloroethane	1.0	U	10.0	11.9		ug/L		119	36 - 142	2	35
1,1-Dichloroethene	1.0	U	10.0	10.8		ug/L		108	65 - 136	3	35
Acetone	5.0	U	20.0	23.6		ug/L		118	22 - 150	10	35
Carbon disulfide	1.0	U	10.0	9.37		ug/L		94	54 - 132	1	35
Methylene Chloride	0.58	J B	10.0	11.3		ug/L		107	63 - 129	2	35
trans-1,2-Dichloroethene	1.0	U	10.0	11.1		ug/L		111	73 - 126	1	35
Methyl tert-butyl ether	1.0	U	10.0	8.31		ug/L		83	64 - 123	0	35
1,1-Dichloroethane	1.0	U	10.0	10.4		ug/L		104	73 - 126	1	35
cis-1,2-Dichloroethene	6.1		10.0	17.1		ug/L		109	70 - 120	1	35
Bromochloromethane	1.0	U	10.0	11.7		ug/L		117	70 - 127	2	35
2-Butanone (MEK)	5.0	U	20.0	24.9		ug/L		125	39 - 138	5	35
Chloroform	1.0	U	10.0	11.1		ug/L		111	72 - 127	1	35
1,1,1-Trichloroethane	1.0	U	10.0	9.91		ug/L		99	63 - 133	1	35
Carbon tetrachloride	1.0	U	10.0	9.20		ug/L		92	55 - 150	3	35
Benzene	1.0	U	10.0	10.6		ug/L		106	80 - 120	1	32
1,2-Dichloroethane	1.0	U	10.0	10.5		ug/L		105	68 - 132	1	32
Trichloroethene	2.8	F1	10.0	15.0	F1	ug/L		122	73 - 120	5	35
1,2-Dichloropropane	1.0	U	10.0	9.90		ug/L		99	76 - 124	1	34
Bromodichloromethane	1.0	U	10.0	8.85		ug/L		89	66 - 130	4	35
cis-1,3-Dichloropropene	1.0	U	10.0	7.63		ug/L		76	66 - 120	3	35
4-Methyl-2-pentanone (MIBK)	5.0	U	20.0	16.3		ug/L		81	45 - 145	2	35
Toluene	1.0	U	10.0	10.3		ug/L		103	80 - 123	1	35
trans-1,3-Dichloropropene	1.0	U	10.0	7.06		ug/L		71	65 - 125	4	35
1,1,2-Trichloroethane	1.0	U	10.0	9.91		ug/L		99	77 - 127	1	35
Tetrachloroethene	1.9		10.0	14.1		ug/L		121	70 - 135	1	35
2-Hexanone	5.0	U	20.0	18.3		ug/L		91	25 - 132	0	35
Dibromochloromethane	1.0	U	10.0	9.07		ug/L		91	60 - 140	6	35
1,2-Dibromoethane (EDB)	1.0	U	10.0	9.78		ug/L		98	74 - 123	1	35
Chlorobenzene	1.0	U	10.0	11.0		ug/L		110	80 - 120	0	29
1,1,1,2-Tetrachloroethane	1.0	U	10.0	10.8		ug/L		108	63 - 140	2	34
Ethylbenzene	1.0	U	10.0	10.3		ug/L		103	72 - 126	6	33
Xylenes, Total	3.0	U	20.0	20.3		ug/L		102	76 - 128	4	32
Styrene	1.0	U	10.0	10.3		ug/L		103	71 - 127	1	34
Bromoform	1.0	U	10.0	7.75		ug/L		77	46 - 150	3	35
1,1,2,2-Tetrachloroethane	1.0	U	10.0	9.82		ug/L		98	62 - 125	1	35
Acrylonitrile	20	U	100	97.9		ug/L		98	30 - 140	5	35
1,4-Dioxane	200	U	200	216		ug/L		108	10 - 160	14	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*97*		*64 - 135*
Toluene-d8 (Surr)	*99*		*71 - 118*
4-Bromofluorobenzene (Surr)	*96*		*70 - 118*
Dibromofluoromethane (Surr)	*117*		*70 - 128*

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

Lab Sample ID: MB 180-143339/7
Matrix: Water
Analysis Batch: 143339

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			05/31/15 14:05	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			05/31/15 14:05	1
Bromomethane	1.0	U	1.0	0.31	ug/L			05/31/15 14:05	1
Chloroethane	1.0	U	1.0	0.21	ug/L			05/31/15 14:05	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			05/31/15 14:05	1
Acetone	5.0	U	5.0	2.5	ug/L			05/31/15 14:05	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			05/31/15 14:05	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			05/31/15 14:05	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			05/31/15 14:05	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			05/31/15 14:05	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			05/31/15 14:05	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			05/31/15 14:05	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			05/31/15 14:05	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			05/31/15 14:05	1
Chloroform	1.0	U	1.0	0.17	ug/L			05/31/15 14:05	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			05/31/15 14:05	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			05/31/15 14:05	1
Benzene	1.0	U	1.0	0.11	ug/L			05/31/15 14:05	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			05/31/15 14:05	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			05/31/15 14:05	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			05/31/15 14:05	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			05/31/15 14:05	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			05/31/15 14:05	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			05/31/15 14:05	1
Toluene	1.0	U	1.0	0.15	ug/L			05/31/15 14:05	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			05/31/15 14:05	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			05/31/15 14:05	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			05/31/15 14:05	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			05/31/15 14:05	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			05/31/15 14:05	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			05/31/15 14:05	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			05/31/15 14:05	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			05/31/15 14:05	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			05/31/15 14:05	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			05/31/15 14:05	1
Styrene	1.0	U	1.0	0.097	ug/L			05/31/15 14:05	1
Bromoform	1.0	U	1.0	0.19	ug/L			05/31/15 14:05	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			05/31/15 14:05	1
Acrylonitrile	20	U	20	0.55	ug/L			05/31/15 14:05	1
1,4-Dioxane	200	U	200	34	ug/L			05/31/15 14:05	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*64 - 135*		*05/31/15 14:05*	*1*
Toluene-d8 (Surr)	*114*		*71 - 118*		*05/31/15 14:05*	*1*
4-Bromofluorobenzene (Surr)	*101*		*70 - 118*		*05/31/15 14:05*	*1*
Dibromofluoromethane (Surr)	*106*		*70 - 128*		*05/31/15 14:05*	*1*

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

Lab Sample ID: LCS 180-143339/11
Matrix: Water
Analysis Batch: 143339

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	6.65		ug/L		66	50 - 139
Vinyl chloride	10.0	6.00		ug/L		60	53 - 138
Bromomethane	10.0	7.09		ug/L		71	33 - 150
Chloroethane	10.0	5.05		ug/L		50	36 - 142
1,1-Dichloroethene	10.0	10.0		ug/L		100	65 - 136
Acetone	20.0	24.6		ug/L		123	22 - 150
Carbon disulfide	10.0	12.5		ug/L		125	54 - 132
Methylene Chloride	10.0	11.4		ug/L		114	63 - 129
trans-1,2-Dichloroethene	10.0	9.68		ug/L		97	73 - 126
Methyl tert-butyl ether	10.0	10.9		ug/L		109	64 - 123
1,1-Dichloroethane	10.0	11.3		ug/L		113	73 - 126
cis-1,2-Dichloroethene	10.0	11.2		ug/L		112	70 - 120
Bromochloromethane	10.0	9.98		ug/L		100	70 - 127
2-Butanone (MEK)	20.0	18.4		ug/L		92	39 - 138
Chloroform	10.0	11.2		ug/L		112	72 - 127
1,1,1-Trichloroethane	10.0	10.1		ug/L		101	63 - 133
Carbon tetrachloride	10.0	9.44		ug/L		94	55 - 150
Benzene	10.0	10.4		ug/L		104	80 - 120
1,2-Dichloroethane	10.0	10.5		ug/L		105	68 - 132
Trichloroethene	10.0	9.31		ug/L		93	73 - 120
1,2-Dichloropropane	10.0	10.9		ug/L		109	76 - 124
Bromodichloromethane	10.0	10.8		ug/L		108	66 - 130
cis-1,3-Dichloropropene	10.0	10.5		ug/L		105	66 - 120
4-Methyl-2-pentanone (MIBK)	20.0	19.2		ug/L		96	45 - 145
Toluene	10.0	10.3		ug/L		103	80 - 123
trans-1,3-Dichloropropene	10.0	9.93		ug/L		99	65 - 125
1,1,2-Trichloroethane	10.0	9.94		ug/L		99	77 - 127
Tetrachloroethene	10.0	8.16		ug/L		82	70 - 135
2-Hexanone	20.0	22.1		ug/L		111	25 - 132
Dibromochloromethane	10.0	9.53		ug/L		95	60 - 140
1,2-Dibromoethane (EDB)	10.0	9.98		ug/L		100	74 - 123
Chlorobenzene	10.0	10.2		ug/L		102	80 - 120
1,1,1,2-Tetrachloroethane	10.0	10.0		ug/L		100	63 - 140
Ethylbenzene	10.0	8.77		ug/L		88	72 - 126
Xylenes, Total	20.0	17.5		ug/L		88	76 - 128
Styrene	10.0	10.0		ug/L		100	71 - 127
Bromoform	10.0	9.49		ug/L		95	46 - 150
1,1,2,2-Tetrachloroethane	10.0	9.35		ug/L		93	62 - 125
Acrylonitrile	100	92.4		ug/L		92	30 - 140
1,4-Dioxane	200	135	J	ug/L		68	10 - 160

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*103*		*64 - 135*
Toluene-d8 (Surr)	*103*		*71 - 118*
4-Bromofluorobenzene (Surr)	*96*		*70 - 118*
Dibromofluoromethane (Surr)	*104*		*70 - 128*

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

Lab Sample ID: 180-44321-15 MS
Matrix: Water
Analysis Batch: 143339

Client Sample ID: HD-COD-SW-28-0/1-0
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	6.60		ug/L		66	50 - 139
Vinyl chloride	1.0	U	10.0	6.04		ug/L		60	53 - 138
Bromomethane	1.0	U	10.0	7.18		ug/L		72	33 - 150
Chloroethane	1.0	U	10.0	5.59		ug/L		56	36 - 142
1,1-Dichloroethene	1.0	U	10.0	10.2		ug/L		102	65 - 136
Acetone	5.0	U	20.0	27.1		ug/L		135	22 - 150
Carbon disulfide	1.0	U	10.0	9.98		ug/L		100	54 - 132
Methylene Chloride	1.0	U	10.0	11.4		ug/L		114	63 - 129
trans-1,2-Dichloroethene	1.0	U	10.0	9.78		ug/L		98	73 - 126
Methyl tert-butyl ether	1.0	U	10.0	11.4		ug/L		114	64 - 123
1,1-Dichloroethane	1.0	U	10.0	11.2		ug/L		112	73 - 126
cis-1,2-Dichloroethene	1.0	U	10.0	11.0		ug/L		110	70 - 120
Bromochloromethane	1.0	U	10.0	9.93		ug/L		99	70 - 127
2-Butanone (MEK)	5.0	U	20.0	18.4		ug/L		92	39 - 138
Chloroform	1.0	U	10.0	10.9		ug/L		109	72 - 127
1,1,1-Trichloroethane	1.0	U	10.0	10.4		ug/L		104	63 - 133
Carbon tetrachloride	1.0	U	10.0	9.79		ug/L		98	55 - 150
Benzene	1.0	U	10.0	10.2		ug/L		102	80 - 120
1,2-Dichloroethane	1.0	U	10.0	10.5		ug/L		105	68 - 132
Trichloroethene	1.0	U	10.0	9.56		ug/L		96	73 - 120
1,2-Dichloropropane	1.0	U	10.0	11.3		ug/L		113	76 - 124
Bromodichloromethane	1.0	U	10.0	10.7		ug/L		107	66 - 130
cis-1,3-Dichloropropene	1.0	U	10.0	10.6		ug/L		106	66 - 120
4-Methyl-2-pentanone (MIBK)	5.0	U	20.0	20.0		ug/L		100	45 - 145
Toluene	1.0	U	10.0	10.6		ug/L		106	80 - 123
trans-1,3-Dichloropropene	1.0	U	10.0	9.95		ug/L		100	65 - 125
1,1,2-Trichloroethane	1.0	U	10.0	10.3		ug/L		103	77 - 127
Tetrachloroethene	1.0	U	10.0	8.59		ug/L		86	70 - 135
2-Hexanone	5.0	U	20.0	22.8		ug/L		114	25 - 132
Dibromochloromethane	1.0	U	10.0	10.1		ug/L		101	60 - 140
1,2-Dibromoethane (EDB)	1.0	U	10.0	10.4		ug/L		104	74 - 123
Chlorobenzene	1.0	U	10.0	10.6		ug/L		106	80 - 120
1,1,1,2-Tetrachloroethane	1.0	U	10.0	10.6		ug/L		106	63 - 140
Ethylbenzene	1.0	U	10.0	9.34		ug/L		93	72 - 126
Xylenes, Total	3.0	U	20.0	18.2		ug/L		91	76 - 128
Styrene	1.0	U	10.0	10.4		ug/L		104	71 - 127
Bromoform	1.0	U	10.0	9.67		ug/L		97	46 - 150
1,1,2,2-Tetrachloroethane	1.0	U	10.0	9.86		ug/L		99	62 - 125
Acrylonitrile	20	U	100	96.2		ug/L		96	30 - 140
1,4-Dioxane	200	U	200	163	J	ug/L		82	10 - 160

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*64 - 135*
Toluene-d8 (Surr)	*108*		*71 - 118*
4-Bromofluorobenzene (Surr)	*98*		*70 - 118*
Dibromofluoromethane (Surr)	*97*		*70 - 128*

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

Lab Sample ID: 180-44321-15 MSD
Matrix: Water
Analysis Batch: 143339

Client Sample ID: HD-COD-SW-28-0/1-0
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	6.23		ug/L		62	50 - 139	6	35
Vinyl chloride	1.0	U	10.0	5.75		ug/L		58	53 - 138	5	35
Bromomethane	1.0	U	10.0	6.89		ug/L		69	33 - 150	4	35
Chloroethane	1.0	U	10.0	5.74		ug/L		57	36 - 142	3	35
1,1-Dichloroethene	1.0	U	10.0	10.2		ug/L		102	65 - 136	1	35
Acetone	5.0	U	20.0	27.9		ug/L		139	22 - 150	3	35
Carbon disulfide	1.0	U	10.0	10.3		ug/L		103	54 - 132	3	35
Methylene Chloride	1.0	U	10.0	11.4		ug/L		114	63 - 129	0	35
trans-1,2-Dichloroethene	1.0	U	10.0	9.81		ug/L		98	73 - 126	0	35
Methyl tert-butyl ether	1.0	U	10.0	11.0		ug/L		110	64 - 123	3	35
1,1-Dichloroethane	1.0	U	10.0	11.6		ug/L		116	73 - 126	3	35
cis-1,2-Dichloroethene	1.0	U	10.0	11.3		ug/L		113	70 - 120	2	35
Bromochloromethane	1.0	U	10.0	10.2		ug/L		102	70 - 127	3	35
2-Butanone (MEK)	5.0	U	20.0	19.2		ug/L		96	39 - 138	5	35
Chloroform	1.0	U	10.0	11.0		ug/L		110	72 - 127	1	35
1,1,1-Trichloroethane	1.0	U	10.0	10.4		ug/L		104	63 - 133	1	35
Carbon tetrachloride	1.0	U	10.0	9.82		ug/L		98	55 - 150	0	35
Benzene	1.0	U	10.0	10.6		ug/L		106	80 - 120	4	32
1,2-Dichloroethane	1.0	U	10.0	10.9		ug/L		109	68 - 132	3	32
Trichloroethene	1.0	U	10.0	9.71		ug/L		97	73 - 120	1	35
1,2-Dichloropropane	1.0	U	10.0	11.6		ug/L		116	76 - 124	3	34
Bromodichloromethane	1.0	U	10.0	11.3		ug/L		113	66 - 130	5	35
cis-1,3-Dichloropropene	1.0	U	10.0	11.1		ug/L		111	66 - 120	5	35
4-Methyl-2-pentanone (MIBK)	5.0	U	20.0	20.1		ug/L		100	45 - 145	0	35
Toluene	1.0	U	10.0	10.6		ug/L		106	80 - 123	0	35
trans-1,3-Dichloropropene	1.0	U	10.0	10.5		ug/L		105	65 - 125	6	35
1,1,2-Trichloroethane	1.0	U	10.0	10.4		ug/L		104	77 - 127	1	35
Tetrachloroethene	1.0	U	10.0	8.42		ug/L		84	70 - 135	2	35
2-Hexanone	5.0	U	20.0	23.5		ug/L		118	25 - 132	3	35
Dibromochloromethane	1.0	U	10.0	10.3		ug/L		103	60 - 140	2	35
1,2-Dibromoethane (EDB)	1.0	U	10.0	10.6		ug/L		106	74 - 123	2	35
Chlorobenzene	1.0	U	10.0	10.4		ug/L		104	80 - 120	2	29
1,1,1,2-Tetrachloroethane	1.0	U	10.0	10.2		ug/L		102	63 - 140	3	34
Ethylbenzene	1.0	U	10.0	9.32		ug/L		93	72 - 126	0	33
Xylenes, Total	3.0	U	20.0	18.3		ug/L		92	76 - 128	1	32
Styrene	1.0	U	10.0	10.3		ug/L		103	71 - 127	1	34
Bromoform	1.0	U	10.0	9.58		ug/L		96	46 - 150	1	35
1,1,2,2-Tetrachloroethane	1.0	U	10.0	9.58		ug/L		96	62 - 125	3	35
Acrylonitrile	20	U	100	96.2		ug/L		96	30 - 140	0	35
1,4-Dioxane	200	U	200	183	J	ug/L		92	10 - 160	12	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*104*		*64 - 135*
Toluene-d8 (Surr)	*106*		*71 - 118*
4-Bromofluorobenzene (Surr)	*97*		*70 - 118*
Dibromofluoromethane (Surr)	*99*		*70 - 128*

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

Lab Sample ID: MB 180-143422/6
Matrix: Water
Analysis Batch: 143422

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			06/01/15 12:21	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			06/01/15 12:21	1
Bromomethane	1.0	U	1.0	0.31	ug/L			06/01/15 12:21	1
Chloroethane	1.0	U	1.0	0.21	ug/L			06/01/15 12:21	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			06/01/15 12:21	1
Acetone	5.0	U	5.0	2.5	ug/L			06/01/15 12:21	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			06/01/15 12:21	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			06/01/15 12:21	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			06/01/15 12:21	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			06/01/15 12:21	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			06/01/15 12:21	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			06/01/15 12:21	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			06/01/15 12:21	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			06/01/15 12:21	1
Chloroform	1.0	U	1.0	0.17	ug/L			06/01/15 12:21	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			06/01/15 12:21	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			06/01/15 12:21	1
Benzene	1.0	U	1.0	0.11	ug/L			06/01/15 12:21	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			06/01/15 12:21	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			06/01/15 12:21	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			06/01/15 12:21	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			06/01/15 12:21	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			06/01/15 12:21	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			06/01/15 12:21	1
Toluene	1.0	U	1.0	0.15	ug/L			06/01/15 12:21	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			06/01/15 12:21	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			06/01/15 12:21	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			06/01/15 12:21	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			06/01/15 12:21	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			06/01/15 12:21	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			06/01/15 12:21	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			06/01/15 12:21	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			06/01/15 12:21	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			06/01/15 12:21	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			06/01/15 12:21	1
Styrene	1.0	U	1.0	0.097	ug/L			06/01/15 12:21	1
Bromoform	1.0	U	1.0	0.19	ug/L			06/01/15 12:21	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			06/01/15 12:21	1
Acrylonitrile	20	U	20	0.55	ug/L			06/01/15 12:21	1
1,4-Dioxane	200	U	200	34	ug/L			06/01/15 12:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*64 - 135*		*06/01/15 12:21*	*1*
Toluene-d8 (Surr)	*110*		*71 - 118*		*06/01/15 12:21*	*1*
4-Bromofluorobenzene (Surr)	*94*		*70 - 118*		*06/01/15 12:21*	*1*
Dibromofluoromethane (Surr)	*101*		*70 - 128*		*06/01/15 12:21*	*1*

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

Lab Sample ID: LCS 180-143422/8
Matrix: Water
Analysis Batch: 143422

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	4.93	*	ug/L		49	50 - 139
Vinyl chloride	10.0	5.37		ug/L		54	53 - 138
Bromomethane	10.0	6.93		ug/L		69	33 - 150
Chloroethane	10.0	5.69		ug/L		57	36 - 142
1,1-Dichloroethene	10.0	9.34		ug/L		93	65 - 136
Acetone	20.0	21.8		ug/L		109	22 - 150
Carbon disulfide	10.0	11.4		ug/L		114	54 - 132
Methylene Chloride	10.0	11.7		ug/L		117	63 - 129
trans-1,2-Dichloroethene	10.0	9.80		ug/L		98	73 - 126
Methyl tert-butyl ether	10.0	11.7		ug/L		117	64 - 123
1,1-Dichloroethane	10.0	11.0		ug/L		110	73 - 126
cis-1,2-Dichloroethene	10.0	10.7		ug/L		107	70 - 120
Bromochloromethane	10.0	10.0		ug/L		100	70 - 127
2-Butanone (MEK)	20.0	16.4		ug/L		82	39 - 138
Chloroform	10.0	11.0		ug/L		110	72 - 127
1,1,1-Trichloroethane	10.0	11.1		ug/L		111	63 - 133
Carbon tetrachloride	10.0	9.96		ug/L		100	55 - 150
Benzene	10.0	9.00		ug/L		90	80 - 120
1,2-Dichloroethane	10.0	10.3		ug/L		103	68 - 132
Trichloroethene	10.0	8.52		ug/L		85	73 - 120
1,2-Dichloropropane	10.0	10.4		ug/L		104	76 - 124
Bromodichloromethane	10.0	11.0		ug/L		110	66 - 130
cis-1,3-Dichloropropene	10.0	9.86		ug/L		99	66 - 120
4-Methyl-2-pentanone (MIBK)	20.0	19.3		ug/L		97	45 - 145
Toluene	10.0	9.83		ug/L		98	80 - 123
trans-1,3-Dichloropropene	10.0	9.64		ug/L		96	65 - 125
1,1,2-Trichloroethane	10.0	10.9		ug/L		109	77 - 127
Tetrachloroethene	10.0	8.73		ug/L		87	70 - 135
2-Hexanone	20.0	20.7		ug/L		104	25 - 132
Dibromochloromethane	10.0	10.2		ug/L		102	60 - 140
1,2-Dibromoethane (EDB)	10.0	10.3		ug/L		103	74 - 123
Chlorobenzene	10.0	10.5		ug/L		105	80 - 120
1,1,1,2-Tetrachloroethane	10.0	10.8		ug/L		108	63 - 140
Ethylbenzene	10.0	9.31		ug/L		93	72 - 126
Xylenes, Total	20.0	18.9		ug/L		95	76 - 128
Styrene	10.0	10.3		ug/L		103	71 - 127
Bromoform	10.0	9.71		ug/L		97	46 - 150
1,1,2,2-Tetrachloroethane	10.0	9.82		ug/L		98	62 - 125
Acrylonitrile	100	105		ug/L		105	30 - 140
1,4-Dioxane	200	179	J	ug/L		90	10 - 160

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*64 - 135*
Toluene-d8 (Surr)	*112*		*71 - 118*
4-Bromofluorobenzene (Surr)	*108*		*70 - 118*
Dibromofluoromethane (Surr)	*103*		*70 - 128*

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

Lab Sample ID: 180-44321-18 MS
Matrix: Water
Analysis Batch: 143422

Client Sample ID: HD-QC2-0/1-1
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	7.13		ug/L		71	50 - 139
Vinyl chloride	1.0	U	10.0	7.27		ug/L		73	53 - 138
Bromomethane	1.0	U	10.0	7.92		ug/L		79	33 - 150
Chloroethane	1.0	U	10.0	6.84		ug/L		68	36 - 142
1,1-Dichloroethene	1.0	U F1	10.0	13.6		ug/L		136	65 - 136
Acetone	5.0	U F1	20.0	26.6		ug/L		133	22 - 150
Carbon disulfide	1.0	U F1	10.0	13.2		ug/L		132	54 - 132
Methylene Chloride	1.0	U	10.0	12.4		ug/L		124	63 - 129
trans-1,2-Dichloroethene	1.0	U	10.0	11.6		ug/L		116	73 - 126
Methyl tert-butyl ether	1.0	U F1	10.0	11.6		ug/L		116	64 - 123
1,1-Dichloroethane	1.0	U F1	10.0	13.2	F1	ug/L		132	73 - 126
cis-1,2-Dichloroethene	1.4		10.0	12.8		ug/L		115	70 - 120
Bromochloromethane	1.0	U	10.0	10.6		ug/L		106	70 - 127
2-Butanone (MEK)	5.0	U	20.0	18.7		ug/L		93	39 - 138
Chloroform	1.0	U	10.0	12.6		ug/L		126	72 - 127
1,1,1-Trichloroethane	1.0	U F1	10.0	13.5	F1	ug/L		135	63 - 133
Carbon tetrachloride	1.0	U	10.0	13.2		ug/L		132	55 - 150
Benzene	1.0	U	10.0	11.7		ug/L		117	80 - 120
1,2-Dichloroethane	1.0	U	10.0	11.3		ug/L		113	68 - 132
Trichloroethene	1.1		10.0	11.0		ug/L		99	73 - 120
1,2-Dichloropropane	1.0	U	10.0	11.8		ug/L		118	76 - 124
Bromodichloromethane	1.0	U	10.0	11.9		ug/L		119	66 - 130
cis-1,3-Dichloropropene	1.0	U	10.0	11.5		ug/L		115	66 - 120
4-Methyl-2-pentanone (MIBK)	5.0	U	20.0	19.5		ug/L		97	45 - 145
Toluene	1.0	U	10.0	12.0		ug/L		120	80 - 123
trans-1,3-Dichloropropene	1.0	U	10.0	10.9		ug/L		109	65 - 125
1,1,2-Trichloroethane	1.0	U	10.0	10.5		ug/L		105	77 - 127
Tetrachloroethene	1.6		10.0	12.3		ug/L		107	70 - 135
2-Hexanone	5.0	U	20.0	24.1		ug/L		121	25 - 132
Dibromochloromethane	1.0	U	10.0	10.5		ug/L		105	60 - 140
1,2-Dibromoethane (EDB)	1.0	U	10.0	10.3		ug/L		103	74 - 123
Chlorobenzene	1.0	U	10.0	11.5		ug/L		115	80 - 120
1,1,1,2-Tetrachloroethane	1.0	U	10.0	11.2		ug/L		112	63 - 140
Ethylbenzene	1.0	U	10.0	11.2		ug/L		112	72 - 126
Xylenes, Total	3.0	U	20.0	22.2		ug/L		111	76 - 128
Styrene	1.0	U	10.0	11.8		ug/L		118	71 - 127
Bromoform	1.0	U	10.0	9.47		ug/L		95	46 - 150
1,1,2,2-Tetrachloroethane	1.0	U	10.0	9.59		ug/L		96	62 - 125
Acrylonitrile	20	U	100	96.6		ug/L		97	30 - 140
1,4-Dioxane	200	U	200	188	J	ug/L		94	10 - 160

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*96*		*64 - 135*
Toluene-d8 (Surr)	*112*		*71 - 118*
4-Bromofluorobenzene (Surr)	*105*		*70 - 118*
Dibromofluoromethane (Surr)	*100*		*70 - 128*

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

Lab Sample ID: 180-44321-18 MSD
Matrix: Water
Analysis Batch: 143422

Client Sample ID: HD-QC2-0/1-1
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	7.06		ug/L		71	50 - 139	1	35
Vinyl chloride	1.0	U	10.0	7.00		ug/L		70	53 - 138	4	35
Bromomethane	1.0	U	10.0	7.89		ug/L		79	33 - 150	0	35
Chloroethane	1.0	U	10.0	5.71		ug/L		57	36 - 142	18	35
1,1-Dichloroethene	1.0	U F1	10.0	13.7	F1	ug/L		137	65 - 136	1	35
Acetone	5.0	U F1	20.0	31.5	F1	ug/L		158	22 - 150	17	35
Carbon disulfide	1.0	U F1	10.0	13.7	F1	ug/L		137	54 - 132	4	35
Methylene Chloride	1.0	U	10.0	12.9		ug/L		129	63 - 129	3	35
trans-1,2-Dichloroethene	1.0	U	10.0	11.7		ug/L		117	73 - 126	0	35
Methyl tert-butyl ether	1.0	U F1	10.0	12.6	F1	ug/L		126	64 - 123	8	35
1,1-Dichloroethane	1.0	U F1	10.0	12.8	F1	ug/L		128	73 - 126	3	35
cis-1,2-Dichloroethene	1.4		10.0	12.2		ug/L		108	70 - 120	5	35
Bromochloromethane	1.0	U	10.0	11.1		ug/L		111	70 - 127	4	35
2-Butanone (MEK)	5.0	U	20.0	19.6		ug/L		98	39 - 138	5	35
Chloroform	1.0	U	10.0	12.4		ug/L		124	72 - 127	1	35
1,1,1-Trichloroethane	1.0	U F1	10.0	13.8	F1	ug/L		138	63 - 133	3	35
Carbon tetrachloride	1.0	U	10.0	13.1		ug/L		131	55 - 150	1	35
Benzene	1.0	U	10.0	11.3		ug/L		113	80 - 120	3	32
1,2-Dichloroethane	1.0	U	10.0	11.5		ug/L		115	68 - 132	1	32
Trichloroethene	1.1		10.0	9.66		ug/L		86	73 - 120	13	35
1,2-Dichloropropane	1.0	U	10.0	11.2		ug/L		112	76 - 124	5	34
Bromodichloromethane	1.0	U	10.0	11.6		ug/L		116	66 - 130	2	35
cis-1,3-Dichloropropene	1.0	U	10.0	11.0		ug/L		110	66 - 120	4	35
4-Methyl-2-pentanone (MIBK)	5.0	U	20.0	18.9		ug/L		95	45 - 145	3	35
Toluene	1.0	U	10.0	11.2		ug/L		112	80 - 123	7	35
trans-1,3-Dichloropropene	1.0	U	10.0	10.6		ug/L		106	65 - 125	3	35
1,1,2-Trichloroethane	1.0	U	10.0	10.7		ug/L		107	77 - 127	2	35
Tetrachloroethene	1.6		10.0	11.5		ug/L		99	70 - 135	7	35
2-Hexanone	5.0	U	20.0	23.3		ug/L		116	25 - 132	4	35
Dibromochloromethane	1.0	U	10.0	10.3		ug/L		103	60 - 140	1	35
1,2-Dibromoethane (EDB)	1.0	U	10.0	10.1		ug/L		101	74 - 123	1	35
Chlorobenzene	1.0	U	10.0	11.1		ug/L		111	80 - 120	3	29
1,1,1,2-Tetrachloroethane	1.0	U	10.0	11.1		ug/L		111	63 - 140	0	34
Ethylbenzene	1.0	U	10.0	10.7		ug/L		107	72 - 126	5	33
Xylenes, Total	3.0	U	20.0	21.2		ug/L		106	76 - 128	5	32
Styrene	1.0	U	10.0	11.2		ug/L		112	71 - 127	5	34
Bromoform	1.0	U	10.0	9.40		ug/L		94	46 - 150	1	35
1,1,2,2-Tetrachloroethane	1.0	U	10.0	9.64		ug/L		96	62 - 125	0	35
Acrylonitrile	20	U	100	106		ug/L		106	30 - 140	10	35
1,4-Dioxane	200	U	200	213		ug/L		106	10 - 160	12	35

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*64 - 135*
Toluene-d8 (Surr)	*112*		*71 - 118*
4-Bromofluorobenzene (Surr)	*105*		*70 - 118*
Dibromofluoromethane (Surr)	*100*		*70 - 128*

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

Lab Sample ID: MB 180-143527/7
Matrix: Water
Analysis Batch: 143527

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			06/02/15 13:18	1
Vinyl chloride	1.0	U	1.0	0.23	ug/L			06/02/15 13:18	1
Bromomethane	1.0	U	1.0	0.31	ug/L			06/02/15 13:18	1
Chloroethane	1.0	U	1.0	0.21	ug/L			06/02/15 13:18	1
1,1-Dichloroethene	1.0	U	1.0	0.30	ug/L			06/02/15 13:18	1
Acetone	5.0	U	5.0	2.5	ug/L			06/02/15 13:18	1
Carbon disulfide	1.0	U	1.0	0.21	ug/L			06/02/15 13:18	1
Methylene Chloride	1.0	U	1.0	0.13	ug/L			06/02/15 13:18	1
trans-1,2-Dichloroethene	1.0	U	1.0	0.17	ug/L			06/02/15 13:18	1
Methyl tert-butyl ether	1.0	U	1.0	0.18	ug/L			06/02/15 13:18	1
1,1-Dichloroethane	1.0	U	1.0	0.12	ug/L			06/02/15 13:18	1
cis-1,2-Dichloroethene	1.0	U	1.0	0.24	ug/L			06/02/15 13:18	1
Bromochloromethane	1.0	U	1.0	0.18	ug/L			06/02/15 13:18	1
2-Butanone (MEK)	5.0	U	5.0	0.55	ug/L			06/02/15 13:18	1
Chloroform	1.0	U	1.0	0.17	ug/L			06/02/15 13:18	1
1,1,1-Trichloroethane	1.0	U	1.0	0.29	ug/L			06/02/15 13:18	1
Carbon tetrachloride	1.0	U	1.0	0.14	ug/L			06/02/15 13:18	1
Benzene	1.0	U	1.0	0.11	ug/L			06/02/15 13:18	1
1,2-Dichloroethane	1.0	U	1.0	0.21	ug/L			06/02/15 13:18	1
Trichloroethene	1.0	U	1.0	0.14	ug/L			06/02/15 13:18	1
1,2-Dichloropropane	1.0	U	1.0	0.095	ug/L			06/02/15 13:18	1
Bromodichloromethane	1.0	U	1.0	0.13	ug/L			06/02/15 13:18	1
cis-1,3-Dichloropropene	1.0	U	1.0	0.19	ug/L			06/02/15 13:18	1
4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53	ug/L			06/02/15 13:18	1
Toluene	1.0	U	1.0	0.15	ug/L			06/02/15 13:18	1
trans-1,3-Dichloropropene	1.0	U	1.0	0.15	ug/L			06/02/15 13:18	1
1,1,2-Trichloroethane	1.0	U	1.0	0.20	ug/L			06/02/15 13:18	1
Tetrachloroethene	1.0	U	1.0	0.15	ug/L			06/02/15 13:18	1
2-Hexanone	5.0	U	5.0	0.16	ug/L			06/02/15 13:18	1
Dibromochloromethane	1.0	U	1.0	0.14	ug/L			06/02/15 13:18	1
1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18	ug/L			06/02/15 13:18	1
Chlorobenzene	1.0	U	1.0	0.14	ug/L			06/02/15 13:18	1
1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28	ug/L			06/02/15 13:18	1
Ethylbenzene	1.0	U	1.0	0.23	ug/L			06/02/15 13:18	1
Xylenes, Total	3.0	U	3.0	0.49	ug/L			06/02/15 13:18	1
Styrene	1.0	U	1.0	0.097	ug/L			06/02/15 13:18	1
Bromoform	1.0	U	1.0	0.19	ug/L			06/02/15 13:18	1
1,1,2,2-Tetrachloroethane	1.0	U	1.0	0.20	ug/L			06/02/15 13:18	1
Acrylonitrile	20	U	20	0.55	ug/L			06/02/15 13:18	1
1,4-Dioxane	200	U	200	34	ug/L			06/02/15 13:18	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*94*		*64 - 135*		*06/02/15 13:18*	*1*
Toluene-d8 (Surr)	*109*		*71 - 118*		*06/02/15 13:18*	*1*
4-Bromofluorobenzene (Surr)	*103*		*70 - 118*		*06/02/15 13:18*	*1*
Dibromofluoromethane (Surr)	*106*		*70 - 128*		*06/02/15 13:18*	*1*

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

Lab Sample ID: LCS 180-143527/10
Matrix: Water
Analysis Batch: 143527

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	6.52		ug/L		65	50 - 139
Vinyl chloride	10.0	6.88		ug/L		69	53 - 138
Bromomethane	10.0	8.46		ug/L		85	33 - 150
Chloroethane	10.0	8.01		ug/L		80	36 - 142
1,1-Dichloroethene	10.0	8.19		ug/L		82	65 - 136
Acetone	20.0	12.2		ug/L		61	22 - 150
Carbon disulfide	10.0	8.08		ug/L		81	54 - 132
Methylene Chloride	10.0	11.9		ug/L		119	63 - 129
trans-1,2-Dichloroethene	10.0	10.6		ug/L		106	73 - 126
Methyl tert-butyl ether	10.0	11.5		ug/L		115	64 - 123
1,1-Dichloroethane	10.0	12.1		ug/L		121	73 - 126
cis-1,2-Dichloroethene	10.0	11.2		ug/L		112	70 - 120
Bromochloromethane	10.0	10.6		ug/L		106	70 - 127
2-Butanone (MEK)	20.0	17.2		ug/L		86	39 - 138
Chloroform	10.0	11.5		ug/L		115	72 - 127
1,1,1-Trichloroethane	10.0	12.6		ug/L		126	63 - 133
Carbon tetrachloride	10.0	12.2		ug/L		122	55 - 150
Benzene	10.0	10.6		ug/L		106	80 - 120
1,2-Dichloroethane	10.0	10.7		ug/L		107	68 - 132
Trichloroethene	10.0	10.0		ug/L		100	73 - 120
1,2-Dichloropropane	10.0	10.4		ug/L		104	76 - 124
Bromodichloromethane	10.0	11.2		ug/L		112	66 - 130
cis-1,3-Dichloropropene	10.0	10.5		ug/L		105	66 - 120
4-Methyl-2-pentanone (MIBK)	20.0	16.9		ug/L		85	45 - 145
Toluene	10.0	10.2		ug/L		102	80 - 123
trans-1,3-Dichloropropene	10.0	9.86		ug/L		99	65 - 125
1,1,2-Trichloroethane	10.0	9.92		ug/L		99	77 - 127
Tetrachloroethene	10.0	10.8		ug/L		108	70 - 135
2-Hexanone	20.0	20.6		ug/L		103	25 - 132
Dibromochloromethane	10.0	10.1		ug/L		101	60 - 140
1,2-Dibromoethane (EDB)	10.0	9.63		ug/L		96	74 - 123
Chlorobenzene	10.0	10.8		ug/L		108	80 - 120
1,1,1,2-Tetrachloroethane	10.0	10.6		ug/L		106	63 - 140
Ethylbenzene	10.0	10.1		ug/L		101	72 - 126
Xylenes, Total	20.0	20.2		ug/L		101	76 - 128
Styrene	10.0	10.6		ug/L		106	71 - 127
Bromoform	10.0	8.89		ug/L		89	46 - 150
1,1,2,2-Tetrachloroethane	10.0	9.37		ug/L		94	62 - 125
Acrylonitrile	100	91.2		ug/L		91	30 - 140
1,4-Dioxane	200	192	J	ug/L		96	10 - 160

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*104*		*64 - 135*
Toluene-d8 (Surr)	*109*		*71 - 118*
4-Bromofluorobenzene (Surr)	*105*		*70 - 118*
Dibromofluoromethane (Surr)	*110*		*70 - 128*

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 180-142454/35
Matrix: Water
Analysis Batch: 142454

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	0.0188	J	0.10	0.0062	mg/L			05/22/15 00:41	1
Chloride	0.369	J	1.0	0.20	mg/L			05/22/15 00:41	1
Sulfate	1.0	U	1.0	0.21	mg/L			05/22/15 00:41	1

Lab Sample ID: MB 180-142454/6
Matrix: Water
Analysis Batch: 142454

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	0.0146	J	0.10	0.0062	mg/L			05/21/15 16:41	1
Chloride	0.289	J	1.0	0.20	mg/L			05/21/15 16:41	1
Sulfate	1.0	U	1.0	0.21	mg/L			05/21/15 16:41	1

Lab Sample ID: LCS 180-142454/34
Matrix: Water
Analysis Batch: 142454

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	2.62		mg/L		105	90 - 110
Chloride	50.0	52.4		mg/L		105	90 - 110
Sulfate	50.0	51.9		mg/L		104	90 - 110

Lab Sample ID: LCS 180-142454/5
Matrix: Water
Analysis Batch: 142454

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	2.47		mg/L		99	90 - 110
Chloride	50.0	49.8		mg/L		100	90 - 110
Sulfate	50.0	49.2		mg/L		98	90 - 110

Lab Sample ID: 180-44321-15 MS
Matrix: Water
Analysis Batch: 142454

Client Sample ID: HD-COD-SW-28-0/1-0
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	3.4	B	1.25	4.80		mg/L		109	80 - 120
Chloride	96	B F1	25.0	123		mg/L		105	80 - 120
Sulfate	38		25.0	64.1		mg/L		104	80 - 120

Lab Sample ID: 180-44321-15 MSD
Matrix: Water
Analysis Batch: 142454

Client Sample ID: HD-COD-SW-28-0/1-0
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	3.4	B	1.25	4.46		mg/L		82	80 - 120	7	20
Chloride	96	B F1	25.0	114	F1	mg/L		72	80 - 120	7	20
Sulfate	38		25.0	59.0		mg/L		83	80 - 120	8	20

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 180-44321-20 MS — **Client Sample ID: HD-CW-13-0/1-0**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 142454

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	3.2	B	1.25	4.39		mg/L		94	80 - 120
Chloride	140	B	25.0	160	4	mg/L		89	80 - 120
Sulfate	35		25.0	57.6		mg/L		92	80 - 120

Lab Sample ID: 180-44321-20 MSD — **Client Sample ID: HD-CW-13-0/1-0**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 142454

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	3.2	B	1.25	4.39		mg/L		95	80 - 120	0	20
Chloride	140	B	25.0	160	4	mg/L		89	80 - 120	0	20
Sulfate	35		25.0	57.8		mg/L		93	80 - 120	0	20

Lab Sample ID: 180-44321-24 MS — **Client Sample ID: HD-MW-95-0/1-0**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 142454

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	0.84	B	1.25	2.04		mg/L		96	80 - 120
Chloride	52	B	25.0	76.1		mg/L		95	80 - 120
Sulfate	32		25.0	55.8		mg/L		94	80 - 120

Lab Sample ID: 180-44321-24 MSD — **Client Sample ID: HD-MW-95-0/1-0**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 142454

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	0.84	B	1.25	2.04		mg/L		96	80 - 120	0	20
Chloride	52	B	25.0	75.7		mg/L		93	80 - 120	1	20
Sulfate	32		25.0	55.1		mg/L		91	80 - 120	1	20

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: 180-44321-1 MS — **Client Sample ID: HD-COD-SW-6-0/1-0**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 143685 — **Prep Batch: 142539**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	48000	B	50000	97300		ug/L		98	75 - 125
Potassium	3100		50000	48700		ug/L		91	75 - 125
Magnesium	8400		50000	50300		ug/L		84	75 - 125
Sodium	40000		50000	84500		ug/L		88	75 - 125

Lab Sample ID: 180-44321-1 MSD — **Client Sample ID: HD-COD-SW-6-0/1-0**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 143685 — **Prep Batch: 142539**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Calcium	48000	B	50000	93900		ug/L		92	75 - 125	3	20

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

Lab Sample ID: 180-44321-1 MSD
Matrix: Water
Analysis Batch: 143685

Client Sample ID: HD-COD-SW-6-0/1-0
Prep Type: Total/NA
Prep Batch: 142539

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Potassium	3100		50000	46100		ug/L		86	75 - 125	6	20
Magnesium	8400		50000	47900		ug/L		79	75 - 125	5	20
Sodium	40000		50000	79900		ug/L		79	75 - 125	6	20

Lab Sample ID: 180-44321-24 MS
Matrix: Water
Analysis Batch: 143685

Client Sample ID: HD-MW-95-0/1-0
Prep Type: Total/NA
Prep Batch: 142542

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	96000	B	50000	144000		ug/L		95	75 - 125
Potassium	2700	B	50000	47300		ug/L		89	75 - 125
Magnesium	8000		50000	48800		ug/L		82	75 - 125
Sodium	23000		50000	62600		ug/L		79	75 - 125

Lab Sample ID: 180-44321-24 MSD
Matrix: Water
Analysis Batch: 143685

Client Sample ID: HD-MW-95-0/1-0
Prep Type: Total/NA
Prep Batch: 142542

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Calcium	96000	B	50000	144000		ug/L		96	75 - 125	0	20
Potassium	2700	B	50000	46900		ug/L		88	75 - 125	1	20
Magnesium	8000		50000	48500		ug/L		81	75 - 125	1	20
Sodium	23000		50000	62600		ug/L		80	75 - 125	0	20

Lab Sample ID: MB 180-142539/1-A
Matrix: Water
Analysis Batch: 143685

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 142539

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	13.3	J	500	2.8	ug/L		05/22/15 10:04	06/02/15 13:31	1
Potassium	500	U	500	5.8	ug/L		05/22/15 10:04	06/02/15 13:31	1
Magnesium	500	U	500	1.2	ug/L		05/22/15 10:04	06/02/15 13:31	1
Sodium	500	U	500	3.8	ug/L		05/22/15 10:04	06/02/15 13:31	1

Lab Sample ID: LCS 180-142539/2-A
Matrix: Water
Analysis Batch: 143685

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 142539

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	50000	47300		ug/L		95	80 - 120
Potassium	50000	45200		ug/L		90	80 - 120
Magnesium	50000	41500		ug/L		83	80 - 120
Sodium	50000	41800		ug/L		84	80 - 120

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

Lab Sample ID: MB 180-142542/1-A
Matrix: Water
Analysis Batch: 143685

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 142542

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	13.9	J	500	2.8	ug/L		05/22/15 10:06	06/02/15 15:33	1
Potassium	8.13	J	500	5.8	ug/L		05/22/15 10:06	06/02/15 15:33	1
Magnesium	500	U	500	1.2	ug/L		05/22/15 10:06	06/02/15 15:33	1
Sodium	500	U	500	3.8	ug/L		05/22/15 10:06	06/02/15 15:33	1

Lab Sample ID: LCS 180-142542/2-A
Matrix: Water
Analysis Batch: 143685

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 142542

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Calcium	50000	47600		ug/L		95	80 - 120
Potassium	50000	45100		ug/L		90	80 - 120
Magnesium	50000	41000		ug/L		82	80 - 120
Sodium	50000	40400		ug/L		81	80 - 120

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 180-143418/2
Matrix: Water
Analysis Batch: 143418

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	1.98	J	5.0	0.41	mg/L			06/01/15 08:16	1
Bicarbonate Alkalinity as CaCO3	1.98	J	5.0	0.41	mg/L			06/01/15 08:16	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			06/01/15 08:16	1

Lab Sample ID: LCS 180-143418/1
Matrix: Water
Analysis Batch: 143418

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Alkalinity as CaCO3 to pH 4.5	250	263		mg/L		105	80 - 120

Lab Sample ID: 180-44321-1 DU
Matrix: Water
Analysis Batch: 143418

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

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	140	B	145		mg/L		1	20
Bicarbonate Alkalinity as CaCO3	140	B	145		mg/L		1	20
Carbonate Alkalinity as CaCO3	5.0	U	5.0	U	mg/L		NC	20

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: 180-44321-13 DU
Matrix: Water
Analysis Batch: 143418

Client Sample ID: HD-COD-SW-26-0/1-0
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	260	B	265		mg/L		2	20
Bicarbonate Alkalinity as CaCO3	260	B	265		mg/L		2	20
Carbonate Alkalinity as CaCO3	5.0	U	5.0	U	mg/L		NC	20

Lab Sample ID: MB 180-143420/2
Matrix: Water
Analysis Batch: 143420

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Alkalinity as CaCO3 to pH 4.5	1.98	J	5.0	0.41	mg/L			06/01/15 08:17	1
Bicarbonate Alkalinity as CaCO3	1.98	J	5.0	0.41	mg/L			06/01/15 08:17	1
Carbonate Alkalinity as CaCO3	5.0	U	5.0	0.41	mg/L			06/01/15 08:17	1

Lab Sample ID: LCS 180-143420/1
Matrix: Water
Analysis Batch: 143420

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

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

Lab Sample ID: 180-44321-24 DU
Matrix: Water
Analysis Batch: 143420

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

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	260	B	257		mg/L		2	20
Bicarbonate Alkalinity as CaCO3	260	B	257		mg/L		2	20
Carbonate Alkalinity as CaCO3	5.0	U	5.0	U	mg/L		NC	20

Lab Sample ID: 180-44321-30 DU
Matrix: Water
Analysis Batch: 143420

Client Sample ID: HD-MW-51S-0/1-0
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Alkalinity as CaCO3 to pH 4.5	200	B	198		mg/L		1	20
Bicarbonate Alkalinity as CaCO3	200	B	198		mg/L		1	20
Carbonate Alkalinity as CaCO3	5.0	U	5.0	U	mg/L		NC	20

GC/MS VOA

Analysis Batch: 143153

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-44321-1	HD-COD-SW-6-0/1-0	Total/NA	Water	8260C	
180-44321-1 MS	HD-COD-SW-6-0/1-0	Total/NA	Water	8260C	
180-44321-1 MSD	HD-COD-SW-6-0/1-0	Total/NA	Water	8260C	
180-44321-3	HD-COD-SW-8-0/1-0	Total/NA	Water	8260C	
180-44321-4	HD-COD-SW-9-0/1-0	Total/NA	Water	8260C	
180-44321-5	HD-COD-SW-10-0/1-0	Total/NA	Water	8260C	
180-44321-6	HD-COD-SW-11-0/1-0	Total/NA	Water	8260C	
180-44321-7	HD-COD-SW-12-0/1-0	Total/NA	Water	8260C	
180-44321-9	HD-COD-SW-15-0/1-0	Total/NA	Water	8260C	
180-44321-10	HD-COD-SW-16-0/1-0	Total/NA	Water	8260C	
180-44321-11	HD-COD-SW-17-0/1-0	Total/NA	Water	8260C	
180-44321-12	HD-COD-SW-20-0/1-0	Total/NA	Water	8260C	
LCS 180-143153/13	Lab Control Sample	Total/NA	Water	8260C	
MB 180-143153/7	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 143337

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-44321-16	HD-COD-SW-29-0/1-0	Total/NA	Water	8260C	
180-44321-17	HD-QC3-0/1-2	Total/NA	Water	8260C	
180-44321-19	HD-CW-9-0/1-0	Total/NA	Water	8260C	
180-44321-20	HD-CW-13-0/1-0	Total/NA	Water	8260C	
180-44321-23 - DL	HD-CW-20-0/1-0	Total/NA	Water	8260C	
180-44321-24	HD-MW-95-0/1-0	Total/NA	Water	8260C	
180-44321-24 MS	HD-MW-95-0/1-0	Total/NA	Water	8260C	
180-44321-24 MSD	HD-MW-95-0/1-0	Total/NA	Water	8260C	
180-44321-25 - DL	HD-MW-96S-0/1-0	Total/NA	Water	8260C	
180-44321-27	HD-MW-97-0/1-0	Total/NA	Water	8260C	
180-44321-28	HD-CW-18-0/1-0	Total/NA	Water	8260C	
180-44321-29	HD-MW-50D-0/1-0	Total/NA	Water	8260C	
180-44321-30	HD-MW-51S-0/1-0	Total/NA	Water	8260C	
180-44321-31	HD-QC4-0/1-2	Total/NA	Water	8260C	
180-44321-32	HD-QC1-0/1-4	Total/NA	Water	8260C	
180-44321-33	HD-QC1-0/1-3	Total/NA	Water	8260C	
LCS 180-143337/7	Lab Control Sample	Total/NA	Water	8260C	
MB 180-143337/4	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 143339

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-44321-2	HD-COD-SW-7-0/1-0	Total/NA	Water	8260C	
180-44321-8	HD-COD-SW-13-0/1-0	Total/NA	Water	8260C	
180-44321-13	HD-COD-SW-26-0/1-0	Total/NA	Water	8260C	
180-44321-14	HD-COD-SW-27-0/1-0	Total/NA	Water	8260C	
180-44321-15	HD-COD-SW-28-0/1-0	Total/NA	Water	8260C	
180-44321-15 MS	HD-COD-SW-28-0/1-0	Total/NA	Water	8260C	
180-44321-15 MSD	HD-COD-SW-28-0/1-0	Total/NA	Water	8260C	
LCS 180-143339/11	Lab Control Sample	Total/NA	Water	8260C	
MB 180-143339/7	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 143422

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-44321-18	HD-QC2-0/1-1	Total/NA	Water	8260C	

GC/MS VOA (Continued)

Analysis Batch: 143422 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-44321-18 MS	HD-QC2-0/1-1	Total/NA	Water	8260C	
180-44321-18 MSD	HD-QC2-0/1-1	Total/NA	Water	8260C	
180-44321-21	HD-CW-15A-0/1-0	Total/NA	Water	8260C	
180-44321-22	HD-CW-17-0/1-0	Total/NA	Water	8260C	
180-44321-23	HD-CW-20-0/1-0	Total/NA	Water	8260C	
180-44321-25	HD-MW-96S-0/1-0	Total/NA	Water	8260C	
180-44321-26	HD-MW-96D-0/1-0	Total/NA	Water	8260C	
LCS 180-143422/8	Lab Control Sample	Total/NA	Water	8260C	
MB 180-143422/6	Method Blank	Total/NA	Water	8260C	

Analysis Batch: 143527

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-44321-21 - RA	HD-CW-15A-0/1-0	Total/NA	Water	8260C	
LCS 180-143527/10	Lab Control Sample	Total/NA	Water	8260C	
MB 180-143527/7	Method Blank	Total/NA	Water	8260C	

HPLC/IC

Analysis Batch: 142454

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-44321-1	HD-COD-SW-6-0/1-0	Total/NA	Water	300.0	
180-44321-2	HD-COD-SW-7-0/1-0	Total/NA	Water	300.0	
180-44321-3	HD-COD-SW-8-0/1-0	Total/NA	Water	300.0	
180-44321-4	HD-COD-SW-9-0/1-0	Total/NA	Water	300.0	
180-44321-5	HD-COD-SW-10-0/1-0	Total/NA	Water	300.0	
180-44321-6	HD-COD-SW-11-0/1-0	Total/NA	Water	300.0	
180-44321-7	HD-COD-SW-12-0/1-0	Total/NA	Water	300.0	
180-44321-8	HD-COD-SW-13-0/1-0	Total/NA	Water	300.0	
180-44321-9	HD-COD-SW-15-0/1-0	Total/NA	Water	300.0	
180-44321-10	HD-COD-SW-16-0/1-0	Total/NA	Water	300.0	
180-44321-11	HD-COD-SW-17-0/1-0	Total/NA	Water	300.0	
180-44321-12	HD-COD-SW-20-0/1-0	Total/NA	Water	300.0	
180-44321-13	HD-COD-SW-26-0/1-0	Total/NA	Water	300.0	
180-44321-13	HD-COD-SW-26-0/1-0	Total/NA	Water	300.0	
180-44321-14	HD-COD-SW-27-0/1-0	Total/NA	Water	300.0	
180-44321-15	HD-COD-SW-28-0/1-0	Total/NA	Water	300.0	
180-44321-15 MS	HD-COD-SW-28-0/1-0	Total/NA	Water	300.0	
180-44321-15 MSD	HD-COD-SW-28-0/1-0	Total/NA	Water	300.0	
180-44321-16	HD-COD-SW-29-0/1-0	Total/NA	Water	300.0	
180-44321-18	HD-QC2-0/1-1	Total/NA	Water	300.0	
180-44321-19	HD-CW-9-0/1-0	Total/NA	Water	300.0	
180-44321-20	HD-CW-13-0/1-0	Total/NA	Water	300.0	
180-44321-20 MS	HD-CW-13-0/1-0	Total/NA	Water	300.0	
180-44321-20 MSD	HD-CW-13-0/1-0	Total/NA	Water	300.0	
180-44321-21	HD-CW-15A-0/1-0	Total/NA	Water	300.0	
180-44321-22	HD-CW-17-0/1-0	Total/NA	Water	300.0	
180-44321-23	HD-CW-20-0/1-0	Total/NA	Water	300.0	
180-44321-24	HD-MW-95-0/1-0	Total/NA	Water	300.0	
180-44321-24 MS	HD-MW-95-0/1-0	Total/NA	Water	300.0	
180-44321-24 MSD	HD-MW-95-0/1-0	Total/NA	Water	300.0	

HPLC/IC (Continued)

Analysis Batch: 142454 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-44321-25	HD-MW-96S-0/1-0	Total/NA	Water	300.0	
180-44321-26	HD-MW-96D-0/1-0	Total/NA	Water	300.0	
180-44321-27	HD-MW-97-0/1-0	Total/NA	Water	300.0	
180-44321-28	HD-CW-18-0/1-0	Total/NA	Water	300.0	
180-44321-28	HD-CW-18-0/1-0	Total/NA	Water	300.0	
180-44321-29	HD-MW-50D-0/1-0	Total/NA	Water	300.0	
180-44321-29	HD-MW-50D-0/1-0	Total/NA	Water	300.0	
180-44321-30	HD-MW-51S-0/1-0	Total/NA	Water	300.0	
LCS 180-142454/34	Lab Control Sample	Total/NA	Water	300.0	
LCS 180-142454/5	Lab Control Sample	Total/NA	Water	300.0	
MB 180-142454/35	Method Blank	Total/NA	Water	300.0	
MB 180-142454/6	Method Blank	Total/NA	Water	300.0	

Metals

Prep Batch: 142539

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-44321-1	HD-COD-SW-6-0/1-0	Total/NA	Water	3005A	
180-44321-1 MS	HD-COD-SW-6-0/1-0	Total/NA	Water	3005A	
180-44321-1 MSD	HD-COD-SW-6-0/1-0	Total/NA	Water	3005A	
180-44321-1 PDS	HD-COD-SW-6-0/1-0	Total/NA	Water	3005A	
180-44321-1 SD	HD-COD-SW-6-0/1-0	Total/NA	Water	3005A	
180-44321-2	HD-COD-SW-7-0/1-0	Total/NA	Water	3005A	
180-44321-3	HD-COD-SW-8-0/1-0	Total/NA	Water	3005A	
180-44321-4	HD-COD-SW-9-0/1-0	Total/NA	Water	3005A	
180-44321-5	HD-COD-SW-10-0/1-0	Total/NA	Water	3005A	
180-44321-6	HD-COD-SW-11-0/1-0	Total/NA	Water	3005A	
180-44321-7	HD-COD-SW-12-0/1-0	Total/NA	Water	3005A	
180-44321-8	HD-COD-SW-13-0/1-0	Total/NA	Water	3005A	
180-44321-9	HD-COD-SW-15-0/1-0	Total/NA	Water	3005A	
180-44321-10	HD-COD-SW-16-0/1-0	Total/NA	Water	3005A	
180-44321-11	HD-COD-SW-17-0/1-0	Total/NA	Water	3005A	
180-44321-12	HD-COD-SW-20-0/1-0	Total/NA	Water	3005A	
180-44321-13	HD-COD-SW-26-0/1-0	Total/NA	Water	3005A	
180-44321-14	HD-COD-SW-27-0/1-0	Total/NA	Water	3005A	
180-44321-15	HD-COD-SW-28-0/1-0	Total/NA	Water	3005A	
180-44321-16	HD-COD-SW-29-0/1-0	Total/NA	Water	3005A	
180-44321-18	HD-QC2-0/1-1	Total/NA	Water	3005A	
180-44321-19	HD-CW-9-0/1-0	Total/NA	Water	3005A	
180-44321-20	HD-CW-13-0/1-0	Total/NA	Water	3005A	
180-44321-21	HD-CW-15A-0/1-0	Total/NA	Water	3005A	
LCS 180-142539/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
MB 180-142539/1-A	Method Blank	Total Recoverable	Water	3005A	

Prep Batch: 142542

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-44321-22	HD-CW-17-0/1-0	Total/NA	Water	3005A	
180-44321-23	HD-CW-20-0/1-0	Total/NA	Water	3005A	
180-44321-24	HD-MW-95-0/1-0	Total/NA	Water	3005A	
180-44321-24 MS	HD-MW-95-0/1-0	Total/NA	Water	3005A	

Metals (Continued)

Prep Batch: 142542 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-44321-24 MSD	HD-MW-95-0/1-0	Total/NA	Water	3005A	
180-44321-24 PDS	HD-MW-95-0/1-0	Total/NA	Water	3005A	
180-44321-24 SD	HD-MW-95-0/1-0	Total/NA	Water	3005A	
180-44321-25	HD-MW-96S-0/1-0	Total/NA	Water	3005A	
180-44321-26	HD-MW-96D-0/1-0	Total/NA	Water	3005A	
180-44321-27	HD-MW-97-0/1-0	Total/NA	Water	3005A	
180-44321-28	HD-CW-18-0/1-0	Total/NA	Water	3005A	
180-44321-29	HD-MW-50D-0/1-0	Total/NA	Water	3005A	
180-44321-30	HD-MW-51S-0/1-0	Total/NA	Water	3005A	
LCS 180-142542/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
MB 180-142542/1-A	Method Blank	Total Recoverable	Water	3005A	

Analysis Batch: 143685

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-44321-1	HD-COD-SW-6-0/1-0	Total/NA	Water	6020A	142539
180-44321-1 MS	HD-COD-SW-6-0/1-0	Total/NA	Water	6020A	142539
180-44321-1 MSD	HD-COD-SW-6-0/1-0	Total/NA	Water	6020A	142539
180-44321-1 PDS	HD-COD-SW-6-0/1-0	Total/NA	Water	6020A	142539
180-44321-1 SD	HD-COD-SW-6-0/1-0	Total/NA	Water	6020A	142539
180-44321-2	HD-COD-SW-7-0/1-0	Total/NA	Water	6020A	142539
180-44321-3	HD-COD-SW-8-0/1-0	Total/NA	Water	6020A	142539
180-44321-4	HD-COD-SW-9-0/1-0	Total/NA	Water	6020A	142539
180-44321-5	HD-COD-SW-10-0/1-0	Total/NA	Water	6020A	142539
180-44321-6	HD-COD-SW-11-0/1-0	Total/NA	Water	6020A	142539
180-44321-7	HD-COD-SW-12-0/1-0	Total/NA	Water	6020A	142539
180-44321-8	HD-COD-SW-13-0/1-0	Total/NA	Water	6020A	142539
180-44321-9	HD-COD-SW-15-0/1-0	Total/NA	Water	6020A	142539
180-44321-10	HD-COD-SW-16-0/1-0	Total/NA	Water	6020A	142539
180-44321-11	HD-COD-SW-17-0/1-0	Total/NA	Water	6020A	142539
180-44321-12	HD-COD-SW-20-0/1-0	Total/NA	Water	6020A	142539
180-44321-13	HD-COD-SW-26-0/1-0	Total/NA	Water	6020A	142539
180-44321-14	HD-COD-SW-27-0/1-0	Total/NA	Water	6020A	142539
180-44321-15	HD-COD-SW-28-0/1-0	Total/NA	Water	6020A	142539
180-44321-16	HD-COD-SW-29-0/1-0	Total/NA	Water	6020A	142539
180-44321-18	HD-QC2-0/1-1	Total/NA	Water	6020A	142539
180-44321-19	HD-CW-9-0/1-0	Total/NA	Water	6020A	142539
180-44321-20	HD-CW-13-0/1-0	Total/NA	Water	6020A	142539
180-44321-21	HD-CW-15A-0/1-0	Total/NA	Water	6020A	142539
180-44321-22	HD-CW-17-0/1-0	Total/NA	Water	6020A	142542
180-44321-23	HD-CW-20-0/1-0	Total/NA	Water	6020A	142542
180-44321-24	HD-MW-95-0/1-0	Total/NA	Water	6020A	142542
180-44321-24 MS	HD-MW-95-0/1-0	Total/NA	Water	6020A	142542
180-44321-24 MSD	HD-MW-95-0/1-0	Total/NA	Water	6020A	142542
180-44321-24 PDS	HD-MW-95-0/1-0	Total/NA	Water	6020A	142542
180-44321-24 SD	HD-MW-95-0/1-0	Total/NA	Water	6020A	142542
180-44321-25	HD-MW-96S-0/1-0	Total/NA	Water	6020A	142542
180-44321-26	HD-MW-96D-0/1-0	Total/NA	Water	6020A	142542
180-44321-27	HD-MW-97-0/1-0	Total/NA	Water	6020A	142542
180-44321-28	HD-CW-18-0/1-0	Total/NA	Water	6020A	142542
180-44321-29	HD-MW-50D-0/1-0	Total/NA	Water	6020A	142542
180-44321-30	HD-MW-51S-0/1-0	Total/NA	Water	6020A	142542

Metals (Continued)

Analysis Batch: 143685 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CRI 180-143685/7	DL		Water	6020A	
CRI 180-143685/99	DL		Water	6020A	
ICSA 180-143685/8	ICS		Water	6020A	
ICSAB 180-143685/9	ICS		Water	6020A	
LCS 180-142539/2-A	Lab Control Sample	Total Recoverable	Water	6020A	142539
LCS 180-142542/2-A	Lab Control Sample	Total Recoverable	Water	6020A	142542
MB 180-142539/1-A	Method Blank	Total Recoverable	Water	6020A	142539
MB 180-142542/1-A	Method Blank	Total Recoverable	Water	6020A	142542

General Chemistry

Analysis Batch: 143418

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-44321-1	HD-COD-SW-6-0/1-0	Total/NA	Water	SM 2320B	
180-44321-1 DU	HD-COD-SW-6-0/1-0	Total/NA	Water	SM 2320B	
180-44321-2	HD-COD-SW-7-0/1-0	Total/NA	Water	SM 2320B	
180-44321-3	HD-COD-SW-8-0/1-0	Total/NA	Water	SM 2320B	
180-44321-4	HD-COD-SW-9-0/1-0	Total/NA	Water	SM 2320B	
180-44321-5	HD-COD-SW-10-0/1-0	Total/NA	Water	SM 2320B	
180-44321-6	HD-COD-SW-11-0/1-0	Total/NA	Water	SM 2320B	
180-44321-7	HD-COD-SW-12-0/1-0	Total/NA	Water	SM 2320B	
180-44321-8	HD-COD-SW-13-0/1-0	Total/NA	Water	SM 2320B	
180-44321-9	HD-COD-SW-15-0/1-0	Total/NA	Water	SM 2320B	
180-44321-10	HD-COD-SW-16-0/1-0	Total/NA	Water	SM 2320B	
180-44321-11	HD-COD-SW-17-0/1-0	Total/NA	Water	SM 2320B	
180-44321-12	HD-COD-SW-20-0/1-0	Total/NA	Water	SM 2320B	
180-44321-13	HD-COD-SW-26-0/1-0	Total/NA	Water	SM 2320B	
180-44321-13 DU	HD-COD-SW-26-0/1-0	Total/NA	Water	SM 2320B	
180-44321-14	HD-COD-SW-27-0/1-0	Total/NA	Water	SM 2320B	
180-44321-15	HD-COD-SW-28-0/1-0	Total/NA	Water	SM 2320B	
180-44321-16	HD-COD-SW-29-0/1-0	Total/NA	Water	SM 2320B	
180-44321-18	HD-QC2-0/1-1	Total/NA	Water	SM 2320B	
180-44321-19	HD-CW-9-0/1-0	Total/NA	Water	SM 2320B	
LCS 180-143418/1	Lab Control Sample	Total/NA	Water	SM 2320B	
MB 180-143418/2	Method Blank	Total/NA	Water	SM 2320B	

Analysis Batch: 143420

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-44321-20	HD-CW-13-0/1-0	Total/NA	Water	SM 2320B	
180-44321-21	HD-CW-15A-0/1-0	Total/NA	Water	SM 2320B	
180-44321-22	HD-CW-17-0/1-0	Total/NA	Water	SM 2320B	
180-44321-23	HD-CW-20-0/1-0	Total/NA	Water	SM 2320B	
180-44321-24	HD-MW-95-0/1-0	Total/NA	Water	SM 2320B	
180-44321-24 DU	HD-MW-95-0/1-0	Total/NA	Water	SM 2320B	
180-44321-25	HD-MW-96S-0/1-0	Total/NA	Water	SM 2320B	
180-44321-26	HD-MW-96D-0/1-0	Total/NA	Water	SM 2320B	
180-44321-27	HD-MW-97-0/1-0	Total/NA	Water	SM 2320B	
180-44321-28	HD-CW-18-0/1-0	Total/NA	Water	SM 2320B	
180-44321-29	HD-MW-50D-0/1-0	Total/NA	Water	SM 2320B	
180-44321-30	HD-MW-51S-0/1-0	Total/NA	Water	SM 2320B	

General Chemistry (Continued)

Analysis Batch: 143420 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
180-44321-30 DU	HD-MW-51S-0/1-0	Total/NA	Water	SM 2320B	
LCS 180-143420/1	Lab Control Sample	Total/NA	Water	SM 2320B	
MB 180-143420/2	Method Blank	Total/NA	Water	SM 2320B	

Lab Chronicle

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-44321-1

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

Lab Sample ID: 180-44321-1

Date Collected: 05/20/15 10:45

Matrix: Water

Date Received: 05/21/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	20 mL	20 mL	143153	05/29/15 12:01	PJJ	TAL PIT
	Instrument ID: CHHP7									
Total/NA	Analysis	300.0		1	1 mL		142454	05/21/15 22:23	JMO	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	142539	05/22/15 10:04	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	143685	06/02/15 13:38	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	143418	06/01/15 08:16	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-44321-2

Date Collected: 05/20/15 13:35

Matrix: Water

Date Received: 05/21/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	20 mL	20 mL	143339	05/31/15 18:50	PJJ	TAL PIT
	Instrument ID: CHHP7									
Total/NA	Analysis	300.0		1	1 mL		142454	05/22/15 04:00	JMO	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	142539	05/22/15 10:04	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	143685	06/02/15 13:57	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	143418	06/01/15 08:16	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-44321-3

Date Collected: 05/20/15 09:10

Matrix: Water

Date Received: 05/21/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	20 mL	20 mL	143153	05/29/15 12:28	PJJ	TAL PIT
	Instrument ID: CHHP7									
Total/NA	Analysis	300.0		1	1 mL		142454	05/21/15 17:33	JMO	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	142539	05/22/15 10:04	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	143685	06/02/15 14:11	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	143418	06/01/15 08:16	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-44321-4

Date Collected: 05/20/15 11:50

Matrix: Water

Date Received: 05/21/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	20 mL	20 mL	143153	05/29/15 12:56	PJJ	TAL PIT
	Instrument ID: CHHP7									
Total/NA	Analysis	300.0		1	1 mL		142454	05/22/15 00:11	JMO	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	142539	05/22/15 10:04	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	143685	06/02/15 14:15	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	143418	06/01/15 08:16	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-44321-5

Date Collected: 05/20/15 09:45

Matrix: Water

Date Received: 05/21/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	20 mL	20 mL	143153	05/29/15 15:32	PJJ	TAL PIT
	Instrument ID: CHHP7									
Total/NA	Analysis	300.0		1	1 mL		142454	05/21/15 19:00	JMO	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	142539	05/22/15 10:04	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	143685	06/02/15 14:19	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	143418	06/01/15 08:16	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-44321-6

Date Collected: 05/20/15 12:15

Matrix: Water

Date Received: 05/21/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	20 mL	20 mL	143153	05/29/15 16:00	PJJ	TAL PIT
	Instrument ID: CHHP7									
Total/NA	Analysis	300.0		1	1 mL		142454	05/22/15 02:13	JMO	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	142539	05/22/15 10:04	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	143685	06/02/15 14:23	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	143418	06/01/15 08:16	CLL	TAL PIT
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-44321-1

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

Lab Sample ID: 180-44321-7

Date Collected: 05/20/15 12:30
Matrix: Water
Date Received: 05/21/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	20 mL	20 mL	143153	05/29/15 16:27	PJJ	TAL PIT
	Instrument ID: CHHP7									
Total/NA	Analysis	300.0		1	1 mL		142454	05/22/15 02:28	JMO	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	142539	05/22/15 10:04	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	143685	06/02/15 14:27	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	143418	06/01/15 08:16	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-44321-8

Date Collected: 05/20/15 09:35
Matrix: Water
Date Received: 05/21/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	20 mL	20 mL	143339	05/31/15 19:17	PJJ	TAL PIT
	Instrument ID: CHHP7									
Total/NA	Analysis	300.0		1	1 mL		142454	05/21/15 18:42	JMO	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	142539	05/22/15 10:04	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	143685	06/02/15 14:31	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	143418	06/01/15 08:16	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-44321-9

Date Collected: 05/20/15 12:40
Matrix: Water
Date Received: 05/21/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	20 mL	20 mL	143153	05/29/15 17:49	PJJ	TAL PIT
	Instrument ID: CHHP7									
Total/NA	Analysis	300.0		1	1 mL		142454	05/22/15 02:59	JMO	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	142539	05/22/15 10:04	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	143685	06/02/15 14:34	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	143418	06/01/15 08:16	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-44321-10

Date Collected: 05/20/15 10:10

Matrix: Water

Date Received: 05/21/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	20 mL	20 mL	143153	05/29/15 18:17	PJJ	TAL PIT
	Instrument ID: CHHP7									
Total/NA	Analysis	300.0		1	1 mL		142454	05/21/15 20:09	JMO	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	142539	05/22/15 10:04	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	143685	06/02/15 14:38	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	143418	06/01/15 08:16	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-44321-11

Date Collected: 05/20/15 10:25

Matrix: Water

Date Received: 05/21/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	20 mL	20 mL	143153	05/29/15 18:44	PJJ	TAL PIT
	Instrument ID: CHHP7									
Total/NA	Analysis	300.0		1	1 mL		142454	05/21/15 21:35	JMO	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	142539	05/22/15 10:04	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	143685	06/02/15 14:42	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	143418	06/01/15 08:16	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-44321-12

Date Collected: 05/20/15 10:50

Matrix: Water

Date Received: 05/21/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	20 mL	20 mL	143153	05/29/15 19:12	PJJ	TAL PIT
	Instrument ID: CHHP7									
Total/NA	Analysis	300.0		1	1 mL		142454	05/21/15 23:25	JMO	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	142539	05/22/15 10:04	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	143685	06/02/15 14:46	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	143418	06/01/15 08:16	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-44321-13

Date Collected: 05/20/15 13:15

Matrix: Water

Date Received: 05/21/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	20 mL	20 mL	143339	05/31/15 19:44	PJJ	TAL PIT
	Instrument ID: CHHP7									
Total/NA	Analysis	300.0		1	1 mL		142454	05/22/15 03:45	JMO	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Analysis	300.0		5	1 mL		142454	05/22/15 07:26	JMO	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	142539	05/22/15 10:04	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	143685	06/02/15 15:00	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	143418	06/01/15 08:16	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-44321-14

Date Collected: 05/20/15 12:50

Matrix: Water

Date Received: 05/21/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	20 mL	20 mL	143339	05/31/15 20:12	PJJ	TAL PIT
	Instrument ID: CHHP7									
Total/NA	Analysis	300.0		1	1 mL		142454	05/22/15 03:14	JMO	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	142539	05/22/15 10:04	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	143685	06/02/15 15:04	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	143418	06/01/15 08:16	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-44321-15

Date Collected: 05/20/15 12:05

Matrix: Water

Date Received: 05/21/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	20 mL	20 mL	143339	05/31/15 14:59	PJJ	TAL PIT
	Instrument ID: CHHP7									
Total/NA	Analysis	300.0		1	1 mL		142454	05/22/15 00:56	JMO	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	142539	05/22/15 10:04	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	143685	06/02/15 15:08	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	143418	06/01/15 08:16	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-44321-16

Date Collected: 05/20/15 08:47

Matrix: Water

Date Received: 05/21/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	143337	05/31/15 19:14	PJJ	TAL PIT
	Instrument ID: CHHP6									
Total/NA	Analysis	300.0		1	1 mL		142454	05/21/15 17:16	JMO	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	142539	05/22/15 10:04	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	143685	06/02/15 15:11	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	143418	06/01/15 08:16	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-44321-17

Date Collected: 05/20/15 12:00

Matrix: Water

Date Received: 05/21/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	143337	05/31/15 15:38	PJJ	TAL PIT
	Instrument ID: CHHP6									

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

Lab Sample ID: 180-44321-18

Date Collected: 05/20/15 08:00

Matrix: Water

Date Received: 05/21/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	20 mL	20 mL	143422	06/01/15 15:45	PJJ	TAL PIT
	Instrument ID: CHHP7									
Total/NA	Analysis	300.0		1	1 mL		142454	05/21/15 16:58	JMO	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	142539	05/22/15 10:04	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	143685	06/02/15 15:15	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	143418	06/01/15 08:16	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-44321-19

Date Collected: 05/20/15 10:10

Matrix: Water

Date Received: 05/21/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		12.5	5 mL	5 mL	143337	05/31/15 17:14	PJJ	TAL PIT
	Instrument ID: CHHP6									
Total/NA	Analysis	300.0		1	1 mL		142454	05/21/15 20:26	JMO	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	142539	05/22/15 10:04	AB1	TAL PIT

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

Lab Sample ID: 180-44321-19

Date Collected: 05/20/15 10:10

Matrix: Water

Date Received: 05/21/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	6020A		1	50 mL	50 mL	143685	06/02/15 15:19	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	143418	06/01/15 08:16	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-44321-20

Date Collected: 05/20/15 10:15

Matrix: Water

Date Received: 05/21/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		25	5 mL	5 mL	143337	05/31/15 17:38	PJJ	TAL PIT
	Instrument ID: CHHP6									
Total/NA	Analysis	300.0		1	1 mL		142454	05/21/15 20:44	JMO	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	142539	05/22/15 10:04	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	143685	06/02/15 15:23	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	143420	06/01/15 08:17	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-44321-21

Date Collected: 05/20/15 10:25

Matrix: Water

Date Received: 05/21/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		250	20 mL	20 mL	143422	06/01/15 17:08	PJJ	TAL PIT
	Instrument ID: CHHP7									
Total/NA	Analysis	8260C	RA	250	20 mL	20 mL	143527	06/02/15 16:03	PJJ	TAL PIT
	Instrument ID: CHHP7									
Total/NA	Analysis	300.0		1	1 mL		142454	05/21/15 21:53	JMO	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	142539	05/22/15 10:04	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	143685	06/02/15 15:27	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	143420	06/01/15 08:17	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-44321-22

Date Collected: 05/20/15 10:35

Matrix: Water

Date Received: 05/21/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		3	20 mL	20 mL	143422	06/01/15 16:12	PJJ	TAL PIT

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

Date Collected: 05/20/15 10:35
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-22

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		3	20 mL	20 mL	143422	06/01/15 16:12	PJJ	TAL PIT
	Instrument ID: CHHP7									
Total/NA	Analysis	300.0		1	1 mL		142454	05/21/15 22:08	JMO	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	142542	05/22/15 10:06	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	143685	06/02/15 15:51	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	143420	06/01/15 08:17	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Date Collected: 05/20/15 10:45
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-23

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C	DL	50	5 mL	5 mL	143337	05/31/15 18:50	PJJ	TAL PIT
	Instrument ID: CHHP6									
Total/NA	Analysis	8260C		5	20 mL	20 mL	143422	06/01/15 17:40	PJJ	TAL PIT
	Instrument ID: CHHP7									
Total/NA	Analysis	300.0		1	1 mL		142454	05/21/15 23:09	JMO	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	142542	05/22/15 10:06	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	143685	06/02/15 15:55	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	143420	06/01/15 08:17	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Date Collected: 05/20/15 09:25
Date Received: 05/21/15 09:00

Lab Sample ID: 180-44321-24

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	143337	05/31/15 12:49	PJJ	TAL PIT
	Instrument ID: CHHP6									
Total/NA	Analysis	300.0		1	1 mL		142454	05/21/15 17:50	JMO	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	142542	05/22/15 10:06	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	143685	06/02/15 15:59	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	143420	06/01/15 08:17	CLL	TAL PIT
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-44321-1

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

Lab Sample ID: 180-44321-25

Date Collected: 05/20/15 11:30

Matrix: Water

Date Received: 05/21/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C	DL	10	5 mL	5 mL	143337	05/31/15 19:38	PJJ	TAL PIT
	Instrument ID: CHHP6									
Total/NA	Analysis	8260C		1	20 mL	20 mL	143422	06/01/15 18:08	PJJ	TAL PIT
	Instrument ID: CHHP7									
Total/NA	Analysis	300.0		1	1 mL		142454	05/21/15 23:55	JMO	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	142542	05/22/15 10:06	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	143685	06/02/15 16:18	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	143420	06/01/15 08:17	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-44321-26

Date Collected: 05/20/15 10:50

Matrix: Water

Date Received: 05/21/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	20 mL	20 mL	143422	06/01/15 16:40	PJJ	TAL PIT
	Instrument ID: CHHP7									
Total/NA	Analysis	300.0		1	1 mL		142454	05/21/15 23:40	JMO	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	142542	05/22/15 10:06	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	143685	06/02/15 16:22	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	143420	06/01/15 08:17	CLL	TAL PIT
	Instrument ID: NOEQUIP									

Client Sample ID: HD-MW-97-0/1-0

Lab Sample ID: 180-44321-27

Date Collected: 05/20/15 12:50

Matrix: Water

Date Received: 05/21/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		25	5 mL	5 mL	143337	05/31/15 13:37	PJJ	TAL PIT
	Instrument ID: CHHP6									
Total/NA	Analysis	300.0		1	1 mL		142454	05/22/15 03:29	JMO	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	142542	05/22/15 10:06	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	143685	06/02/15 16:26	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	143420	06/01/15 08:17	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-44321-28

Date Collected: 05/20/15 14:00

Matrix: Water

Date Received: 05/21/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	143337	05/31/15 14:01	PJJ	TAL PIT
	Instrument ID: CHHP6									
Total/NA	Analysis	300.0		1	1 mL		142454	05/22/15 04:15	JMO	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Analysis	300.0		5	1 mL		142454	05/22/15 04:31	JMO	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	142542	05/22/15 10:06	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	143685	06/02/15 16:40	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	143420	06/01/15 08:17	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-44321-29

Date Collected: 05/20/15 10:07

Matrix: Water

Date Received: 05/21/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		125	5 mL	5 mL	143337	05/31/15 14:25	PJJ	TAL PIT
	Instrument ID: CHHP6									
Total/NA	Analysis	300.0		1	1 mL		142454	05/21/15 19:52	JMO	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Analysis	300.0		5	1 mL		142454	05/22/15 07:11	JMO	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	142542	05/22/15 10:06	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	143685	06/02/15 16:44	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	143420	06/01/15 08:17	CLL	TAL PIT
	Instrument ID: NOEQUIP									

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

Lab Sample ID: 180-44321-30

Date Collected: 05/20/15 12:31

Matrix: Water

Date Received: 05/21/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		50	5 mL	5 mL	143337	05/31/15 14:49	PJJ	TAL PIT
	Instrument ID: CHHP6									
Total/NA	Analysis	300.0		1	1 mL		142454	05/22/15 02:44	JMO	TAL PIT
	Instrument ID: CHIC2100A									
Total/NA	Prep	3005A			50 mL	50 mL	142542	05/22/15 10:06	AB1	TAL PIT
Total/NA	Analysis	6020A		1	50 mL	50 mL	143685	06/02/15 16:47	CNF	TAL PIT
	Instrument ID: M									
Total/NA	Analysis	SM 2320B		1	50 mL	50 mL	143420	06/01/15 08:17	CLL	TAL PIT
	Instrument ID: NOEQUIP									

Lab Chronicle

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-44321-1

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

Lab Sample ID: 180-44321-31

Date Collected: 05/20/15 12:01
Matrix: Water
Date Received: 05/21/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	143337	05/31/15 10:42	PJJ	TAL PIT
	Instrument ID: CHHP6									

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

Lab Sample ID: 180-44321-32

Date Collected: 05/20/15 08:20
Matrix: Water
Date Received: 05/21/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	143337	05/31/15 16:02	PJJ	TAL PIT
	Instrument ID: CHHP6									

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

Lab Sample ID: 180-44321-33

Date Collected: 05/20/15 08:15
Matrix: Water
Date Received: 05/21/15 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	143337	05/31/15 16:26	PJJ	TAL PIT
	Instrument ID: CHHP6									

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

JMO = John Oravec

PJJ = Patrick Journet

Certification Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-44321-1

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	04-30-17

Method Summary

Client: Groundwater Sciences Corporation
Project/Site: Harley Davidson

TestAmerica Job ID: 180-44321-1

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: 180-44321-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
180-44321-1	HD-COD-SW-6-0/1-0	Water	05/20/15 10:45	05/21/15 09:00
180-44321-2	HD-COD-SW-7-0/1-0	Water	05/20/15 13:35	05/21/15 09:00
180-44321-3	HD-COD-SW-8-0/1-0	Water	05/20/15 09:10	05/21/15 09:00
180-44321-4	HD-COD-SW-9-0/1-0	Water	05/20/15 11:50	05/21/15 09:00
180-44321-5	HD-COD-SW-10-0/1-0	Water	05/20/15 09:45	05/21/15 09:00
180-44321-6	HD-COD-SW-11-0/1-0	Water	05/20/15 12:15	05/21/15 09:00
180-44321-7	HD-COD-SW-12-0/1-0	Water	05/20/15 12:30	05/21/15 09:00
180-44321-8	HD-COD-SW-13-0/1-0	Water	05/20/15 09:35	05/21/15 09:00
180-44321-9	HD-COD-SW-15-0/1-0	Water	05/20/15 12:40	05/21/15 09:00
180-44321-10	HD-COD-SW-16-0/1-0	Water	05/20/15 10:10	05/21/15 09:00
180-44321-11	HD-COD-SW-17-0/1-0	Water	05/20/15 10:25	05/21/15 09:00
180-44321-12	HD-COD-SW-20-0/1-0	Water	05/20/15 10:50	05/21/15 09:00
180-44321-13	HD-COD-SW-26-0/1-0	Water	05/20/15 13:15	05/21/15 09:00
180-44321-14	HD-COD-SW-27-0/1-0	Water	05/20/15 12:50	05/21/15 09:00
180-44321-15	HD-COD-SW-28-0/1-0	Water	05/20/15 12:05	05/21/15 09:00
180-44321-16	HD-COD-SW-29-0/1-0	Water	05/20/15 08:47	05/21/15 09:00
180-44321-17	HD-QC3-0/1-2	Water	05/20/15 12:00	05/21/15 09:00
180-44321-18	HD-QC2-0/1-1	Water	05/20/15 08:00	05/21/15 09:00
180-44321-19	HD-CW-9-0/1-0	Water	05/20/15 10:10	05/21/15 09:00
180-44321-20	HD-CW-13-0/1-0	Water	05/20/15 10:15	05/21/15 09:00
180-44321-21	HD-CW-15A-0/1-0	Water	05/20/15 10:25	05/21/15 09:00
180-44321-22	HD-CW-17-0/1-0	Water	05/20/15 10:35	05/21/15 09:00
180-44321-23	HD-CW-20-0/1-0	Water	05/20/15 10:45	05/21/15 09:00
180-44321-24	HD-MW-95-0/1-0	Water	05/20/15 09:25	05/21/15 09:00
180-44321-25	HD-MW-96S-0/1-0	Water	05/20/15 11:30	05/21/15 09:00
180-44321-26	HD-MW-96D-0/1-0	Water	05/20/15 10:50	05/21/15 09:00
180-44321-27	HD-MW-97-0/1-0	Water	05/20/15 12:50	05/21/15 09:00
180-44321-28	HD-CW-18-0/1-0	Water	05/20/15 14:00	05/21/15 09:00
180-44321-29	HD-MW-50D-0/1-0	Water	05/20/15 10:07	05/21/15 09:00
180-44321-30	HD-MW-51S-0/1-0	Water	05/20/15 12:31	05/21/15 09:00
180-44321-31	HD-QC4-0/1-2	Water	05/20/15 12:01	05/21/15 09:00
180-44321-32	HD-QC1-0/1-4	Water	05/20/15 08:20	05/21/15 09:00
180-44321-33	HD-QC1-0/1-3	Water	05/20/15 08:15	05/21/15 09:00

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Instrument ID: CHHP6 Analysis Batch Number: 140280

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Instrument ID: CHHP6 Analysis Batch Number: 140280

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

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

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

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

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

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

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Instrument ID: CHHP6 Analysis Batch Number: 143337

Lab Sample ID: 180-44321-24 Client Sample ID: HD-MW-95-0/1-0

Date Analyzed: 05/31/15 12:49 Lab File ID: 60530011.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.45	Poor chromatography	journetp	05/31/15 15:58

Lab Sample ID: 180-44321-27 Client Sample ID: HD-MW-97-0/1-0

Date Analyzed: 05/31/15 13:37 Lab File ID: 60530013.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.45	Poor chromatography	journetp	05/31/15 16:00
1,1,1-Trichloroethane	6.53	Poor chromatography	journetp	05/31/15 16:00

Lab Sample ID: 180-44321-28 Client Sample ID: HD-CW-18-0/1-0

Date Analyzed: 05/31/15 14:01 Lab File ID: 60530014.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.44	Poor chromatography	journetp	05/31/15 16:14
trans-1,2-Dichloroethene	4.56	Poor chromatography	journetp	05/31/15 16:14
Tetrachloroethene	9.52	Poor chromatography	journetp	05/31/15 16:14

Lab Sample ID: 180-44321-29 Client Sample ID: HD-MW-50D-0/1-0

Date Analyzed: 05/31/15 14:25 Lab File ID: 60530015.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Vinyl chloride	1.89	Poor chromatography	journetp	05/31/15 16:18
Fluorobenzene (IS)	7.29	Poor chromatography	journetp	05/31/15 16:18

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Instrument ID: CHHP6 Analysis Batch Number: 143337

Lab Sample ID: 180-44321-33 Client Sample ID: HD-QC1-0/1-3

Date Analyzed: 05/31/15 16:26 Lab File ID: 60530020.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.43	Poor chromatography	fergusond	06/01/15 08:24

Lab Sample ID: 180-44321-19 Client Sample ID: HD-CW-9-0/1-0

Date Analyzed: 05/31/15 17:14 Lab File ID: 60530022.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloroethane	5.22	Peak Not Integrated	fergusond	06/01/15 08:27

Lab Sample ID: 180-44321-20 Client Sample ID: HD-CW-13-0/1-0

Date Analyzed: 05/31/15 17:38 Lab File ID: 60530023.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloroethane	5.21	Peak Not Integrated	fergusond	06/01/15 08:28

Lab Sample ID: 180-44321-23 DL Client Sample ID: HD-CW-20-0/1-0 DL

Date Analyzed: 05/31/15 18:50 Lab File ID: 60530026.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloroethane	5.21	Peak Not Integrated	fergusond	06/01/15 08:35

Lab Sample ID: 180-44321-16 Client Sample ID: HD-COD-SW-29-0/1-0

Date Analyzed: 05/31/15 19:14 Lab File ID: 60530027.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acetone	3.43	Poor chromatography	fergusond	06/01/15 08:37
Trichloroethene	7.69	Poor chromatography	fergusond	06/01/15 08:37

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Instrument ID: CHHP6 Analysis Batch Number: 143337

Lab Sample ID: 180-44321-25 DL Client Sample ID: HD-MW-96S-0/1-0 DL

Date Analyzed: 05/31/15 19:38 Lab File ID: 60530028.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1,1-Trichloroethane	6.55	Poor chromatography	fergusond	06/01/15 08:39

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Instrument ID: CHHP7 Analysis Batch Number: 136928

Lab Sample ID: IC 180-136928/3 Client Sample ID:

Date Analyzed: 03/30/15 10:57 Lab File ID: 7033003.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorodifluoromethane	1.93	Poor chromatography	journetp	03/30/15 11:35
Chloromethane	2.09	Poor chromatography	journetp	03/30/15 11:35
Vinyl chloride	2.17	Poor chromatography	journetp	03/30/15 11:35
Bromomethane	2.50	Poor chromatography	journetp	03/30/15 11:35
1,1-Dichloroethene	3.46	Poor chromatography	journetp	03/30/15 11:35
1,1,2-Trichloro-1,2,2-trifluoroethane	3.64	Poor chromatography	journetp	03/30/15 11:35
Acetone	3.87	Poor chromatography	journetp	03/30/15 11:35
Allyl chloride	4.06	Poor chromatography	journetp	03/30/15 11:35
Methylene Chloride	4.32	Poor chromatography	journetp	03/30/15 11:35
Methyl acetate	4.36	Poor chromatography	journetp	03/30/15 11:35
Acrylonitrile	4.87	Poor chromatography	journetp	03/30/15 11:35
Methyl tert-butyl ether	4.90	Poor chromatography	journetp	03/30/15 11:35
Hexane	5.12	Poor chromatography	journetp	03/30/15 11:35
Vinyl acetate	5.12	Poor chromatography	journetp	03/30/15 11:35
1,1-Dichloroethane	5.33	Poor chromatography	journetp	03/30/15 11:35
2,2-Dichloropropane	6.08	Poor chromatography	journetp	03/30/15 11:35
Chloroform	6.50	Poor chromatography	journetp	03/30/15 11:35
1,1,1-Trichloroethane	6.67	Poor chromatography	journetp	03/30/15 11:35
Cyclohexane	6.72	Poor chromatography	journetp	03/30/15 11:35
Tetrahydrofuran	6.73	Poor chromatography	journetp	03/30/15 11:35
1,1-Dichloropropene	6.86	Poor chromatography	journetp	03/30/15 11:35
1,2-Dichloroethane	7.13	Poor chromatography	journetp	03/30/15 11:35
Isobutyl alcohol	7.21	Poor chromatography	journetp	03/30/15 11:35
n-Heptane	7.39	Poor chromatography	journetp	03/30/15 11:35
Trichloroethene	7.80	Poor chromatography	journetp	03/30/15 11:35
Dibromomethane	8.15	Poor chromatography	journetp	03/30/15 11:35
1,4-Dioxane	8.21	Poor chromatography	journetp	03/30/15 11:35

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Instrument ID: CHHP7 Analysis Batch Number: 136928

Lab Sample ID: IC 180-136928/4 Client Sample ID:

Date Analyzed: 03/30/15 11:28 Lab File ID: 7033004.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,3-Butadiene	2.20	Poor chromatography	journetp	03/30/15 12:11
Carbon disulfide	3.75	Poor chromatography	journetp	03/30/15 12:11
Acetone	3.87	Poor chromatography	journetp	03/30/15 12:11
Allyl chloride	4.11	Poor chromatography	journetp	03/30/15 12:11
tert-Butyl alcohol	4.73	Poor chromatography	journetp	03/30/15 12:11
Acrylonitrile	4.82	Poor chromatography	journetp	03/30/15 12:11
Chloroform	6.51	Poor chromatography	journetp	03/30/15 12:11
1,4-Dioxane	8.21	Poor chromatography	journetp	03/30/15 12:11

Lab Sample ID: ICIS 180-136928/5 Client Sample ID:

Date Analyzed: 03/30/15 11:55 Lab File ID: 7033005.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon disulfide	3.76	Poor chromatography	journetp	03/30/15 12:42
1,4-Dioxane	8.21	Poor chromatography	journetp	03/30/15 15:32

Lab Sample ID: IC 180-136928/6 Client Sample ID:

Date Analyzed: 03/30/15 12:23 Lab File ID: 7033006.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon disulfide	3.73	Poor chromatography	journetp	03/30/15 13:12

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Instrument ID: CHHP7 Analysis Batch Number: 136928

Lab Sample ID: IC 180-136928/7 Client Sample ID:

Date Analyzed: 03/30/15 13:05 Lab File ID: 7033007.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon disulfide	3.76	Poor chromatography	journetp	03/30/15 13:53
tert-Butyl alcohol	4.74	Poor chromatography	journetp	03/30/15 16:20
1,2,4-Trichlorobenzene	14.80	Poor chromatography	journetp	03/30/15 16:20

Lab Sample ID: IC 180-136928/8 Client Sample ID:

Date Analyzed: 03/30/15 13:32 Lab File ID: 7033008.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon disulfide	3.73	Poor chromatography	journetp	03/30/15 14:17
tert-Butyl alcohol	4.74	Poor chromatography	journetp	03/30/15 14:17

Lab Sample ID: IC 180-136928/10 Client Sample ID:

Date Analyzed: 03/30/15 14:36 Lab File ID: 7033010.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon disulfide	3.75	Poor chromatography	journetp	03/30/15 15:30
Allyl chloride	4.08	Poor chromatography	journetp	03/30/15 15:30
Acrylonitrile	4.84	Poor chromatography	journetp	03/30/15 15:30

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Instrument ID: CHHP7 Analysis Batch Number: 143153

Lab Sample ID: CCVIS 180-143153/3 Client Sample ID:

Date Analyzed: 05/29/15 08:40 Lab File ID: 7052902.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloroethane	2.59	Poor chromatography	journetp	05/29/15 09:26
Carbon disulfide	3.86	Poor chromatography	journetp	05/29/15 09:26
2-Butanone (MEK)	6.17	Poor chromatography	journetp	05/29/15 09:26

Lab Sample ID: 180-44321-1 Client Sample ID: HD-COD-SW-6-0/1-0

Date Analyzed: 05/29/15 12:01 Lab File ID: 7052907.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methylene Chloride	4.41	Poor chromatography	journetp	05/29/15 13:22

Lab Sample ID: 180-44321-3 Client Sample ID: HD-COD-SW-8-0/1-0

Date Analyzed: 05/29/15 12:28 Lab File ID: 7052908.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methylene Chloride	4.40	Poor chromatography	journetp	05/29/15 13:48
Trichloroethene	7.79	Poor chromatography	journetp	05/29/15 13:48

Lab Sample ID: 180-44321-4 Client Sample ID: HD-COD-SW-9-0/1-0

Date Analyzed: 05/29/15 12:56 Lab File ID: 7052909.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Methylene Chloride	4.39	Poor chromatography	journetp	05/29/15 13:47
Trichloroethene	7.82	Poor chromatography	journetp	05/29/15 13:47

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Instrument ID: CHHP7 Analysis Batch Number: 143153

Lab Sample ID: 180-44321-1 MS Client Sample ID: HD-COD-SW-6-0/1-0 MS

Date Analyzed: 05/29/15 13:23 Lab File ID: 7052910.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon disulfide	3.86	Poor chromatography	journetp	05/29/15 13:57

Lab Sample ID: 180-44321-1 MSD Client Sample ID: HD-COD-SW-6-0/1-0 MSD

Date Analyzed: 05/29/15 13:50 Lab File ID: 7052911.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloroethene	3.58	Poor chromatography	journetp	05/31/15 10:15
Carbon disulfide	3.87	Poor chromatography	journetp	05/31/15 10:15

Lab Sample ID: LCS 180-143153/13 Client Sample ID:

Date Analyzed: 05/29/15 14:18 Lab File ID: 7052912.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	2.03	Poor chromatography	journetp	05/29/15 16:58
Carbon disulfide	3.87	Poor chromatography	journetp	05/29/15 16:58

Lab Sample ID: 180-44321-11 Client Sample ID: HD-COD-SW-17-0/1-0

Date Analyzed: 05/29/15 18:44 Lab File ID: 7052919.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
cis-1,2-Dichloroethene	6.14	Poor chromatography	journetp	05/31/15 10:12
1,1,1-Trichloroethane	6.70	Poor chromatography	journetp	05/31/15 10:12

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Instrument ID: CHHP7 Analysis Batch Number: 143339

Lab Sample ID: CCVIS 180-143339/3 Client Sample ID:

Date Analyzed: 05/31/15 11:59 Lab File ID: 7053103.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	2.04	Poor chromatography	journetp	05/31/15 12:34
Vinyl chloride	2.21	Poor chromatography	journetp	05/31/15 12:36
Bromomethane	2.50	Poor chromatography	journetp	05/31/15 12:36
Chloroethane	2.65	Poor chromatography	journetp	05/31/15 12:36
Dichlorofluoromethane	2.90	Poor chromatography	journetp	05/31/15 12:36
Carbon disulfide	3.86	Poor chromatography	journetp	05/31/15 12:36
2-Butanone (MEK)	6.16	Poor chromatography	journetp	05/31/15 12:36

Lab Sample ID: LCS 180-143339/11 Client Sample ID:

Date Analyzed: 05/31/15 16:05 Lab File ID: 7053111.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Vinyl chloride	2.23	Poor chromatography	journetp	06/01/15 08:57
Chloroethane	2.65	Poor chromatography	journetp	06/01/15 08:57
Acrylonitrile	4.77	Poor chromatography	journetp	06/01/15 08:57

Lab Sample ID: 180-44321-15 MS Client Sample ID: HD-COD-SW-28-0/1-0 MS

Date Analyzed: 05/31/15 16:32 Lab File ID: 7053112.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon disulfide	3.88	Poor chromatography	journetp	06/01/15 09:06

Lab Sample ID: 180-44321-15 MSD Client Sample ID: HD-COD-SW-28-0/1-0 MSD

Date Analyzed: 05/31/15 16:59 Lab File ID: 7053113.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon disulfide	3.90	Poor chromatography	journetp	06/01/15 09:07

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Instrument ID: CHHP7 Analysis Batch Number: 143339

Lab Sample ID: 180-44321-13 Client Sample ID: HD-COD-SW-26-0/1-0

Date Analyzed: 05/31/15 19:44 Lab File ID: 7053119.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloroform	6.50	Poor chromatography	journetp	06/01/15 09:12
Chlorobenzene-d5	10.47	Poor chromatography	journetp	06/01/15 09:54

Lab Sample ID: 180-44321-14 Client Sample ID: HD-COD-SW-27-0/1-0

Date Analyzed: 05/31/15 20:12 Lab File ID: 7053120.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
cis-1,2-Dichloroethene	6.12	Poor chromatography	journetp	06/01/15 09:14
Trichloroethene	7.80	Poor chromatography	journetp	06/01/15 09:14

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Instrument ID: CHHP7 Analysis Batch Number: 143422

Lab Sample ID: CCVIS 180-143422/3 Client Sample ID:

Date Analyzed: 06/01/15 10:16 Lab File ID: 7060103.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorodifluoromethane	1.92	Poor chromatography	journetp	06/01/15 11:05
Chloromethane	2.05	Poor chromatography	journetp	06/01/15 11:05
Vinyl chloride	2.23	Poor chromatography	journetp	06/01/15 11:05
Bromomethane	2.51	Poor chromatography	journetp	06/01/15 11:05
1,1-Dichloroethene	3.54	Poor chromatography	journetp	06/01/15 11:05

Lab Sample ID: LCS 180-143422/8 Client Sample ID:

Date Analyzed: 06/01/15 13:26 Lab File ID: 7060108.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	2.05	Poor chromatography	journetp	06/01/15 14:03
Vinyl chloride	2.20	Poor chromatography	journetp	06/01/15 13:58

Lab Sample ID: 180-44321-18 MS Client Sample ID: HD-QC2-0/1-1 MS

Date Analyzed: 06/01/15 13:54 Lab File ID: 7060109.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon disulfide	3.91	Poor chromatography	journetp	06/01/15 15:12

Lab Sample ID: 180-44321-18 MSD Client Sample ID: HD-QC2-0/1-1 MSD

Date Analyzed: 06/01/15 14:22 Lab File ID: 7060110.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	2.08	Poor chromatography	journetp	06/01/15 15:10
Carbon disulfide	3.93	Poor chromatography	journetp	06/01/15 15:10

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Instrument ID: CHHP7 Analysis Batch Number: 143422

Lab Sample ID: 180-44321-18 Client Sample ID: HD-QC2-0/1-1

Date Analyzed: 06/01/15 15:45 Lab File ID: 7060113.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
cis-1,2-Dichloroethene	6.15	Poor chromatography	journetp	06/01/15 16:41
1,1,1-Trichloroethane	6.73	Poor chromatography	journetp	06/01/15 16:41

Lab Sample ID: 180-44321-22 Client Sample ID: HD-CW-17-0/1-0

Date Analyzed: 06/01/15 16:12 Lab File ID: 7060114.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloroethene	3.66	Poor chromatography	journetp	06/01/15 16:52

Lab Sample ID: 180-44321-26 Client Sample ID: HD-MW-96D-0/1-0

Date Analyzed: 06/01/15 16:40 Lab File ID: 7060115.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloroform	6.54	Poor chromatography	journetp	06/01/15 17:16

Lab Sample ID: 180-44321-23 Client Sample ID: HD-CW-20-0/1-0

Date Analyzed: 06/01/15 17:40 Lab File ID: 7060117.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloroethene	3.64	Poor chromatography	journetp	06/02/15 09:47

Lab Sample ID: 180-44321-25 Client Sample ID: HD-MW-96S-0/1-0

Date Analyzed: 06/01/15 18:08 Lab File ID: 7060118.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
1,1-Dichloroethene	3.67	Poor chromatography	journetp	06/02/15 09:43

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Instrument ID: CHHP7 Analysis Batch Number: 143527

Lab Sample ID: CCVIS 180-143527/3 Client Sample ID:

Date Analyzed: 06/02/15 10:22 Lab File ID: 7060203.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	2.03	Poor chromatography	journetp	06/02/15 10:57
Vinyl chloride	2.23	Poor chromatography	journetp	06/02/15 10:57
Carbon disulfide	3.84	Poor chromatography	journetp	06/02/15 11:30

Lab Sample ID: LCS 180-143527/10 Client Sample ID:

Date Analyzed: 06/02/15 14:40 Lab File ID: 7060210.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon disulfide	3.91	Poor chromatography	journetp	06/02/15 15:34

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
icccv_01244	05/22/15	05/21/15	DI Water, Lot 0	15 mL	ICPRIMARYSTA_00006	0.3 mL	Chloride	50 ug/mL
							Nitrate as N	2.5 ug/mL
							Sulfate	50 ug/mL
.ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Chloride	2500 ug/mL
							Nitrate as N	125 ug/mL
							Sulfate	2500 ug/mL
icicv_01276	05/22/15	05/21/15	DI Water, Lot NA	5 mL	ICSECONDSTD1_00005	0.6 mL	Chloride	60 ug/mL
							Nitrate as N	3 ug/mL
							Sulfate	60 ug/mL
.ICSECONDSTD1_00005	03/01/16	inorganic ventures, Lot J2-MEB568059			(Purchased Reagent)		Chloride	500 ug/mL
							Nitrate as N	25 ug/mL
							Sulfate	500 ug/mL
ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Chloride	2500 ug/mL
							Nitrate as N	125 ug/mL
							Sulfate	2500 ug/mL
ICSTDL2_00179	05/20/15	05/19/15	DI Water, Lot SUPER Q	5 mL	ICSTDL6_00228	0.1 mL	Bromide	0.2 ug/mL
							Chloride	1 ug/mL
							Fluoride	0.05 ug/mL
							Nitrate as N	0.05 ug/mL
							Orthophosphate as P	0.05 ug/mL
							Sulfate	1 ug/mL
							Nitrite as N	0.05 ug/mL
.ICSTDL6_00228	05/20/15	05/19/15	DI Water, Lot SUPER Q	5 mL	ICPRIMARYSTA_00006	0.1 mL	Bromide	10 ug/mL
							Chloride	50 ug/mL
							Fluoride	2.5 ug/mL
							Nitrate as N	2.5 ug/mL
							Orthophosphate as P	2.5 ug/mL
							Sulfate	50 ug/mL
					ICPRIMARYSTDB_00008	0.1 mL	Nitrite as N	2.5 ug/mL
..ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Orthophosphate as P	125 ug/mL
							Sulfate	2500 ug/mL
..ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL3_00225	05/20/15	05/19/15	DI Water, Lot SUPER Q	5 mL	ICSTDL6_00228	0.5 mL	Bromide	1 ug/mL
							Chloride	5 ug/mL
							Fluoride	0.25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
ICSTDL5_00156	05/20/15	05/19/15	DI Water, Lot SUPER Q	5 mL	ICSTDL7_00149	1 mL	Bromide	4 ug/mL
							Chloride	20 ug/mL
							Fluoride	1 ug/mL
							Nitrate as N	1 ug/mL
							Orthophosphate as P	1 ug/mL
							Sulfate	20 ug/mL
							Nitrite as N	1 ug/mL
.ICSTDL7_00149	05/20/15	05/19/15	DI Water, Lot SUPER Q	5 mL	ICPRIMARYSTA_00006	0.2 mL	Bromide	20 ug/mL
							Chloride	100 ug/mL
							Fluoride	5 ug/mL
							Nitrate as N	5 ug/mL
							Orthophosphate as P	5 ug/mL
							Sulfate	100 ug/mL
					ICPRIMARYSTDB_00008	0.2 mL	Nitrite as N	5 ug/mL
..ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Orthophosphate as P	125 ug/mL
							Sulfate	2500 ug/mL
..ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL6_00228	05/20/15	05/19/15	DI Water, Lot SUPER Q	5 mL	ICPRIMARYSTA_00006	0.1 mL	Bromide	10 ug/mL
							Chloride	50 ug/mL
							Fluoride	2.5 ug/mL
							Nitrate as N	2.5 ug/mL
							Orthophosphate as P	2.5 ug/mL
							Sulfate	50 ug/mL
					ICPRIMARYSTDB_00008	0.1 mL	Nitrite as N	2.5 ug/mL
.ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Orthophosphate as P	125 ug/mL
							Sulfate	2500 ug/mL
.ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL7_00149	05/20/15	05/19/15	DI Water, Lot SUPER Q	5 mL	ICPRIMARYSTA_00006	0.2 mL	Bromide	20 ug/mL
							Chloride	100 ug/mL
							Fluoride	5 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Nitrate as N	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_00118	05/20/15	05/19/15	DI Water, Lot SUPER Q	10 mL	ICPRIMARYSTA_00006	0.6 mL	Bromide	30 ug/mL
							Chloride	150 ug/mL
							Fluoride	7.5 ug/mL
							Nitrate as N	7.5 ug/mL
							Orthophosphate as P	7.5 ug/mL
							Sulfate	150 ug/mL
					ICPRIMARYSTDB_00008	0.6 mL	Nitrite as N	7.5 ug/mL
.ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Orthophosphate as P	125 ug/mL
							Sulfate	2500 ug/mL
.ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
ICSTDL9_00119	05/20/15	05/19/15	DI Water, Lot SUPER Q	10 mL	ICPRIMARYSTA_00006	0.8 mL	Bromide	40 ug/mL
							Chloride	200 ug/mL
							Fluoride	10 ug/mL
							Nitrate as N	10 ug/mL
							Orthophosphate as P	10 ug/mL
							Sulfate	200 ug/mL
					ICPRIMARYSTDB_00008	0.8 mL	Nitrite as N	10 ug/mL
.ICPRIMARYSTA_00006	10/08/15	HIGH-PURITY STDS, Lot 1427624			(Purchased Reagent)		Bromide	500 ug/mL
							Chloride	2500 ug/mL
							Fluoride	125 ug/mL
							Nitrate as N	125 ug/mL
							Orthophosphate as P	125 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Sulfate	2500 ug/mL
.ICPRIMARYSTDB_00008	10/08/15	HIGH-PURITY STDS, Lot 1427626			(Purchased Reagent)		Nitrite as N	125 ug/mL
MCCV1X_00076	07/01/15	05/31/15	2% Nitric Acid, Lot 1241747	500 mL	MCALSPECAREV_00006	10 mL	Calcium	50 ppm
							Magnesium	50 ppm
							Potassium	50 ppm
							Sodium	50 ppm
.MCALSPECAREV_00006	06/01/16	Inorganic Ventures, Lot J2-MEB575123			(Purchased Reagent)		Calcium	2500 ppm
							Magnesium	2500 ppm
							Potassium	2500 ppm
							Sodium	2500 ppm
MCRIX_00066	05/29/15	04/29/15	HNO3, Lot 1191081	250 mL	MMSCRI-1B_00005	1 mL	Calcium	0.5 ppm
							Magnesium	0.5 ppm
							Potassium	0.5 ppm
							Sodium	0.5 ppm
.MMSCRI-1B_00005	04/01/16	Inorganic Ventures, Lot J2-MEB572092			(Purchased Reagent)		Calcium	125 ppm
							Magnesium	125 ppm
							Potassium	125 ppm
							Sodium	125 ppm
MICSABX_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
							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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Mo	2 ppm
							Potassium	100 ppm
							Sodium	100 ppm
							Ti	2 ppm
.M6020ICS-0A_00005	09/01/15	Inorganic Ventures, Lot G2-MEB476152MCA			(Purchased Reagent)		Al	1000 ppm
							Calcium	1000 ppm
							Fe	1000 ppm
							Magnesium	1000 ppm
							Mo	20 ppm
							Potassium	1000 ppm
							Sodium	1000 ppm
							Ti	20 ppm
MICVX_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_00047	07/01/15	05/31/15	DI Water, Lot 1241717	250 mL	MCALSPECAREV_00006	10 mg/L	Calcium	100 ppm
							Magnesium	100 ppm
							Potassium	100 ppm
							Sodium	100 ppm
.MCALSPECAREV_00006	06/01/16	Inorganic Ventures, Lot J2-MEB575123			(Purchased Reagent)		Calcium	2500 ppm
							Magnesium	2500 ppm
							Potassium	2500 ppm
							Sodium	2500 ppm
MTAPITTICPMS_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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Fe	100 ug/mL
							Mn	50 ug/mL
							Ni	50 ug/mL
							Pb	2 ug/mL
							Se	1 ug/mL
							Sr	100 ug/mL
							Tl	5 ug/mL
							V	50 ug/mL
							Zn	50 ug/mL
MTAPITTMSA_00023	12/01/15		INORGANIC VENTURES, Lot H2-MEB532044		(Purchased Reagent)		Calcium	5000 ug/mL
							Magnesium	5000 ug/mL
							Potassium	5000 ug/mL
							Sodium	5000 ug/mL
MTAPITTMSA_00024	04/01/16		INORGANIC VENTURES, Lot H2-MEB532044		(Purchased Reagent)		Calcium	5000 ug/mL
							Magnesium	5000 ug/mL
							Potassium	5000 ug/mL
							Sodium	5000 ug/mL
MTAPITTMSC_00030	04/01/16		Inorganic Ventures, Lot H2-MEB532046		(Purchased Reagent)		Mo	100 ug/mL
							Sb	50 ug/mL
							Si	1000 ug/mL
							SiO2	2140 ug/mL
							Sn	200 ug/mL
							Ti	100 ug/mL
VOA8260INT_00030	04/10/15	03/10/15	Methanol, Lot 85233	10 mL	VOA8260INTRES_00091	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_00091	07/31/19		Restek, Lot A0104742		(Purchased Reagent)		1,4-Dichlorobenzene-d4	250 ug/mL
							Chlorobenzene-d5	250 ug/mL
							Fluorobenzene (IS)	250 ug/mL
							TBA-d9 (IS)	5000 ug/mL
VOA8260INT_00032	05/15/15	04/15/15	Methanol, Lot 85233	10 mL	VOA8260INTRES_00095	1 mL	1,4-Dichlorobenzene-d4	25 ug/mL
							Chlorobenzene-d5	25 ug/mL
							Fluorobenzene (IS)	25 ug/mL
							TBA-d9 (IS)	500 ug/mL
.VOA8260INTRES_00095	07/31/19		Restek, Lot A0104742		(Purchased Reagent)		1,4-Dichlorobenzene-d4	250 ug/mL
							Chlorobenzene-d5	250 ug/mL
							Fluorobenzene (IS)	250 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							TBA-d9 (IS)	5000 ug/mL
VOA8260INT_00033	06/01/15	05/01/15	Methanol, Lot 85233	10 mL	VOA8260INTRES_00087	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_00087	07/31/19		Restek, Lot A0104742		(Purchased Reagent)		1,4-Dichlorobenzene-d4	250 ug/mL
							Chlorobenzene-d5	250 ug/mL
							Fluorobenzene (IS)	250 ug/mL
							TBA-d9 (IS)	5000 ug/mL
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_00017	06/27/15	06/27/14	Methanol, Lot 62345	100 mL	VOA8260SURRES_00046	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_00046	02/01/18		Restek, Lot A093505		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
VOA8260SURR_00034	04/15/16	04/15/15	Methanol, Lot 85233	100 mL	VOA8260SURRES_00084	1 mL	1,2-Dichloroethane-d4 (Surr)	25 ug/mL
							4-Bromofluorobenzene (Surr)	25 ug/mL
							Dibromofluoromethane (Surr)	25 ug/mL
							Toluene-d8 (Surr)	25 ug/mL
.VOA8260SURRES_00084	04/30/19		Restek, Lot A0102817		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
VOA8260SURR_00035	06/01/15	05/01/15	Methanol, Lot 85233	100 mL	VOA8260SURRES_00089	1 mL	1,2-Dichloroethane-d4 (Surr)	25 ug/mL
							4-Bromofluorobenzene (Surr)	25 ug/mL
							Dibromofluoromethane (Surr)	25 ug/mL
							Toluene-d8 (Surr)	25 ug/mL
.VOA8260SURRES_00089	04/30/19		Restek, Lot A0102817		(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	2500 ug/mL
							4-Bromofluorobenzene (Surr)	2500 ug/mL
							Dibromofluoromethane (Surr)	2500 ug/mL
							Toluene-d8 (Surr)	2500 ug/mL
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_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
							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

REAGENT TRACEABILITY SUMMARY

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SDG No.:

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

REAGENT TRACEABILITY SUMMARY

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SDG No.:

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

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							trans-1,2-Dichloroethene	2500 ug/mL
							trans-1,3-Dichloropropene	2500 ug/mL
							Trichloroethene	2500 ug/mL
							Xylenes, Total	5000 ug/mL
VOA8260VOAPRI_00108	04/06/15	03/30/15	Methanol, Lot 85233	10 mL	VOA8260GAS1ST_00092	0.1 mL	Bromomethane	25 ug/mL
							Butadiene	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Dichlorodifluoromethane	25 ug/mL
							Dichlorofluoromethane	25 ug/mL
							Trichlorofluoromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOAPRI_00106	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

REAGENT TRACEABILITY SUMMARY

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SDG No.:

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

REAGENT TRACEABILITY SUMMARY

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Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00092	09/30/16		Restek, Lot A0108198		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Butadiene	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Dichlorofluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.VOA8260VOAPRI_00106	04/19/15	03/19/15	Methanol, Lot 85233	10 mL	VOA8260KET1ST_00038	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_00014	1 mL	1,1,1,2-Tetrachloroethane	200 ug/mL
							1,1,1-Trichloroethane	200 ug/mL
							1,1,2,2-Tetrachloroethane	200 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	200 ug/mL
							1,1,2-Trichloroethane	200 ug/mL
							1,1-Dichloroethane	200 ug/mL
							1,1-Dichloroethene	200 ug/mL
							1,1-Dichloropropene	200 ug/mL
							1,2,3-Trichlorobenzene	200 ug/mL
							1,2,3-Trichloropropane	200 ug/mL
							1,2,4-Trichlorobenzene	200 ug/mL
							1,2,4-Trimethylbenzene	200 ug/mL
							1,2-Dibromo-3-Chloropropane	200 ug/mL
							1,2-Dibromoethane (EDB)	200 ug/mL
							1,2-Dichlorobenzene	200 ug/mL
							1,2-Dichloroethane	200 ug/mL
							1,2-Dichloropropane	200 ug/mL
							1,3,5-Trimethylbenzene	200 ug/mL
							1,3-Dichlorobenzene	200 ug/mL

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,3-Dichloropropane	200 ug/mL
							1,4-Dichlorobenzene	200 ug/mL
							1,4-Dioxane	4000 ug/mL
							2,2-Dichloropropane	200 ug/mL
							2-Chlorotoluene	200 ug/mL
							2-Methyl-2-propanol	2000 ug/mL
							3-Chloro-1-propene	200 ug/mL
							4-Chlorotoluene	200 ug/mL
							4-Isopropyltoluene	200 ug/mL
							Acrylonitrile	2000 ug/mL
							Benzene	200 ug/mL
							Bromobenzene	200 ug/mL
							Bromochloromethane	200 ug/mL
							Bromodichloromethane	200 ug/mL
							Bromoform	200 ug/mL
							Carbon disulfide	200 ug/mL
							Carbon tetrachloride	200 ug/mL
							Chlorobenzene	200 ug/mL
							Chloroform	200 ug/mL
							cis-1,2-Dichloroethene	200 ug/mL
							cis-1,3-Dichloropropene	200 ug/mL
							Cyclohexane	200 ug/mL
							Dibromochloromethane	200 ug/mL
							Dibromomethane	200 ug/mL
							Ethyl ether	200 ug/mL
							Ethyl methacrylate	200 ug/mL
							Ethylbenzene	200 ug/mL
							Hexachlorobutadiene	200 ug/mL
							Hexane	200 ug/mL
							Iodomethane	200 ug/mL
							Isobutyl alcohol	5000 ug/mL
							Isopropylbenzene	200 ug/mL
							m-Xylene & p-Xylene	200 ug/mL
							Methyl acetate	1000 ug/mL
							Methyl tert-butyl ether	200 ug/mL
							Methylcyclohexane	200 ug/mL
							Methylene Chloride	200 ug/mL
							n-Butylbenzene	200 ug/mL
							n-Heptane	200 ug/mL
							N-Propylbenzene	200 ug/mL
							Naphthalene	200 ug/mL

REAGENT TRACEABILITY SUMMARY

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Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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_00038	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_00014	02/28/16		Restek, Lot A093581		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2000 ug/mL
							1,1,1-Trichloroethane	2000 ug/mL
							1,1,2,2-Tetrachloroethane	2000 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2000 ug/mL
							1,1,2-Trichloroethane	2000 ug/mL
							1,1-Dichloroethane	2000 ug/mL
							1,1-Dichloroethene	2000 ug/mL
							1,1-Dichloropropene	2000 ug/mL
							1,2,3-Trichlorobenzene	2000 ug/mL
							1,2,3-Trichloropropane	2000 ug/mL
							1,2,4-Trichlorobenzene	2000 ug/mL
							1,2,4-Trimethylbenzene	2000 ug/mL
							1,2-Dibromo-3-Chloropropane	2000 ug/mL
							1,2-Dibromoethane (EDB)	2000 ug/mL
							1,2-Dichlorobenzene	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL
							1,2-Dichloropropane	2000 ug/mL
							1,3,5-Trimethylbenzene	2000 ug/mL
							1,3-Dichlorobenzene	2000 ug/mL
							1,3-Dichloropropane	2000 ug/mL
							1,4-Dichlorobenzene	2000 ug/mL
							1,4-Dioxane	40000 ug/mL
							2,2-Dichloropropane	2000 ug/mL
							2-Chlorotoluene	2000 ug/mL
							2-Methyl-2-propanol	20000 ug/mL

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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL
							trans-1,4-Dichloro-2-butene	2000 ug/mL
							Trichloroethene	2000 ug/mL
VOA8260VOAPRI_00114	05/08/15	05/01/15	Methanol, Lot 85233	10 mL	VOA8260GAS1ST_00096	0.1 mL	Bromomethane	25 ug/mL
							Butadiene	25 ug/mL
							Chloroethane	25 ug/mL
							Chloromethane	25 ug/mL
							Dichlorodifluoromethane	25 ug/mL
							Dichlorofluoromethane	25 ug/mL
							Trichlorofluoromethane	25 ug/mL
							Vinyl chloride	25 ug/mL
					VOA8260VOAPRI_00111	1.25 mL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
							1,1,1,2-Tetrachloroethane	25 ug/mL
							1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,1-Dichloropropene	25 ug/mL
							1,2,3-Trichlorobenzene	25 ug/mL
							1,2,3-Trichloropropane	25 ug/mL
							1,2,4-Trichlorobenzene	25 ug/mL
							1,2,4-Trimethylbenzene	25 ug/mL
							1,2-Dibromo-3-Chloropropane	25 ug/mL
							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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Styrene	25 ug/mL
							tert-Butylbenzene	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Tetrahydrofuran	50 ug/mL
							Toluene	25 ug/mL
							trans-1,2-Dichloroethene	25 ug/mL
							trans-1,3-Dichloropropene	25 ug/mL
							trans-1,4-Dichloro-2-butene	25 ug/mL
							Trichloroethene	25 ug/mL
.VOA8260GAS1ST_00096	01/31/18		Restek, Lot A0108198		(Purchased Reagent)		Bromomethane	2500 ug/mL
							Butadiene	2500 ug/mL
							Chloroethane	2500 ug/mL
							Chloromethane	2500 ug/mL
							Dichlorodifluoromethane	2500 ug/mL
							Dichlorofluoromethane	2500 ug/mL
							Trichlorofluoromethane	2500 ug/mL
							Vinyl chloride	2500 ug/mL
.VOA8260VOAPRI_00111	05/17/15	04/17/15	Methanol, Lot 85233	10 mL	VOA8260KET1ST_00042	0.16 mL	2-Butanone (MEK)	200 ug/mL
							2-Hexanone	200 ug/mL
							4-Methyl-2-pentanone (MIBK)	200 ug/mL
							Acetone	200 ug/mL
					VOA8260MEGA1_00031	1 mL	1,1,1,2-Tetrachloroethane	200 ug/mL
							1,1,1-Trichloroethane	200 ug/mL
							1,1,2,2-Tetrachloroethane	200 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	200 ug/mL
							1,1,2-Trichloroethane	200 ug/mL
							1,1-Dichloroethane	200 ug/mL
							1,1-Dichloroethene	200 ug/mL
							1,1-Dichloropropene	200 ug/mL
							1,2,3-Trichlorobenzene	200 ug/mL
							1,2,3-Trichloropropane	200 ug/mL
							1,2,4-Trichlorobenzene	200 ug/mL
							1,2,4-Trimethylbenzene	200 ug/mL
							1,2-Dibromo-3-Chloropropane	200 ug/mL
							1,2-Dibromoethane (EDB)	200 ug/mL
							1,2-Dichlorobenzene	200 ug/mL
							1,2-Dichloroethane	200 ug/mL
							1,2-Dichloropropane	200 ug/mL
							1,3,5-Trimethylbenzene	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,3-Dichlorobenzene	200 ug/mL
							1,3-Dichloropropane	200 ug/mL
							1,4-Dichlorobenzene	200 ug/mL
							1,4-Dioxane	4000 ug/mL
							2,2-Dichloropropane	200 ug/mL
							2-Chlorotoluene	200 ug/mL
							2-Methyl-2-propanol	2000 ug/mL
							3-Chloro-1-propene	200 ug/mL
							4-Chlorotoluene	200 ug/mL
							4-Isopropyltoluene	200 ug/mL
							Acrylonitrile	2000 ug/mL
							Benzene	200 ug/mL
							Bromobenzene	200 ug/mL
							Bromochloromethane	200 ug/mL
							Bromodichloromethane	200 ug/mL
							Bromoform	200 ug/mL
							Carbon disulfide	200 ug/mL
							Carbon tetrachloride	200 ug/mL
							Chlorobenzene	200 ug/mL
							Chloroform	200 ug/mL
							cis-1,2-Dichloroethene	200 ug/mL
							cis-1,3-Dichloropropene	200 ug/mL
							Cyclohexane	200 ug/mL
							Dibromochloromethane	200 ug/mL
							Dibromomethane	200 ug/mL
							Ethyl ether	200 ug/mL
							Ethyl methacrylate	200 ug/mL
							Ethylbenzene	200 ug/mL
							Hexachlorobutadiene	200 ug/mL
							Hexane	200 ug/mL
							Iodomethane	200 ug/mL
							Isobutyl alcohol	5000 ug/mL
							Isopropylbenzene	200 ug/mL
							m-Xylene & p-Xylene	200 ug/mL
							Methyl acetate	1000 ug/mL
							Methyl tert-butyl ether	200 ug/mL
							Methylcyclohexane	200 ug/mL
							Methylene Chloride	200 ug/mL
							n-Butylbenzene	200 ug/mL
							n-Heptane	200 ug/mL
							N-Propylbenzene	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							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
							1,4-Dioxane	40000 ug/mL
							2,2-Dichloropropane	2000 ug/mL
							2-Chlorotoluene	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Methyl-2-propanol	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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Tetrahydrofuran	4000 ug/mL
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL
							trans-1,4-Dichloro-2-butene	2000 ug/mL
							Trichloroethene	2000 ug/mL
VOA8260VOAPRI_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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							trans-1,3-Dichloropropene	25 ug/mL
							Trichloroethene	25 ug/mL
							Xylenes, Total	50 ug/mL
.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

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

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	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
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
VOAACRPRI_00003	03/31/15	03/03/15	Methanol, Lot 85233	100 mL	VOAACRORES_00064	0.125 mL	Acrolein	25 ug/mL
.VOAACRORES_00064	03/31/15		Restek, Lot A0107338		(Purchased Reagent)		Acrolein	20000 ug/mL
VOAVAPRI_00005	04/13/15	03/13/15	Methanol, Lot 85233	50 mL	VOA8260VARES_00050	0.25 mL	Vinyl acetate	25 ug/mL
.VOA8260VARES_00050	07/31/15		Restek, Lot A0108225		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
voaWeemixPRI_00002	05/14/15	04/14/15	Methanol, Lot 85233	25 mL	VOARESEE1ST_00019	0.125 mL	1,2-dichloro-4-(trifluoromethyl)benzene	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2,3,6-Trichlorotoluene	25 ug/mL
							2,3- & 3,4- Dichlorotoluene	50 ug/mL
							2,4,5-Trichlorotoluene	25 ug/mL
							2,4- & 2,5- & 2,6-Dichlorotoluene	75 ug/mL
							2,4-Dichloro-1-(triflouromethyl)-benzene	25 ug/mL
							2,5-Dichlorobenzotrifluoride	25 ug/mL
							2-Chlorobenzotrifluoride	25 ug/mL
							3-Chlorobenzotrifluoride	25 ug/mL
							3-Chlorotoluene	25 ug/mL
							4-Chlorobenzotrifluoride	25 ug/mL
.VOARESEE1ST_00019	09/30/16		Restek, Lot A0109701		(Purchased Reagent)		1,2-dichloro-4-(trifluoromethyl)benzene	5000 ug/mL
							2,3,6-Trichlorotoluene	5000 ug/mL
							2,3- & 3,4- Dichlorotoluene	10000 ug/mL
							2,4,5-Trichlorotoluene	5000 ug/mL
							2,4- & 2,5- & 2,6-Dichlorotoluene	15000 ug/mL
							2,4-Dichloro-1-(triflouromethyl)-benzene	5000 ug/mL
							2,5-Dichlorobenzotrifluoride	5000 ug/mL
							2-Chlorobenzotrifluoride	5000 ug/mL
							3-Chlorobenzotrifluoride	5000 ug/mL
							3-Chlorotoluene	5000 ug/mL
							4-Chlorobenzotrifluoride	5000 ug/mL
voaWKet2 Rest_00002	04/16/15	03/16/15	Methanol, Lot 85233	50 mL	VOA8260KET2ND_00042	0.1 mL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
.VOA8260KET2ND_00042	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
voaWket2nd Re_00002	07/01/15	06/01/15	Methanol, Lot 85233	50 mL	VOA8260KET2ND_00047	0.1 mL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
.VOA8260KET2ND_00047	01/31/18		Restek, Lot A0108157		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
voaWketmix1Re_00001	07/01/15	06/01/15	Methanol, Lot 85233	50 mL	VOA8260KET1ST_00043	0.1 mL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
.VOA8260KET1ST_00043	04/30/18		Restek, Lot A0110400		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
voaWketPri Re_00005	06/01/15	05/01/15	Methanol, Lot 85233	50 mL	VOA8260KET1ST_00041	0.1 mL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
.VOA8260KET1ST_00041	01/31/18		Restek, Lot A0108151		(Purchased Reagent)		2-Butanone (MEK)	12500 ug/mL
							2-Hexanone	12500 ug/mL
							4-Methyl-2-pentanone (MIBK)	12500 ug/mL
							Acetone	12500 ug/mL
voaWVA2ndRes_00001	05/25/15	04/25/15	Methanol, Lot 85233	25 mL	VOA8260VARES2_00050	0.125 mL	Vinyl acetate	25 ug/mL
.VOA8260VARES2_00050	07/31/15		Restek, Lot A0108224		(Purchased Reagent)		Vinyl acetate	5000 ug/mL
WALK125PPMCCV_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.

High-Purity Standards is certified to ISO 9001:2008 and accredited to ISO/IEC 17025:2005 and ISO Guide 34:2009.

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

NOTICE: HPS products are intended for laboratory use only. All products should be handled and used by trained professional personnel. The responsibility for the safe handling and use of these products rests solely with the buyer and/or user. The data and information as stated was furnished by the manufacturer of the product. The information provided in this certificate pertains only to the lot number specified. None of the information provided in this certificate may be used, reproduced or transmitted in any form or by any means without written approval from High Purity Standards.

High-Purity Standards is certified to ISO 9001:2008 and accredited to ISO/IEC 17025:2005 and ISO Guide 34:2009.

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.

High-Purity Standards is certified to ISO 9001:2008 and accredited to ISO/IEC 17025:2005 and ISO Guide 34:2009.

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

NOTICE: HPS products are intended for laboratory use only. All products should be handled and used by trained professional personnel. The responsibility for the safe handling and use of these products rests solely with the buyer and/or user. The data and information as stated was furnished by the manufacturer of the product. The information provided in this certificate pertains only to the lot number specified. None of the information provided in this certificate may be used, reproduced or transmitted in any form or by any means without written approval from High Purity Standards.

Reagent

ICSECONDSTD1_00005

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

CERTIFICATE OF ANALYSIS

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

1.0 ACCREDITATION / REGISTRATION

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

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Ion Chromatography Solution
Catalog Number:	TA-17
Lot Number:	J2-MEB568059
Matrix:	H2O
Value / Analyte(s):	500 mg/L ea: Chloride, Sulfate, 100 mg/L ea: Bromide, 25 mg/L ea: Fluoride, Nitrate_as_N, oPhosphate_as_P

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

3.0 CERTIFIED VALUES AND UNCERTAINTIES

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

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

Assay Information:

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

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

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

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

x_i = individual results

n = number of measurements

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

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

4.0 TRACEABILITY TO NIST

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

4.1 Thermometer Calibration

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

4.2 Balance Calibration

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

4.3 Glassware Calibration

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

5.0 CHROMATOGRAM

- N/A

6.0 INTENDED USE

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

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

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

8.0 HAZARDOUS INFORMATION

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

9.0 HOMOGENEITY

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

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

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

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

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

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

February 18, 2015

11.2 Period of Validity

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

11.3 Expiration Date EXPIRES: 1 MAR 2016

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Christy Shortridge
Product Documentation Technician

Certificate Approved By:

Brian Alexander
PhD., Technical Process Director

Certifying Officer:

Paul Gaines
PhD., Senior Technical Director

Reagent

M6020ICS-0A_00005

INORGANIC VENTURES™

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

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

CERTIFICATE OF ANALYSIS

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

ACCREDITED Testing Laboratory Certificate 863.01

ACCREDITED Reference Material Producer Certificate 863.02

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

Catalog No.: 6020ICS-0A

Lot Number: **G2-MEB476152MCA**

Matrix: 1.4% HNO3(v/v)

10,000 µg/mL ea:
Chloride,

2,000 µg/mL ea:
C,

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

20 µg/mL ea:
Mo, Ti

3.0 **CERTIFIED VALUES AND UNCERTAINTIES**

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

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

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

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

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

$(\bar{x})$ = mean

x_i = individual results

n = number of measurements

2 = the coverage factor.

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

4.0 TRACEBILITY TO NIST AND VALUES OBTAINED BY INDEPENDENT METHODS

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

4.1 ASSAY INFORMATION

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

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

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

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

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

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

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

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

6.0 INTENDED USE

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

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

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

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

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

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

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

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

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

10.0 QUALITY STANDARD DOCUMENTATION

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

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

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

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

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

11.0 DATE OF CERTIFICATION AND PERIOD OF VALIDITY

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

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

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

Certification Date: July 12, 2013

Expiration Date: EXPIRES 01 SEP 2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By: Zach Saunders
Product Documentation Technician

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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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-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:

©2013 SPEX CertiPrep, Inc.

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

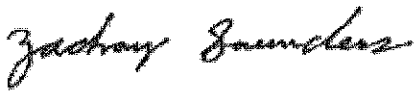
11.3 Period of Validity

- 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

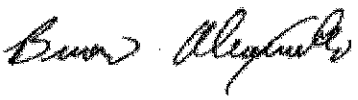
Certificate Prepared By:

Zach Saunders
Product Documentation Technician



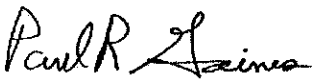
Certificate Approved By:

Brian Alexander
PhD., Technical Process Director



Certifying Officer:

Paul Gaines
PhD., Senior Technical Director



Reagent

MMSICSAB-1_00008

INORGANIC VENTURES™
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CERTIFICATE OF ANALYSIS

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info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

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

ACCREDITED Testing Laboratory Certificate 863.01 ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

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

Ba, Be, Pb,
Sr, Tl, V

3.0 CERTIFIED VALUES AND UNCERTAINTIES

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

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

Assay Information:

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

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

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

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

4.0 TRACEABILITY TO NIST

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

4.1 Thermometer Calibration

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

4.2 Balance Calibration

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

4.3 Glassware Calibration

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

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

N/A

6.0 INTENDED USE

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

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

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

8.0 HAZARDOUS INFORMATION

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

9.0 HOMOGENEITY

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

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

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

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

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

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 27, 2015

11.2 Expiration Date

EXPIRES
1 JAN 2016

11.3 Period of Validity

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

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Donna Senn
Product Documentation Technician

Certificate Approved By:

Brian Alexander
PhD., Technical Process Director

Certifying Officer:

Paul Gaines
PhD., Senior Technical Director

Reagent

MMSICSAB-2_00007

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CERTIFICATE OF ANALYSIS

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info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

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

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	TAPITT-MSICSAB-2
Lot Number:	J2-MEB575126
Matrix:	3% (v/v) HNO3 tr. HF
Value / Analyte(s):	250 µg/mL ea: Si, 50 µg/mL ea: Sn, 25 µg/mL ea: B, Se, 10 µg/mL ea: Sb

3.0 CERTIFIED VALUES AND UNCERTAINTIES

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

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

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	070514
Sb	Calculated		See Sec. 4.2
Sb	ICP Assay	3102A	061229
Se	Calculated		See Sec. 4.2
Se	ICP Assay	3149	100901
Si	Calculated		See Sec. 4.2
Si	ICP Assay	3150	071204
Sn	Calculated		See Sec. 4.2
Sn	ICP Assay	3161a	070330

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

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

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

4.0 TRACEABILITY TO NIST

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

4.1 Thermometer Calibration

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

4.2 Balance Calibration

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

4.3 Glassware Calibration

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

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

N/A

6.0 INTENDED USE

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

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

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

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

8.0 HAZARDOUS INFORMATION

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

9.0 HOMOGENEITY

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

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

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

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

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

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 27, 2015

11.2 Expiration Date

EXPIRES
1 JUN 2016

11.3 Period of Validity

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

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Donna Senn
Product Documentation Technician

Donna Senn

Certificate Approved By:

Brian Alexander
PhD., Technical Process Director

Brian Alexander

Certifying Officer:

Paul Gaines
PhD., Senior Technical Director

Paul R Gaines

Reagent

MTAPITTICPMS_00020

1222800

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CERTIFICATE OF ANALYSIS

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info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

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

ACCREDITED Testing Laboratory Certificate 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.

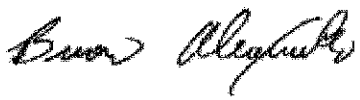
12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

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_00023

1407255
1407256
1407257

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CERTIFICATE OF ANALYSIS

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1.0 ACCREDITATION / REGISTRATION

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

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

rec. 11/13/14 SLB

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	TAPITT-MS-A
Lot Number:	H2-MEB532044
Matrix:	3% (v/v) HNO3
Value / Analyte(s):	5 000 µg/mL ea: Ca, K, Mg, Na

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Calcium	5 000 ± 22 µg/mL	Magnesium	5 000 ± 23 µg/mL
Potassium	5 000 ± 22 µg/mL	Sodium	5 000 ± 22 µg/mL

Certified Density: 1.071 g/mL (measured at 20 ± 1 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ca	ICP Assay	3109a	050825
Ca	EDTA	928	928
K	Gravimetric		See Sec. 4.2
K	ICP Assay	3141a	051220
Mg	ICP Assay	3131a	050302
Mg	EDTA	928	928
Na	Gravimetric		See Sec. 4.2
Na	ICP Assay	3152a	120715

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

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

x_i = individual results

n = number of measurements

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

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

4.0 TRACEABILITY TO NIST

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

4.1 Thermometer Calibration

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

4.2 Balance Calibration

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

4.3 Glassware Calibration

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

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

- N/A

6.0 INTENDED USE

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

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

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

8.0 HAZARDOUS INFORMATION

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

9.0 HOMOGENEITY

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

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

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

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

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

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 05, 2014

11.2 Period of Validity

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

11.3 Expiration Date

EXPIRES
01 02 2015

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Donna Senn
Product Documentation Technician

Certificate Approved By:

Brian Alexander
PhD., Technical Process Director

Certifying Officer:

Paul Gaines
PhD., Senior Technical Director

Reagent

MTAPITTMSA_00024

INORGANIC VENTURES™
300 Technology Drive
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inorganicventures.com

1507790, 1507791

CERTIFICATE OF ANALYSIS

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

1.0 ACCREDITATION / REGISTRATION

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

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

2.0 PRODUCT DESCRIPTION

Recd 3/19/15
a B

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	TAPITT-MS-A
Lot Number:	H2-MEB532044
Matrix:	3% (v/v) HNO3
Value / Analyte(s):	5 000 µg/mL ea: Ca, K, Mg, Na

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Calcium, Ca	5 000 ± 22 µg/mL	Magnesium, Mg	5 000 ± 23 µg/mL	Potassium, K	5 000 ± 22 µg/mL
Sodium, Na	5 000 ± 22 µg/mL				

Certified Density: 1.071 g/mL (measured at 20 ± 1 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ca	ICP Assay	3109a	050825
Ca	EDTA	928	928
K	Gravimetric		See Sec. 4.2
K	ICP Assay	3141a	051220
Mg	ICP Assay	3131a	050302
Mg	EDTA	928	928
Na	Gravimetric		See Sec. 4.2
Na	ICP Assay	3152a	120715

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

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

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

4.0 TRACEABILITY TO NIST

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

4.1 Thermometer Calibration

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

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used

4.3 Glassware Calibration

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

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

N/A

6.0 INTENDED USE

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

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

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

8.0 HAZARDOUS INFORMATION

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

9.0 HOMOGENEITY

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

10.0 QUALITY STANDARD DOCUMENTATION

10.1 10CFR50 Appendix B - Nuclear Regulatory Commission

- Domestic Licensing of Production and Utilization Facilities

10.2 10CFR21 - Nuclear Regulatory Commission

- Reporting defects and Non-Compliance

10.3 ISO 9001 Quality Management System Registration

- SAI Global File Number 010105

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

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

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

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 05, 2014

11.2 Expiration Date

EXPIRES
1 APR 2016

11.3 Period of Validity

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

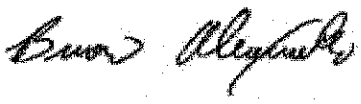
12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Donna Senn
Product Documentation Technician

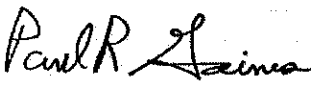
Certificate Approved By:

Brian Alexander
PhD., Technical Process Director



Certifying Officer:

Paul Gaines
PhD., Senior Technical Director



Reagent

MTAPITTMSC_00030

ISO 7793, ISO 7794

CERTIFICATE OF ANALYSIS

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Christiansburg, VA 24073 • USA
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fax: 540.585.3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

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

ACCREDITED Testing Laboratory Certificate 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_00092

RESTEK®
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
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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. : 569722 **Lot No.:** A0108198

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

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

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

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

CERTIFIED VALUES

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

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

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

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

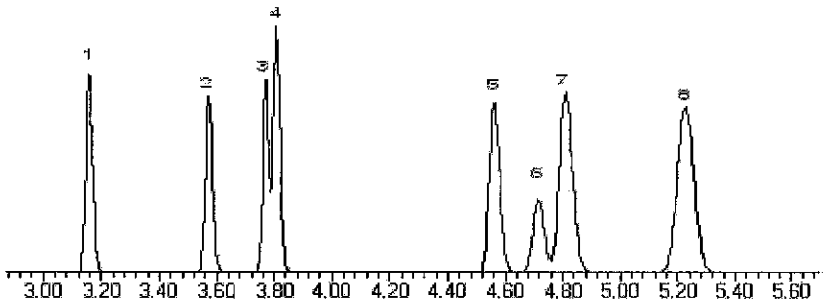
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

Kendra Swope - Mix Technician

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

Jennifer L. Pollino - QC Analyst

Date Passed: 14-Jan-2015

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

Reagent

VOA8260GAS1ST_00096

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Tel: (800)356-1688
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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.:** A0108198

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

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

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

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

CERTIFIED VALUES

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

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

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

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

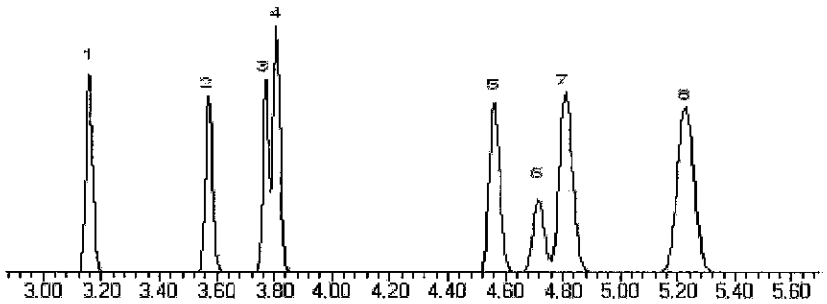
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

Kendra Swope - Mix Technician

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

Jennifer L. Pollino - QC Analyst

Date Passed: 14-Jan-2015

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

Reagent

VOA8260GAS1ST_00100

RESTEK
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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 µg/mL +/- 30.0934 µg/mL +/- 34.1055 µg/mL	Gravimetric Unstressed Stressed
2	Chloromethane (methyl chloride) **CAS #** 74-87-3 (Lot SHBC8470V) **Purity** 99%	2,500.1 µg/mL	+/- 17.2963 µg/mL +/- 29.7101 µg/mL +/- 33.7686 µg/mL	Gravimetric Unstressed Stressed
3	Vinyl chloride **CAS #** 75-01-4 (Lot 17542) **Purity** 99%	2,500.2 µg/mL	+/- 16.5642 µg/mL +/- 29.2906 µg/mL +/- 33.4004 µg/mL	Gravimetric Unstressed Stressed
4	1,3-Butadiene **CAS #** 106-99-0 (Lot SHBF3387V) **Purity** 99%	2,500.0 µg/mL	+/- 17.0072 µg/mL +/- 29.5416 µg/mL +/- 33.6200 µg/mL	Gravimetric Unstressed Stressed
5	Bromomethane (methyl bromide) **CAS #** 74-83-9 (Lot 101604) **Purity** 99%	2,499.8 µg/mL	+/- 18.9451 µg/mL +/- 30.6969 µg/mL +/- 34.6391 µg/mL	Gravimetric Unstressed Stressed
6	Chloroethane (ethyl chloride) **CAS #** 75-00-3 (Lot SHBD1717V) **Purity** 99%	2,500.3 µg/mL	+/- 17.6395 µg/mL +/- 29.9122 µg/mL +/- 33.9470 µg/mL	Gravimetric Unstressed Stressed
7	Dichlorofluoromethane (CFC-21) **CAS #** 75-43-4 (Lot Q9B-58) **Purity** 99%	2,500.2 µg/mL	+/- 16.7318 µg/mL +/- 29.3854 µg/mL +/- 33.4835 µg/mL	Gravimetric Unstressed Stressed

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

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

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

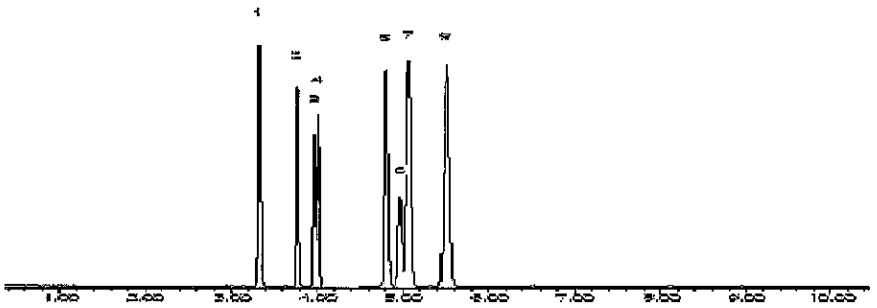
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



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

F. Joseph Tallon - Mix Technician

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

Tyler Brown - QA Analyst

Date Passed: 08-Apr-2015

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

Reagent

VOA8260GAS2ND_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)

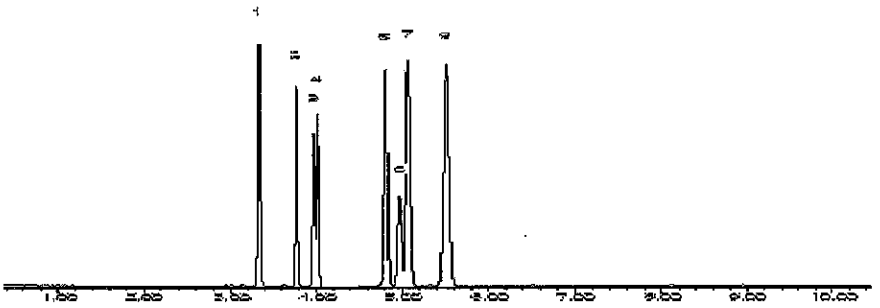
Carrier Gas:
helium-constant flow 2.0 mL/min.

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

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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

VOA8260INTRES_00087

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

Description : 8260 Internal Standard

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

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

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

CERTIFIED VALUES

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

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

Reagent

VOA8260INTRES_00091

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

Description : 8260 Internal Standard

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

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

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

CERTIFIED VALUES

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

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

Reagent

VOA8260INTRES_00095

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

Description : 8260 Internal Standard

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

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

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

CERTIFIED VALUES

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

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

Reagent

VOA8260KET1ST_00038

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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 **Purity** 99%	(Lot 07196AK)	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 **Purity** 99%	(Lot BCBH7802V)	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 **Purity** 99%	(Lot SHBF5332V)	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 **Purity** 99%	(Lot MKBK8325V)	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

VOA8260KET1ST_00041

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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. : 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 **Purity** 99%	(Lot 07196AK)	12,537.0 µg/mL	+/- 73.4069 +/- 667.2480 +/- 667.9837	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	2-Butanone (MEK) **CAS #** 78-93-3 **Purity** 99%	(Lot BCBH7802V)	12,537.0 µg/mL	+/- 73.4069 +/- 667.2480 +/- 667.9837	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	4-Methyl-2-pentanone (MIBK) **CAS #** 108-10-1 **Purity** 99%	(Lot SHBF5332V)	12,537.0 µg/mL	+/- 73.4069 +/- 667.2480 +/- 667.9837	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	2-Hexanone **CAS #** 591-78-6 **Purity** 99%	(Lot MKBK8325V)	12,537.0 µg/mL	+/- 73.4069 +/- 667.2480 +/- 667.9837	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

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

Reagent

VOA8260KET1ST_00043

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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.:** A0110400

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

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

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

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

CERTIFIED VALUES

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

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

Reagent

VOA8260KET2ND_00042

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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. : 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

VOA8260KET2ND_00047

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CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

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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_00014

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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. : 567641 **Lot No.:** A093581

Description : 8260 List 1 / Std #1 MegaMix

8260 List 1 / Std #1 MegaMix 1000-50,000 µg/ml, P&T Methanol, 1 ml/ampul

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

Expiration Date : February 2016 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Diethyl ether (ethyl ether) **CAS #** 60-29-7 **Purity** 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113) **CAS #** 76-13-1 **Purity** 97%	1,999.9 µg/mL	+/- 11.6279 +/- 44.2519 +/- 44.4323	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	1,1-dichloroethene **CAS #** 75-35-4 **Purity** 98%	2,000.0 µg/mL	+/- 11.6281 +/- 44.2527 +/- 44.4331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	tert-Butanol (TBA) **CAS #** 75-65-0 **Purity** 99%	20,000.0 µg/mL	+/- 116.2756 +/- 442.5291 +/- 444.3332	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
5	Iodomethane (methyl iodide) **CAS #** 74-88-4 **Purity** 99%	2,000.0 µg/mL	+/- 11.6282 -/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
6	Allyl chloride (3-chloropropene) **CAS #** 107-05-1 **Purity** 98%	2,000.0 µg/mL	+/- 11.6281 +/- 44.2527 +/- 44.4331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
7	Methyl acetate **CAS #** 79-20-9 **Purity** 99%	10,000.0 µg/mL	+/- 58.1378 +/- 221.2646 +/- 222.1666	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
8	Carbon disulfide **CAS #** 75-15-0 **Purity** 98%	2,000.0 µg/mL	+/- 11.6281 +/- 44.2527 +/- 44.4331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	Methylene chloride (dichloromethane) **CAS #** 75-09-2 **Purity** 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

10	Acrylonitrile	20,000.0	µg/mL	+/-	116.2756	µg/mL	Gravimetric
	CAS # 107-13-1			+/-	442.5291	µg/mL	Unstressed
	Purity 99%			+/-	444.3332	µg/mL	Stressed
11	Methyl-tert-butyl ether (MTBE)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 1634-04-4			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
12	cis-1,2-Dichloroethene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 156-59-2			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
13	n-Hexane (C6)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 110-54-3			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
14	1,1-Dichloroethane	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 75-34-3			+/-	44.2527	µg/mL	Unstressed
	Purity 98%			+/-	44.4331	µg/mL	Stressed
15	2,2-Dichloropropane	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 594-20-7			+/-	44.2527	µg/mL	Unstressed
	Purity 98%			+/-	44.4331	µg/mL	Stressed
16	trans-1,2-Dichloroethene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 156-60-5			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
17	chloroform	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 67-66-3			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
18	Isobutanol (2-Methyl-1-propanol)	50,000.0	µg/mL	+/-	290.6891	µg/mL	Gravimetric
	CAS # 78-83-1			+/-	1,106.3228	µg/mL	Unstressed
	Purity 99%			+/-	1,110.8331	µg/mL	Stressed
19	Bromochloromethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 74-97-5			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
20	Tetrahydrofuran	4,000.0	µg/mL	+/-	23.2563	µg/mL	Gravimetric
	CAS # 109-99-9			+/-	88.5061	µg/mL	Unstressed
	Purity 99%			+/-	88.8670	µg/mL	Stressed
21	1,1,1-trichloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 71-55-6			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
22	Cyclohexane	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 110-82-7			+/-	44.2527	µg/mL	Unstressed
	Purity 98%			+/-	44.4331	µg/mL	Stressed
23	1,1-Dichloropropene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 563-58-6			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
24	carbon tetrachloride	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 56-23-5			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
25	n-Heptane (C7)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 142-82-5			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
26	Benzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 71-43-2			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
27	1,2-Dichloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 107-06-2			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
28	Trichloroethene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 79-01-6			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed

29	Methylcyclohexane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 108-87-2			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
30	1,2-Dichloropropane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 78-87-5			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
31	1,4-Dioxane	40,000.0	µg/mL	+/-	232.5513	µg/mL	Gravimetric
	CAS # 123-91-1			+/-	885.0582	µg/mL	Unstressed
	Purity 99%			+/-	888.6665	µg/mL	Stressed
32	Dibromomethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 74-95-3			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
33	bromodichloromethane	2,000.0	µg/mL	+/-	11.6284	µg/mL	Gravimetric
	CAS # 75-27-4			+/-	44.2540	µg/mL	Unstressed
	Purity 97%			+/-	44.4344	µg/mL	Stressed
34	cis-1,3-Dichloropropene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 10061-01-5			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
35	Toluene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 108-88-3			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
36	Ethyl methacrylate	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 97-63-2			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
37	trans-1,3-Dichloropropene	2,000.0	µg/mL	+/-	11.6284	µg/mL	Gravimetric
	CAS # 10061-02-6			+/-	44.2540	µg/mL	Unstressed
	Purity 97%			+/-	44.4344	µg/mL	Stressed
38	1,1,2-Trichloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 79-00-5			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
39	1,3-Dichloropropane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 142-28-9			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
40	Tetrachloroethene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 127-18-4			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
41	dibromochloromethane	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 124-48-1			+/-	44.2527	µg/mL	Unstressed
	Purity 98%			+/-	44.4331	µg/mL	Stressed
42	1,2-Dibromoethane (EDB)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 106-93-4			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
43	Chlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 108-90-7			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
44	1,1,1,2-Tetrachloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 630-20-6			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
45	m-Xylene	1,000.0	µg/mL	+/-	5.8141	µg/mL	Gravimetric
	CAS # 108-38-3			+/-	22.1265	µg/mL	Unstressed
	Purity 99%			+/-	22.2167	µg/mL	Stressed
46	p-Xylene	1,000.0	µg/mL	+/-	5.8141	µg/mL	Gravimetric
	CAS # 106-42-3			+/-	22.1265	µg/mL	Unstressed
	Purity 99%			+/-	22.2167	µg/mL	Stressed
47	o-Xylene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 95-47-6			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed

48	Ethylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 100-41-4			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
49	Styrene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 100-42-5			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
50	Isopropylbenzene (cumene)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 98-82-8			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
51	bromoform	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 75-25-2			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
52	1,1,2,2-Tetrachloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 79-34-5			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
53	1,2,3-Trichloropropane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 96-18-4			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
54	trans-1,4-dichloro-2-butene	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 110-57-6			+/-	44.2527	µg/mL	Unstressed
	Purity 98%			+/-	44.4331	µg/mL	Stressed
55	n-Propylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 103-65-1			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
56	Bromobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 108-86-1			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
57	1,3,5-Trimethylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 108-67-8			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
58	2-Chlorotoluene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 95-49-8			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
59	4-Chlorotoluene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 106-43-4			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
60	tert-Butylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 98-06-6			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
61	1,2,4-Trimethylbenzene	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 95-63-6			+/-	44.2527	µg/mL	Unstressed
	Purity 98%			+/-	44.4331	µg/mL	Stressed
62	sec-Butylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 135-98-8			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
63	4-Isopropyltoluene (p-Cymene)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 99-87-6			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
64	1,3-Dichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 541-73-1			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
65	1,4-Dichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 106-46-7			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
66	n-Butylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 104-51-8			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed

67	1,2-Dichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 95-50-1			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
68	1,2-Dibromo-3-chloropropane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 96-12-8			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
69	1,2,4-Trichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 120-82-1			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
70	Hexachlorobutadiene	2,000.0	µg/mL	+/-	11.6284	µg/mL	Gravimetric
	CAS # 87-68-3			+/-	44.2540	µg/mL	Unstressed
	Purity 97%			+/-	44.4344	µg/mL	Stressed
71	Naphthalene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 91-20-3			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
72	1,2,3-Trichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 87-61-6			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed

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

Column:
60m x .25mm x 1.4um
Rtx-502.2 (cat.#10916)

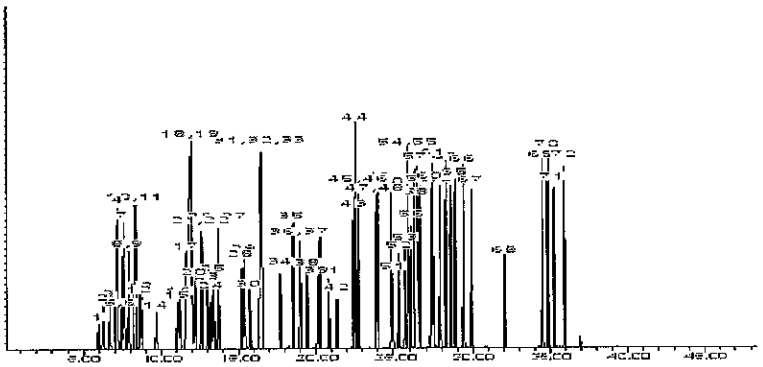
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 6 min.) to 240°C
@ 6°C/min. (hold 10 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



Jennifer L. Pollino - QC Analyst

Date Passed: 01-Mar-2013 **Balance:** B251644995

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

Reagent

VOA8260MEGA1_00028

RESTEK
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CERTIFIED REFERENCE MATERIAL

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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. : 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)

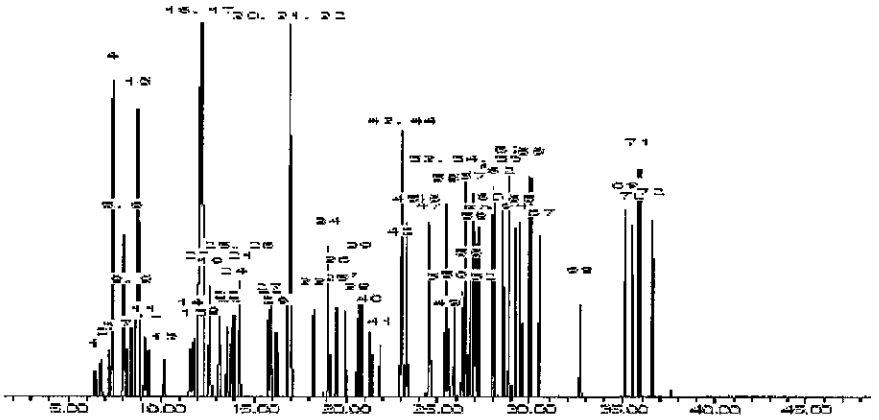
Carrier Gas:
helium-constant pressure 30 psi

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

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110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
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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) **CAS #** 142-82-5.SEC **Purity** 99%	(Lot OGM01)	2,500.4	µg/mL	+/- +/- +/-	14.5374 133.0644 133.2112	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
25	1,2-Dichloroethane **CAS #** 107-06-2.SEC **Purity** 99%	(Lot FO6PK)	2,501.9	µg/mL	+/- +/- +/-	14.5461 133.1443 133.2911	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
26	Benzene **CAS #** 71-43-2.SEC **Purity** 99%	(Lot B28Y008)	2,500.9	µg/mL	+/- +/- +/-	14.5403 133.0911 133.2378	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
27	Trichloroethene **CAS #** 79-01-6.SEC **Purity** 98%	(Lot H04X050)	2,500.6	µg/mL	+/- +/- +/-	14.5387 133.0760 133.2228	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
28	Methylcyclohexane **CAS #** 108-87-2.SEC **Purity** 99%	(Lot 24MSD-CD)	2,500.5	µg/mL	+/- +/- +/-	14.5381 133.0711 133.2178	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
29	1,2-Dichloropropane **CAS #** 78-87-5.SEC **Purity** 99%	(Lot OGG01)	2,500.0	µg/mL	+/- +/- +/-	14.5352 133.0445 133.1912	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	Bromodichloromethane **CAS #** 75-27-4.SEC **Purity** 99%	(Lot 10171168)	2,501.5	µg/mL	+/- +/- +/-	14.5439 133.1243 133.2711	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	1,4-Dioxane **CAS #** 123-91-1.SEC **Purity** 99%	(Lot CHA4A)	50,000.8	µg/mL	+/- +/- +/-	290.6935 2,660.9280 2,663.8624	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	Dibromomethane **CAS #** 74-95-3.SEC **Purity** 99%	(Lot FGI01-OICH)	2,500.6	µg/mL	+/- +/- +/-	14.5388 133.0777 133.2245	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	cis-1,3-Dichloropropene **CAS #** 10061-01-5.SEC **Purity** 99%	(Lot 7ZLXJ-TJ)	2,501.0	µg/mL	+/- +/- +/-	14.5410 133.0977 133.2445	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	Toluene **CAS #** 108-88-3.SEC **Purity** 99%	(Lot YND2B-BD)	2,500.1	µg/mL	+/- +/- +/-	14.5359 133.0511 133.1979	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	Ethyl methacrylate **CAS #** 97-63-2.SEC **Purity** 99%	(Lot MLWYK-LS)	2,500.8	µg/mL	+/- +/- +/-	14.5396 133.0844 133.2312	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	trans-1,3-Dichloropropene **CAS #** 10061-02-6.SEC **Purity** 98%	(Lot 2ECIC-NM)	2,501.6	µg/mL	+/- +/- +/-	14.5444 133.1282 133.2750	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	1,1,2-Trichloroethane **CAS #** 79-00-5.SEC **Purity** 99%	(Lot 732700)	2,501.0	µg/mL	+/- +/- +/-	14.5410 133.0977 133.2445	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
38	1,3-Dichloropropane **CAS #** 142-28-9.SEC **Purity** 99%	(Lot AGN01-EFPC)	2,500.8	µg/mL	+/- +/- +/-	14.5396 133.0844 133.2312	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
39	Tetrachloroethene **CAS #** 127-18-4.SEC **Purity** 99%	(Lot F09W014)	2,500.0	µg/mL	+/- +/- +/-	14.5352 133.0445 133.1912	µg/mL µg/mL µg/mL	Gravimetric Unstressed 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)

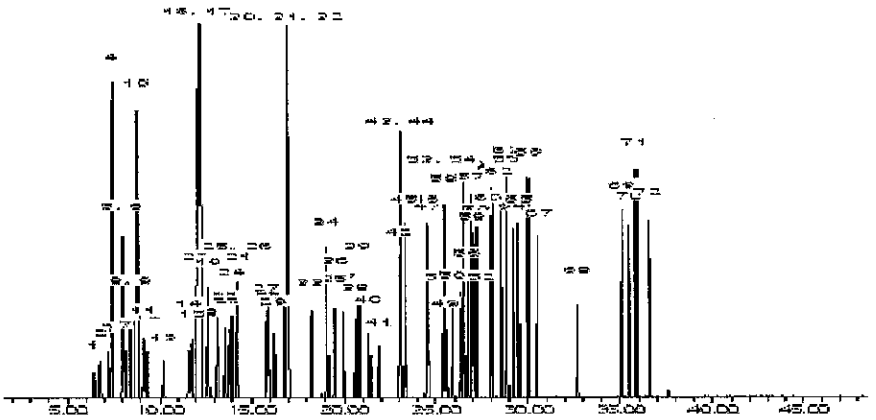
Carrier Gas:
helium-constant pressure 30 psi

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.

Michael J Maye

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_00046

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Certificate of Analysis

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

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

Catalog No. : 567650 **Lot No.:** A093505

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

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L., K=2)		
1	Dibromofluoromethane	2,500.0 µg/mL	+/- 14.5352	µg/mL	Gravimetric
	CAS # 1868-53-7		+/- 30.1344	µg/mL	Unstressed
	Purity 99%		+/- 34.0022	µg/mL	Stressed
2	1,2-Dichloroethane-d4	2,500.0 µg/mL	+/- 14.5352	µg/mL	Gravimetric
	CAS # 17060-07-0		+/- 30.1344	µg/mL	Unstressed
	Purity 99%		+/- 34.0022	µg/mL	Stressed
3	Toluene-d8	2,500.0 µg/mL	+/- 14.5352	µg/mL	Gravimetric
	CAS # 2037-26-5		+/- 30.1344	µg/mL	Unstressed
	Purity 99%		+/- 34.0022	µg/mL	Stressed
4	1-Bromo-4-fluorobenzene (BFB)	2,500.0 µg/mL	+/- 14.5352	µg/mL	Gravimetric
	CAS # 460-00-4		+/- 30.1344	µg/mL	Unstressed
	Purity 99%		+/- 34.0022	µg/mL	Stressed

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

Reagent

VOA8260SURRES_00084

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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

VOA8260SURRES_00089

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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 **Purity** 99%	(Lot 022012)	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 **Purity** 99%	(Lot 13I-483)	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 **Purity** 99%	(Lot 13I-050)	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 **Purity** 99%	(Lot 01127COV)	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

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_00050

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 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

VOA8260VARES2_00050

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

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Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

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

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

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

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

CERTIFIED VALUES

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

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

Tech Tips:

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

Reagent

VOAACRORES_00064

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

Certificate of Analysis

ACCREDITED
ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 568720 **Lot No.:** A0107338

Description : 8260 List 1/Std #5 Acrolein High

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

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

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

Handling: This product is photosensitive.

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Acrolein	19,759.0 µg/mL	+/- 115.6933	µg/mL	Gravimetric
	CAS # 107-02-8 (Lot 140429JLM)		+/- 633.5357	µg/mL	Unstressed
	Purity 99%		+/- 736.4159	µg/mL	Stressed

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

Reagent

VOAACRORES_00067

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

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Certificate #3222.01

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ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

Certificate of Analysis

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : 8260 List 1/Std #5 Acrolein High

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

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

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

Handling: This product is photosensitive.

CERTIFIED VALUES

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

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

Reagent

VOARESEE1ST_00019

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

www.restek.com

CERTIFIED REFERENCE MATERIAL

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ISO Guide 34 Accredited
Reference Material Producer
Certificate #3222.01

Certificate of Analysis

ilac-MRA

ACCREDITED
ISO/IEC 17025 Accredited
Testing Laboratory
Certificate #3222.02

FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

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

Description : Custom EE Standard

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

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

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

CERTIFIED VALUES

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

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

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

Reagent

WNa2CO3P_00007

Fisher Scientific

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Certificate of Analysis

Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2008 standard by SAI Global Certificate Number CERT - 0064970

This is to certify that units of the above mentioned lot number were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Certain products (USP/FCC/NF/EP/BP/JP grades) are sold for use in food, drug, or medical device manufacturing. Fisher does not claim regulatory coverage under 21 CFR nor maintain DMF's with the FDA. The following are the actual analytical results obtained:

Catalog Number	**S263**	**Quality Test / Release Date**	**4/8/2014**
Lot Number	**138124**		
Description	**SODIUM CARBONATE, ANHYDROUS, CERTIFIED A.C.S.**		
Country of Origin	**China**	*** Suggested Retest Date**	**Apr-2019**
Chemical Origin	**Inorganic-non animal**		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

Result name	Units	Specifications	Test Value
APPEARANCE		REPORT	White granular powder
ASSAY	%	>= 99.5	100.3
CALCIUM	%	<= 0.03	0.010
CHLORIDE	%	<= 0.001	<0.0010
HEAVY METALS (as Pb)	ppm	<= 5	<5.0
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
INSOLUBLE MATTER	%	<= 0.01	<0.010
IRON (Fe)	ppm	<= 5	<5.0
LOSS ON HEATING @ 285 DEG C	%	<= 1.0	0.1
MAGNESIUM	%	<= 0.005	<0.001
PHOSPHATE (PO4)	%	<= 0.001	0.0010
POTASSIUM (K)	%	<= 0.005	0.001
SILICA (SiO2)	%	<= 0.005	0.005
SULFUR COMPOUNDS	%	<= 0.003	<0.0030

Lab Manager Fair Lawn

1243950
ID: WNa2CO3P_00007
Exp:07/09/18 Prpd:HRA Opn:07/09/14
Sodium Carbonate

1243948
ID: WNa2CO3P_00007
Exp:07/09/18 Prpd:HRA Opn:07/09/14
Sodium Carbonate

1243949
ID: WNa2CO3P_00007
Exp:07/09/18 Prpd:HRA Opn:07/09/14
Sodium Carbonate

1243947
ID: WNa2CO3P_00007
Exp:07/09/18 Prpd:HRA Opn:07/09/14
Sodium Carbonate

Note:-The data listed is valid for all package sizes of this lot of this product, expressed as a extension of this catalog number listed above. If there are any questions with this certificate, please call Chemical Services at (800) 227-6701.
*Based on suggested storage condition.

Method 8260C Low Level

Volatile Organic Compounds (GC/MS) by Method 8260C Low Level

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Matrix: Water Level: Low

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

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
HD-COD-SW-6-0/1-0	180-44321-1	101	95	112	104
HD-COD-SW-7-0/1-0	180-44321-2	100	91	112	97
HD-COD-SW-8-0/1-0	180-44321-3	101	91	111	103
HD-COD-SW-9-0/1-0	180-44321-4	82	77	97	86
HD-COD-SW-10-0/1-0	180-44321-5	92	83	100	92
HD-COD-SW-11-0/1-0	180-44321-6	98	92	114	101
HD-COD-SW-12-0/1-0	180-44321-7	103	97	112	103
HD-COD-SW-13-0/1-0	180-44321-8	105	93	117	106
HD-COD-SW-15-0/1-0	180-44321-9	102	97	110	98
HD-COD-SW-16-0/1-0	180-44321-10	114	106	120 X	107
HD-COD-SW-17-0/1-0	180-44321-11	108	103	117	106
HD-COD-SW-20-0/1-0	180-44321-12	110	104	115	106
HD-COD-SW-26-0/1-0	180-44321-13	107	101	118	107
HD-COD-SW-27-0/1-0	180-44321-14	107	97	115	106
HD-COD-SW-28-0/1-0	180-44321-15	97	87	102	91
HD-COD-SW-29-0/1-0	180-44321-16	97	90	82	97
HD-QC3-0/1-2	180-44321-17	106	95	86	113
HD-QC2-0/1-1	180-44321-18	102	95	114	106
HD-CW-9-0/1-0	180-44321-19	104	92	80	92
HD-CW-13-0/1-0	180-44321-20	97	88	78	102
HD-CW-15A-0/1-0	180-44321-21	57 X	95	111	106
HD-CW-15A-0/1-0 RA	180-44321-21 RA	91	90	192 X	185 X
HD-CW-17-0/1-0	180-44321-22	109	98	115	107
HD-CW-20-0/1-0	180-44321-23	99	98	119 X	55 X

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	70-128
DCA = 1,2-Dichloroethane-d4 (Surr)	64-135
TOL = Toluene-d8 (Surr)	71-118
BFB = 4-Bromofluorobenzene (Surr)	70-118

Column to be used to flag recovery values

FORM II 8260C

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

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-CW-20-0/1-0 DL	180-44321-23 DL	101	89	78	93
HD-MW-95-0/1-0	180-44321-24	114	102	97	117
HD-MW-96S-0/1-0	180-44321-25	97	87	114	101
HD-MW-96S-0/1-0 DL	180-44321-25 DL	97	84	77	101
HD-MW-96D-0/1-0	180-44321-26	99	94	110	102
HD-MW-97-0/1-0	180-44321-27	91	84	81	110
HD-CW-18-0/1-0	180-44321-28	103	92	90	101
HD-MW-50D-0/1-0	180-44321-29	93	83	78	107
HD-MW-51S-0/1-0	180-44321-30	95	83	79	108
HD-QC4-0/1-2	180-44321-31	114	109	97	86
HD-QC1-0/1-4	180-44321-32	107	97	89	108
HD-QC1-0/1-3	180-44321-33	106	97	89	113
	MB 180-143153/7	100	95	111	100
	MB 180-143337/4	115	107	100	90
	MB 180-143339/7	106	101	114	101
	MB 180-143422/6	101	95	110	94
	MB 180-143527/7	106	94	109	103
	LCS 180-143153/13	101	112	102	104
	LCS 180-143337/7	112	100	98	95
	LCS 180-143339/11	104	103	103	96
	LCS 180-143422/8	103	99	112	108
	LCS 180-143527/10	110	104	109	105
HD-COD-SW-6-0/1-0 MS	180-44321-1 MS	109	123	94	108
HD-COD-SW-28-0/1-0 MS	180-44321-15 MS	97	102	108	98

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	70-128
DCA = 1,2-Dichloroethane-d4 (Surr)	64-135
TOL = Toluene-d8 (Surr)	71-118
BFB = 4-Bromofluorobenzene (Surr)	70-118

Column to be used to flag recovery values

FORM II 8260C

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

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-QC2-0/1-1 MS	180-44321-18 MS	100	96	112	105
HD-MW-95-0/1-0 MS	180-44321-24 MS	114	101	100	100
HD-COD-SW-6-0/1-0 MSD	180-44321-1 MSD	100	108	102	103
HD-COD-SW-28-0/1-0 MSD	180-44321-15 MSD	99	104	106	97
HD-QC2-0/1-1 MSD	180-44321-18 MSD	100	102	112	105
HD-MW-95-0/1-0 MSD	180-44321-24 MSD	117	97	99	96

	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.: 180-44321-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 7052912.D

Lab ID: LCS 180-143153/13 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	7.48	75	50-139	
Vinyl chloride	10.0	5.91	59	53-138	
Bromomethane	10.0	6.58	66	33-150	
Chloroethane	10.0	4.70	47	36-142	
1,1-Dichloroethene	10.0	8.72	87	65-136	
Acetone	20.0	15.9	80	22-150	
Carbon disulfide	10.0	8.71	87	54-132	
Methylene Chloride	10.0	11.8	118	63-129	
trans-1,2-Dichloroethene	10.0	9.03	90	73-126	
Methyl tert-butyl ether	10.0	12.4	124	64-123	*
1,1-Dichloroethane	10.0	11.0	110	73-126	
cis-1,2-Dichloroethene	10.0	11.2	112	70-120	
Bromochloromethane	10.0	11.0	110	70-127	
2-Butanone (MEK)	20.0	15.3	76	39-138	
Chloroform	10.0	10.9	109	72-127	
1,1,1-Trichloroethane	10.0	9.92	99	63-133	
Carbon tetrachloride	10.0	9.04	90	55-150	
Benzene	10.0	10.3	103	80-120	
1,2-Dichloroethane	10.0	11.6	116	68-132	
Trichloroethene	10.0	8.66	87	73-120	
1,2-Dichloropropane	10.0	11.5	115	76-124	
Bromodichloromethane	10.0	11.2	112	66-130	
cis-1,3-Dichloropropene	10.0	11.0	110	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	18.0	90	45-145	
Toluene	10.0	9.39	94	80-123	
trans-1,3-Dichloropropene	10.0	10.5	105	65-125	
1,1,2-Trichloroethane	10.0	11.0	110	77-127	
Tetrachloroethene	10.0	8.13	81	70-135	
2-Hexanone	20.0	17.6	88	25-132	
Dibromochloromethane	10.0	10.2	102	60-140	
1,2-Dibromoethane (EDB)	10.0	10.7	107	74-123	
Chlorobenzene	10.0	10.3	103	80-120	
1,1,1,2-Tetrachloroethane	10.0	10.4	104	63-140	
Ethylbenzene	10.0	8.98	90	72-126	
Xylenes, Total	20.0	18.6	93	76-128	
Styrene	10.0	10.5	105	71-127	
Bromoform	10.0	9.74	97	46-150	
1,1,2,2-Tetrachloroethane	10.0	10.9	109	62-125	
Acrylonitrile	100	102	102	30-140	
1,4-Dioxane	200	227	114	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.: 180-44321-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 60530007.D

Lab ID: LCS 180-143337/7 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	10.0	100	50-139	
Vinyl chloride	10.0	10.6	106	53-138	
Bromomethane	10.0	10.4	104	33-150	
Chloroethane	10.0	11.9	119	36-142	
1,1-Dichloroethene	10.0	10.1	101	65-136	
Acetone	20.0	25.3	126	22-150	
Carbon disulfide	10.0	9.00	90	54-132	
Methylene Chloride	10.0	11.4	114	63-129	
trans-1,2-Dichloroethene	10.0	11.1	111	73-126	
Methyl tert-butyl ether	10.0	7.79	78	64-123	
1,1-Dichloroethane	10.0	9.54	95	73-126	
cis-1,2-Dichloroethene	10.0	9.93	99	70-120	
Bromochloromethane	10.0	11.1	111	70-127	
2-Butanone (MEK)	20.0	24.2	121	39-138	
Chloroform	10.0	10.6	106	72-127	
1,1,1-Trichloroethane	10.0	9.29	93	63-133	
Carbon tetrachloride	10.0	9.32	93	55-150	
Benzene	10.0	10.3	103	80-120	
1,2-Dichloroethane	10.0	10.3	103	68-132	
Trichloroethene	10.0	11.5	115	73-120	
1,2-Dichloropropane	10.0	9.55	96	76-124	
Bromodichloromethane	10.0	8.56	86	66-130	
cis-1,3-Dichloropropene	10.0	7.30	73	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	15.5	78	45-145	
Toluene	10.0	9.80	98	80-123	
trans-1,3-Dichloropropene	10.0	6.60	66	65-125	
1,1,2-Trichloroethane	10.0	9.76	98	77-127	
Tetrachloroethene	10.0	11.4	114	70-135	
2-Hexanone	20.0	17.9	89	25-132	
Dibromochloromethane	10.0	9.10	91	60-140	
1,2-Dibromoethane (EDB)	10.0	9.43	94	74-123	
Chlorobenzene	10.0	10.6	106	80-120	
1,1,1,2-Tetrachloroethane	10.0	10.5	105	63-140	
Ethylbenzene	10.0	10.1	101	72-126	
Xylenes, Total	20.0	19.7	98	76-128	
Styrene	10.0	9.96	100	71-127	
Bromoform	10.0	7.67	77	46-150	
1,1,2,2-Tetrachloroethane	10.0	9.50	95	62-125	
Acrylonitrile	100	89.6	90	30-140	
1,4-Dioxane	200	166 J	83	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.: 180-44321-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 7053111.D

Lab ID: LCS 180-143339/11 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	6.65	66	50-139	
Vinyl chloride	10.0	6.00	60	53-138	
Bromomethane	10.0	7.09	71	33-150	
Chloroethane	10.0	5.05	50	36-142	
1,1-Dichloroethene	10.0	10.0	100	65-136	
Acetone	20.0	24.6	123	22-150	
Carbon disulfide	10.0	12.5	125	54-132	
Methylene Chloride	10.0	11.4	114	63-129	
trans-1,2-Dichloroethene	10.0	9.68	97	73-126	
Methyl tert-butyl ether	10.0	10.9	109	64-123	
1,1-Dichloroethane	10.0	11.3	113	73-126	
cis-1,2-Dichloroethene	10.0	11.2	112	70-120	
Bromochloromethane	10.0	9.98	100	70-127	
2-Butanone (MEK)	20.0	18.4	92	39-138	
Chloroform	10.0	11.2	112	72-127	
1,1,1-Trichloroethane	10.0	10.1	101	63-133	
Carbon tetrachloride	10.0	9.44	94	55-150	
Benzene	10.0	10.4	104	80-120	
1,2-Dichloroethane	10.0	10.5	105	68-132	
Trichloroethene	10.0	9.31	93	73-120	
1,2-Dichloropropane	10.0	10.9	109	76-124	
Bromodichloromethane	10.0	10.8	108	66-130	
cis-1,3-Dichloropropene	10.0	10.5	105	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	19.2	96	45-145	
Toluene	10.0	10.3	103	80-123	
trans-1,3-Dichloropropene	10.0	9.93	99	65-125	
1,1,2-Trichloroethane	10.0	9.94	99	77-127	
Tetrachloroethene	10.0	8.16	82	70-135	
2-Hexanone	20.0	22.1	111	25-132	
Dibromochloromethane	10.0	9.53	95	60-140	
1,2-Dibromoethane (EDB)	10.0	9.98	100	74-123	
Chlorobenzene	10.0	10.2	102	80-120	
1,1,1,2-Tetrachloroethane	10.0	10.0	100	63-140	
Ethylbenzene	10.0	8.77	88	72-126	
Xylenes, Total	20.0	17.5	88	76-128	
Styrene	10.0	10.0	100	71-127	
Bromoform	10.0	9.49	95	46-150	
1,1,2,2-Tetrachloroethane	10.0	9.35	93	62-125	
Acrylonitrile	100	92.4	92	30-140	
1,4-Dioxane	200	135 J	68	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.: 180-44321-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 7060108.D

Lab ID: LCS 180-143422/8 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	4.93	49	50-139	*
Vinyl chloride	10.0	5.37	54	53-138	
Bromomethane	10.0	6.93	69	33-150	
Chloroethane	10.0	5.69	57	36-142	
1,1-Dichloroethene	10.0	9.34	93	65-136	
Acetone	20.0	21.8	109	22-150	
Carbon disulfide	10.0	11.4	114	54-132	
Methylene Chloride	10.0	11.7	117	63-129	
trans-1,2-Dichloroethene	10.0	9.80	98	73-126	
Methyl tert-butyl ether	10.0	11.7	117	64-123	
1,1-Dichloroethane	10.0	11.0	110	73-126	
cis-1,2-Dichloroethene	10.0	10.7	107	70-120	
Bromochloromethane	10.0	10.0	100	70-127	
2-Butanone (MEK)	20.0	16.4	82	39-138	
Chloroform	10.0	11.0	110	72-127	
1,1,1-Trichloroethane	10.0	11.1	111	63-133	
Carbon tetrachloride	10.0	9.96	100	55-150	
Benzene	10.0	9.00	90	80-120	
1,2-Dichloroethane	10.0	10.3	103	68-132	
Trichloroethene	10.0	8.52	85	73-120	
1,2-Dichloropropane	10.0	10.4	104	76-124	
Bromodichloromethane	10.0	11.0	110	66-130	
cis-1,3-Dichloropropene	10.0	9.86	99	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	19.3	97	45-145	
Toluene	10.0	9.83	98	80-123	
trans-1,3-Dichloropropene	10.0	9.64	96	65-125	
1,1,2-Trichloroethane	10.0	10.9	109	77-127	
Tetrachloroethene	10.0	8.73	87	70-135	
2-Hexanone	20.0	20.7	104	25-132	
Dibromochloromethane	10.0	10.2	102	60-140	
1,2-Dibromoethane (EDB)	10.0	10.3	103	74-123	
Chlorobenzene	10.0	10.5	105	80-120	
1,1,1,2-Tetrachloroethane	10.0	10.8	108	63-140	
Ethylbenzene	10.0	9.31	93	72-126	
Xylenes, Total	20.0	18.9	95	76-128	
Styrene	10.0	10.3	103	71-127	
Bromoform	10.0	9.71	97	46-150	
1,1,2,2-Tetrachloroethane	10.0	9.82	98	62-125	
Acrylonitrile	100	105	105	30-140	
1,4-Dioxane	200	179 J	90	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.: 180-44321-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 7060210.D

Lab ID: LCS 180-143527/10 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Chloromethane	10.0	6.52	65	50-139	
Vinyl chloride	10.0	6.88	69	53-138	
Bromomethane	10.0	8.46	85	33-150	
Chloroethane	10.0	8.01	80	36-142	
1,1-Dichloroethene	10.0	8.19	82	65-136	
Acetone	20.0	12.2	61	22-150	
Carbon disulfide	10.0	8.08	81	54-132	
Methylene Chloride	10.0	11.9	119	63-129	
trans-1,2-Dichloroethene	10.0	10.6	106	73-126	
Methyl tert-butyl ether	10.0	11.5	115	64-123	
1,1-Dichloroethane	10.0	12.1	121	73-126	
cis-1,2-Dichloroethene	10.0	11.2	112	70-120	
Bromochloromethane	10.0	10.6	106	70-127	
2-Butanone (MEK)	20.0	17.2	86	39-138	
Chloroform	10.0	11.5	115	72-127	
1,1,1-Trichloroethane	10.0	12.6	126	63-133	
Carbon tetrachloride	10.0	12.2	122	55-150	
Benzene	10.0	10.6	106	80-120	
1,2-Dichloroethane	10.0	10.7	107	68-132	
Trichloroethene	10.0	10.0	100	73-120	
1,2-Dichloropropane	10.0	10.4	104	76-124	
Bromodichloromethane	10.0	11.2	112	66-130	
cis-1,3-Dichloropropene	10.0	10.5	105	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	16.9	85	45-145	
Toluene	10.0	10.2	102	80-123	
trans-1,3-Dichloropropene	10.0	9.86	99	65-125	
1,1,2-Trichloroethane	10.0	9.92	99	77-127	
Tetrachloroethene	10.0	10.8	108	70-135	
2-Hexanone	20.0	20.6	103	25-132	
Dibromochloromethane	10.0	10.1	101	60-140	
1,2-Dibromoethane (EDB)	10.0	9.63	96	74-123	
Chlorobenzene	10.0	10.8	108	80-120	
1,1,1,2-Tetrachloroethane	10.0	10.6	106	63-140	
Ethylbenzene	10.0	10.1	101	72-126	
Xylenes, Total	20.0	20.2	101	76-128	
Styrene	10.0	10.6	106	71-127	
Bromoform	10.0	8.89	89	46-150	
1,1,2,2-Tetrachloroethane	10.0	9.37	94	62-125	
Acrylonitrile	100	91.2	91	30-140	
1,4-Dioxane	200	192 J	96	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.: 180-44321-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 7052910.D

Lab ID: 180-44321-1 MS Client ID: HD-COD-SW-6-0/1-0 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	6.02	60	50-139	
Vinyl chloride	10.0	1.0 U	5.10	51	53-138	F1
Bromomethane	10.0	1.0 U	6.47	65	33-150	
Chloroethane	10.0	1.0 U	4.09	41	36-142	
1,1-Dichloroethene	10.0	1.0 U	6.14	61	65-136	F1
Acetone	20.0	5.0 U	20.9	104	22-150	
Carbon disulfide	10.0	1.0 U	6.80	68	54-132	
Methylene Chloride	10.0	0.32 J	12.2	118	63-129	
trans-1,2-Dichloroethene	10.0	1.0 U	8.16	82	73-126	
Methyl tert-butyl ether	10.0	1.0 U	14.1	141	64-123	F1
1,1-Dichloroethane	10.0	1.0 U	11.0	110	73-126	
cis-1,2-Dichloroethene	10.0	1.0 U	11.5	115	70-120	
Bromochloromethane	10.0	1.0 U	11.8	118	70-127	
2-Butanone (MEK)	20.0	5.0 U	18.7	93	39-138	
Chloroform	10.0	1.0 U	11.3	113	72-127	
1,1,1-Trichloroethane	10.0	1.0 U	7.95	79	63-133	
Carbon tetrachloride	10.0	1.0 U	6.64	66	55-150	
Benzene	10.0	1.0 U	10.3	103	80-120	
1,2-Dichloroethane	10.0	1.0 U	13.0	130	68-132	
Trichloroethene	10.0	1.0 U	8.43	84	73-120	
1,2-Dichloropropane	10.0	1.0 U	12.4	124	76-124	
Bromodichloromethane	10.0	1.0 U	12.6	126	66-130	
cis-1,3-Dichloropropene	10.0	1.0 U	12.5	125	66-120	F1
4-Methyl-2-pentanone (MIBK)	20.0	5.0 U	19.1	95	45-145	
Toluene	10.0	1.0 U	8.50	85	80-123	
trans-1,3-Dichloropropene	10.0	1.0 U	10.1	101	65-125	
1,1,2-Trichloroethane	10.0	1.0 U	10.9	109	77-127	
Tetrachloroethene	10.0	1.0 U	6.92	69	70-135	F1
2-Hexanone	20.0	5.0 U	17.9	89	25-132	
Dibromochloromethane	10.0	1.0 U	9.85	99	60-140	
1,2-Dibromoethane (EDB)	10.0	1.0 U	10.2	102	74-123	
Chlorobenzene	10.0	1.0 U	10.3	103	80-120	
1,1,1,2-Tetrachloroethane	10.0	1.0 U	10.0	100	63-140	
Ethylbenzene	10.0	1.0 U	8.86	89	72-126	
Xylenes, Total	20.0	3.0 U	18.7	94	76-128	
Styrene	10.0	1.0 U	10.6	106	71-127	
Bromoform	10.0	1.0 U	10.2	102	46-150	
1,1,2,2-Tetrachloroethane	10.0	1.0 U	10.9	109	62-125	
Acrylonitrile	100	20 U	137	137	30-140	
1,4-Dioxane	200	200 U	190 J	95	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.: 180-44321-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 7053112.D

Lab ID: 180-44321-15 MS Client ID: HD-COD-SW-28-0/1-0 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	6.60	66	50-139	
Vinyl chloride	10.0	1.0 U	6.04	60	53-138	
Bromomethane	10.0	1.0 U	7.18	72	33-150	
Chloroethane	10.0	1.0 U	5.59	56	36-142	
1,1-Dichloroethene	10.0	1.0 U	10.2	102	65-136	
Acetone	20.0	5.0 U	27.1	135	22-150	
Carbon disulfide	10.0	1.0 U	9.98	100	54-132	
Methylene Chloride	10.0	1.0 U	11.4	114	63-129	
trans-1,2-Dichloroethene	10.0	1.0 U	9.78	98	73-126	
Methyl tert-butyl ether	10.0	1.0 U	11.4	114	64-123	
1,1-Dichloroethane	10.0	1.0 U	11.2	112	73-126	
cis-1,2-Dichloroethene	10.0	1.0 U	11.0	110	70-120	
Bromochloromethane	10.0	1.0 U	9.93	99	70-127	
2-Butanone (MEK)	20.0	5.0 U	18.4	92	39-138	
Chloroform	10.0	1.0 U	10.9	109	72-127	
1,1,1-Trichloroethane	10.0	1.0 U	10.4	104	63-133	
Carbon tetrachloride	10.0	1.0 U	9.79	98	55-150	
Benzene	10.0	1.0 U	10.2	102	80-120	
1,2-Dichloroethane	10.0	1.0 U	10.5	105	68-132	
Trichloroethene	10.0	1.0 U	9.56	96	73-120	
1,2-Dichloropropane	10.0	1.0 U	11.3	113	76-124	
Bromodichloromethane	10.0	1.0 U	10.7	107	66-130	
cis-1,3-Dichloropropene	10.0	1.0 U	10.6	106	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	5.0 U	20.0	100	45-145	
Toluene	10.0	1.0 U	10.6	106	80-123	
trans-1,3-Dichloropropene	10.0	1.0 U	9.95	100	65-125	
1,1,2-Trichloroethane	10.0	1.0 U	10.3	103	77-127	
Tetrachloroethene	10.0	1.0 U	8.59	86	70-135	
2-Hexanone	20.0	5.0 U	22.8	114	25-132	
Dibromochloromethane	10.0	1.0 U	10.1	101	60-140	
1,2-Dibromoethane (EDB)	10.0	1.0 U	10.4	104	74-123	
Chlorobenzene	10.0	1.0 U	10.6	106	80-120	
1,1,1,2-Tetrachloroethane	10.0	1.0 U	10.6	106	63-140	
Ethylbenzene	10.0	1.0 U	9.34	93	72-126	
Xylenes, Total	20.0	3.0 U	18.2	91	76-128	
Styrene	10.0	1.0 U	10.4	104	71-127	
Bromoform	10.0	1.0 U	9.67	97	46-150	
1,1,2,2-Tetrachloroethane	10.0	1.0 U	9.86	99	62-125	
Acrylonitrile	100	20 U	96.2	96	30-140	
1,4-Dioxane	200	200 U	163 J	82	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.: 180-44321-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 7060109.D

Lab ID: 180-44321-18 MS Client ID: HD-QC2-0/1-1 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	7.13	71	50-139	
Vinyl chloride	10.0	1.0 U	7.27	73	53-138	
Bromomethane	10.0	1.0 U	7.92	79	33-150	
Chloroethane	10.0	1.0 U	6.84	68	36-142	
1,1-Dichloroethene	10.0	1.0 U	13.6	136	65-136	
Acetone	20.0	5.0 U	26.6	133	22-150	
Carbon disulfide	10.0	1.0 U	13.2	132	54-132	
Methylene Chloride	10.0	1.0 U	12.4	124	63-129	
trans-1,2-Dichloroethene	10.0	1.0 U	11.6	116	73-126	
Methyl tert-butyl ether	10.0	1.0 U	11.6	116	64-123	
1,1-Dichloroethane	10.0	1.0 U	13.2	132	73-126	F1
cis-1,2-Dichloroethene	10.0	1.4	12.8	115	70-120	
Bromochloromethane	10.0	1.0 U	10.6	106	70-127	
2-Butanone (MEK)	20.0	5.0 U	18.7	93	39-138	
Chloroform	10.0	1.0 U	12.6	126	72-127	
1,1,1-Trichloroethane	10.0	1.0 U	13.5	135	63-133	F1
Carbon tetrachloride	10.0	1.0 U	13.2	132	55-150	
Benzene	10.0	1.0 U	11.7	117	80-120	
1,2-Dichloroethane	10.0	1.0 U	11.3	113	68-132	
Trichloroethene	10.0	1.1	11.0	99	73-120	
1,2-Dichloropropane	10.0	1.0 U	11.8	118	76-124	
Bromodichloromethane	10.0	1.0 U	11.9	119	66-130	
cis-1,3-Dichloropropene	10.0	1.0 U	11.5	115	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	5.0 U	19.5	97	45-145	
Toluene	10.0	1.0 U	12.0	120	80-123	
trans-1,3-Dichloropropene	10.0	1.0 U	10.9	109	65-125	
1,1,2-Trichloroethane	10.0	1.0 U	10.5	105	77-127	
Tetrachloroethene	10.0	1.6	12.3	107	70-135	
2-Hexanone	20.0	5.0 U	24.1	121	25-132	
Dibromochloromethane	10.0	1.0 U	10.5	105	60-140	
1,2-Dibromoethane (EDB)	10.0	1.0 U	10.3	103	74-123	
Chlorobenzene	10.0	1.0 U	11.5	115	80-120	
1,1,1,2-Tetrachloroethane	10.0	1.0 U	11.2	112	63-140	
Ethylbenzene	10.0	1.0 U	11.2	112	72-126	
Xylenes, Total	20.0	3.0 U	22.2	111	76-128	
Styrene	10.0	1.0 U	11.8	118	71-127	
Bromoform	10.0	1.0 U	9.47	95	46-150	
1,1,2,2-Tetrachloroethane	10.0	1.0 U	9.59	96	62-125	
Acrylonitrile	100	20 U	96.6	97	30-140	
1,4-Dioxane	200	200 U	188 J	94	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.: 180-44321-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 60530008.D

Lab ID: 180-44321-24 MS Client ID: HD-MW-95-0/1-0 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Chloromethane	10.0	1.0 U	10.3	103	50-139	
Vinyl chloride	10.0	1.0 U	10.7	107	53-138	
Bromomethane	10.0	1.0 U	9.34	93	33-150	
Chloroethane	10.0	1.0 U	11.7	117	36-142	
1,1-Dichloroethene	10.0	1.0 U	10.5	105	65-136	
Acetone	20.0	5.0 U	26.0	130	22-150	
Carbon disulfide	10.0	1.0 U	9.26	93	54-132	
Methylene Chloride	10.0	0.58 J	11.1	105	63-129	
trans-1,2-Dichloroethene	10.0	1.0 U	11.0	110	73-126	
Methyl tert-butyl ether	10.0	1.0 U	8.33	83	64-123	
1,1-Dichloroethane	10.0	1.0 U	10.3	103	73-126	
cis-1,2-Dichloroethene	10.0	6.1	16.9	108	70-120	
Bromochloromethane	10.0	1.0 U	11.9	119	70-127	
2-Butanone (MEK)	20.0	5.0 U	23.7	119	39-138	
Chloroform	10.0	1.0 U	11.2	112	72-127	
1,1,1-Trichloroethane	10.0	1.0 U	9.98	100	63-133	
Carbon tetrachloride	10.0	1.0 U	9.49	95	55-150	
Benzene	10.0	1.0 U	10.7	107	80-120	
1,2-Dichloroethane	10.0	1.0 U	10.7	107	68-132	
Trichloroethene	10.0	2.8	15.8	130	73-120	F1
1,2-Dichloropropane	10.0	1.0 U	9.84	98	76-124	
Bromodichloromethane	10.0	1.0 U	9.18	92	66-130	
cis-1,3-Dichloropropene	10.0	1.0 U	7.89	79	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	5.0 U	16.7	83	45-145	
Toluene	10.0	1.0 U	10.2	102	80-123	
trans-1,3-Dichloropropene	10.0	1.0 U	7.38	74	65-125	
1,1,2-Trichloroethane	10.0	1.0 U	9.81	98	77-127	
Tetrachloroethene	10.0	1.9	14.2	123	70-135	
2-Hexanone	20.0	5.0 U	18.3	91	25-132	
Dibromochloromethane	10.0	1.0 U	9.62	96	60-140	
1,2-Dibromoethane (EDB)	10.0	1.0 U	9.85	98	74-123	
Chlorobenzene	10.0	1.0 U	11.0	110	80-120	
1,1,1,2-Tetrachloroethane	10.0	1.0 U	11.0	110	63-140	
Ethylbenzene	10.0	1.0 U	10.9	109	72-126	
Xylenes, Total	20.0	3.0 U	21.2	106	76-128	
Styrene	10.0	1.0 U	10.5	105	71-127	
Bromoform	10.0	1.0 U	8.02	80	46-150	
1,1,2,2-Tetrachloroethane	10.0	1.0 U	9.89	99	62-125	
Acrylonitrile	100	20 U	93.0	93	30-140	
1,4-Dioxane	200	200 U	188 J	94	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.: 180-44321-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 7052911.D

Lab ID: 180-44321-1 MSD Client ID: HD-COD-SW-6-0/1-0 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Chloromethane	10.0	9.84	98	48	35	50-139	F2
Vinyl chloride	10.0	8.29	83	48	35	53-138	F2
Bromomethane	10.0	6.53	65	1	35	33-150	
Chloroethane	10.0	4.99	50	20	35	36-142	
1,1-Dichloroethene	10.0	8.90	89	37	35	65-136	F2
Acetone	20.0	14.1	70	39	35	22-150	F2
Carbon disulfide	10.0	9.58	96	34	35	54-132	
Methylene Chloride	10.0	10.9	106	11	35	63-129	
trans-1,2-Dichloroethene	10.0	9.18	92	12	35	73-126	
Methyl tert-butyl ether	10.0	11.8	118	18	35	64-123	
1,1-Dichloroethane	10.0	10.8	108	2	35	73-126	
cis-1,2-Dichloroethene	10.0	10.9	109	5	35	70-120	
Bromochloromethane	10.0	10.1	101	15	35	70-127	
2-Butanone (MEK)	20.0	14.3	71	26	35	39-138	
Chloroform	10.0	10.7	107	6	35	72-127	
1,1,1-Trichloroethane	10.0	10.5	105	28	35	63-133	
Carbon tetrachloride	10.0	9.64	96	37	35	55-150	F2
Benzene	10.0	10.4	104	1	32	80-120	
1,2-Dichloroethane	10.0	11.1	111	16	32	68-132	
Trichloroethene	10.0	9.29	93	10	35	73-120	
1,2-Dichloropropane	10.0	11.2	112	10	34	76-124	
Bromodichloromethane	10.0	11.0	110	14	35	66-130	
cis-1,3-Dichloropropene	10.0	10.8	108	15	35	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	17.5	88	9	35	45-145	
Toluene	10.0	9.64	96	13	35	80-123	
trans-1,3-Dichloropropene	10.0	10.0	100	1	35	65-125	
1,1,2-Trichloroethane	10.0	10.4	104	5	35	77-127	
Tetrachloroethene	10.0	8.96	90	26	35	70-135	
2-Hexanone	20.0	16.2	81	10	35	25-132	
Dibromochloromethane	10.0	9.78	98	1	35	60-140	
1,2-Dibromoethane (EDB)	10.0	10.1	101	1	35	74-123	
Chlorobenzene	10.0	10.1	101	2	29	80-120	
1,1,1,2-Tetrachloroethane	10.0	9.85	99	2	34	63-140	
Ethylbenzene	10.0	9.40	94	6	33	72-126	
Xylenes, Total	20.0	18.9	94	1	32	76-128	
Styrene	10.0	10.0	100	5	34	71-127	
Bromoform	10.0	9.24	92	9	35	46-150	
1,1,2,2-Tetrachloroethane	10.0	9.82	98	10	35	62-125	
Acrylonitrile	100	114	114	19	35	30-140	
1,4-Dioxane	200	214	107	12	35	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.: 180-44321-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 7053113.D

Lab ID: 180-44321-15 MSD Client ID: HD-COD-SW-28-0/1-0 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Chloromethane	10.0	6.23	62	6	35	50-139	
Vinyl chloride	10.0	5.75	58	5	35	53-138	
Bromomethane	10.0	6.89	69	4	35	33-150	
Chloroethane	10.0	5.74	57	3	35	36-142	
1,1-Dichloroethene	10.0	10.2	102	1	35	65-136	
Acetone	20.0	27.9	139	3	35	22-150	
Carbon disulfide	10.0	10.3	103	3	35	54-132	
Methylene Chloride	10.0	11.4	114	0	35	63-129	
trans-1,2-Dichloroethene	10.0	9.81	98	0	35	73-126	
Methyl tert-butyl ether	10.0	11.0	110	3	35	64-123	
1,1-Dichloroethane	10.0	11.6	116	3	35	73-126	
cis-1,2-Dichloroethene	10.0	11.3	113	2	35	70-120	
Bromochloromethane	10.0	10.2	102	3	35	70-127	
2-Butanone (MEK)	20.0	19.2	96	5	35	39-138	
Chloroform	10.0	11.0	110	1	35	72-127	
1,1,1-Trichloroethane	10.0	10.4	104	1	35	63-133	
Carbon tetrachloride	10.0	9.82	98	0	35	55-150	
Benzene	10.0	10.6	106	4	32	80-120	
1,2-Dichloroethane	10.0	10.9	109	3	32	68-132	
Trichloroethene	10.0	9.71	97	1	35	73-120	
1,2-Dichloropropane	10.0	11.6	116	3	34	76-124	
Bromodichloromethane	10.0	11.3	113	5	35	66-130	
cis-1,3-Dichloropropene	10.0	11.1	111	5	35	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	20.1	100	0	35	45-145	
Toluene	10.0	10.6	106	0	35	80-123	
trans-1,3-Dichloropropene	10.0	10.5	105	6	35	65-125	
1,1,2-Trichloroethane	10.0	10.4	104	1	35	77-127	
Tetrachloroethene	10.0	8.42	84	2	35	70-135	
2-Hexanone	20.0	23.5	118	3	35	25-132	
Dibromochloromethane	10.0	10.3	103	2	35	60-140	
1,2-Dibromoethane (EDB)	10.0	10.6	106	2	35	74-123	
Chlorobenzene	10.0	10.4	104	2	29	80-120	
1,1,1,2-Tetrachloroethane	10.0	10.2	102	3	34	63-140	
Ethylbenzene	10.0	9.32	93	0	33	72-126	
Xylenes, Total	20.0	18.3	92	1	32	76-128	
Styrene	10.0	10.3	103	1	34	71-127	
Bromoform	10.0	9.58	96	1	35	46-150	
1,1,2,2-Tetrachloroethane	10.0	9.58	96	3	35	62-125	
Acrylonitrile	100	96.2	96	0	35	30-140	
1,4-Dioxane	200	183 J	92	12	35	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.: 180-44321-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 7060110.D

Lab ID: 180-44321-18 MSD Client ID: HD-QC2-0/1-1 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Chloromethane	10.0	7.06	71	1	35	50-139	
Vinyl chloride	10.0	7.00	70	4	35	53-138	
Bromomethane	10.0	7.89	79	0	35	33-150	
Chloroethane	10.0	5.71	57	18	35	36-142	
1,1-Dichloroethene	10.0	13.7	137	1	35	65-136	F1
Acetone	20.0	31.5	158	17	35	22-150	F1
Carbon disulfide	10.0	13.7	137	4	35	54-132	F1
Methylene Chloride	10.0	12.9	129	3	35	63-129	
trans-1,2-Dichloroethene	10.0	11.7	117	0	35	73-126	
Methyl tert-butyl ether	10.0	12.6	126	8	35	64-123	F1
1,1-Dichloroethane	10.0	12.8	128	3	35	73-126	F1
cis-1,2-Dichloroethene	10.0	12.2	108	5	35	70-120	
Bromochloromethane	10.0	11.1	111	4	35	70-127	
2-Butanone (MEK)	20.0	19.6	98	5	35	39-138	
Chloroform	10.0	12.4	124	1	35	72-127	
1,1,1-Trichloroethane	10.0	13.8	138	3	35	63-133	F1
Carbon tetrachloride	10.0	13.1	131	1	35	55-150	
Benzene	10.0	11.3	113	3	32	80-120	
1,2-Dichloroethane	10.0	11.5	115	1	32	68-132	
Trichloroethene	10.0	9.66	86	13	35	73-120	
1,2-Dichloropropane	10.0	11.2	112	5	34	76-124	
Bromodichloromethane	10.0	11.6	116	2	35	66-130	
cis-1,3-Dichloropropene	10.0	11.0	110	4	35	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	18.9	95	3	35	45-145	
Toluene	10.0	11.2	112	7	35	80-123	
trans-1,3-Dichloropropene	10.0	10.6	106	3	35	65-125	
1,1,2-Trichloroethane	10.0	10.7	107	2	35	77-127	
Tetrachloroethene	10.0	11.5	99	7	35	70-135	
2-Hexanone	20.0	23.3	116	4	35	25-132	
Dibromochloromethane	10.0	10.3	103	1	35	60-140	
1,2-Dibromoethane (EDB)	10.0	10.1	101	1	35	74-123	
Chlorobenzene	10.0	11.1	111	3	29	80-120	
1,1,1,2-Tetrachloroethane	10.0	11.1	111	0	34	63-140	
Ethylbenzene	10.0	10.7	107	5	33	72-126	
Xylenes, Total	20.0	21.2	106	5	32	76-128	
Styrene	10.0	11.2	112	5	34	71-127	
Bromoform	10.0	9.40	94	1	35	46-150	
1,1,2,2-Tetrachloroethane	10.0	9.64	96	0	35	62-125	
Acrylonitrile	100	106	106	10	35	30-140	
1,4-Dioxane	200	213	106	12	35	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.: 180-44321-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 60530009.D

Lab ID: 180-44321-24 MSD Client ID: HD-MW-95-0/1-0 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Chloromethane	10.0	11.0	110	6	35	50-139	
Vinyl chloride	10.0	11.2	112	5	35	53-138	
Bromomethane	10.0	10.3	103	10	35	33-150	
Chloroethane	10.0	11.9	119	2	35	36-142	
1,1-Dichloroethene	10.0	10.8	108	3	35	65-136	
Acetone	20.0	23.6	118	10	35	22-150	
Carbon disulfide	10.0	9.37	94	1	35	54-132	
Methylene Chloride	10.0	11.3	107	2	35	63-129	
trans-1,2-Dichloroethene	10.0	11.1	111	1	35	73-126	
Methyl tert-butyl ether	10.0	8.31	83	0	35	64-123	
1,1-Dichloroethane	10.0	10.4	104	1	35	73-126	
cis-1,2-Dichloroethene	10.0	17.1	109	1	35	70-120	
Bromochloromethane	10.0	11.7	117	2	35	70-127	
2-Butanone (MEK)	20.0	24.9	125	5	35	39-138	
Chloroform	10.0	11.1	111	1	35	72-127	
1,1,1-Trichloroethane	10.0	9.91	99	1	35	63-133	
Carbon tetrachloride	10.0	9.20	92	3	35	55-150	
Benzene	10.0	10.6	106	1	32	80-120	
1,2-Dichloroethane	10.0	10.5	105	1	32	68-132	
Trichloroethene	10.0	15.0	122	5	35	73-120	F1
1,2-Dichloropropane	10.0	9.90	99	1	34	76-124	
Bromodichloromethane	10.0	8.85	89	4	35	66-130	
cis-1,3-Dichloropropene	10.0	7.63	76	3	35	66-120	
4-Methyl-2-pentanone (MIBK)	20.0	16.3	81	2	35	45-145	
Toluene	10.0	10.3	103	1	35	80-123	
trans-1,3-Dichloropropene	10.0	7.06	71	4	35	65-125	
1,1,2-Trichloroethane	10.0	9.91	99	1	35	77-127	
Tetrachloroethene	10.0	14.1	121	1	35	70-135	
2-Hexanone	20.0	18.3	91	0	35	25-132	
Dibromochloromethane	10.0	9.07	91	6	35	60-140	
1,2-Dibromoethane (EDB)	10.0	9.78	98	1	35	74-123	
Chlorobenzene	10.0	11.0	110	0	29	80-120	
1,1,1,2-Tetrachloroethane	10.0	10.8	108	2	34	63-140	
Ethylbenzene	10.0	10.3	103	6	33	72-126	
Xylenes, Total	20.0	20.3	102	4	32	76-128	
Styrene	10.0	10.3	103	1	34	71-127	
Bromoform	10.0	7.75	77	3	35	46-150	
1,1,2,2-Tetrachloroethane	10.0	9.82	98	1	35	62-125	
Acrylonitrile	100	97.9	98	5	35	30-140	
1,4-Dioxane	200	216	108	14	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.: 180-44321-1

SDG No.:

Lab File ID: 7052906.D Lab Sample ID: MB 180-143153/7

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

Instrument ID: CHHP7 Date Analyzed: 05/29/2015 11:33

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-COD-SW-6-0/1-0	180-44321-1	7052907.D	05/29/2015 12:01
HD-COD-SW-8-0/1-0	180-44321-3	7052908.D	05/29/2015 12:28
HD-COD-SW-9-0/1-0	180-44321-4	7052909.D	05/29/2015 12:56
HD-COD-SW-6-0/1-0 MS	180-44321-1 MS	7052910.D	05/29/2015 13:23
HD-COD-SW-6-0/1-0 MSD	180-44321-1 MSD	7052911.D	05/29/2015 13:50
	LCS 180-143153/13	7052912.D	05/29/2015 14:18
HD-COD-SW-10-0/1-0	180-44321-5	7052913.D	05/29/2015 15:32
HD-COD-SW-11-0/1-0	180-44321-6	7052914.D	05/29/2015 16:00
HD-COD-SW-12-0/1-0	180-44321-7	7052915.D	05/29/2015 16:27
HD-COD-SW-15-0/1-0	180-44321-9	7052917.D	05/29/2015 17:49
HD-COD-SW-16-0/1-0	180-44321-10	7052918.D	05/29/2015 18:17
HD-COD-SW-17-0/1-0	180-44321-11	7052919.D	05/29/2015 18:44
HD-COD-SW-20-0/1-0	180-44321-12	7052920.D	05/29/2015 19:12

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Lab File ID: 60530004.D Lab Sample ID: MB 180-143337/4

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

Instrument ID: CHHP6 Date Analyzed: 05/31/2015 09:47

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

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
HD-QC4-0/1-2	180-44321-31	60530006.D	05/31/2015 10:42
	LCS 180-143337/7	60530007.D	05/31/2015 11:13
HD-MW-95-0/1-0 MS	180-44321-24 MS	60530008.D	05/31/2015 11:37
HD-MW-95-0/1-0 MSD	180-44321-24 MSD	60530009.D	05/31/2015 12:00
HD-MW-95-0/1-0	180-44321-24	60530011.D	05/31/2015 12:49
HD-MW-97-0/1-0	180-44321-27	60530013.D	05/31/2015 13:37
HD-CW-18-0/1-0	180-44321-28	60530014.D	05/31/2015 14:01
HD-MW-50D-0/1-0	180-44321-29	60530015.D	05/31/2015 14:25
HD-MW-51S-0/1-0	180-44321-30	60530016.D	05/31/2015 14:49
HD-QC3-0/1-2	180-44321-17	60530018.D	05/31/2015 15:38
HD-QC1-0/1-4	180-44321-32	60530019.D	05/31/2015 16:02
HD-QC1-0/1-3	180-44321-33	60530020.D	05/31/2015 16:26
HD-CW-9-0/1-0	180-44321-19	60530022.D	05/31/2015 17:14
HD-CW-13-0/1-0	180-44321-20	60530023.D	05/31/2015 17:38
HD-CW-20-0/1-0 DL	180-44321-23 DL	60530026.D	05/31/2015 18:50
HD-COD-SW-29-0/1-0	180-44321-16	60530027.D	05/31/2015 19:14
HD-MW-96S-0/1-0 DL	180-44321-25 DL	60530028.D	05/31/2015 19:38

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Lab File ID: 7053107.D Lab Sample ID: MB 180-143339/7

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

Instrument ID: CHHP7 Date Analyzed: 05/31/2015 14:05

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

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
HD-COD-SW-28-0/1-0	180-44321-15	7053109.D	05/31/2015 14:59
	LCS 180-143339/11	7053111.D	05/31/2015 16:05
HD-COD-SW-28-0/1-0 MS	180-44321-15 MS	7053112.D	05/31/2015 16:32
HD-COD-SW-28-0/1-0 MSD	180-44321-15 MSD	7053113.D	05/31/2015 16:59
HD-COD-SW-7-0/1-0	180-44321-2	7053117.D	05/31/2015 18:50
HD-COD-SW-13-0/1-0	180-44321-8	7053118.D	05/31/2015 19:17
HD-COD-SW-26-0/1-0	180-44321-13	7053119.D	05/31/2015 19:44
HD-COD-SW-27-0/1-0	180-44321-14	7053120.D	05/31/2015 20:12

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Lab File ID: 7060106.D Lab Sample ID: MB 180-143422/6

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

Instrument ID: CHHP7 Date Analyzed: 06/01/2015 12:21

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 180-143422/8	7060108.D	06/01/2015 13:26
HD-QC2-0/1-1 MS	180-44321-18 MS	7060109.D	06/01/2015 13:54
HD-QC2-0/1-1 MSD	180-44321-18 MSD	7060110.D	06/01/2015 14:22
HD-QC2-0/1-1	180-44321-18	7060113.D	06/01/2015 15:45
HD-CW-17-0/1-0	180-44321-22	7060114.D	06/01/2015 16:12
HD-MW-96D-0/1-0	180-44321-26	7060115.D	06/01/2015 16:40
HD-CW-15A-0/1-0	180-44321-21	7060116.D	06/01/2015 17:08
HD-CW-20-0/1-0	180-44321-23	7060117.D	06/01/2015 17:40
HD-MW-96S-0/1-0	180-44321-25	7060118.D	06/01/2015 18:08

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Lab File ID: 7060207.D Lab Sample ID: MB 180-143527/7

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

Instrument ID: CHHP7 Date Analyzed: 06/02/2015 13:18

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

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 180-143527/10	7060210.D	06/02/2015 14:40
HD-CW-15A-0/1-0 RA	180-44321-21 RA	7060213.D	06/02/2015 16:03

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

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

Instrument ID: CHHP6 BFB Injection Time: 11:31

Analysis Batch No.: 140280

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

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

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

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

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Lab File ID: 60530001.D BFB Injection Date: 05/31/2015

Instrument ID: CHHP6 BFB Injection Time: 07:53

Analysis Batch No.: 143337

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.3	
75	30.0 - 60.0 % of mass 95	54.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.2	(0.3) 1
174	50.0 - 120.00 % of mass 95	73.3	
175	5.0 - 9.0 % of mass 174	5.6	(7.6) 1
176	95.0 - 101.0 % of mass 174	69.8	(95.1) 1
177	5.0 - 9.0 % of mass 176	4.8	(6.9) 2

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

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-143337/2	60530002.D	05/31/2015	08:32
	MB 180-143337/4	60530004.D	05/31/2015	09:47
HD-QC4-0/1-2	180-44321-31	60530006.D	05/31/2015	10:42
	LCS 180-143337/7	60530007.D	05/31/2015	11:13
HD-MW-95-0/1-0 MS	180-44321-24 MS	60530008.D	05/31/2015	11:37
HD-MW-95-0/1-0 MSD	180-44321-24 MSD	60530009.D	05/31/2015	12:00
HD-MW-95-0/1-0	180-44321-24	60530011.D	05/31/2015	12:49
HD-MW-97-0/1-0	180-44321-27	60530013.D	05/31/2015	13:37
HD-CW-18-0/1-0	180-44321-28	60530014.D	05/31/2015	14:01
HD-MW-50D-0/1-0	180-44321-29	60530015.D	05/31/2015	14:25
HD-MW-51S-0/1-0	180-44321-30	60530016.D	05/31/2015	14:49
HD-QC3-0/1-2	180-44321-17	60530018.D	05/31/2015	15:38
HD-QC1-0/1-4	180-44321-32	60530019.D	05/31/2015	16:02
HD-QC1-0/1-3	180-44321-33	60530020.D	05/31/2015	16:26
HD-CW-9-0/1-0	180-44321-19	60530022.D	05/31/2015	17:14
HD-CW-13-0/1-0	180-44321-20	60530023.D	05/31/2015	17:38
HD-CW-20-0/1-0 DL	180-44321-23 DL	60530026.D	05/31/2015	18:50
HD-COD-SW-29-0/1-0	180-44321-16	60530027.D	05/31/2015	19:14
HD-MW-96S-0/1-0 DL	180-44321-25 DL	60530028.D	05/31/2015	19:38

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Lab File ID: 7033001.D BFB Injection Date: 03/30/2015

Instrument ID: CHHP7 BFB Injection Time: 09:32

Analysis Batch No.: 136928

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.4	
75	30.0 - 60.0 % of mass 95	51.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	5.9	
173	Less than 2.0 % of mass 174	0.2	(0.3) 1
174	50.0 - 120.00 % of mass 95	80.2	
175	5.0 - 9.0 % of mass 174	5.6	(6.9) 1
176	95.0 - 101.0 % of mass 174	77.4	(96.5) 1
177	5.0 - 9.0 % of mass 176	4.8	(6.2) 2

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

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 180-136928/3	7033003.D	03/30/2015	10:57
	IC 180-136928/4	7033004.D	03/30/2015	11:28
	ICIS 180-136928/5	7033005.D	03/30/2015	11:55
	IC 180-136928/6	7033006.D	03/30/2015	12:23
	IC 180-136928/7	7033007.D	03/30/2015	13:05
	IC 180-136928/8	7033008.D	03/30/2015	13:32
	IC 180-136928/9	7033009.D	03/30/2015	14:05
	IC 180-136928/10	7033010.D	03/30/2015	14:36

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Lab File ID: 7052901.D BFB Injection Date: 05/29/2015

Instrument ID: CHHP7 BFB Injection Time: 07:18

Analysis Batch No.: 143153

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.9	
75	30.0 - 60.0 % of mass 95	52.9	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.2	
173	Less than 2.0 % of mass 174	0.4	(0.4) 1
174	50.0 - 120.00 % of mass 95	82.3	
175	5.0 - 9.0 % of mass 174	7.4	(9.0) 1
176	95.0 - 101.0 % of mass 174	82.4	(100.1) 1
177	5.0 - 9.0 % of mass 176	6.1	(7.5) 2

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

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-143153/3	7052902.D	05/29/2015	08:40
	MB 180-143153/7	7052906.D	05/29/2015	11:33
HD-COD-SW-6-0/1-0	180-44321-1	7052907.D	05/29/2015	12:01
HD-COD-SW-8-0/1-0	180-44321-3	7052908.D	05/29/2015	12:28
HD-COD-SW-9-0/1-0	180-44321-4	7052909.D	05/29/2015	12:56
HD-COD-SW-6-0/1-0 MS	180-44321-1 MS	7052910.D	05/29/2015	13:23
HD-COD-SW-6-0/1-0 MSD	180-44321-1 MSD	7052911.D	05/29/2015	13:50
	LCS 180-143153/13	7052912.D	05/29/2015	14:18
HD-COD-SW-10-0/1-0	180-44321-5	7052913.D	05/29/2015	15:32
HD-COD-SW-11-0/1-0	180-44321-6	7052914.D	05/29/2015	16:00
HD-COD-SW-12-0/1-0	180-44321-7	7052915.D	05/29/2015	16:27
HD-COD-SW-15-0/1-0	180-44321-9	7052917.D	05/29/2015	17:49
HD-COD-SW-16-0/1-0	180-44321-10	7052918.D	05/29/2015	18:17
HD-COD-SW-17-0/1-0	180-44321-11	7052919.D	05/29/2015	18:44
HD-COD-SW-20-0/1-0	180-44321-12	7052920.D	05/29/2015	19:12

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Lab File ID: 7053101.D BFB Injection Date: 05/31/2015

Instrument ID: CHHP7 BFB Injection Time: 08:36

Analysis Batch No.: 143339

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.3	
75	30.0 - 60.0 % of mass 95	58.0	
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	0.3	(0.3) 1
174	50.0 - 120.00 % of mass 95	90.8	
175	5.0 - 9.0 % of mass 174	5.9	(6.5) 1
176	95.0 - 101.0 % of mass 174	87.6	(96.5) 1
177	5.0 - 9.0 % of mass 176	5.9	(6.7) 2

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

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

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 180-143339/3	7053103.D	05/31/2015	11:59
	MB 180-143339/7	7053107.D	05/31/2015	14:05
HD-COD-SW-28-0/1-0	180-44321-15	7053109.D	05/31/2015	14:59
	LCS 180-143339/11	7053111.D	05/31/2015	16:05
HD-COD-SW-28-0/1-0 MS	180-44321-15 MS	7053112.D	05/31/2015	16:32
HD-COD-SW-28-0/1-0 MSD	180-44321-15 MSD	7053113.D	05/31/2015	16:59
HD-COD-SW-7-0/1-0	180-44321-2	7053117.D	05/31/2015	18:50
HD-COD-SW-13-0/1-0	180-44321-8	7053118.D	05/31/2015	19:17
HD-COD-SW-26-0/1-0	180-44321-13	7053119.D	05/31/2015	19:44
HD-COD-SW-27-0/1-0	180-44321-14	7053120.D	05/31/2015	20:12

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Lab File ID: 7060101.D BFB Injection Date: 06/01/2015

Instrument ID: CHHP7 BFB Injection Time: 08:05

Analysis Batch No.: 143422

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.0	
75	30.0 - 60.0 % of mass 95	52.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.0	
173	Less than 2.0 % of mass 174	1.0	(1.2) 1
174	50.0 - 120.00 % of mass 95	85.1	
175	5.0 - 9.0 % of mass 174	7.2	(8.4) 1
176	95.0 - 101.0 % of mass 174	83.5	(98.1) 1
177	5.0 - 9.0 % of mass 176	5.5	(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 180-143422/3	7060103.D	06/01/2015	10:16
	MB 180-143422/6	7060106.D	06/01/2015	12:21
	LCS 180-143422/8	7060108.D	06/01/2015	13:26
HD-QC2-0/1-1 MS	180-44321-18 MS	7060109.D	06/01/2015	13:54
HD-QC2-0/1-1 MSD	180-44321-18 MSD	7060110.D	06/01/2015	14:22
HD-QC2-0/1-1	180-44321-18	7060113.D	06/01/2015	15:45
HD-CW-17-0/1-0	180-44321-22	7060114.D	06/01/2015	16:12
HD-MW-96D-0/1-0	180-44321-26	7060115.D	06/01/2015	16:40
HD-CW-15A-0/1-0	180-44321-21	7060116.D	06/01/2015	17:08
HD-CW-20-0/1-0	180-44321-23	7060117.D	06/01/2015	17:40
HD-MW-96S-0/1-0	180-44321-25	7060118.D	06/01/2015	18:08

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Lab File ID: 7060201.D BFB Injection Date: 06/02/2015

Instrument ID: CHHP7 BFB Injection Time: 08:07

Analysis Batch No.: 143527

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.9	
75	30.0 - 60.0 % of mass 95	54.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.5	(0.6) 1
174	50.0 - 120.00 % of mass 95	82.6	
175	5.0 - 9.0 % of mass 174	6.1	(7.4) 1
176	95.0 - 101.0 % of mass 174	81.2	(98.3) 1
177	5.0 - 9.0 % of mass 176	5.9	(7.3) 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 180-143527/3	7060203.D	06/02/2015	10:22
	MB 180-143527/7	7060207.D	06/02/2015	13:18
	LCS 180-143527/10	7060210.D	06/02/2015	14:40
HD-CW-15A-0/1-0 RA	180-44321-21 RA	7060213.D	06/02/2015	16:03

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Sample No.: CCVIS 180-143337/2 Date Analyzed: 05/31/2015 08:32

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

Lab File ID (Standard): 60530002.D Heated Purge: (Y/N) N

Calibration ID: 23671

		TBA		FB		CBZ	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		108892	4.24	433210	7.28	102074	10.39
UPPER LIMIT		217784	4.74	866420	7.78	204148	10.89
LOWER LIMIT		54446	3.74	216605	6.78	51037	9.89
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-143337/4		168817	4.22	526903	7.29	117991	10.40
180-44321-31	HD-QC4-0/1-2	137302	4.22	472478	7.29	104743	10.40
LCS 180-143337/7		163213	4.24	540002	7.28	124479	10.39
180-44321-24 MS	HD-MW-95-0/1-0 MS	172511	4.25	561202	7.29	128140	10.40
180-44321-24 MSD	HD-MW-95-0/1-0 MSD	171706	4.24	530617	7.28	121256	10.40
180-44321-24	HD-MW-95-0/1-0	150894	4.22	507198	7.29	114855	10.40
180-44321-27	HD-MW-97-0/1-0	157437	4.23	603859	7.29	136893	10.40
180-44321-28	HD-CW-18-0/1-0	163546	4.23	532924	7.29	118871	10.40
180-44321-29	HD-MW-50D-0/1-0	185766	4.22	588813	7.29	137401	10.40
180-44321-30	HD-MW-51S-0/1-0	160764	4.22	589555	7.29	136731	10.40
180-44321-17	HD-QC3-0/1-2	148514	4.23	504069	7.29	119032	10.40
180-44321-32	HD-QC1-0/1-4	120957	4.22	491667	7.29	111176	10.39
180-44321-33	HD-QC1-0/1-3	147827	4.23	503025	7.29	113565	10.40
180-44321-19	HD-CW-9-0/1-0	138139	4.24	521060	7.29	122219	10.40
180-44321-20	HD-CW-13-0/1-0	154658	4.23	553003	7.29	128756	10.40
180-44321-23 DL	HD-CW-20-0/1-0 DL	156986	4.23	532468	7.29	128003	10.40
180-44321-16	HD-COD-SW-29-0/1-0	133472	4.22	531787	7.29	118875	10.40
180-44321-25 DL	HD-MW-96S-0/1-0 DL	137992	4.24	552797	7.29	127751	10.40

TBA = TBA-d9 (IS)
FB = Fluorobenzene (IS)
CBZ = Chlorobenzene-d5

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

Column used to flag values outside QC limits

FORM VIII 8260C

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Sample No.: CCVIS 180-143337/2 Date Analyzed: 05/31/2015 08:32

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

Lab File ID (Standard): 60530002.D Heated Purge: (Y/N) N

Calibration ID: 23671

		DCB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		172515	12.75				
UPPER LIMIT		345030	13.25				
LOWER LIMIT		86258	12.25				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-143337/4		175710	12.74				
180-44321-31	HD-QC4-0/1-2	163811	12.75				
LCS 180-143337/7		215500	12.75				
180-44321-24 MS	HD-MW-95-0/1-0 MS	219396	12.75				
180-44321-24 MSD	HD-MW-95-0/1-0 MSD	208651	12.74				
180-44321-24	HD-MW-95-0/1-0	182870	12.74				
180-44321-27	HD-MW-97-0/1-0	219820	12.74				
180-44321-28	HD-CW-18-0/1-0	182418	12.75				
180-44321-29	HD-MW-50D-0/1-0	205082	12.75				
180-44321-30	HD-MW-51S-0/1-0	209827	12.75				
180-44321-17	HD-QC3-0/1-2	175731	12.75				
180-44321-32	HD-QC1-0/1-4	179050	12.75				
180-44321-33	HD-QC1-0/1-3	178033	12.75				
180-44321-19	HD-CW-9-0/1-0	187420	12.75				
180-44321-20	HD-CW-13-0/1-0	200408	12.75				
180-44321-23 DL	HD-CW-20-0/1-0 DL	197036	12.75				
180-44321-16	HD-COD-SW-29-0/1-0	193618	12.75				
180-44321-25 DL	HD-MW-96S-0/1-0 DL	199019	12.74				

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.: 180-44321-1

SDG No.:

Sample No.: CCVIS 180-143153/3 Date Analyzed: 05/29/2015 08:40

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 7052902.D Heated Purge: (Y/N) N

Calibration ID: 22965

		TBA		FB		CBZ	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		351157	4.66	1185927	7.41	366494	10.47
UPPER LIMIT		702314	5.16	2371854	7.91	732988	10.97
LOWER LIMIT		175579	4.16	592964	6.91	183247	9.97
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-143153/7		483478	4.59	1778610	7.41	469989	10.47
180-44321-1	HD-COD-SW-6-0/1-0	434089	4.59	1719114	7.41	452768	10.47
180-44321-3	HD-COD-SW-8-0/1-0	439439	4.58	1726437	7.41	446696	10.47
180-44321-4	HD-COD-SW-9-0/1-0	411035	4.59	1710359	7.42	437088	10.47
180-44321-1 MS	HD-COD-SW-6-0/1-0 MS	394764	4.67	980697	7.41	347695	10.47
180-44321-1 MSD	HD-COD-SW-6-0/1-0 MSD	334346	4.67	1140648	7.40	348637	10.47
LCS 180-143153/13		342961	4.65	1062345	7.40	325424	10.46
180-44321-5	HD-COD-SW-10-0/1-0	447333	4.59	1722686	7.41	452741	10.47
180-44321-6	HD-COD-SW-11-0/1-0	389108	4.60	1579729	7.42	391130	10.47
180-44321-7	HD-COD-SW-12-0/1-0	437390	4.57	1735876	7.42	463790	10.47
180-44321-9	HD-COD-SW-15-0/1-0	449767	4.61	1682917	7.42	448829	10.47
180-44321-10	HD-COD-SW-16-0/1-0	401576	4.57	1697743	7.41	434645	10.47
180-44321-11	HD-COD-SW-17-0/1-0	487316	4.59	1802079	7.42	456605	10.47
180-44321-12	HD-COD-SW-20-0/1-0	439632	4.59	1711993	7.41	468256	10.47

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.: 180-44321-1

SDG No.:

Sample No.: CCVIS 180-143153/3 Date Analyzed: 05/29/2015 08:40

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 7052902.D Heated Purge: (Y/N) N

Calibration ID: 22965

		DCB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		400978	12.79				
UPPER LIMIT		801956	13.29				
LOWER LIMIT		200489	12.29				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-143153/7		511058	12.79				
180-44321-1	HD-COD-SW-6-0/1-0	497553	12.79				
180-44321-3	HD-COD-SW-8-0/1-0	501718	12.79				
180-44321-4	HD-COD-SW-9-0/1-0	477955	12.79				
180-44321-1 MS	HD-COD-SW-6-0/1-0 MS	449496	12.78				
180-44321-1 MSD	HD-COD-SW-6-0/1-0 MSD	412059	12.79				
LCS 180-143153/13		381844	12.79				
180-44321-5	HD-COD-SW-10-0/1-0	502548	12.79				
180-44321-6	HD-COD-SW-11-0/1-0	439891	12.79				
180-44321-7	HD-COD-SW-12-0/1-0	484263	12.78				
180-44321-9	HD-COD-SW-15-0/1-0	481346	12.79				
180-44321-10	HD-COD-SW-16-0/1-0	484214	12.79				
180-44321-11	HD-COD-SW-17-0/1-0	532482	12.79				
180-44321-12	HD-COD-SW-20-0/1-0	505875	12.79				

DCB = 1,4-Dichlorobenzene-d4

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

Column used to flag values outside QC limits

FORM VIII 8260C

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Sample No.: CCVIS 180-143339/3 Date Analyzed: 05/31/2015 11:59

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 7053103.D Heated Purge: (Y/N) N

Calibration ID: 22965

		TBA		FB		CBZ	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		321370	4.68	1173798	7.40	355175	10.47
UPPER LIMIT		642740	5.18	2347596	7.90	710350	10.97
LOWER LIMIT		160685	4.18	586899	6.90	177588	9.97
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-143339/7		383779	4.58	1541773	7.42	401657	10.47
180-44321-15	HD-COD-SW-28-0/1-0	372695	4.58	1576458	7.41	402059	10.47
LCS 180-143339/11		343987	4.65	1394928	7.40	403372	10.47
180-44321-15 MS	HD-COD-SW-28-0/1-0 MS	373591	4.63	1431281	7.40	397436	10.47
180-44321-15 MSD	HD-COD-SW-28-0/1-0 MSD	382637	4.66	1428249	7.41	414728	10.47
180-44321-2	HD-COD-SW-7-0/1-0	501025	4.58	1760549	7.42	450619	10.47
180-44321-8	HD-COD-SW-13-0/1-0	464252	4.59	1654296	7.41	418155	10.47
180-44321-13	HD-COD-SW-26-0/1-0	513661	4.60	1749903	7.41	443985	10.47
180-44321-14	HD-COD-SW-27-0/1-0	466125	4.60	1670310	7.42	420014	10.47

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.: 180-44321-1

SDG No.:

Sample No.: CCVIS 180-143339/3 Date Analyzed: 05/31/2015 11:59

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 7053103.D Heated Purge: (Y/N) N

Calibration ID: 22965

		DCB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		393545	12.79				
UPPER LIMIT		787090	13.29				
LOWER LIMIT		196773	12.29				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-143339/7		448562	12.79				
180-44321-15	HD-COD-SW-28-0/1-0	458902	12.79				
LCS 180-143339/11		384017	12.79				
180-44321-15 MS	HD-COD-SW-28-0/1-0 MS	395802	12.79				
180-44321-15 MSD	HD-COD-SW-28-0/1-0 MSD	401457	12.79				
180-44321-2	HD-COD-SW-7-0/1-0	282868	12.79				
180-44321-8	HD-COD-SW-13-0/1-0	487409	12.79				
180-44321-13	HD-COD-SW-26-0/1-0	490395	12.79				
180-44321-14	HD-COD-SW-27-0/1-0	352666	12.78				

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.: 180-44321-1

SDG No.:

Sample No.: CCVIS 180-143422/3 Date Analyzed: 06/01/2015 10:16

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 7060103.D Heated Purge: (Y/N) N

Calibration ID: 22965

		TBA		FB		CBZ	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		311382	4.67	906833	7.40	276357	10.46
UPPER LIMIT		622764	5.17	1813666	7.90	552714	10.96
LOWER LIMIT		155691	4.17	453417	6.90	138179	9.96
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-143422/6		362692	4.60	1370560	7.41	358269	10.47
LCS 180-143422/8		291851	4.66	918645	7.41	264285	10.47
180-44321-18 MS	HD-QC2-0/1-1 MS	315355	4.62	1282361	7.41	370397	10.47
180-44321-18 MSD	HD-QC2-0/1-1 MSD	281624	4.60	1037784	7.41	309039	10.47
180-44321-18	HD-QC2-0/1-1	339936	4.59	1262227	7.42	327499	10.47
180-44321-22	HD-CW-17-0/1-0	328943	4.59	1226781	7.41	329945	10.47
180-44321-26	HD-MW-96D-0/1-0	338459	4.59	1263764	7.41	337324	10.47
180-44321-21	HD-CW-15A-0/1-0	157853	4.58	1269041	7.42	346755	10.47
180-44321-23	HD-CW-20-0/1-0	341422	4.59	1280435	7.41	329162	10.47
180-44321-25	HD-MW-96S-0/1-0	285038	4.56	1176386	7.42	289624	10.47

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.: 180-44321-1

SDG No.:

Sample No.: CCVIS 180-143422/3 Date Analyzed: 06/01/2015 10:16

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 7060103.D Heated Purge: (Y/N) N

Calibration ID: 22965

		DCB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		310944	12.79				
UPPER LIMIT		621888	13.29				
LOWER LIMIT		155472	12.29				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-143422/6		371489	12.79				
LCS 180-143422/8		299791	12.79				
180-44321-18 MS	HD-QC2-0/1-1 MS	398773	12.79				
180-44321-18 MSD	HD-QC2-0/1-1 MSD	346003	12.79				
180-44321-18	HD-QC2-0/1-1	350728	12.79				
180-44321-22	HD-CW-17-0/1-0	354573	12.79				
180-44321-26	HD-MW-96D-0/1-0	362294	12.79				
180-44321-21	HD-CW-15A-0/1-0	366411	12.79				
180-44321-23	HD-CW-20-0/1-0	183310	12.79				
180-44321-25	HD-MW-96S-0/1-0	316950	12.79				

DCB = 1,4-Dichlorobenzene-d4

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

Column used to flag values outside QC limits

FORM VIII 8260C

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Sample No.: CCVIS 180-143527/3 Date Analyzed: 06/02/2015 10:22

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 7060203.D Heated Purge: (Y/N) N

Calibration ID: 22965

		TBA		FB		CBZ	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		225816	4.70	888768	7.40	287056	10.46
UPPER LIMIT		451632	5.20	1777536	7.90	574112	10.96
LOWER LIMIT		112908	4.20	444384	6.90	143528	9.96
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-143527/7		309665	4.57	1402793	7.41	372700	10.47
LCS 180-143527/10		271285	4.62	1048432	7.41	316438	10.47
180-44321-21 RA	HD-CW-15A-0/1-0 RA	297037	4.62	1377839	7.42	206493	10.47

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.: 180-44321-1

SDG No.:

Sample No.: CCVIS 180-143527/3 Date Analyzed: 06/02/2015 10:22

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 7060203.D Heated Purge: (Y/N) N

Calibration ID: 22965

		DCB					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		286471	12.79				
UPPER LIMIT		572942	13.29				
LOWER LIMIT		143236	12.29				
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-143527/7		404518	12.78				
LCS 180-143527/10		356058	12.79				
180-44321-21 RA	HD-CW-15A-0/1-0 RA	383343	12.79				

DCB = 1,4-Dichlorobenzene-d4

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

Column used to flag values outside QC limits

FORM VIII 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-6-0/1-0 Lab Sample ID: 180-44321-1

Matrix: Water Lab File ID: 7052907.D

Analysis Method: 8260C Date Collected: 05/20/2015 10:45

Sample wt/vol: 20(mL) Date Analyzed: 05/29/2015 12:01

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143153 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U F2	1.0	0.28
75-01-4	Vinyl chloride	1.0	U F1 F2	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 F1 F2	1.0	0.30
67-64-1	Acetone	5.0	U F2	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.21
75-09-2	Methylene Chloride	0.32	J B	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 * F1	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 F2	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 F1	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 F1	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

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-6-0/1-0 Lab Sample ID: 180-44321-1

Matrix: Water Lab File ID: 7052907.D

Analysis Method: 8260C Date Collected: 05/20/2015 10:45

Sample wt/vol: 20(mL) Date Analyzed: 05/29/2015 12:01

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143153 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
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
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)	95		64-135
2037-26-5	Toluene-d8 (Surr)	112		71-118
460-00-4	4-Bromofluorobenzene (Surr)	104		70-118
1868-53-7	Dibromofluoromethane (Surr)	101		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052907.D
Lims ID: 180-44321-C-1 Lab Sample ID: 180-44321-1
Client ID: HD-COD-SW-6-0/1-0
Sample Type: Client
Inject. Date: 29-May-2015 12:01:30 ALS Bottle#: 4 Worklist Smp#: 8
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 180-44321-C-1
Misc. Info.: 180-0007169-008
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 29-May-2015 18:32:22 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK015

First Level Reviewer: journetp Date: 29-May-2015 13:22:31

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.585	4.658	-0.073	96	434089	4000.0	
* 2 Fluorobenzene (IS)	96	7.414	7.408	0.006	99	1719114	200.0	
* 3 Chlorobenzene-d5	119	10.468	10.468	0.000	86	452768	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.786	12.785	0.001	95	497553	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.678	6.684	-0.006	91	551363	201.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.049	7.037	0.012	93	497790	190.4	
$ 7 Toluene-d8 (Surr)	98	9.038	9.038	0.000	93	1504384	224.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.630	11.630	0.000	90	621952	207.6	
12 Chloromethane	50		2.048				ND	
13 Vinyl chloride	62		2.212				ND	
15 Bromomethane	94		2.517				ND	
16 Chloroethane	64		2.590				ND	
22 1,1-Dichloroethene	96		3.563				ND	
24 Acetone	43		3.764				ND	
26 Carbon disulfide	76		3.861				ND	
31 Methylene Chloride	84	4.409	4.384	0.025	34	15906	6.42	M
33 Acrylonitrile	53		4.773				ND	
34 trans-1,2-Dichloroethene	96		4.780				ND	
35 Methyl tert-butyl ether	73		4.853				ND	
37 1,1-Dichloroethane	63		5.351				ND	
45 cis-1,2-Dichloroethene	96		6.094				ND	
46 2-Butanone (MEK)	43		6.167				ND	
49 Chlorobromomethane	128		6.386				ND	
52 Chloroform	83		6.495				ND	
53 1,1,1-Trichloroethane	97		6.678				ND	
56 Carbon tetrachloride	117		6.872				ND	
58 Benzene	78		7.097				ND	
59 1,2-Dichloroethane	62		7.128				ND	
64 Trichloroethene	130		7.791				ND	
67 1,2-Dichloropropane	63		8.022				ND	
70 1,4-Dioxane	88		8.180				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.314				ND	
74 cis-1,3-Dichloropropene	75		8.770				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.935				ND	
76 Toluene	91		9.105				ND	
77 trans-1,3-Dichloropropene	75		9.324				ND	
79 1,1,2-Trichloroethane	97		9.506				ND	
80 Tetrachloroethene	164		9.646				ND	
82 2-Hexanone	43		9.762				ND	
84 Chlorodibromomethane	129		9.896				ND	
85 Ethylene Dibromide	107		10.011				ND	
87 Chlorobenzene	112		10.498				ND	
89 1,1,1,2-Tetrachloroethane	131		10.577				ND	
90 Ethylbenzene	106		10.601				ND	
91 m-Xylene & p-Xylene	106	10.730	10.717	0.013	18	890	0.2013	
92 o-Xylene	106		11.112				ND	
93 Styrene	104		11.125				ND	
94 Bromoform	173		11.313				ND	
99 1,1,2,2-Tetrachloroethane	83		11.769				ND	
S 133 Xylenes, Total	106				0		0.2013	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

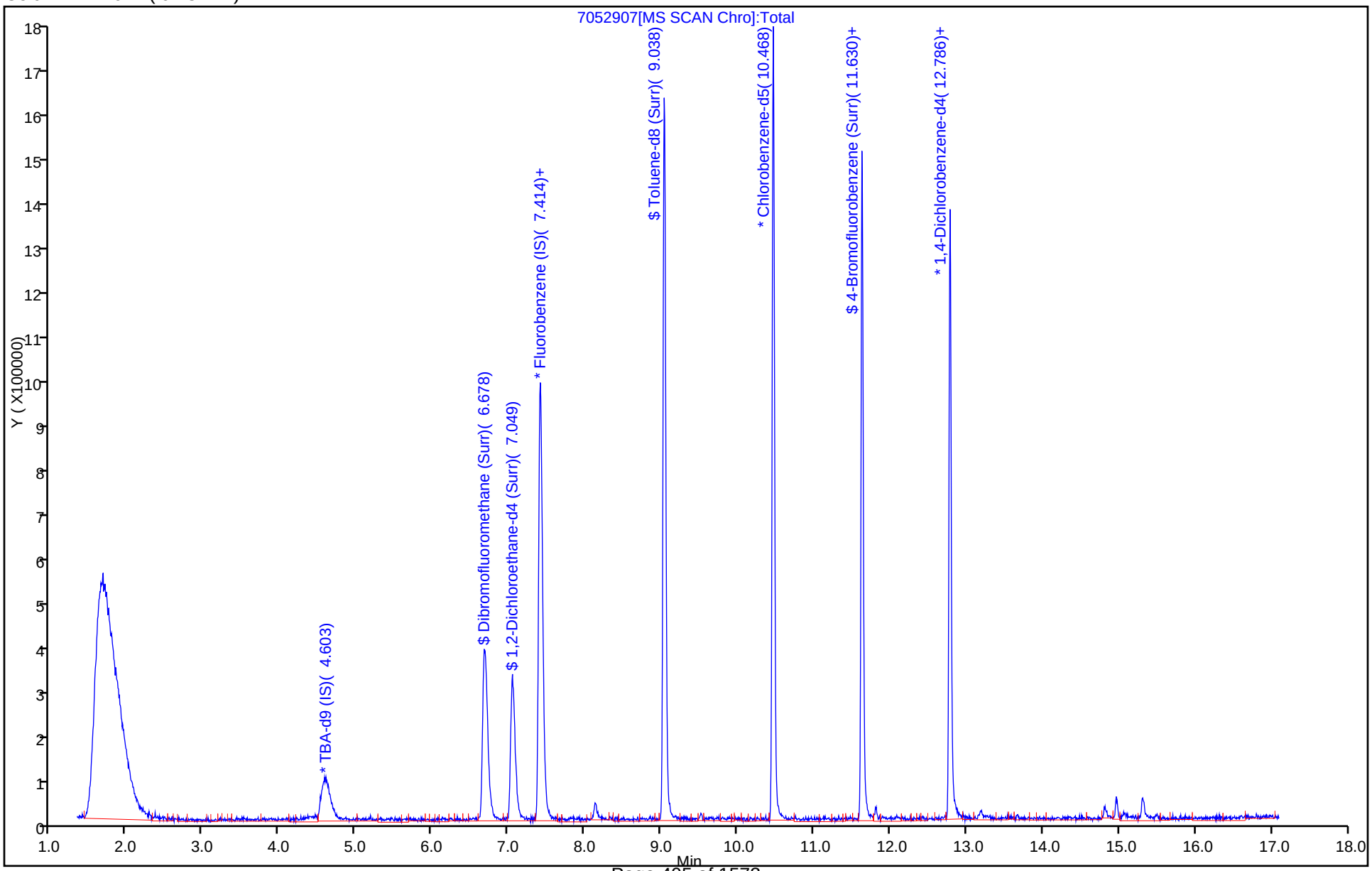
VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

Report Date: 29-May-2015 18:32:26 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052907.D				
Injection Date:	29-May-2015 12:01:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-44321-C-1	Lab Sample ID:	180-44321-1	Worklist Smp#:	8
Client ID:	HD-COD-SW-6-0/1-0				
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052907.D
Lims ID: 180-44321-C-1 Lab Sample ID: 180-44321-1
Client ID: HD-COD-SW-6-0/1-0
Sample Type: Client
Inject. Date: 29-May-2015 12:01:30 ALS Bottle#: 4 Worklist Smp#: 8
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 180-44321-C-1
Misc. Info.: 180-0007169-008
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 29-May-2015 18:32:22 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK015

First Level Reviewer: journetp Date: 29-May-2015 13:22:31

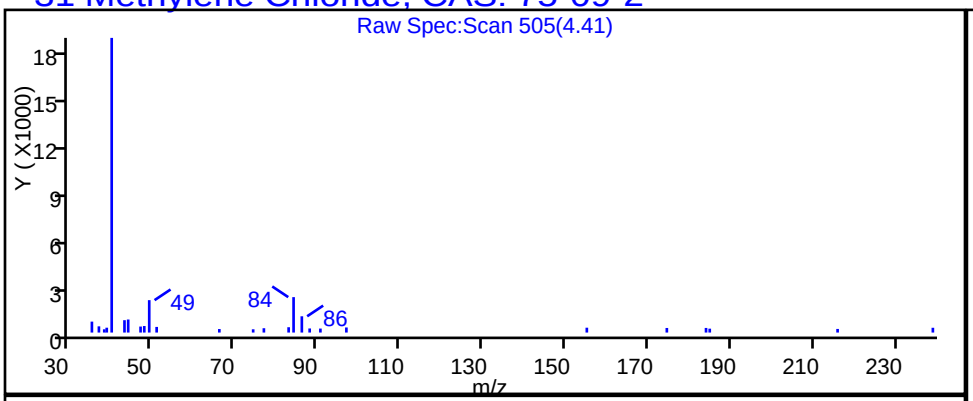
Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	200.0	201.1	100.53
$ 6 1,2-Dichloroethane-d4 (Surr)	200.0	190.4	95.20
$ 7 Toluene-d8 (Surr)	200.0	224.0	112.01
$ 8 4-Bromofluorobenzene (Surr)	200.0	207.6	103.79

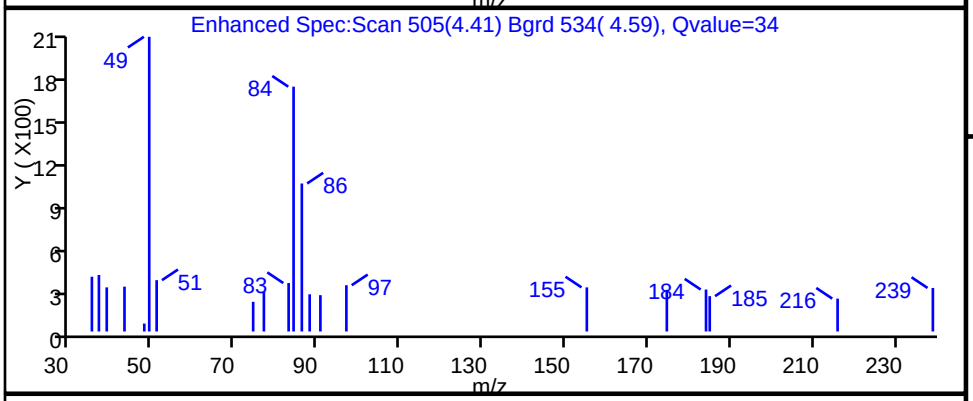
Report Date: 29-May-2015 18:32:26 Chrom Revision: 2.2 05-May-2015 11:39:10

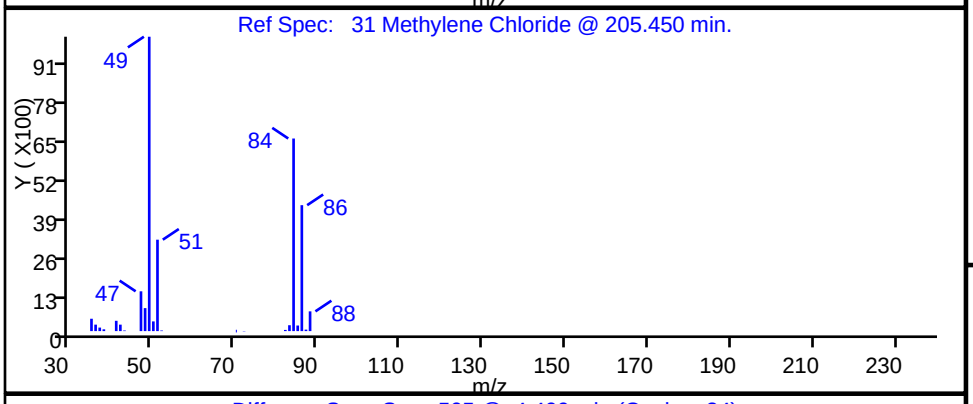
TestAmerica Pittsburgh

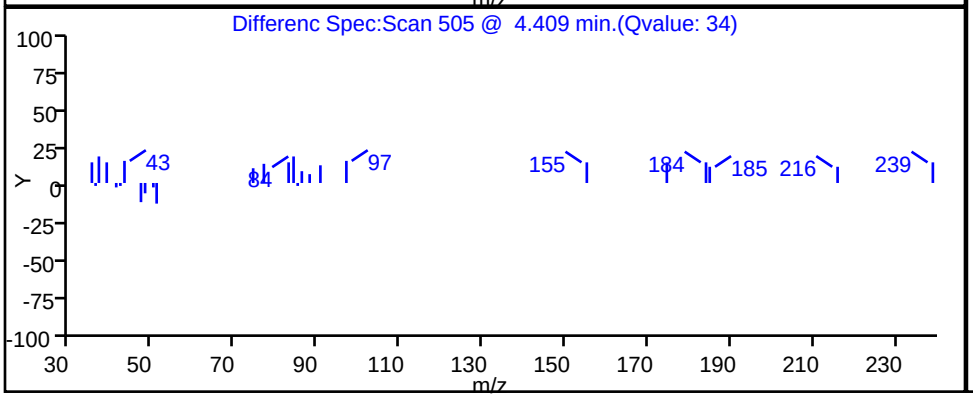
Data File:	\\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052907.D				
Injection Date:	29-May-2015 12:01:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-C-1	Lab Sample ID:	180-44321-1		
Client ID:	HD-COD-SW-6-0/1-0				
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	8
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

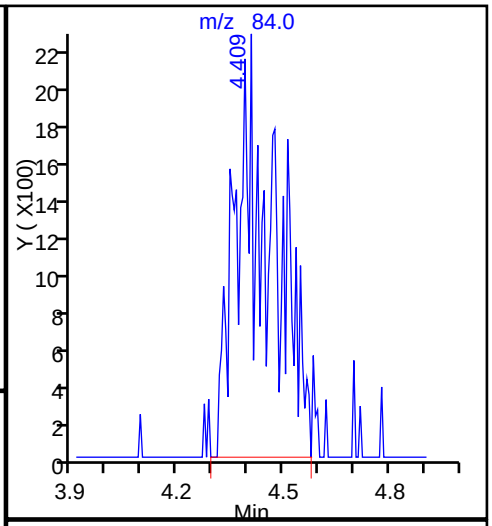
31 Methylene Chloride, CAS: 75-09-2

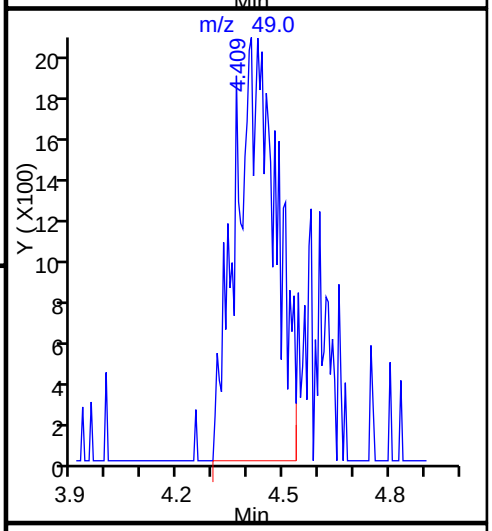


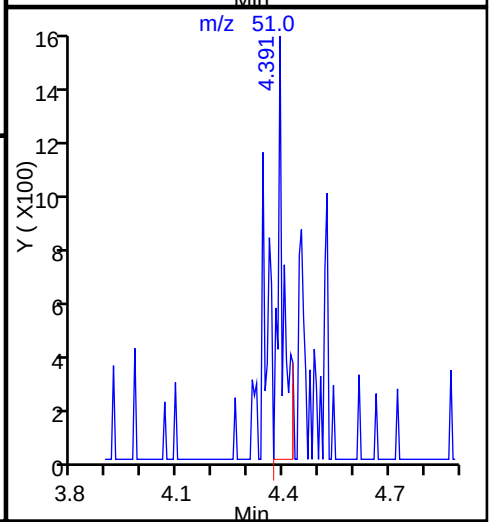












Manual Integration/User Assign Peak Report

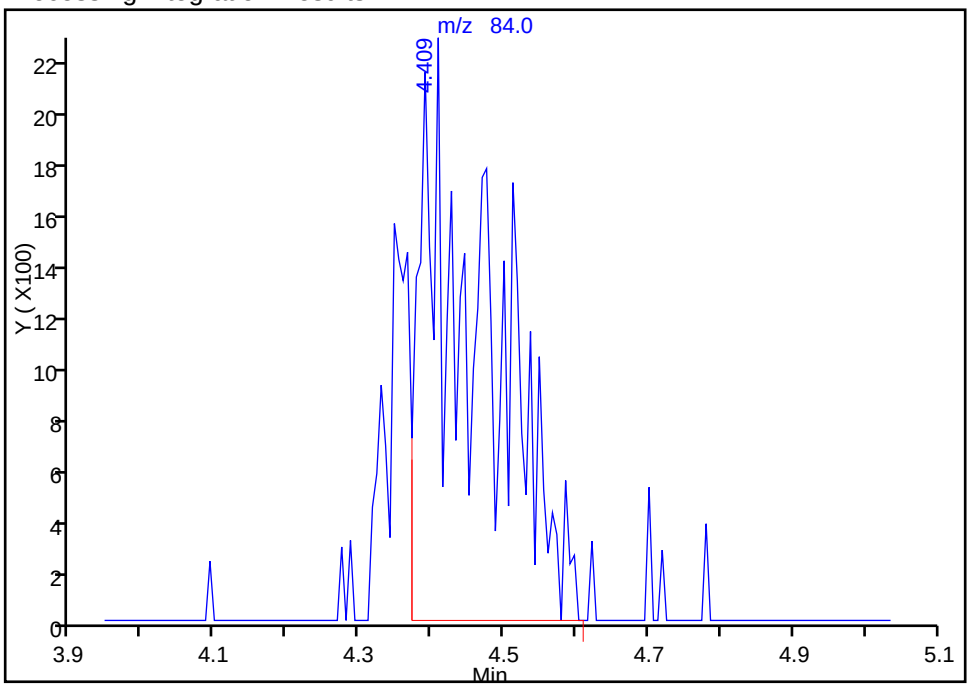
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052907.D				
Injection Date:	29-May-2015 12:01:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-C-1	Lab Sample ID:	180-44321-1		
Client ID:	HD-COD-SW-6-0/1-0				
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	8
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

31 Methylene Chloride, CAS: 75-09-2

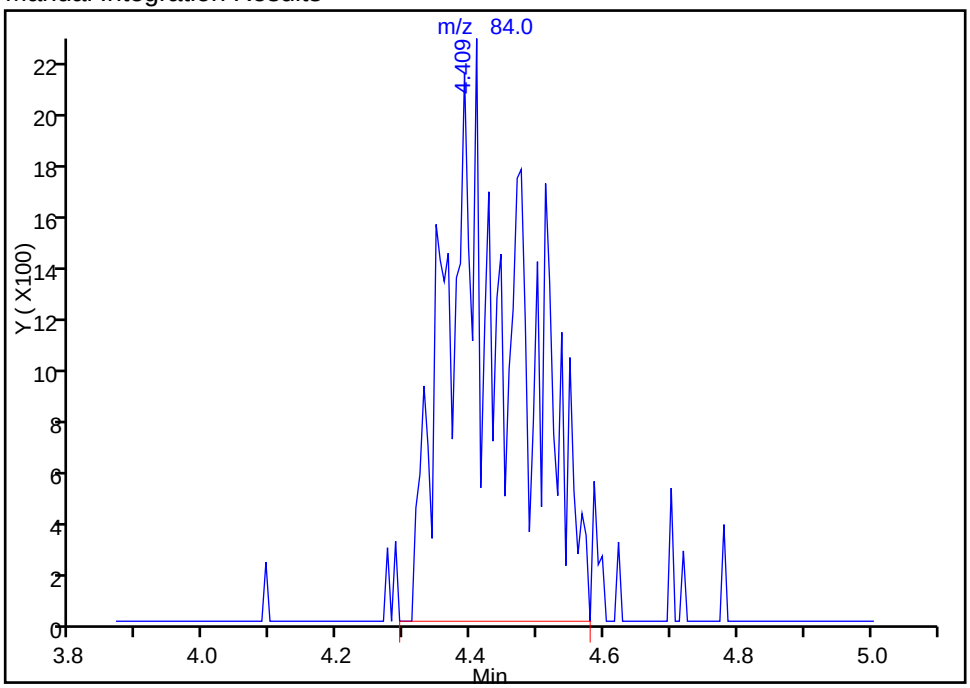
Processing Integration Results

RT: 4.41
Area: 13164
Amount: 5.313859
Amount Units: ng



Manual Integration Results

RT: 4.41
Area: 15906
Amount: 6.420711
Amount Units: ng



Reviewer: journetp, 29-May-2015 13:22:31
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-7-0/1-0 Lab Sample ID: 180-44321-2

Matrix: Water Lab File ID: 7053117.D

Analysis Method: 8260C Date Collected: 05/20/2015 13:35

Sample wt/vol: 20(mL) Date Analyzed: 05/31/2015 18:50

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.: 143339 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.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-7-0/1-0 Lab Sample ID: 180-44321-2

Matrix: Water Lab File ID: 7053117.D

Analysis Method: 8260C Date Collected: 05/20/2015 13:35

Sample wt/vol: 20(mL) Date Analyzed: 05/31/2015 18:50

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.: 143339 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)	91		64-135
2037-26-5	Toluene-d8 (Surr)	112		71-118
460-00-4	4-Bromofluorobenzene (Surr)	97		70-118
1868-53-7	Dibromofluoromethane (Surr)	100		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150531-7191.b\7053117.D
Lims ID: 180-44321-D-2 Lab Sample ID: 180-44321-2
Client ID: HD-COD-SW-7-0/1-0
Sample Type: Client
Inject. Date: 31-May-2015 18:50:30 ALS Bottle#: 17 Worklist Smp#: 17
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 180-44321-d-2
Misc. Info.: 180-0007169-017
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150531-7191.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 09:14:45 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

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

First Level Reviewer: journetp Date: 01-Jun-2015 09:08:05

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.580	4.678	-0.098	95	501025	4000.0	
* 2 Fluorobenzene (IS)	96	7.415	7.404	0.011	99	1760549	200.0	
* 3 Chlorobenzene-d5	119	10.469	10.470	-0.001	86	450619	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.786	12.787	-0.001	94	282868	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.685	6.680	0.005	92	564317	200.9	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.044	7.039	0.005	94	486703	181.8	
$ 7 Toluene-d8 (Surr)	98	9.039	9.034	0.005	93	1494012	223.5	
$ 8 4-Bromofluorobenzene (Surr	95	11.631	11.632	-0.001	89	578564	193.0	
12 Chloromethane	50		2.038				ND	
13 Vinyl chloride	62		2.214				ND	
15 Bromomethane	94		2.500				ND	
16 Chloroethane	64		2.646				ND	
22 1,1-Dichloroethene	96		3.583				ND	
24 Acetone	43		3.753				ND	
26 Carbon disulfide	76		3.863				ND	
31 Methylene Chloride	84		4.362				ND	
33 Acrylonitrile	53		4.769				ND	
34 trans-1,2-Dichloroethene	96		4.775				ND	
35 Methyl tert-butyl ether	73		4.836				ND	
37 1,1-Dichloroethane	63		5.353				ND	
45 cis-1,2-Dichloroethene	96		6.108				ND	
46 2-Butanone (MEK)	43		6.163				ND	
49 Chlorobromomethane	128		6.388				ND	
52 Chloroform	83		6.497				ND	
53 1,1,1-Trichloroethane	97		6.680				ND	
56 Carbon tetrachloride	117		6.868				ND	
58 Benzene	78		7.093				ND	
59 1,2-Dichloroethane	62		7.130				ND	
64 Trichloroethene	130		7.793				ND	
67 1,2-Dichloropropane	63		8.024				ND	
70 1,4-Dioxane	88		8.182				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.316				ND	
74 cis-1,3-Dichloropropene	75		8.766				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.931				ND	
76 Toluene	91		9.101				ND	
77 trans-1,3-Dichloropropene	75		9.326				ND	
79 1,1,2-Trichloroethane	97		9.502				ND	
80 Tetrachloroethene	164		9.648				ND	
82 2-Hexanone	43		9.758				ND	
84 Chlorodibromomethane	129		9.898				ND	
85 Ethylene Dibromide	107		10.007				ND	
87 Chlorobenzene	112		10.494				ND	
89 1,1,1,2-Tetrachloroethane	131		10.573				ND	
90 Ethylbenzene	106		10.603				ND	
91 m-Xylene & p-Xylene	106		10.719				ND	
92 o-Xylene	106		11.108				ND	
93 Styrene	104		11.127				ND	
94 Bromoform	173		11.315				ND	
99 1,1,2,2-Tetrachloroethane	83		11.765				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

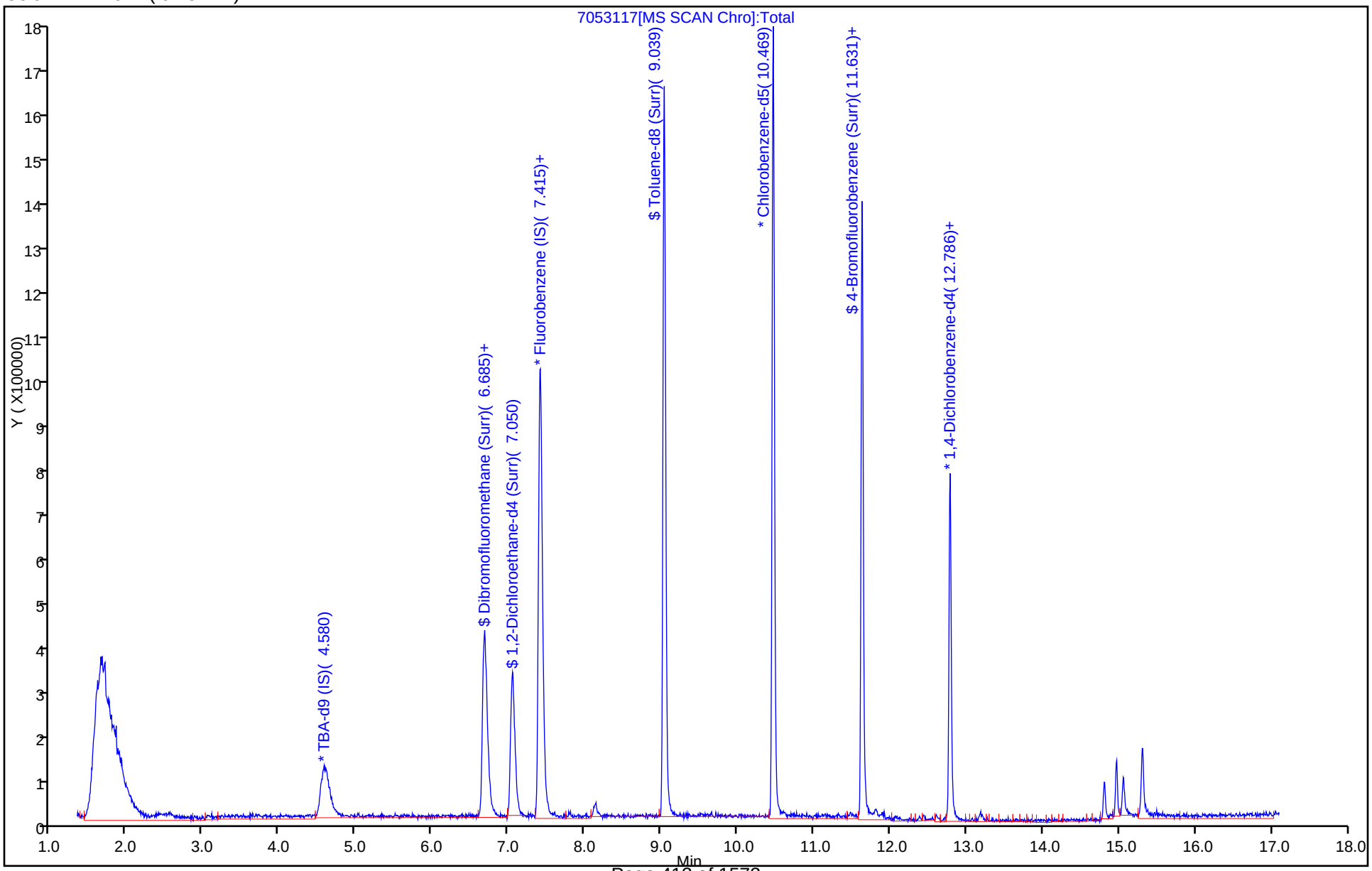
VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

Report Date: 01-Jun-2015 09:14:52 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150531-7191.b\7053117.D				
Injection Date:	31-May-2015 18:50:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-44321-D-2	Lab Sample ID:	180-44321-2	Worklist Smp#:	17
Client ID:	HD-COD-SW-7-0/1-0				
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	17
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\PITCHROM\ChromData\CHHP7\20150531-7191.b\7053117.D
Lims ID: 180-44321-D-2 Lab Sample ID: 180-44321-2
Client ID: HD-COD-SW-7-0/1-0
Sample Type: Client
Inject. Date: 31-May-2015 18:50:30 ALS Bottle#: 17 Worklist Smp#: 17
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 180-44321-d-2
Misc. Info.: 180-0007169-017
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150531-7191.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 09:14:45 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

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

First Level Reviewer: journetp Date: 01-Jun-2015 09:08:05

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	200.0	200.9	100.47
$ 6 1,2-Dichloroethane-d4 (Surr)	200.0	181.8	90.89
$ 7 Toluene-d8 (Surr)	200.0	223.5	111.77
$ 8 4-Bromofluorobenzene (Surr)	200.0	193.0	96.52

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-8-0/1-0 Lab Sample ID: 180-44321-3

Matrix: Water Lab File ID: 7052908.D

Analysis Method: 8260C Date Collected: 05/20/2015 09:10

Sample wt/vol: 20(mL) Date Analyzed: 05/29/2015 12:28

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.: 143153 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	0.31	J B	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.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-8-0/1-0 Lab Sample ID: 180-44321-3

Matrix: Water Lab File ID: 7052908.D

Analysis Method: 8260C Date Collected: 05/20/2015 09:10

Sample wt/vol: 20(mL) Date Analyzed: 05/29/2015 12:28

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.: 143153 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)	91		64-135
2037-26-5	Toluene-d8 (Surr)	111		71-118
460-00-4	4-Bromofluorobenzene (Surr)	103		70-118
1868-53-7	Dibromofluoromethane (Surr)	101		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052908.D
Lims ID: 180-44321-C-3 Lab Sample ID: 180-44321-3
Client ID: HD-COD-SW-8-0/1-0
Sample Type: Client
Inject. Date: 29-May-2015 12:28:30 ALS Bottle#: 5 Worklist Smp#: 9
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 180-44321-C-3
Misc. Info.: 180-0007169-009
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 29-May-2015 18:32:22 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK015

First Level Reviewer: journetp Date: 29-May-2015 13:48:38

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.579	4.658	-0.079	97	439439	4000.0	
* 2 Fluorobenzene (IS)	96	7.414	7.408	0.006	98	1726437	200.0	
* 3 Chlorobenzene-d5	119	10.468	10.468	0.000	86	446696	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.785	12.785	0.000	95	501718	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.672	6.684	-0.012	90	554584	201.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.043	7.037	0.006	95	475879	181.2	
$ 7 Toluene-d8 (Surr)	98	9.044	9.038	0.006	93	1467286	221.5	
$ 8 4-Bromofluorobenzene (Surr	95	11.630	11.630	0.000	89	610326	206.4	
12 Chloromethane	50		2.048				ND	
13 Vinyl chloride	62		2.212				ND	
15 Bromomethane	94		2.517				ND	
16 Chloroethane	64		2.590				ND	
22 1,1-Dichloroethene	96		3.563				ND	
24 Acetone	43		3.764				ND	
26 Carbon disulfide	76		3.861				ND	
31 Methylene Chloride	84	4.402	4.384	0.018	29	15197	6.11	M
33 Acrylonitrile	53		4.773				ND	
34 trans-1,2-Dichloroethene	96		4.780				ND	
35 Methyl tert-butyl ether	73		4.853				ND	
37 1,1-Dichloroethane	63		5.351				ND	
45 cis-1,2-Dichloroethene	96		6.094				ND	
46 2-Butanone (MEK)	43		6.167				ND	
49 Chlorobromomethane	128		6.386				ND	
52 Chloroform	83		6.495				ND	
53 1,1,1-Trichloroethane	97		6.678				ND	
56 Carbon tetrachloride	117		6.872				ND	
58 Benzene	78		7.097				ND	
59 1,2-Dichloroethane	62		7.128				ND	
64 Trichloroethene	130	7.791	7.791	0.000	4	1923	0.5646	M
67 1,2-Dichloropropane	63		8.022				ND	
70 1,4-Dioxane	88		8.180				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.314				ND	
74 cis-1,3-Dichloropropene	75		8.770				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.935				ND	
76 Toluene	91		9.105				ND	
77 trans-1,3-Dichloropropene	75		9.324				ND	
79 1,1,2-Trichloroethane	97		9.506				ND	
80 Tetrachloroethene	164		9.646				ND	
82 2-Hexanone	43		9.762				ND	
84 Chlorodibromomethane	129		9.896				ND	
85 Ethylene Dibromide	107		10.011				ND	
87 Chlorobenzene	112		10.498				ND	
89 1,1,1,2-Tetrachloroethane	131		10.577				ND	
90 Ethylbenzene	106		10.601				ND	
91 m-Xylene & p-Xylene	106		10.717				ND	
92 o-Xylene	106		11.112				ND	
93 Styrene	104		11.125				ND	
94 Bromoform	173		11.313				ND	
99 1,1,2,2-Tetrachloroethane	83		11.769				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

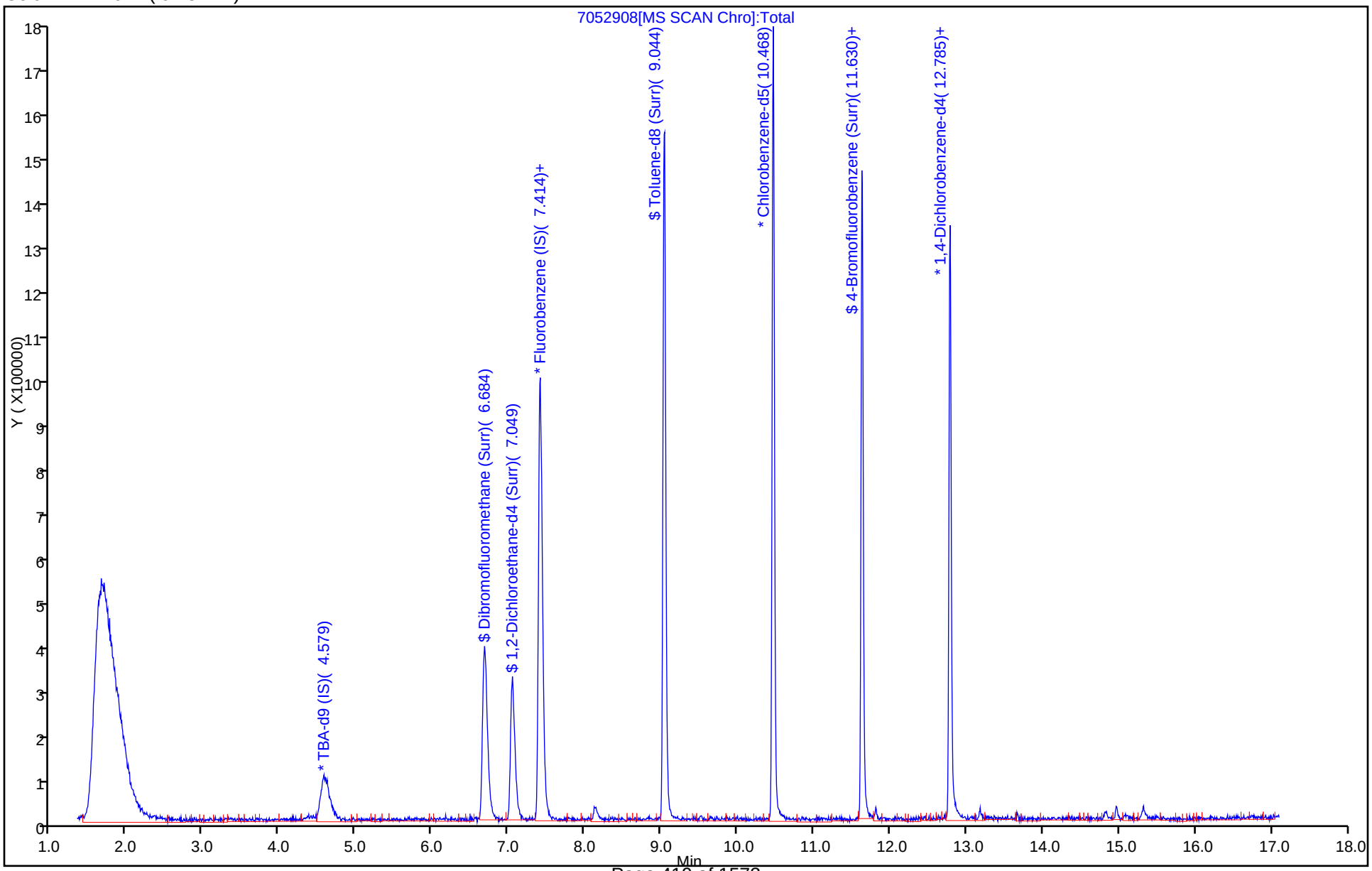
VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

Report Date: 29-May-2015 18:32:27 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052908.D				
Injection Date:	29-May-2015 12:28:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-44321-C-3	Lab Sample ID:	180-44321-3	Worklist Smp#:	9
Client ID:	HD-COD-SW-8-0/1-0				
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052908.D
Lims ID: 180-44321-C-3 Lab Sample ID: 180-44321-3
Client ID: HD-COD-SW-8-0/1-0
Sample Type: Client
Inject. Date: 29-May-2015 12:28:30 ALS Bottle#: 5 Worklist Smp#: 9
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 180-44321-C-3
Misc. Info.: 180-0007169-009
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 29-May-2015 18:32:22 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK015

First Level Reviewer: journetp Date: 29-May-2015 13:48:38

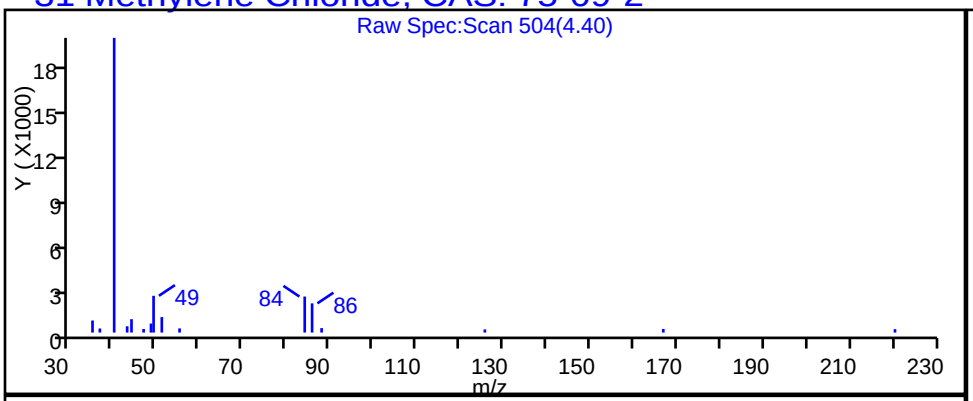
Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	200.0	201.4	100.69
$ 6 1,2-Dichloroethane-d4 (Surr)	200.0	181.2	90.62
$ 7 Toluene-d8 (Surr)	200.0	221.5	110.73
$ 8 4-Bromofluorobenzene (Surr)	200.0	206.4	103.19

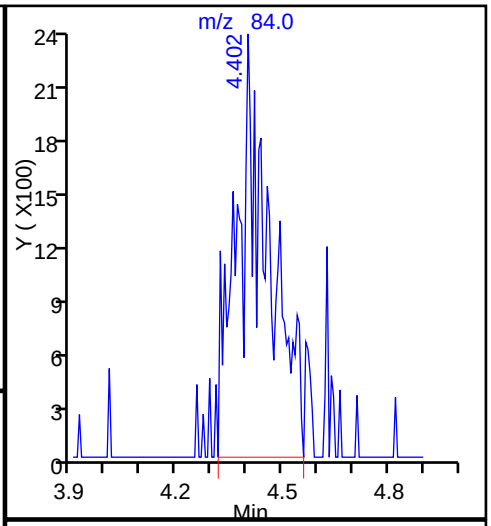
Report Date: 29-May-2015 18:32:27 Chrom Revision: 2.2 05-May-2015 11:39:10

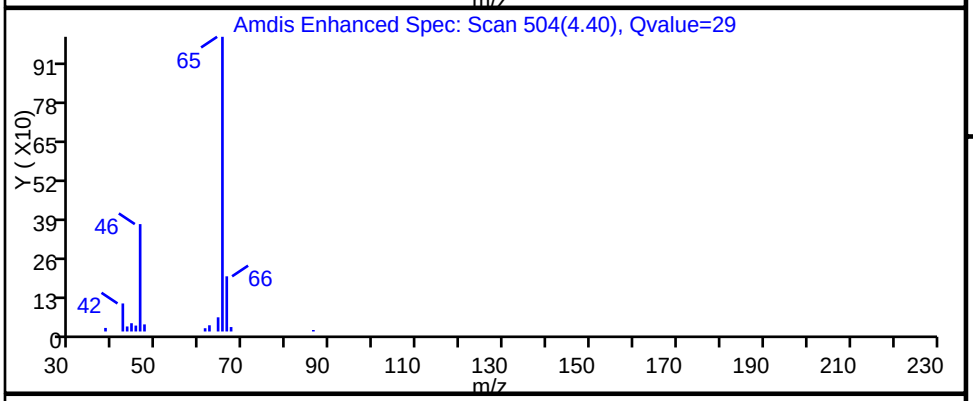
TestAmerica Pittsburgh

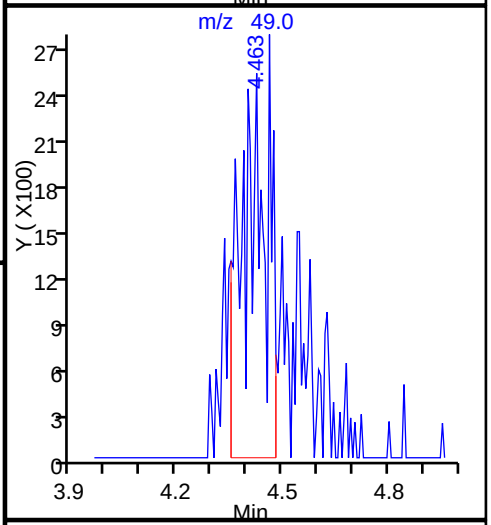
Data File:	\\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052908.D				
Injection Date:	29-May-2015 12:28:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-C-3	Lab Sample ID:	180-44321-3		
Client ID:	HD-COD-SW-8-0/1-0				
Operator ID:	034635	ALS Bottle#:	5	Worklist Smp#:	9
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

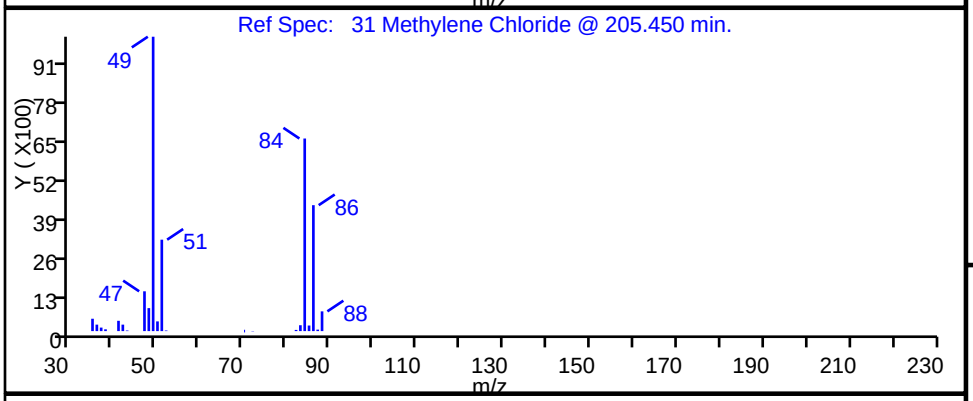
31 Methylene Chloride, CAS: 75-09-2

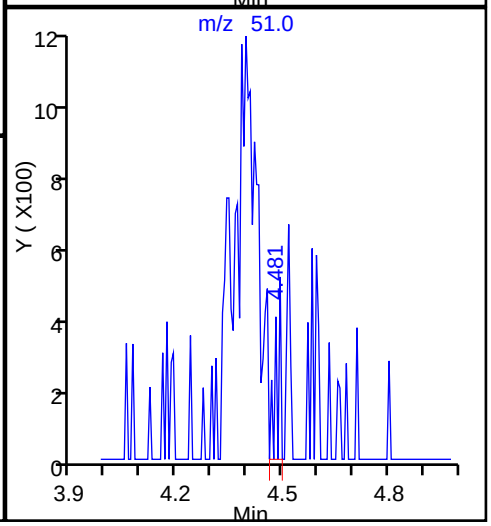


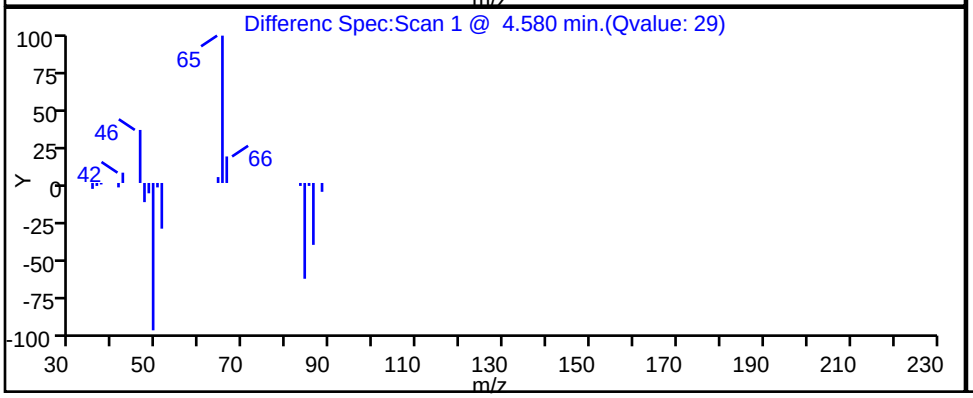












Manual Integration/User Assign Peak Report

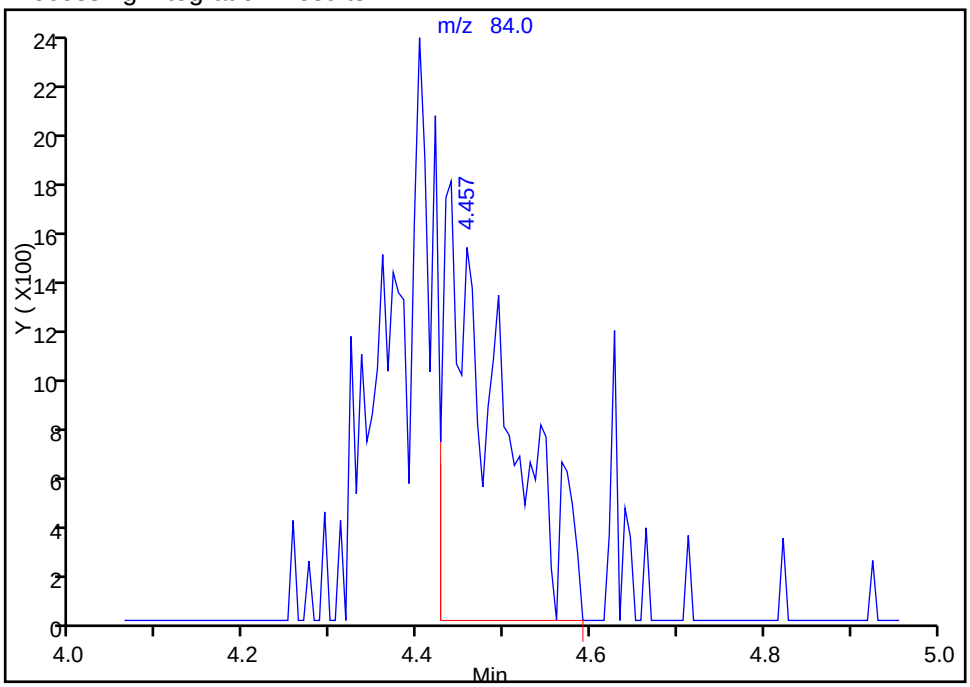
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052908.D				
Injection Date:	29-May-2015 12:28:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-C-3	Lab Sample ID:	180-44321-3		
Client ID:	HD-COD-SW-8-0/1-0				
Operator ID:	034635	ALS Bottle#:	5	Worklist Smp#:	9
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

31 Methylene Chloride, CAS: 75-09-2

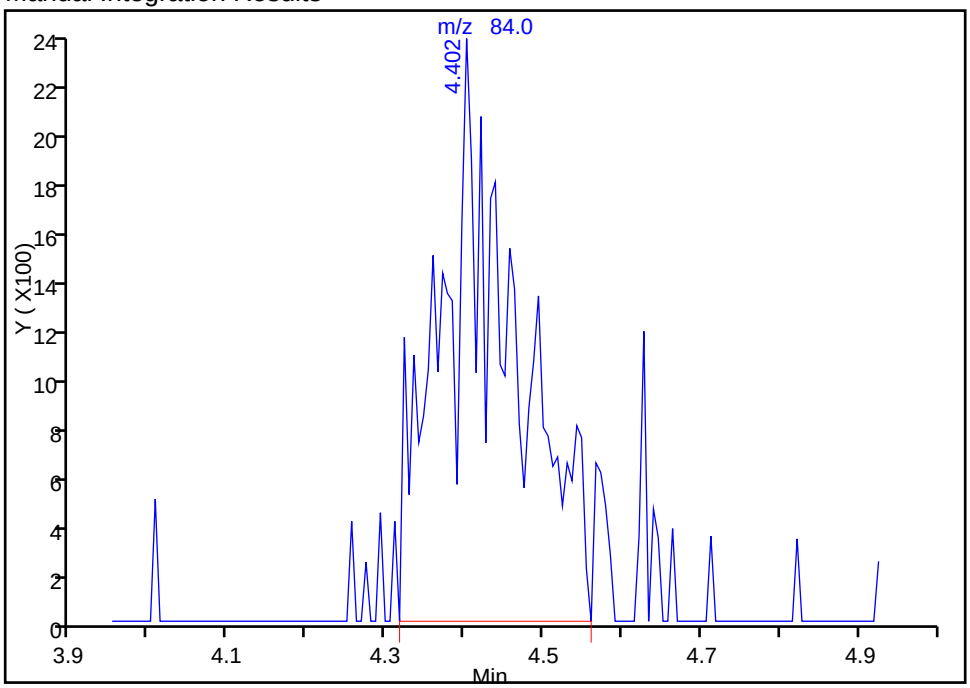
Processing Integration Results

RT: 4.46
Area: 8081
Amount: 3.248189
Amount Units: ng



Manual Integration Results

RT: 4.40
Area: 15197
Amount: 6.108492
Amount Units: ng



Reviewer: journetp, 29-May-2015 13:48:38
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

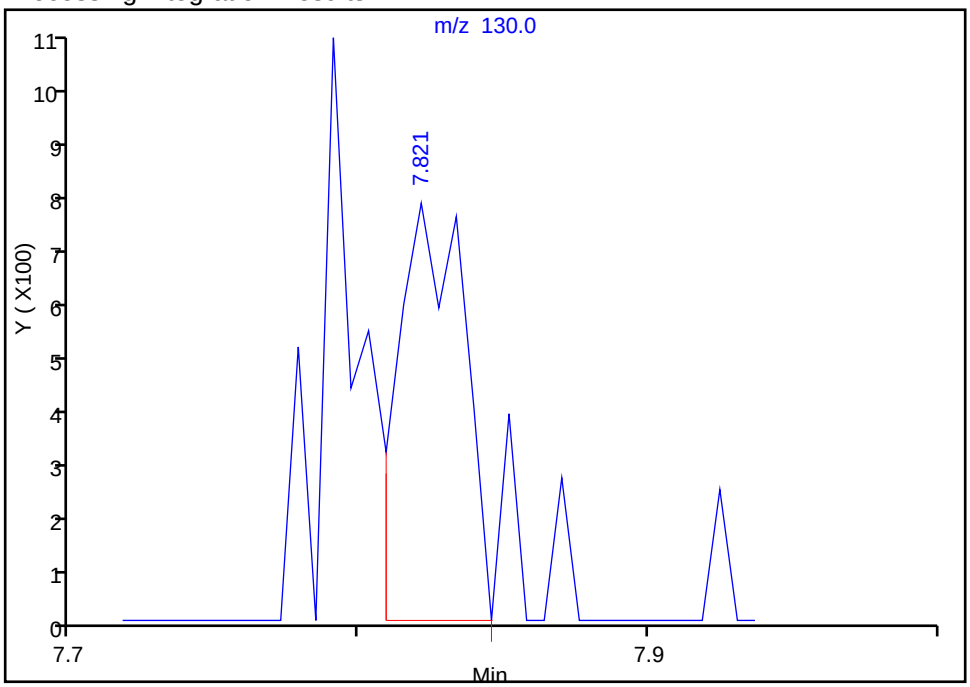
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052908.D				
Injection Date:	29-May-2015 12:28:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-C-3	Lab Sample ID:	180-44321-3		
Client ID:	HD-COD-SW-8-0/1-0				
Operator ID:	034635	ALS Bottle#:	5	Worklist Smp#:	9
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

64 Trichloroethene, CAS: 79-01-6

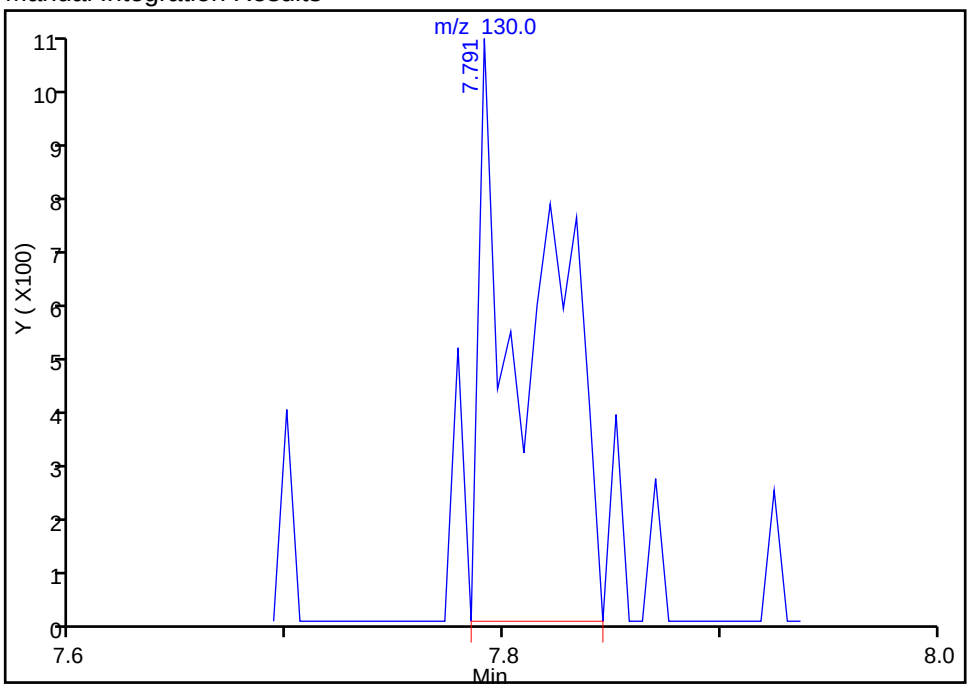
Processing Integration Results

RT: 7.82
Area: 1199
Amount: 0.352018
Amount Units: ng



Manual Integration Results

RT: 7.79
Area: 1923
Amount: 0.564580
Amount Units: ng



Reviewer: journetp, 29-May-2015 13:48:38
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-9-0/1-0 | Lab Sample ID: 180-44321-4

Matrix: Water | Lab File ID: 7052909.D

Analysis Method: 8260C | Date Collected: 05/20/2015 11:50

Sample wt/vol: 20(mL) | Date Analyzed: 05/29/2015 12:56

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 143153 | 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	0.26	J B	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.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-9-0/1-0 Lab Sample ID: 180-44321-4

Matrix: Water Lab File ID: 7052909.D

Analysis Method: 8260C Date Collected: 05/20/2015 11:50

Sample wt/vol: 20(mL) Date Analyzed: 05/29/2015 12:56

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143153 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)	77		64-135
2037-26-5	Toluene-d8 (Surr)	97		71-118
460-00-4	4-Bromofluorobenzene (Surr)	86		70-118
1868-53-7	Dibromofluoromethane (Surr)	82		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052909.D
Lims ID: 180-44321-C-4 Lab Sample ID: 180-44321-4
Client ID: HD-COD-SW-9-0/1-0
Sample Type: Client
Inject. Date: 29-May-2015 12:56:30 ALS Bottle#: 6 Worklist Smp#: 10
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 180-44321-C-4
Misc. Info.: 180-0007169-010
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 29-May-2015 18:32:22 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK015

First Level Reviewer: journetp Date: 29-May-2015 13:47:26

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.593	4.658	-0.065	95	411035	4000.0	
* 2 Fluorobenzene (IS)	96	7.415	7.408	0.007	98	1710359	200.0	
* 3 Chlorobenzene-d5	119	10.469	10.468	0.001	86	437088	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.787	12.785	0.002	95	477955	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.685	6.684	0.001	91	448968	164.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.050	7.037	0.013	93	401744	154.5	
$ 7 Toluene-d8 (Surr)	98	9.040	9.038	0.002	93	1261118	194.5	
$ 8 4-Bromofluorobenzene (Surr	95	11.631	11.630	0.001	89	502830	171.4	
12 Chloromethane	50		2.048				ND	
13 Vinyl chloride	62		2.212				ND	
15 Bromomethane	94		2.517				ND	
16 Chloroethane	64		2.590				ND	
22 1,1-Dichloroethene	96		3.563				ND	
24 Acetone	43		3.764				ND	
26 Carbon disulfide	76		3.861				ND	
31 Methylene Chloride	84	4.392	4.384	0.008	1	12954	5.26	M
33 Acrylonitrile	53		4.773				ND	
34 trans-1,2-Dichloroethene	96		4.780				ND	
35 Methyl tert-butyl ether	73		4.853				ND	
37 1,1-Dichloroethane	63		5.351				ND	
45 cis-1,2-Dichloroethene	96		6.094				ND	
46 2-Butanone (MEK)	43		6.167				ND	
49 Chlorobromomethane	128		6.386				ND	
52 Chloroform	83		6.495				ND	M
53 1,1,1-Trichloroethane	97		6.678				ND	
56 Carbon tetrachloride	117		6.872				ND	
58 Benzene	78		7.097				ND	
59 1,2-Dichloroethane	62		7.128				ND	
64 Trichloroethene	130	7.817	7.791	0.026	1	2637	0.7815	M
67 1,2-Dichloropropane	63		8.022				ND	
70 1,4-Dioxane	88		8.180				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.314				ND	
74 cis-1,3-Dichloropropene	75		8.770				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.935				ND	
76 Toluene	91		9.105				ND	
77 trans-1,3-Dichloropropene	75		9.324				ND	
79 1,1,2-Trichloroethane	97		9.506				ND	
80 Tetrachloroethene	164		9.646				ND	
82 2-Hexanone	43		9.762				ND	
84 Chlorodibromomethane	129		9.896				ND	
85 Ethylene Dibromide	107		10.011				ND	
87 Chlorobenzene	112		10.498				ND	
89 1,1,1,2-Tetrachloroethane	131		10.577				ND	
90 Ethylbenzene	106		10.601				ND	
91 m-Xylene & p-Xylene	106		10.717				ND	
92 o-Xylene	106		11.112				ND	
93 Styrene	104		11.125				ND	
94 Bromoform	173		11.313				ND	
99 1,1,2,2-Tetrachloroethane	83		11.769				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

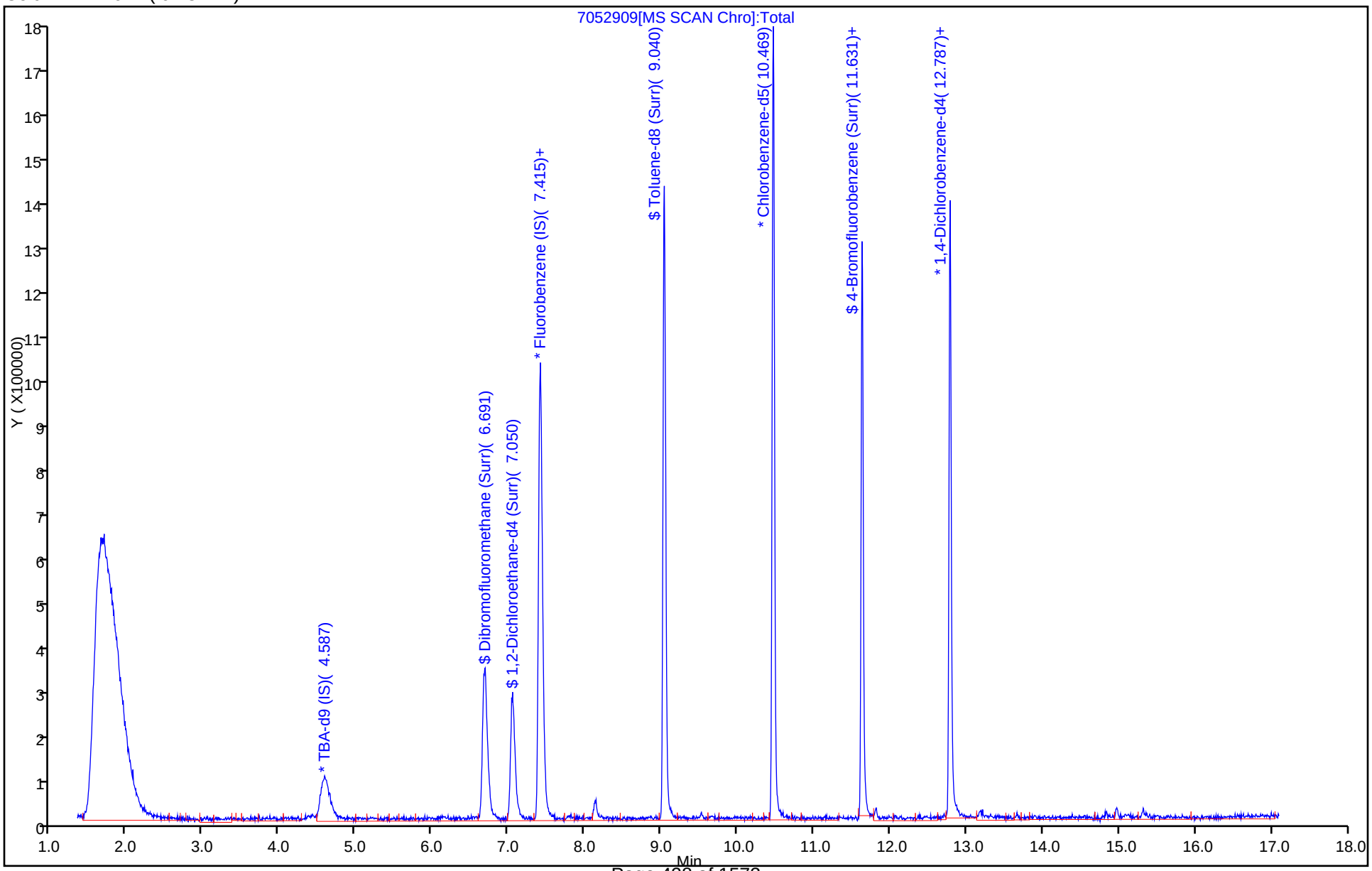
VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

Report Date: 29-May-2015 18:32:28 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052909.D				
Injection Date:	29-May-2015 12:56:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-44321-C-4	Lab Sample ID:	180-44321-4	Worklist Smp#:	10
Client ID:	HD-COD-SW-9-0/1-0				
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File:	\\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052909.D				
Lims ID:	180-44321-C-4	Lab Sample ID:	180-44321-4		
Client ID:	HD-COD-SW-9-0/1-0				
Sample Type:	Client				
Inject. Date:	29-May-2015 12:56:30	ALS Bottle#:	6	Worklist Smp#:	10
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Sample Info:	180-44321-C-4				
Misc. Info.:	180-0007169-010				
Operator ID:	034635	Instrument ID:	CHHP7		
Method:	\\PITCHROM\ChromData\CHHP7\20150529-7169.b\MSVOA_LL_CHHP7.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	29-May-2015 18:32:22	Calib Date:	30-Mar-2015 14:36:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK015				
First Level Reviewer: journetp		Date:	29-May-2015 13:47:26		

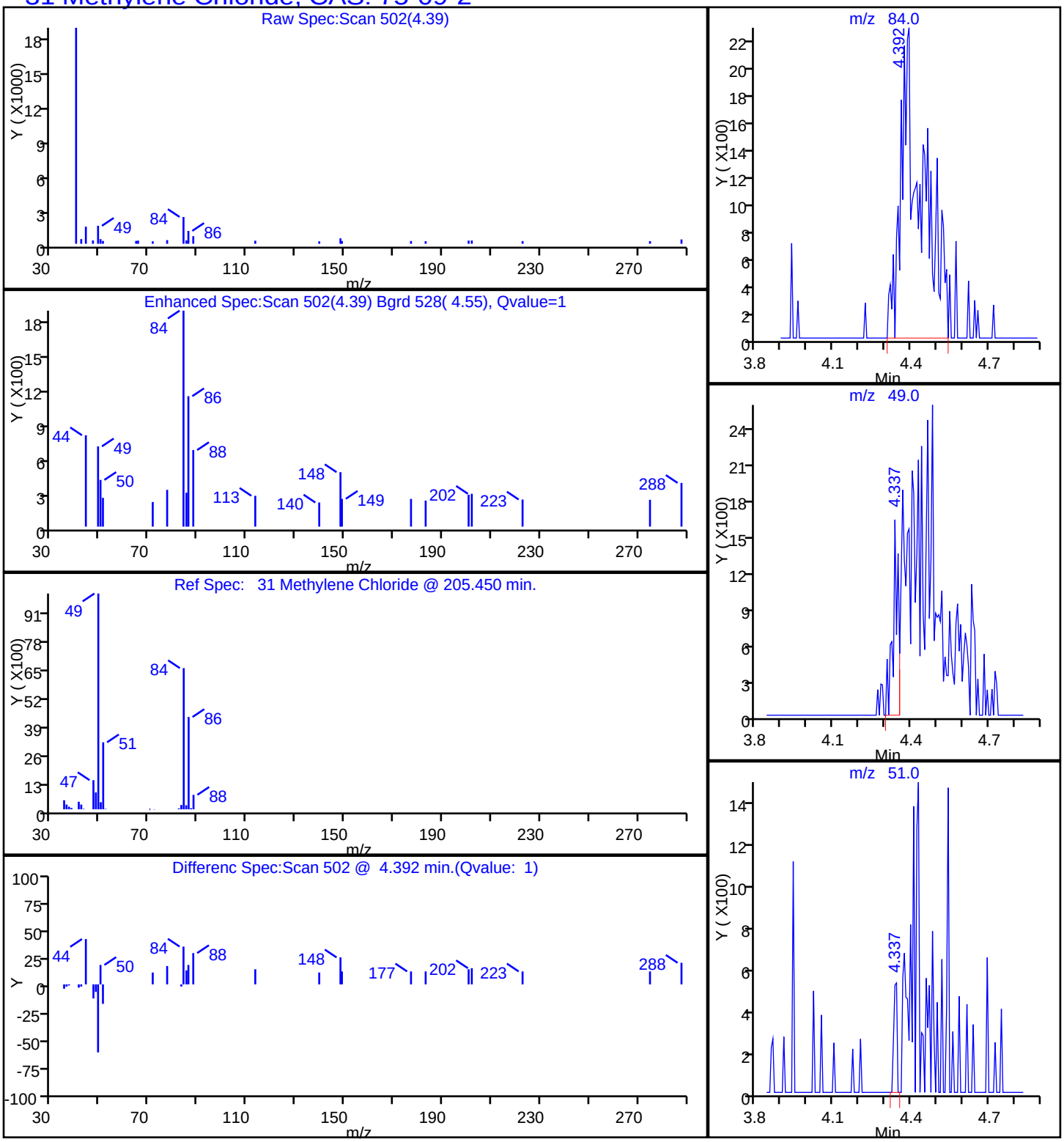
Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	200.0	164.6	82.28
$ 6 1,2-Dichloroethane-d4 (Surr)	200.0	154.5	77.23
$ 7 Toluene-d8 (Surr)	200.0	194.5	97.26
$ 8 4-Bromofluorobenzene (Surr)	200.0	171.4	85.70

Report Date: 29-May-2015 18:32:28 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052909.D				
Injection Date:	29-May-2015 12:56:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-C-4	Lab Sample ID:	180-44321-4		
Client ID:	HD-COD-SW-9-0/1-0				
Operator ID:	034635	ALS Bottle#:	6	Worklist Smp#:	10
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

31 Methylene Chloride, CAS: 75-09-2



Manual Integration/User Assign Peak Report

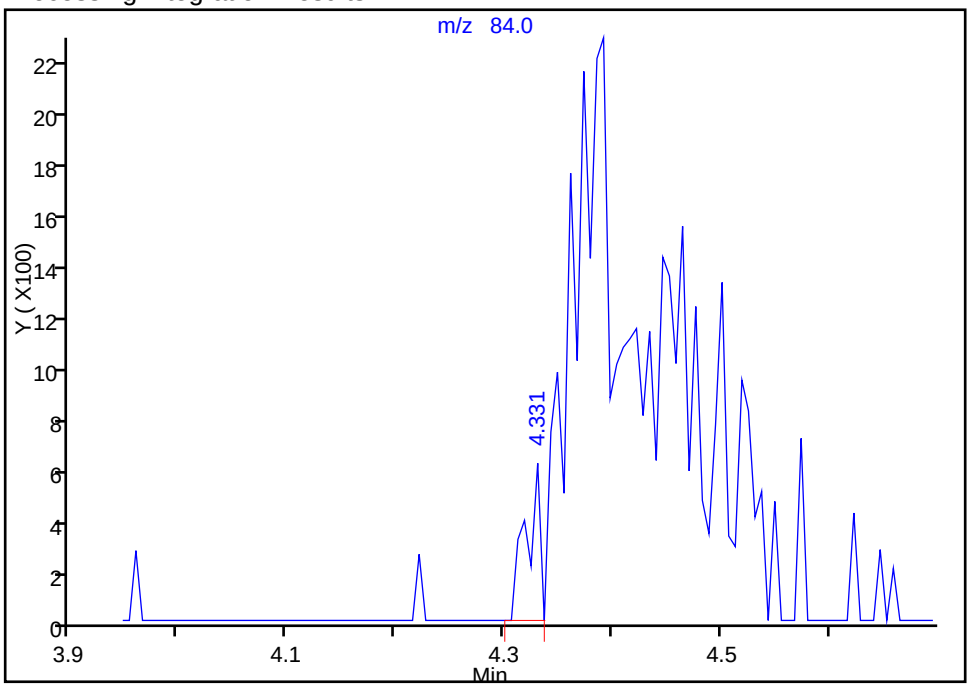
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052909.D				
Injection Date:	29-May-2015 12:56:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-C-4	Lab Sample ID:	180-44321-4		
Client ID:	HD-COD-SW-9-0/1-0				
Operator ID:	034635	ALS Bottle#:	6	Worklist Smp#:	10
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

31 Methylene Chloride, CAS: 75-09-2

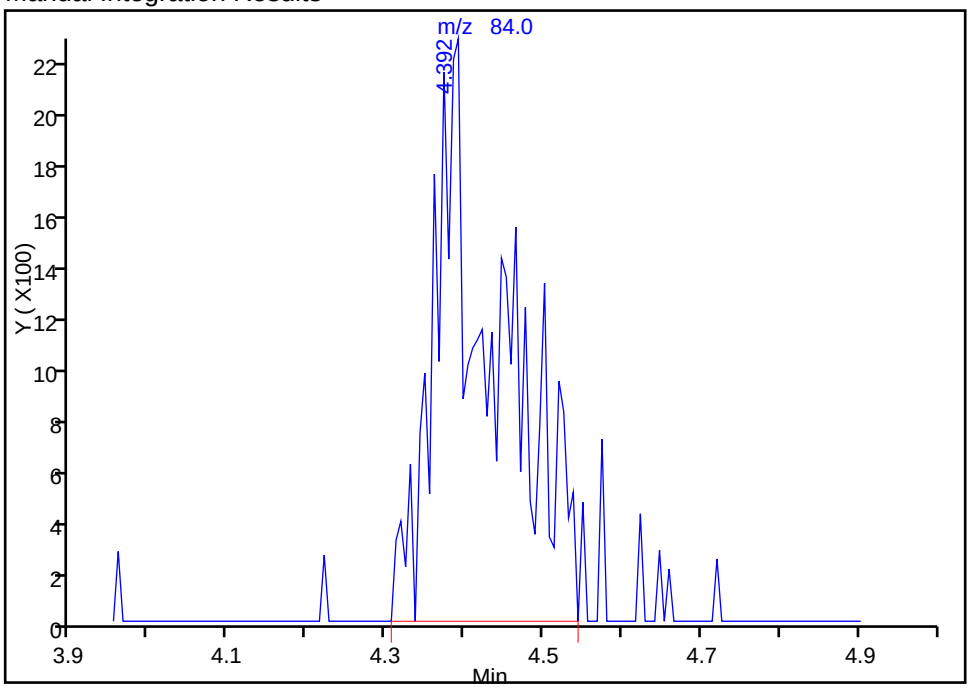
Processing Integration Results

RT: 4.33
Area: 559
Amount: 0.226804
Amount Units: ng



Manual Integration Results

RT: 4.39
Area: 12954
Amount: 5.255856
Amount Units: ng



Reviewer: journetp, 29-May-2015 13:47:26
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

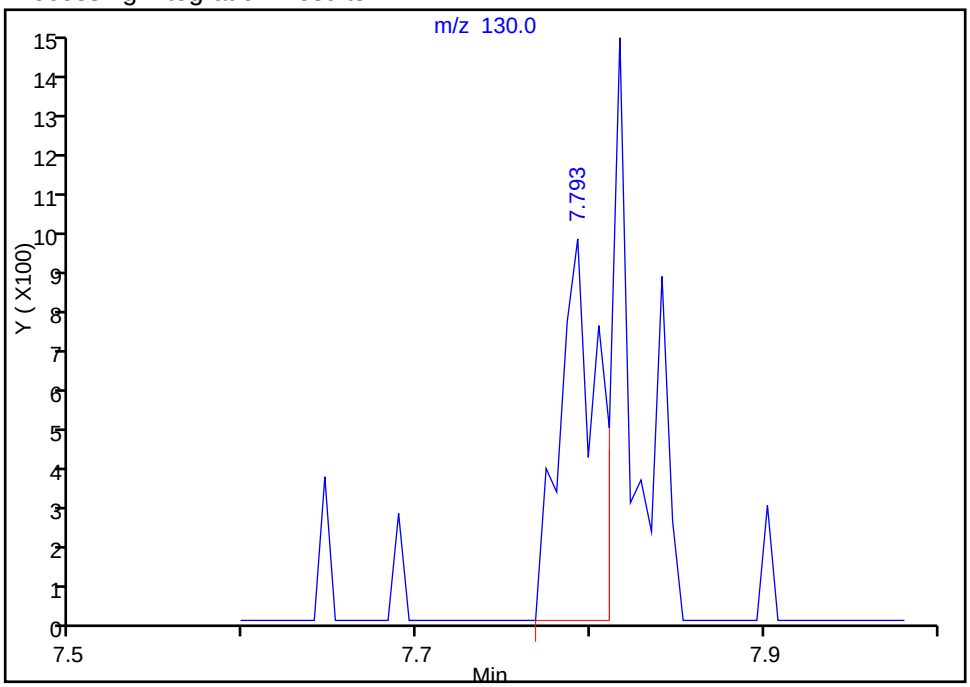
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052909.D				
Injection Date:	29-May-2015 12:56:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-C-4	Lab Sample ID:	180-44321-4		
Client ID:	HD-COD-SW-9-0/1-0				
Operator ID:	034635	ALS Bottle#:	6	Worklist Smp#:	10
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

64 Trichloroethene, CAS: 79-01-6

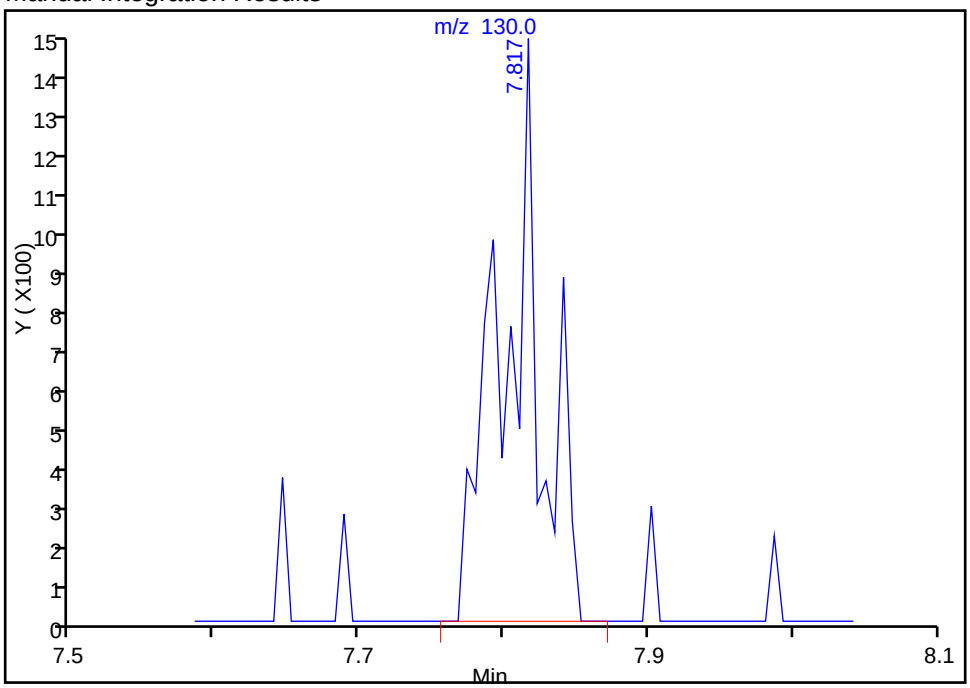
Processing Integration Results

RT: 7.79
Area: 1424
Amount: 0.422007
Amount Units: ng



Manual Integration Results

RT: 7.82
Area: 2637
Amount: 0.781483
Amount Units: ng



Reviewer: journetp, 29-May-2015 13:47:26
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-10-0/1-0 Lab Sample ID: 180-44321-5

Matrix: Water Lab File ID: 7052913.D

Analysis Method: 8260C Date Collected: 05/20/2015 09:45

Sample wt/vol: 20(mL) Date Analyzed: 05/29/2015 15:32

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143153 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.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-10-0/1-0 Lab Sample ID: 180-44321-5

Matrix: Water Lab File ID: 7052913.D

Analysis Method: 8260C Date Collected: 05/20/2015 09:45

Sample wt/vol: 20(mL) Date Analyzed: 05/29/2015 15:32

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143153 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)	83		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)	92		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052913.D
Lims ID: 180-44321-C-5 Lab Sample ID: 180-44321-5
Client ID: HD-COD-SW-10-0/1-0
Sample Type: Client
Inject. Date: 29-May-2015 15:32:30 ALS Bottle#: 11 Worklist Smp#: 14
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 180-44321-C-5
Misc. Info.: 180-0007169-014
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 31-May-2015 10:15:40 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK011

First Level Reviewer: journetp Date: 31-May-2015 10:13:38

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
*	1 TBA-d9 (IS)	65	4.591	4.658	-0.067	96	447333	4000.0	
*	2 Fluorobenzene (IS)	96	7.408	7.408	0.000	98	1722686	200.0	
*	3 Chlorobenzene-d5	119	10.468	10.468	0.000	86	452741	200.0	
*	4 1,4-Dichlorobenzene-d4	152	12.786	12.785	0.001	96	502548	200.0	
$	5 Dibromofluoromethane (Surr	113	6.678	6.684	-0.006	91	506771	184.4	
$	6 1,2-Dichloroethane-d4 (Sur	65	7.055	7.037	0.018	94	437197	166.9	
$	7 Toluene-d8 (Surr)	98	9.038	9.038	0.000	92	1338051	199.3	
$	8 4-Bromofluorobenzene (Surr	95	11.636	11.630	0.006	88	554502	183.5	
	12 Chloromethane	50		2.048				ND	
	13 Vinyl chloride	62		2.212				ND	
	15 Bromomethane	94		2.517				ND	
	16 Chloroethane	64		2.590				ND	
	22 1,1-Dichloroethene	96		3.563				ND	
	24 Acetone	43		3.764				ND	
	26 Carbon disulfide	76		3.861				ND	
	31 Methylene Chloride	84		4.384				ND	
	33 Acrylonitrile	53		4.773				ND	
	34 trans-1,2-Dichloroethene	96		4.780				ND	
	35 Methyl tert-butyl ether	73		4.853				ND	
	37 1,1-Dichloroethane	63		5.351				ND	
	45 cis-1,2-Dichloroethene	96		6.094				ND	
	46 2-Butanone (MEK)	43		6.167				ND	
	49 Chlorobromomethane	128		6.386				ND	
	52 Chloroform	83		6.495				ND	
	53 1,1,1-Trichloroethane	97		6.678				ND	
	56 Carbon tetrachloride	117		6.872				ND	
	58 Benzene	78		7.097				ND	
	59 1,2-Dichloroethane	62		7.128				ND	
	64 Trichloroethene	130		7.791				ND	
	67 1,2-Dichloropropane	63		8.022				ND	
	70 1,4-Dioxane	88		8.180				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.314				ND	
74 cis-1,3-Dichloropropene	75		8.770				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.935				ND	
76 Toluene	91		9.105				ND	
77 trans-1,3-Dichloropropene	75		9.324				ND	
79 1,1,2-Trichloroethane	97		9.506				ND	
80 Tetrachloroethene	164		9.646				ND	
82 2-Hexanone	43		9.762				ND	
84 Chlorodibromomethane	129		9.896				ND	
85 Ethylene Dibromide	107		10.011				ND	
87 Chlorobenzene	112		10.498				ND	
89 1,1,1,2-Tetrachloroethane	131		10.577				ND	
90 Ethylbenzene	106		10.601				ND	
91 m-Xylene & p-Xylene	106		10.717				ND	
92 o-Xylene	106		11.112				ND	
93 Styrene	104		11.125				ND	
94 Bromoform	173		11.313				ND	
99 1,1,2,2-Tetrachloroethane	83		11.769				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

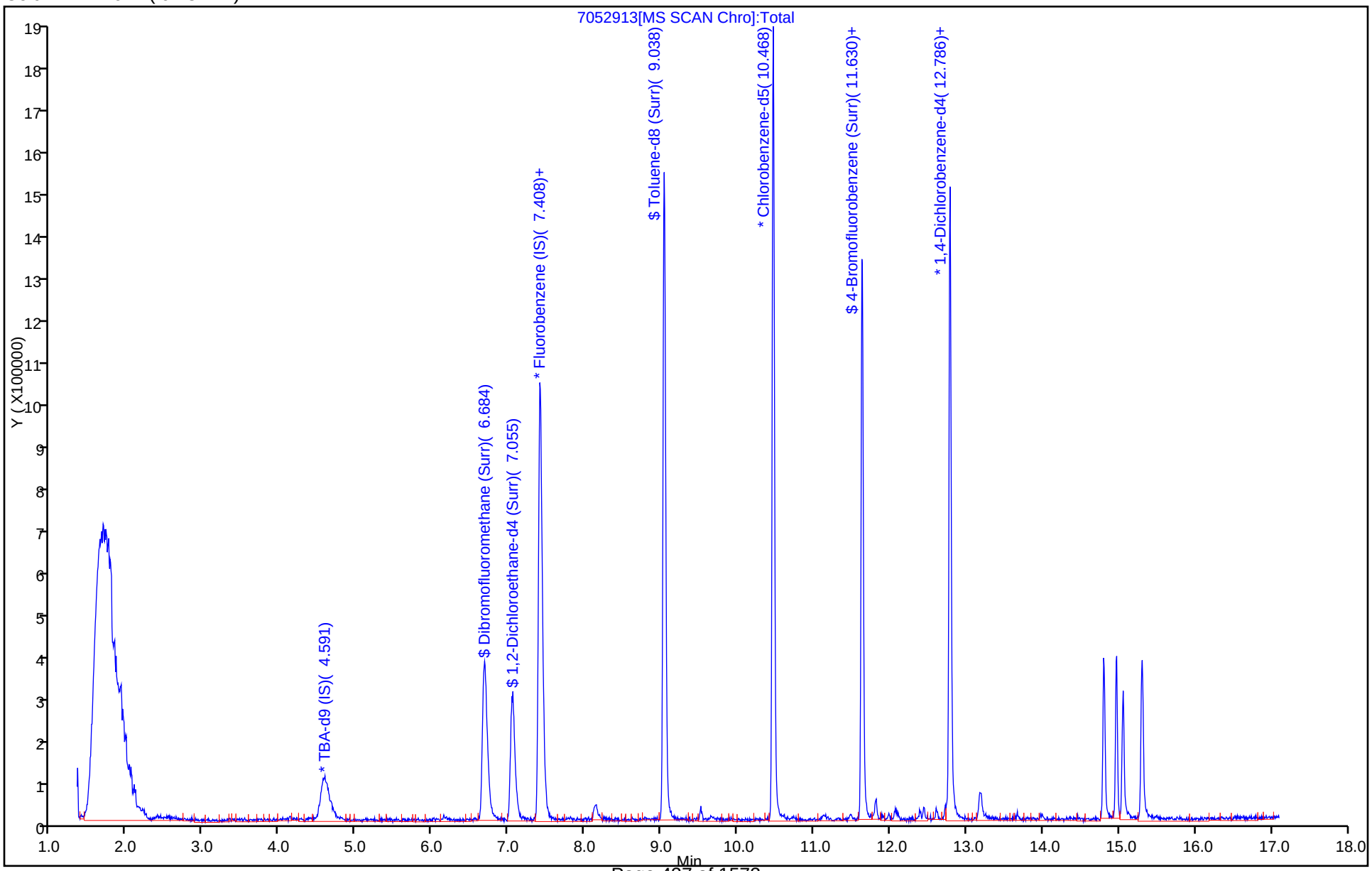
VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

Report Date: 31-May-2015 11:22:23 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052913.D				
Injection Date:	29-May-2015 15:32:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-44321-C-5	Lab Sample ID:	180-44321-5	Worklist Smp#:	14
Client ID:	HD-COD-SW-10-0/1-0				
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File:	\\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052913.D				
Lims ID:	180-44321-C-5	Lab Sample ID:	180-44321-5		
Client ID:	HD-COD-SW-10-0/1-0				
Sample Type:	Client				
Inject. Date:	29-May-2015 15:32:30	ALS Bottle#:	11	Worklist Smp#:	14
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Sample Info:	180-44321-C-5				
Misc. Info.:	180-0007169-014				
Operator ID:	034635	Instrument ID:	CHHP7		
Method:	\\PITCHROM\ChromData\CHHP7\20150529-7169.b\MSVOA_LL_CHHP7.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	31-May-2015 10:15:40	Calib Date:	30-Mar-2015 14:36:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK011				
First Level Reviewer: journetp		Date:	31-May-2015 10:13:38		

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	200.0	184.4	92.21
$ 6 1,2-Dichloroethane-d4 (Surr)	200.0	166.9	83.44
$ 7 Toluene-d8 (Surr)	200.0	199.3	99.63
$ 8 4-Bromofluorobenzene (Surr)	200.0	183.5	91.73

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-11-0/1-0 Lab Sample ID: 180-44321-6

Matrix: Water Lab File ID: 7052914.D

Analysis Method: 8260C Date Collected: 05/20/2015 12:15

Sample wt/vol: 20(mL) Date Analyzed: 05/29/2015 16:00

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.: 143153 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.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-11-0/1-0 Lab Sample ID: 180-44321-6

Matrix: Water Lab File ID: 7052914.D

Analysis Method: 8260C Date Collected: 05/20/2015 12:15

Sample wt/vol: 20(mL) Date Analyzed: 05/29/2015 16:00

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.: 143153 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)	92		64-135
2037-26-5	Toluene-d8 (Surr)	114		71-118
460-00-4	4-Bromofluorobenzene (Surr)	101		70-118
1868-53-7	Dibromofluoromethane (Surr)	98		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052914.D
Lims ID: 180-44321-C-6 Lab Sample ID: 180-44321-6
Client ID: HD-COD-SW-11-0/1-0
Sample Type: Client
Inject. Date: 29-May-2015 16:00:30 ALS Bottle#: 12 Worklist Smp#: 15
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 180-44321-C-6
Misc. Info.: 180-0007169-015
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 31-May-2015 10:15:40 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK011

First Level Reviewer: journetp Date: 31-May-2015 08:35:36

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.598	4.658	-0.060	93	389108	4000.0	
* 2 Fluorobenzene (IS)	96	7.415	7.408	0.007	99	1579729	200.0	
* 3 Chlorobenzene-d5	119	10.469	10.468	0.001	86	391130	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.786	12.785	0.001	95	439891	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.679	6.684	-0.005	92	495549	196.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.050	7.037	0.013	92	443673	184.7	
$ 7 Toluene-d8 (Surr)	98	9.039	9.038	0.001	93	1327168	228.8	
$ 8 4-Bromofluorobenzene (Surr	95	11.630	11.630	0.000	88	524256	202.2	
12 Chloromethane	50		2.048				ND	
13 Vinyl chloride	62		2.212				ND	
15 Bromomethane	94		2.517				ND	
16 Chloroethane	64		2.590				ND	
22 1,1-Dichloroethene	96		3.563				ND	
24 Acetone	43		3.764				ND	
26 Carbon disulfide	76		3.861				ND	
31 Methylene Chloride	84		4.384				ND	
33 Acrylonitrile	53		4.773				ND	
34 trans-1,2-Dichloroethene	96		4.780				ND	
35 Methyl tert-butyl ether	73		4.853				ND	
37 1,1-Dichloroethane	63		5.351				ND	
45 cis-1,2-Dichloroethene	96		6.094				ND	
46 2-Butanone (MEK)	43		6.167				ND	
49 Chlorobromomethane	128		6.386				ND	
52 Chloroform	83		6.495				ND	
53 1,1,1-Trichloroethane	97		6.678				ND	
56 Carbon tetrachloride	117		6.872				ND	
58 Benzene	78		7.097				ND	
59 1,2-Dichloroethane	62		7.128				ND	
64 Trichloroethene	130		7.791				ND	
67 1,2-Dichloropropane	63		8.022				ND	
70 1,4-Dioxane	88		8.180				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.314				ND	
74 cis-1,3-Dichloropropene	75		8.770				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.935				ND	
76 Toluene	91		9.105				ND	
77 trans-1,3-Dichloropropene	75		9.324				ND	
79 1,1,2-Trichloroethane	97		9.506				ND	
80 Tetrachloroethene	164		9.646				ND	
82 2-Hexanone	43		9.762				ND	
84 Chlorodibromomethane	129		9.896				ND	
85 Ethylene Dibromide	107		10.011				ND	
87 Chlorobenzene	112		10.498				ND	
89 1,1,1,2-Tetrachloroethane	131		10.577				ND	
90 Ethylbenzene	106		10.601				ND	
91 m-Xylene & p-Xylene	106		10.717				ND	
92 o-Xylene	106		11.112				ND	
93 Styrene	104		11.125				ND	
94 Bromoform	173		11.313				ND	
99 1,1,2,2-Tetrachloroethane	83		11.769				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

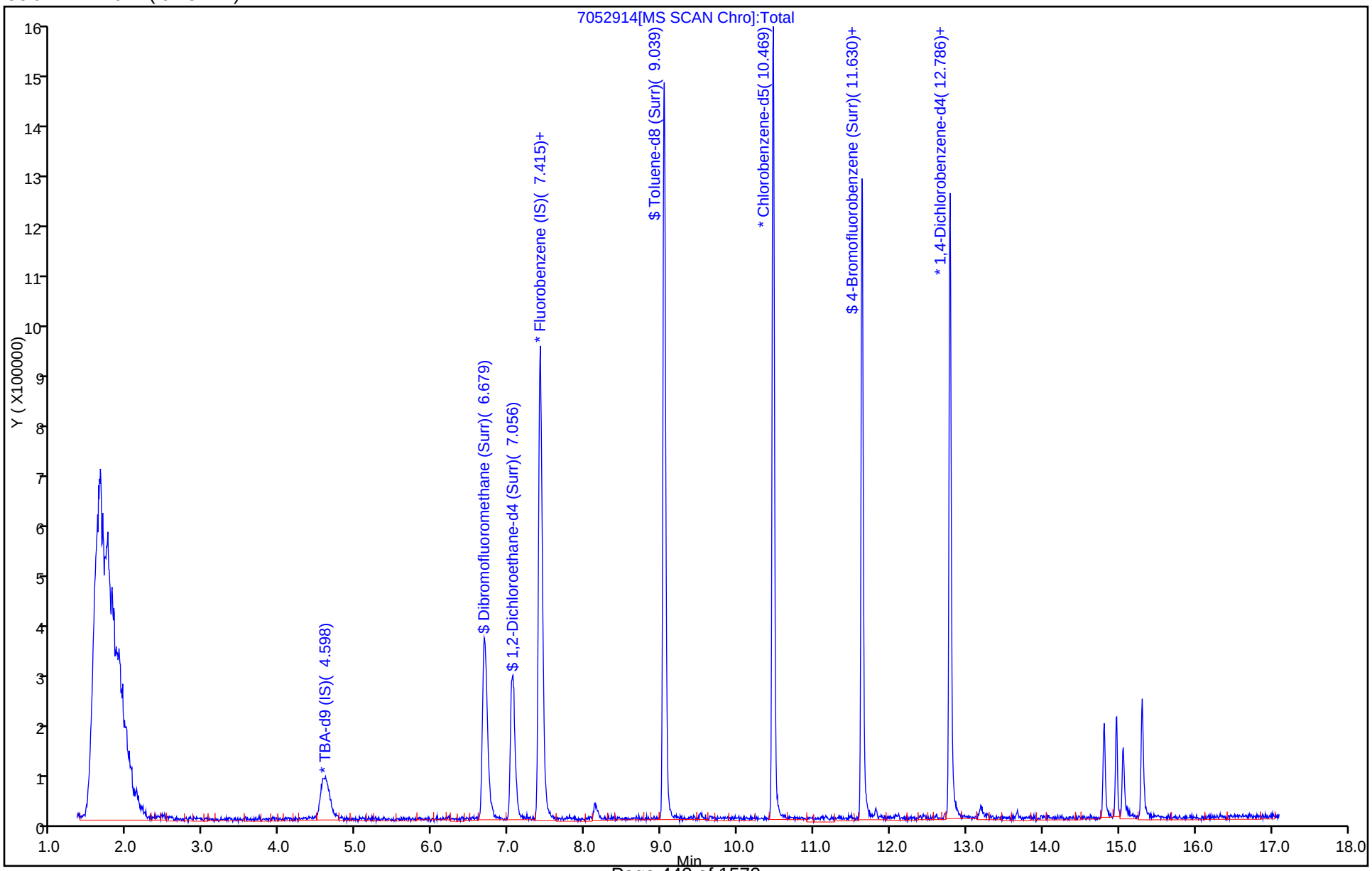
Report Date: 31-May-2015 11:22:25 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052914.D

Injection Date:	29-May-2015 16:00:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-44321-C-6	Lab Sample ID:	180-44321-6	Worklist Smp#:	15
Client ID:	HD-COD-SW-11-0/1-0				
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File:	\\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052914.D				
Lims ID:	180-44321-C-6	Lab Sample ID:	180-44321-6		
Client ID:	HD-COD-SW-11-0/1-0				
Sample Type:	Client				
Inject. Date:	29-May-2015 16:00:30	ALS Bottle#:	12	Worklist Smp#:	15
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Sample Info:	180-44321-C-6				
Misc. Info.:	180-0007169-015				
Operator ID:	034635	Instrument ID:	CHHP7		
Method:	\\PITCHROM\ChromData\CHHP7\20150529-7169.b\MSVOA_LL_CHHP7.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	31-May-2015 10:15:40	Calib Date:	30-Mar-2015 14:36:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK011				

First Level Reviewer: journetp Date: 31-May-2015 08:35:36

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	200.0	196.7	98.33
$ 6 1,2-Dichloroethane-d4 (Surr)	200.0	184.7	92.34
$ 7 Toluene-d8 (Surr)	200.0	228.8	114.39
$ 8 4-Bromofluorobenzene (Surr)	200.0	202.2	101.09

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-12-0/1-0 Lab Sample ID: 180-44321-7

Matrix: Water Lab File ID: 7052915.D

Analysis Method: 8260C Date Collected: 05/20/2015 12:30

Sample wt/vol: 20(mL) Date Analyzed: 05/29/2015 16:27

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143153 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.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-12-0/1-0 Lab Sample ID: 180-44321-7

Matrix: Water Lab File ID: 7052915.D

Analysis Method: 8260C Date Collected: 05/20/2015 12:30

Sample wt/vol: 20(mL) Date Analyzed: 05/29/2015 16:27

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143153 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		64-135
2037-26-5	Toluene-d8 (Surr)	112		71-118
460-00-4	4-Bromofluorobenzene (Surr)	103		70-118
1868-53-7	Dibromofluoromethane (Surr)	103		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052915.D
Lims ID: 180-44321-C-7 Lab Sample ID: 180-44321-7
Client ID: HD-COD-SW-12-0/1-0
Sample Type: Client
Inject. Date: 29-May-2015 16:27:30 ALS Bottle#: 13 Worklist Smp#: 16
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 180-44321-C-7
Misc. Info.: 180-0007169-016
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 31-May-2015 10:15:40 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK011

First Level Reviewer: journetp Date: 31-May-2015 10:07:16

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
*	1 TBA-d9 (IS)	65	4.569	4.658	-0.089	98	437390	4000.0	
*	2 Fluorobenzene (IS)	96	7.416	7.408	0.008	98	1735876	200.0	
*	3 Chlorobenzene-d5	119	10.470	10.468	0.002	86	463790	200.0	
*	4 1,4-Dichlorobenzene-d4	152	12.782	12.785	-0.003	96	484263	200.0	
$	5 Dibromofluoromethane (Surr	113	6.680	6.684	-0.004	91	573105	207.0	
$	6 1,2-Dichloroethane-d4 (Sur	65	7.045	7.037	0.008	94	514727	195.0	
$	7 Toluene-d8 (Surr)	98	9.041	9.038	0.003	92	1539143	223.7	
$	8 4-Bromofluorobenzene (Surr	95	11.632	11.630	0.002	90	630894	205.4	
	12 Chloromethane	50		2.048				ND	
	13 Vinyl chloride	62		2.212				ND	
	15 Bromomethane	94		2.517				ND	
	16 Chloroethane	64		2.590				ND	
	22 1,1-Dichloroethene	96		3.563				ND	
	24 Acetone	43		3.764				ND	
	26 Carbon disulfide	76		3.861				ND	
	31 Methylene Chloride	84		4.384				ND	
	33 Acrylonitrile	53		4.773				ND	
	34 trans-1,2-Dichloroethene	96		4.780				ND	
	35 Methyl tert-butyl ether	73		4.853				ND	
	37 1,1-Dichloroethane	63		5.351				ND	
	45 cis-1,2-Dichloroethene	96		6.094				ND	
	46 2-Butanone (MEK)	43		6.167				ND	
	49 Chlorobromomethane	128		6.386				ND	
	52 Chloroform	83		6.495				ND	
	53 1,1,1-Trichloroethane	97		6.678				ND	
	56 Carbon tetrachloride	117		6.872				ND	
	58 Benzene	78		7.097				ND	
	59 1,2-Dichloroethane	62		7.128				ND	
	64 Trichloroethene	130		7.791				ND	
	67 1,2-Dichloropropane	63		8.022				ND	
	70 1,4-Dioxane	88		8.180				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.314				ND	
74 cis-1,3-Dichloropropene	75		8.770				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.935				ND	
76 Toluene	91		9.105				ND	
77 trans-1,3-Dichloropropene	75		9.324				ND	
79 1,1,2-Trichloroethane	97		9.506				ND	
80 Tetrachloroethene	164		9.646				ND	
82 2-Hexanone	43		9.762				ND	
84 Chlorodibromomethane	129		9.896				ND	
85 Ethylene Dibromide	107		10.011				ND	
87 Chlorobenzene	112		10.498				ND	
89 1,1,1,2-Tetrachloroethane	131		10.577				ND	
90 Ethylbenzene	106		10.601				ND	
91 m-Xylene & p-Xylene	106		10.717				ND	
92 o-Xylene	106		11.112				ND	
93 Styrene	104		11.125				ND	
94 Bromoform	173		11.313				ND	
99 1,1,2,2-Tetrachloroethane	83		11.769				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

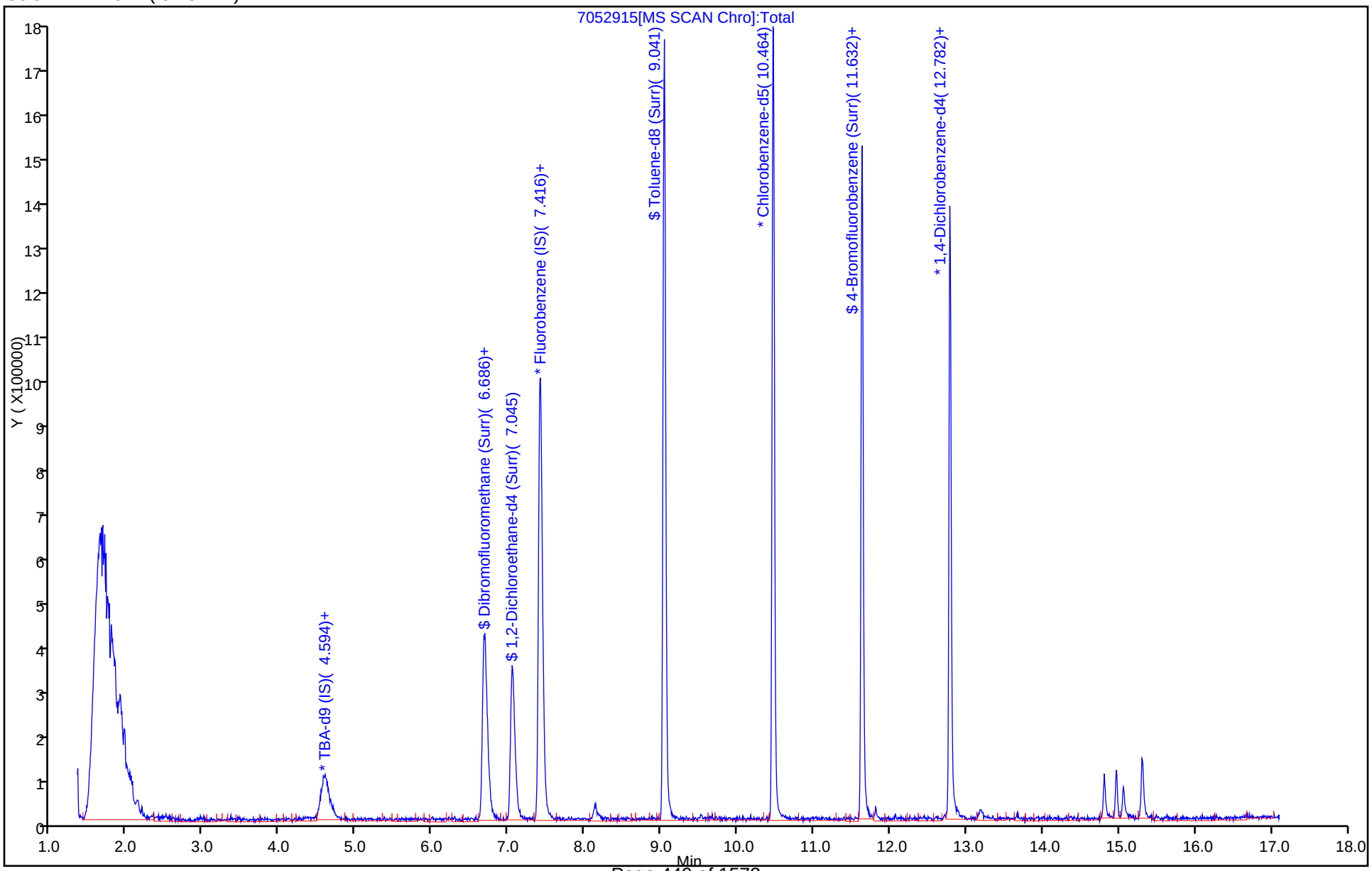
Report Date: 31-May-2015 11:22:25 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052915.D

Injection Date:	29-May-2015 16:27:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-44321-C-7	Lab Sample ID:	180-44321-7	Worklist Smp#:	16
Client ID:	HD-COD-SW-12-0/1-0				
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File:	\\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052915.D				
Lims ID:	180-44321-C-7	Lab Sample ID:	180-44321-7		
Client ID:	HD-COD-SW-12-0/1-0				
Sample Type:	Client				
Inject. Date:	29-May-2015 16:27:30	ALS Bottle#:	13	Worklist Smp#:	16
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Sample Info:	180-44321-C-7				
Misc. Info.:	180-0007169-016				
Operator ID:	034635	Instrument ID:	CHHP7		
Method:	\\PITCHROM\ChromData\CHHP7\20150529-7169.b\MSVOA_LL_CHHP7.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	31-May-2015 10:15:40	Calib Date:	30-Mar-2015 14:36:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK011				

First Level Reviewer: journetp Date: 31-May-2015 10:07:16

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	200.0	207.0	103.49
$ 6 1,2-Dichloroethane-d4 (Surr)	200.0	195.0	97.49
$ 7 Toluene-d8 (Surr)	200.0	223.7	111.87
$ 8 4-Bromofluorobenzene (Surr)	200.0	205.4	102.70

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-13-0/1-0 | Lab Sample ID: 180-44321-8

Matrix: Water | Lab File ID: 7053118.D

Analysis Method: 8260C | Date Collected: 05/20/2015 09:35

Sample wt/vol: 20(mL) | Date Analyzed: 05/31/2015 19:17

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 143339 | 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.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-13-0/1-0 Lab Sample ID: 180-44321-8

Matrix: Water Lab File ID: 7053118.D

Analysis Method: 8260C Date Collected: 05/20/2015 09:35

Sample wt/vol: 20(mL) Date Analyzed: 05/31/2015 19:17

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143339 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)	93		64-135
2037-26-5	Toluene-d8 (Surr)	117		71-118
460-00-4	4-Bromofluorobenzene (Surr)	106		70-118
1868-53-7	Dibromofluoromethane (Surr)	105		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150531-7191.b\7053118.D
Lims ID: 180-44321-D-8 Lab Sample ID: 180-44321-8
Client ID: HD-COD-SW-13-0/1-0
Sample Type: Client
Inject. Date: 31-May-2015 19:17:30 ALS Bottle#: 18 Worklist Smp#: 18
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 180-44321-d-8
Misc. Info.: 180-0007169-018
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150531-7191.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 09:14:45 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

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

First Level Reviewer: journetp Date: 01-Jun-2015 09:11:14

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.591	4.678	-0.087	95	464252	4000.0	
* 2 Fluorobenzene (IS)	96	7.414	7.404	0.010	98	1654296	200.0	
* 3 Chlorobenzene-d5	119	10.468	10.470	-0.002	86	418155	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.786	12.787	-0.001	95	487409	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.678	6.680	-0.002	91	552370	209.3	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.049	7.039	0.010	95	468549	186.2	
$ 7 Toluene-d8 (Surr)	98	9.038	9.034	0.004	92	1456180	234.8	
$ 8 4-Bromofluorobenzene (Surr	95	11.636	11.632	0.004	89	583275	211.0	
12 Chloromethane	50		2.038				ND	
13 Vinyl chloride	62		2.214				ND	
15 Bromomethane	94		2.500				ND	
16 Chloroethane	64		2.646				ND	
22 1,1-Dichloroethene	96		3.583				ND	
24 Acetone	43		3.753				ND	
26 Carbon disulfide	76		3.863				ND	
31 Methylene Chloride	84		4.362				ND	
33 Acrylonitrile	53		4.769				ND	
34 trans-1,2-Dichloroethene	96		4.775				ND	
35 Methyl tert-butyl ether	73		4.836				ND	
37 1,1-Dichloroethane	63		5.353				ND	
45 cis-1,2-Dichloroethene	96		6.108				ND	
46 2-Butanone (MEK)	43		6.163				ND	
49 Chlorobromomethane	128		6.388				ND	
52 Chloroform	83		6.497				ND	
53 1,1,1-Trichloroethane	97		6.680				ND	
56 Carbon tetrachloride	117		6.868				ND	
58 Benzene	78		7.093				ND	
59 1,2-Dichloroethane	62		7.130				ND	
64 Trichloroethene	130		7.793				ND	
67 1,2-Dichloropropane	63		8.024				ND	
70 1,4-Dioxane	88		8.182				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.316				ND	
74 cis-1,3-Dichloropropene	75		8.766				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.931				ND	
76 Toluene	91		9.101				ND	
77 trans-1,3-Dichloropropene	75		9.326				ND	
79 1,1,2-Trichloroethane	97		9.502				ND	
80 Tetrachloroethene	164		9.648				ND	
82 2-Hexanone	43		9.758				ND	
84 Chlorodibromomethane	129		9.898				ND	
85 Ethylene Dibromide	107		10.007				ND	
87 Chlorobenzene	112		10.494				ND	
89 1,1,1,2-Tetrachloroethane	131		10.573				ND	
90 Ethylbenzene	106		10.603				ND	
91 m-Xylene & p-Xylene	106		10.719				ND	
92 o-Xylene	106		11.108				ND	
93 Styrene	104		11.127				ND	
94 Bromoform	173		11.315				ND	
99 1,1,2,2-Tetrachloroethane	83		11.765				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

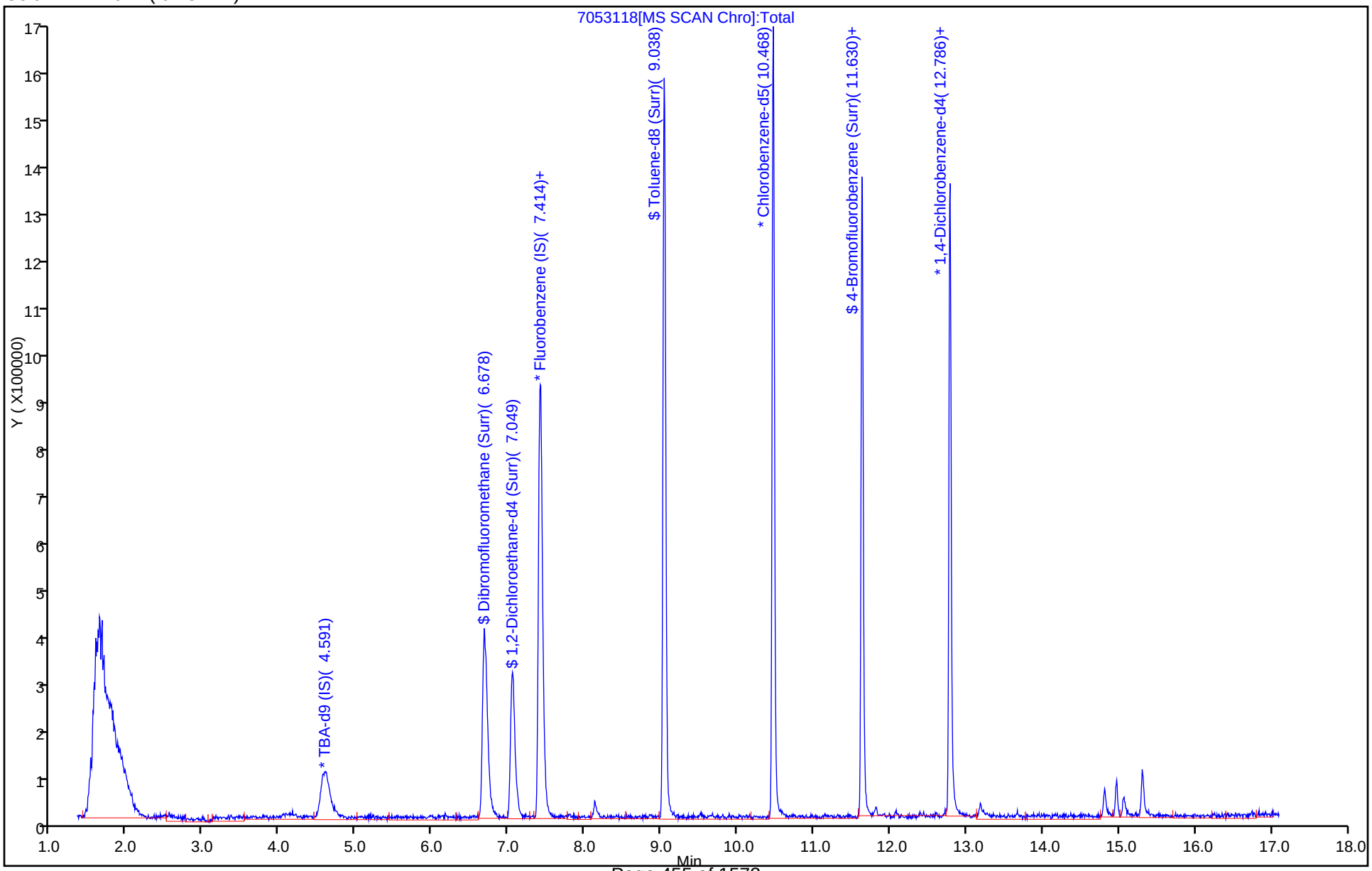
VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

Report Date: 01-Jun-2015 09:14:53 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150531-7191.b\7053118.D				
Injection Date:	31-May-2015 19:17:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-44321-D-8	Lab Sample ID:	180-44321-8	Worklist Smp#:	18
Client ID:	HD-COD-SW-13-0/1-0				
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	18
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\PITCHROM\ChromData\CHHP7\20150531-7191.b\7053118.D
Lims ID: 180-44321-D-8 Lab Sample ID: 180-44321-8
Client ID: HD-COD-SW-13-0/1-0
Sample Type: Client
Inject. Date: 31-May-2015 19:17:30 ALS Bottle#: 18 Worklist Smp#: 18
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 180-44321-d-8
Misc. Info.: 180-0007169-018
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150531-7191.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 09:14:45 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

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

First Level Reviewer: journetp Date: 01-Jun-2015 09:11:14

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	200.0	209.3	104.66
$ 6 1,2-Dichloroethane-d4 (Surr)	200.0	186.2	93.12
$ 7 Toluene-d8 (Surr)	200.0	234.8	117.39
$ 8 4-Bromofluorobenzene (Surr)	200.0	211.0	105.50

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-15-0/1-0 Lab Sample ID: 180-44321-9

Matrix: Water Lab File ID: 7052917.D

Analysis Method: 8260C Date Collected: 05/20/2015 12:40

Sample wt/vol: 20(mL) Date Analyzed: 05/29/2015 17:49

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.: 143153 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	1.7		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	1.2		1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	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.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-15-0/1-0 Lab Sample ID: 180-44321-9

Matrix: Water Lab File ID: 7052917.D

Analysis Method: 8260C Date Collected: 05/20/2015 12:40

Sample wt/vol: 20(mL) Date Analyzed: 05/29/2015 17:49

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.: 143153 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		64-135
2037-26-5	Toluene-d8 (Surr)	110		71-118
460-00-4	4-Bromofluorobenzene (Surr)	98		70-118
1868-53-7	Dibromofluoromethane (Surr)	102		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052917.D
Lims ID: 180-44321-C-9 Lab Sample ID: 180-44321-9
Client ID: HD-COD-SW-15-0/1-0
Sample Type: Client
Inject. Date: 29-May-2015 17:49:30 ALS Bottle#: 15 Worklist Smp#: 18
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 180-44321-C-9
Misc. Info.: 180-0007169-018
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 31-May-2015 10:15:40 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK011

First Level Reviewer: journetp Date: 31-May-2015 10:09:57

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.610	4.658	-0.048	95	449767	4000.0	
* 2 Fluorobenzene (IS)	96	7.415	7.408	0.006	99	1682917	200.0	
* 3 Chlorobenzene-d5	119	10.468	10.468	0.000	86	448829	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.786	12.785	0.001	95	481346	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.684	6.684	0.000	91	550259	205.0	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.043	7.037	0.006	91	497965	194.6	
$ 7 Toluene-d8 (Surr)	98	9.039	9.038	0.001	93	1459943	219.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.630	11.630	0.000	90	584567	196.0	
12 Chloromethane	50		2.048				ND	
13 Vinyl chloride	62		2.212				ND	
15 Bromomethane	94		2.517				ND	
16 Chloroethane	64		2.590				ND	
22 1,1-Dichloroethene	96		3.563				ND	
24 Acetone	43		3.764				ND	
26 Carbon disulfide	76		3.861				ND	
31 Methylene Chloride	84		4.384				ND	
33 Acrylonitrile	53		4.773				ND	
34 trans-1,2-Dichloroethene	96		4.780				ND	
35 Methyl tert-butyl ether	73		4.853				ND	
37 1,1-Dichloroethane	63		5.351				ND	
45 cis-1,2-Dichloroethene	96	6.107	6.094	0.013	80	93294	33.5	
46 2-Butanone (MEK)	43		6.167				ND	
49 Chlorobromomethane	128		6.386				ND	
52 Chloroform	83		6.495				ND	
53 1,1,1-Trichloroethane	97		6.678				ND	M
56 Carbon tetrachloride	117		6.872				ND	
58 Benzene	78		7.097				ND	
59 1,2-Dichloroethane	62		7.128				ND	
64 Trichloroethene	130	7.810	7.791	0.019	93	76781	23.1	
67 1,2-Dichloropropane	63		8.022				ND	
70 1,4-Dioxane	88		8.180				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.314				ND	
74 cis-1,3-Dichloropropene	75		8.770				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.935				ND	
76 Toluene	91		9.105				ND	
77 trans-1,3-Dichloropropene	75		9.324				ND	
79 1,1,2-Trichloroethane	97		9.506				ND	
80 Tetrachloroethene	164		9.646				ND	
82 2-Hexanone	43		9.762				ND	
84 Chlorodibromomethane	129		9.896				ND	
85 Ethylene Dibromide	107		10.011				ND	
87 Chlorobenzene	112		10.498				ND	
89 1,1,1,2-Tetrachloroethane	131		10.577				ND	
90 Ethylbenzene	106		10.601				ND	
91 m-Xylene & p-Xylene	106		10.717				ND	
92 o-Xylene	106		11.112				ND	
93 Styrene	104		11.125				ND	
94 Bromoform	173		11.313				ND	
99 1,1,2,2-Tetrachloroethane	83		11.769				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

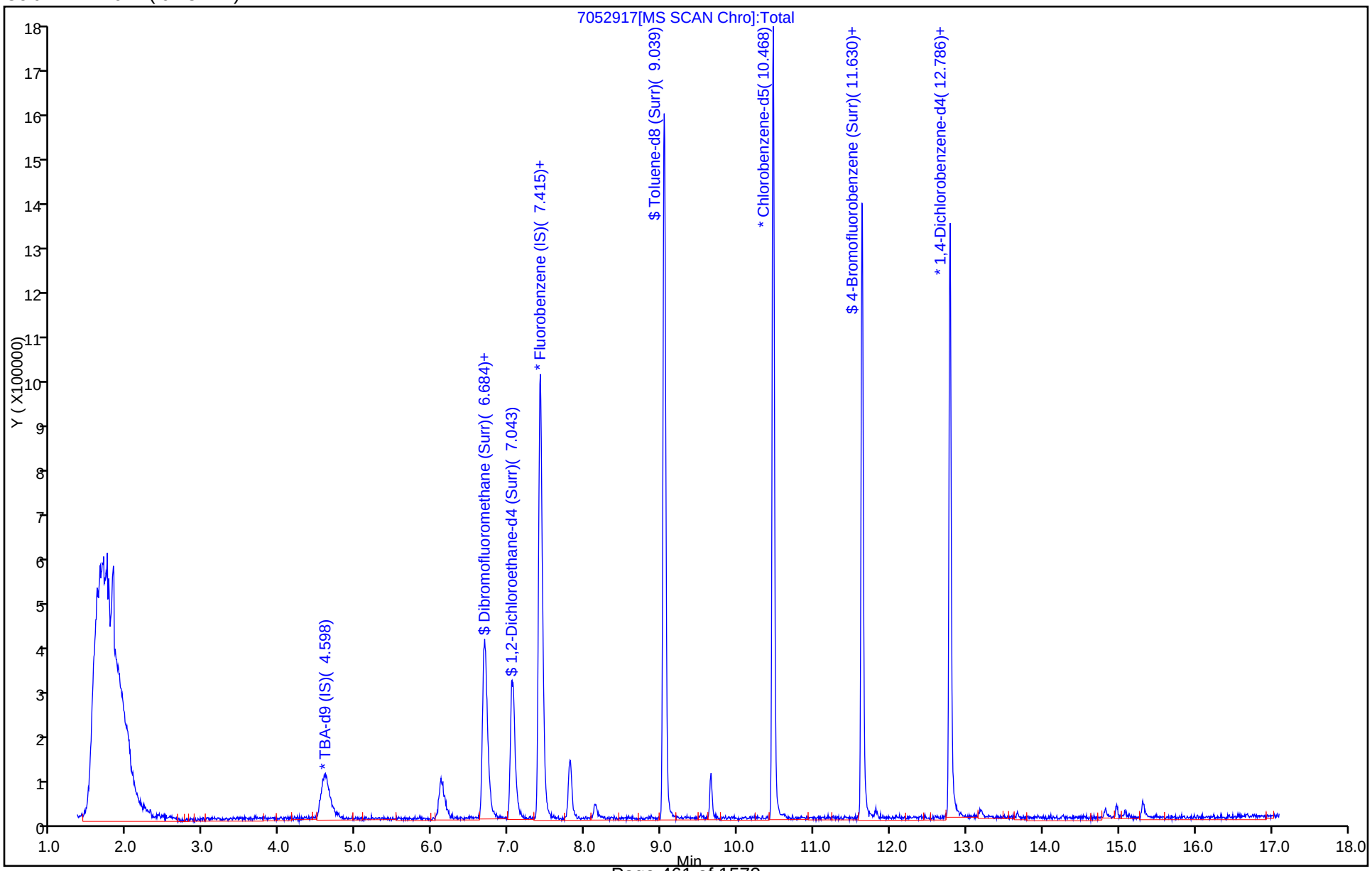
VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

Report Date: 31-May-2015 11:22:26 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052917.D				
Injection Date:	29-May-2015 17:49:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-44321-C-9	Lab Sample ID:	180-44321-9	Worklist Smp#:	18
Client ID:	HD-COD-SW-15-0/1-0				
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File:	\\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052917.D				
Lims ID:	180-44321-C-9	Lab Sample ID:	180-44321-9		
Client ID:	HD-COD-SW-15-0/1-0				
Sample Type:	Client				
Inject. Date:	29-May-2015 17:49:30	ALS Bottle#:	15	Worklist Smp#:	18
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Sample Info:	180-44321-C-9				
Misc. Info.:	180-0007169-018				
Operator ID:	034635	Instrument ID:	CHHP7		
Method:	\\PITCHROM\ChromData\CHHP7\20150529-7169.b\MSVOA_LL_CHHP7.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	31-May-2015 10:15:40	Calib Date:	30-Mar-2015 14:36:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK011				

First Level Reviewer: journetp Date: 31-May-2015 10:09:57

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	200.0	205.0	102.49
$ 6 1,2-Dichloroethane-d4 (Surr)	200.0	194.6	97.28
$ 7 Toluene-d8 (Surr)	200.0	219.3	109.65
$ 8 4-Bromofluorobenzene (Surr)	200.0	196.0	98.02

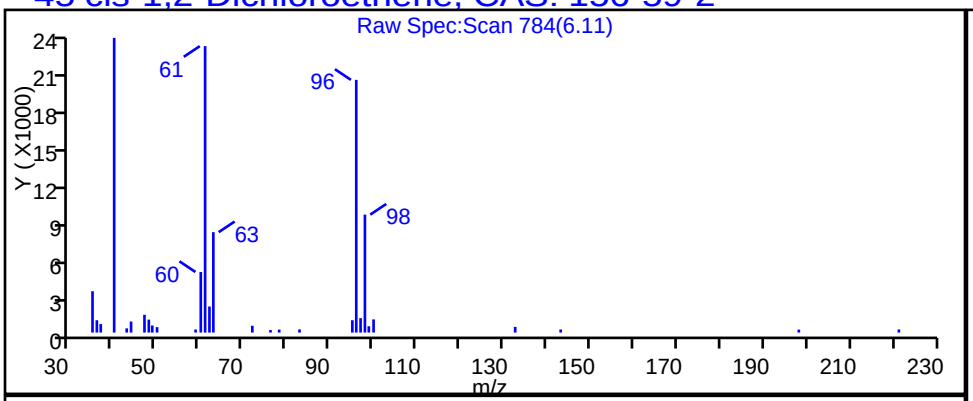
Report Date: 31-May-2015 11:22:26 Chrom Revision: 2.2 05-May-2015 11:39:10

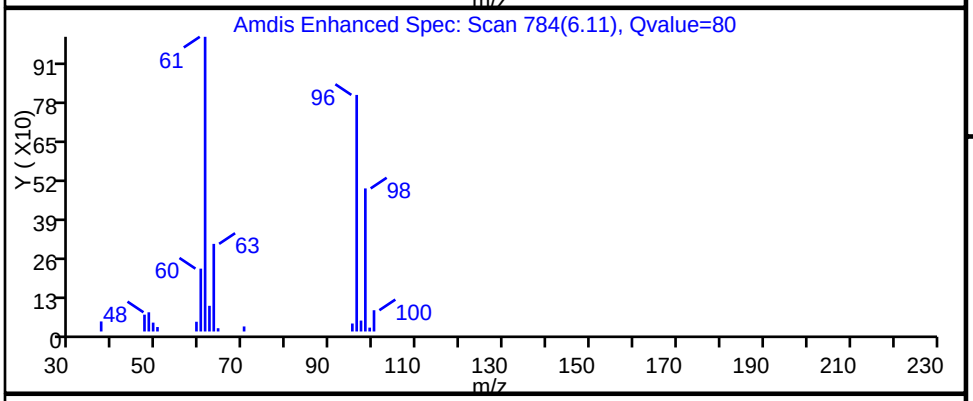
TestAmerica Pittsburgh

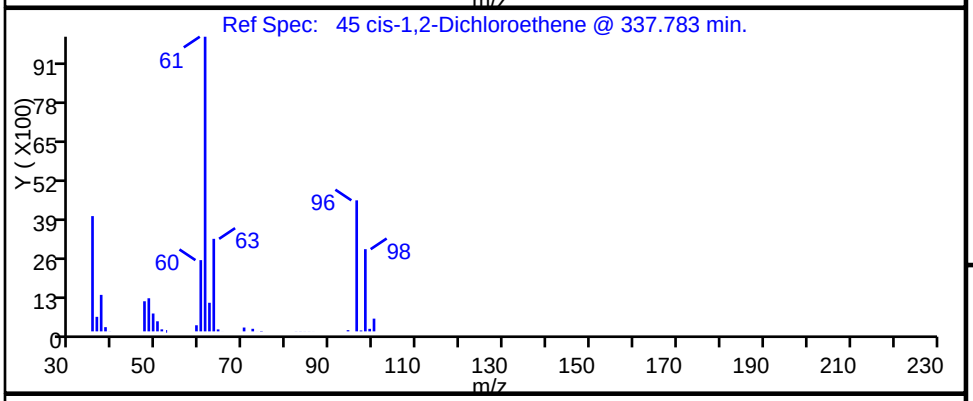
Data File: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052917.D

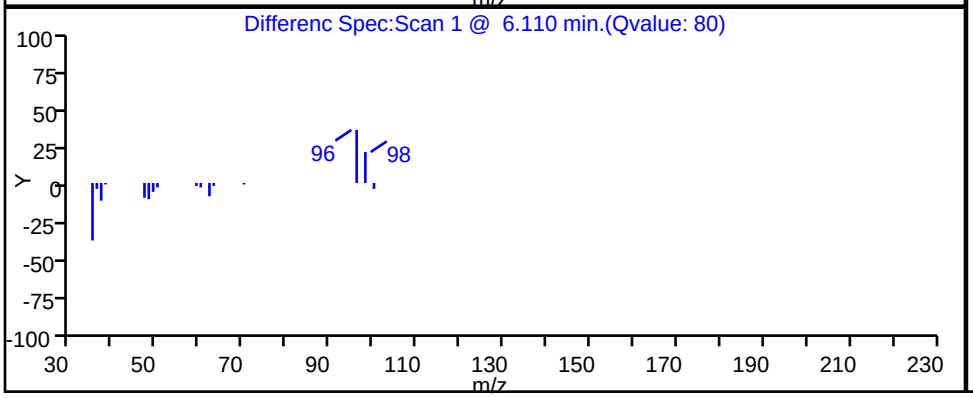
Injection Date:	29-May-2015 17:49:30	Instrument ID:	CHHP7
Lims ID:	180-44321-C-9	Lab Sample ID:	180-44321-9
Client ID:	HD-COD-SW-15-0/1-0		
Operator ID:	034635	ALS Bottle#:	15 Worklist Smp#: 18
Purge Vol:	20.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

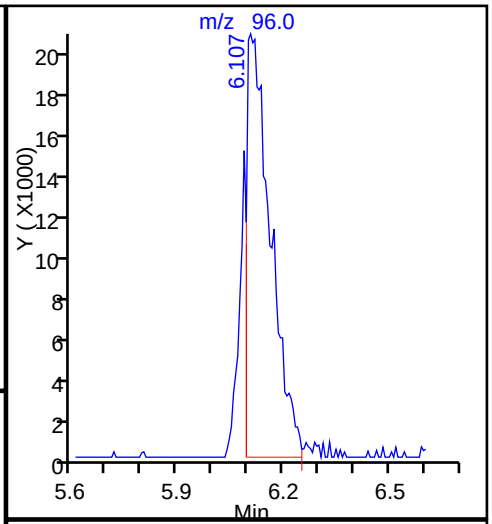
45 cis-1,2-Dichloroethene, CAS: 156-59-2

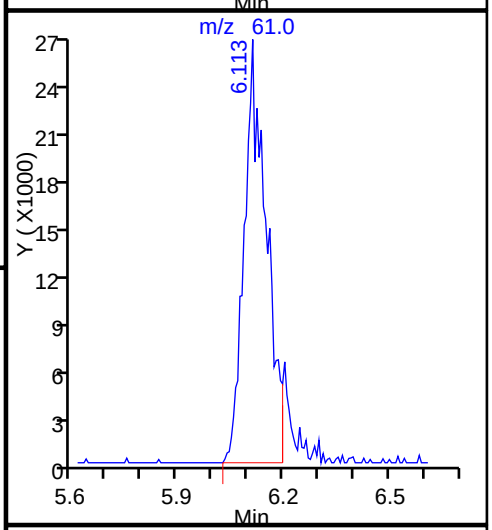


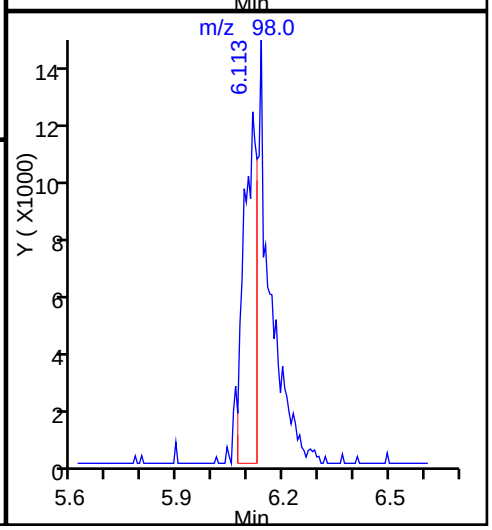










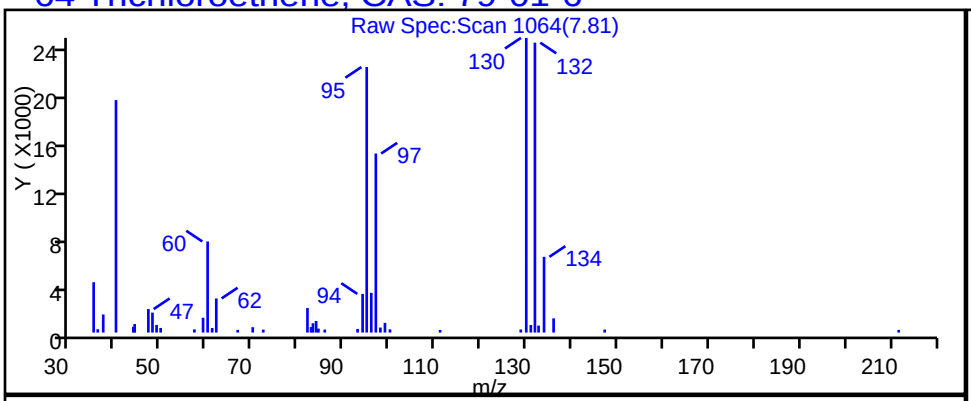


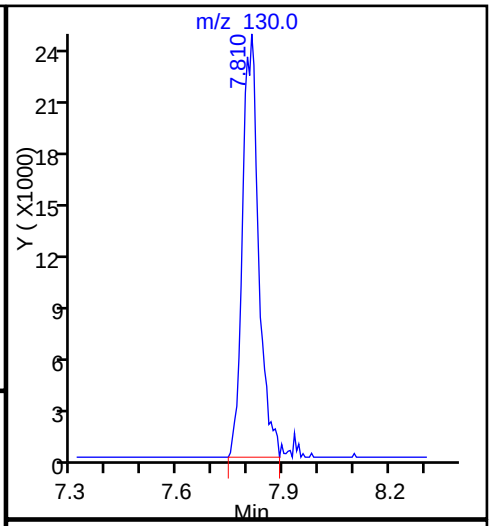
Report Date: 31-May-2015 11:22:26 Chrom Revision: 2.2 05-May-2015 11:39:10

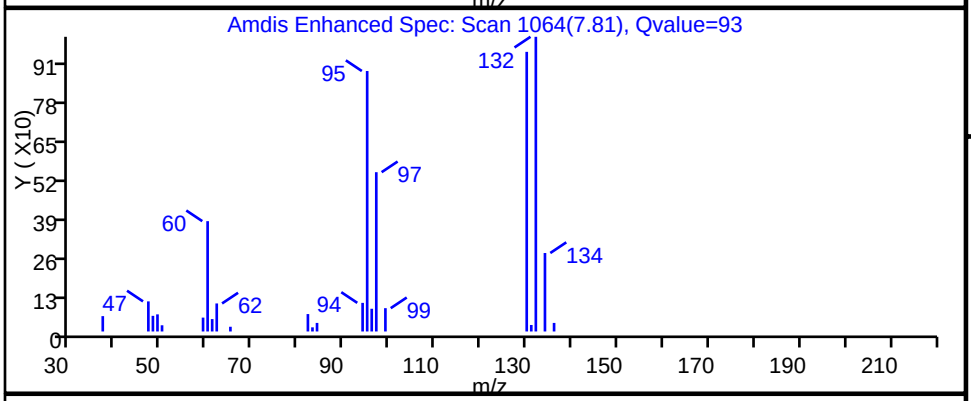
TestAmerica Pittsburgh

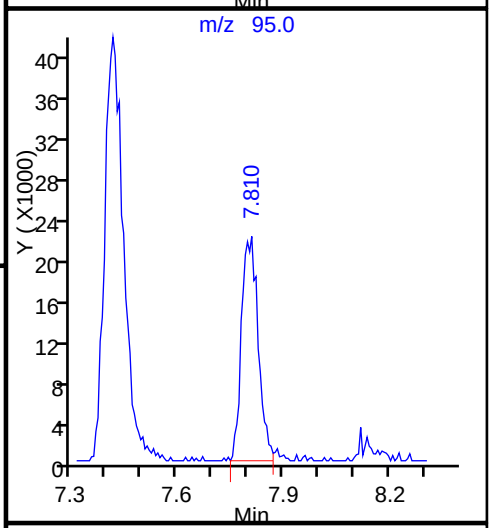
Data File:	\\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052917.D		
Injection Date:	29-May-2015 17:49:30	Instrument ID:	CHHP7
Lims ID:	180-44321-C-9	Lab Sample ID:	180-44321-9
Client ID:	HD-COD-SW-15-0/1-0		
Operator ID:	034635	ALS Bottle#:	15 Worklist Smp#: 18
Purge Vol:	20.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

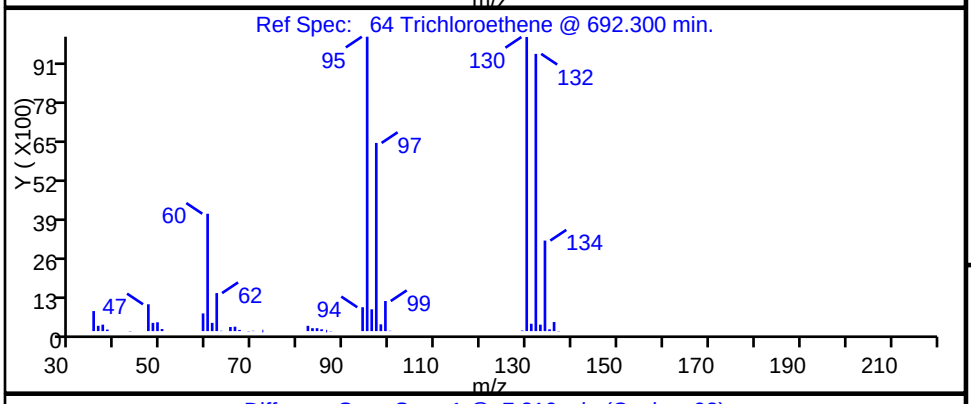
64 Trichloroethene, CAS: 79-01-6

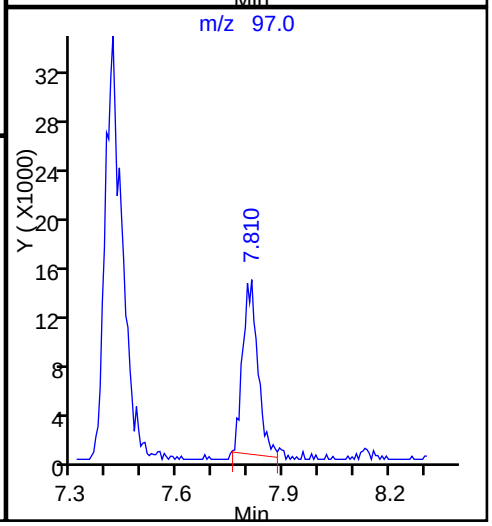


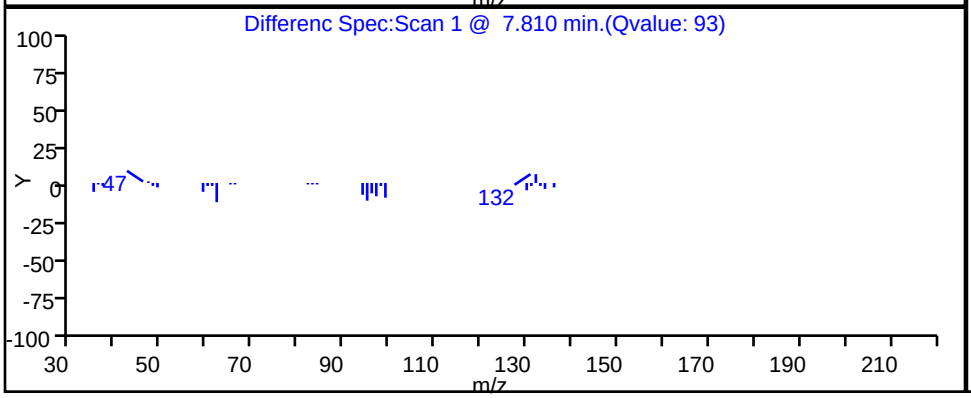












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-16-0/1-0 | Lab Sample ID: 180-44321-10

Matrix: Water | Lab File ID: 7052918.D

Analysis Method: 8260C | Date Collected: 05/20/2015 10:10

Sample wt/vol: 20(mL) | Date Analyzed: 05/29/2015 18:17

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 143153 | 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.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-16-0/1-0 Lab Sample ID: 180-44321-10

Matrix: Water Lab File ID: 7052918.D

Analysis Method: 8260C Date Collected: 05/20/2015 10:10

Sample wt/vol: 20(mL) Date Analyzed: 05/29/2015 18:17

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143153 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		64-135
2037-26-5	Toluene-d8 (Surr)	120	X	71-118
460-00-4	4-Bromofluorobenzene (Surr)	107		70-118
1868-53-7	Dibromofluoromethane (Surr)	114		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052918.D
Lims ID: 180-44321-C-10 Lab Sample ID: 180-44321-10
Client ID: HD-COD-SW-16-0/1-0
Sample Type: Client
Inject. Date: 29-May-2015 18:17:30 ALS Bottle#: 5 Worklist Smp#: 19
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 180-44321-C-10
Misc. Info.: 180-0007169-019
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 31-May-2015 10:15:40 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK011

First Level Reviewer: journetp Date: 31-May-2015 10:10:39

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.567	4.658	-0.091	96	401576	4000.0	
* 2 Fluorobenzene (IS)	96	7.408	7.408	0.000	98	1697743	200.0	
* 3 Chlorobenzene-d5	119	10.468	10.468	0.000	86	434645	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.786	12.785	0.001	96	484214	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.678	6.684	-0.006	92	615422	227.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.043	7.037	0.006	95	546084	211.5	
$ 7 Toluene-d8 (Surr)	98	9.038	9.038	0.000	92	1544659	239.6	
$ 8 4-Bromofluorobenzene (Surr	95	11.630	11.630	0.000	89	616385	214.8	
12 Chloromethane	50		2.048				ND	
13 Vinyl chloride	62		2.212				ND	
15 Bromomethane	94		2.517				ND	
16 Chloroethane	64		2.590				ND	
22 1,1-Dichloroethene	96		3.563				ND	
24 Acetone	43		3.764				ND	
26 Carbon disulfide	76		3.861				ND	
31 Methylene Chloride	84		4.384				ND	
33 Acrylonitrile	53		4.773				ND	
34 trans-1,2-Dichloroethene	96		4.780				ND	
35 Methyl tert-butyl ether	73		4.853				ND	
37 1,1-Dichloroethane	63		5.351				ND	
45 cis-1,2-Dichloroethene	96		6.094				ND	
46 2-Butanone (MEK)	43		6.167				ND	
49 Chlorobromomethane	128		6.386				ND	
52 Chloroform	83		6.495				ND	
53 1,1,1-Trichloroethane	97		6.678				ND	
56 Carbon tetrachloride	117		6.872				ND	
58 Benzene	78		7.097				ND	
59 1,2-Dichloroethane	62		7.128				ND	
64 Trichloroethene	130		7.791				ND	
67 1,2-Dichloropropane	63		8.022				ND	
70 1,4-Dioxane	88		8.180				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.314				ND	
74 cis-1,3-Dichloropropene	75		8.770				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.935				ND	
76 Toluene	91		9.105				ND	
77 trans-1,3-Dichloropropene	75		9.324				ND	
79 1,1,2-Trichloroethane	97		9.506				ND	
80 Tetrachloroethene	164		9.646				ND	
82 2-Hexanone	43		9.762				ND	
84 Chlorodibromomethane	129		9.896				ND	
85 Ethylene Dibromide	107		10.011				ND	
87 Chlorobenzene	112		10.498				ND	
89 1,1,1,2-Tetrachloroethane	131		10.577				ND	
90 Ethylbenzene	106		10.601				ND	
91 m-Xylene & p-Xylene	106		10.717				ND	
92 o-Xylene	106		11.112				ND	
93 Styrene	104		11.125				ND	
94 Bromoform	173		11.313				ND	
99 1,1,2,2-Tetrachloroethane	83		11.769				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

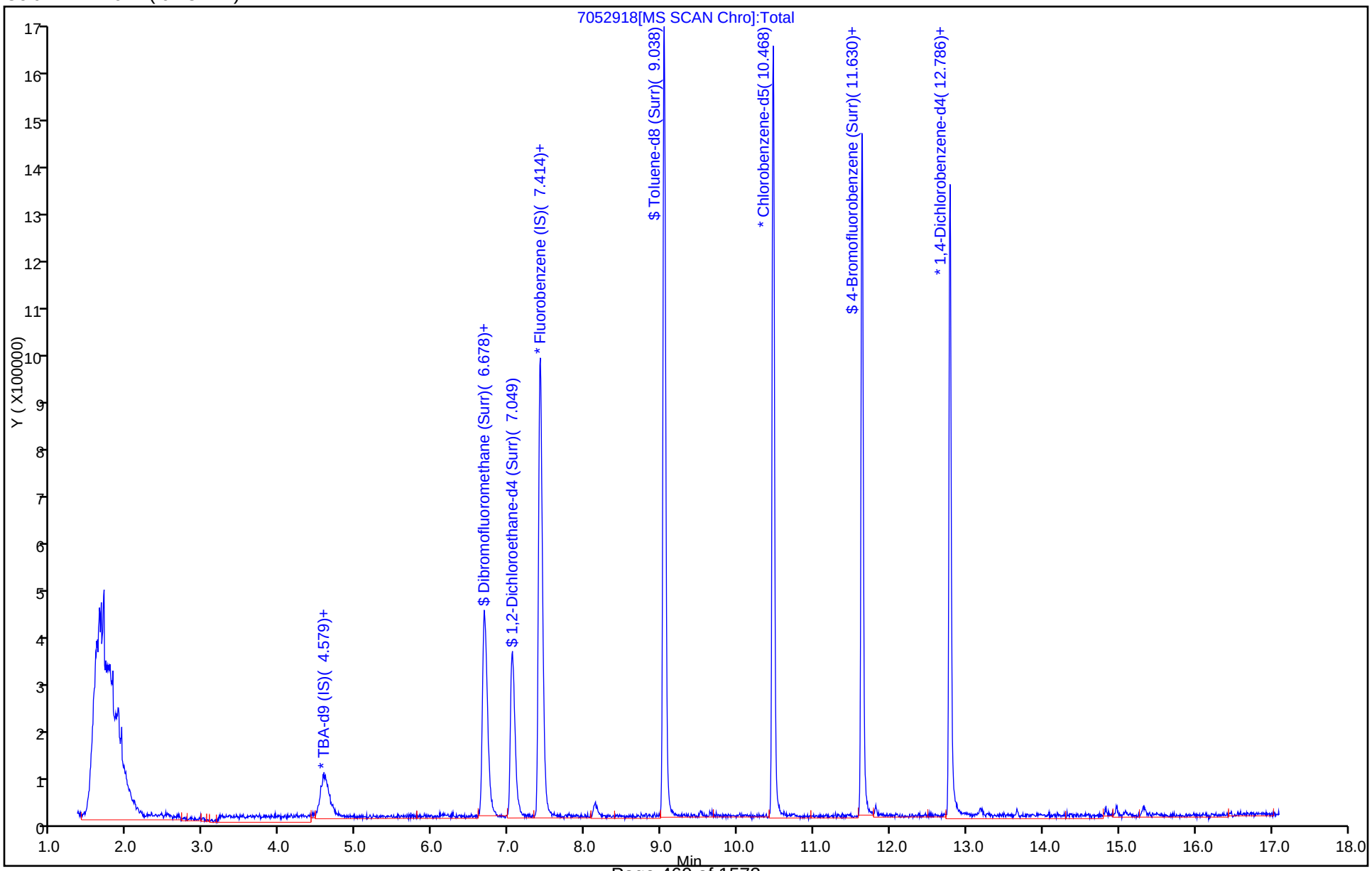
Report Date: 31-May-2015 11:22:27 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052918.D

Injection Date:	29-May-2015 18:17:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-44321-C-10	Lab Sample ID:	180-44321-10	Worklist Smp#:	19
Client ID:	HD-COD-SW-16-0/1-0				
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File:	\\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052918.D				
Lims ID:	180-44321-C-10	Lab Sample ID:	180-44321-10		
Client ID:	HD-COD-SW-16-0/1-0				
Sample Type:	Client				
Inject. Date:	29-May-2015 18:17:30	ALS Bottle#:	5	Worklist Smp#:	19
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Sample Info:	180-44321-C-10				
Misc. Info.:	180-0007169-019				
Operator ID:	034635	Instrument ID:	CHHP7		
Method:	\\PITCHROM\ChromData\CHHP7\20150529-7169.b\MSVOA_LL_CHHP7.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	31-May-2015 10:15:40	Calib Date:	30-Mar-2015 14:36:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK011				
First Level Reviewer: journetp		Date:	31-May-2015 10:10:39		

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	200.0	227.2	113.62
$ 6 1,2-Dichloroethane-d4 (Surr)	200.0	211.5	105.75
$ 7 Toluene-d8 (Surr)	200.0	239.6	119.80
$ 8 4-Bromofluorobenzene (Surr)	200.0	214.8	107.39

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-17-0/1-0 | Lab Sample ID: 180-44321-11

Matrix: Water | Lab File ID: 7052919.D

Analysis Method: 8260C | Date Collected: 05/20/2015 10:25

Sample wt/vol: 20(mL) | Date Analyzed: 05/29/2015 18:44

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 143153 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.28
75-01-4	Vinyl chloride	1.0	U	1.0	0.23
74-83-9	Bromomethane	1.0	U	1.0	0.31
75-00-3	Chloroethane	1.0	U	1.0	0.21
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.30
67-64-1	Acetone	5.0	U	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.21
75-09-2	Methylene Chloride	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U *	1.0	0.18
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	0.98	J	1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	1.0	U	1.0	0.17
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	0.94	J	1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	1.4		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.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-17-0/1-0 Lab Sample ID: 180-44321-11

Matrix: Water Lab File ID: 7052919.D

Analysis Method: 8260C Date Collected: 05/20/2015 10:25

Sample wt/vol: 20(mL) Date Analyzed: 05/29/2015 18:44

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143153 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		64-135
2037-26-5	Toluene-d8 (Surr)	117		71-118
460-00-4	4-Bromofluorobenzene (Surr)	106		70-118
1868-53-7	Dibromofluoromethane (Surr)	108		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052919.D
Lims ID: 180-44321-C-11 Lab Sample ID: 180-44321-11
Client ID: HD-COD-SW-17-0/1-0
Sample Type: Client
Inject. Date: 29-May-2015 18:44:30 ALS Bottle#: 6 Worklist Smp#: 20
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 180-44321-C-11
Misc. Info.: 180-0007169-020
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 31-May-2015 10:15:40 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK011

First Level Reviewer: journetp Date: 31-May-2015 10:12:01

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.593	4.658	-0.065	97	487316	4000.0	
* 2 Fluorobenzene (IS)	96	7.416	7.408	0.008	99	1802079	200.0	
* 3 Chlorobenzene-d5	119	10.469	10.468	0.001	85	456605	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.787	12.785	0.002	95	532482	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.686	6.684	0.002	92	619090	215.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.044	7.037	0.007	93	565823	206.5	
$ 7 Toluene-d8 (Surr)	98	9.040	9.038	0.002	92	1590478	234.8	
$ 8 4-Bromofluorobenzene (Surr	95	11.631	11.630	0.001	89	638803	211.7	
12 Chloromethane	50		2.048				ND	
13 Vinyl chloride	62		2.212				ND	
15 Bromomethane	94		2.517				ND	
16 Chloroethane	64		2.590				ND	
22 1,1-Dichloroethene	96		3.563				ND	
24 Acetone	43		3.764				ND	
26 Carbon disulfide	76		3.861				ND	
31 Methylene Chloride	84		4.384				ND	
33 Acrylonitrile	53		4.773				ND	
34 trans-1,2-Dichloroethene	96		4.780				ND	
35 Methyl tert-butyl ether	73		4.853				ND	
37 1,1-Dichloroethane	63		5.351				ND	
45 cis-1,2-Dichloroethene	96	6.144	6.094	0.050	1	58619	19.7	M
46 2-Butanone (MEK)	43		6.167				ND	
49 Chlorobromomethane	128		6.386				ND	
52 Chloroform	83		6.495				ND	M
53 1,1,1-Trichloroethane	97	6.698	6.678	0.020	36	15068	3.35	M
56 Carbon tetrachloride	117		6.872				ND	
58 Benzene	78		7.097				ND	
59 1,2-Dichloroethane	62		7.128				ND	
64 Trichloroethene	130	7.805	7.791	0.014	94	66822	18.8	
67 1,2-Dichloropropane	63		8.022				ND	
70 1,4-Dioxane	88		8.180				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.314				ND	
74 cis-1,3-Dichloropropene	75		8.770				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.935				ND	
76 Toluene	91		9.105				ND	
77 trans-1,3-Dichloropropene	75		9.324				ND	
79 1,1,2-Trichloroethane	97		9.506				ND	
80 Tetrachloroethene	164	9.654	9.646	0.008	97	98930	27.5	
82 2-Hexanone	43		9.762				ND	
84 Chlorodibromomethane	129		9.896				ND	
85 Ethylene Dibromide	107		10.011				ND	
87 Chlorobenzene	112		10.498				ND	
89 1,1,1,2-Tetrachloroethane	131		10.577				ND	
90 Ethylbenzene	106		10.601				ND	
91 m-Xylene & p-Xylene	106		10.717				ND	
92 o-Xylene	106		11.112				ND	
93 Styrene	104		11.125				ND	
94 Bromoform	173		11.313				ND	
99 1,1,2,2-Tetrachloroethane	83		11.769				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

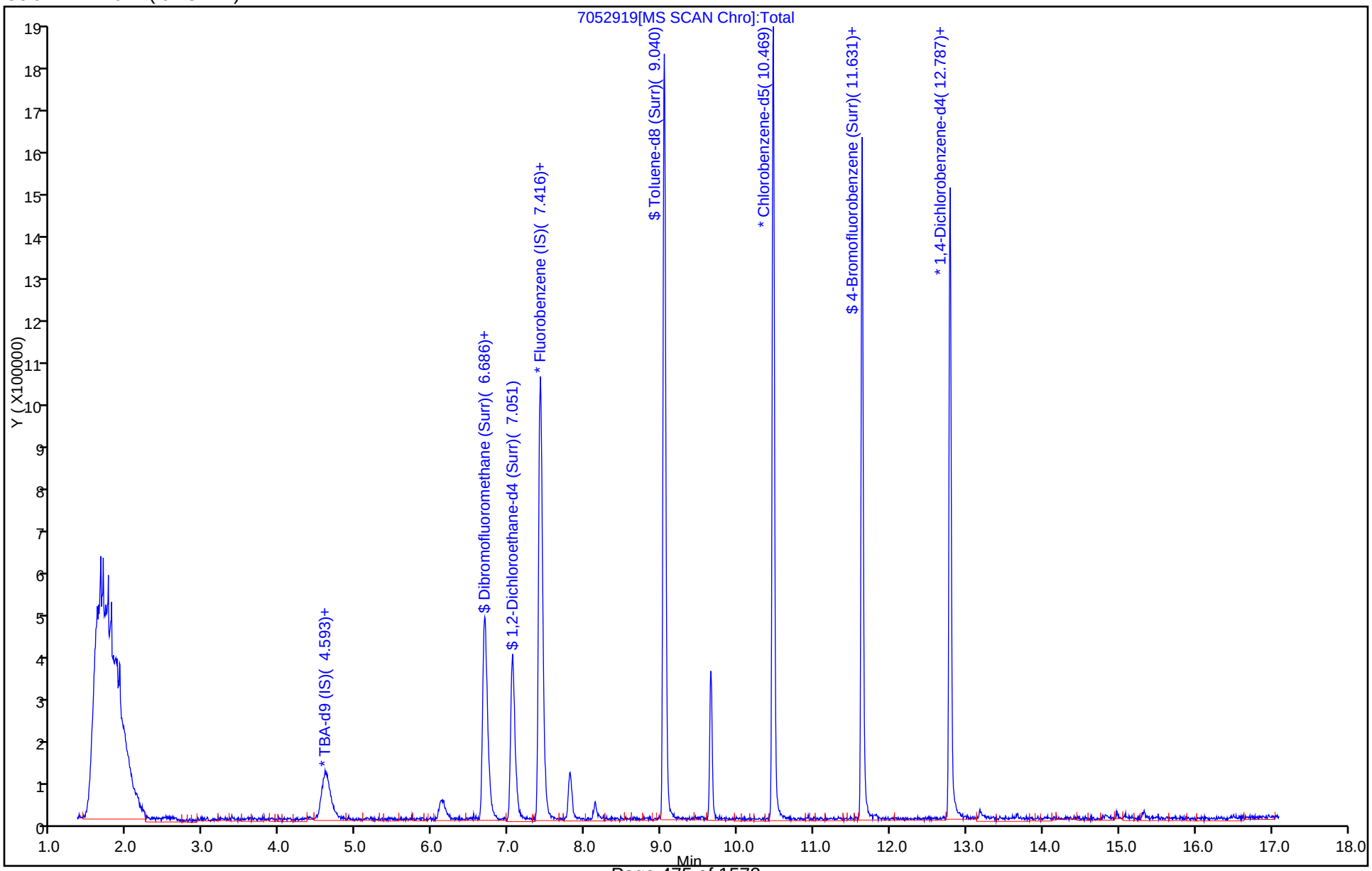
Report Date: 31-May-2015 11:22:28 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052919.D

Injection Date:	29-May-2015 18:44:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-44321-C-11	Lab Sample ID:	180-44321-11	Worklist Smp#:	20
Client ID:	HD-COD-SW-17-0/1-0				
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File:	\\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052919.D				
Lims ID:	180-44321-C-11	Lab Sample ID:	180-44321-11		
Client ID:	HD-COD-SW-17-0/1-0				
Sample Type:	Client				
Inject. Date:	29-May-2015 18:44:30	ALS Bottle#:	6	Worklist Smp#:	20
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Sample Info:	180-44321-C-11				
Misc. Info.:	180-0007169-020				
Operator ID:	034635	Instrument ID:	CHHP7		
Method:	\\PITCHROM\ChromData\CHHP7\20150529-7169.b\MSVOA_LL_CHHP7.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	31-May-2015 10:15:40	Calib Date:	30-Mar-2015 14:36:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK011				

First Level Reviewer: journetp Date: 31-May-2015 10:12:01

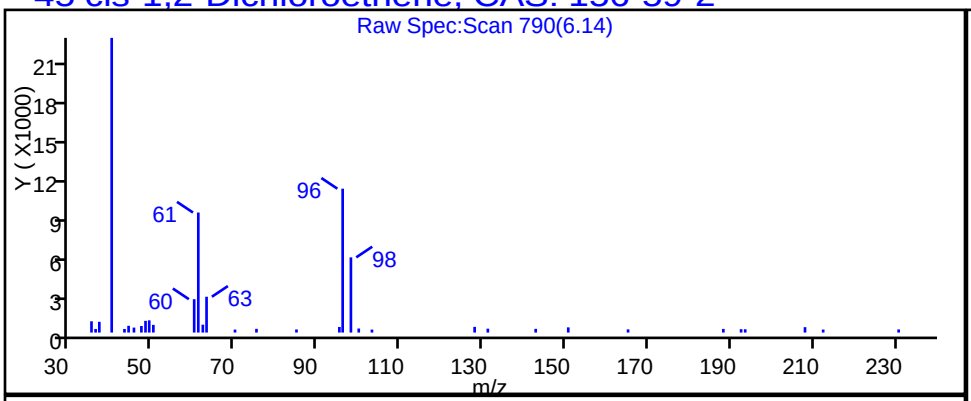
Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	200.0	215.4	107.68
$ 6 1,2-Dichloroethane-d4 (Surr)	200.0	206.5	103.23
$ 7 Toluene-d8 (Surr)	200.0	234.8	117.42
$ 8 4-Bromofluorobenzene (Surr)	200.0	211.7	105.84

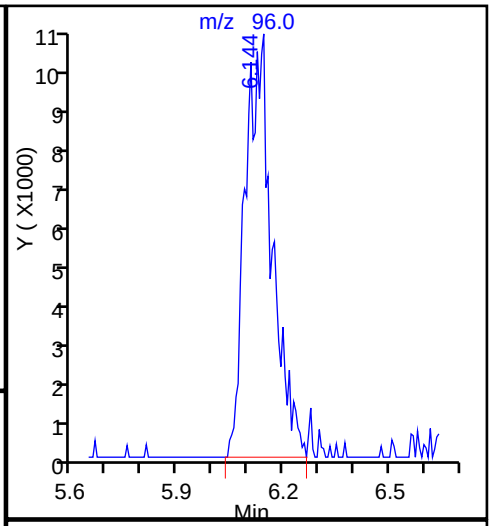
Report Date: 31-May-2015 11:22:28 Chrom Revision: 2.2 05-May-2015 11:39:10

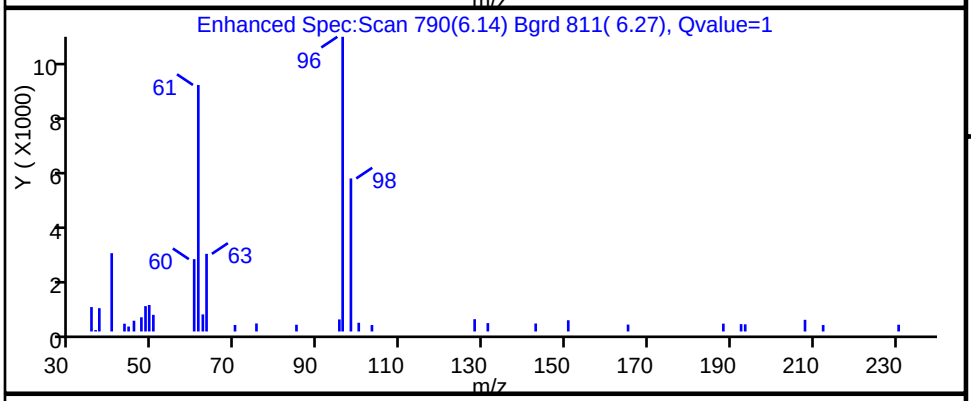
TestAmerica Pittsburgh

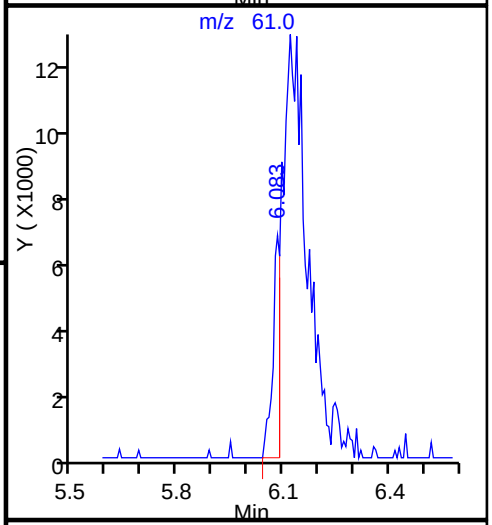
Data File:	\\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052919.D				
Injection Date:	29-May-2015 18:44:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-C-11	Lab Sample ID:	180-44321-11		
Client ID:	HD-COD-SW-17-0/1-0				
Operator ID:	034635	ALS Bottle#:	6	Worklist Smp#:	20
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

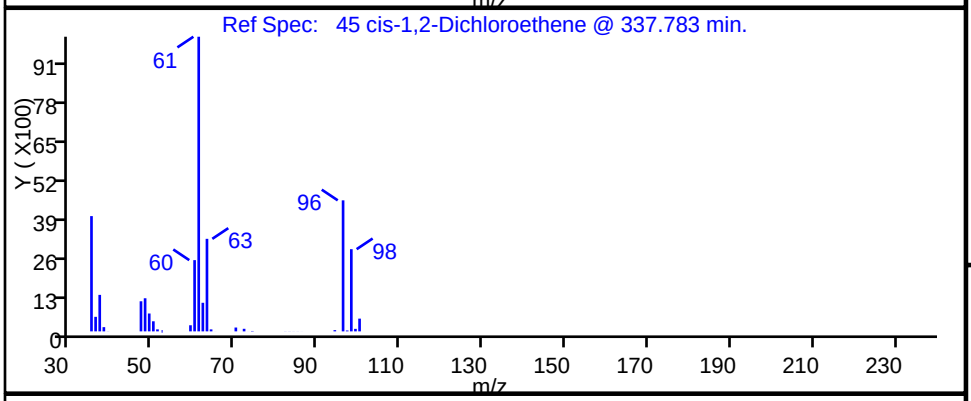
45 cis-1,2-Dichloroethene, CAS: 156-59-2

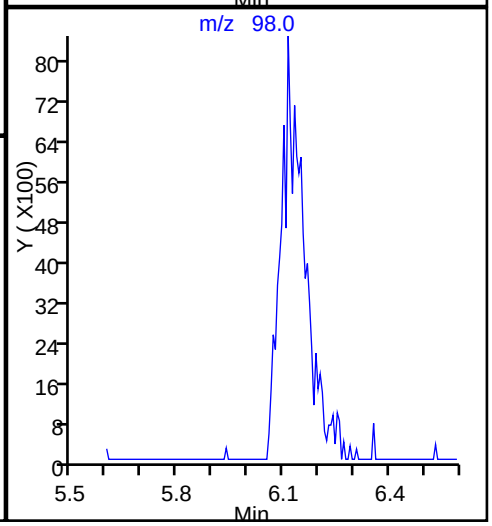


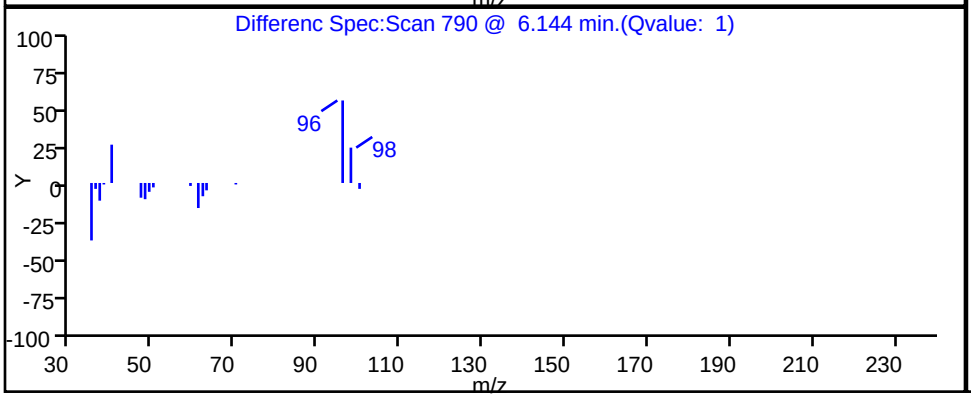










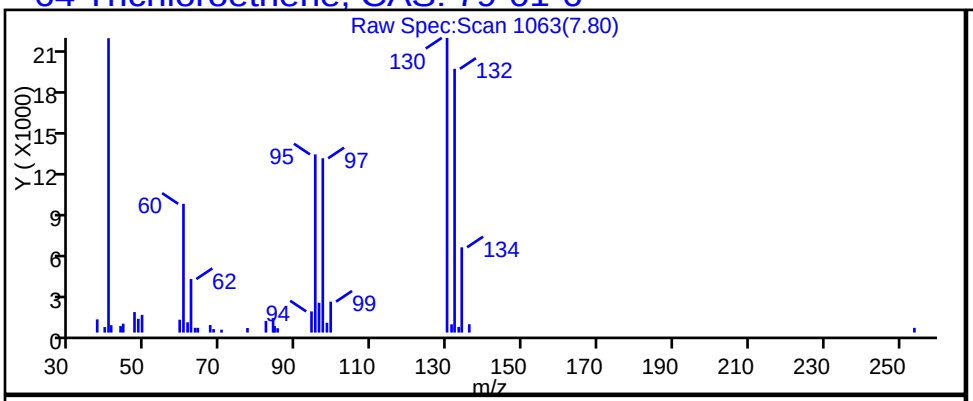


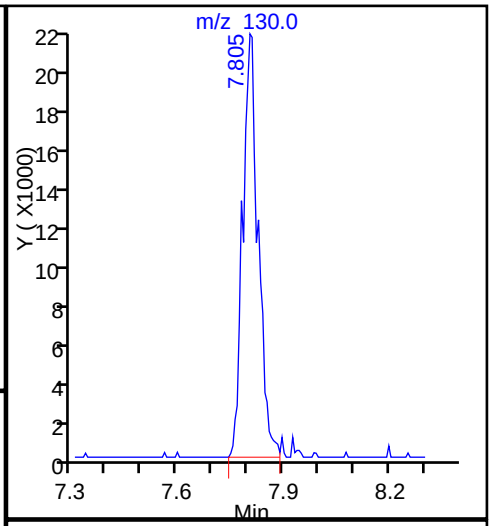
Report Date: 31-May-2015 11:22:28 Chrom Revision: 2.2 05-May-2015 11:39:10

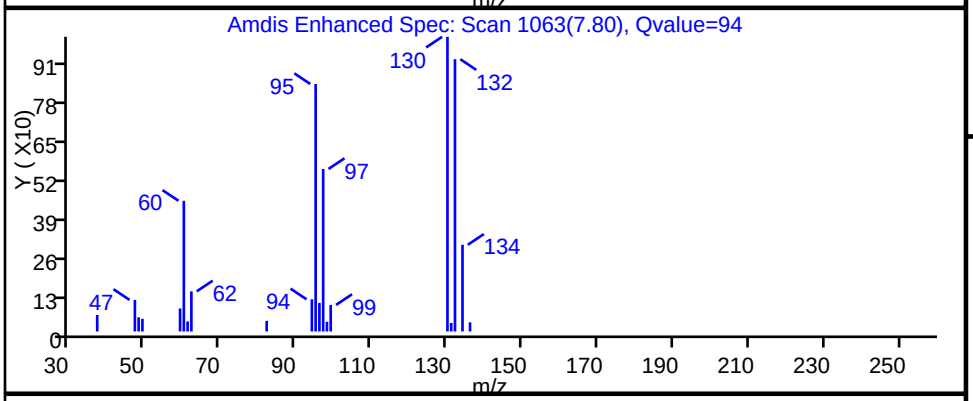
TestAmerica Pittsburgh

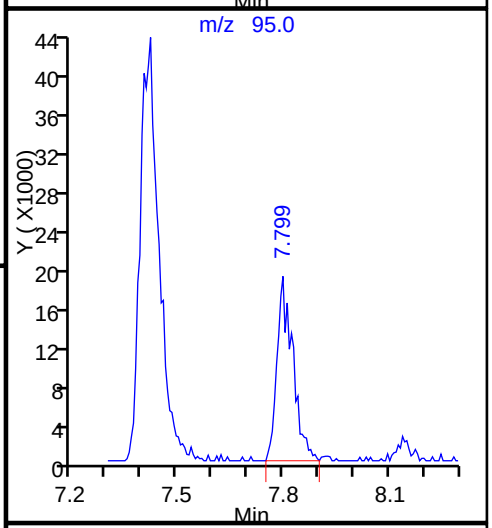
Data File:	\\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052919.D		
Injection Date:	29-May-2015 18:44:30	Instrument ID:	CHHP7
Lims ID:	180-44321-C-11	Lab Sample ID:	180-44321-11
Client ID:	HD-COD-SW-17-0/1-0		
Operator ID:	034635	ALS Bottle#:	6 Worklist Smp#: 20
Purge Vol:	20.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

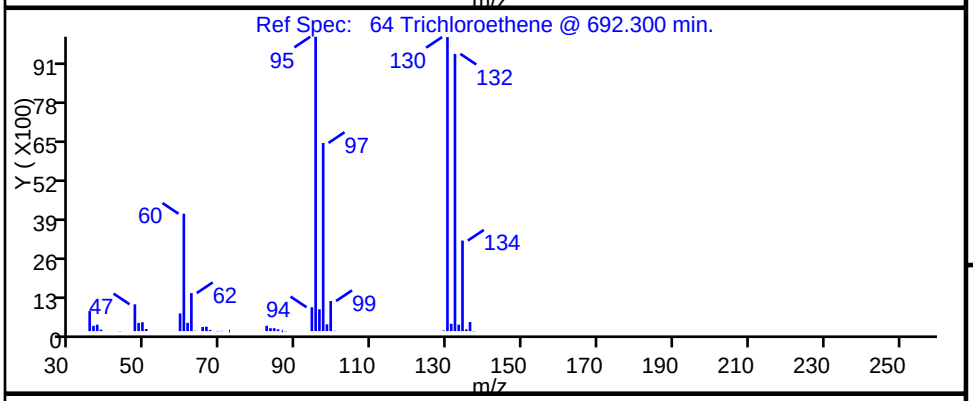
64 Trichloroethene, CAS: 79-01-6

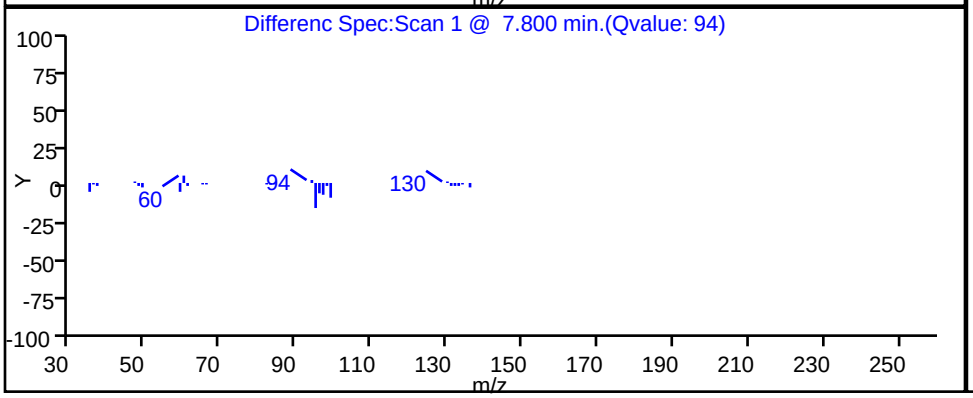


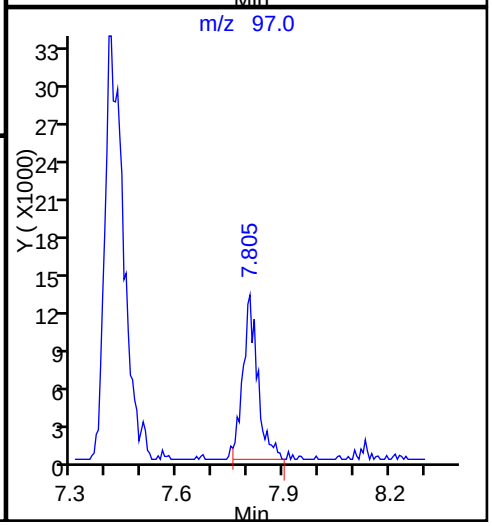










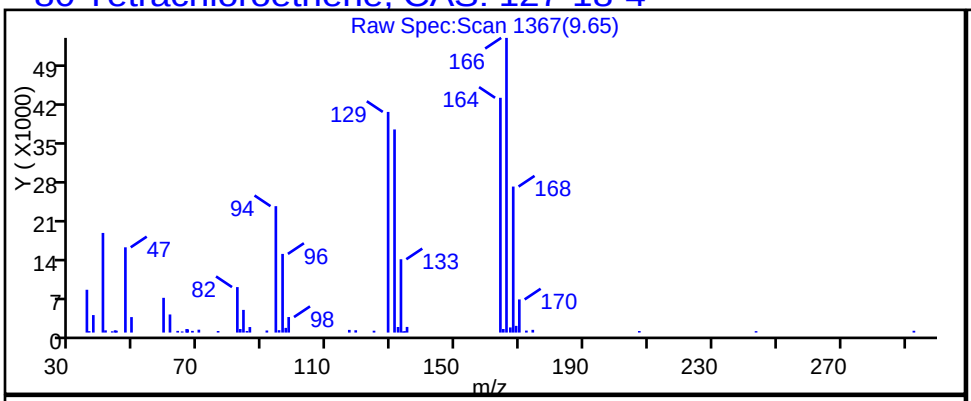


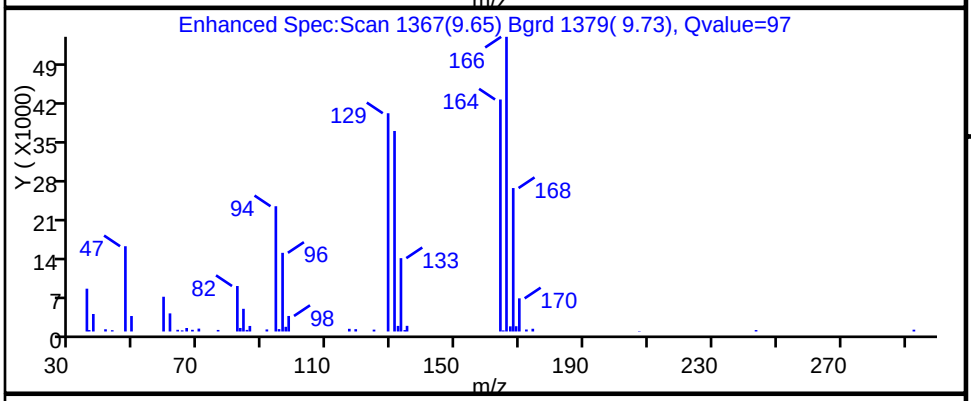
Report Date: 31-May-2015 11:22:28 Chrom Revision: 2.2 05-May-2015 11:39:10

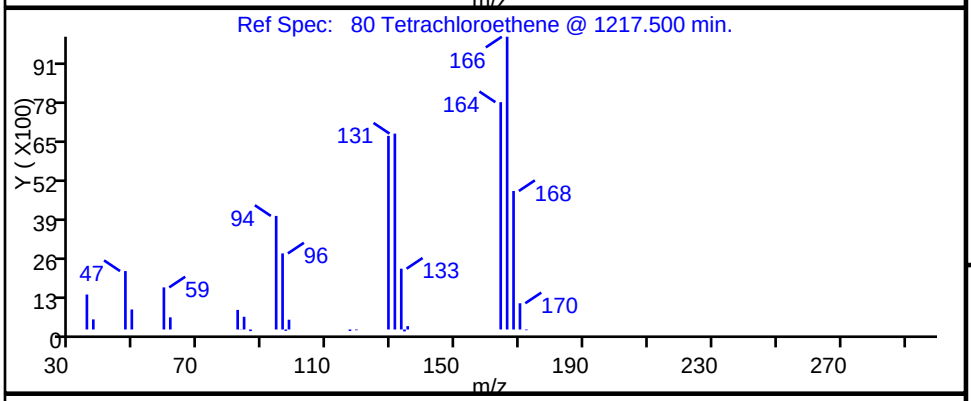
TestAmerica Pittsburgh

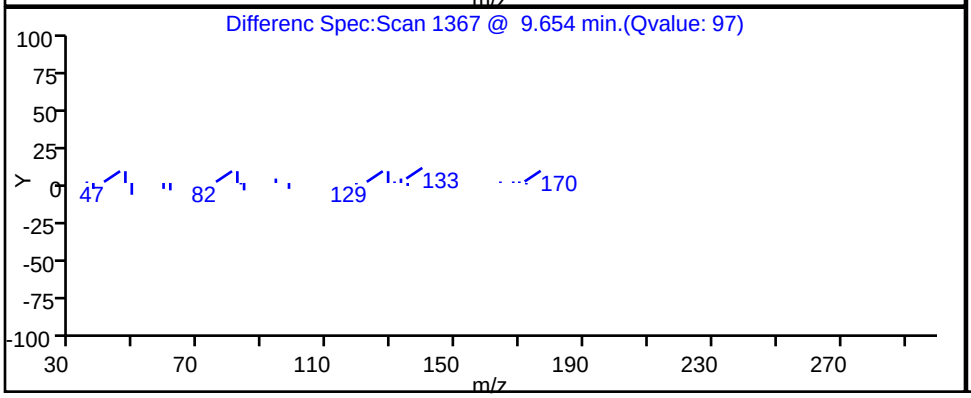
Data File:	\\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052919.D		
Injection Date:	29-May-2015 18:44:30	Instrument ID:	CHHP7
Lims ID:	180-44321-C-11	Lab Sample ID:	180-44321-11
Client ID:	HD-COD-SW-17-0/1-0		
Operator ID:	034635	ALS Bottle#:	6 Worklist Smp#: 20
Purge Vol:	20.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

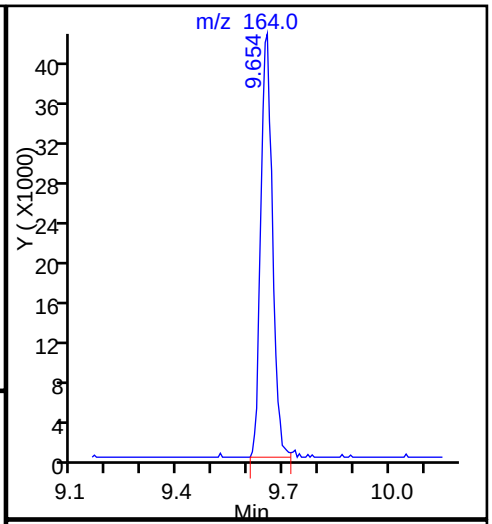
80 Tetrachloroethene, CAS: 127-18-4

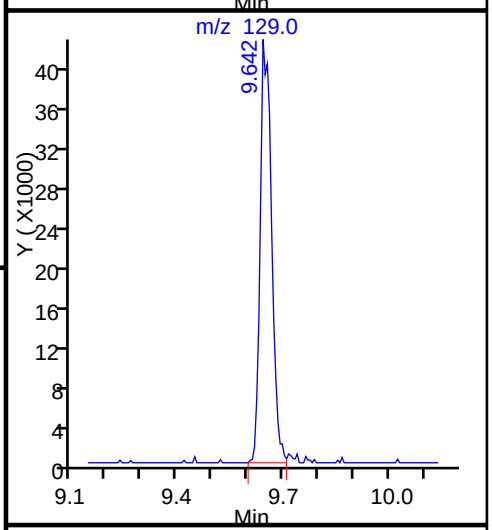


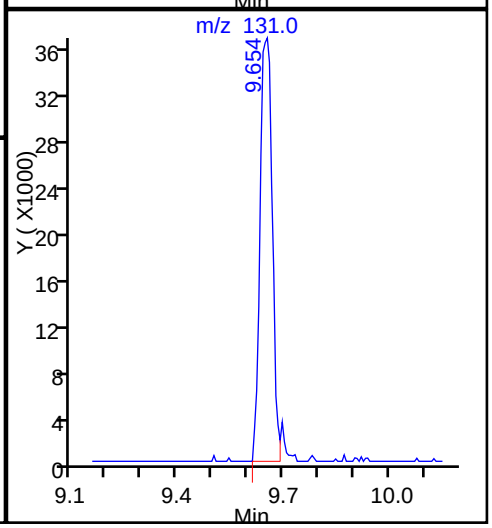












Manual Integration/User Assign Peak Report

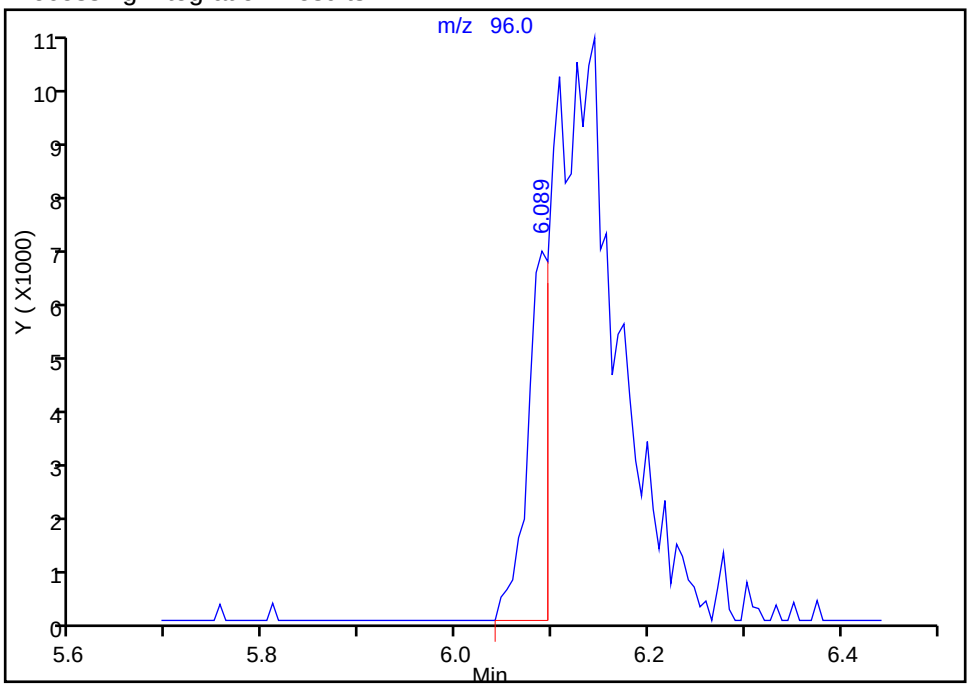
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052919.D				
Injection Date:	29-May-2015 18:44:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-C-11	Lab Sample ID:	180-44321-11		
Client ID:	HD-COD-SW-17-0/1-0				
Operator ID:	034635	ALS Bottle#:	6	Worklist Smp#:	20
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

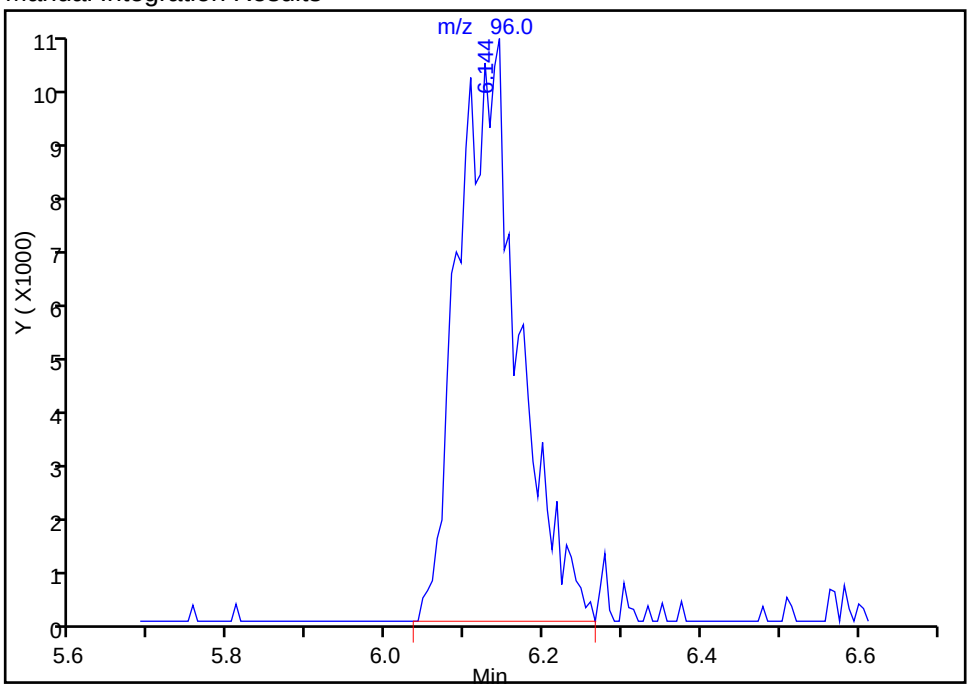
Processing Integration Results

RT: 6.09
Area: 10908
Amount: 3.661422
Amount Units: ng



Manual Integration Results

RT: 6.14
Area: 58619
Amount: 19.676282
Amount Units: ng



Reviewer: journetp, 31-May-2015 10:12:01
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

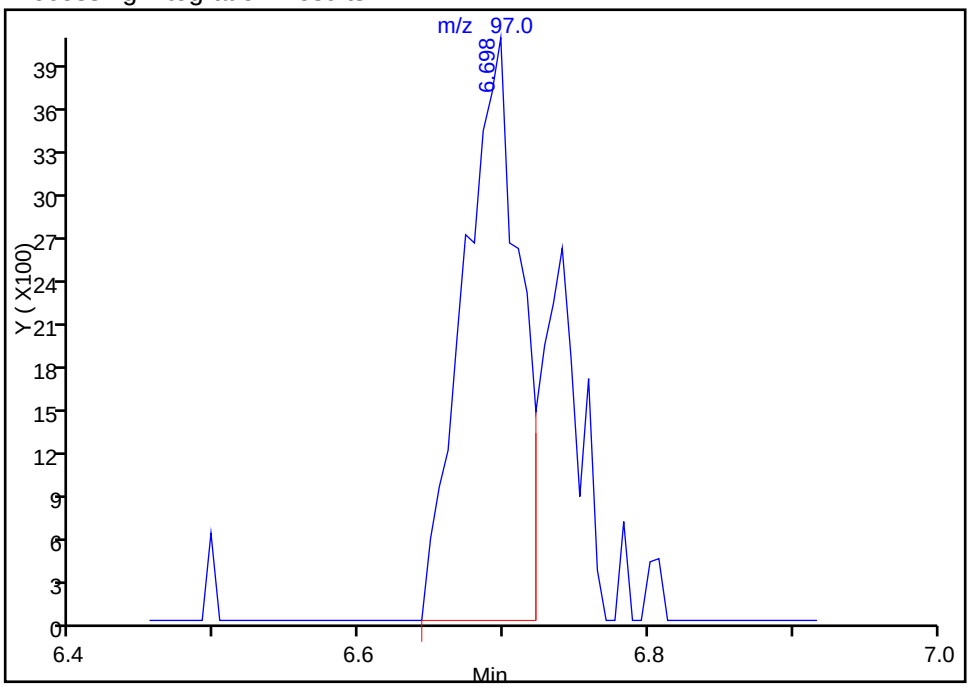
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052919.D				
Injection Date:	29-May-2015 18:44:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-C-11	Lab Sample ID:	180-44321-11		
Client ID:	HD-COD-SW-17-0/1-0				
Operator ID:	034635	ALS Bottle#:	6	Worklist Smp#:	20
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

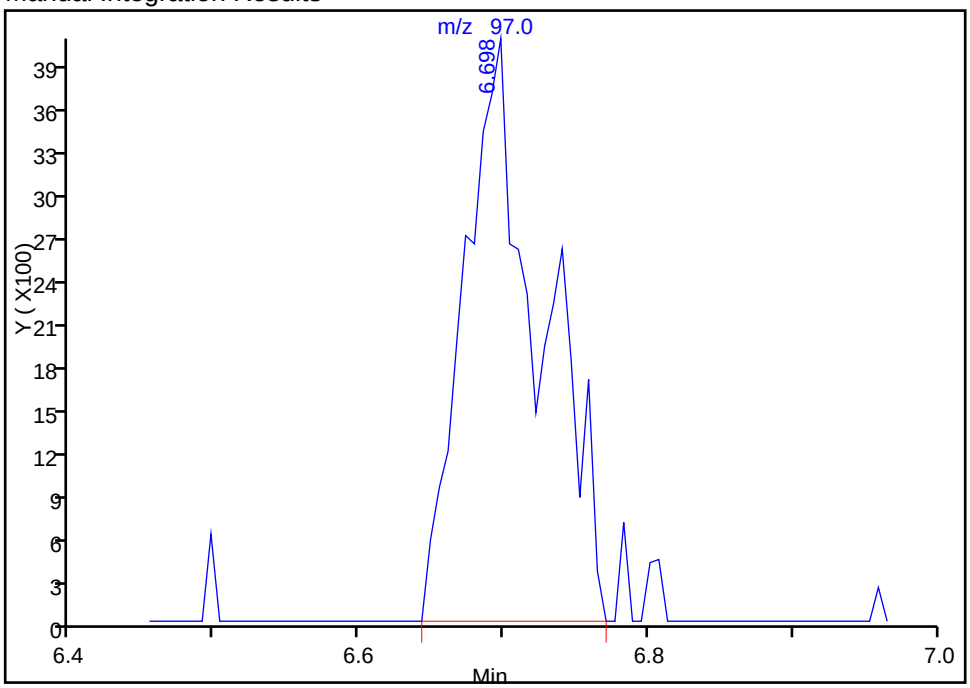
Processing Integration Results

RT: 6.70
Area: 10911
Amount: 2.424982
Amount Units: ng



Manual Integration Results

RT: 6.70
Area: 15068
Amount: 3.348881
Amount Units: ng



Reviewer: journetp, 31-May-2015 10:12:01
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-20-0/1-0 Lab Sample ID: 180-44321-12

Matrix: Water Lab File ID: 7052920.D

Analysis Method: 8260C Date Collected: 05/20/2015 10:50

Sample wt/vol: 20(mL) Date Analyzed: 05/29/2015 19:12

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143153 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.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-20-0/1-0 Lab Sample ID: 180-44321-12

Matrix: Water Lab File ID: 7052920.D

Analysis Method: 8260C Date Collected: 05/20/2015 10:50

Sample wt/vol: 20(mL) Date Analyzed: 05/29/2015 19:12

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143153 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		64-135
2037-26-5	Toluene-d8 (Surr)	115		71-118
460-00-4	4-Bromofluorobenzene (Surr)	106		70-118
1868-53-7	Dibromofluoromethane (Surr)	110		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052920.D
Lims ID: 180-44321-C-12 Lab Sample ID: 180-44321-12
Client ID: HD-COD-SW-20-0/1-0
Sample Type: Client
Inject. Date: 29-May-2015 19:12:30 ALS Bottle#: 7 Worklist Smp#: 21
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 180-44321-C-12
Misc. Info.: 180-0007169-021
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 31-May-2015 10:15:40 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK011

First Level Reviewer: journetp Date: 31-May-2015 10:12:37

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.591	4.658	-0.067	96	439632	4000.0	
* 2 Fluorobenzene (IS)	96	7.414	7.408	0.006	99	1711993	200.0	
* 3 Chlorobenzene-d5	119	10.468	10.468	0.000	85	468256	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.785	12.785	0.000	95	505875	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.690	6.684	0.006	92	602115	220.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.049	7.037	0.012	93	542114	208.2	
$ 7 Toluene-d8 (Surr)	98	9.038	9.038	0.000	93	1602808	230.8	
$ 8 4-Bromofluorobenzene (Surr	95	11.630	11.630	0.000	88	657120	212.4	
12 Chloromethane	50		2.048				ND	
13 Vinyl chloride	62		2.212				ND	
15 Bromomethane	94		2.517				ND	
16 Chloroethane	64		2.590				ND	
22 1,1-Dichloroethene	96		3.563				ND	
24 Acetone	43		3.764				ND	
26 Carbon disulfide	76		3.861				ND	
31 Methylene Chloride	84		4.384				ND	
33 Acrylonitrile	53		4.773				ND	
34 trans-1,2-Dichloroethene	96		4.780				ND	
35 Methyl tert-butyl ether	73		4.853				ND	
37 1,1-Dichloroethane	63		5.351				ND	
45 cis-1,2-Dichloroethene	96		6.094				ND	
46 2-Butanone (MEK)	43		6.167				ND	
49 Chlorobromomethane	128		6.386				ND	
52 Chloroform	83		6.495				ND	
53 1,1,1-Trichloroethane	97		6.678				ND	
56 Carbon tetrachloride	117		6.872				ND	
58 Benzene	78		7.097				ND	
59 1,2-Dichloroethane	62		7.128				ND	
64 Trichloroethene	130		7.791				ND	
67 1,2-Dichloropropane	63		8.022				ND	
70 1,4-Dioxane	88		8.180				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.314				ND	
74 cis-1,3-Dichloropropene	75		8.770				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.935				ND	
76 Toluene	91		9.105				ND	
77 trans-1,3-Dichloropropene	75		9.324				ND	
79 1,1,2-Trichloroethane	97		9.506				ND	
80 Tetrachloroethene	164		9.646				ND	
82 2-Hexanone	43		9.762				ND	
84 Chlorodibromomethane	129		9.896				ND	
85 Ethylene Dibromide	107		10.011				ND	
87 Chlorobenzene	112		10.498				ND	
89 1,1,1,2-Tetrachloroethane	131		10.577				ND	
90 Ethylbenzene	106		10.601				ND	
91 m-Xylene & p-Xylene	106		10.717				ND	
92 o-Xylene	106		11.112				ND	
93 Styrene	104		11.125				ND	
94 Bromoform	173		11.313				ND	
99 1,1,2,2-Tetrachloroethane	83		11.769				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

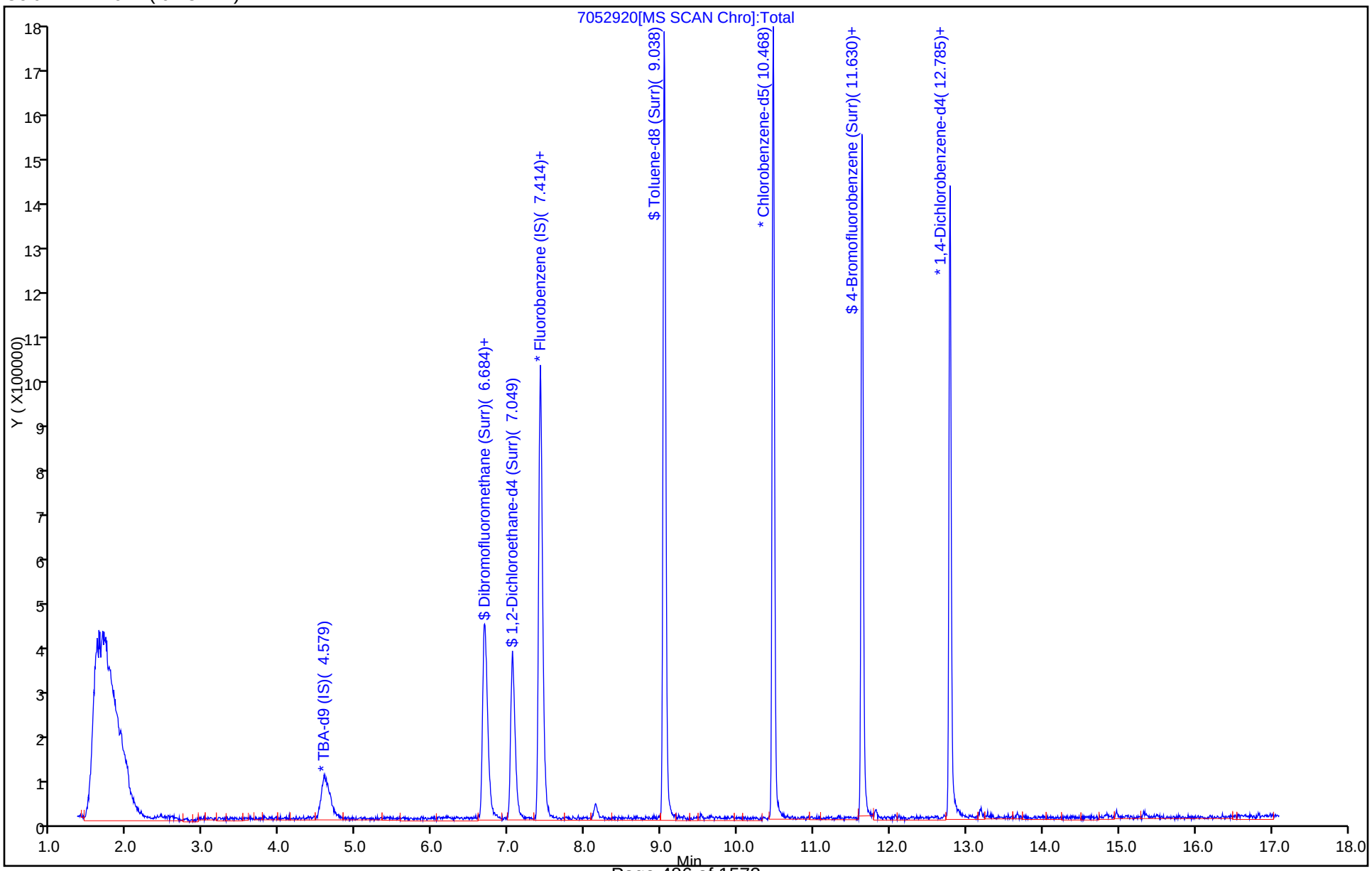
VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

Report Date: 31-May-2015 11:22:29 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052920.D				
Injection Date:	29-May-2015 19:12:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-44321-C-12	Lab Sample ID:	180-44321-12	Worklist Smp#:	21
Client ID:	HD-COD-SW-20-0/1-0				
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052920.D
Lims ID: 180-44321-C-12 Lab Sample ID: 180-44321-12
Client ID: HD-COD-SW-20-0/1-0
Sample Type: Client
Inject. Date: 29-May-2015 19:12:30 ALS Bottle#: 7 Worklist Smp#: 21
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 180-44321-C-12
Misc. Info.: 180-0007169-021
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 31-May-2015 10:15:40 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK011

First Level Reviewer: journetp Date: 31-May-2015 10:12:37

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	200.0	220.5	110.24
$ 6 1,2-Dichloroethane-d4 (Surr)	200.0	208.2	104.11
$ 7 Toluene-d8 (Surr)	200.0	230.8	115.39
$ 8 4-Bromofluorobenzene (Surr)	200.0	212.4	106.19

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-26-0/1-0 | Lab Sample ID: 180-44321-13

Matrix: Water | Lab File ID: 7053119.D

Analysis Method: 8260C | Date Collected: 05/20/2015 13:15

Sample wt/vol: 20(mL) | Date Analyzed: 05/31/2015 19:44

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 143339 | 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.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-26-0/1-0 Lab Sample ID: 180-44321-13

Matrix: Water Lab File ID: 7053119.D

Analysis Method: 8260C Date Collected: 05/20/2015 13:15

Sample wt/vol: 20(mL) Date Analyzed: 05/31/2015 19:44

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143339 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		64-135
2037-26-5	Toluene-d8 (Surr)	118		71-118
460-00-4	4-Bromofluorobenzene (Surr)	107		70-118
1868-53-7	Dibromofluoromethane (Surr)	107		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150531-7191.b\7053119.D
Lims ID: 180-44321-D-13 Lab Sample ID: 180-44321-13
Client ID: HD-COD-SW-26-0/1-0
Sample Type: Client
Inject. Date: 31-May-2015 19:44:30 ALS Bottle#: 19 Worklist Smp#: 19
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 180-44321-d-13
Misc. Info.: 180-0007169-019
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150531-7191.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 09:54:12 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

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

First Level Reviewer: journetp Date: 01-Jun-2015 09:12:04

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.604	4.678	-0.074	95	513661	4000.0	
* 2 Fluorobenzene (IS)	96	7.409	7.404	0.005	98	1749903	200.0	
* 3 Chlorobenzene-d5	119	10.469	10.470	-0.001	86	443985	200.0	M
* 4 1,4-Dichlorobenzene-d4	152	12.787	12.787	0.000	96	490395	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.673	6.680	-0.007	90	599343	214.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.044	7.039	0.005	94	539215	202.6	
$ 7 Toluene-d8 (Surr)	98	9.039	9.034	0.005	93	1552853	235.8	
$ 8 4-Bromofluorobenzene (Surr	95	11.631	11.632	-0.001	89	625615	213.3	
12 Chloromethane	50		2.038				ND	
13 Vinyl chloride	62		2.214				ND	
15 Bromomethane	94		2.500				ND	
16 Chloroethane	64		2.646				ND	
22 1,1-Dichloroethene	96		3.583				ND	
24 Acetone	43		3.753				ND	
26 Carbon disulfide	76		3.863				ND	
31 Methylene Chloride	84		4.362				ND	
33 Acrylonitrile	53		4.769				ND	
34 trans-1,2-Dichloroethene	96		4.775				ND	
35 Methyl tert-butyl ether	73		4.836				ND	
37 1,1-Dichloroethane	63		5.353				ND	
45 cis-1,2-Dichloroethene	96		6.108				ND	
46 2-Butanone (MEK)	43		6.163				ND	
49 Chlorobromomethane	128		6.388				ND	
52 Chloroform	83	6.496	6.497	-0.001	3	10618	2.21	M
53 1,1,1-Trichloroethane	97		6.680				ND	
56 Carbon tetrachloride	117		6.868				ND	
58 Benzene	78		7.093				ND	
59 1,2-Dichloroethane	62		7.130				ND	
64 Trichloroethene	130		7.793				ND	
67 1,2-Dichloropropane	63		8.024				ND	
70 1,4-Dioxane	88		8.182				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.316				ND	
74 cis-1,3-Dichloropropene	75		8.766				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.931				ND	
76 Toluene	91		9.101				ND	
77 trans-1,3-Dichloropropene	75		9.326				ND	
79 1,1,2-Trichloroethane	97		9.502				ND	
80 Tetrachloroethene	164		9.648				ND	
82 2-Hexanone	43		9.758				ND	
84 Chlorodibromomethane	129		9.898				ND	
85 Ethylene Dibromide	107		10.007				ND	
87 Chlorobenzene	112		10.494				ND	
89 1,1,1,2-Tetrachloroethane	131		10.573				ND	
90 Ethylbenzene	106		10.603				ND	
91 m-Xylene & p-Xylene	106		10.719				ND	
92 o-Xylene	106		11.108				ND	
93 Styrene	104		11.127				ND	
94 Bromoform	173		11.315				ND	
99 1,1,2,2-Tetrachloroethane	83		11.765				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

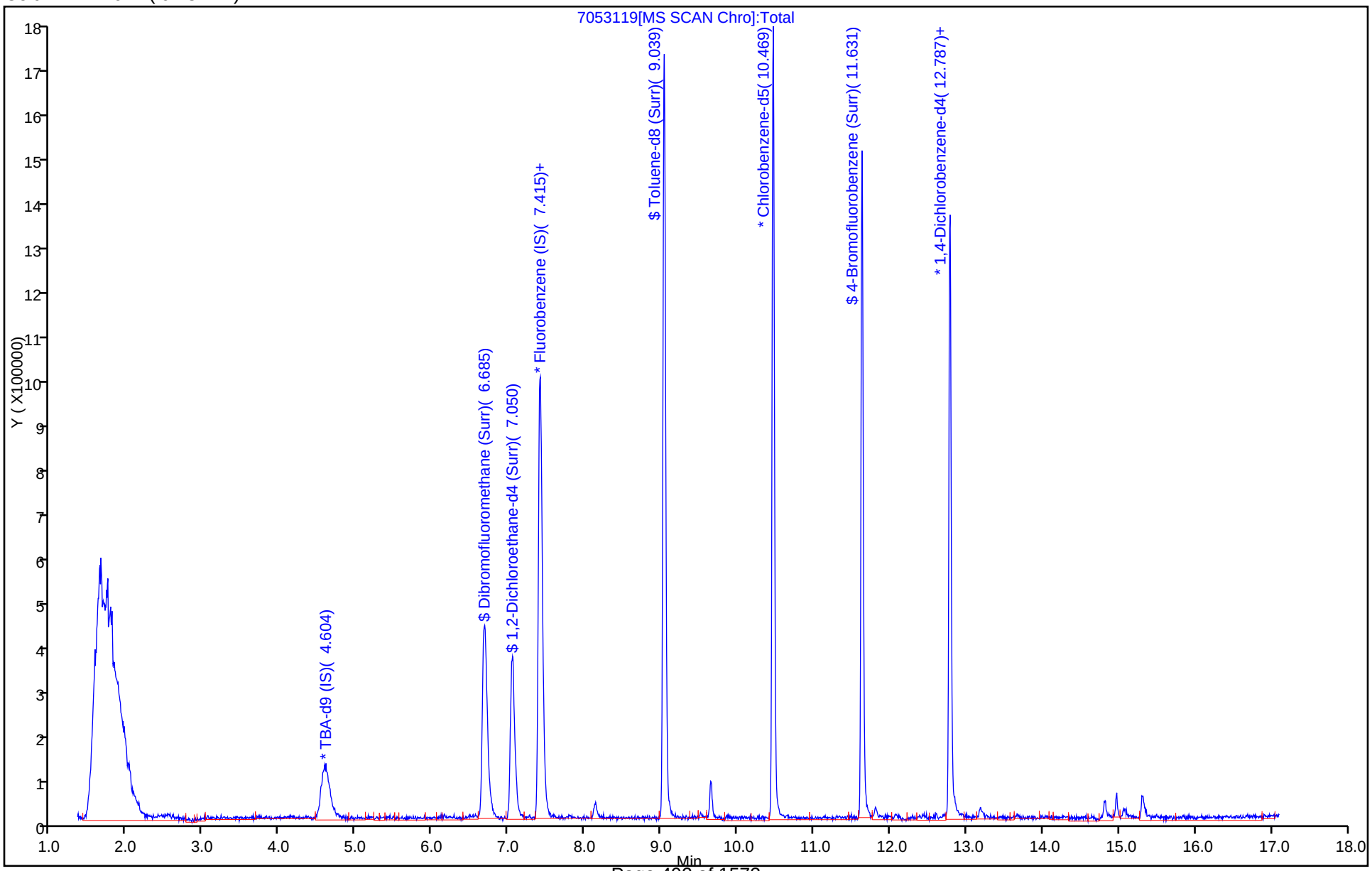
VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

Report Date: 01-Jun-2015 09:54:30 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150531-7191.b\7053119.D				
Injection Date:	31-May-2015 19:44:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-44321-D-13	Lab Sample ID:	180-44321-13	Worklist Smp#:	19
Client ID:	HD-COD-SW-26-0/1-0				
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	19
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\PITCHROM\ChromData\CHHP7\20150531-7191.b\7053119.D
Lims ID: 180-44321-D-13 Lab Sample ID: 180-44321-13
Client ID: HD-COD-SW-26-0/1-0
Sample Type: Client
Inject. Date: 31-May-2015 19:44:30 ALS Bottle#: 19 Worklist Smp#: 19
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 180-44321-d-13
Misc. Info.: 180-0007169-019
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150531-7191.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 09:54:12 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

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

First Level Reviewer: journetp Date: 01-Jun-2015 09:12:04

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	200.0	214.7	107.36
$ 6 1,2-Dichloroethane-d4 (Surr)	200.0	202.6	101.31
$ 7 Toluene-d8 (Surr)	200.0	235.8	117.90
$ 8 4-Bromofluorobenzene (Surr)	200.0	213.3	106.66

Manual Integration/User Assign Peak Report

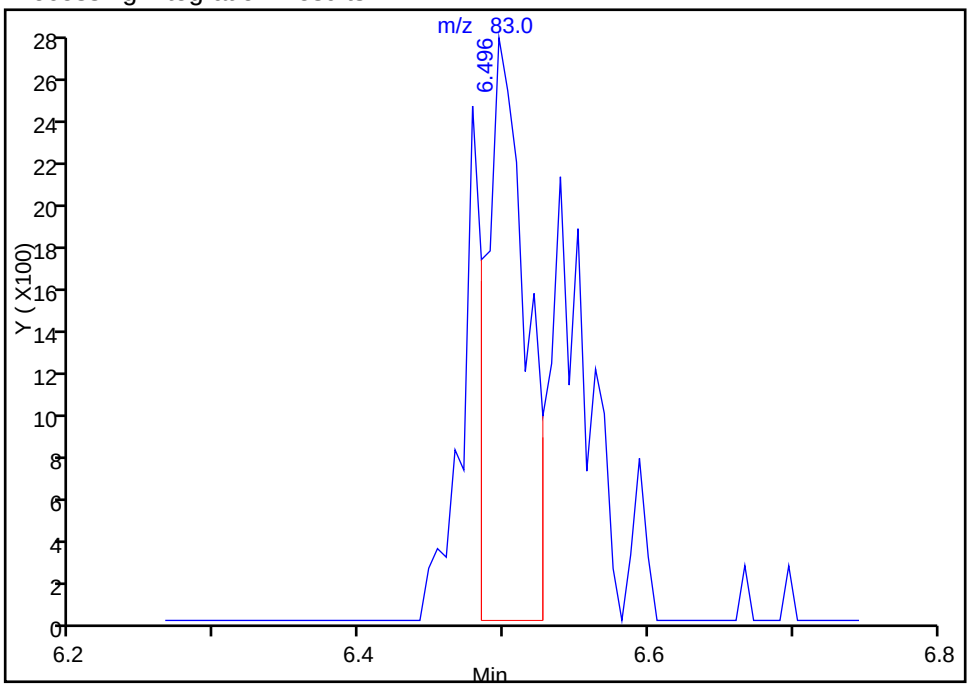
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150531-7191.b\7053119.D				
Injection Date:	31-May-2015 19:44:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-D-13	Lab Sample ID:	180-44321-13		
Client ID:	HD-COD-SW-26-0/1-0				
Operator ID:	034635	ALS Bottle#:	19	Worklist Smp#:	19
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

52 Chloroform, CAS: 67-66-3

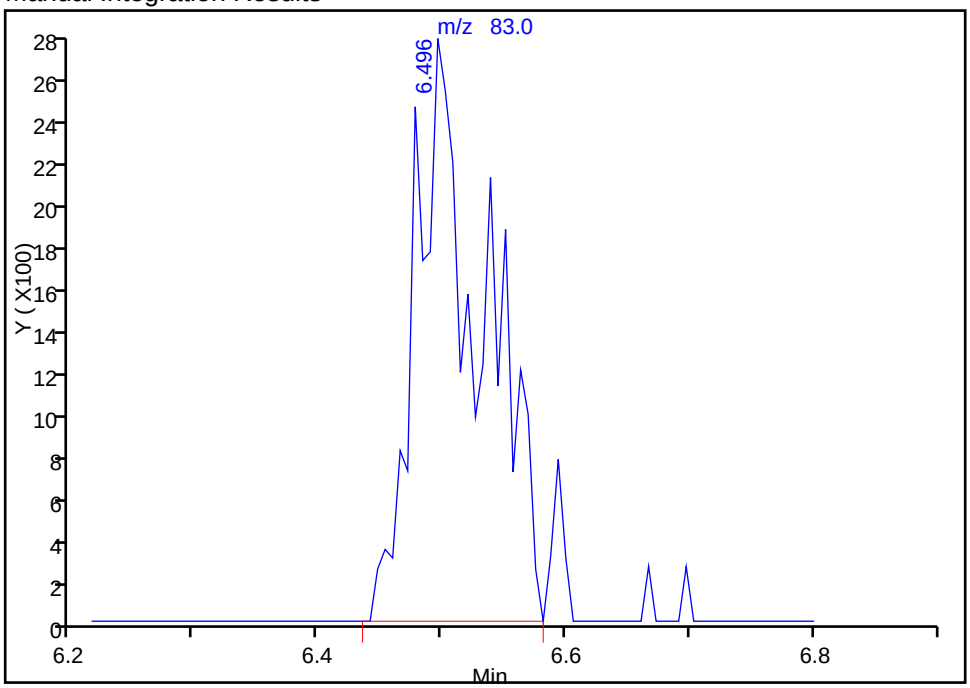
Processing Integration Results

RT: 6.50
Area: 5372
Amount: 1.116507
Amount Units: ng



Manual Integration Results

RT: 6.50
Area: 10618
Amount: 2.206825
Amount Units: ng



Reviewer: journetp, 01-Jun-2015 09:12:04
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

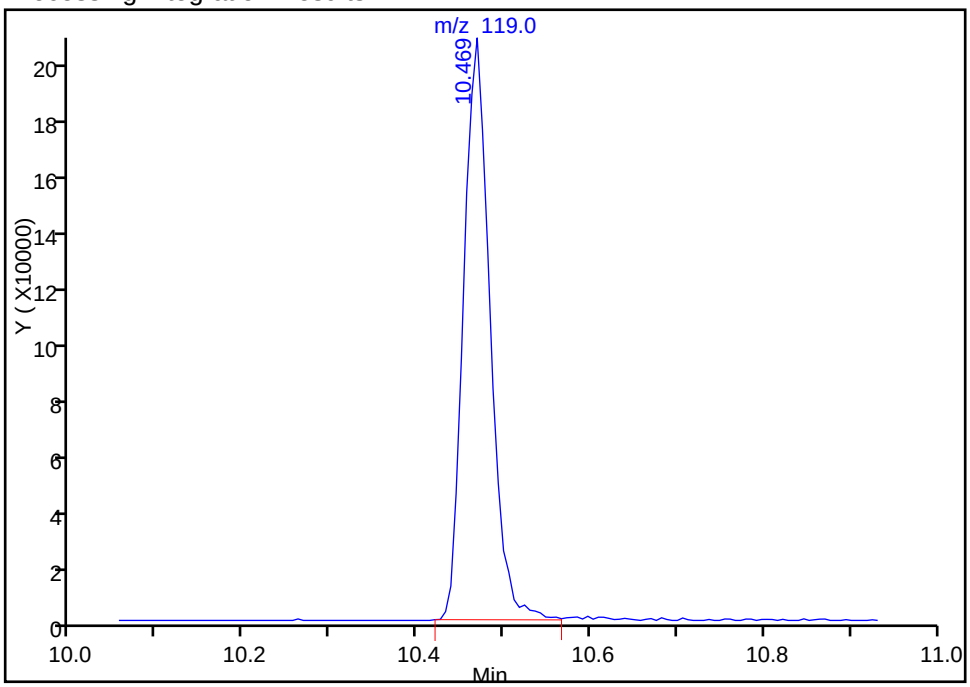
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150531-7191.b\7053119.D				
Injection Date:	31-May-2015 19:44:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-D-13	Lab Sample ID:	180-44321-13		
Client ID:	HD-COD-SW-26-0/1-0				
Operator ID:	034635	ALS Bottle#:	19	Worklist Smp#:	19
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

* 3 Chlorobenzene-d5, CAS: 3114-55-4

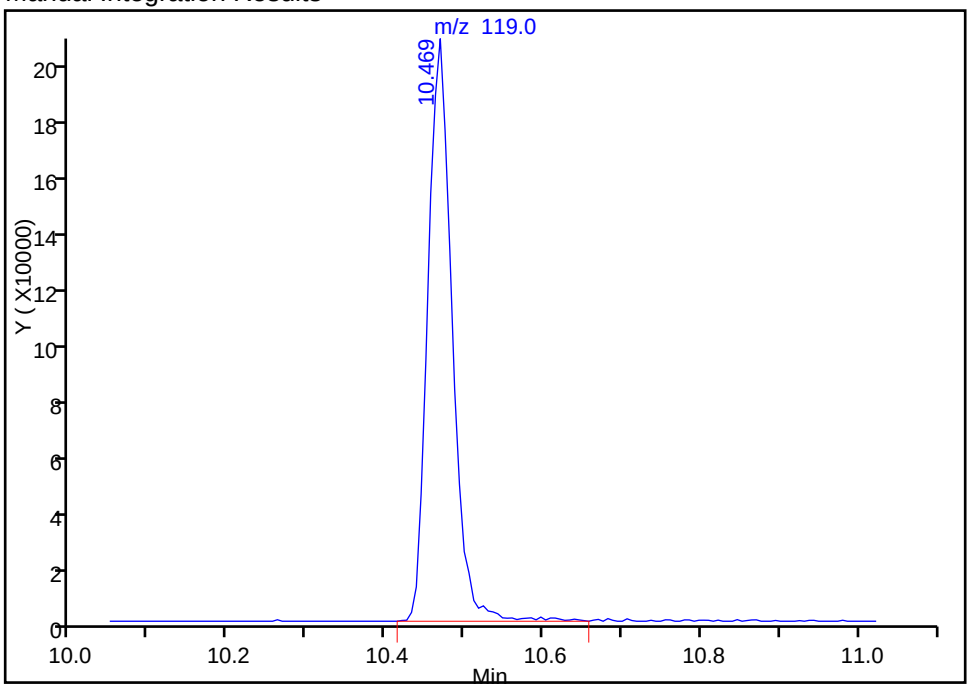
Processing Integration Results

RT: 10.47
Area: 437960
Amount: 200.0000
Amount Units: ng



Manual Integration Results

RT: 10.47
Area: 443985
Amount: 200.0000
Amount Units: ng



Reviewer: journetp, 01-Jun-2015 09:54:12
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-27-0/1-0 | Lab Sample ID: 180-44321-14

Matrix: Water | Lab File ID: 7053120.D

Analysis Method: 8260C | Date Collected: 05/20/2015 12:50

Sample wt/vol: 20(mL) | Date Analyzed: 05/31/2015 20:12

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 143339 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.28
75-01-4	Vinyl chloride	1.0	U	1.0	0.23
74-83-9	Bromomethane	1.0	U	1.0	0.31
75-00-3	Chloroethane	1.0	U	1.0	0.21
75-35-4	1,1-Dichloroethene	1.0	U	1.0	0.30
67-64-1	Acetone	5.0	U	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.21
75-09-2	Methylene Chloride	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	0.75	J	1.0	0.17
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	1.0	U	1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	1.0	U	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.16
124-48-1	Dibromochloromethane	1.0	U	1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28
100-41-4	Ethylbenzene	1.0	U	1.0	0.23
1330-20-7	Xylenes, Total	3.0	U	3.0	0.49
100-42-5	Styrene	1.0	U	1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-27-0/1-0 Lab Sample ID: 180-44321-14

Matrix: Water Lab File ID: 7053120.D

Analysis Method: 8260C Date Collected: 05/20/2015 12:50

Sample wt/vol: 20(mL) Date Analyzed: 05/31/2015 20:12

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143339 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		64-135
2037-26-5	Toluene-d8 (Surr)	115		71-118
460-00-4	4-Bromofluorobenzene (Surr)	106		70-118
1868-53-7	Dibromofluoromethane (Surr)	107		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150531-7191.b\7053120.D
Lims ID: 180-44321-E-14 Lab Sample ID: 180-44321-14
Client ID: HD-COD-SW-27-0/1-0
Sample Type: Client
Inject. Date: 31-May-2015 20:12:30 ALS Bottle#: 20 Worklist Smp#: 20
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 180-44321-e-14
Misc. Info.: 180-0007169-020
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150531-7191.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 09:14:45 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

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

First Level Reviewer: journetp Date: 01-Jun-2015 09:12:47

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.596	4.678	-0.082	96	466125	4000.0	
* 2 Fluorobenzene (IS)	96	7.418	7.404	0.014	98	1670310	200.0	
* 3 Chlorobenzene-d5	119	10.472	10.470	0.002	85	420014	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.778	12.787	-0.009	93	352666	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.688	6.680	0.008	92	570020	213.9	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.047	7.039	0.008	94	494939	194.8	
$ 7 Toluene-d8 (Surr)	98	9.043	9.034	0.009	93	1433360	230.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.634	11.632	0.002	88	590397	212.8	
12 Chloromethane	50		2.038				ND	
13 Vinyl chloride	62		2.214				ND	
15 Bromomethane	94		2.500				ND	
16 Chloroethane	64		2.646				ND	
22 1,1-Dichloroethene	96		3.583				ND	
24 Acetone	43		3.753				ND	
26 Carbon disulfide	76		3.863				ND	
31 Methylene Chloride	84		4.362				ND	
33 Acrylonitrile	53		4.769				ND	
34 trans-1,2-Dichloroethene	96		4.775				ND	
35 Methyl tert-butyl ether	73		4.836				ND	
37 1,1-Dichloroethane	63		5.353				ND	
45 cis-1,2-Dichloroethene	96	6.123	6.108	0.015	1	5879	2.13	M
46 2-Butanone (MEK)	43		6.163				ND	
49 Chlorobromomethane	128		6.388				ND	
52 Chloroform	83	6.500	6.497	0.003	90	69163	15.1	
53 1,1,1-Trichloroethane	97		6.680				ND	
56 Carbon tetrachloride	117		6.868				ND	
58 Benzene	78		7.093				ND	
59 1,2-Dichloroethane	62		7.130				ND	
64 Trichloroethene	130	7.802	7.793	0.009	15	5758	1.75	M
67 1,2-Dichloropropane	63		8.024				ND	
70 1,4-Dioxane	88		8.182				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.316				ND	
74 cis-1,3-Dichloropropene	75		8.766				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.931				ND	
76 Toluene	91		9.101				ND	
77 trans-1,3-Dichloropropene	75		9.326				ND	
79 1,1,2-Trichloroethane	97		9.502				ND	
80 Tetrachloroethene	164		9.648				ND	
82 2-Hexanone	43		9.758				ND	
84 Chlorodibromomethane	129		9.898				ND	
85 Ethylene Dibromide	107		10.007				ND	
87 Chlorobenzene	112		10.494				ND	
89 1,1,1,2-Tetrachloroethane	131		10.573				ND	
90 Ethylbenzene	106		10.603				ND	
91 m-Xylene & p-Xylene	106		10.719				ND	
92 o-Xylene	106		11.108				ND	
93 Styrene	104		11.127				ND	
94 Bromoform	173		11.315				ND	
99 1,1,2,2-Tetrachloroethane	83		11.765				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

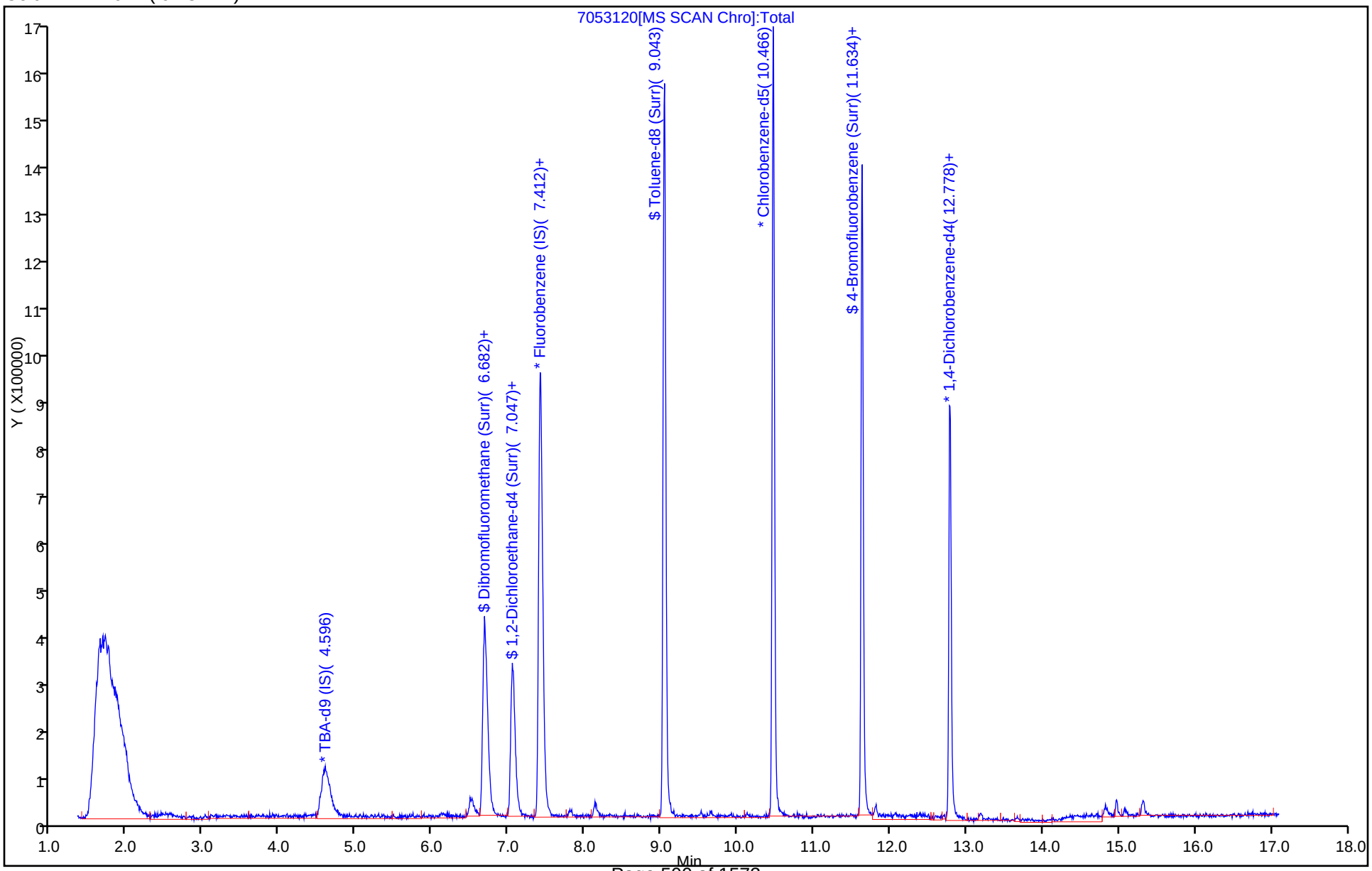
Report Date: 01-Jun-2015 09:14:55 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150531-7191.b\7053120.D

Injection Date:	31-May-2015 20:12:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-44321-E-14	Lab Sample ID:	180-44321-14	Worklist Smp#:	20
Client ID:	HD-COD-SW-27-0/1-0				
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	20
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\PITCHROM\ChromData\CHHP7\20150531-7191.b\7053120.D
Lims ID: 180-44321-E-14 Lab Sample ID: 180-44321-14
Client ID: HD-COD-SW-27-0/1-0
Sample Type: Client
Inject. Date: 31-May-2015 20:12:30 ALS Bottle#: 20 Worklist Smp#: 20
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 180-44321-e-14
Misc. Info.: 180-0007169-020
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150531-7191.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 09:14:45 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

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

First Level Reviewer: journetp Date: 01-Jun-2015 09:12:47

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	200.0	213.9	106.97
$ 6 1,2-Dichloroethane-d4 (Surr)	200.0	194.8	97.42
$ 7 Toluene-d8 (Surr)	200.0	230.1	115.04
$ 8 4-Bromofluorobenzene (Surr)	200.0	212.8	106.38

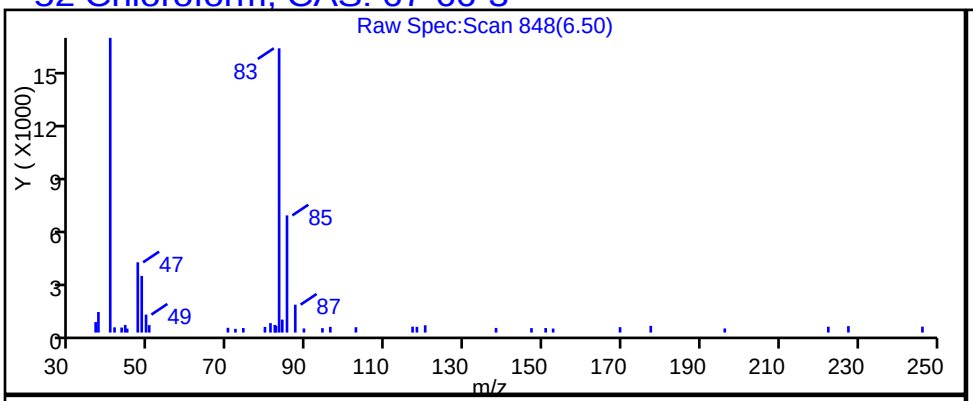
Report Date: 01-Jun-2015 09:14:55 Chrom Revision: 2.2 05-May-2015 11:39:10

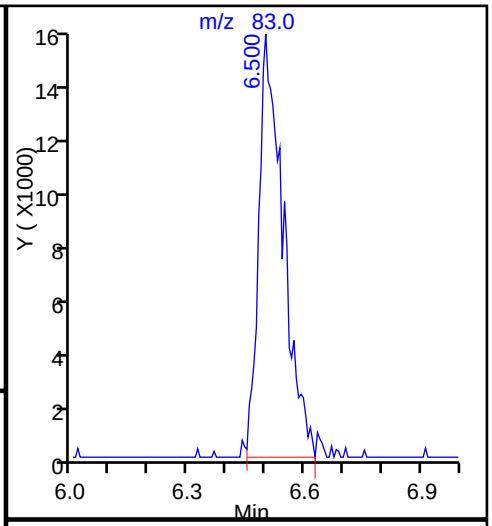
TestAmerica Pittsburgh

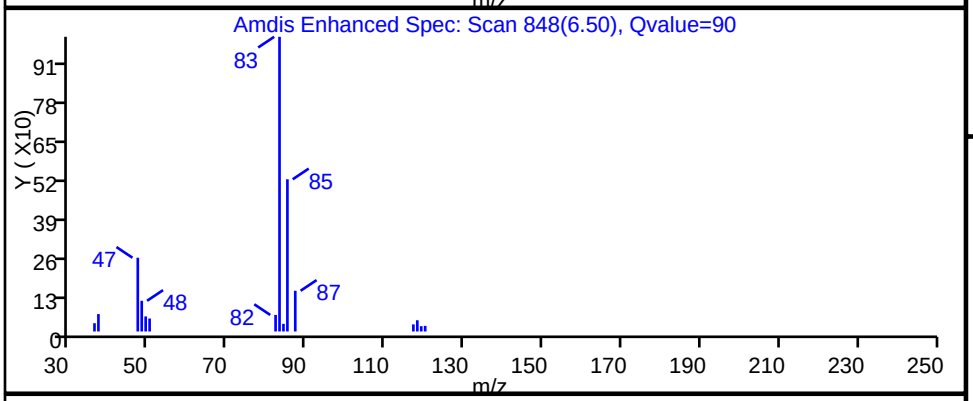
Data File: \\PITCHROM\ChromData\CHHP7\20150531-7191.b\7053120.D

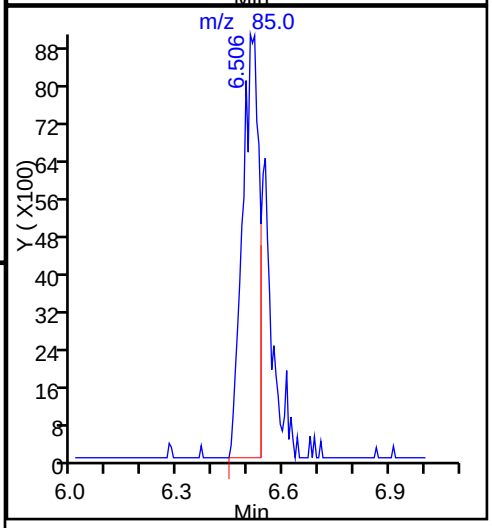
Injection Date:	31-May-2015 20:12:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-E-14	Lab Sample ID:	180-44321-14		
Client ID:	HD-COD-SW-27-0/1-0				
Operator ID:	034635	ALS Bottle#:	20	Worklist Smp#:	20
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

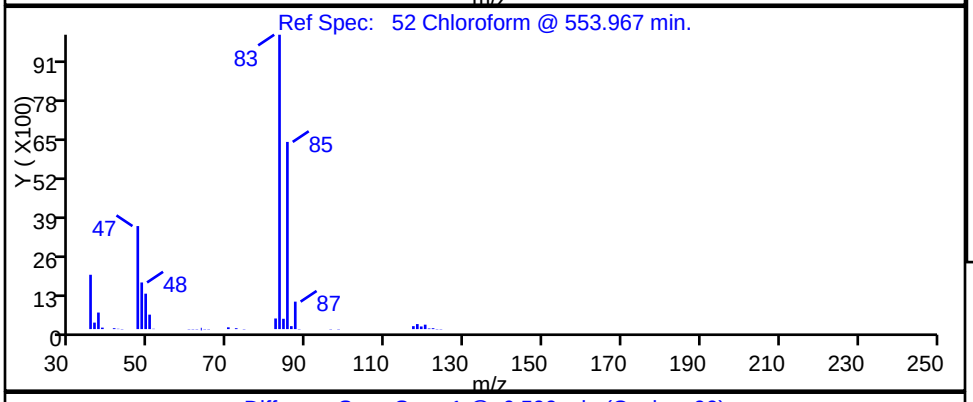
52 Chloroform, CAS: 67-66-3

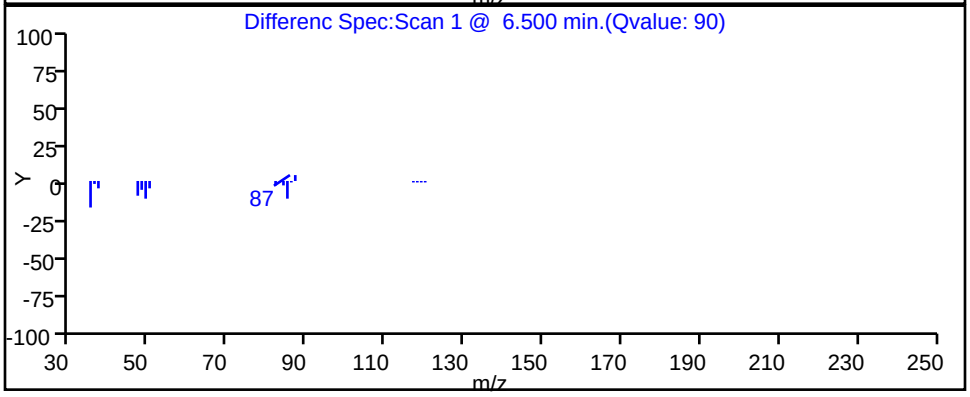












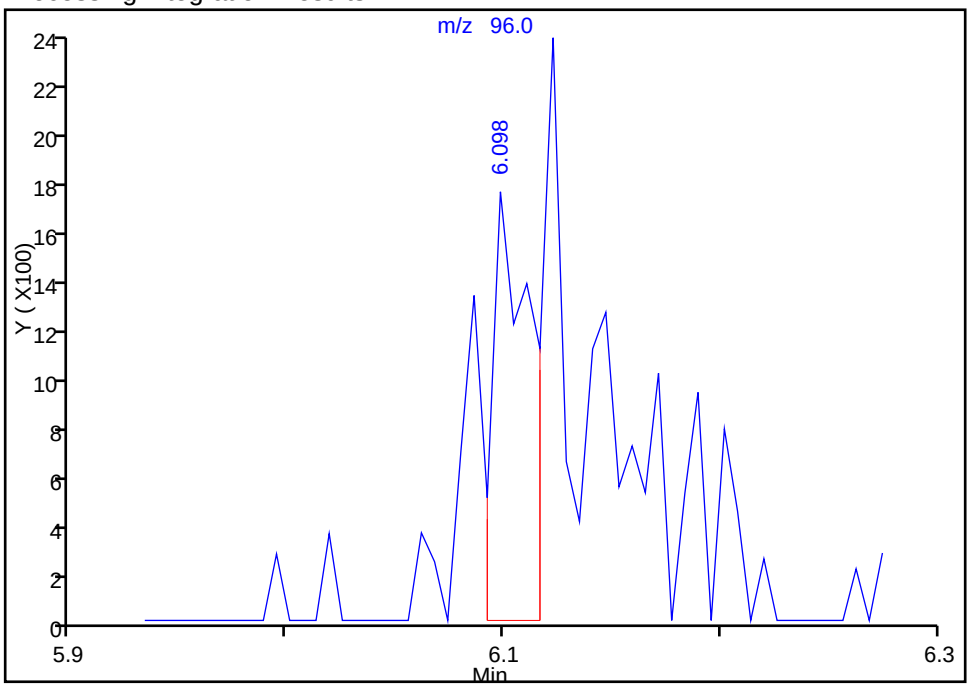
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150531-7191.b\7053120.D				
Injection Date:	31-May-2015 20:12:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-E-14	Lab Sample ID:	180-44321-14		
Client ID:	HD-COD-SW-27-0/1-0				
Operator ID:	034635	ALS Bottle#:	20	Worklist Smp#:	20
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

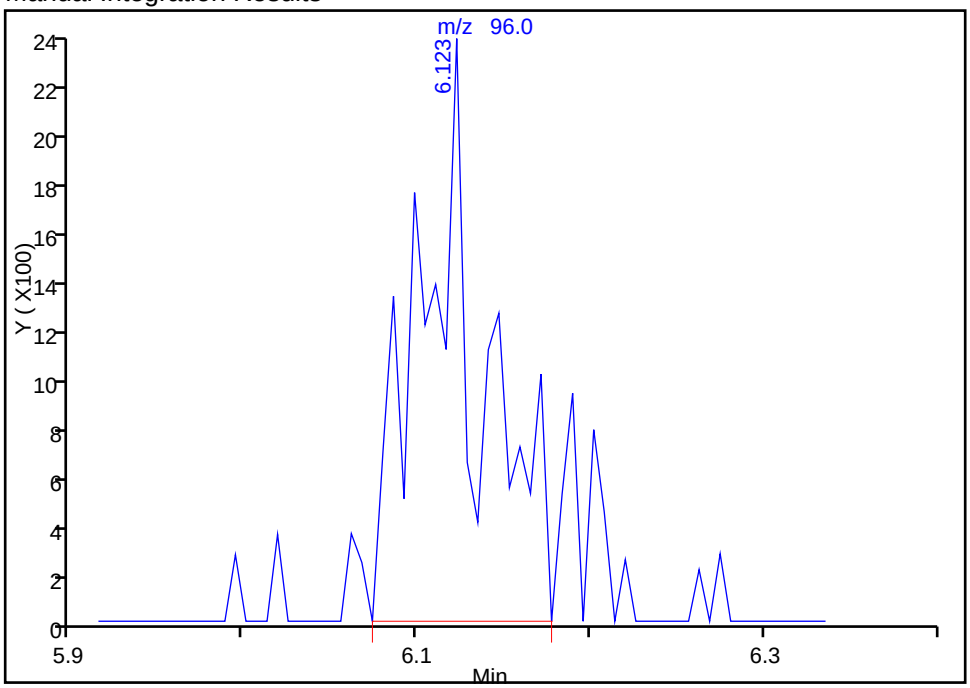
Processing Integration Results

RT: 6.10
Area: 2112
Amount: 0.764848
Amount Units: ng



Manual Integration Results

RT: 6.12
Area: 5879
Amount: 2.129045
Amount Units: ng



Reviewer: journetp, 01-Jun-2015 09:14:19
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

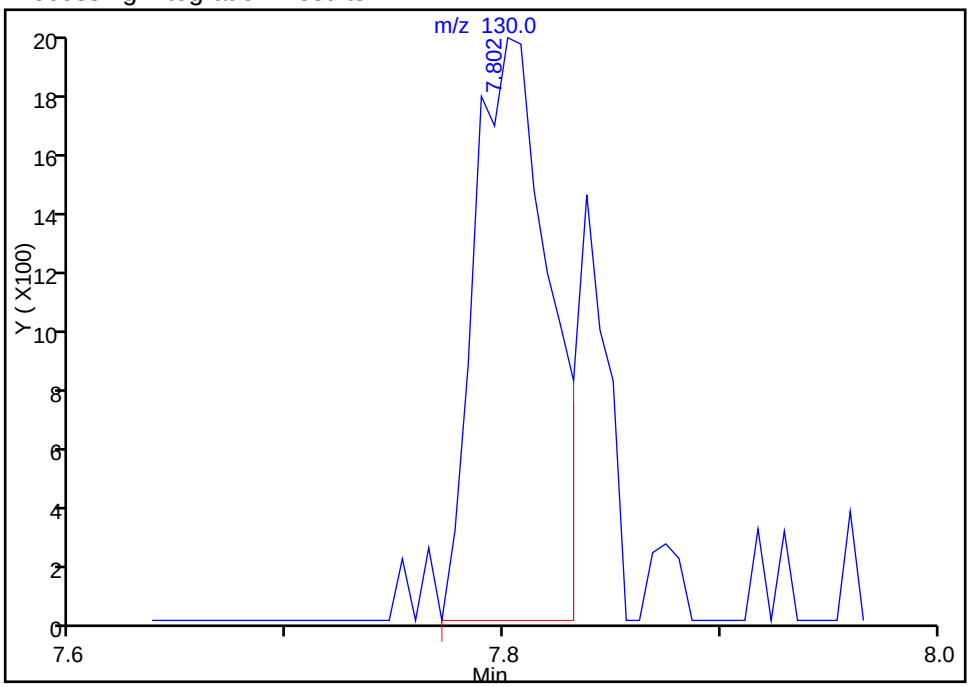
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150531-7191.b\7053120.D				
Injection Date:	31-May-2015 20:12:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-E-14	Lab Sample ID:	180-44321-14		
Client ID:	HD-COD-SW-27-0/1-0				
Operator ID:	034635	ALS Bottle#:	20	Worklist Smp#:	20
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

64 Trichloroethene, CAS: 79-01-6

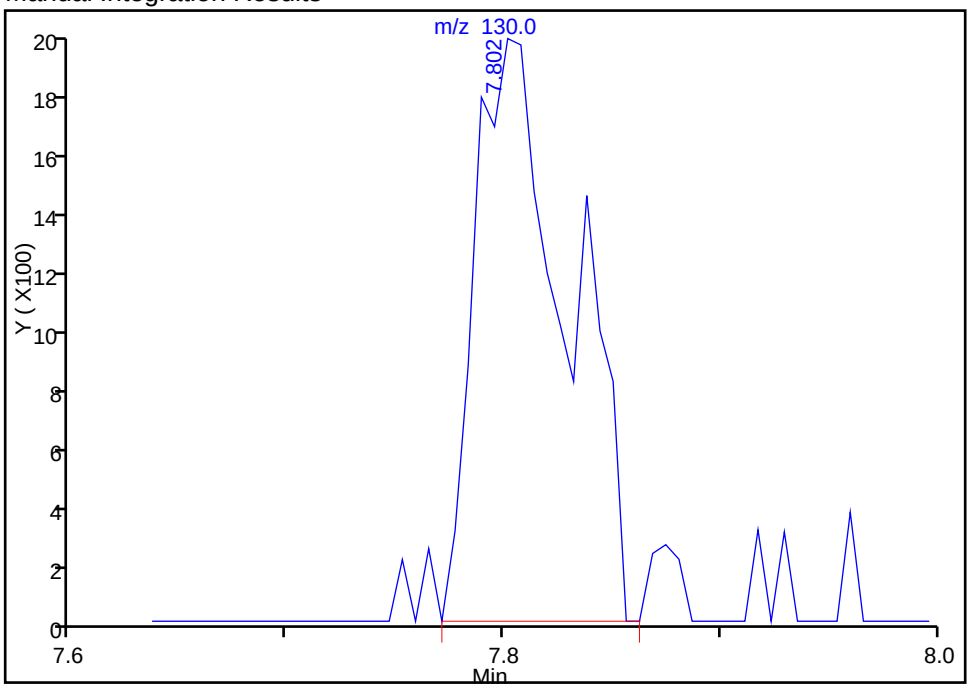
Processing Integration Results

RT: 7.80
Area: 4610
Amount: 1.398945
Amount Units: ng



Manual Integration Results

RT: 7.80
Area: 5758
Amount: 1.747316
Amount Units: ng



Reviewer: journetp, 01-Jun-2015 09:14:19
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-28-0/1-0 Lab Sample ID: 180-44321-15

Matrix: Water Lab File ID: 7053109.D

Analysis Method: 8260C Date Collected: 05/20/2015 12:05

Sample wt/vol: 20(mL) Date Analyzed: 05/31/2015 14:59

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143339 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.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-28-0/1-0 Lab Sample ID: 180-44321-15

Matrix: Water Lab File ID: 7053109.D

Analysis Method: 8260C Date Collected: 05/20/2015 12:05

Sample wt/vol: 20(mL) Date Analyzed: 05/31/2015 14:59

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143339 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)	87		64-135
2037-26-5	Toluene-d8 (Surr)	102		71-118
460-00-4	4-Bromofluorobenzene (Surr)	91		70-118
1868-53-7	Dibromofluoromethane (Surr)	97		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150531-7191.b\7053109.D
Lims ID: 180-44321-C-15 Lab Sample ID: 180-44321-15
Client ID: HD-COD-SW-28-0/1-0
Sample Type: Client
Inject. Date: 31-May-2015 14:59:30 ALS Bottle#: 9 Worklist Smp#: 9
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 180-44321-C-15
Misc. Info.: 180-0007169-009
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150531-7191.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 09:14:45 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

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

First Level Reviewer: journetp Date: 01-Jun-2015 09:02:14

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
*	1 TBA-d9 (IS)	65	4.579	4.678	-0.099	99	372695	4000.0	
*	2 Fluorobenzene (IS)	96	7.414	7.404	0.010	99	1576458	200.0	
*	3 Chlorobenzene-d5	119	10.468	10.470	-0.002	85	402059	200.0	
*	4 1,4-Dichlorobenzene-d4	152	12.786	12.787	-0.001	95	458902	200.0	
$	5 Dibromofluoromethane (Surr	113	6.690	6.680	0.010	92	488203	194.1	
$	6 1,2-Dichloroethane-d4 (Sur	65	7.049	7.039	0.010	92	418625	174.6	
$	7 Toluene-d8 (Surr)	98	9.038	9.034	0.004	92	1219810	204.5	
$	8 4-Bromofluorobenzene (Surr	95	11.630	11.632	-0.002	90	486634	181.1	
	12 Chloromethane	50		2.038				ND	
	13 Vinyl chloride	62		2.214				ND	
	15 Bromomethane	94		2.500				ND	
	16 Chloroethane	64		2.646				ND	
	22 1,1-Dichloroethene	96		3.583				ND	
	24 Acetone	43		3.753				ND	
	26 Carbon disulfide	76		3.863				ND	
	31 Methylene Chloride	84		4.362				ND	
	33 Acrylonitrile	53		4.769				ND	
	34 trans-1,2-Dichloroethene	96		4.775				ND	
	35 Methyl tert-butyl ether	73		4.836				ND	
	37 1,1-Dichloroethane	63		5.353				ND	
	45 cis-1,2-Dichloroethene	96		6.108				ND	
	46 2-Butanone (MEK)	43		6.163				ND	
	49 Chlorobromomethane	128		6.388				ND	
	52 Chloroform	83		6.497				ND	
	53 1,1,1-Trichloroethane	97		6.680				ND	
	56 Carbon tetrachloride	117		6.868				ND	
	58 Benzene	78		7.093				ND	
	59 1,2-Dichloroethane	62		7.130				ND	
	64 Trichloroethene	130		7.793				ND	
	67 1,2-Dichloropropane	63		8.024				ND	
	70 1,4-Dioxane	88		8.182				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.316				ND	
74 cis-1,3-Dichloropropene	75		8.766				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.931				ND	
76 Toluene	91		9.101				ND	
77 trans-1,3-Dichloropropene	75		9.326				ND	
79 1,1,2-Trichloroethane	97		9.502				ND	
80 Tetrachloroethene	164		9.648				ND	
82 2-Hexanone	43		9.758				ND	
84 Chlorodibromomethane	129		9.898				ND	
85 Ethylene Dibromide	107		10.007				ND	
87 Chlorobenzene	112		10.494				ND	
89 1,1,1,2-Tetrachloroethane	131		10.573				ND	
90 Ethylbenzene	106		10.603				ND	
91 m-Xylene & p-Xylene	106		10.719				ND	
92 o-Xylene	106		11.108				ND	
93 Styrene	104		11.127				ND	
94 Bromoform	173		11.315				ND	
99 1,1,2,2-Tetrachloroethane	83		11.765				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

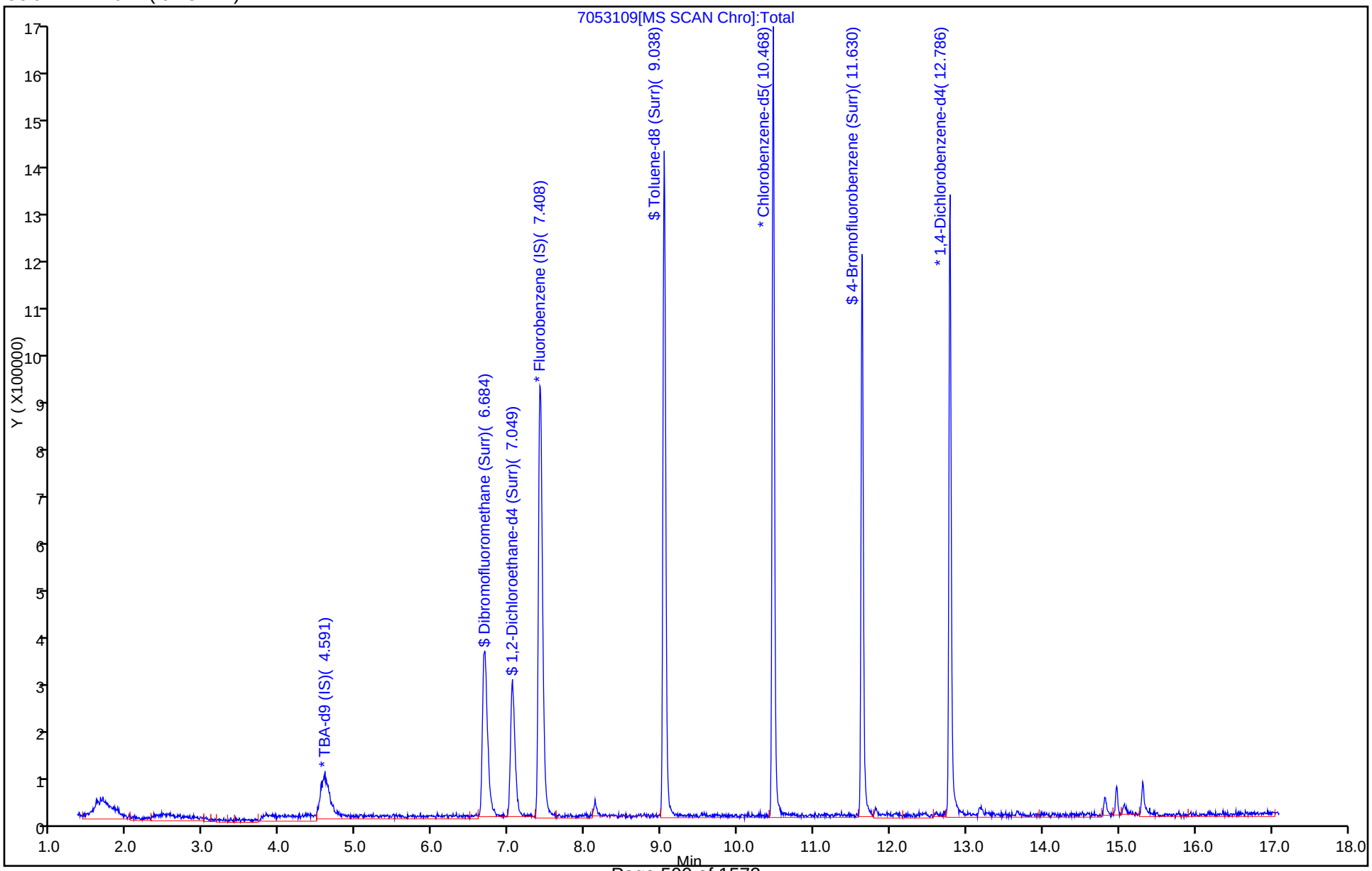
VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

Report Date: 01-Jun-2015 09:14:49 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150531-7191.b\7053109.D				
Injection Date:	31-May-2015 14:59:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-44321-C-15	Lab Sample ID:	180-44321-15	Worklist Smp#:	9
Client ID:	HD-COD-SW-28-0/1-0				
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\PITCHROM\ChromData\CHHP7\20150531-7191.b\7053109.D
Lims ID: 180-44321-C-15 Lab Sample ID: 180-44321-15
Client ID: HD-COD-SW-28-0/1-0
Sample Type: Client
Inject. Date: 31-May-2015 14:59:30 ALS Bottle#: 9 Worklist Smp#: 9
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 180-44321-C-15
Misc. Info.: 180-0007169-009
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150531-7191.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 09:14:45 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

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

First Level Reviewer: journetp Date: 01-Jun-2015 09:02:14

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	200.0	194.1	97.07
$ 6 1,2-Dichloroethane-d4 (Surr)	200.0	174.6	87.31
$ 7 Toluene-d8 (Surr)	200.0	204.5	102.27
$ 8 4-Bromofluorobenzene (Surr)	200.0	181.1	90.56

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-29-0/1-0 | Lab Sample ID: 180-44321-16

Matrix: Water | Lab File ID: 60530027.D

Analysis Method: 8260C | Date Collected: 05/20/2015 08:47

Sample wt/vol: 5(mL) | Date Analyzed: 05/31/2015 19:14

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 143337 | 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	0.20	J B	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	1.0	U	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	1.0	U	1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	1.0	U	1.0	0.17
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	0.16	J	1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	0.17	J	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.16
124-48-1	Dibromochloromethane	1.0	U	1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28
100-41-4	Ethylbenzene	1.0	U	1.0	0.23
1330-20-7	Xylenes, Total	3.0	U	3.0	0.49
100-42-5	Styrene	1.0	U	1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-29-0/1-0 Lab Sample ID: 180-44321-16

Matrix: Water Lab File ID: 60530027.D

Analysis Method: 8260C Date Collected: 05/20/2015 08:47

Sample wt/vol: 5(mL) Date Analyzed: 05/31/2015 19:14

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143337 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)	90		64-135
2037-26-5	Toluene-d8 (Surr)	82		71-118
460-00-4	4-Bromofluorobenzene (Surr)	97		70-118
1868-53-7	Dibromofluoromethane (Surr)	97		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530027.D
Lims ID: 180-44321-C-16 Lab Sample ID: 180-44321-16
Client ID: HD-COD-SW-29-0/1-0
Sample Type: Client
Inject. Date: 31-May-2015 19:14:30 ALS Bottle#: 24 Worklist Smp#: 27
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-44321-C-16
Misc. Info.: 180-0007190-027
Operator ID: 034635 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 08:37:30 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK048

First Level Reviewer: fergusond Date: 01-Jun-2015 08:37:30

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.223	4.236	-0.013	90	133472	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.284	0.005	98	531787	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.393	0.005	90	118875	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.746	12.747	-0.001	97	193618	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.559	6.554	0.005	92	107238	48.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.931	6.925	0.006	71	165564	45.0	
$ 7 Toluene-d8 (Surr)	98	8.944	8.939	0.005	94	414159	41.2	
$ 8 4-Bromofluorobenzene (Surr	95	11.584	11.579	0.005	84	198309	48.4	
12 Chloromethane	50		1.760				ND	
13 Vinyl chloride	62		1.882				ND	
15 Bromomethane	94		2.229				ND	
16 Chloroethane	64		2.375				ND	
22 1,1-Dichloroethene	96		3.336				ND	
24 Acetone	43	3.433	3.421	0.012	59	6331	8.97	M
26 Carbon disulfide	76		3.628				ND	
31 Methylene Chloride	84	4.138	4.115	0.023	19	2916	0.9756	
33 Acrylonitrile	53		4.498				ND	
34 trans-1,2-Dichloroethene	96		4.553				ND	
35 Methyl tert-butyl ether	73		4.565				ND	
37 1,1-Dichloroethane	63		5.198				ND	
43 cis-1,2-Dichloroethene	96	5.945	5.940	0.005	17	2722	0.8725	
44 2-Butanone (MEK)	43		5.940				ND	
48 Chlorobromomethane	128		6.226				ND	
50 Chloroform	83		6.366				ND	
51 1,1,1-Trichloroethane	97		6.536				ND	
53 Carbon tetrachloride	117		6.712				ND	
56 Benzene	78		6.943				ND	
57 1,2-Dichloroethane	62		7.016				ND	
61 Trichloroethene	130	7.685	7.673	0.012	1	1976	0.7809	M
64 1,2-Dichloropropane	63		7.947				ND	
65 1,4-Dioxane	88		8.020				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.227				ND	
71 cis-1,3-Dichloropropene	75		8.677				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.823				ND	
73 Toluene	91	9.017	9.012	0.005	12	2556	0.2073	
74 trans-1,3-Dichloropropene	75		9.255				ND	
76 1,1,2-Trichloroethane	97		9.450				ND	
77 Tetrachloroethene	164	9.522	9.523	-0.001	12	1695	0.8355	
79 2-Hexanone	43		9.657				ND	
81 Chlorodibromomethane	129		9.821				ND	
82 Ethylene Dibromide	107		9.937				ND	
84 Chlorobenzene	112		10.423				ND	
86 1,1,1,2-Tetrachloroethane	131		10.521				ND	
87 Ethylbenzene	106		10.527				ND	
88 m-Xylene & p-Xylene	106		10.654				ND	
89 o-Xylene	106		11.044				ND	
90 Styrene	104		11.062				ND	
91 Bromoform	173		11.244				ND	
96 1,1,2,2-Tetrachloroethane	83		11.713				ND	
S 131 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

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

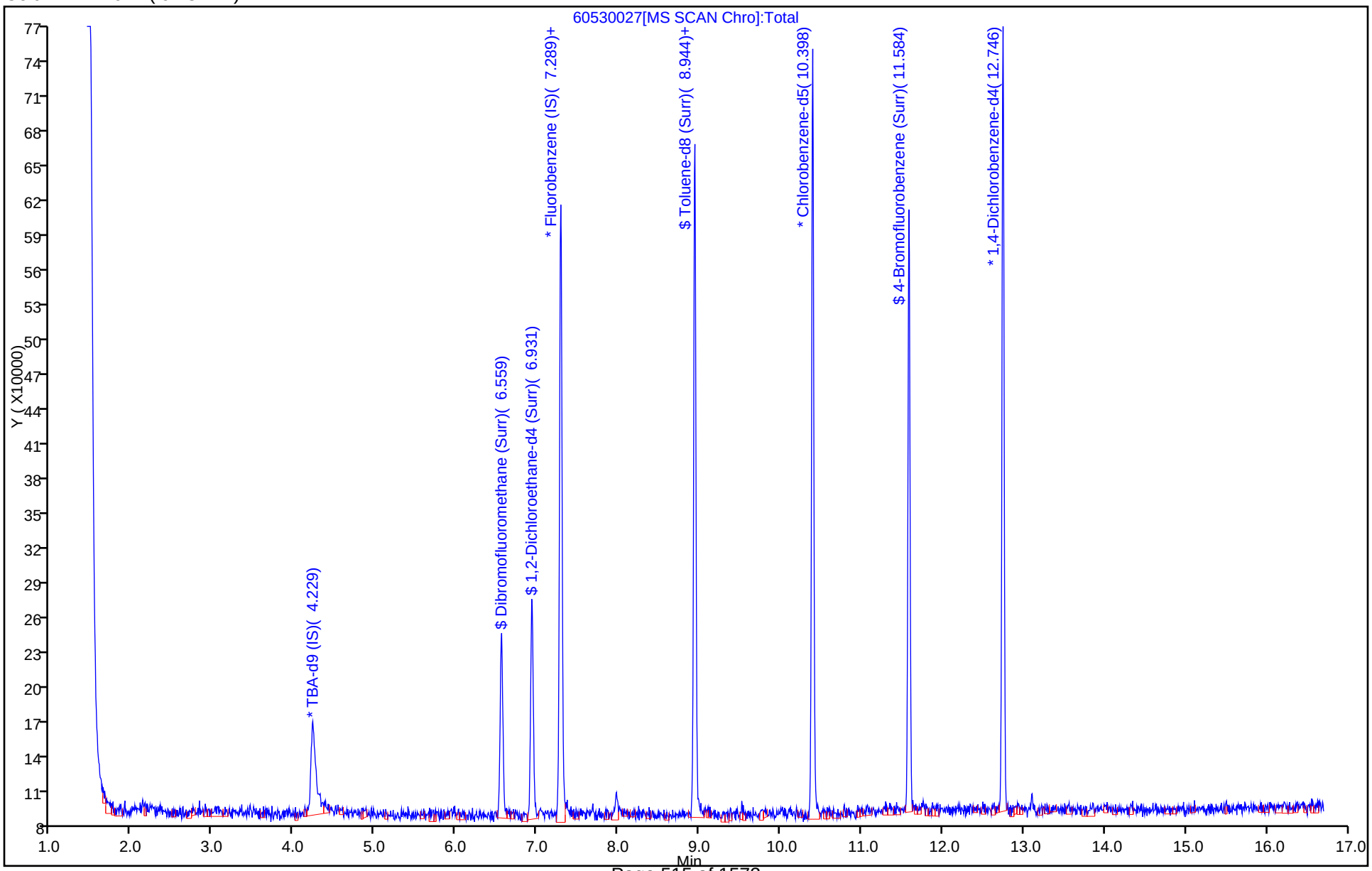
Report Date: 01-Jun-2015 08:37:31 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530027.D

Injection Date:	31-May-2015 19:14:30	Instrument ID:	CHHP6	Operator ID:	034635
Lims ID:	180-44321-C-16	Lab Sample ID:	180-44321-16	Worklist Smp#:	27
Client ID:	HD-COD-SW-29-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	24
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530027.D
Lims ID: 180-44321-C-16 Lab Sample ID: 180-44321-16
Client ID: HD-COD-SW-29-0/1-0
Sample Type: Client
Inject. Date: 31-May-2015 19:14:30 ALS Bottle#: 24 Worklist Smp#: 27
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-44321-C-16
Misc. Info.: 180-0007190-027
Operator ID: 034635 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 08:37:30 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK048

First Level Reviewer: fergusond Date: 01-Jun-2015 08:37:30

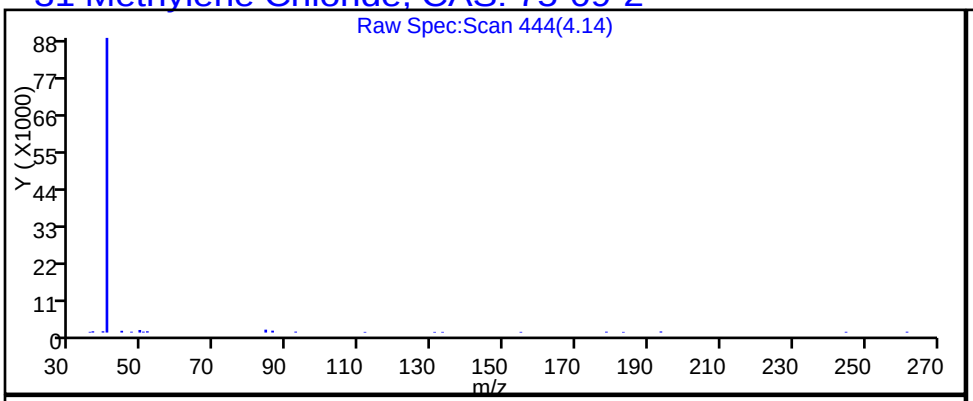
Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	48.7	97.48
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	45.0	90.07
$ 7 Toluene-d8 (Surr)	50.0	41.2	82.35
$ 8 4-Bromofluorobenzene (Surr)	50.0	48.4	96.73

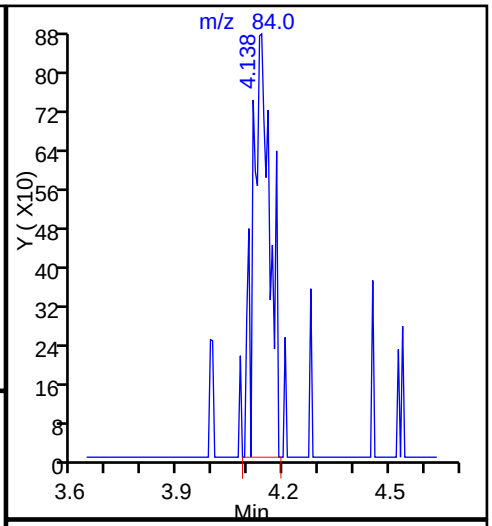
Report Date: 01-Jun-2015 08:37:31 Chrom Revision: 2.2 05-May-2015 11:39:10

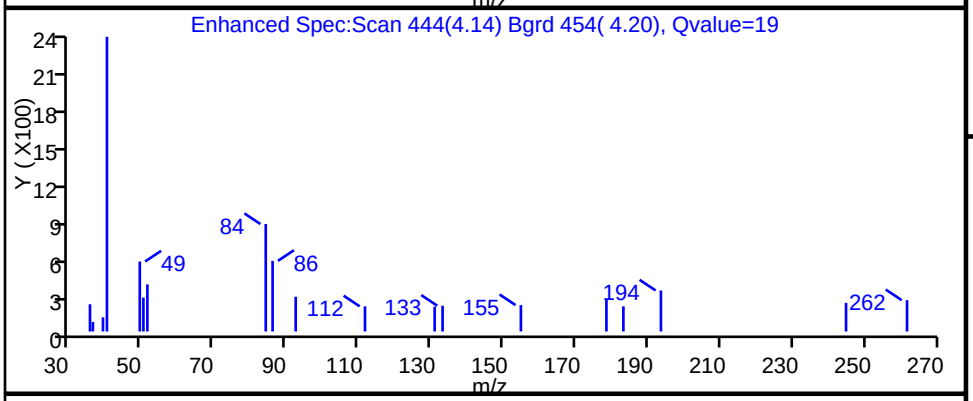
TestAmerica Pittsburgh

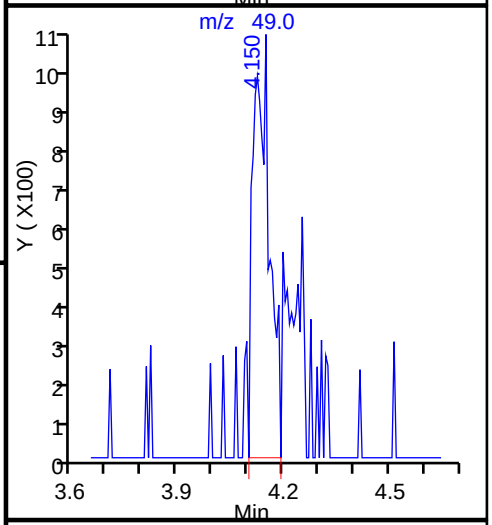
Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530027.D				
Injection Date:	31-May-2015 19:14:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-C-16	Lab Sample ID:	180-44321-16		
Client ID:	HD-COD-SW-29-0/1-0				
Operator ID:	034635	ALS Bottle#:	24	Worklist Smp#:	27
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

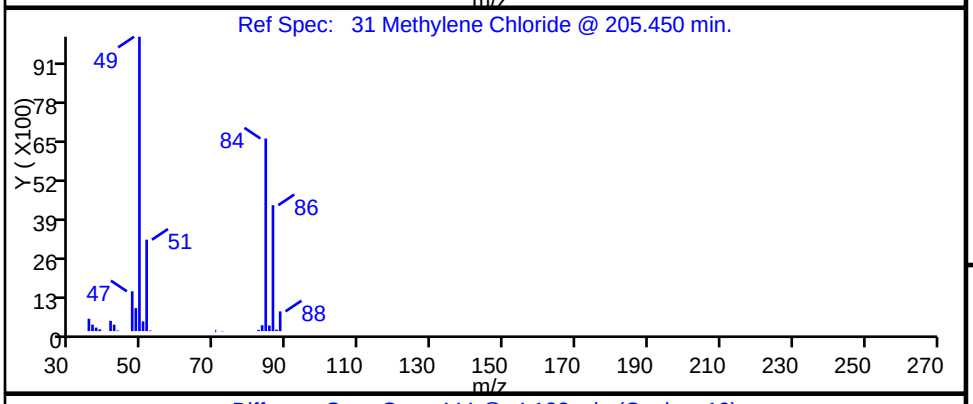
31 Methylene Chloride, CAS: 75-09-2

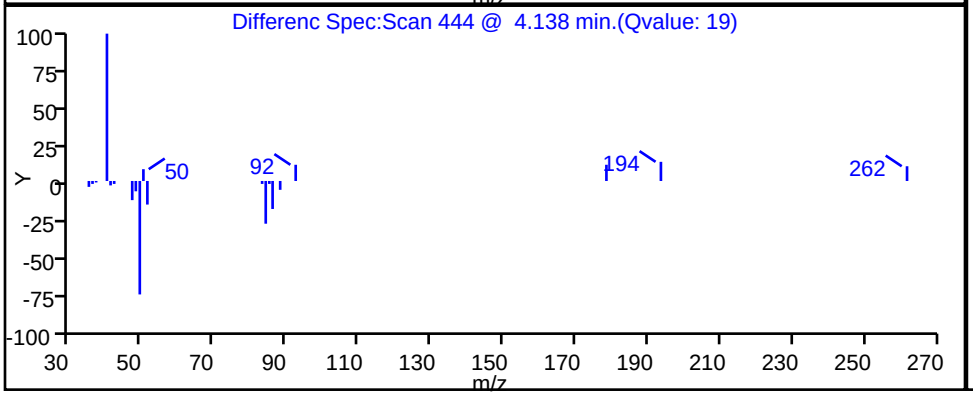


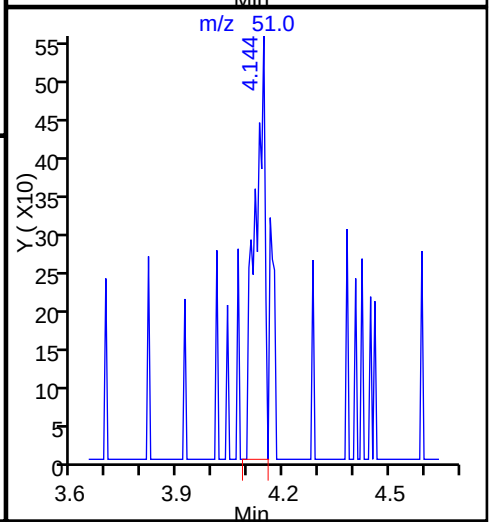












Report Date: 01-Jun-2015 08:37:31 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530027.D

Injection Date: 31-May-2015 19:14:30 Instrument ID: CHHP6

Lims ID: 180-44321-C-16 Lab Sample ID: 180-44321-16

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

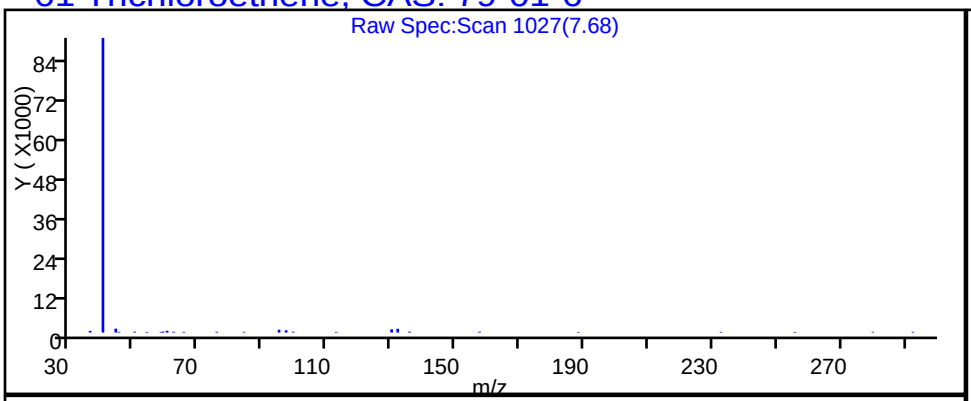
Operator ID: 034635 ALS Bottle#: 24 Worklist Smp#: 27

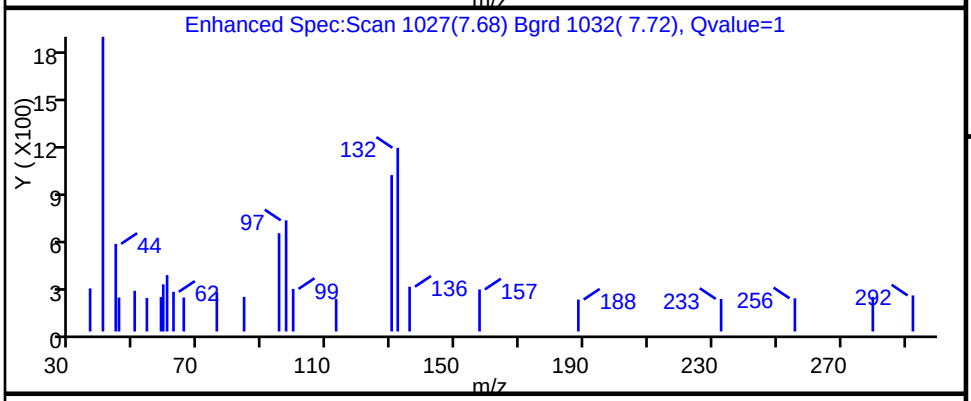
Purge Vol: 5.000 mL Dil. Factor: 1.0000

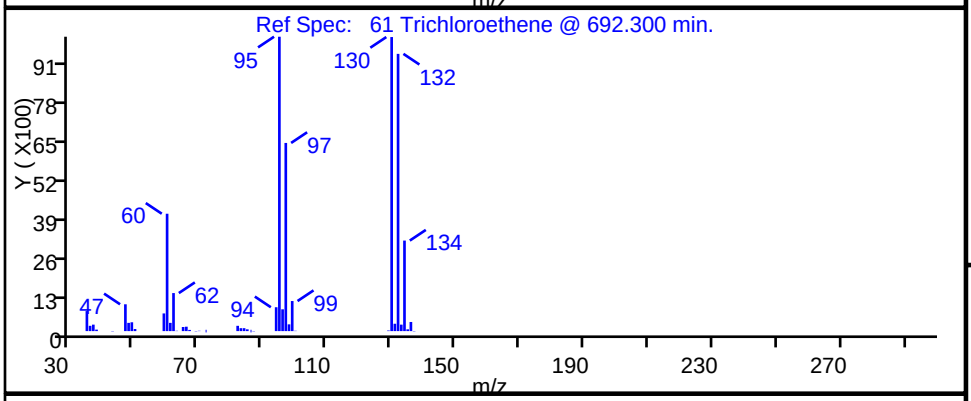
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL

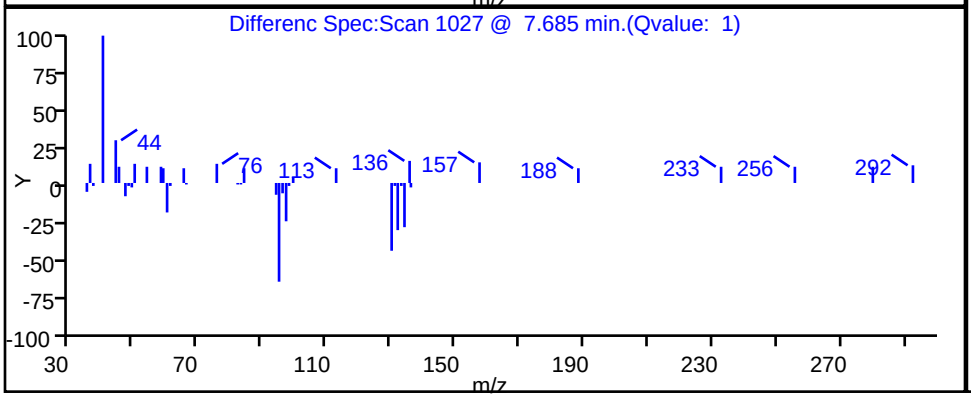
Column: DB-624 (0.18 mm) Detector MS SCAN

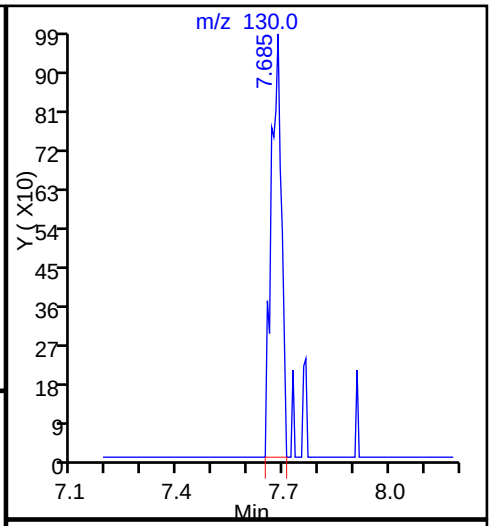
61 Trichloroethene, CAS: 79-01-6

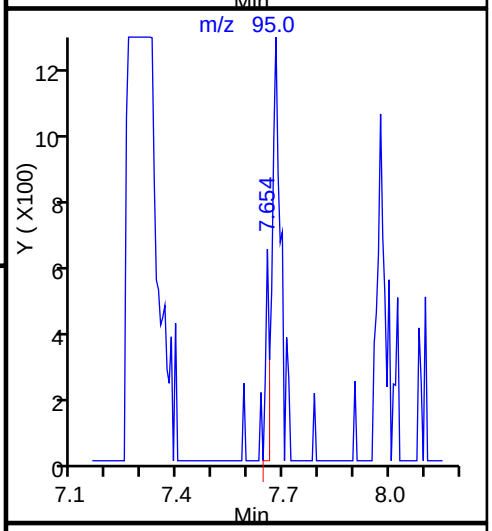


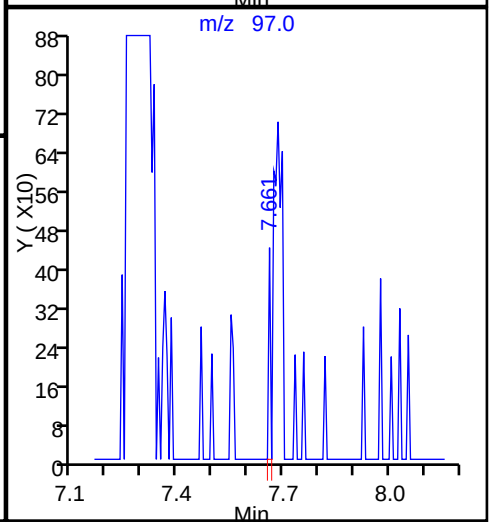












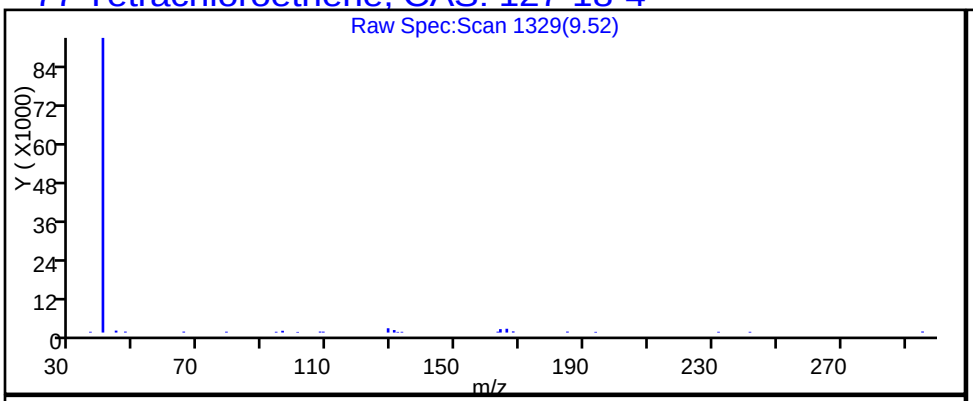
Report Date: 01-Jun-2015 08:37:31 Chrom Revision: 2.2 05-May-2015 11:39:10

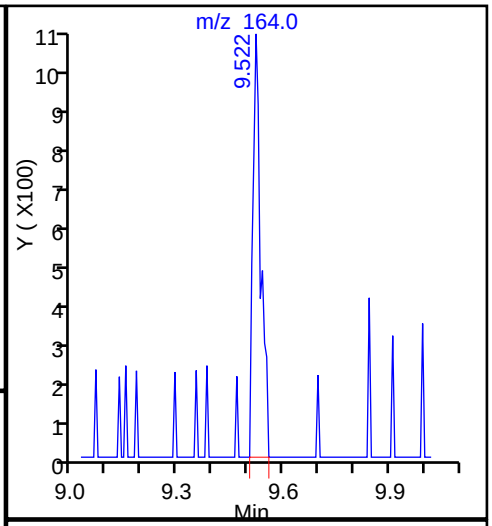
TestAmerica Pittsburgh

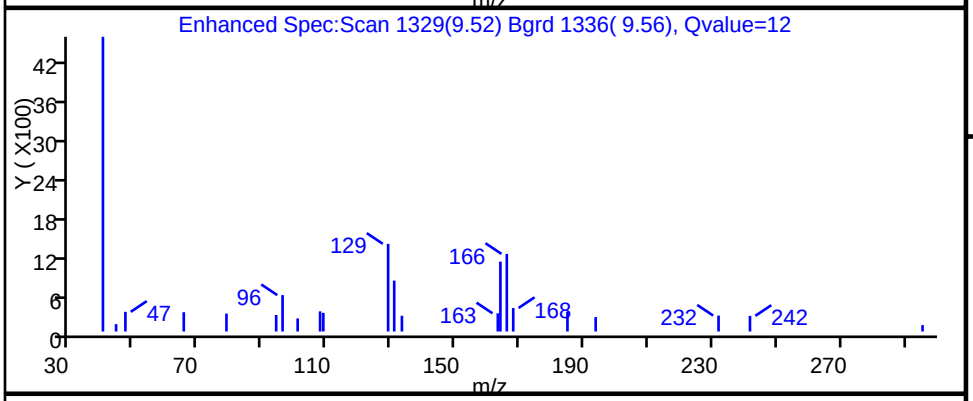
Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530027.D

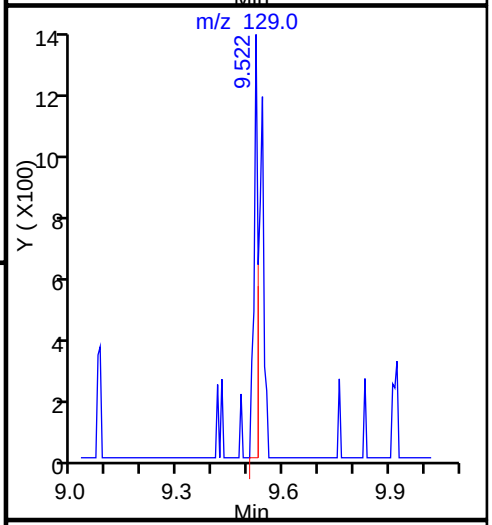
Injection Date:	31-May-2015 19:14:30	Instrument ID:	CHHP6
Lims ID:	180-44321-C-16	Lab Sample ID:	180-44321-16
Client ID:	HD-COD-SW-29-0/1-0		
Operator ID:	034635	ALS Bottle#:	24 Worklist Smp#: 27
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

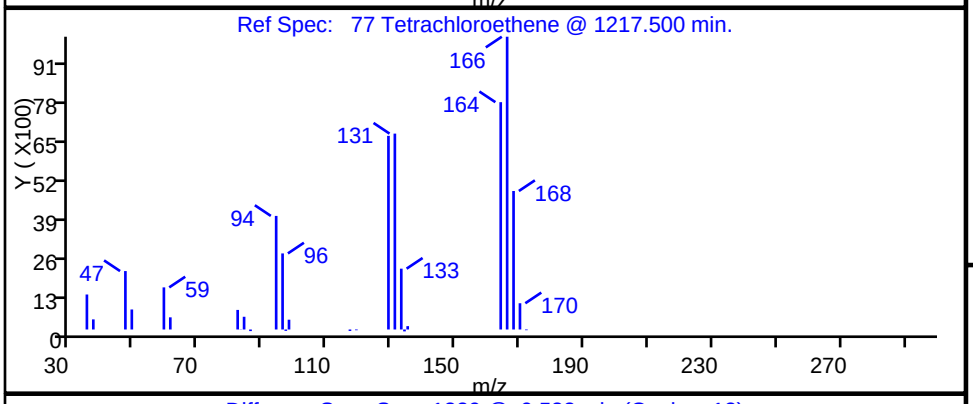
77 Tetrachloroethene, CAS: 127-18-4

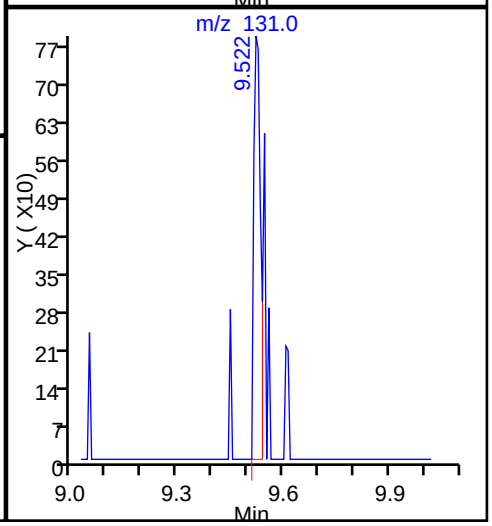


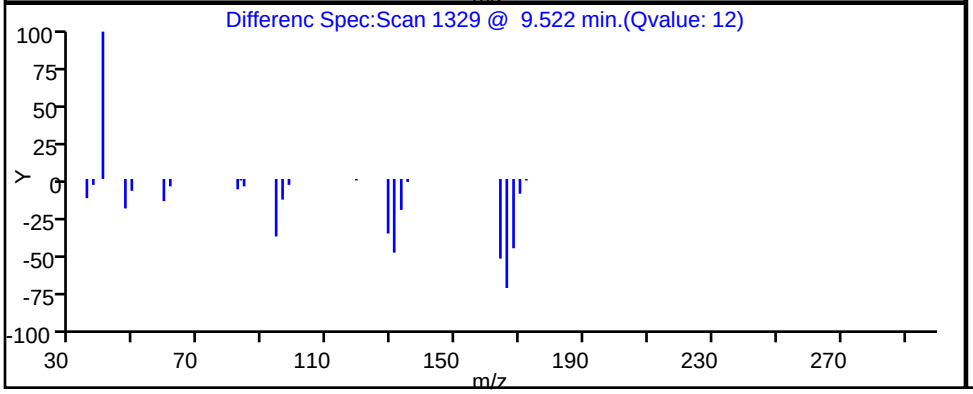












Manual Integration/User Assign Peak Report

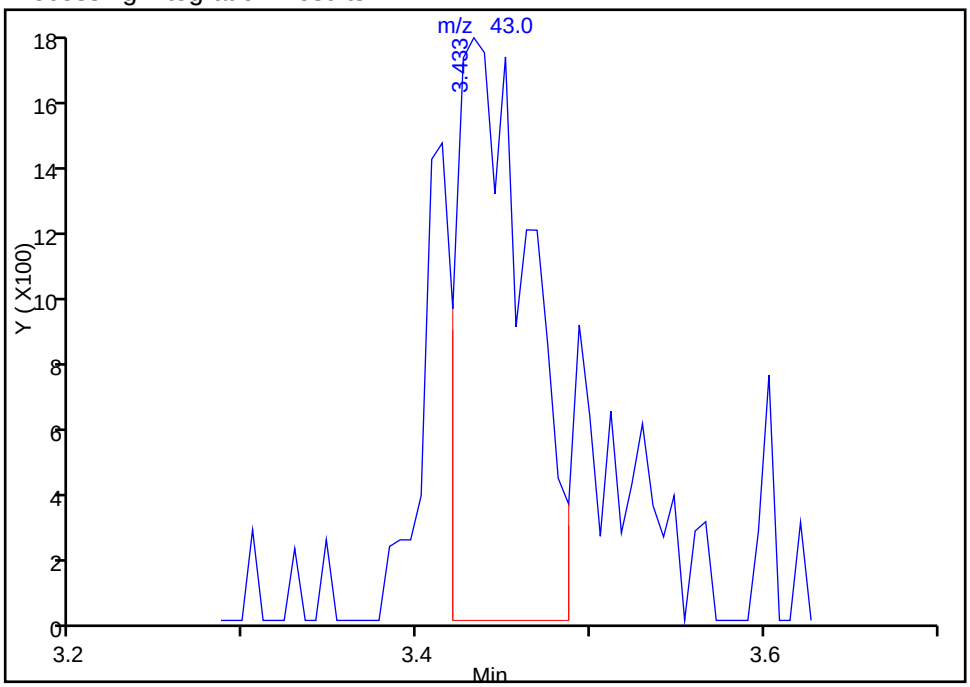
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530027.D				
Injection Date:	31-May-2015 19:14:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-C-16	Lab Sample ID:	180-44321-16		
Client ID:	HD-COD-SW-29-0/1-0				
Operator ID:	034635	ALS Bottle#:	24	Worklist Smp#:	27
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

24 Acetone, CAS: 67-64-1

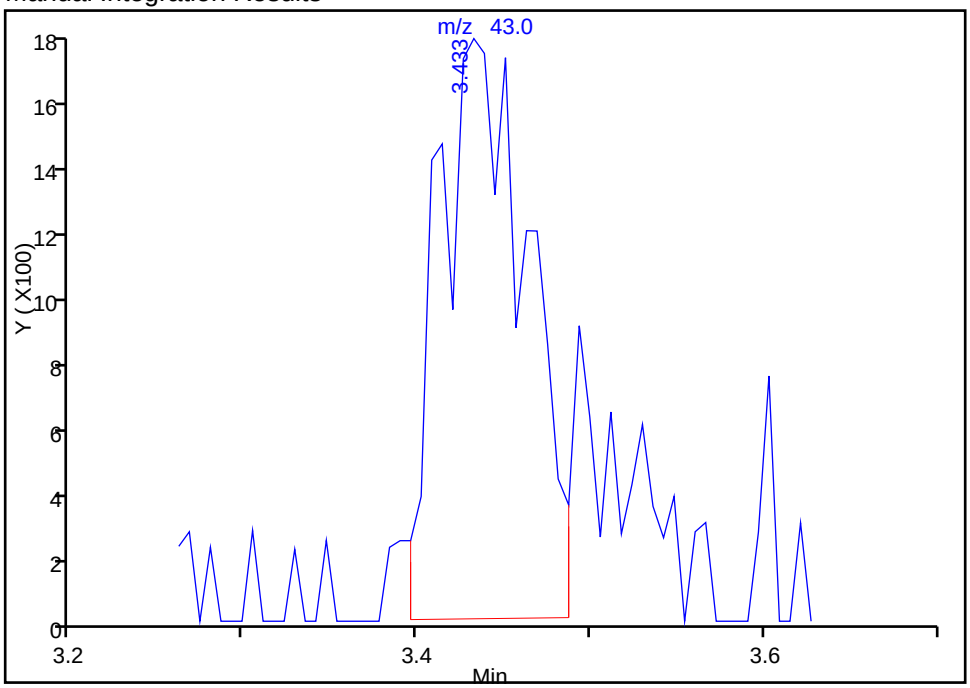
Processing Integration Results

RT: 3.43
Area: 5113
Amount: 7.244781
Amount Units: ng



Manual Integration Results

RT: 3.43
Area: 6331
Amount: 8.970606
Amount Units: ng



Reviewer: fergusond, 01-Jun-2015 08:37:30
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

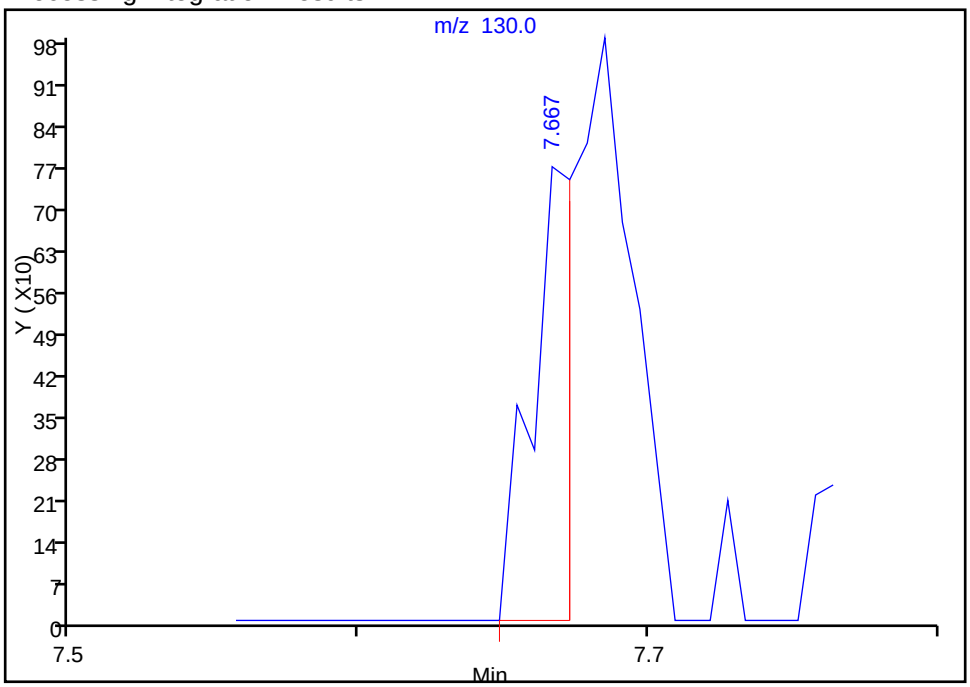
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530027.D				
Injection Date:	31-May-2015 19:14:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-C-16	Lab Sample ID:	180-44321-16		
Client ID:	HD-COD-SW-29-0/1-0				
Operator ID:	034635	ALS Bottle#:	24	Worklist Smp#:	27
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

61 Trichloroethene, CAS: 79-01-6

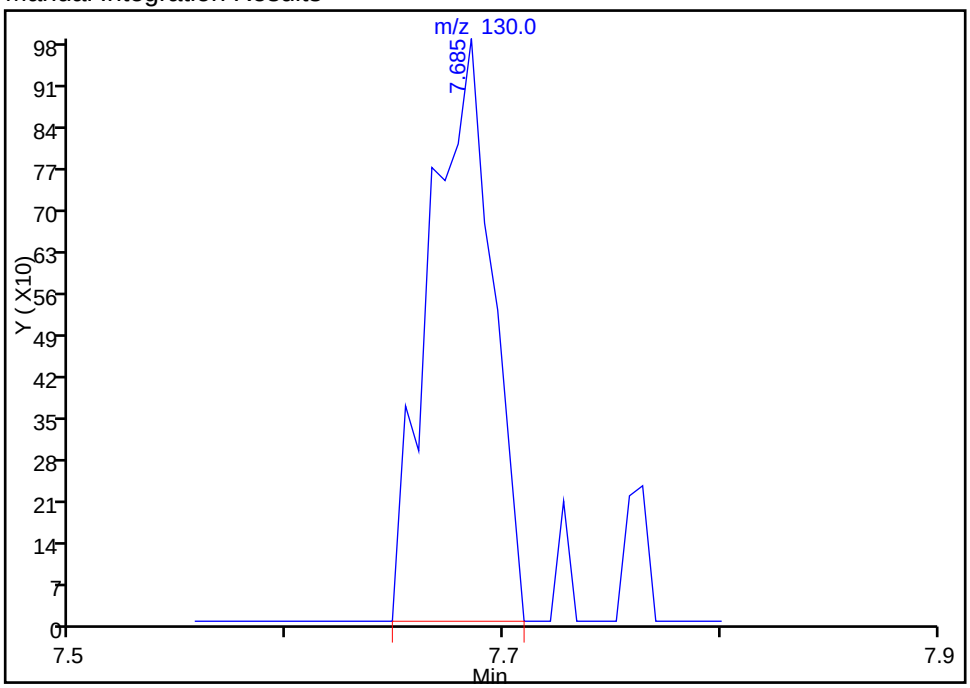
Processing Integration Results

RT: 7.67
Area: 790
Amount: 0.312210
Amount Units: ng



Manual Integration Results

RT: 7.68
Area: 1976
Amount: 0.780920
Amount Units: ng



Reviewer: fergusond, 01-Jun-2015 08:37:30
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-QC3-0/1-2 | Lab Sample ID: 180-44321-17

Matrix: Water | Lab File ID: 60530018.D

Analysis Method: 8260C | Date Collected: 05/20/2015 12:00

Sample wt/vol: 5(mL) | Date Analyzed: 05/31/2015 15:38

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.: 143337 | 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	B	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.: 180-44321-1

SDG No.:

Client Sample ID: HD-QC3-0/1-2 Lab Sample ID: 180-44321-17

Matrix: Water Lab File ID: 60530018.D

Analysis Method: 8260C Date Collected: 05/20/2015 12:00

Sample wt/vol: 5(mL) Date Analyzed: 05/31/2015 15:38

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.: 143337 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)	95		64-135
2037-26-5	Toluene-d8 (Surr)	86		71-118
460-00-4	4-Bromofluorobenzene (Surr)	113		70-118
1868-53-7	Dibromofluoromethane (Surr)	106		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530018.D
Lims ID: 180-44321-A-17 Lab Sample ID: 180-44321-17
Client ID: HD-QC3-0/1-2
Sample Type: Client
Inject. Date: 31-May-2015 15:38:30 ALS Bottle#: 12 Worklist Smp#: 18
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-44321-A-17
Misc. Info.: 180-0007190-018
Operator ID: 034635 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 31-May-2015 16:21:03 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK001

First Level Reviewer: journetp Date: 31-May-2015 16:19:45

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.229	4.236	-0.007	89	148514	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.284	0.005	98	504069	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.393	0.005	90	119032	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.746	12.747	-0.001	97	175731	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.553	6.554	-0.001	93	110512	53.0	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.930	6.925	0.005	69	166150	47.7	
$ 7 Toluene-d8 (Surr)	98	8.944	8.939	0.005	93	434049	43.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.584	11.579	0.005	88	231048	56.3	
12 Chloromethane	50		1.760				ND	
13 Vinyl chloride	62		1.882				ND	
15 Bromomethane	94		2.229				ND	
16 Chloroethane	64		2.375				ND	
22 1,1-Dichloroethene	96		3.336				ND	
24 Acetone	43		3.421				ND	
26 Carbon disulfide	76		3.628				ND	
31 Methylene Chloride	84	4.144	4.115	0.029	76	14612	5.16	
33 Acrylonitrile	53		4.498				ND	
34 trans-1,2-Dichloroethene	96		4.553				ND	
35 Methyl tert-butyl ether	73		4.565				ND	
37 1,1-Dichloroethane	63		5.198				ND	
43 cis-1,2-Dichloroethene	96		5.940				ND	
44 2-Butanone (MEK)	43		5.940				ND	
48 Chlorobromomethane	128		6.226				ND	
50 Chloroform	83	6.370	6.366	0.004	6	1222	0.2588	
51 1,1,1-Trichloroethane	97		6.536				ND	
53 Carbon tetrachloride	117		6.712				ND	
56 Benzene	78		6.943				ND	
57 1,2-Dichloroethane	62		7.016				ND	
61 Trichloroethene	130		7.673				ND	
64 1,2-Dichloropropane	63		7.947				ND	
65 1,4-Dioxane	88		8.020				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.227				ND	
71 cis-1,3-Dichloropropene	75		8.677				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.823				ND	
73 Toluene	91		9.012				ND	
74 trans-1,3-Dichloropropene	75		9.255				ND	
76 1,1,2-Trichloroethane	97		9.450				ND	
77 Tetrachloroethene	164		9.523				ND	
79 2-Hexanone	43		9.657				ND	
81 Chlorodibromomethane	129		9.821				ND	
82 Ethylene Dibromide	107		9.937				ND	
84 Chlorobenzene	112		10.423				ND	
86 1,1,1,2-Tetrachloroethane	131		10.521				ND	
87 Ethylbenzene	106		10.527				ND	
88 m-Xylene & p-Xylene	106		10.654				ND	
89 o-Xylene	106		11.044				ND	
90 Styrene	104		11.062				ND	
91 Bromoform	173		11.244				ND	
96 1,1,2,2-Tetrachloroethane	83		11.713				ND	
S 131 Xylenes, Total	106		1.000				ND	

Reagents:

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

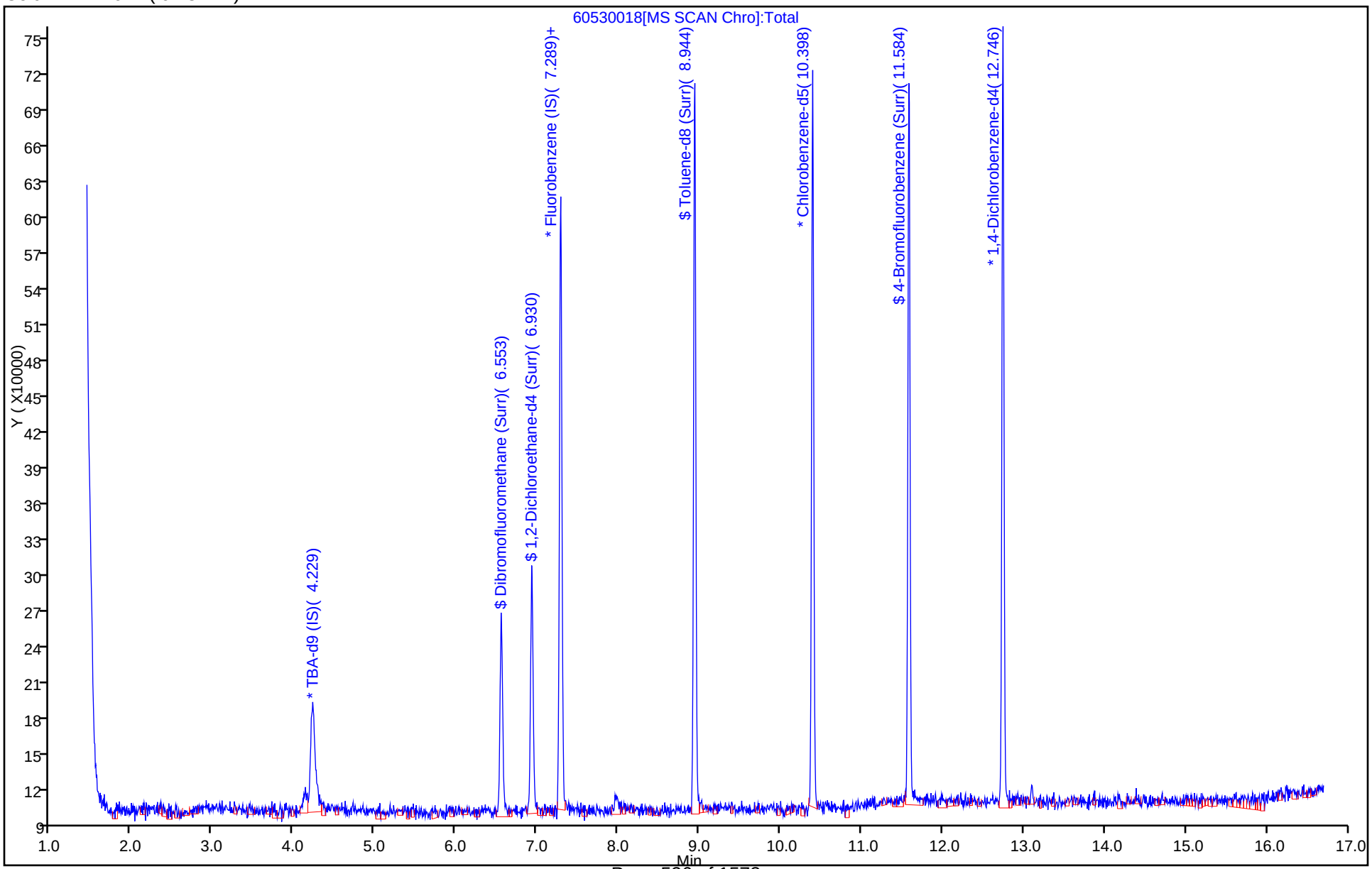
Report Date: 31-May-2015 16:21:13 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530018.D

Injection Date:	31-May-2015 15:38:30	Instrument ID:	CHHP6	Operator ID:	034635
Lims ID:	180-44321-A-17	Lab Sample ID:	180-44321-17	Worklist Smp#:	18
Client ID:	HD-QC3-0/1-2				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530018.D				
Lims ID:	180-44321-A-17	Lab Sample ID:	180-44321-17		
Client ID:	HD-QC3-0/1-2				
Sample Type:	Client				
Inject. Date:	31-May-2015 15:38:30	ALS Bottle#:	12	Worklist Smp#:	18
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Sample Info:	180-44321-A-17				
Misc. Info.:	180-0007190-018				
Operator ID:	034635	Instrument ID:	CHHP6		
Method:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\MSVOA_LL_CHHP6.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	31-May-2015 16:21:03	Calib Date:	01-May-2015 16:46:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK001				
First Level Reviewer: journetp		Date:	31-May-2015 16:19:45		

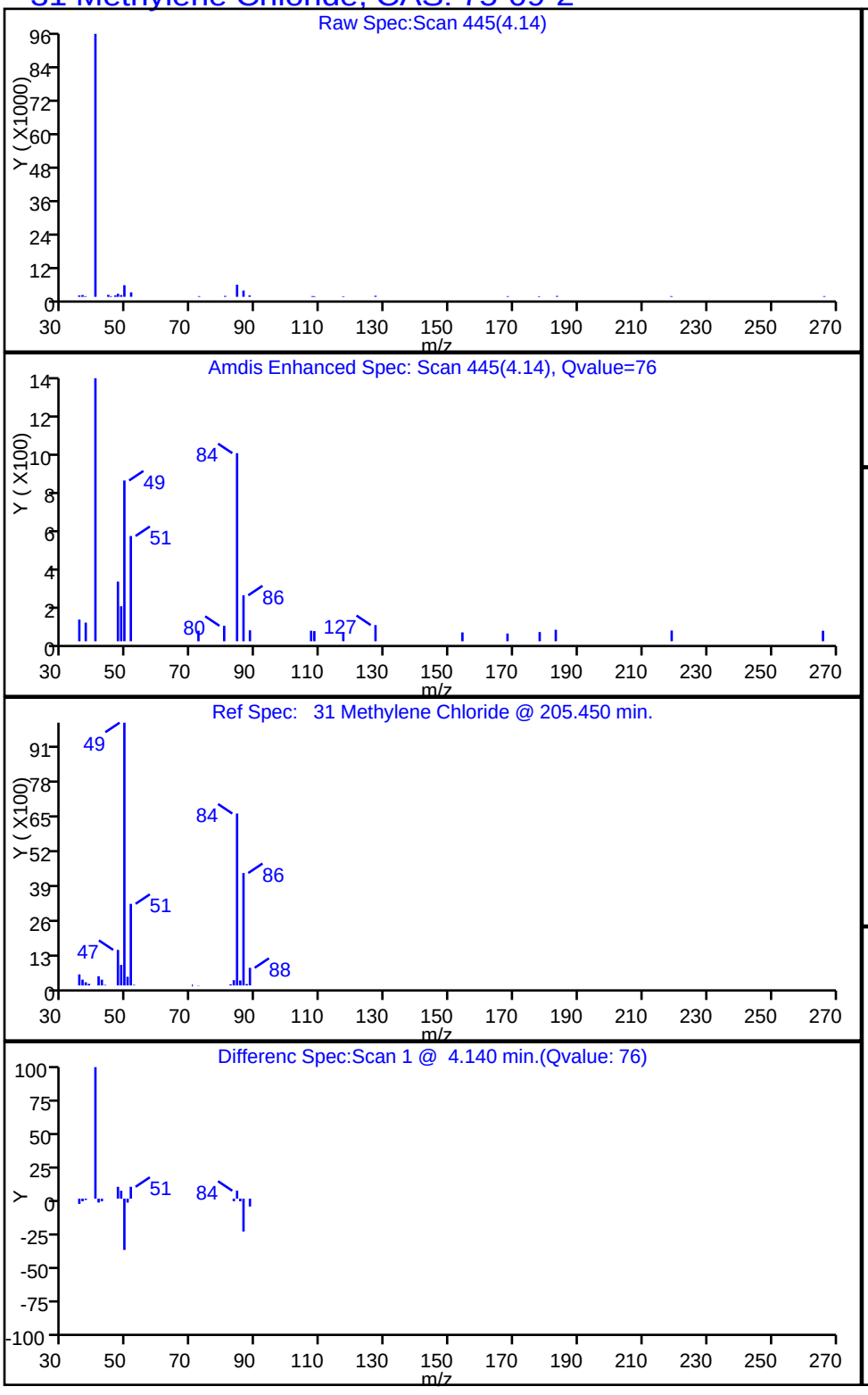
Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	53.0	105.98
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	47.7	95.36
$ 7 Toluene-d8 (Surr)	50.0	43.1	86.19
$ 8 4-Bromofluorobenzene (Surr)	50.0	56.3	112.55

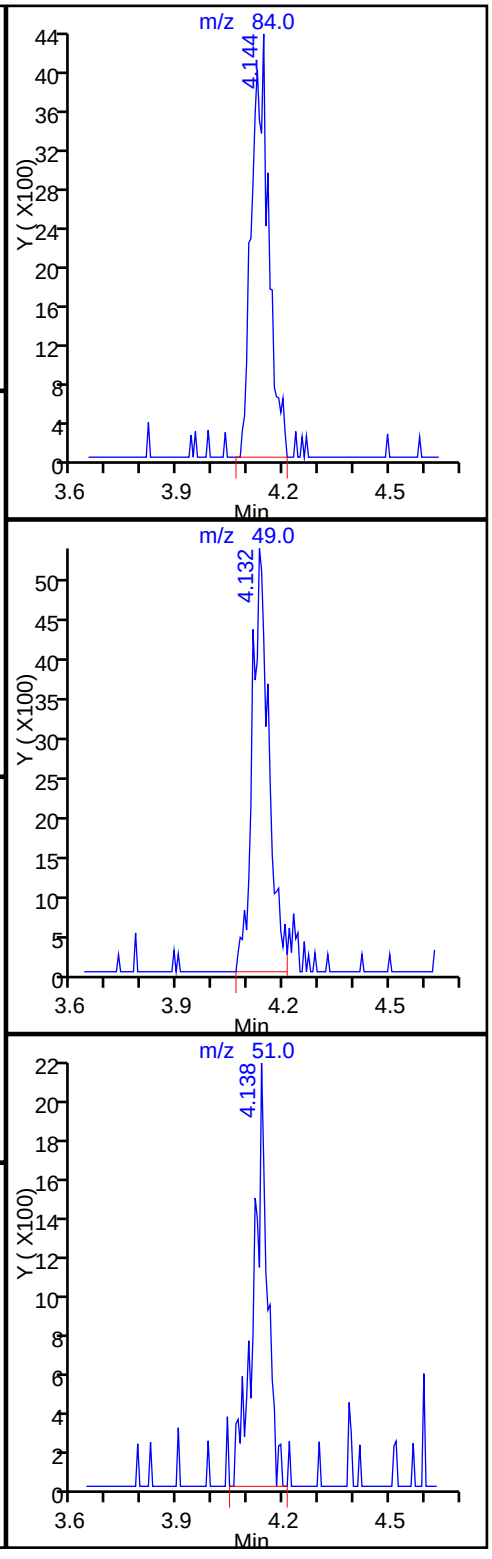
Report Date: 31-May-2015 16:21:13 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530018.D				
Injection Date:	31-May-2015 15:38:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-A-17	Lab Sample ID:	180-44321-17		
Client ID:	HD-QC3-0/1-2				
Operator ID:	034635	ALS Bottle#:	12	Worklist Smp#:	18
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

31 Methylene Chloride, CAS: 75-09-2





FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-QC2-0/1-1 Lab Sample ID: 180-44321-18

Matrix: Water Lab File ID: 7060113.D

Analysis Method: 8260C Date Collected: 05/20/2015 08:00

Sample wt/vol: 20(mL) Date Analyzed: 06/01/2015 15:45

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143422 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 F1	1.0	0.30
67-64-1	Acetone	5.0	U F1	5.0	2.5
75-15-0	Carbon disulfide	1.0	U F1	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 F1	1.0	0.18
75-34-3	1,1-Dichloroethane	1.0	U F1	1.0	0.12
156-59-2	cis-1,2-Dichloroethene	1.4		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 F1	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	1.1		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	1.6		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.: 180-44321-1

SDG No.:

Client Sample ID: HD-QC2-0/1-1 Lab Sample ID: 180-44321-18

Matrix: Water Lab File ID: 7060113.D

Analysis Method: 8260C Date Collected: 05/20/2015 08:00

Sample wt/vol: 20(mL) Date Analyzed: 06/01/2015 15:45

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143422 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)	95		64-135
2037-26-5	Toluene-d8 (Surr)	114		71-118
460-00-4	4-Bromofluorobenzene (Surr)	106		70-118
1868-53-7	Dibromofluoromethane (Surr)	102		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060113.D
Lims ID: 180-44321-D-18 Lab Sample ID: 180-44321-18
Client ID: HD-QC2-0/1-1
Sample Type: Client
Inject. Date: 01-Jun-2015 15:45:30 ALS Bottle#: 11 Worklist Smp#: 13
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 180-44401-D-18
Misc. Info.: 180-0007205-013
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 16:53:05 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

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

First Level Reviewer: journetp Date: 01-Jun-2015 16:41:30

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.587	4.665	-0.078	96	339936	4000.0	
* 2 Fluorobenzene (IS)	96	7.416	7.403	0.013	99	1262227	200.0	
* 3 Chlorobenzene-d5	119	10.470	10.463	0.007	86	327499	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.788	12.787	0.001	95	350728	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.686	6.679	0.007	91	410686	204.0	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.051	7.038	0.013	94	365645	190.5	
$ 7 Toluene-d8 (Surr)	98	9.034	9.033	0.001	93	1107611	228.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.632	11.631	0.001	90	458425	211.8	
12 Chloromethane	50		2.049				ND	
13 Vinyl chloride	62		2.232				ND	
15 Bromomethane	94		2.506				ND	
16 Chloroethane	64		2.621				ND	
22 1,1-Dichloroethene	96		3.540				ND	
24 Acetone	43		3.783				ND	
26 Carbon disulfide	76		3.868				ND	
31 Methylene Chloride	84		4.398				ND	
34 trans-1,2-Dichloroethene	96		4.781				ND	
33 Acrylonitrile	53		4.799				ND	
35 Methyl tert-butyl ether	73		4.854				ND	
37 1,1-Dichloroethane	63		5.359				ND	
45 cis-1,2-Dichloroethene	96	6.145	6.095	0.050	81	58050	27.8	M
46 2-Butanone (MEK)	43		6.180				ND	
49 Chlorobromomethane	128		6.387				ND	
52 Chloroform	83		6.497				ND	
53 1,1,1-Trichloroethane	97	6.729	6.679	0.050	36	9999	3.17	M
56 Carbon tetrachloride	117		6.862				ND	
58 Benzene	78		7.099				ND	
59 1,2-Dichloroethane	62		7.123				ND	
64 Trichloroethene	130	7.805	7.798	0.007	95	52951	21.3	
67 1,2-Dichloropropane	63		8.023				ND	
70 1,4-Dioxane	88		8.194				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.315				ND	
74 cis-1,3-Dichloropropene	75		8.772				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.936				ND	
76 Toluene	91		9.100				ND	
77 trans-1,3-Dichloropropene	75		9.325				ND	
79 1,1,2-Trichloroethane	97		9.508				ND	
80 Tetrachloroethene	164	9.655	9.642	0.013	92	77875	32.3	
82 2-Hexanone	43		9.763				ND	
84 Chlorodibromomethane	129		9.897				ND	
85 Ethylene Dibromide	107		10.007				ND	
87 Chlorobenzene	112		10.493				ND	
89 1,1,1,2-Tetrachloroethane	131		10.572				ND	
90 Ethylbenzene	106		10.603				ND	
91 m-Xylene & p-Xylene	106		10.718				ND	
92 o-Xylene	106		11.114				ND	
93 Styrene	104		11.126				ND	
94 Bromoform	173		11.315				ND	
99 1,1,2,2-Tetrachloroethane	83		11.771				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

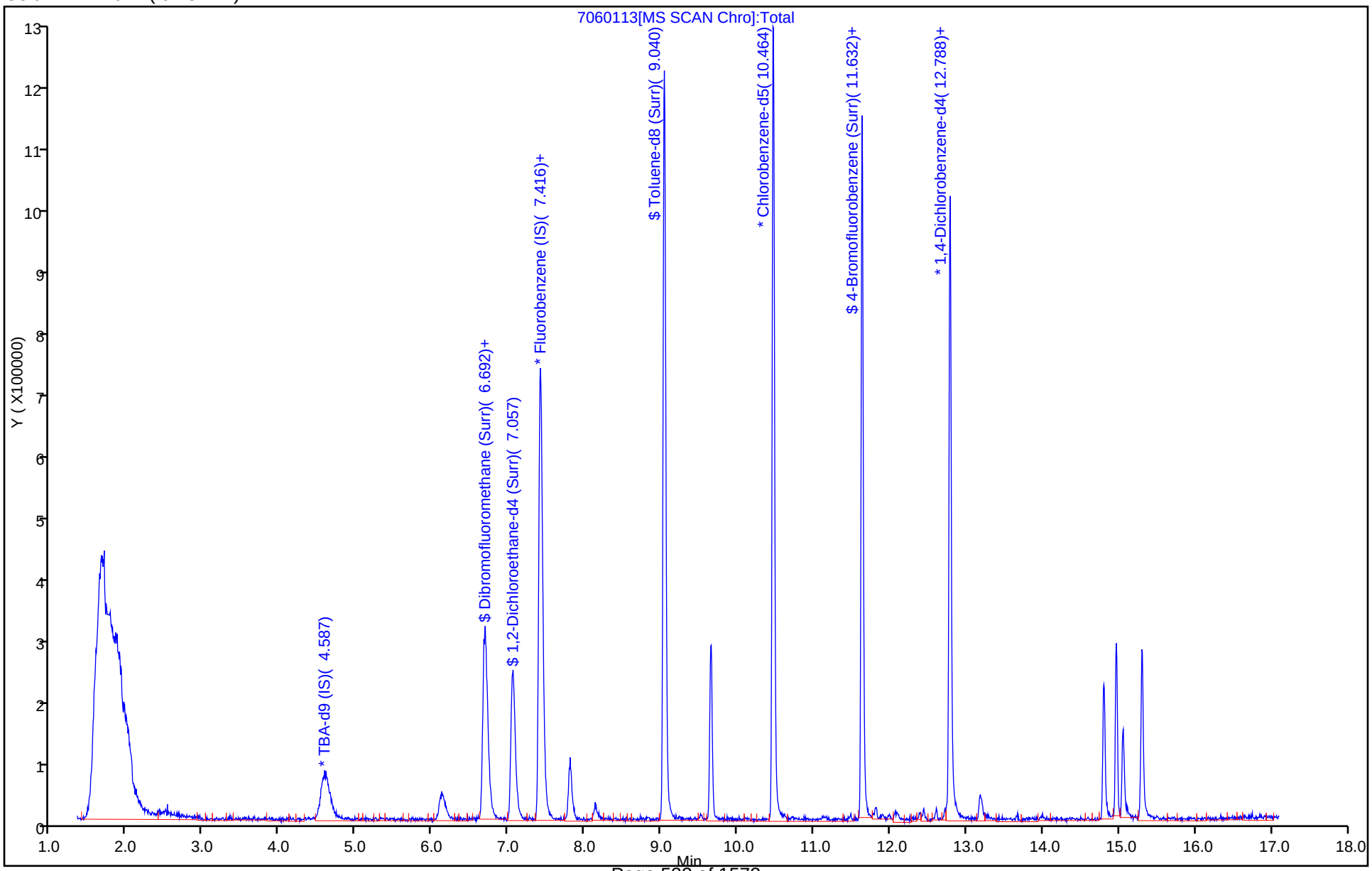
VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

Report Date: 01-Jun-2015 16:53:12 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060113.D				
Injection Date:	01-Jun-2015 15:45:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-44321-D-18	Lab Sample ID:	180-44321-18	Worklist Smp#:	13
Client ID:	HD-QC2-0/1-1				
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060113.D
Lims ID: 180-44321-D-18 Lab Sample ID: 180-44321-18
Client ID: HD-QC2-0/1-1
Sample Type: Client
Inject. Date: 01-Jun-2015 15:45:30 ALS Bottle#: 11 Worklist Smp#: 13
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 180-44401-D-18
Misc. Info.: 180-0007205-013
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 16:53:05 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

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

First Level Reviewer: journetp Date: 01-Jun-2015 16:41:30

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	200.0	204.0	101.99
$ 6 1,2-Dichloroethane-d4 (Surr)	200.0	190.5	95.24
$ 7 Toluene-d8 (Surr)	200.0	228.0	114.01
$ 8 4-Bromofluorobenzene (Surr)	200.0	211.8	105.90

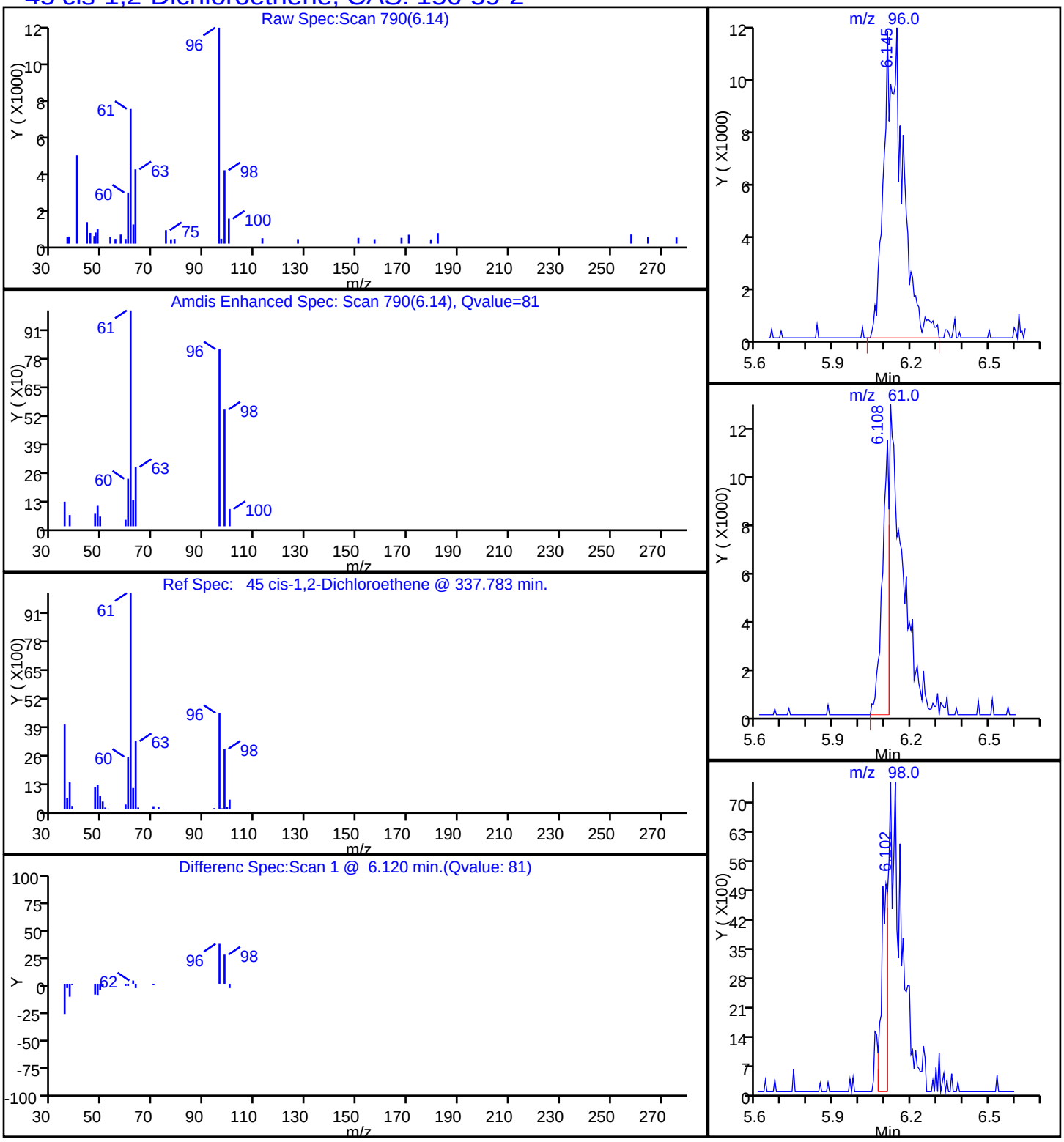
Report Date: 01-Jun-2015 16:53:12 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060113.D

Injection Date:	01-Jun-2015 15:45:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-D-18	Lab Sample ID:	180-44321-18		
Client ID:	HD-QC2-0/1-1				
Operator ID:	034635	ALS Bottle#:	11	Worklist Smp#:	13
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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



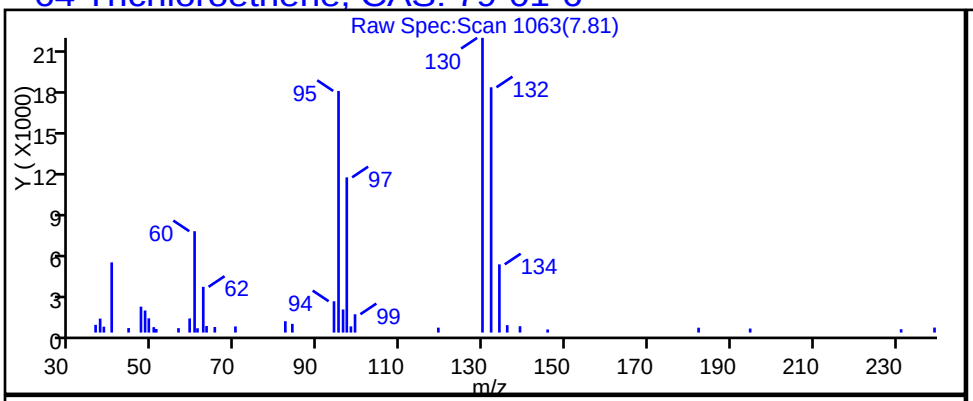
Report Date: 01-Jun-2015 16:53:12 Chrom Revision: 2.2 05-May-2015 11:39:10

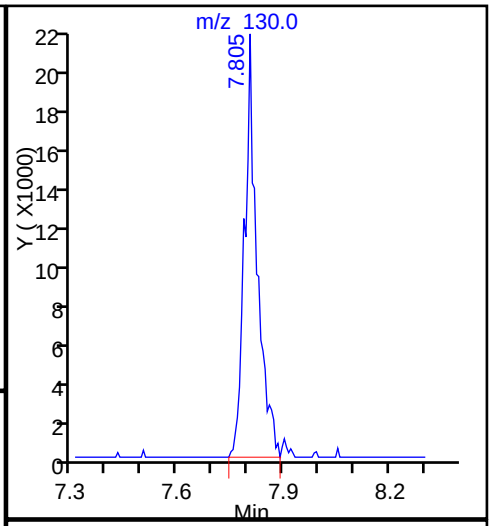
TestAmerica Pittsburgh

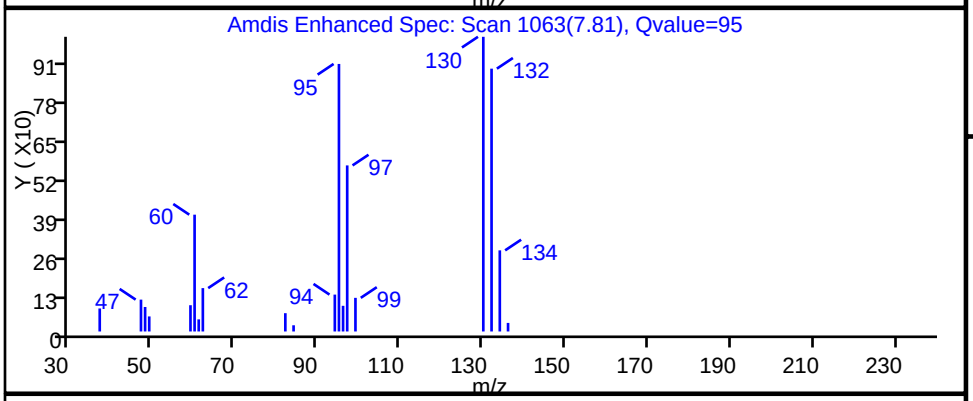
Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060113.D

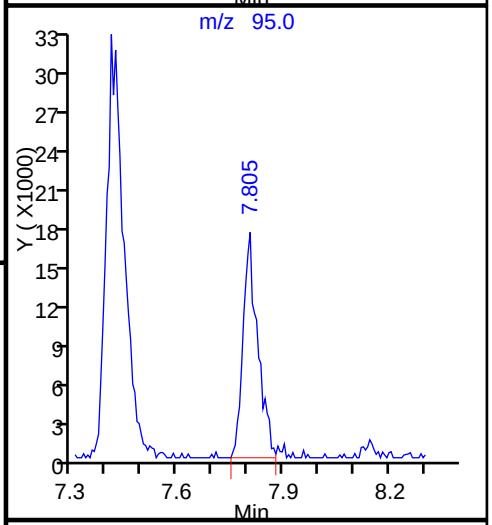
Injection Date:	01-Jun-2015 15:45:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-D-18	Lab Sample ID:	180-44321-18		
Client ID:	HD-QC2-0/1-1				
Operator ID:	034635	ALS Bottle#:	11	Worklist Smp#:	13
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

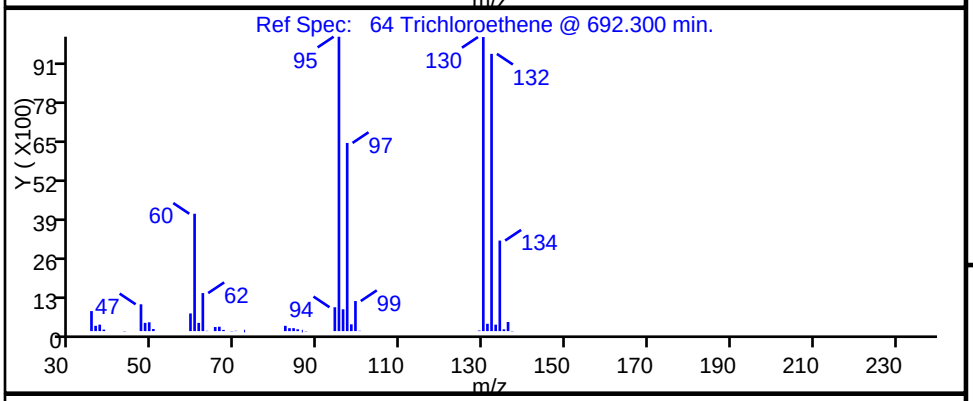
64 Trichloroethene, CAS: 79-01-6

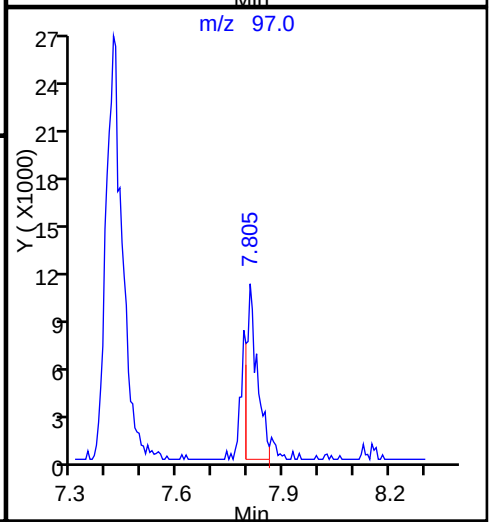


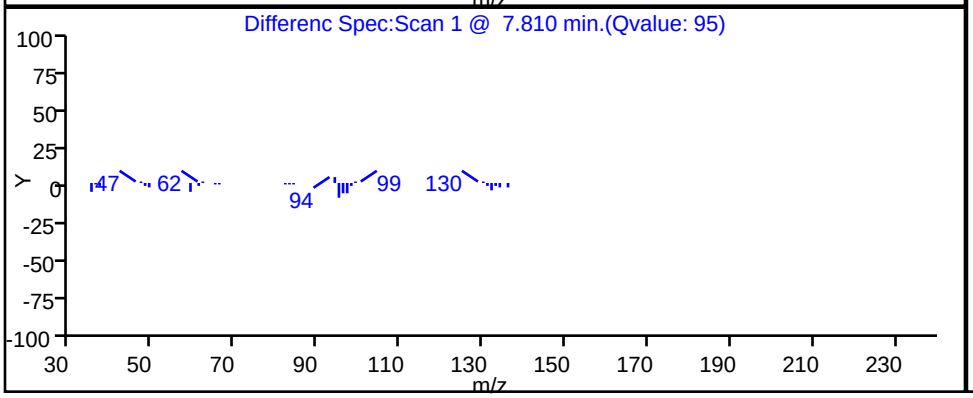












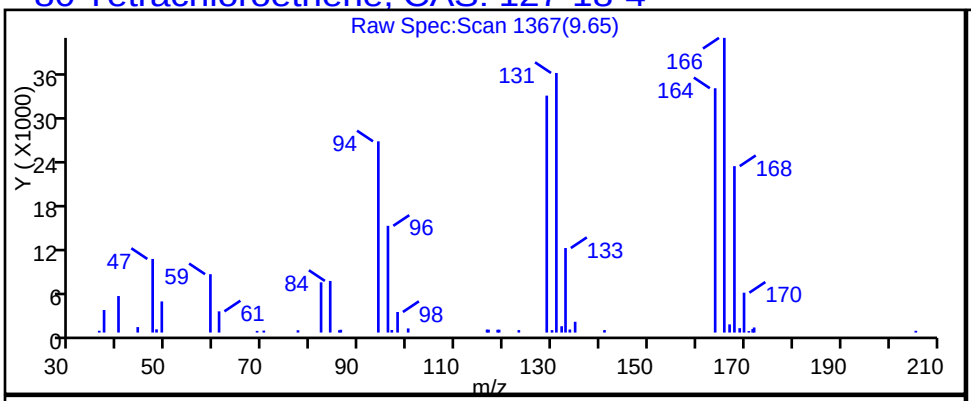
Report Date: 01-Jun-2015 16:53:12 Chrom Revision: 2.2 05-May-2015 11:39:10

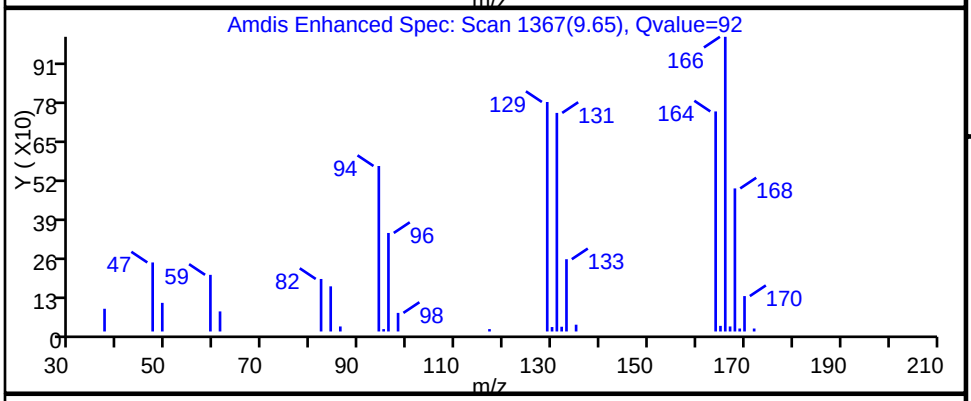
TestAmerica Pittsburgh

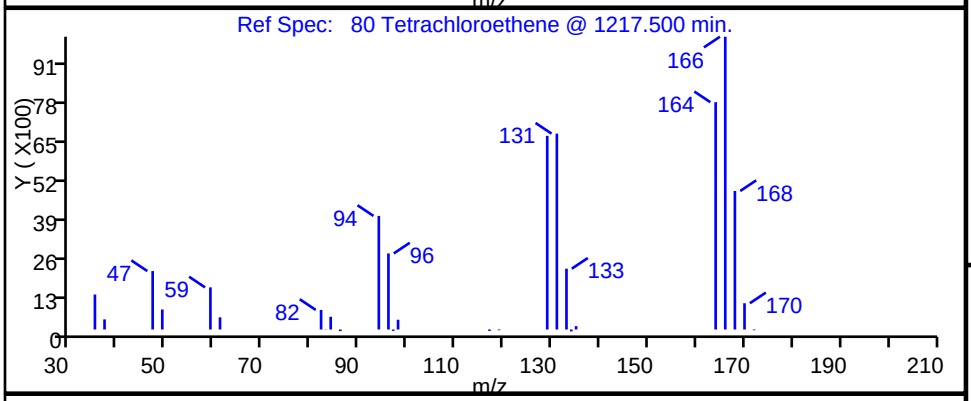
Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060113.D

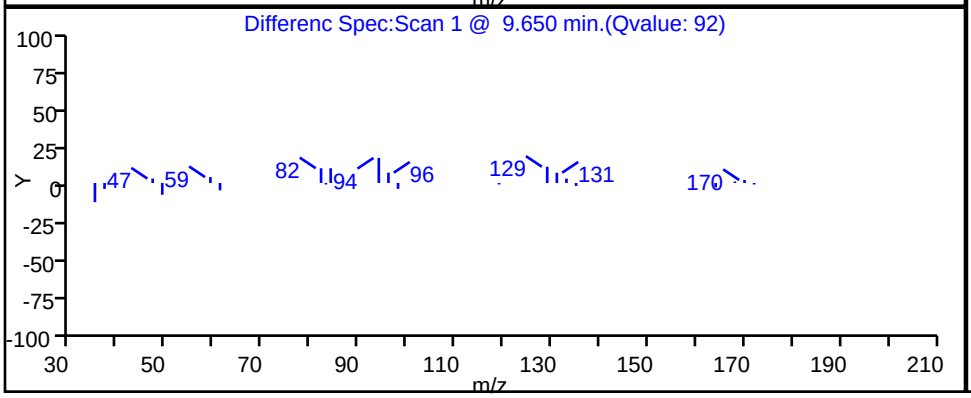
Injection Date:	01-Jun-2015 15:45:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-D-18	Lab Sample ID:	180-44321-18		
Client ID:	HD-QC2-0/1-1				
Operator ID:	034635	ALS Bottle#:	11	Worklist Smp#:	13
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

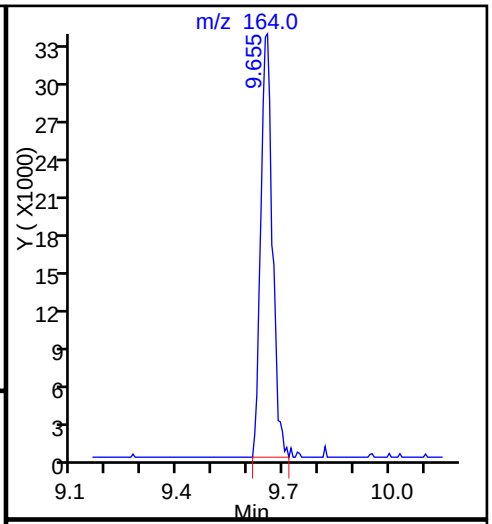
80 Tetrachloroethene, CAS: 127-18-4

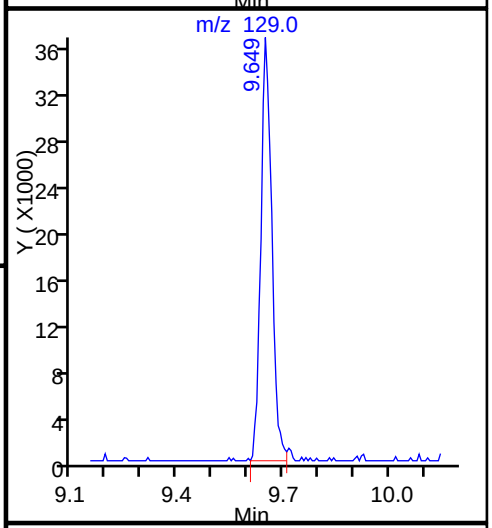


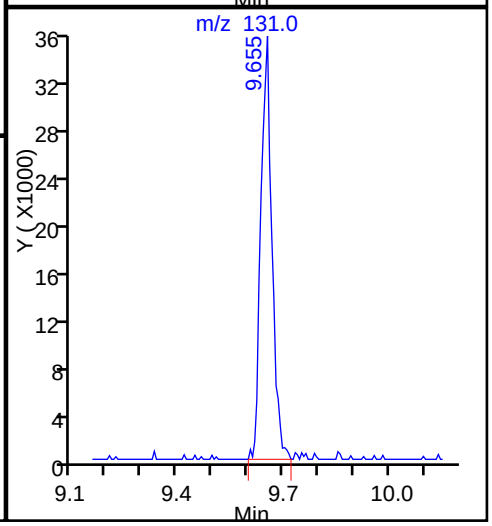












Manual Integration/User Assign Peak Report

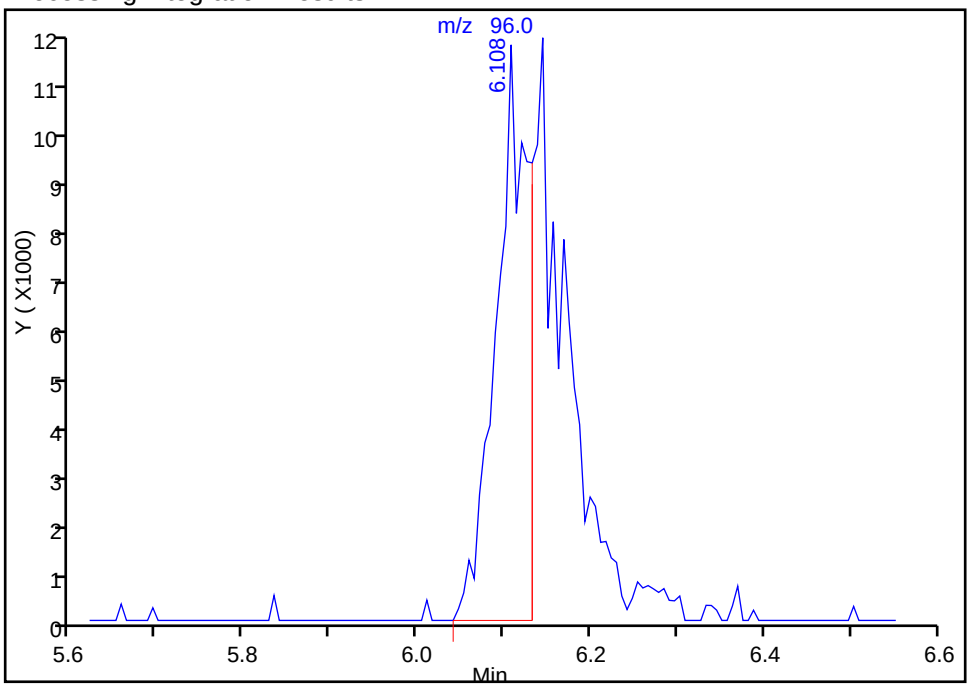
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060113.D				
Injection Date:	01-Jun-2015 15:45:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-D-18	Lab Sample ID:	180-44321-18		
Client ID:	HD-QC2-0/1-1				
Operator ID:	034635	ALS Bottle#:	11	Worklist Smp#:	13
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

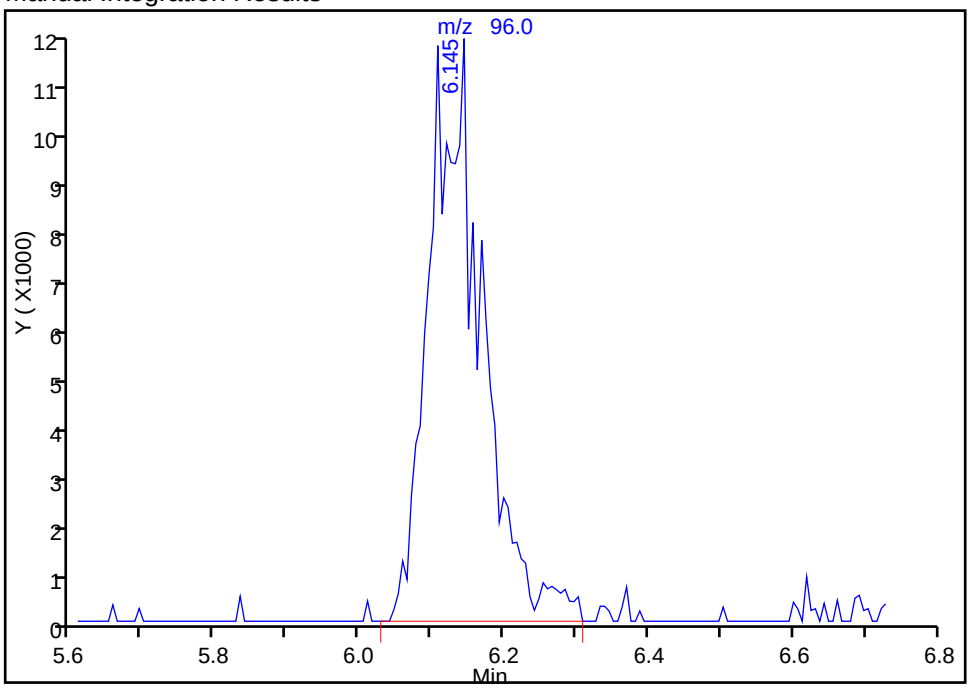
Processing Integration Results

RT: 6.11
Area: 29038
Amount: 13.915784
Amount Units: ng



Manual Integration Results

RT: 6.14
Area: 58050
Amount: 27.819109
Amount Units: ng



Reviewer: journetp, 01-Jun-2015 16:41:30
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

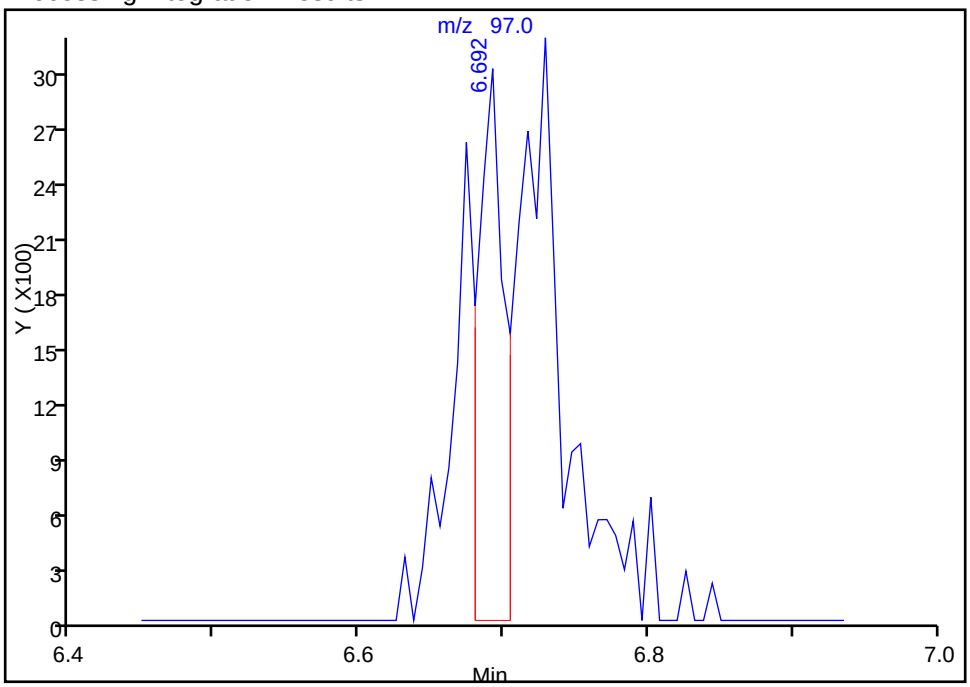
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060113.D				
Injection Date:	01-Jun-2015 15:45:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-D-18	Lab Sample ID:	180-44321-18		
Client ID:	HD-QC2-0/1-1				
Operator ID:	034635	ALS Bottle#:	11	Worklist Smp#:	13
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

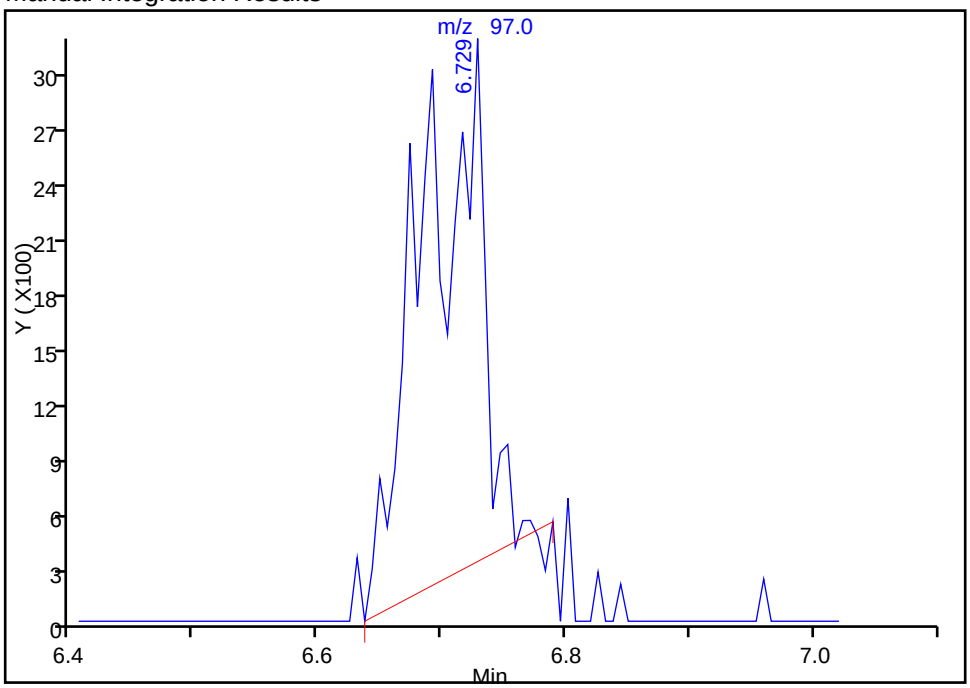
Processing Integration Results

RT: 6.69
Area: 3861
Amount: 1.225124
Amount Units: ng



Manual Integration Results

RT: 6.73
Area: 9999
Amount: 3.172758
Amount Units: ng



Reviewer: journetp, 01-Jun-2015 16:41:30
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-CW-9-0/1-0 | Lab Sample ID: 180-44321-19

Matrix: Water | Lab File ID: 60530022.D

Analysis Method: 8260C | Date Collected: 05/20/2015 10:10

Sample wt/vol: 5(mL) | Date Analyzed: 05/31/2015 17:14

Soil Aliquot Vol: | Dilution Factor: 12.5

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

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

Analysis Batch No.: 143337 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	13	U	13	3.5
75-01-4	Vinyl chloride	13	U	13	2.8
74-83-9	Bromomethane	13	U	13	3.9
75-00-3	Chloroethane	13	U	13	2.7
75-35-4	1,1-Dichloroethene	5.4	J	13	3.7
67-64-1	Acetone	63	U	63	31
75-15-0	Carbon disulfide	13	U	13	2.7
75-09-2	Methylene Chloride	11	J B	13	1.6
156-60-5	trans-1,2-Dichloroethene	13	U	13	2.1
1634-04-4	Methyl tert-butyl ether	13	U	13	2.3
75-34-3	1,1-Dichloroethane	4.0	J	13	1.5
156-59-2	cis-1,2-Dichloroethene	92		13	3.0
74-97-5	Bromochloromethane	13	U	13	2.3
78-93-3	2-Butanone (MEK)	63	U	63	6.8
67-66-3	Chloroform	13	U	13	2.1
71-55-6	1,1,1-Trichloroethane	22		13	3.6
56-23-5	Carbon tetrachloride	13	U	13	1.7
71-43-2	Benzene	13	U	13	1.3
107-06-2	1,2-Dichloroethane	13	U	13	2.6
79-01-6	Trichloroethene	160		13	1.8
78-87-5	1,2-Dichloropropane	13	U	13	1.2
75-27-4	Bromodichloromethane	13	U	13	1.6
10061-01-5	cis-1,3-Dichloropropene	13	U	13	2.3
108-10-1	4-Methyl-2-pentanone (MIBK)	63	U	63	6.6
108-88-3	Toluene	13	U	13	1.9
10061-02-6	trans-1,3-Dichloropropene	13	U	13	1.9
79-00-5	1,1,2-Trichloroethane	13	U	13	2.5
127-18-4	Tetrachloroethene	450		13	1.9
591-78-6	2-Hexanone	63	U	63	2.0
124-48-1	Dibromochloromethane	13	U	13	1.7
106-93-4	1,2-Dibromoethane (EDB)	13	U	13	2.3
108-90-7	Chlorobenzene	13	U	13	1.7
630-20-6	1,1,1,2-Tetrachloroethane	13	U	13	3.5
100-41-4	Ethylbenzene	13	U	13	2.8
1330-20-7	Xylenes, Total	38	U	38	6.1
100-42-5	Styrene	13	U	13	1.2

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-CW-9-0/1-0 Lab Sample ID: 180-44321-19

Matrix: Water Lab File ID: 60530022.D

Analysis Method: 8260C Date Collected: 05/20/2015 10:10

Sample wt/vol: 5(mL) Date Analyzed: 05/31/2015 17:14

Soil Aliquot Vol: Dilution Factor: 12.5

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143337 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	13	U	13	2.4
79-34-5	1,1,2,2-Tetrachloroethane	13	U	13	2.5
107-13-1	Acrylonitrile	250	U	250	6.8
123-91-1	1,4-Dioxane	2500	U	2500	430

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	92		64-135
2037-26-5	Toluene-d8 (Surr)	80		71-118
460-00-4	4-Bromofluorobenzene (Surr)	92		70-118
1868-53-7	Dibromofluoromethane (Surr)	104		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150531-7190.b\60530022.D
Lims ID: 180-44321-D-19
Client ID: HD-CW-9-0/1-0
Sample Type: Client
Inject. Date: 31-May-2015 17:14:30 ALS Bottle#: 19 Worklist Smp#: 22
Purge Vol: 5.000 mL Dil. Factor: 12.5000
Sample Info: 180-44321-D-19, x125
Misc. Info.: 180-0007190-022
Operator ID: 034635 Instrument ID: CHHP6

Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150531-7190.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 15-Jun-2016 12:41:26 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK024

First Level Reviewer: fergusond Date: 01-Jun-2015 08:27:00

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.236	4.236	0.000	87	138139	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.284	0.005	98	521060	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.393	0.005	92	122219	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.746	12.747	-0.001	97	187420	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.553	6.554	-0.001	93	112632	52.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.931	6.925	0.006	70	165383	45.9	
$ 7 Toluene-d8 (Surr)	98	8.944	8.939	0.005	94	415754	40.2	
$ 8 4-Bromofluorobenzene (Surr	95	11.584	11.579	0.005	84	193790	46.0	
12 Chloromethane	50		1.760				ND	
13 Vinyl chloride	62		1.882				ND	
15 Bromomethane	94		2.229				ND	
16 Chloroethane	64		2.375				ND	
22 1,1-Dichloroethene	96	3.347	3.336	0.011	54	5245	2.17	
24 Acetone	43	3.439	3.421	0.018	71	2791	4.04	
26 Carbon disulfide	76		3.628				ND	
31 Methylene Chloride	84	4.150	4.115	0.035	63	13256	4.53	
33 Acrylonitrile	53		4.498				ND	
34 trans-1,2-Dichloroethene	96		4.553				ND	
35 Methyl tert-butyl ether	73		4.565				ND	
37 1,1-Dichloroethane	63	5.215	5.198	0.017	0	8143	1.61	M
43 cis-1,2-Dichloroethene	96	5.945	5.940	0.005	84	112275	36.7	
44 2-Butanone (MEK)	43		5.940				ND	
48 Chlorobromomethane	128		6.226				ND	
50 Chloroform	83	6.353	6.366	-0.013	14	1920	0.3934	
51 1,1,1-Trichloroethane	97	6.547	6.536	0.011	98	35778	8.92	
53 Carbon tetrachloride	117		6.712				ND	
56 Benzene	78		6.943				ND	
57 1,2-Dichloroethane	62		7.016				ND	
61 Trichloroethene	130	7.679	7.673	0.006	97	158002	63.7	
64 1,2-Dichloropropane	63		7.947				ND	
65 1,4-Dioxane	88		8.020				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.227				ND	
71 cis-1,3-Dichloropropene	75		8.677				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.823				ND	
73 Toluene	91		9.012				ND	
74 trans-1,3-Dichloropropene	75		9.255				ND	
76 1,1,2-Trichloroethane	97		9.450				ND	
77 Tetrachloroethene	164	9.528	9.523	0.005	96	378157	181.3	
79 2-Hexanone	43		9.657				ND	
81 Chlorodibromomethane	129		9.821				ND	
82 Ethylene Dibromide	107		9.937				ND	
84 Chlorobenzene	112		10.423				ND	
86 1,1,1,2-Tetrachloroethane	131		10.521				ND	
87 Ethylbenzene	106		10.527				ND	
88 m-Xylene & p-Xylene	106		10.654				ND	
89 o-Xylene	106		11.044				ND	
90 Styrene	104		11.062				ND	
91 Bromoform	173		11.244				ND	
96 1,1,2,2-Tetrachloroethane	83		11.713				ND	
S 131 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

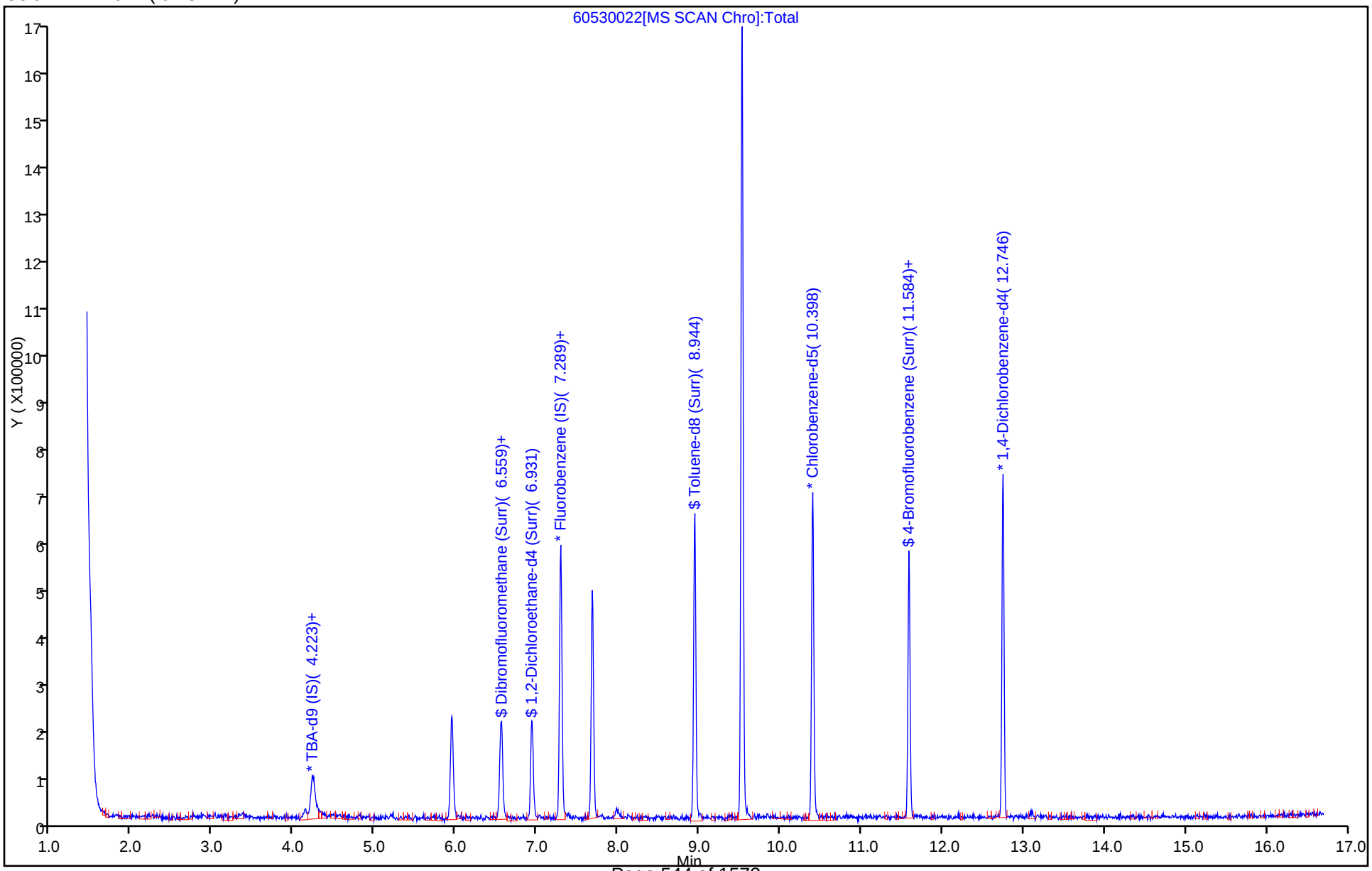
VOA8260INT_00033	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00035	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 15-Jun-2016 12:41:27 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP6\20150531-7190.b\60530022.D				
Injection Date:	31-May-2015 17:14:30	Instrument ID:	CHHP6	Operator ID:	034635
Lims ID:	180-44321-D-19	Lab Sample ID:	180-44321-19	Worklist Smp#:	22
Client ID:	HD-CW-9-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	12.5000	ALS Bottle#:	19
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150531-7190.b\60530022.D
Lims ID: 180-44321-D-19
Client ID: HD-CW-9-0/1-0
Sample Type: Client
Inject. Date: 31-May-2015 17:14:30 ALS Bottle#: 19 Worklist Smp#: 22
Purge Vol: 5.000 mL Dil. Factor: 12.5000
Sample Info: 180-44321-D-19, x125
Misc. Info.: 180-0007190-022
Operator ID: 034635 Instrument ID: CHHP6

Method: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150531-7190.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 15-Jun-2016 12:41:26 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK024

First Level Reviewer: fergusond Date: 01-Jun-2015 08:27:00

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	52.2	104.49
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	45.9	91.83
$ 7 Toluene-d8 (Surr)	50.0	40.2	80.41
$ 8 4-Bromofluorobenzene (Surr)	50.0	46.0	91.94

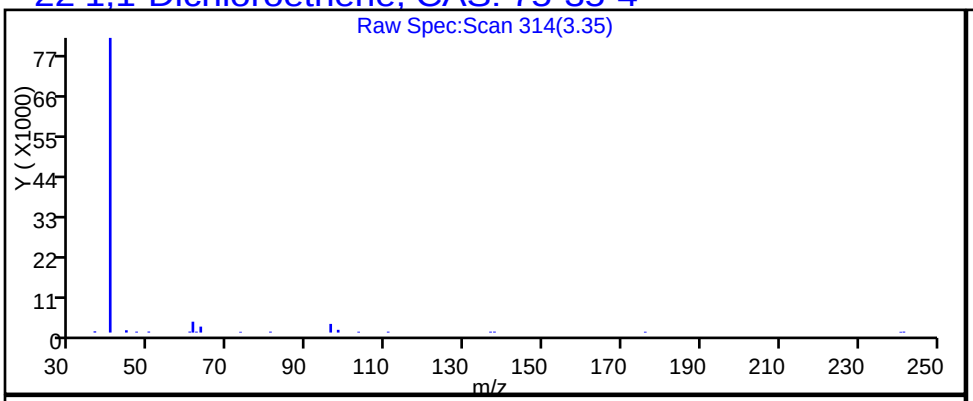
Report Date: 15-Jun-2016 12:41:27 Chrom Revision: 2.2 20-Apr-2016 13:59:46

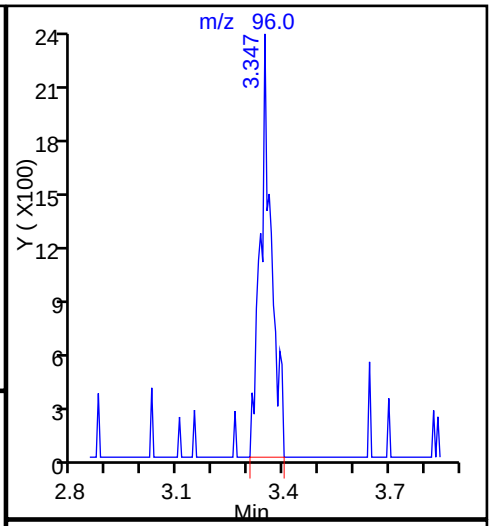
TestAmerica Pittsburgh

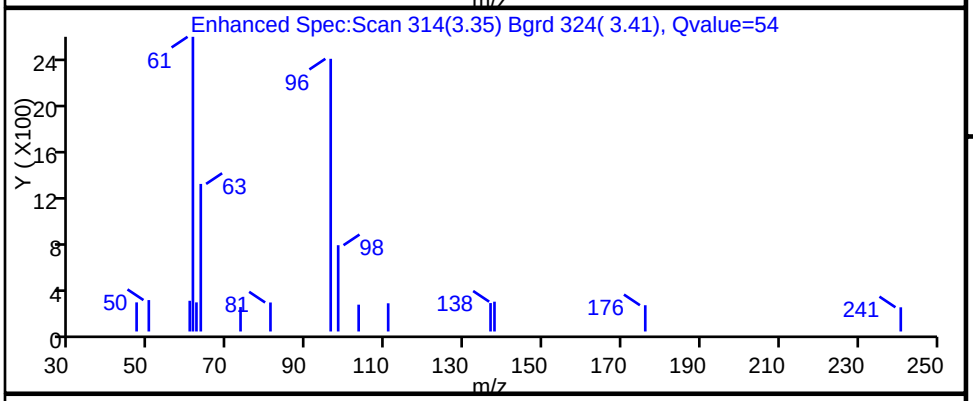
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150531-7190.b\60530022.D

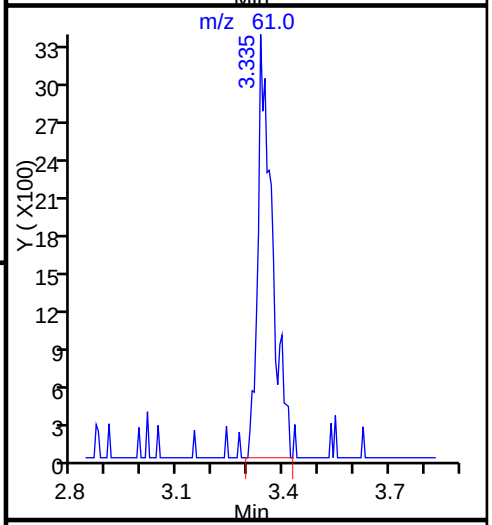
Injection Date:	31-May-2015 17:14:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-D-19	Lab Sample ID:	180-44321-19		
Client ID:	HD-CW-9-0/1-0				
Operator ID:	034635	ALS Bottle#:	19	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	12.5000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

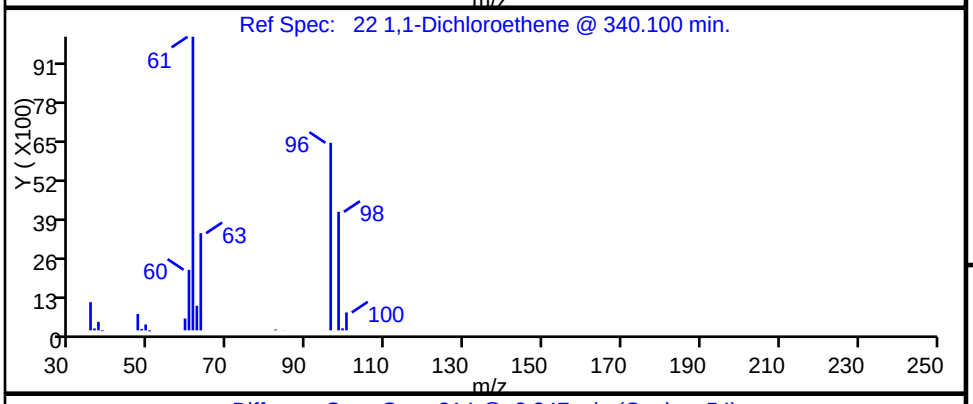
22 1,1-Dichloroethene, CAS: 75-35-4

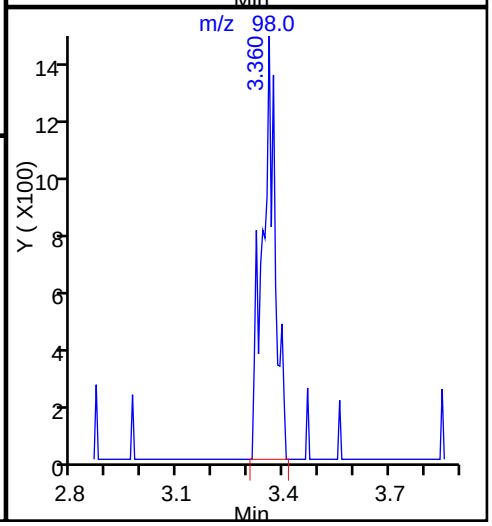


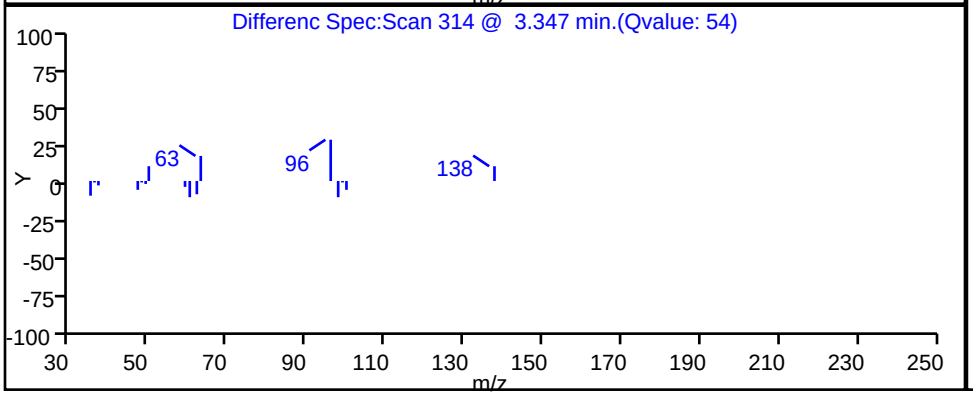










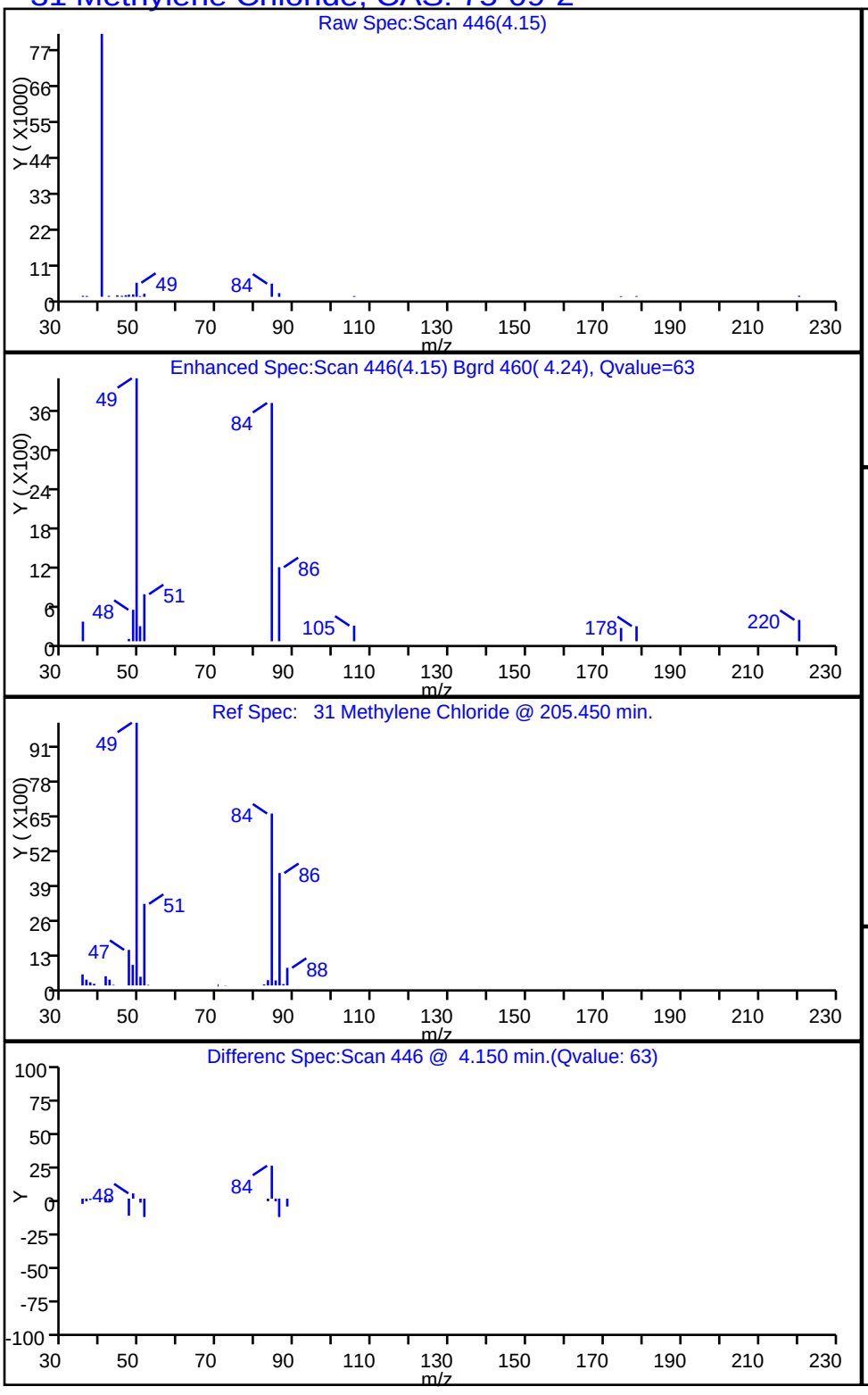


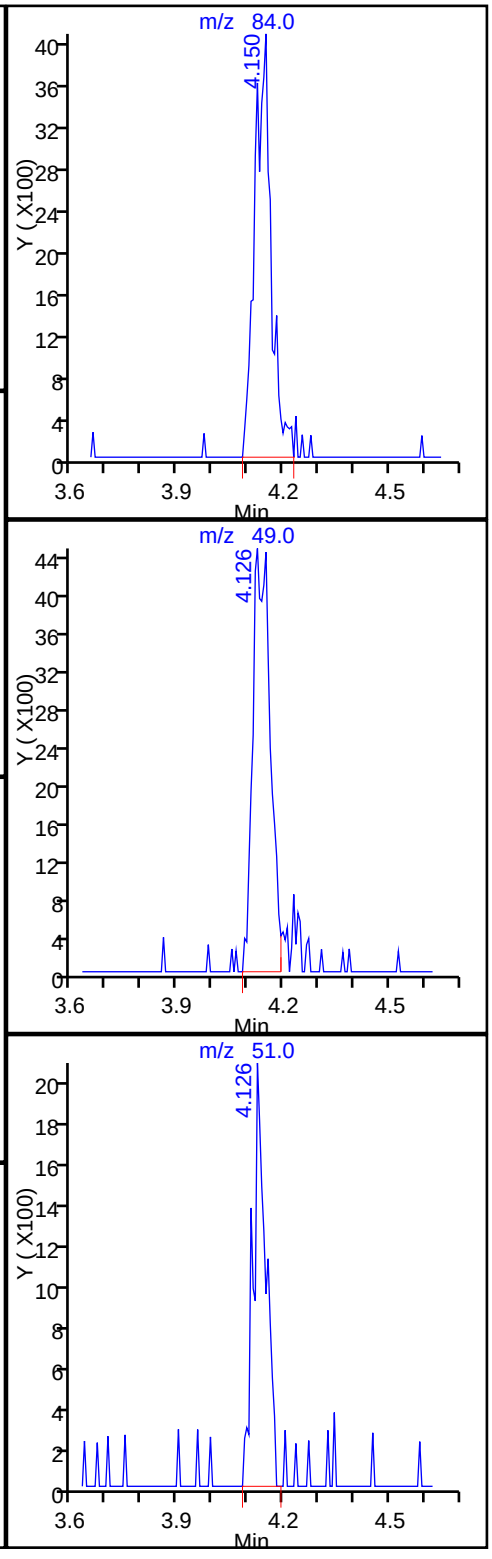
Report Date: 15-Jun-2016 12:41:27 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Pittsburgh

Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP6\20150531-7190.b\60530022.D				
Injection Date:	31-May-2015 17:14:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-D-19	Lab Sample ID:	180-44321-19		
Client ID:	HD-CW-9-0/1-0				
Operator ID:	034635	ALS Bottle#:	19	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	12.5000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

31 Methylene Chloride, CAS: 75-09-2





Report Date: 15-Jun-2016 12:41:27 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150531-7190.b\60530022.D

Injection Date:	31-May-2015 17:14:30	Instrument ID:	CHHP6		
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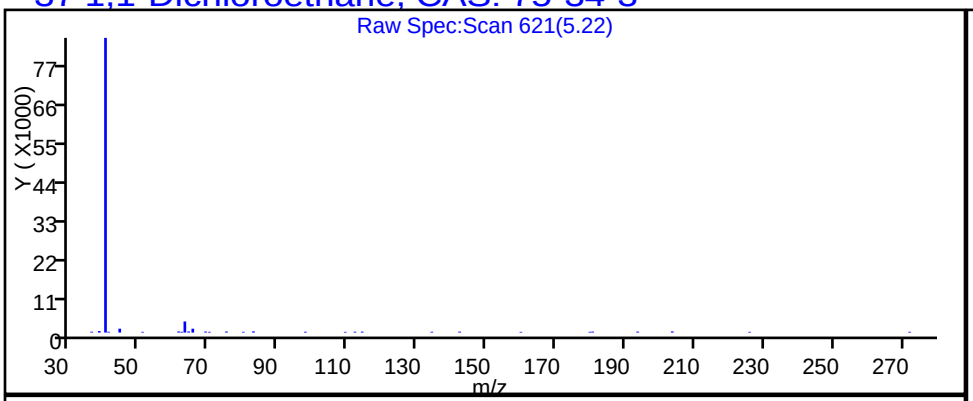
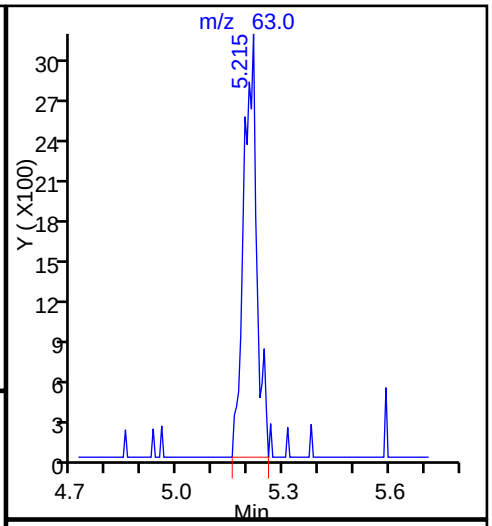
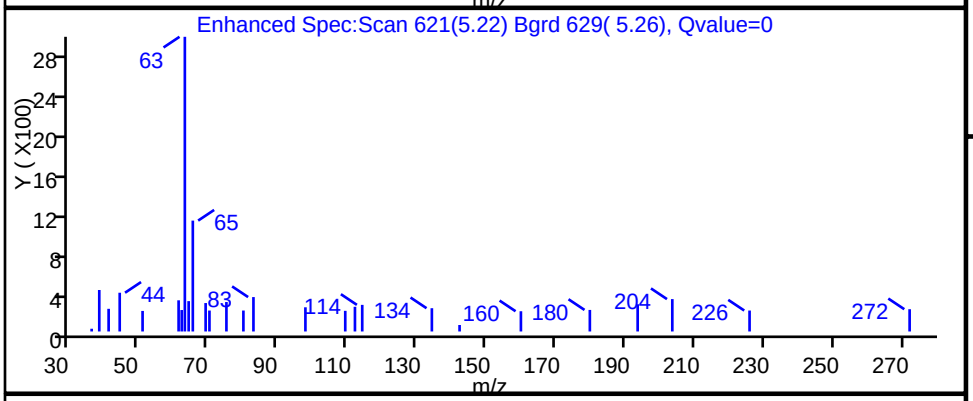
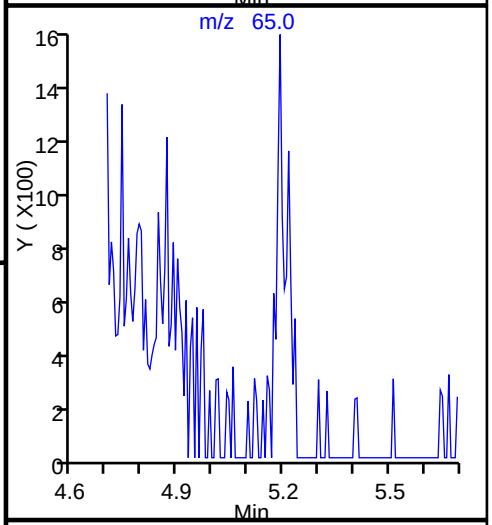
Client ID:	HD-CW-9-0/1-0				
Operator ID:	034635	ALS Bottle#:	19	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	12.5000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

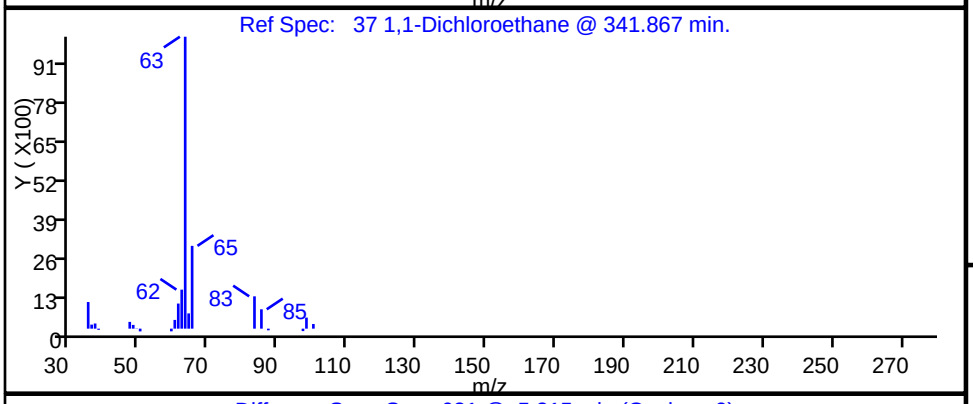
37 1,1-Dichloroethane, CAS: 75-34-3

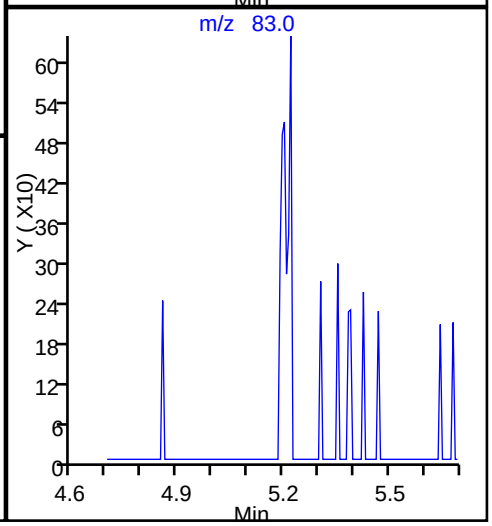


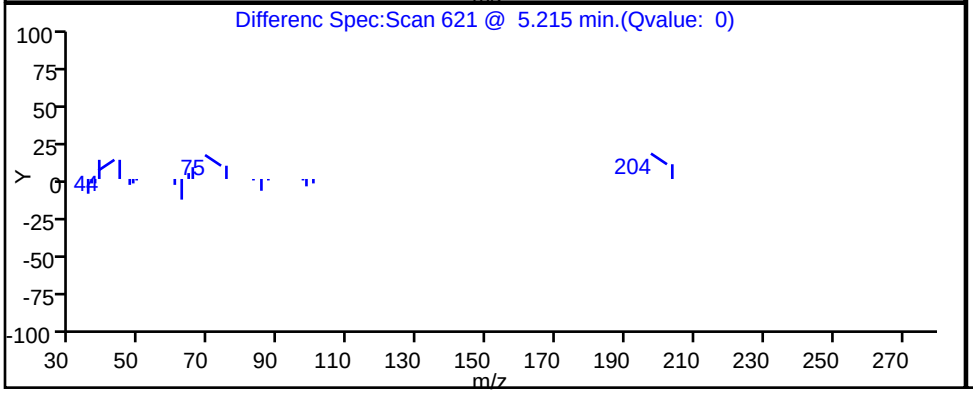












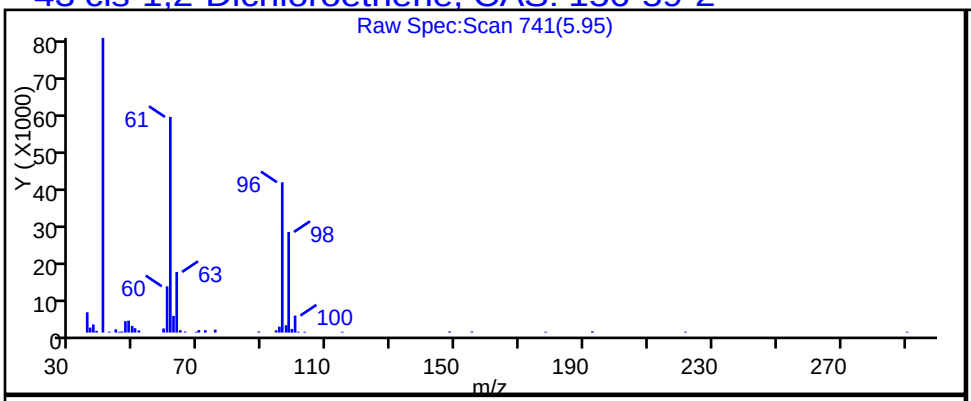
Report Date: 15-Jun-2016 12:41:27 Chrom Revision: 2.2 20-Apr-2016 13:59:46

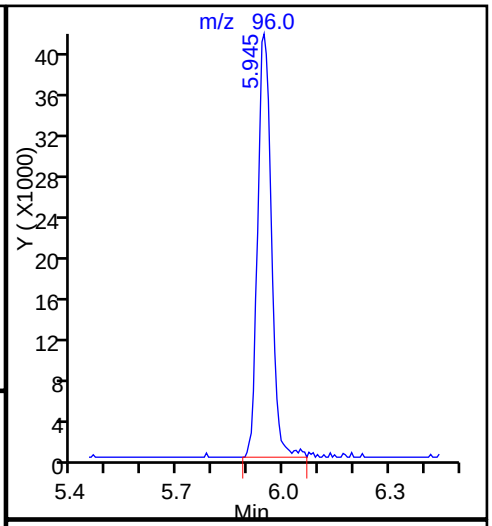
TestAmerica Pittsburgh

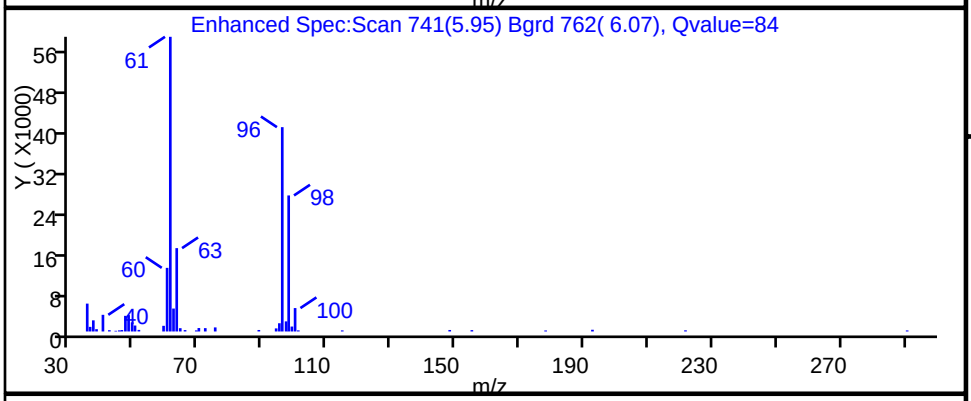
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150531-7190.b\60530022.D

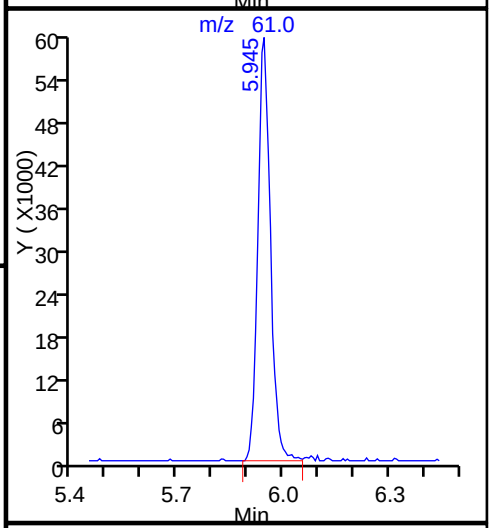
Injection Date:	31-May-2015 17:14:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-D-19	Lab Sample ID:	180-44321-19		
Client ID:	HD-CW-9-0/1-0				
Operator ID:	034635	ALS Bottle#:	19	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	12.5000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

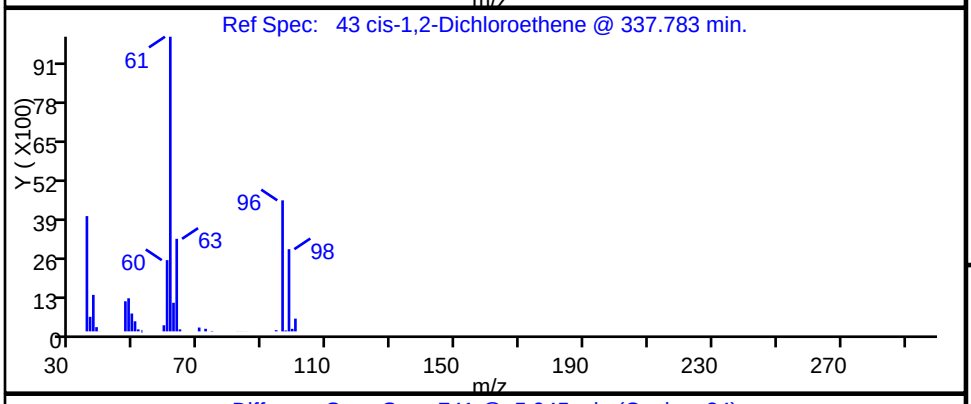
43 cis-1,2-Dichloroethene, CAS: 156-59-2

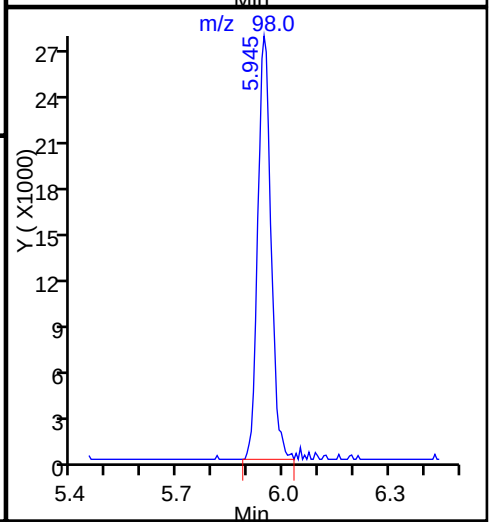


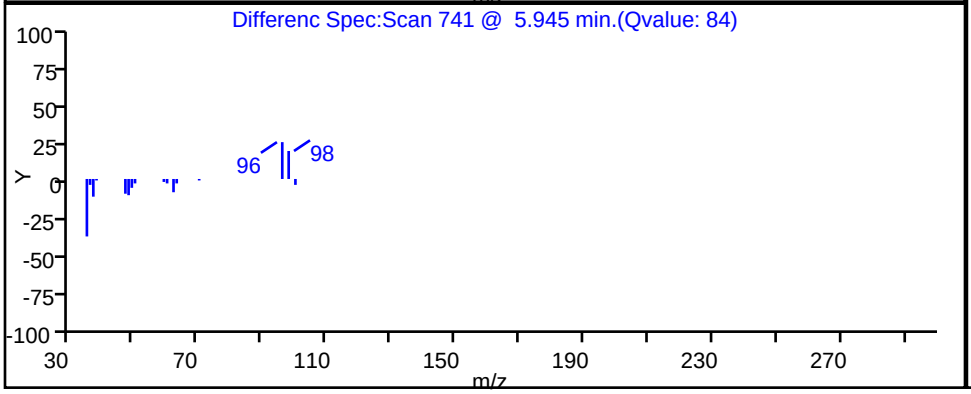












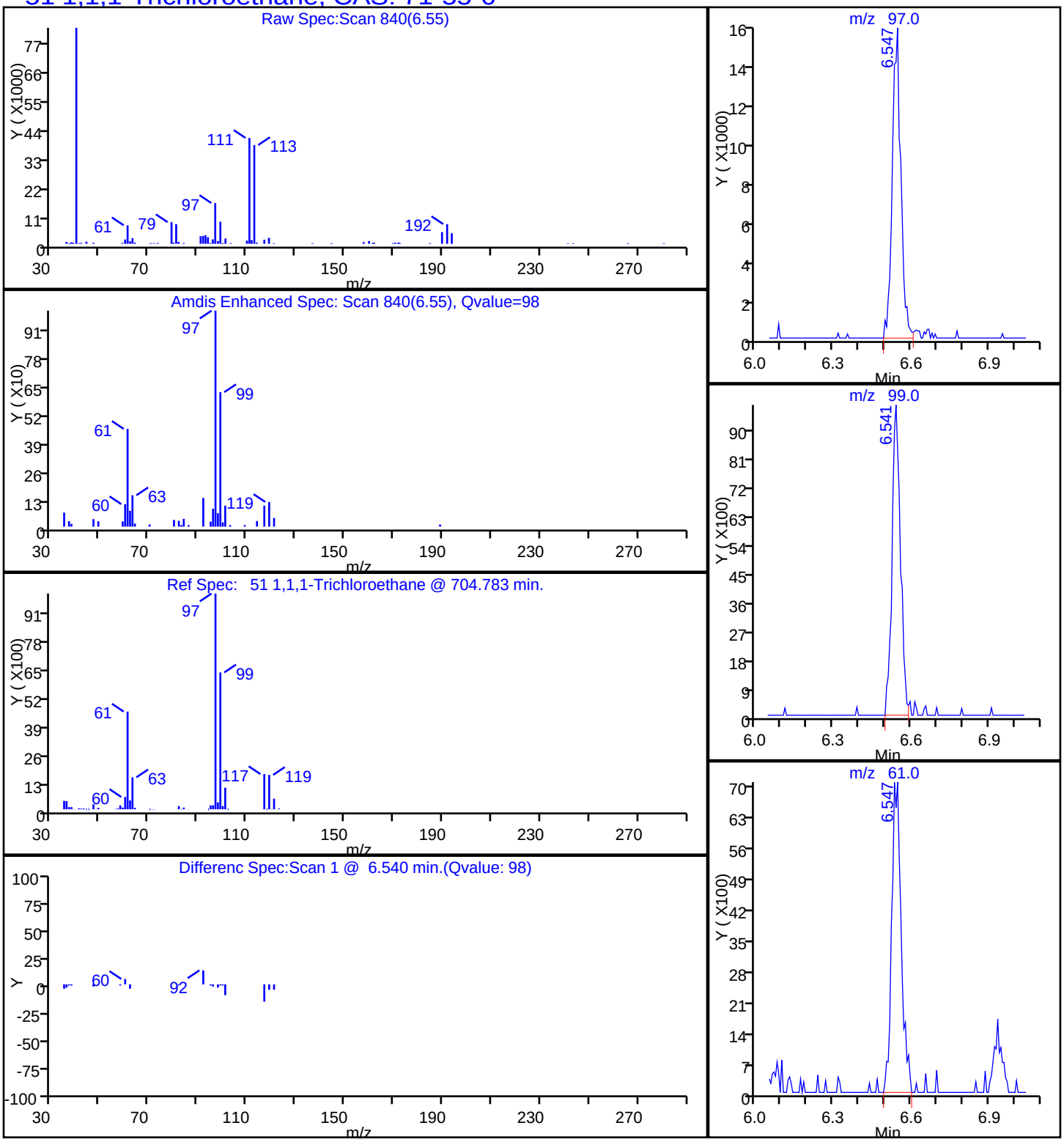
Report Date: 15-Jun-2016 12:41:27 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150531-7190.b\60530022.D

Injection Date:	31-May-2015 17:14:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-D-19	Lab Sample ID:	180-44321-19		
Client ID:	HD-CW-9-0/1-0				
Operator ID:	034635	ALS Bottle#:	19	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	12.5000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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



Report Date: 15-Jun-2016 12:41:27 Chrom Revision: 2.2 20-Apr-2016 13:59:46

TestAmerica Pittsburgh

Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150531-7190.b\60530022.D

Injection Date:	31-May-2015 17:14:30	Instrument ID:	CHHP6		
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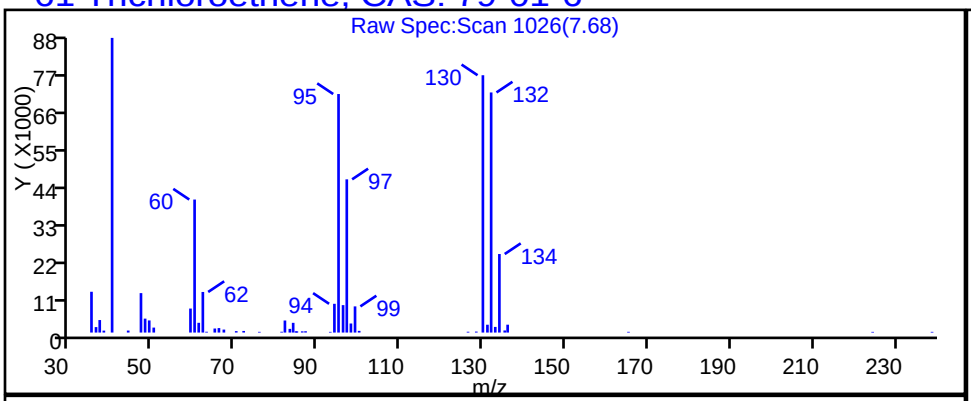
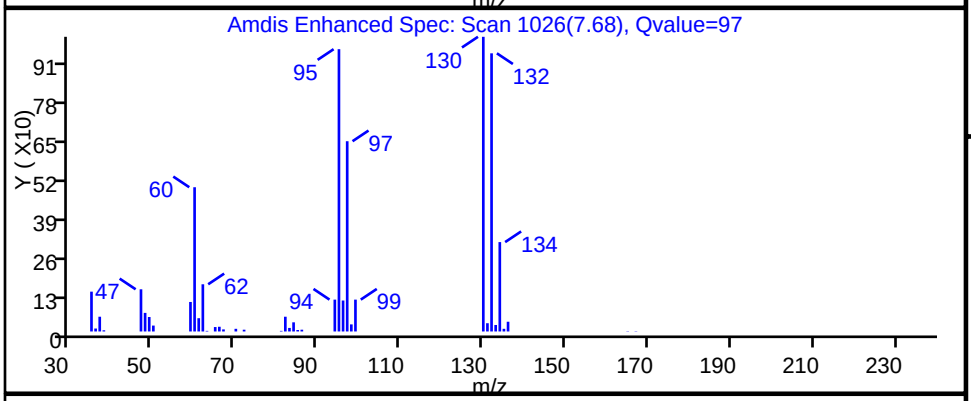
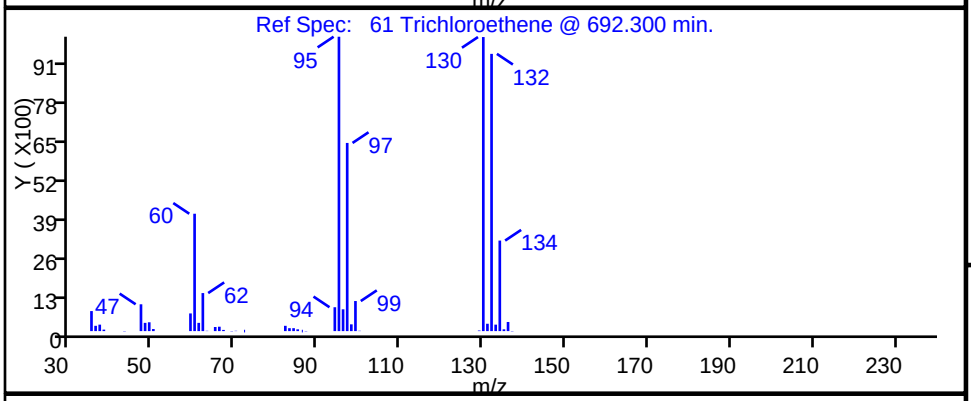
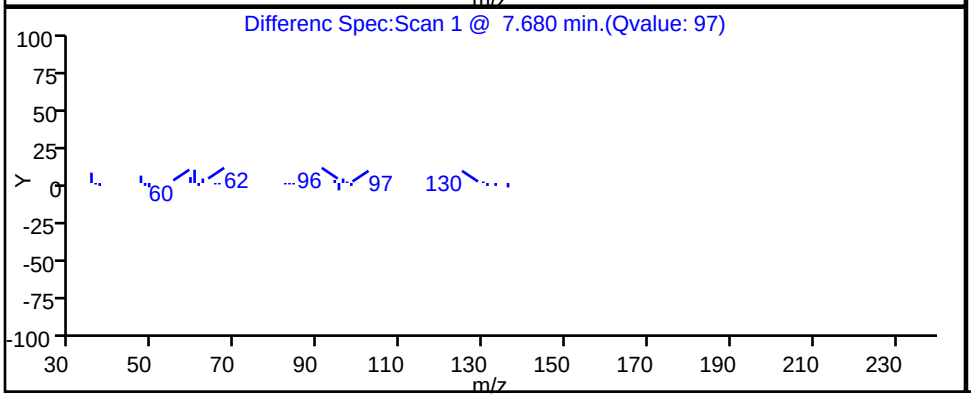
Client ID:	HD-CW-9-0/1-0				
Operator ID:	034635	ALS Bottle#:	19	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	12.5000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

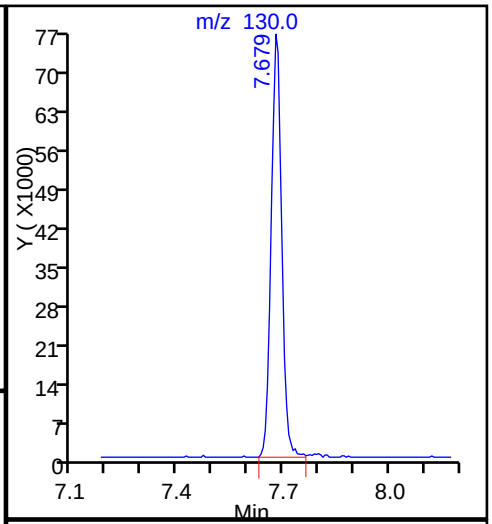
61 Trichloroethene, CAS: 79-01-6

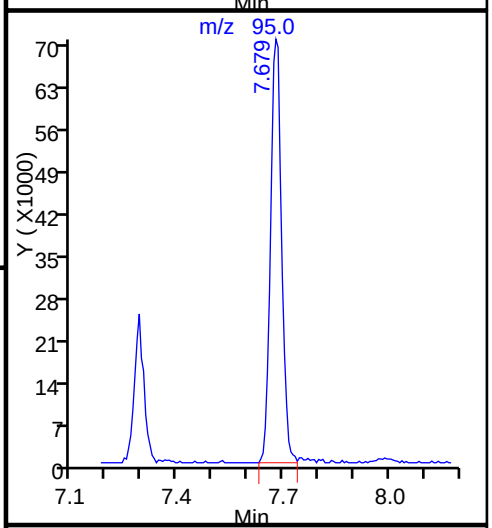


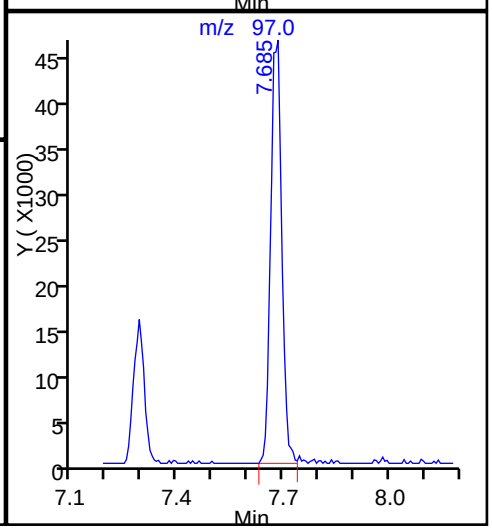












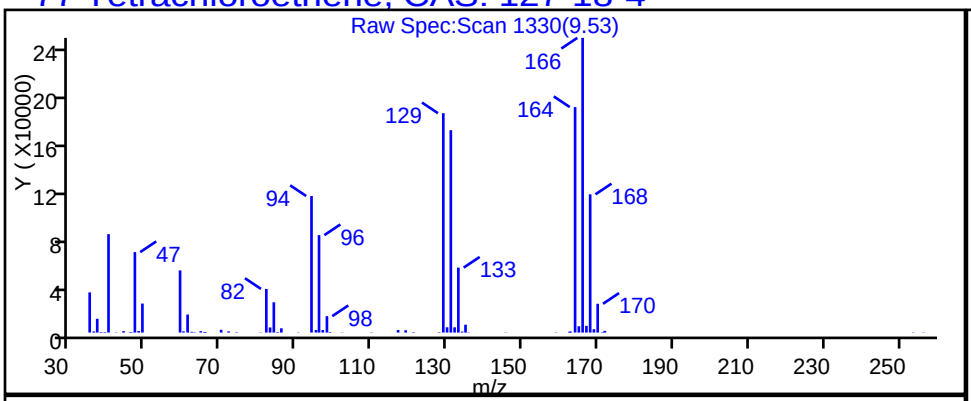
Report Date: 15-Jun-2016 12:41:27 Chrom Revision: 2.2 20-Apr-2016 13:59:46

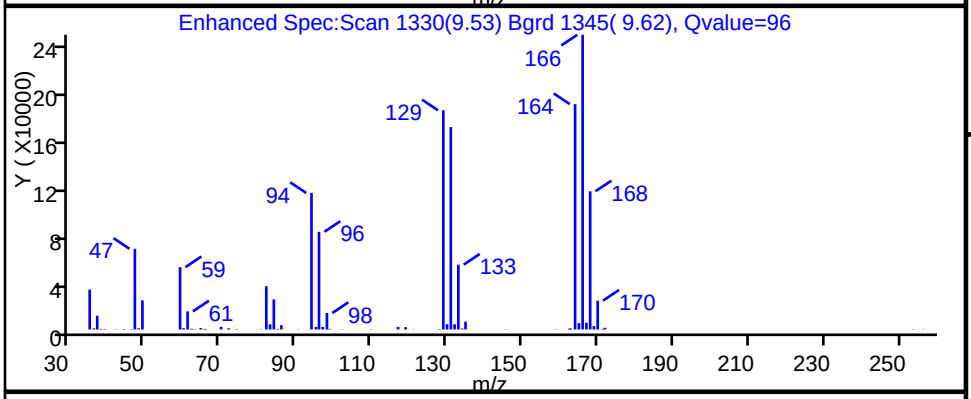
TestAmerica Pittsburgh

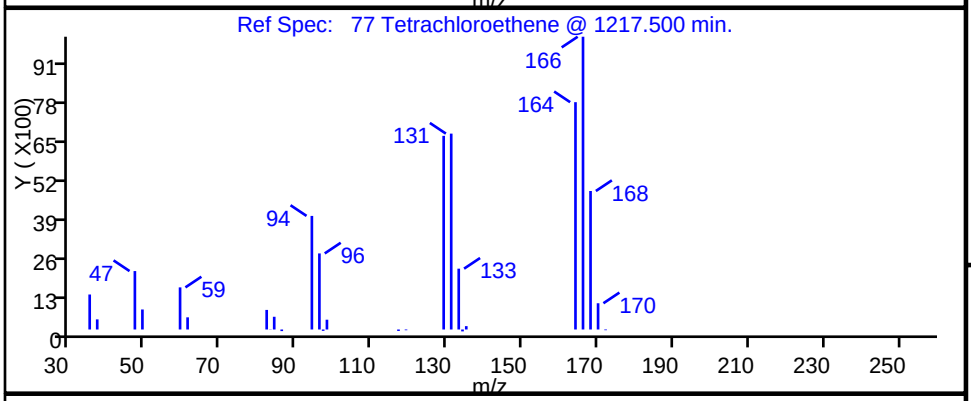
Data File: \\ChromNA\Pittsburgh\ChromData\CHHP6\20150531-7190.b\60530022.D

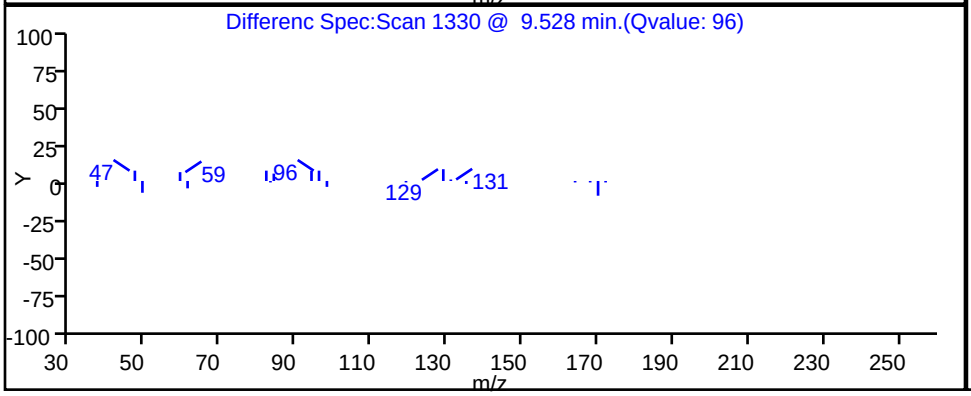
Injection Date:	31-May-2015 17:14:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-D-19	Lab Sample ID:	180-44321-19		
Client ID:	HD-CW-9-0/1-0				
Operator ID:	034635	ALS Bottle#:	19	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	12.5000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

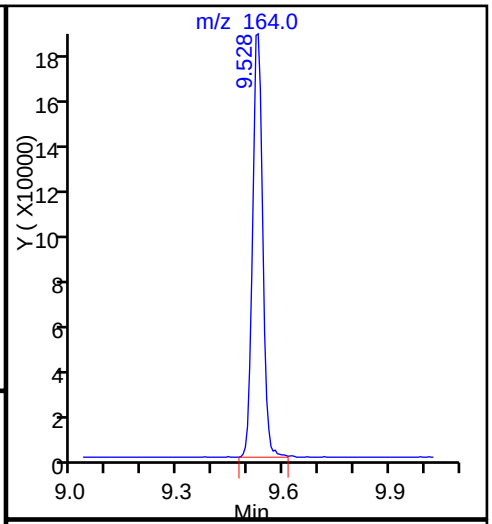
77 Tetrachloroethene, CAS: 127-18-4

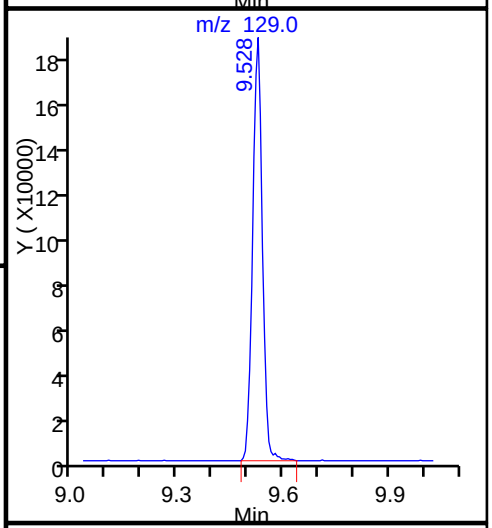


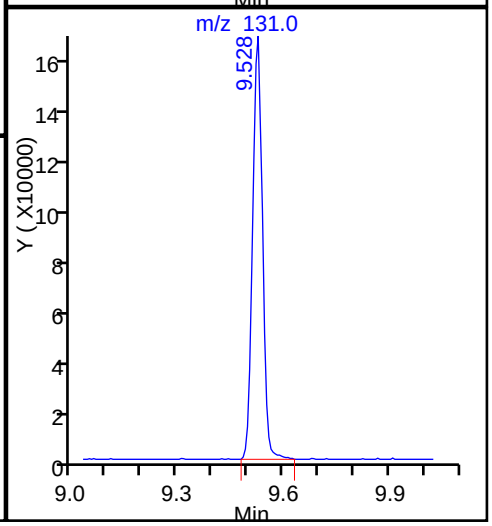












Manual Integration/User Assign Peak Report

TestAmerica Pittsburgh

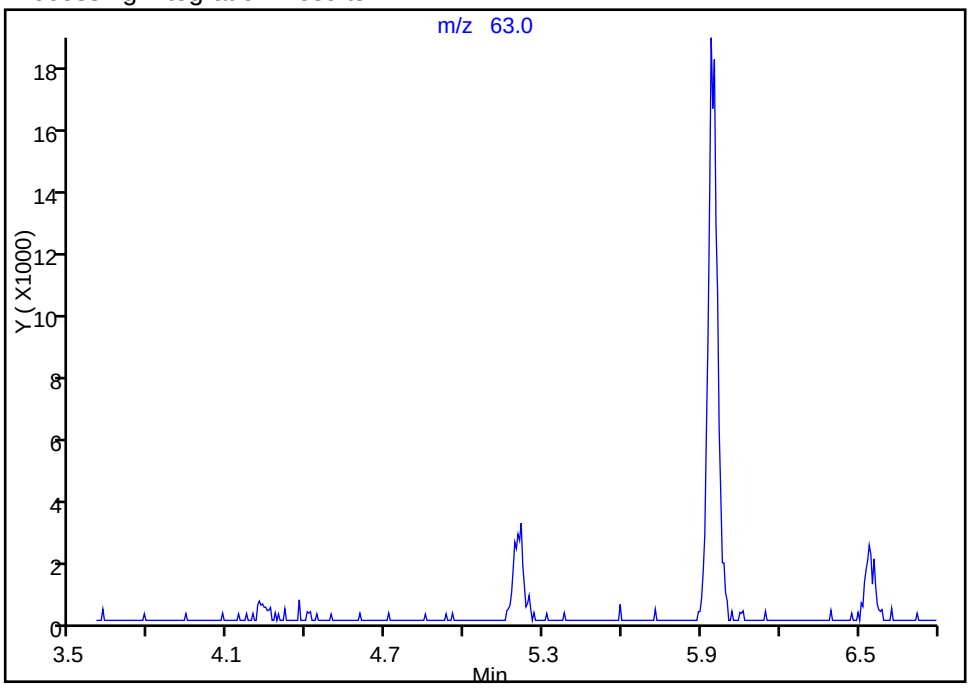
Data File:	\\ChromNA\Pittsburgh\ChromData\CHHP6\20150531-7190.b\60530022.D				
Injection Date:	31-May-2015 17:14:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-D-19	Lab Sample ID:	180-44321-19		
Client ID:	HD-CW-9-0/1-0				
Operator ID:	034635	ALS Bottle#:	19	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	12.5000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

Signal: 1

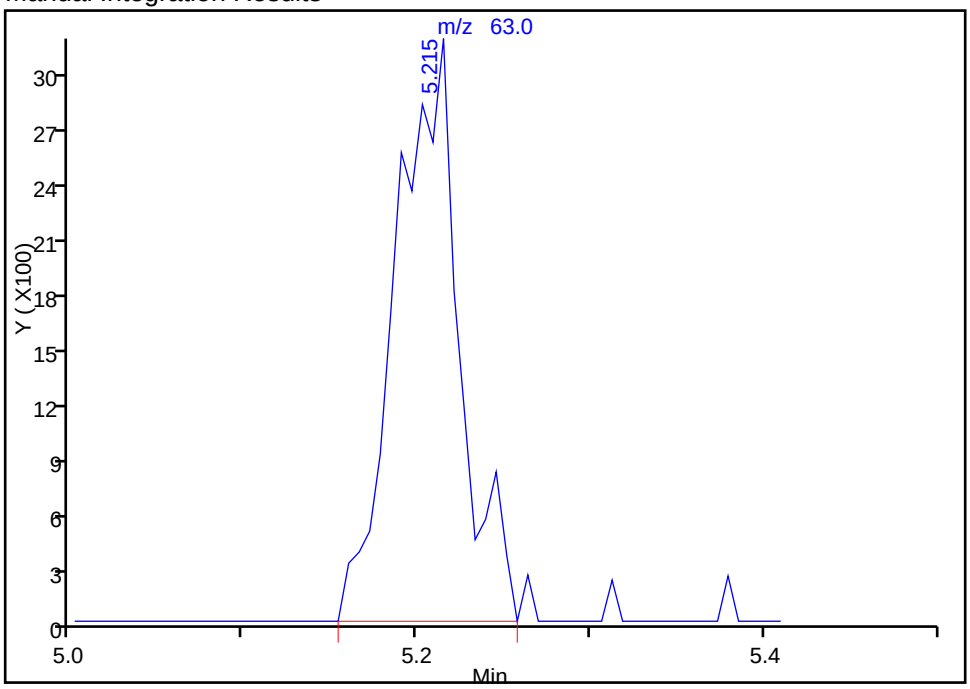
Not Detected
Expected RT: 5.20

Processing Integration Results



Manual Integration Results

RT: 5.22
Area: 8143
Amount: 1.610806
Amount Units: ng



Reviewer: fergusond, 01-Jun-2015 08:27:00
Audit Action: Manually Integrated Audit Reason: Peak Not Integrated

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-CW-13-0/1-0 | Lab Sample ID: 180-44321-20

Matrix: Water | Lab File ID: 60530023.D

Analysis Method: 8260C | Date Collected: 05/20/2015 10:15

Sample wt/vol: 5(mL) | Date Analyzed: 05/31/2015 17:38

Soil Aliquot Vol: | Dilution Factor: 25

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

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

Analysis Batch No.: 143337 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	25	U	25	7.1
75-01-4	Vinyl chloride	25	U	25	5.7
74-83-9	Bromomethane	25	U	25	7.8
75-00-3	Chloroethane	25	U	25	5.4
75-35-4	1,1-Dichloroethene	10	J	25	7.4
67-64-1	Acetone	130	U	130	63
75-15-0	Carbon disulfide	25	U	25	5.3
75-09-2	Methylene Chloride	24	J B	25	3.1
156-60-5	trans-1,2-Dichloroethene	25	U	25	4.2
1634-04-4	Methyl tert-butyl ether	25	U	25	4.6
75-34-3	1,1-Dichloroethane	4.6	J	25	2.9
156-59-2	cis-1,2-Dichloroethene	320		25	5.9
74-97-5	Bromochloromethane	25	U	25	4.5
78-93-3	2-Butanone (MEK)	130	U	130	14
67-66-3	Chloroform	25	U	25	4.3
71-55-6	1,1,1-Trichloroethane	17	J	25	7.2
56-23-5	Carbon tetrachloride	25	U	25	3.4
71-43-2	Benzene	25	U	25	2.6
107-06-2	1,2-Dichloroethane	25	U	25	5.3
79-01-6	Trichloroethene	210		25	3.6
78-87-5	1,2-Dichloropropane	25	U	25	2.4
75-27-4	Bromodichloromethane	25	U	25	3.3
10061-01-5	cis-1,3-Dichloropropene	25	U	25	4.7
108-10-1	4-Methyl-2-pentanone (MIBK)	130	U	130	13
108-88-3	Toluene	25	U	25	3.8
10061-02-6	trans-1,3-Dichloropropene	25	U	25	3.7
79-00-5	1,1,2-Trichloroethane	25	U	25	5.0
127-18-4	Tetrachloroethene	150		25	3.7
591-78-6	2-Hexanone	130	U	130	4.0
124-48-1	Dibromochloromethane	25	U	25	3.4
106-93-4	1,2-Dibromoethane (EDB)	25	U	25	4.5
108-90-7	Chlorobenzene	25	U	25	3.4
630-20-6	1,1,1,2-Tetrachloroethane	25	U	25	6.9
100-41-4	Ethylbenzene	25	U	25	5.7
1330-20-7	Xylenes, Total	75	U	75	12
100-42-5	Styrene	25	U	25	2.4

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-CW-13-0/1-0 Lab Sample ID: 180-44321-20

Matrix: Water Lab File ID: 60530023.D

Analysis Method: 8260C Date Collected: 05/20/2015 10:15

Sample wt/vol: 5(mL) Date Analyzed: 05/31/2015 17:38

Soil Aliquot Vol: Dilution Factor: 25

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143337 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	25	U	25	4.8
79-34-5	1,1,2,2-Tetrachloroethane	25	U	25	5.0
107-13-1	Acrylonitrile	500	U	500	14
123-91-1	1,4-Dioxane	5000	U	5000	860

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	88		64-135
2037-26-5	Toluene-d8 (Surr)	78		71-118
460-00-4	4-Bromofluorobenzene (Surr)	102		70-118
1868-53-7	Dibromofluoromethane (Surr)	97		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530023.D
Lims ID: 180-44321-E-20 Lab Sample ID: 180-44321-20
Client ID: HD-CW-13-0/1-0
Sample Type: Client
Inject. Date: 31-May-2015 17:38:30 ALS Bottle#: 20 Worklist Smp#: 23
Purge Vol: 5.000 mL Dil. Factor: 25.0000
Sample Info: 180-44321-E-20, x25
Misc. Info.: 180-0007190-023
Operator ID: 034635 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 08:28:32 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK048

First Level Reviewer: fergusond Date: 01-Jun-2015 08:28:32

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.226	4.236	-0.010	90	154658	1000.0	
* 2 Fluorobenzene (IS)	96	7.292	7.284	0.008	98	553003	50.0	
* 3 Chlorobenzene-d5	119	10.395	10.393	0.002	90	128756	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.749	12.747	0.002	97	200408	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.556	6.554	0.002	93	110927	48.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.927	6.925	0.002	71	167673	43.9	
$ 7 Toluene-d8 (Surr)	98	8.941	8.939	0.002	93	427134	39.2	
$ 8 4-Bromofluorobenzene (Surr	95	11.587	11.579	0.008	84	227525	51.2	
12 Chloromethane	50		1.760				ND	
13 Vinyl chloride	62		1.882				ND	
15 Bromomethane	94		2.229				ND	
16 Chloroethane	64		2.375				ND	
22 1,1-Dichloroethene	96	3.356	3.336	0.020	63	5323	2.08	
24 Acetone	43	3.441	3.421	0.020	45	2974	4.05	
26 Carbon disulfide	76		3.628				ND	
31 Methylene Chloride	84	4.123	4.115	0.008	87	14747	4.74	
33 Acrylonitrile	53		4.498				ND	
34 trans-1,2-Dichloroethene	96	4.561	4.553	0.008	1	771	0.2702	
35 Methyl tert-butyl ether	73		4.565				ND	
37 1,1-Dichloroethane	63	5.206	5.198	0.008	1	4936	0.9200	M
43 cis-1,2-Dichloroethene	96	5.948	5.940	0.008	83	208283	64.2	
44 2-Butanone (MEK)	43		5.940				ND	
48 Chlorobromomethane	128		6.226				ND	
50 Chloroform	83		6.366				ND	
51 1,1,1-Trichloroethane	97	6.550	6.536	0.014	39	14799	3.48	
53 Carbon tetrachloride	117		6.712				ND	
56 Benzene	78		6.943				ND	
57 1,2-Dichloroethane	62		7.016				ND	
61 Trichloroethene	130	7.682	7.673	0.009	96	112673	42.8	
64 1,2-Dichloropropane	63		7.947				ND	
65 1,4-Dioxane	88		8.020				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.227				ND	
71 cis-1,3-Dichloropropene	75		8.677				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.823				ND	
73 Toluene	91		9.012				ND	
74 trans-1,3-Dichloropropene	75		9.255				ND	
76 1,1,2-Trichloroethane	97		9.450				ND	
77 Tetrachloroethene	164	9.525	9.523	0.002	95	65236	29.7	
79 2-Hexanone	43		9.657				ND	
81 Chlorodibromomethane	129		9.821				ND	
82 Ethylene Dibromide	107		9.937				ND	
84 Chlorobenzene	112		10.423				ND	
86 1,1,1,2-Tetrachloroethane	131		10.521				ND	
87 Ethylbenzene	106		10.527				ND	
88 m-Xylene & p-Xylene	106		10.654				ND	
89 o-Xylene	106		11.044				ND	
90 Styrene	104		11.062				ND	
91 Bromoform	173		11.244				ND	
96 1,1,2,2-Tetrachloroethane	83		11.713				ND	
S 131 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

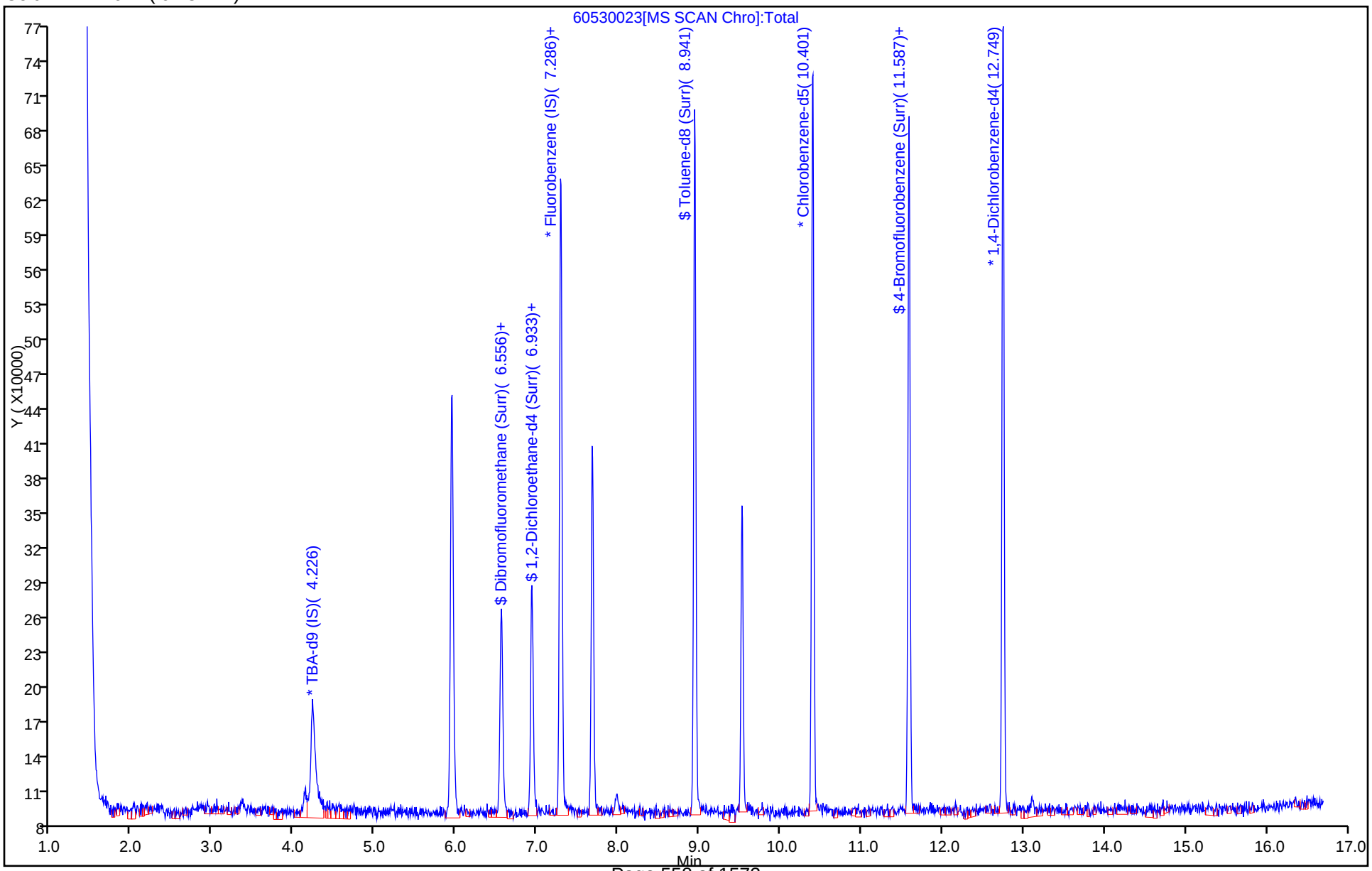
VOA8260INT_00033	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00035	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 01-Jun-2015 08:28:33 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530023.D				
Injection Date:	31-May-2015 17:38:30	Instrument ID:	CHHP6	Operator ID:	034635
Lims ID:	180-44321-E-20	Lab Sample ID:	180-44321-20	Worklist Smp#:	23
Client ID:	HD-CW-13-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	25.0000	ALS Bottle#:	20
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530023.D
Lims ID: 180-44321-E-20 Lab Sample ID: 180-44321-20
Client ID: HD-CW-13-0/1-0
Sample Type: Client
Inject. Date: 31-May-2015 17:38:30 ALS Bottle#: 20 Worklist Smp#: 23
Purge Vol: 5.000 mL Dil. Factor: 25.0000
Sample Info: 180-44321-E-20, x25
Misc. Info.: 180-0007190-023
Operator ID: 034635 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 08:28:32 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK048

First Level Reviewer: fergusond Date: 01-Jun-2015 08:28:32

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	48.5	96.96
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	43.9	87.72
$ 7 Toluene-d8 (Surr)	50.0	39.2	78.41
$ 8 4-Bromofluorobenzene (Surr)	50.0	51.2	102.47

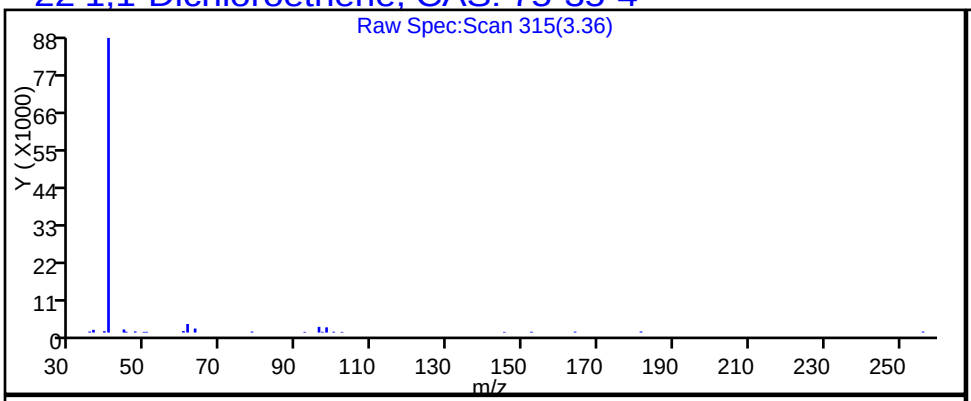
Report Date: 01-Jun-2015 08:28:33 Chrom Revision: 2.2 05-May-2015 11:39:10

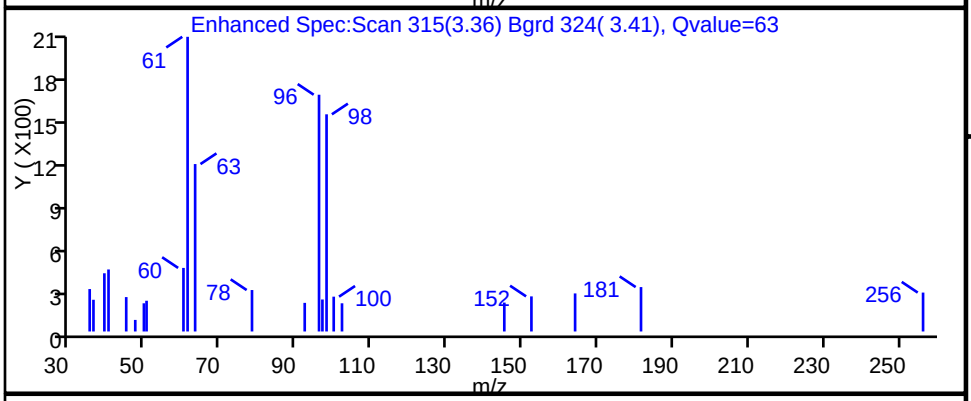
TestAmerica Pittsburgh

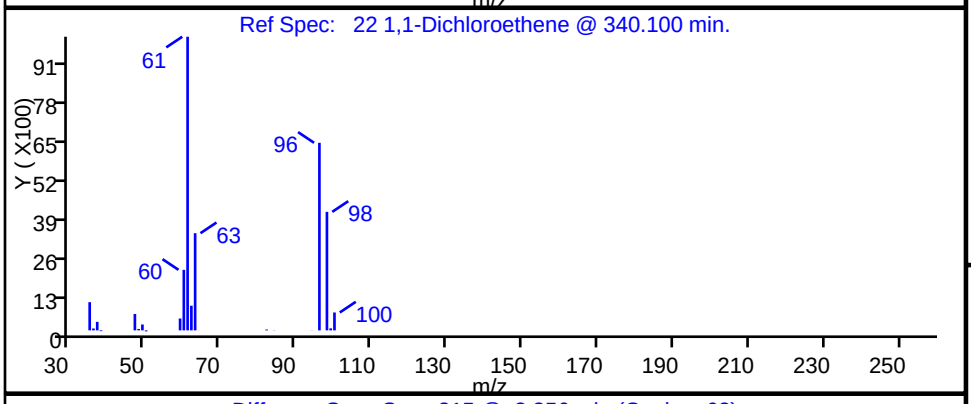
Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530023.D

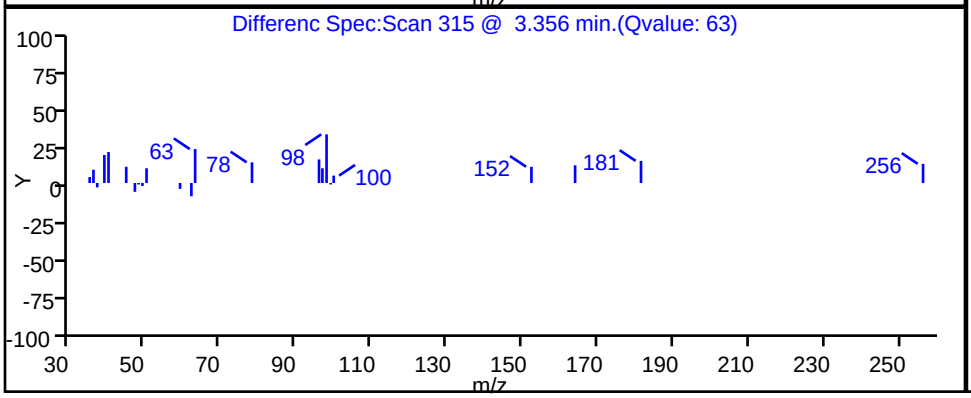
Injection Date:	31-May-2015 17:38:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-E-20	Lab Sample ID:	180-44321-20		
Client ID:	HD-CW-13-0/1-0				
Operator ID:	034635	ALS Bottle#:	20	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

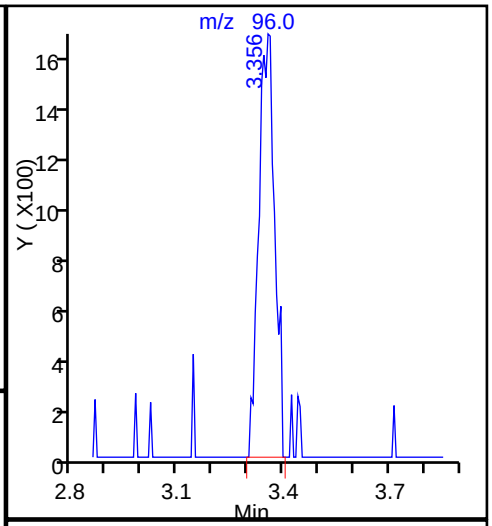
22 1,1-Dichloroethene, CAS: 75-35-4

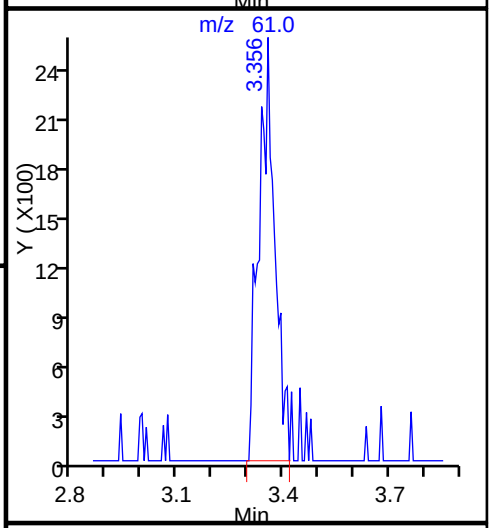


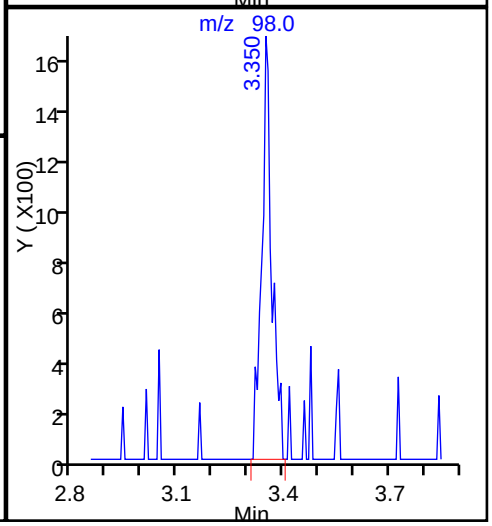










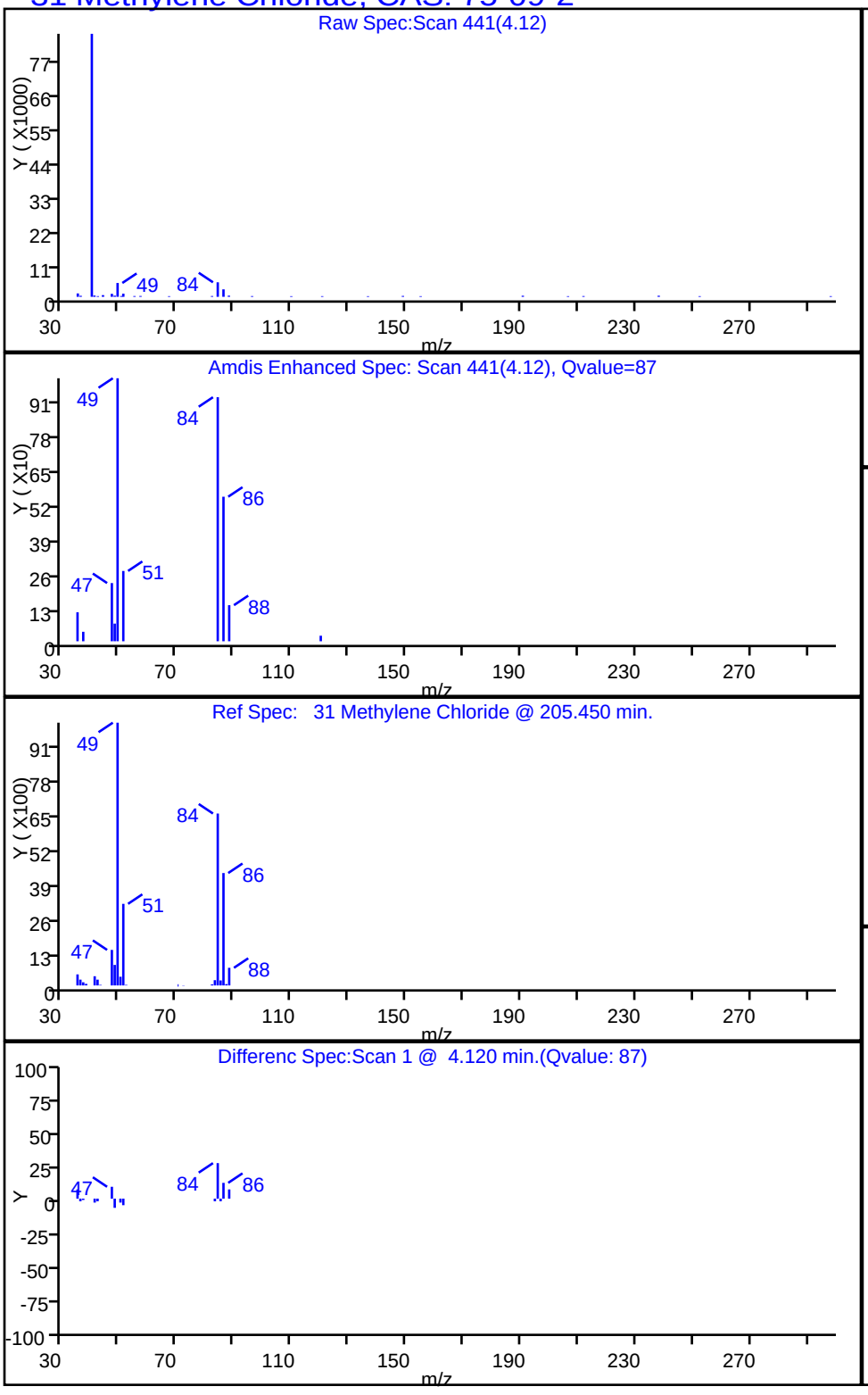


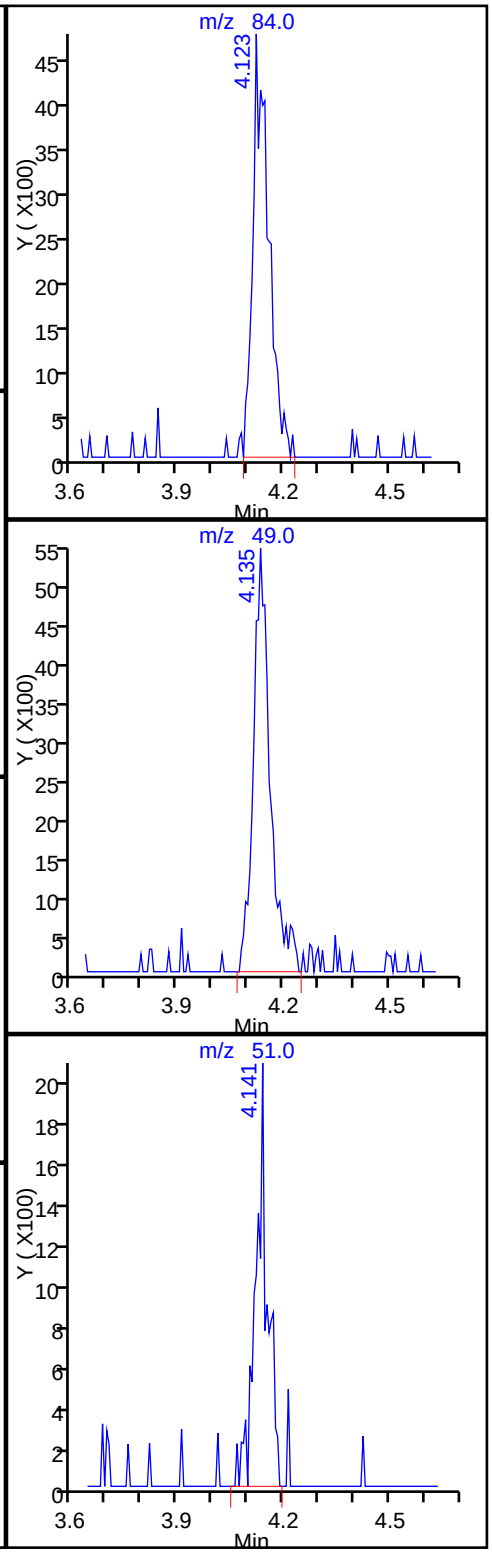
Report Date: 01-Jun-2015 08:28:33 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530023.D				
Injection Date:	31-May-2015 17:38:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-E-20	Lab Sample ID:	180-44321-20		
Client ID:	HD-CW-13-0/1-0				
Operator ID:	034635	ALS Bottle#:	20	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

31 Methylene Chloride, CAS: 75-09-2





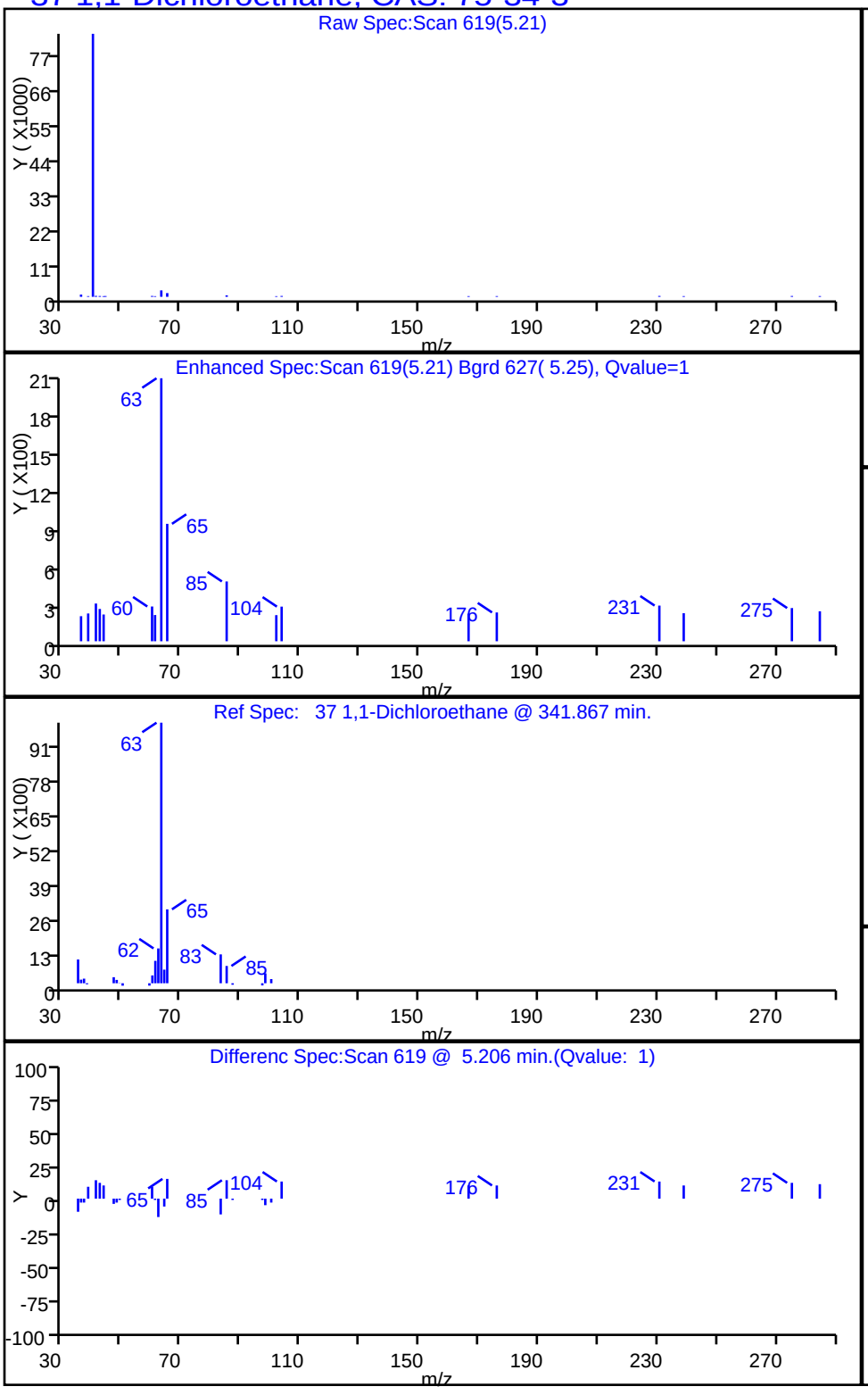
Report Date: 01-Jun-2015 08:28:33 Chrom Revision: 2.2 05-May-2015 11:39:10

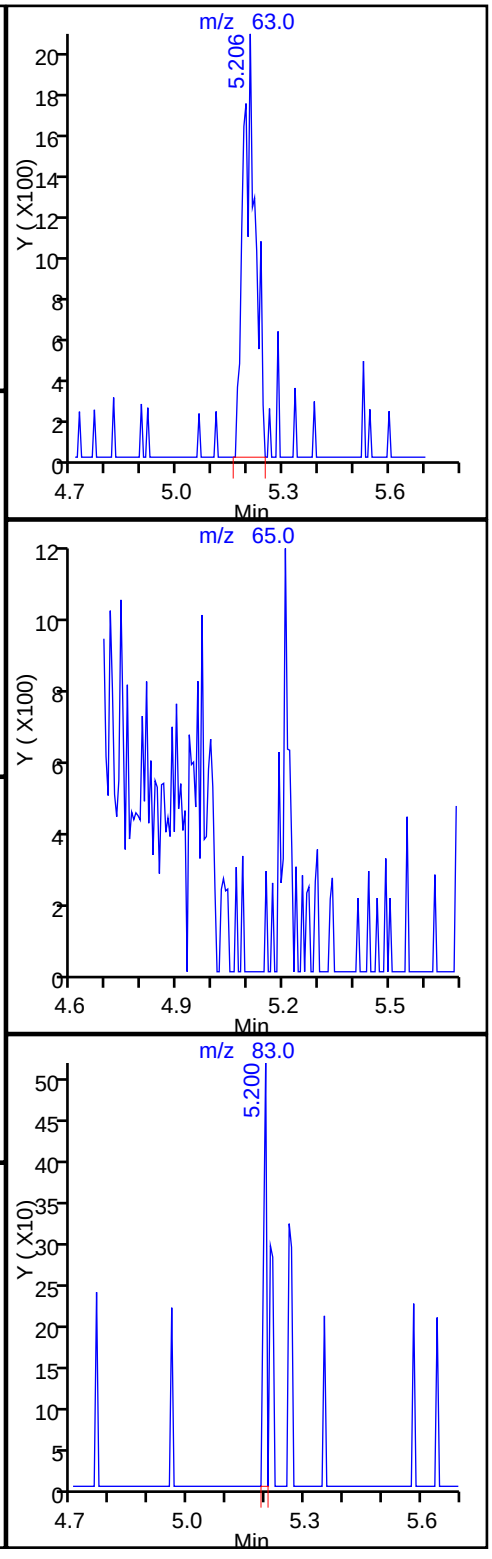
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530023.D

Injection Date:	31-May-2015 17:38:30	Instrument ID:	CHHP6
Lims ID:	180-44321-E-20	Lab Sample ID:	180-44321-20
Client ID:	HD-CW-13-0/1-0		
Operator ID:	034635	ALS Bottle#:	20 Worklist Smp#: 23
Purge Vol:	5.000 mL	Dil. Factor:	25.0000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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



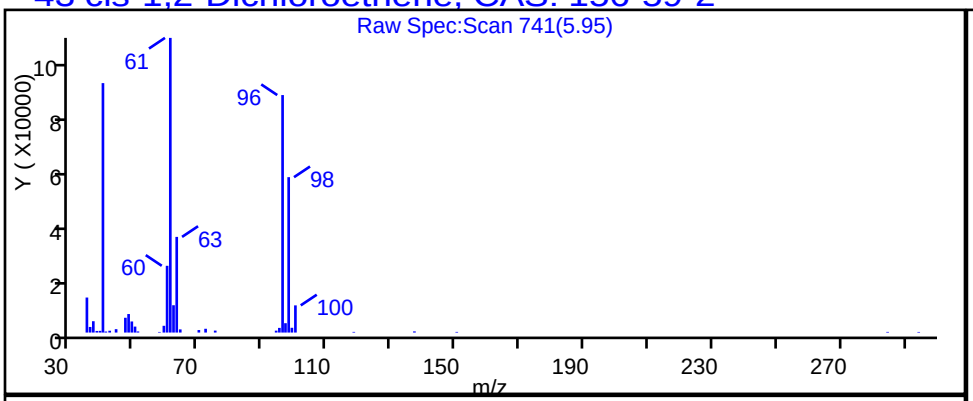


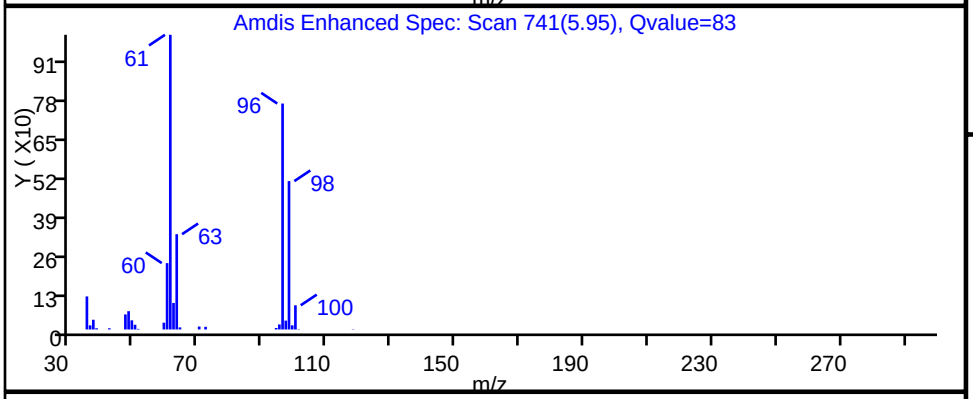
Report Date: 01-Jun-2015 08:28:33 Chrom Revision: 2.2 05-May-2015 11:39:10

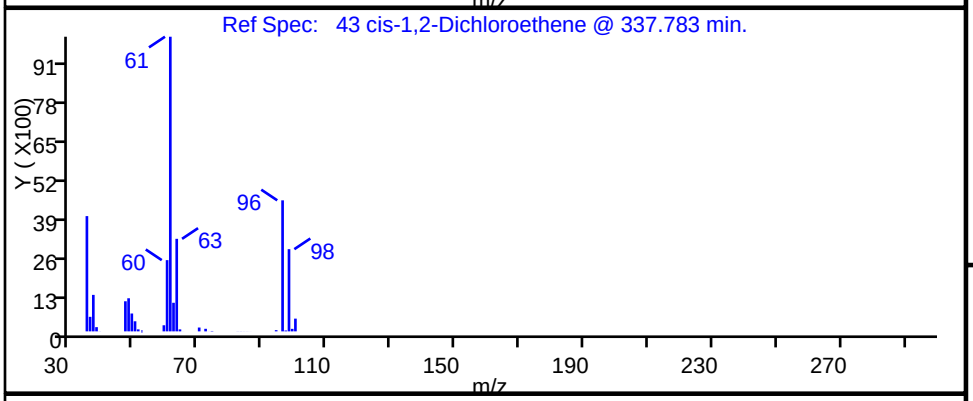
TestAmerica Pittsburgh

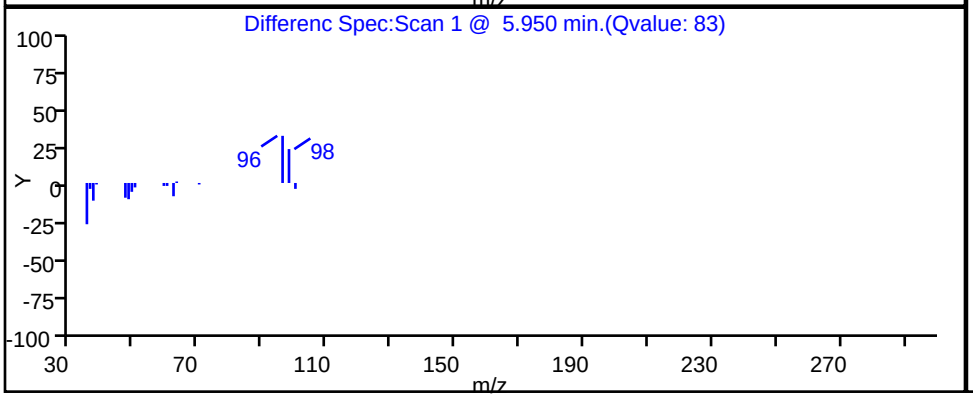
Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530023.D				
Injection Date:	31-May-2015 17:38:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-E-20	Lab Sample ID:	180-44321-20		
Client ID:	HD-CW-13-0/1-0				
Operator ID:	034635	ALS Bottle#:	20	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

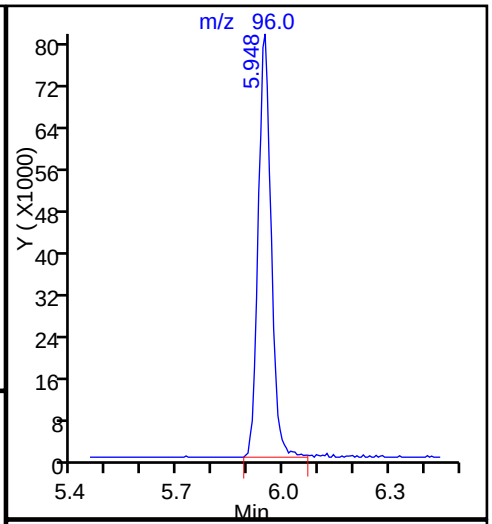
43 cis-1,2-Dichloroethene, CAS: 156-59-2

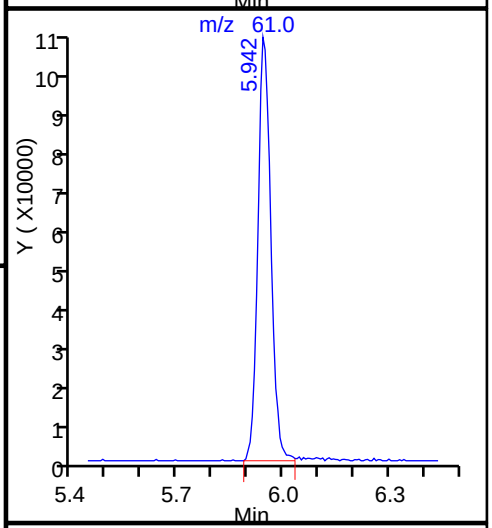


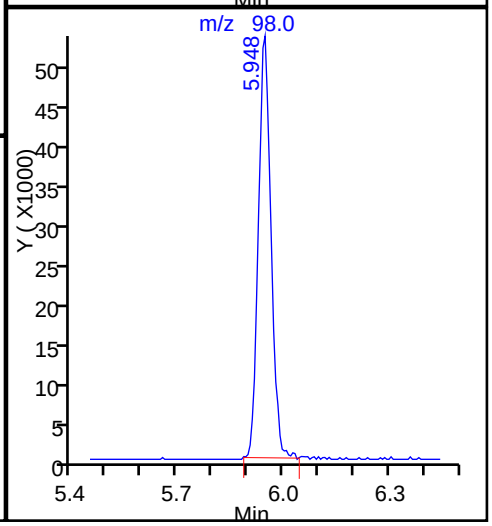












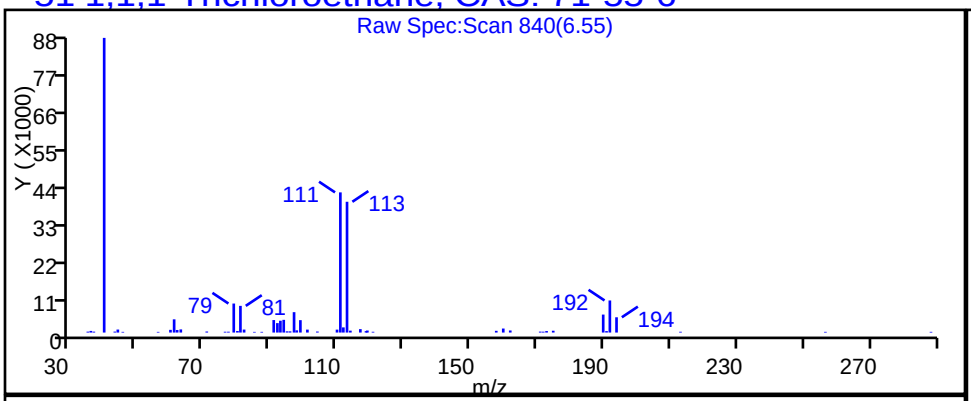
Report Date: 01-Jun-2015 08:28:33 Chrom Revision: 2.2 05-May-2015 11:39:10

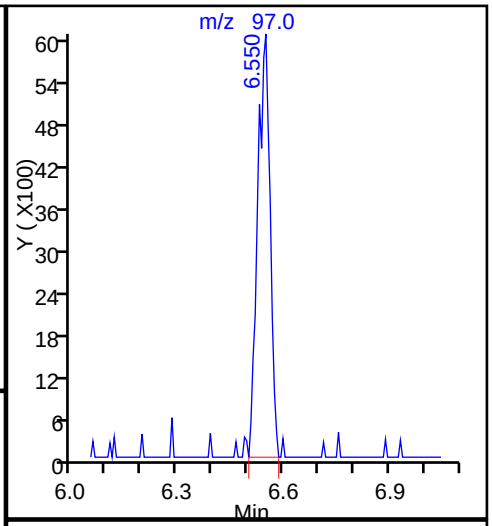
TestAmerica Pittsburgh

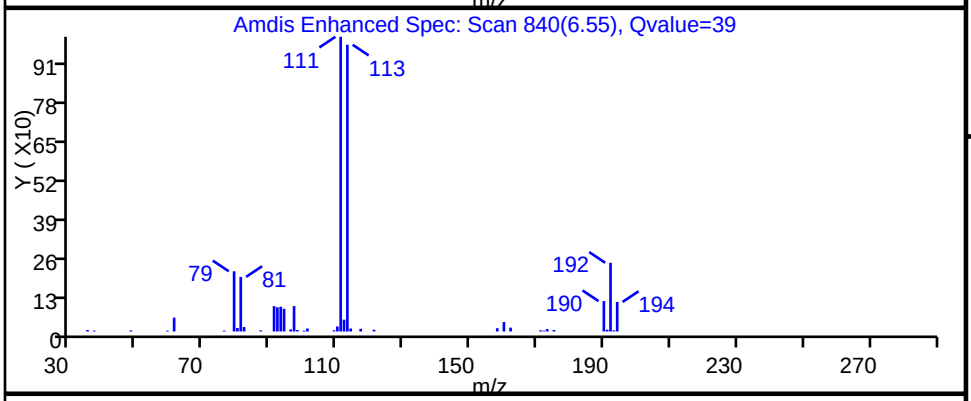
Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530023.D

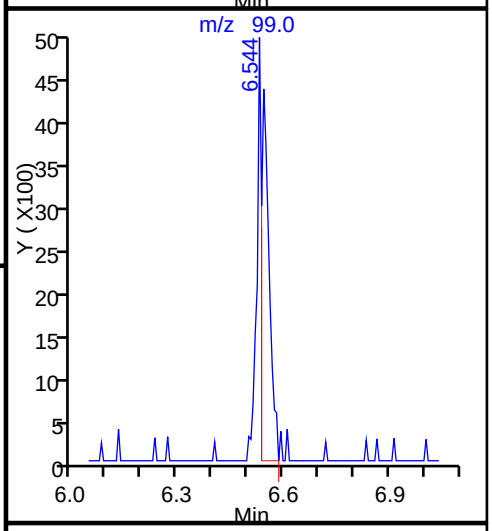
Injection Date:	31-May-2015 17:38:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-E-20	Lab Sample ID:	180-44321-20		
Client ID:	HD-CW-13-0/1-0				
Operator ID:	034635	ALS Bottle#:	20	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

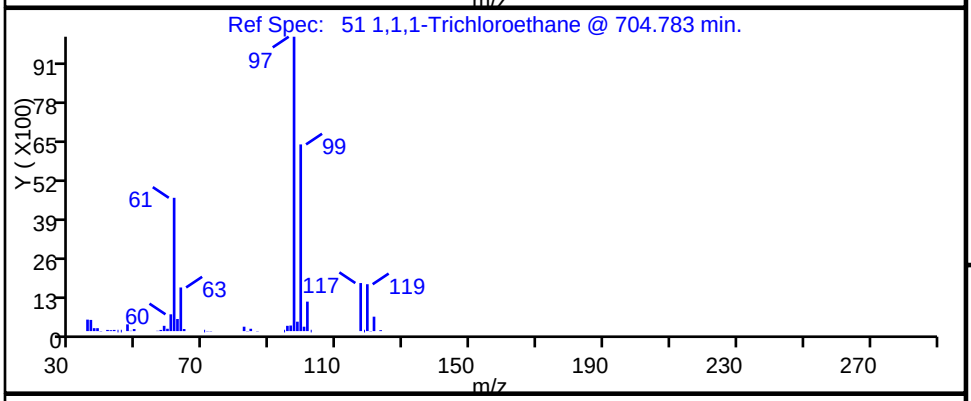
51 1,1,1-Trichloroethane, CAS: 71-55-6

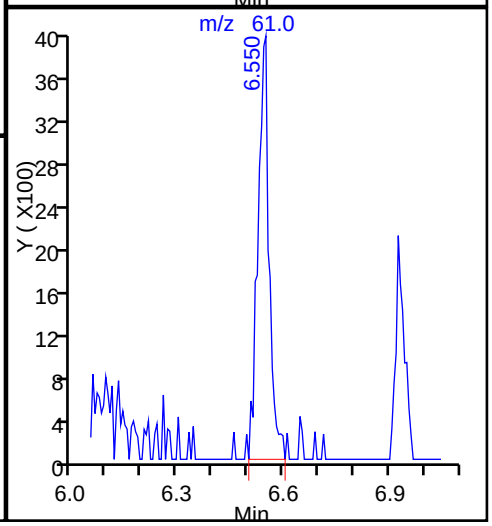


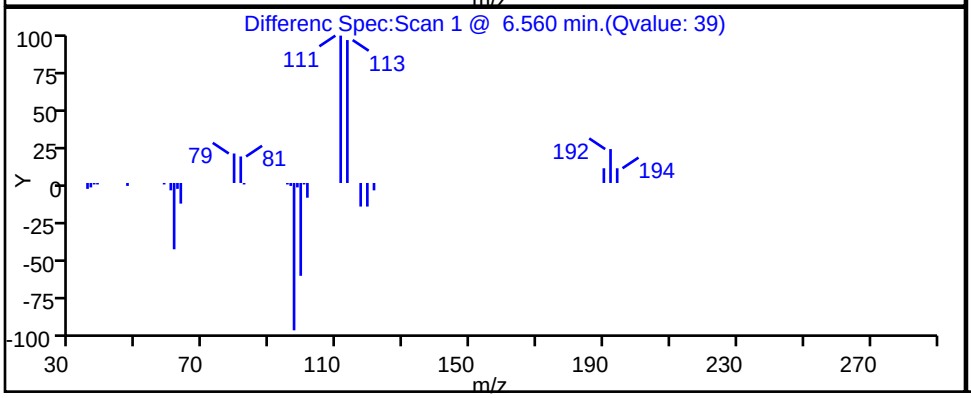












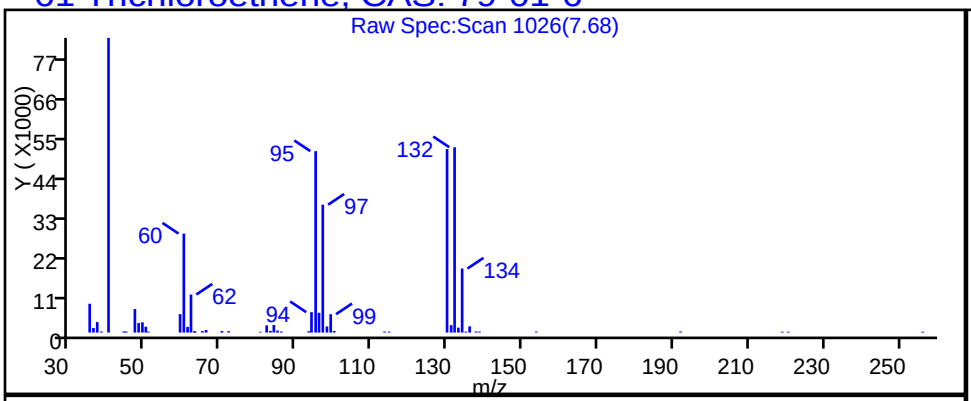
Report Date: 01-Jun-2015 08:28:33 Chrom Revision: 2.2 05-May-2015 11:39:10

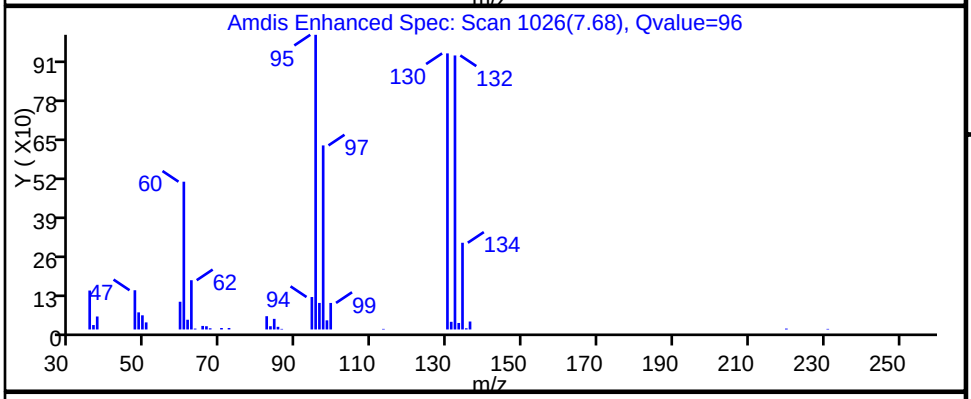
TestAmerica Pittsburgh

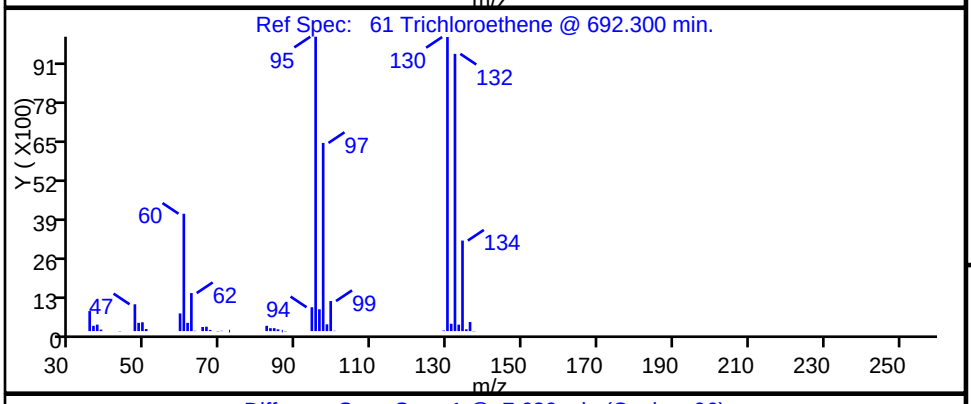
Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530023.D

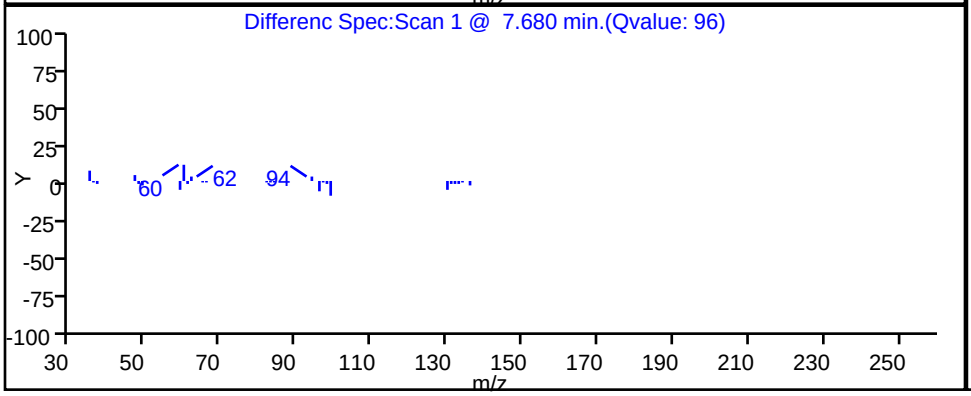
Injection Date:	31-May-2015 17:38:30	Instrument ID:	CHHP6
Lims ID:	180-44321-E-20	Lab Sample ID:	180-44321-20
Client ID:	HD-CW-13-0/1-0		
Operator ID:	034635	ALS Bottle#:	20 Worklist Smp#: 23
Purge Vol:	5.000 mL	Dil. Factor:	25.0000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

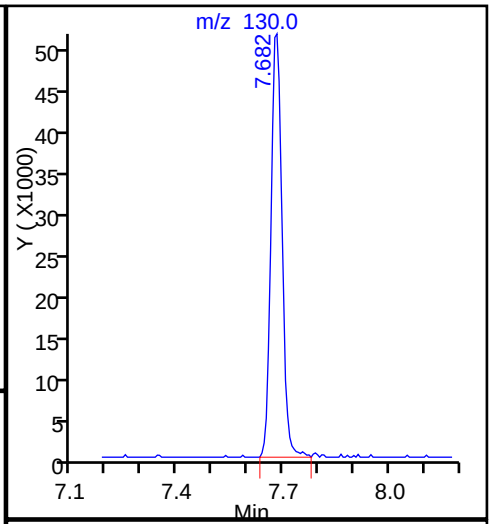
61 Trichloroethene, CAS: 79-01-6

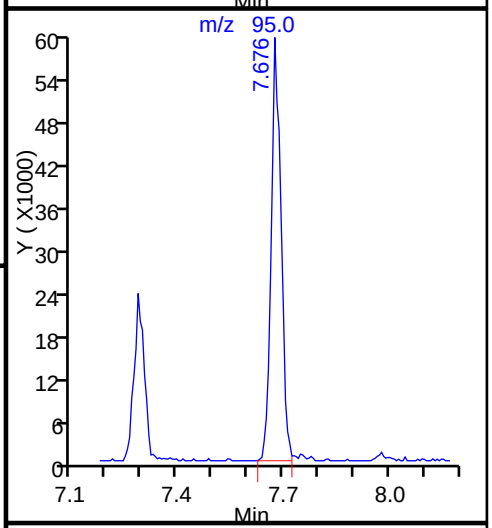


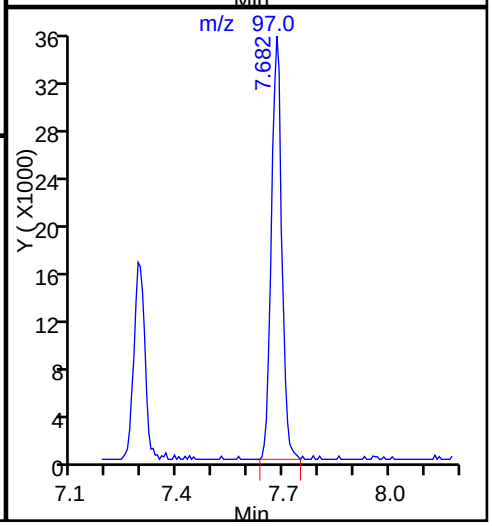












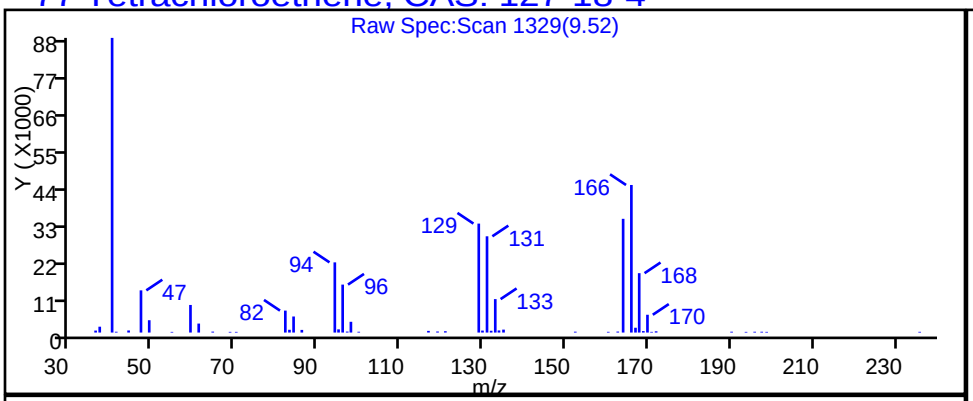
Report Date: 01-Jun-2015 08:28:33 Chrom Revision: 2.2 05-May-2015 11:39:10

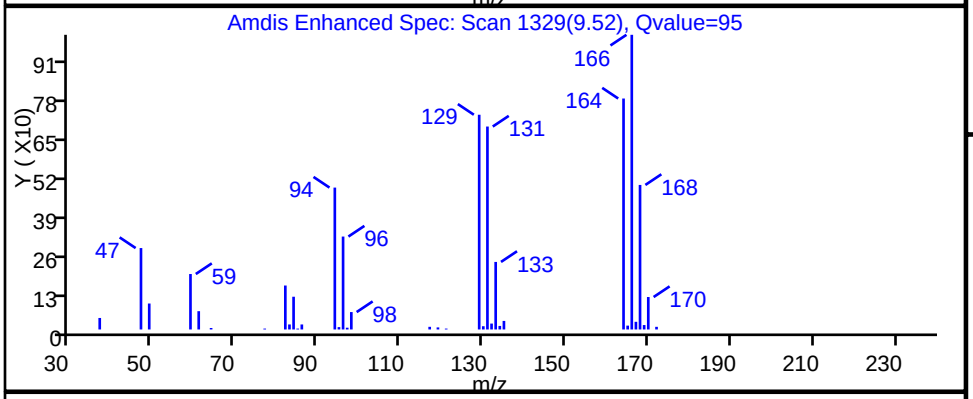
TestAmerica Pittsburgh

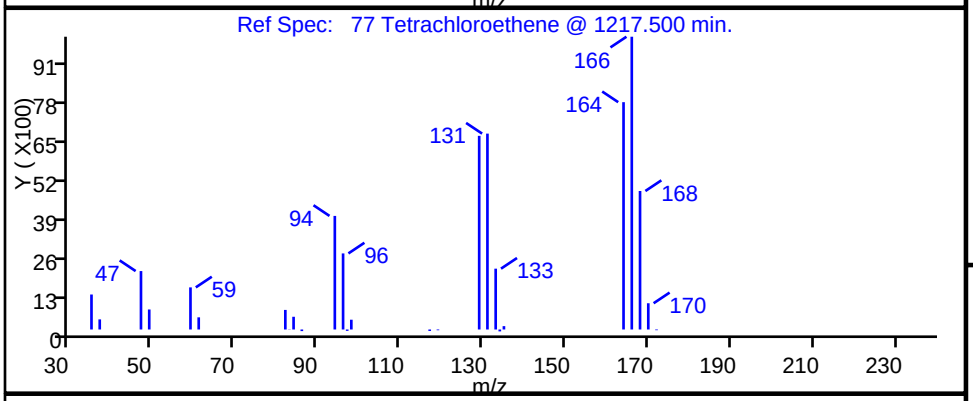
Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530023.D

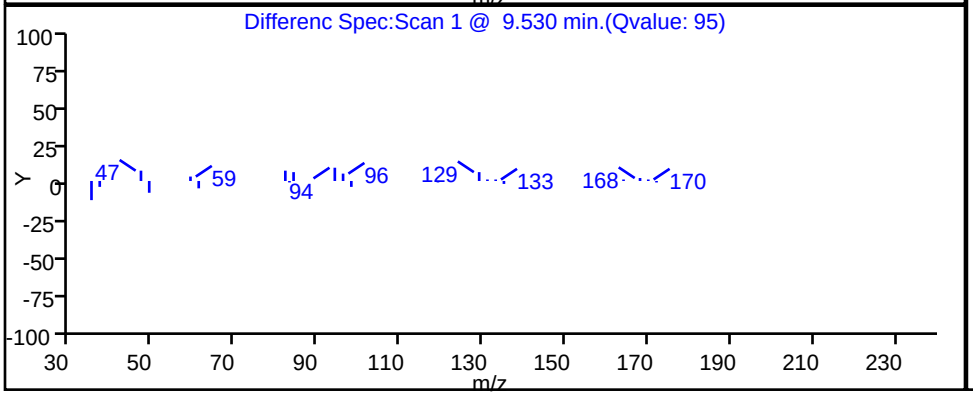
Injection Date:	31-May-2015 17:38:30	Instrument ID:	CHHP6
Lims ID:	180-44321-E-20	Lab Sample ID:	180-44321-20
Client ID:	HD-CW-13-0/1-0		
Operator ID:	034635	ALS Bottle#:	20 Worklist Smp#: 23
Purge Vol:	5.000 mL	Dil. Factor:	25.0000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

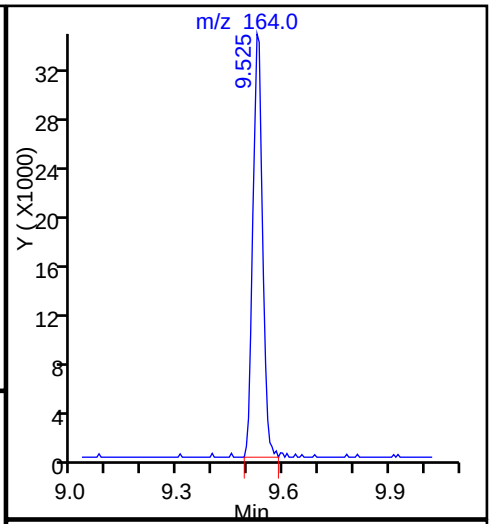
77 Tetrachloroethene, CAS: 127-18-4

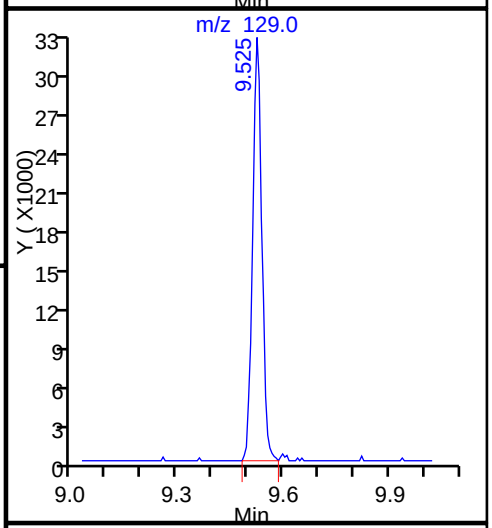


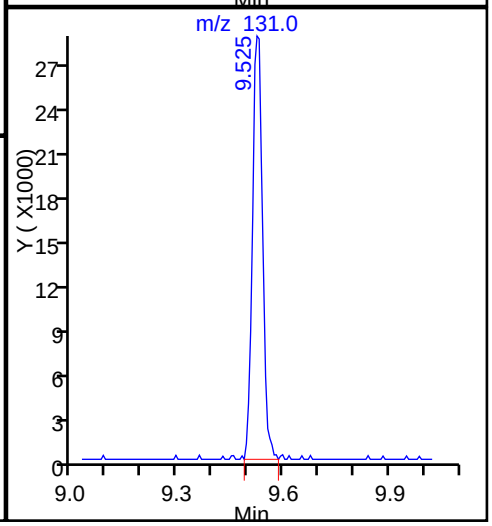












Manual Integration/User Assign Peak Report

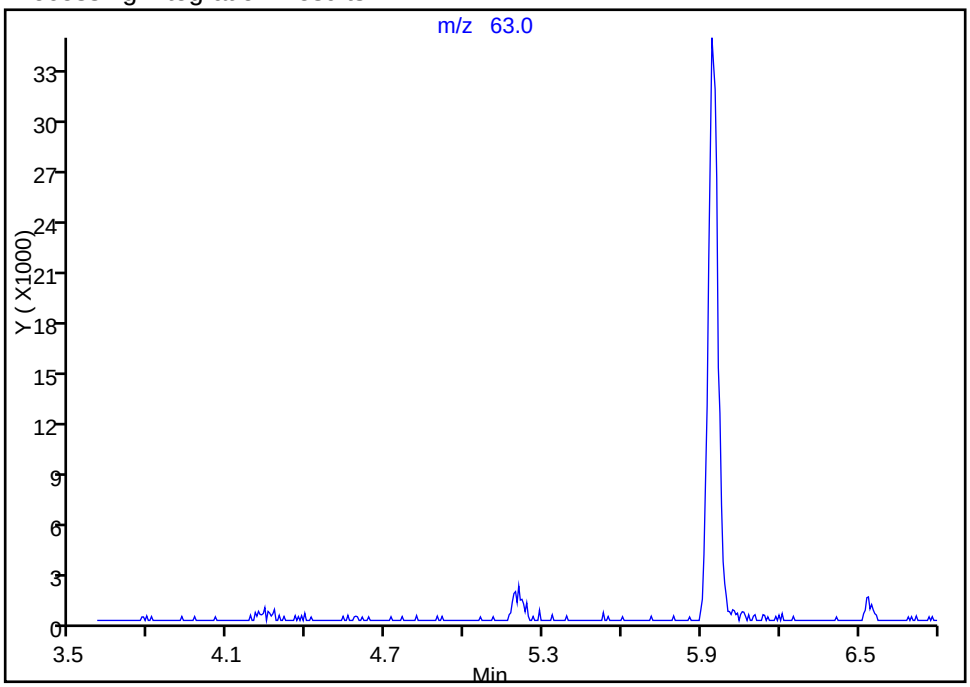
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530023.D				
Injection Date:	31-May-2015 17:38:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-E-20	Lab Sample ID:	180-44321-20		
Client ID:	HD-CW-13-0/1-0				
Operator ID:	034635	ALS Bottle#:	20	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

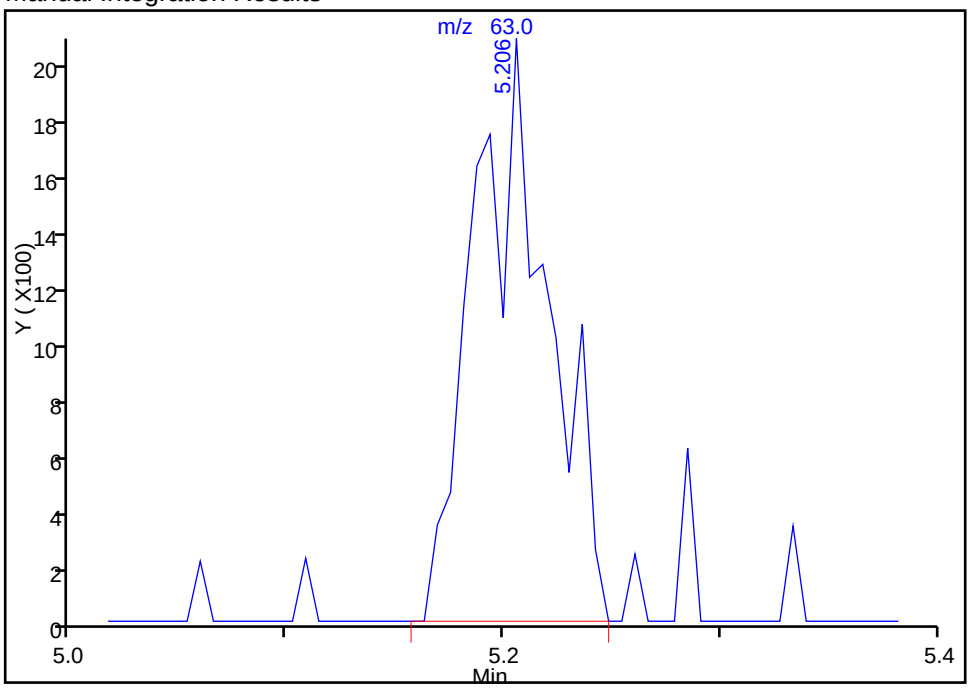
Processing Integration Results

Not Detected
Expected RT: 5.20



Manual Integration Results

RT: 5.21
Area: 4936
Amount: 0.920014
Amount Units: ng



Reviewer: fergusond, 01-Jun-2015 08:28:32
Audit Action: Manually Integrated
Audit Reason: Peak Not Integrated

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-CW-15A-0/1-0 | Lab Sample ID: 180-44321-21

Matrix: Water | Lab File ID: 7060116.D

Analysis Method: 8260C | Date Collected: 05/20/2015 10:25

Sample wt/vol: 20(mL) | Date Analyzed: 06/01/2015 17:08

Soil Aliquot Vol: | Dilution Factor: 250

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

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

Analysis Batch No.: 143422 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	250	U *	250	71
75-01-4	Vinyl chloride	250	U	250	57
74-83-9	Bromomethane	250	U	250	78
75-00-3	Chloroethane	250	U	250	54
75-35-4	1,1-Dichloroethene	1500		250	74
67-64-1	Acetone	1300	U	1300	630
75-15-0	Carbon disulfide	250	U	250	53
75-09-2	Methylene Chloride	250	U	250	31
156-60-5	trans-1,2-Dichloroethene	250	U	250	42
1634-04-4	Methyl tert-butyl ether	250	U	250	46
75-34-3	1,1-Dichloroethane	250	U	250	29
156-59-2	cis-1,2-Dichloroethene	6100		250	59
74-97-5	Bromochloromethane	250	U	250	45
78-93-3	2-Butanone (MEK)	1300	U	1300	140
67-66-3	Chloroform	250	U	250	43
71-55-6	1,1,1-Trichloroethane	7600		250	72
56-23-5	Carbon tetrachloride	250	U	250	34
71-43-2	Benzene	250	U	250	26
107-06-2	1,2-Dichloroethane	250	U	250	53
79-01-6	Trichloroethene	4600		250	36
78-87-5	1,2-Dichloropropane	250	U	250	24
75-27-4	Bromodichloromethane	250	U	250	33
10061-01-5	cis-1,3-Dichloropropene	250	U	250	47
108-10-1	4-Methyl-2-pentanone (MIBK)	1300	U	1300	130
108-88-3	Toluene	250	U	250	38
10061-02-6	trans-1,3-Dichloropropene	250	U	250	37
79-00-5	1,1,2-Trichloroethane	250	U	250	50
127-18-4	Tetrachloroethene	1700		250	37
591-78-6	2-Hexanone	1300	U	1300	40
124-48-1	Dibromochloromethane	250	U	250	34
106-93-4	1,2-Dibromoethane (EDB)	250	U	250	45
108-90-7	Chlorobenzene	250	U	250	34
630-20-6	1,1,1,2-Tetrachloroethane	250	U	250	69
100-41-4	Ethylbenzene	250	U	250	57
1330-20-7	Xylenes, Total	750	U	750	120
100-42-5	Styrene	250	U	250	24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-CW-15A-0/1-0 Lab Sample ID: 180-44321-21

Matrix: Water Lab File ID: 7060116.D

Analysis Method: 8260C Date Collected: 05/20/2015 10:25

Sample wt/vol: 20(mL) Date Analyzed: 06/01/2015 17:08

Soil Aliquot Vol: Dilution Factor: 250

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143422 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	250	U	250	48
79-34-5	1,1,2,2-Tetrachloroethane	250	U	250	50
107-13-1	Acrylonitrile	5000	U	5000	140
123-91-1	1,4-Dioxane	50000	U	50000	8600

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		64-135
2037-26-5	Toluene-d8 (Surr)	111		71-118
460-00-4	4-Bromofluorobenzene (Surr)	106		70-118
1868-53-7	Dibromofluoromethane (Surr)	57	X	70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060116.D
Lims ID: 180-44321-D-21 Lab Sample ID: 180-44321-21
Client ID: HD-CW-15A-0/1-0
Sample Type: Client
Inject. Date: 01-Jun-2015 17:08:30 ALS Bottle#: 14 Worklist Smp#: 16
Purge Vol: 20.000 mL Dil. Factor: 250.0000
Sample Info: 180-44321-D-21
Misc. Info.: 180-0007205-016
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 02-Jun-2015 16:39:06 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK014

First Level Reviewer: journetp Date: 02-Jun-2015 16:39:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.575	4.666	-0.091	94	157853	4000.0	
* 2 Fluorobenzene (IS)	96	7.416	7.404	0.012	99	1269041	200.0	
* 3 Chlorobenzene-d5	119	10.470	10.470	0.000	85	346755	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.788	12.787	0.001	95	366411	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.686	6.680	0.006	46	230363	113.8	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.051	7.038	0.013	91	365641	189.5	
$ 7 Toluene-d8 (Surr)	98	9.040	9.034	0.006	93	1139296	221.5	
$ 8 4-Bromofluorobenzene (Surr	95	11.632	11.632	0.000	89	485601	211.9	
12 Chloromethane	50		2.032				ND	
13 Vinyl chloride	62		2.245				ND	
15 Bromomethane	94		2.518				ND	
16 Chloroethane	64		2.646				ND	
22 1,1-Dichloroethene	96	3.626	3.583	0.043	89	202865	119.1	
24 Acetone	43		3.796				ND	
26 Carbon disulfide	76		3.881				ND	
31 Methylene Chloride	84		4.380				ND	
34 trans-1,2-Dichloroethene	96		4.763				ND	
33 Acrylonitrile	53		4.794				ND	
35 Methyl tert-butyl ether	73		4.854				ND	
37 1,1-Dichloroethane	63		5.359				ND	
45 cis-1,2-Dichloroethene	96	6.114	6.102	0.012	74	1016307	484.4	
46 2-Butanone (MEK)	43		6.175				ND	
49 Chlorobromomethane	128		6.381				ND	
52 Chloroform	83		6.497				ND	
53 1,1,1-Trichloroethane	97	6.692	6.680	0.012	96	1932918	610.0	
56 Carbon tetrachloride	117		6.868				ND	
58 Benzene	78		7.099				ND	
59 1,2-Dichloroethane	62		7.124				ND	
64 Trichloroethene	130	7.805	7.793	0.012	94	914027	365.1	
67 1,2-Dichloropropane	63		8.140				ND	
70 1,4-Dioxane	88		8.188				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.316				ND	
74 cis-1,3-Dichloropropene	75		8.766				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.937				ND	
76 Toluene	91		9.101				ND	
77 trans-1,3-Dichloropropene	75		9.320				ND	
79 1,1,2-Trichloroethane	97		9.502				ND	
80 Tetrachloroethene	164	9.649	9.642	0.007	91	235921	135.4	
82 2-Hexanone	43		9.758				ND	
84 Chlorodibromomethane	129		9.898				ND	
85 Ethylene Dibromide	107		10.007				ND	
87 Chlorobenzene	112		10.500				ND	
89 1,1,1,2-Tetrachloroethane	131		10.573				ND	
90 Ethylbenzene	106		10.603				ND	
91 m-Xylene & p-Xylene	106		10.719				ND	
92 o-Xylene	106		11.108				ND	
93 Styrene	104		11.127				ND	
94 Bromoform	173		11.315				ND	
99 1,1,2,2-Tetrachloroethane	83		11.771				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

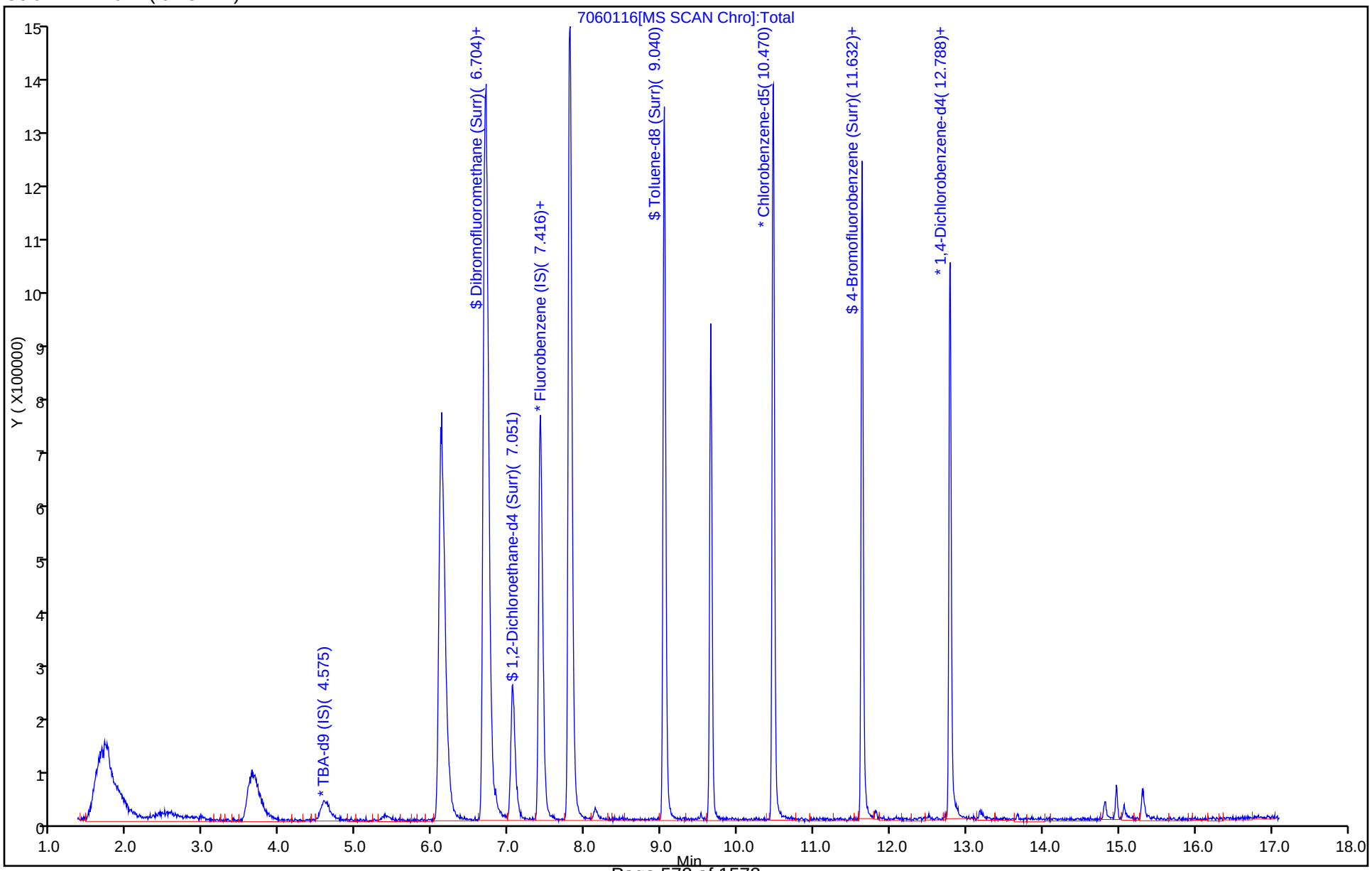
VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

Report Date: 02-Jun-2015 16:39:07 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060116.D				
Injection Date:	01-Jun-2015 17:08:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-44321-D-21	Lab Sample ID:	180-44321-21	Worklist Smp#:	16
Client ID:	HD-CW-15A-0/1-0				
Purge Vol:	20.000 mL	Dil. Factor:	250.0000	ALS Bottle#:	14
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060116.D
Lims ID: 180-44321-D-21 Lab Sample ID: 180-44321-21
Client ID: HD-CW-15A-0/1-0
Sample Type: Client
Inject. Date: 01-Jun-2015 17:08:30 ALS Bottle#: 14 Worklist Smp#: 16
Purge Vol: 20.000 mL Dil. Factor: 250.0000
Sample Info: 180-44321-D-21
Misc. Info.: 180-0007205-016
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 02-Jun-2015 16:39:06 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK014

First Level Reviewer: journetp Date: 02-Jun-2015 16:39:06

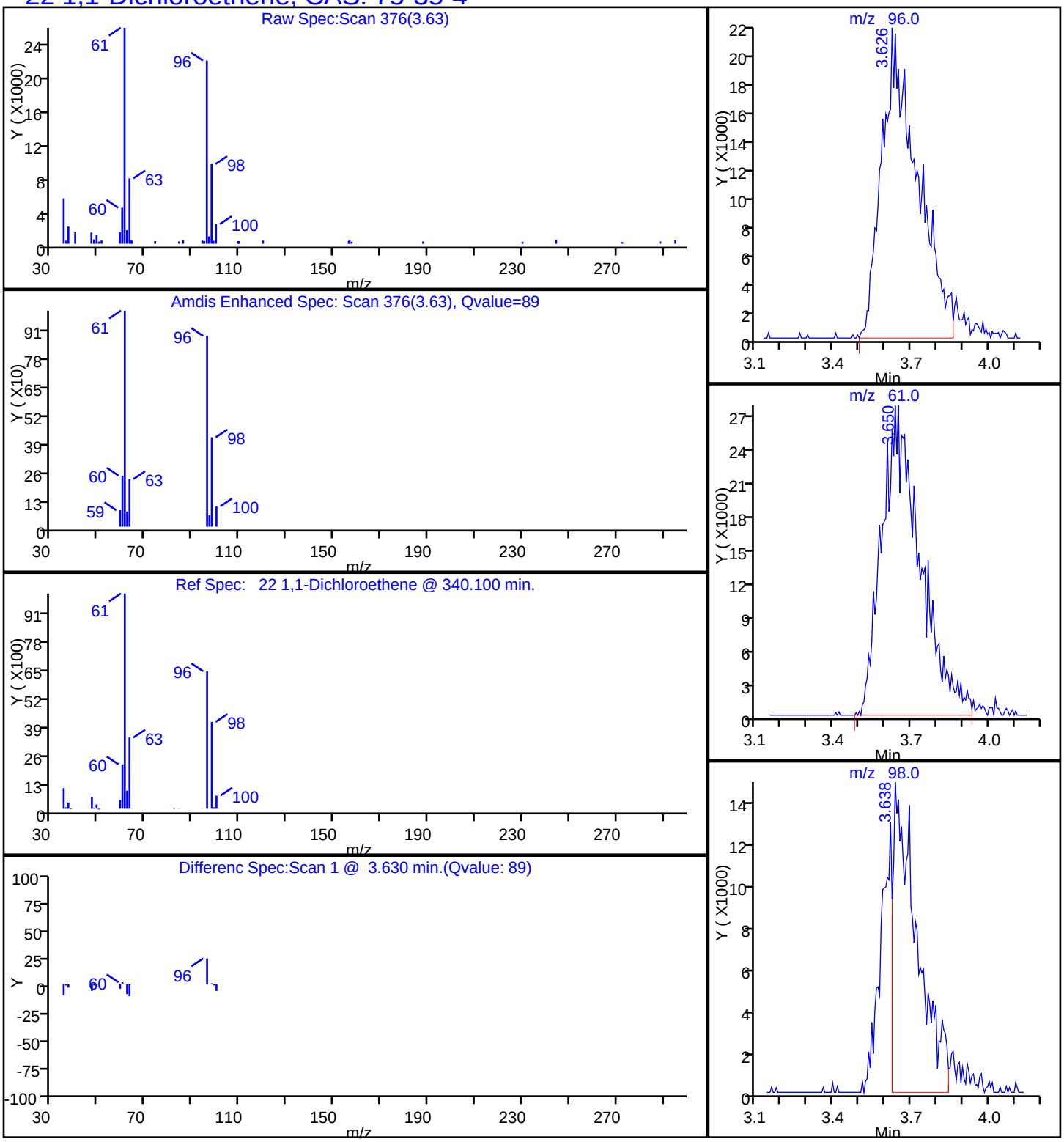
Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	200.0	113.8	56.90
$ 6 1,2-Dichloroethane-d4 (Surr)	200.0	189.5	94.73
$ 7 Toluene-d8 (Surr)	200.0	221.5	110.76
$ 8 4-Bromofluorobenzene (Surr)	200.0	211.9	105.95

Report Date: 02-Jun-2015 16:39:07 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060116.D				
Injection Date:	01-Jun-2015 17:08:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-D-21	Lab Sample ID:	180-44321-21		
Client ID:	HD-CW-15A-0/1-0				
Operator ID:	034635	ALS Bottle#:	14	Worklist Smp#:	16
Purge Vol:	20.000 mL	Dil. Factor:	250.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

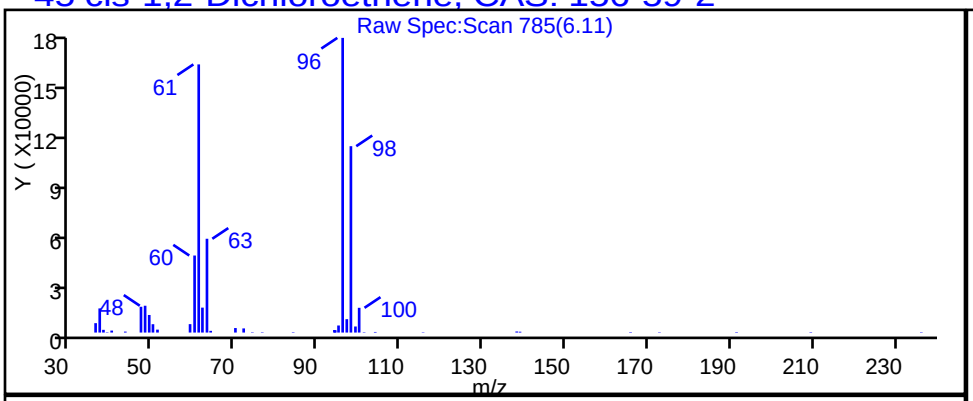


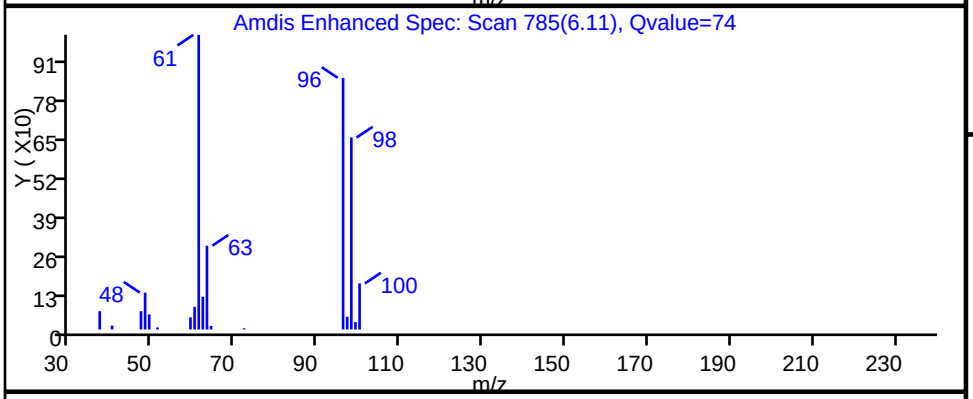
Report Date: 02-Jun-2015 16:39:07 Chrom Revision: 2.2 05-May-2015 11:39:10

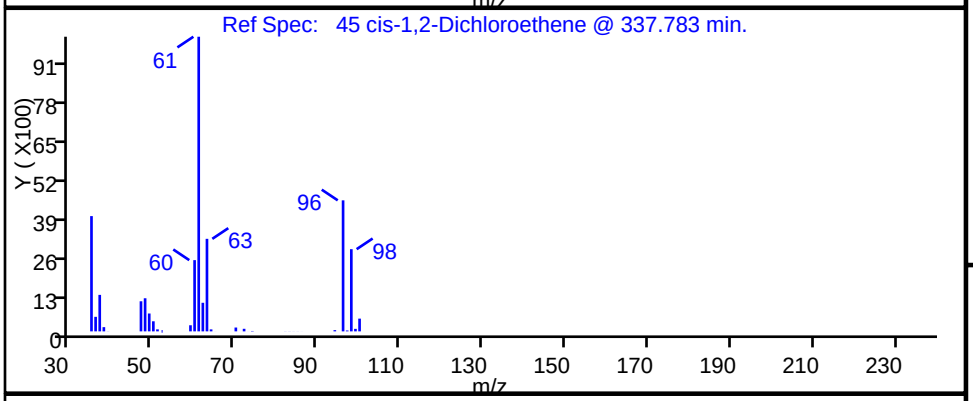
TestAmerica Pittsburgh

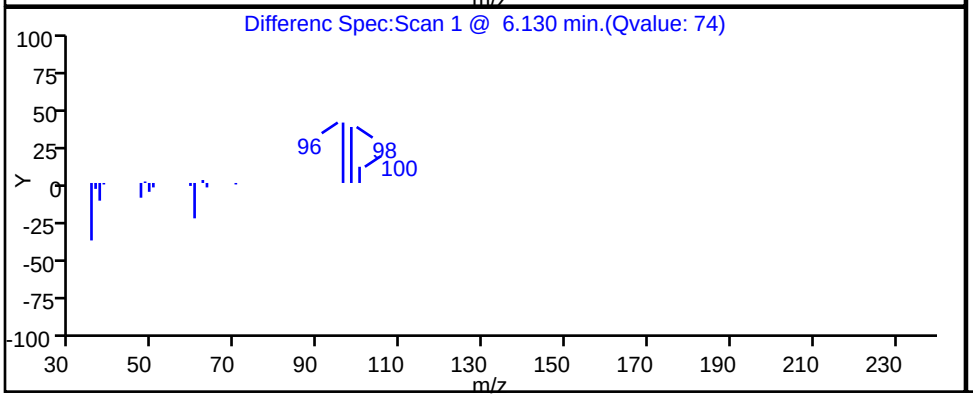
Data File:	\\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060116.D				
Injection Date:	01-Jun-2015 17:08:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-D-21	Lab Sample ID:	180-44321-21		
Client ID:	HD-CW-15A-0/1-0				
Operator ID:	034635	ALS Bottle#:	14	Worklist Smp#:	16
Purge Vol:	20.000 mL	Dil. Factor:	250.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

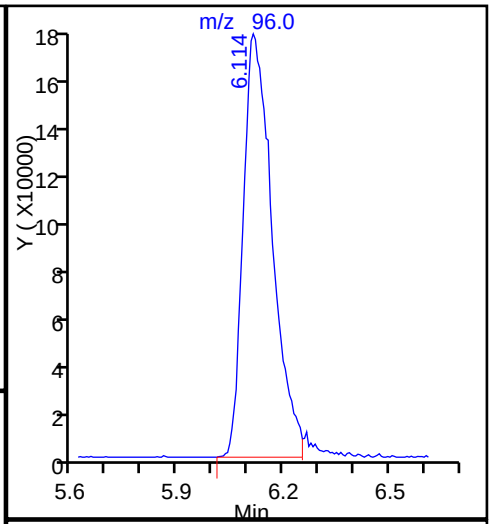
45 cis-1,2-Dichloroethene, CAS: 156-59-2

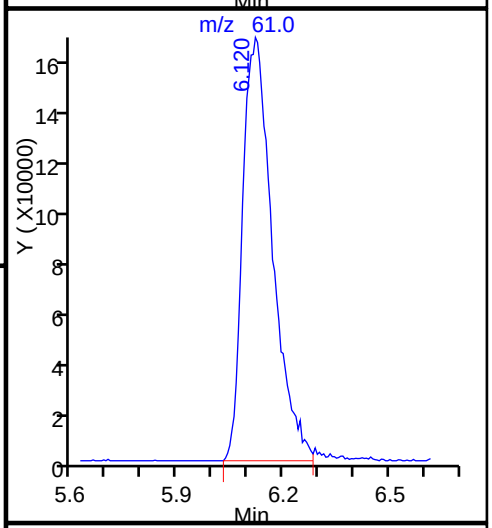


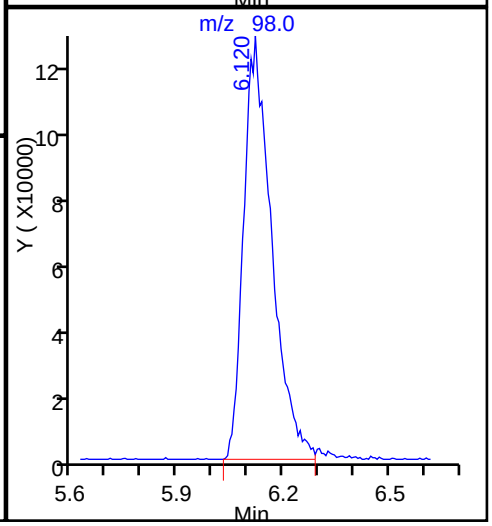










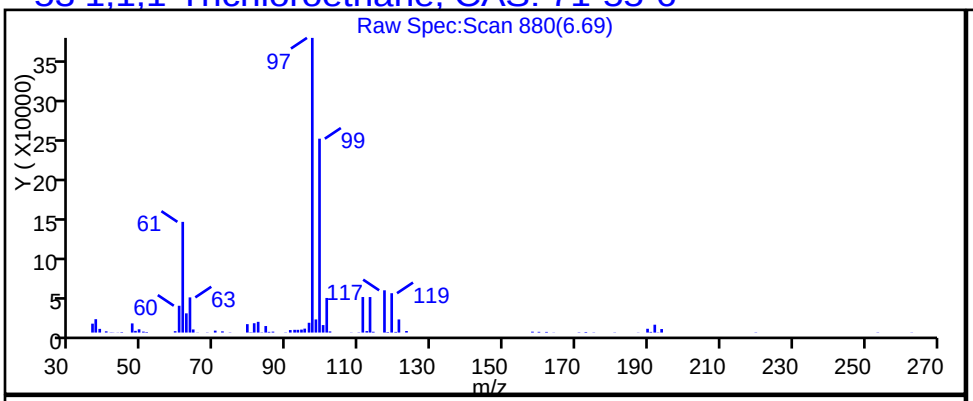


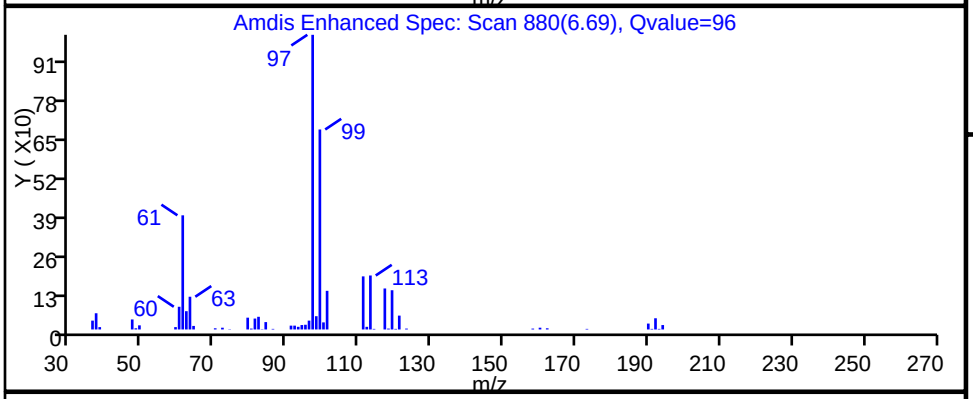
Report Date: 02-Jun-2015 16:39:07 Chrom Revision: 2.2 05-May-2015 11:39:10

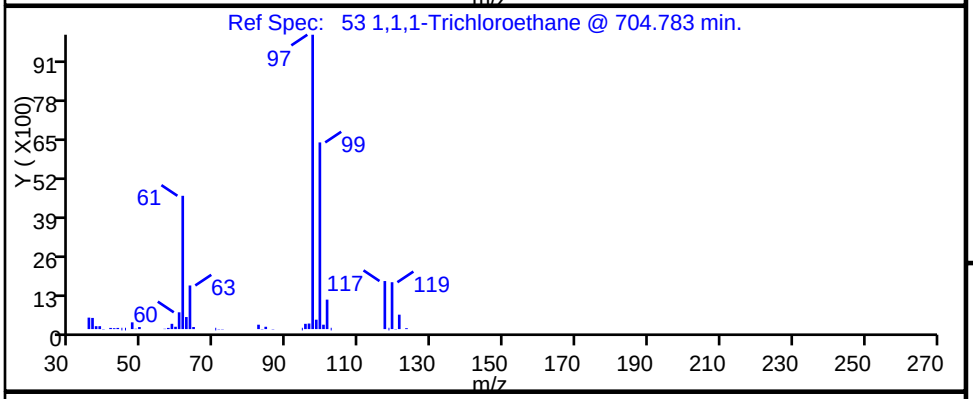
TestAmerica Pittsburgh

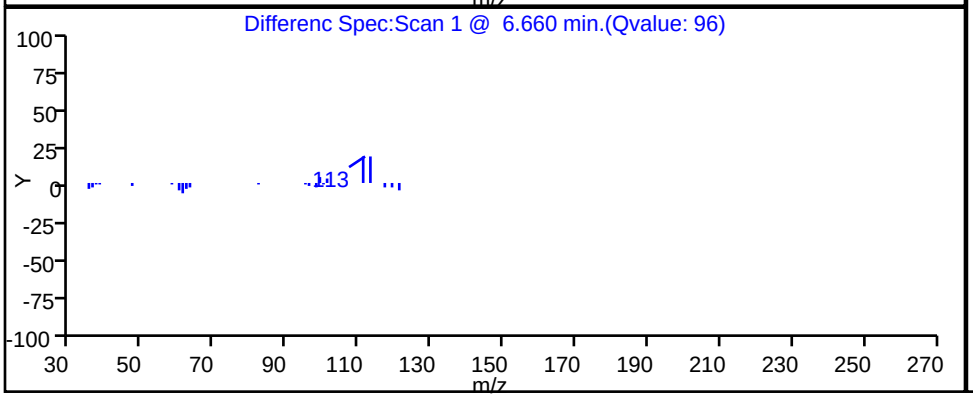
Data File:	\\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060116.D				
Injection Date:	01-Jun-2015 17:08:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-D-21	Lab Sample ID:	180-44321-21		
Client ID:	HD-CW-15A-0/1-0				
Operator ID:	034635	ALS Bottle#:	14	Worklist Smp#:	16
Purge Vol:	20.000 mL	Dil. Factor:	250.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

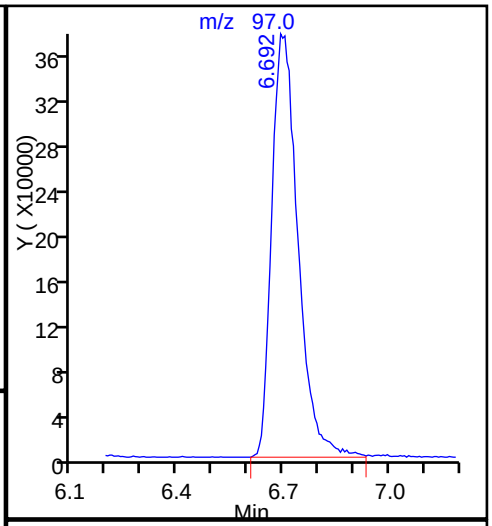
53 1,1,1-Trichloroethane, CAS: 71-55-6

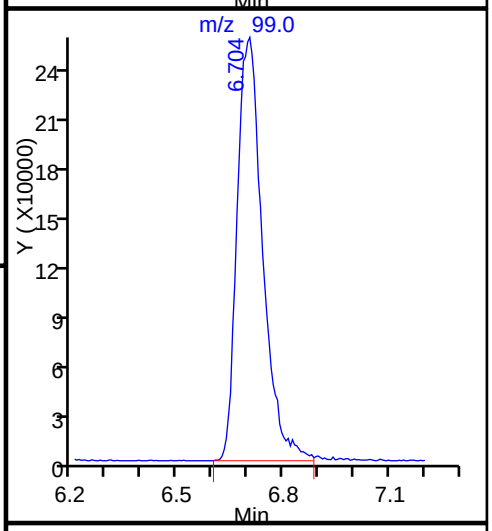


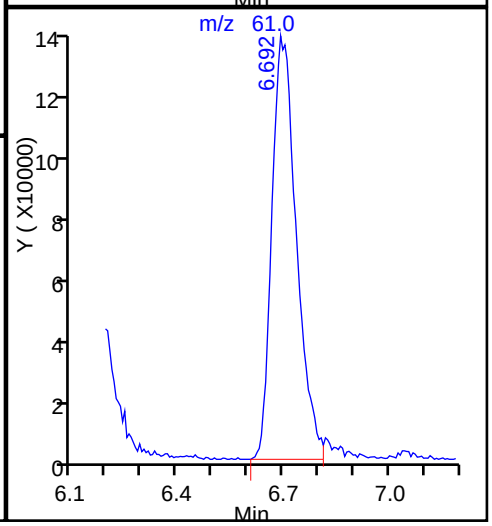










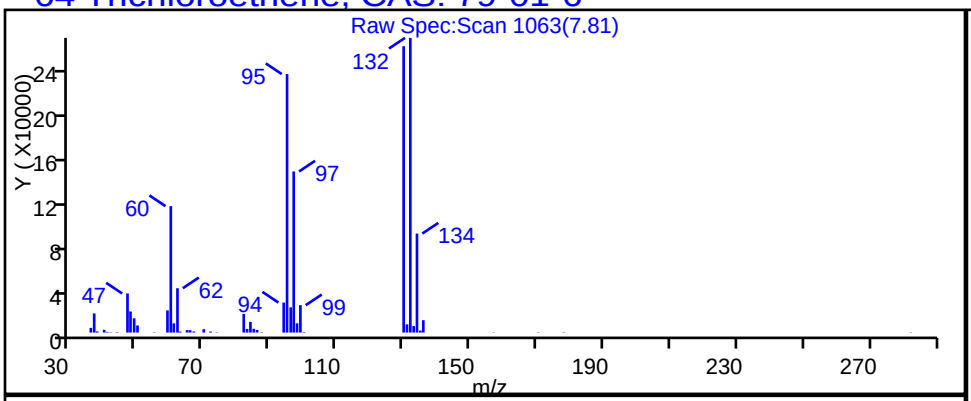


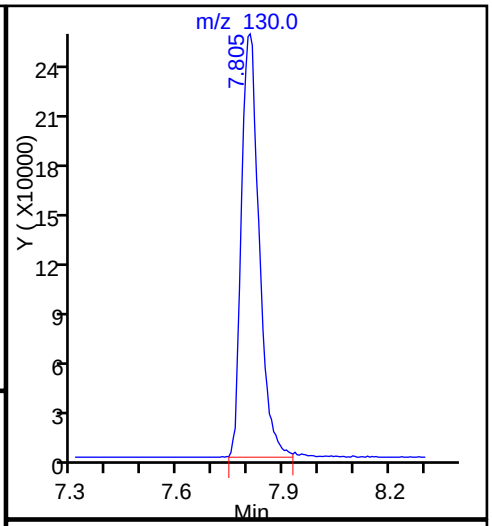
Report Date: 02-Jun-2015 16:39:07 Chrom Revision: 2.2 05-May-2015 11:39:10

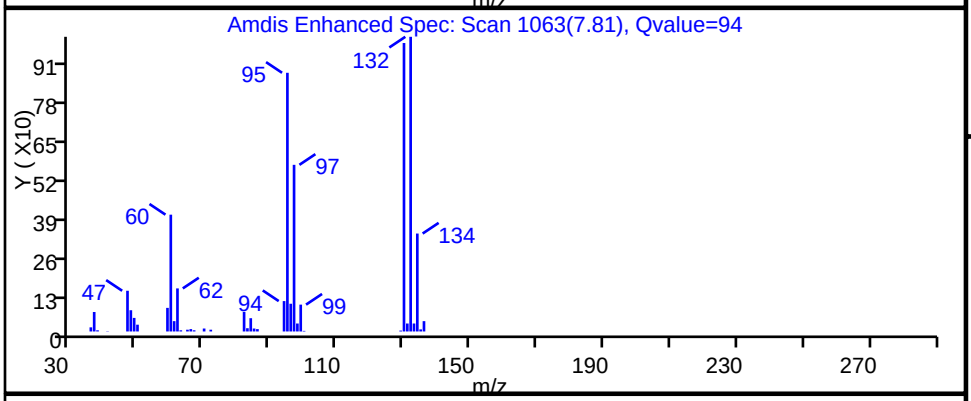
TestAmerica Pittsburgh

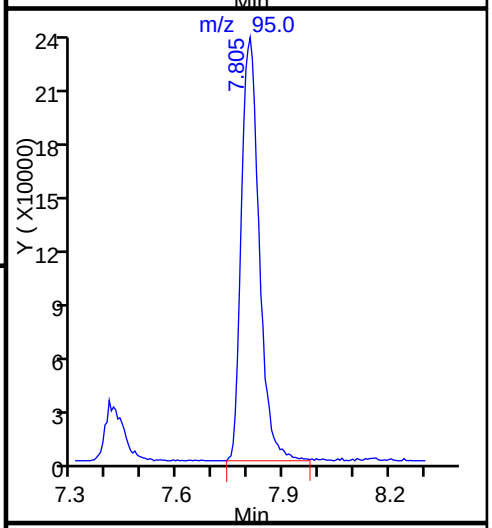
Data File:	\\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060116.D				
Injection Date:	01-Jun-2015 17:08:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-D-21	Lab Sample ID:	180-44321-21		
Client ID:	HD-CW-15A-0/1-0				
Operator ID:	034635	ALS Bottle#:	14	Worklist Smp#:	16
Purge Vol:	20.000 mL	Dil. Factor:	250.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

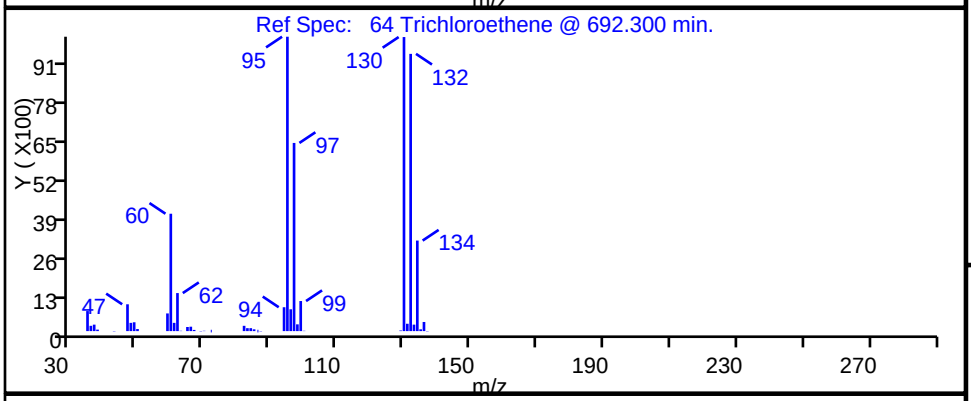
64 Trichloroethene, CAS: 79-01-6

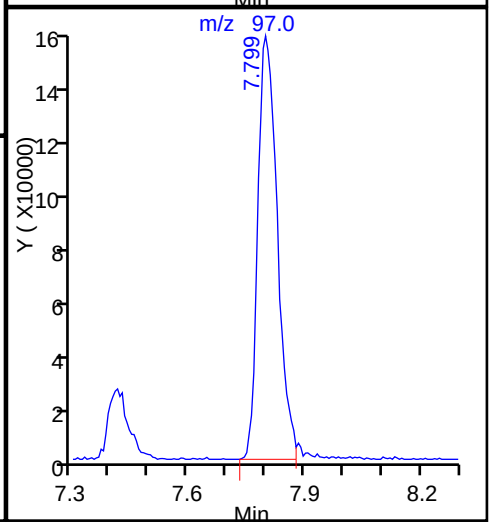


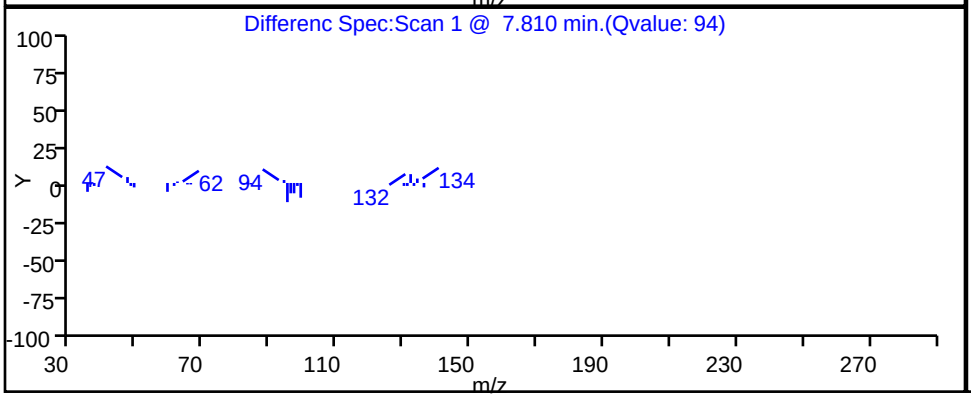












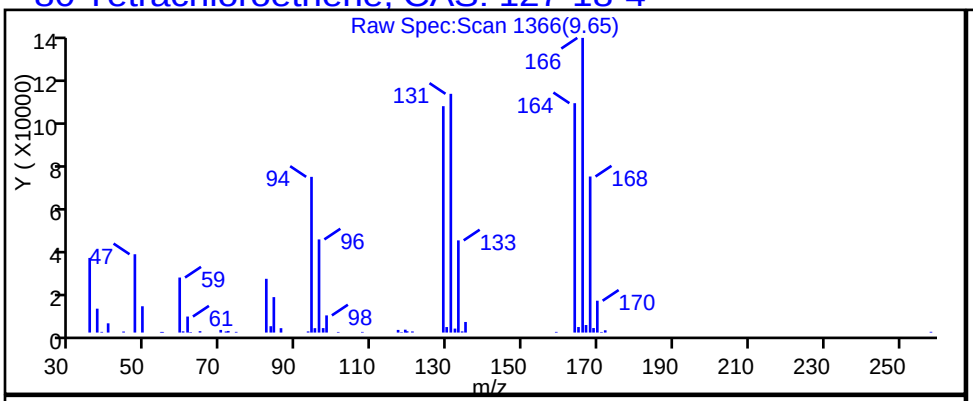
Report Date: 02-Jun-2015 16:39:07 Chrom Revision: 2.2 05-May-2015 11:39:10

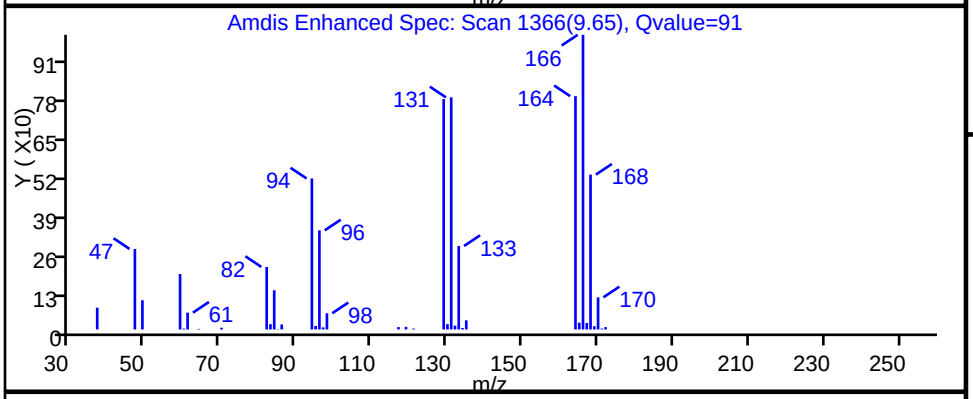
TestAmerica Pittsburgh

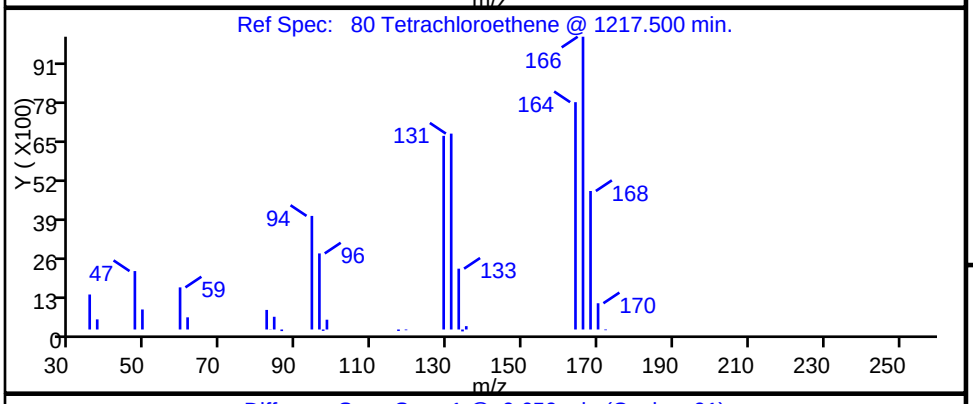
Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060116.D

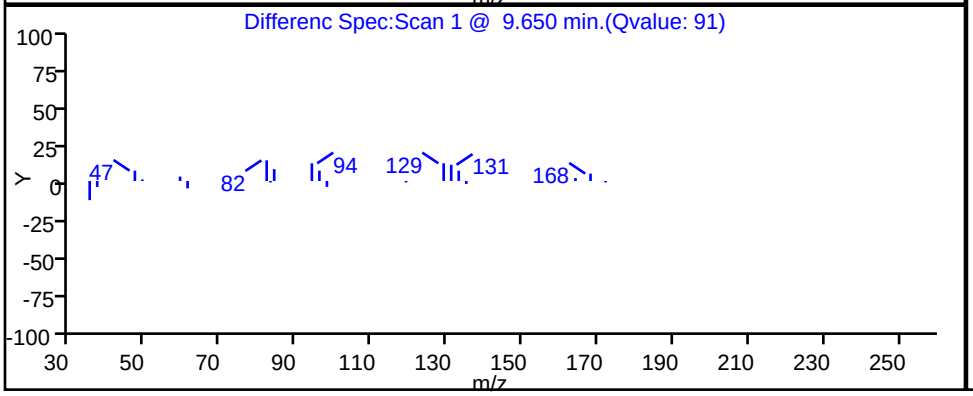
Injection Date:	01-Jun-2015 17:08:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-D-21	Lab Sample ID:	180-44321-21		
Client ID:	HD-CW-15A-0/1-0				
Operator ID:	034635	ALS Bottle#:	14	Worklist Smp#:	16
Purge Vol:	20.000 mL	Dil. Factor:	250.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

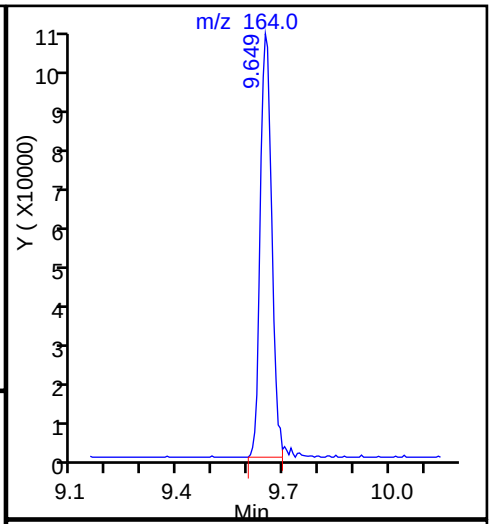
80 Tetrachloroethene, CAS: 127-18-4

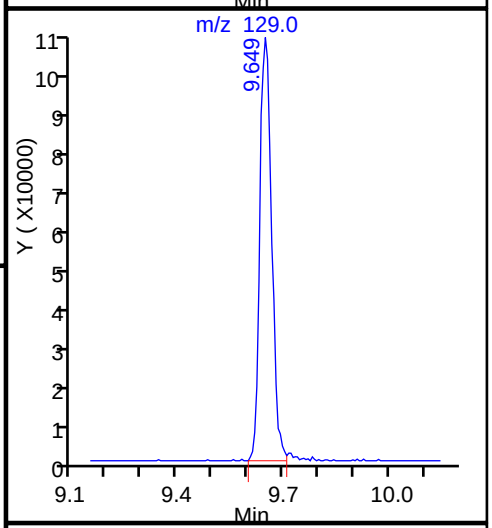


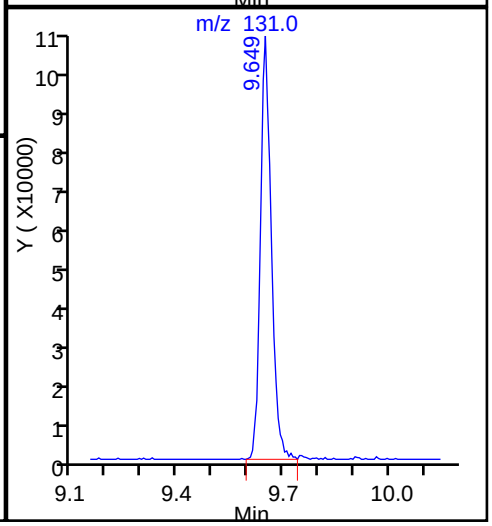












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-CW-15A-0/1-0 RA | Lab Sample ID: 180-44321-21 RA

Matrix: Water | Lab File ID: 7060213.D

Analysis Method: 8260C | Date Collected: 05/20/2015 10:25

Sample wt/vol: 20(mL) | Date Analyzed: 06/02/2015 16:03

Soil Aliquot Vol: | Dilution Factor: 250

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

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

Analysis Batch No.: 143527 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	250	U	250	71
75-01-4	Vinyl chloride	250	U	250	57
74-83-9	Bromomethane	250	U	250	78
75-00-3	Chloroethane	250	U	250	54
75-35-4	1,1-Dichloroethene	1400		250	74
67-64-1	Acetone	1300	U	1300	630
75-15-0	Carbon disulfide	250	U	250	53
75-09-2	Methylene Chloride	250	U	250	31
156-60-5	trans-1,2-Dichloroethene	250	U	250	42
1634-04-4	Methyl tert-butyl ether	250	U	250	46
75-34-3	1,1-Dichloroethane	250	U	250	29
156-59-2	cis-1,2-Dichloroethene	6600		250	59
74-97-5	Bromochloromethane	250	U	250	45
78-93-3	2-Butanone (MEK)	1300	U	1300	140
67-66-3	Chloroform	250	U	250	43
71-55-6	1,1,1-Trichloroethane	6900		250	72
56-23-5	Carbon tetrachloride	250	U	250	34
71-43-2	Benzene	250	U	250	26
107-06-2	1,2-Dichloroethane	250	U	250	53
79-01-6	Trichloroethene	2700		250	36
78-87-5	1,2-Dichloropropane	250	U	250	24
75-27-4	Bromodichloromethane	250	U	250	33
10061-01-5	cis-1,3-Dichloropropene	250	U	250	47
108-10-1	4-Methyl-2-pentanone (MIBK)	1300	U	1300	130
108-88-3	Toluene	250	U	250	38
10061-02-6	trans-1,3-Dichloropropene	250	U	250	37
79-00-5	1,1,2-Trichloroethane	250	U	250	50
127-18-4	Tetrachloroethene	1800		250	37
591-78-6	2-Hexanone	1300	U	1300	40
124-48-1	Dibromochloromethane	250	U	250	34
106-93-4	1,2-Dibromoethane (EDB)	250	U	250	45
108-90-7	Chlorobenzene	250	U	250	34
630-20-6	1,1,1,2-Tetrachloroethane	250	U	250	69
100-41-4	Ethylbenzene	250	U	250	57
1330-20-7	Xylenes, Total	750	U	750	120
100-42-5	Styrene	250	U	250	24

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-CW-15A-0/1-0 RA | Lab Sample ID: 180-44321-21 RA

Matrix: Water | Lab File ID: 7060213.D

Analysis Method: 8260C | Date Collected: 05/20/2015 10:25

Sample wt/vol: 20(mL) | Date Analyzed: 06/02/2015 16:03

Soil Aliquot Vol: | Dilution Factor: 250

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

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

Analysis Batch No.: 143527 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	*Bromoform*	*250*	*U*	*250*	*48*
79-34-5	*1,1,2,2-Tetrachloroethane*	*250*	*U*	*250*	*50*
107-13-1	*Acrylonitrile*	*5000*	*U*	*5000*	*140*
123-91-1	*1,4-Dioxane*	*50000*	*U*	*50000*	*8600*

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	90		64-135
2037-26-5	Toluene-d8 (Surr)	192	*X*	71-118
460-00-4	4-Bromofluorobenzene (Surr)	185	*X*	70-118
1868-53-7	Dibromofluoromethane (Surr)	91		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060213.D
Lims ID: 180-44321-E-21 Lab Sample ID: 180-44321-21
Client ID: HD-CW-15A-0/1-0
Sample Type: Client
Inject. Date: 02-Jun-2015 16:03:30 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 180-44321-E-21
Misc. Info.: 180-0007217-013
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150602-7217.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 02-Jun-2015 17:05:48 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK014

First Level Reviewer: journetp Date: 02-Jun-2015 16:38:23

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
*	1 TBA-d9 (IS)	65	4.617	4.568	0.049	96	297037	4000.0	
*	2 Fluorobenzene (IS)	96	7.415	7.415	0.000	99	1377839	200.0	
*	3 Chlorobenzene-d5	119	10.469	10.469	0.001	84	206493	200.0	
*	4 1,4-Dichlorobenzene-d4	152	12.787	12.786	0.001	95	383343	200.0	
$	5 Dibromofluoromethane (Surr	113	6.679	6.691	-0.012	47	397979	181.1	
$	6 1,2-Dichloroethane-d4 (Sur	65	7.050	7.050	0.000	92	378517	180.6	
$	7 Toluene-d8 (Surr)	98	9.039	9.039	0.000	93	1178105	384.7	
$	8 4-Bromofluorobenzene (Surr	95	11.631	11.630	0.001	88	491480	370.6	
	12 Chloromethane	50		2.049				ND	
	13 Vinyl chloride	62		2.219				ND	
	15 Bromomethane	94		2.578				ND	
	16 Chloroethane	64		2.651				ND	
	22 1,1-Dichloroethene	96	3.637	3.655	-0.018	88	201415	108.9	
	24 Acetone	43		3.777				ND	
	26 Carbon disulfide	76		3.935				ND	
	31 Methylene Chloride	84		4.415				ND	
	33 Acrylonitrile	53		4.793				ND	
	34 trans-1,2-Dichloroethene	96		4.799				ND	
	35 Methyl tert-butyl ether	73		4.847				ND	
	37 1,1-Dichloroethane	63		5.371				ND	
	45 cis-1,2-Dichloroethene	96	6.125	6.125	0.000	78	1204881	529.0	
	46 2-Butanone (MEK)	43		6.161				ND	
	49 Chlorobromomethane	128		6.399				ND	
	52 Chloroform	83		6.508				ND	
	53 1,1,1-Trichloroethane	97	6.691	6.697	-0.006	96	1911970	555.8	
	56 Carbon tetrachloride	117		6.879				ND	
	58 Benzene	78		7.104				ND	
	59 1,2-Dichloroethane	62		7.135				ND	
	64 Trichloroethene	130	7.805	7.798	0.006	95	596871	219.6	
	67 1,2-Dichloropropane	63		8.029				ND	
	70 1,4-Dioxane	88		8.187				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.321				ND	
74 cis-1,3-Dichloropropene	75		8.771				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.935				ND	
76 Toluene	91		9.106				ND	
77 trans-1,3-Dichloropropene	75		9.331				ND	
79 1,1,2-Trichloroethane	97		9.507				ND	
80 Tetrachloroethene	164	9.648	9.653	-0.005	93	145696	141.5	
82 2-Hexanone	43		9.757				ND	
84 Chlorodibromomethane	129		9.897				ND	
85 Ethylene Dibromide	107		10.012				ND	
87 Chlorobenzene	112		10.499				ND	
89 1,1,1,2-Tetrachloroethane	131		10.578				ND	
90 Ethylbenzene	106		10.602				ND	
91 m-Xylene & p-Xylene	106		10.718				ND	
92 o-Xylene	106		11.113				ND	
93 Styrene	104		11.126				ND	
94 Bromoform	173		11.314				ND	
99 1,1,2,2-Tetrachloroethane	83		11.770				ND	
S 133 Xylenes, Total	106		1.000				ND	

Reagents:

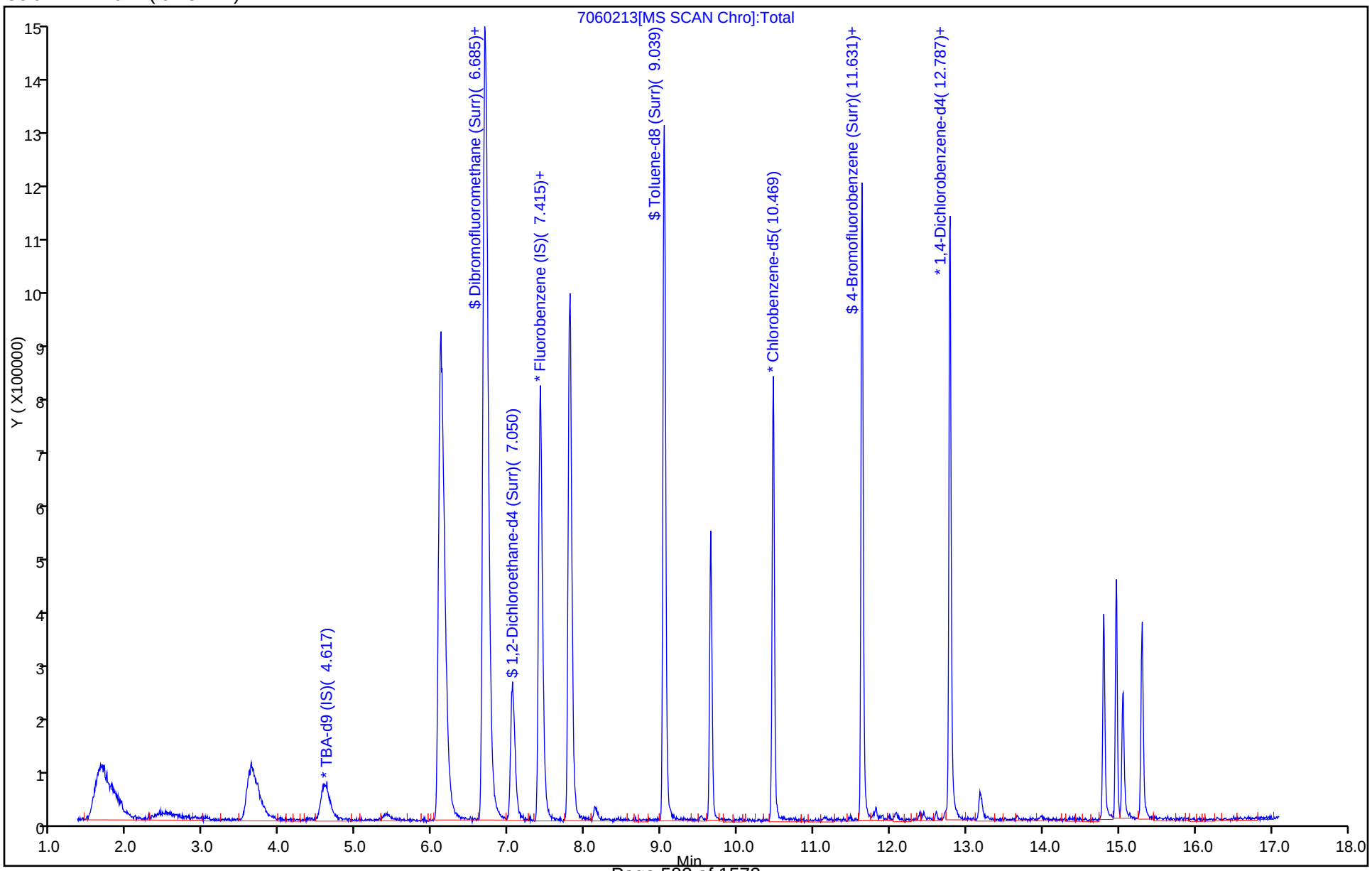
VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

Report Date: 02-Jun-2015 17:05:50 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060213.D				
Injection Date:	02-Jun-2015 16:03:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-44321-E-21	Lab Sample ID:	180-44321-21	Worklist Smp#:	13
Client ID:	HD-CW-15A-0/1-0				
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File:	\\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060213.D				
Lims ID:	180-44321-E-21	Lab Sample ID:	180-44321-21		
Client ID:	HD-CW-15A-0/1-0				
Sample Type:	Client				
Inject. Date:	02-Jun-2015 16:03:30	ALS Bottle#:	12	Worklist Smp#:	13
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Sample Info:	180-44321-E-21				
Misc. Info.:	180-0007217-013				
Operator ID:	034635	Instrument ID:	CHHP7		
Method:	\\PITCHROM\ChromData\CHHP7\20150602-7217.b\MSVOA_LL_CHHP7.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	02-Jun-2015 17:05:48	Calib Date:	30-Mar-2015 14:36:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK014				

First Level Reviewer: journetp Date: 02-Jun-2015 16:38:23

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	200.0	181.1	90.54
$ 6 1,2-Dichloroethane-d4 (Surr)	200.0	180.6	90.32
$ 7 Toluene-d8 (Surr)	200.0	384.7	192.33
$ 8 4-Bromofluorobenzene (Surr)	200.0	370.6	185.31

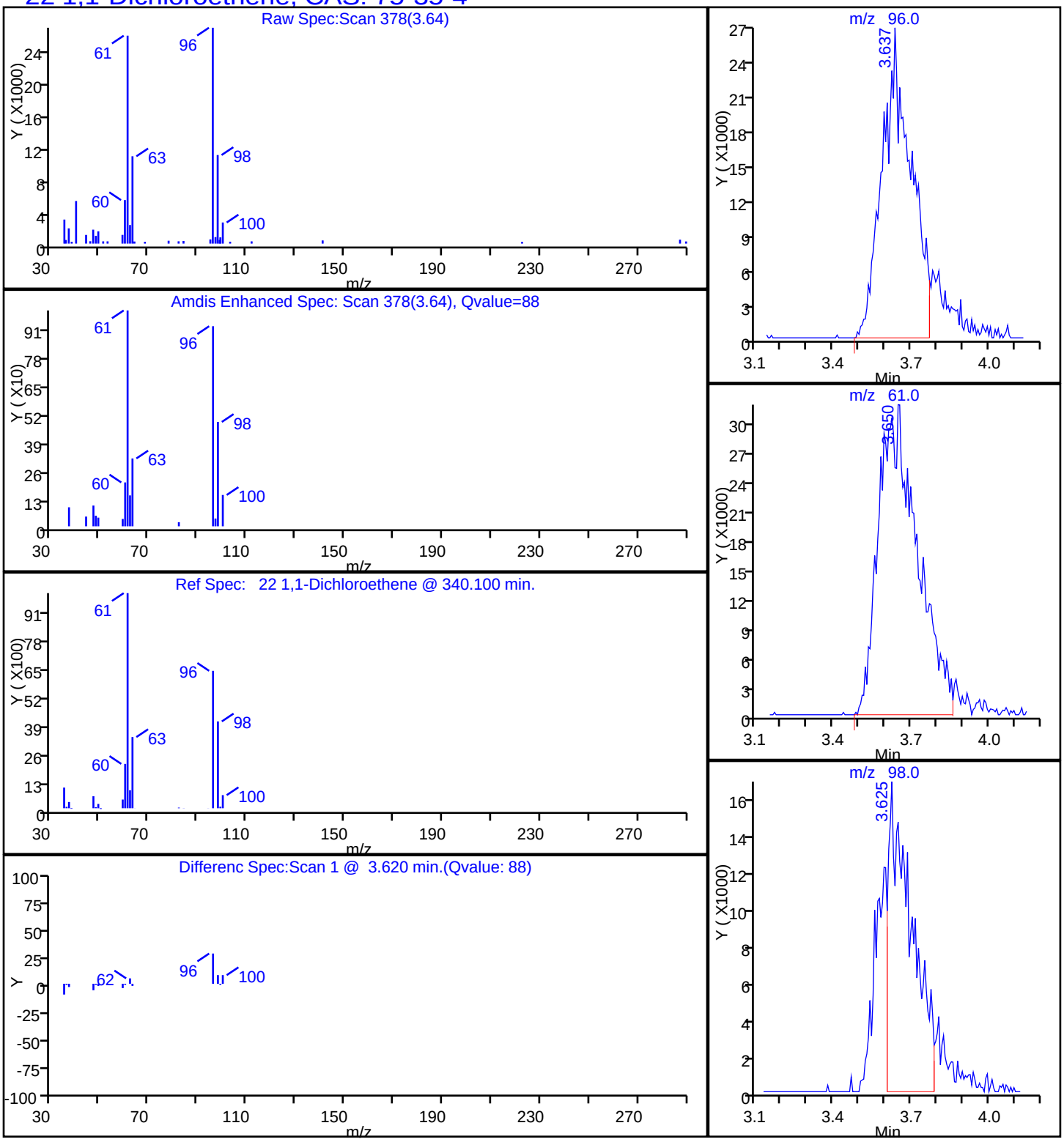
Report Date: 02-Jun-2015 17:05:50 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060213.D

Injection Date:	02-Jun-2015 16:03:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-E-21	Lab Sample ID:	180-44321-21		
Client ID:	HD-CW-15A-0/1-0				
Operator ID:	034635	ALS Bottle#:	12	Worklist Smp#:	13
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

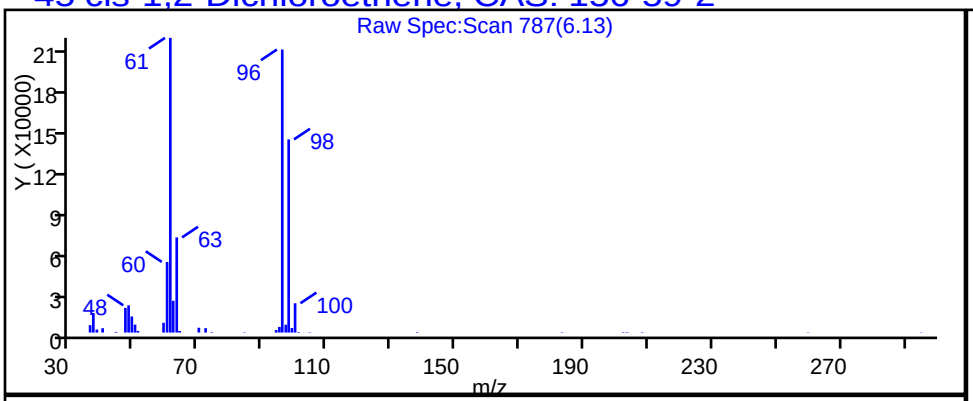


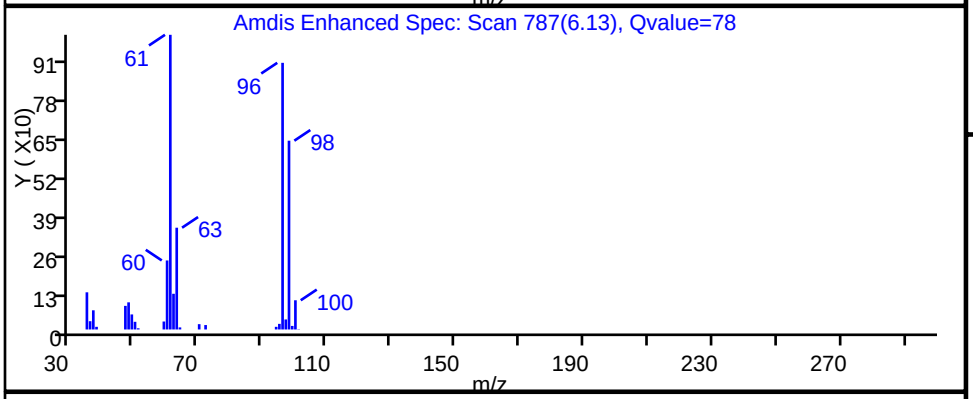
Report Date: 02-Jun-2015 17:05:50 Chrom Revision: 2.2 05-May-2015 11:39:10

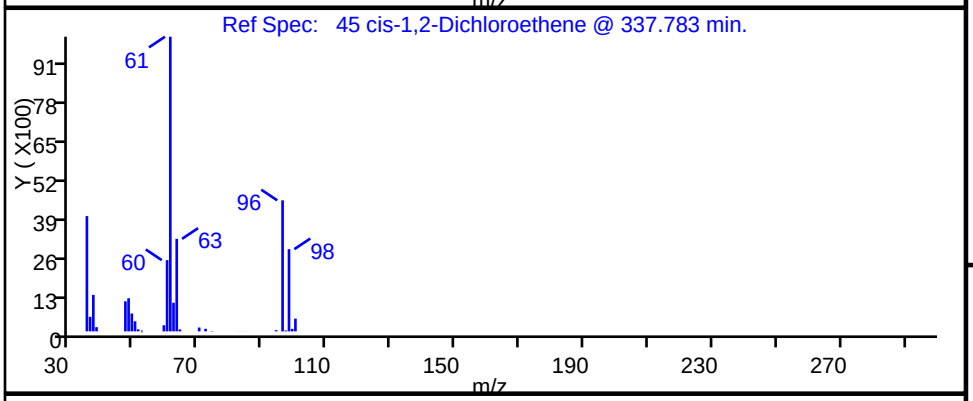
TestAmerica Pittsburgh

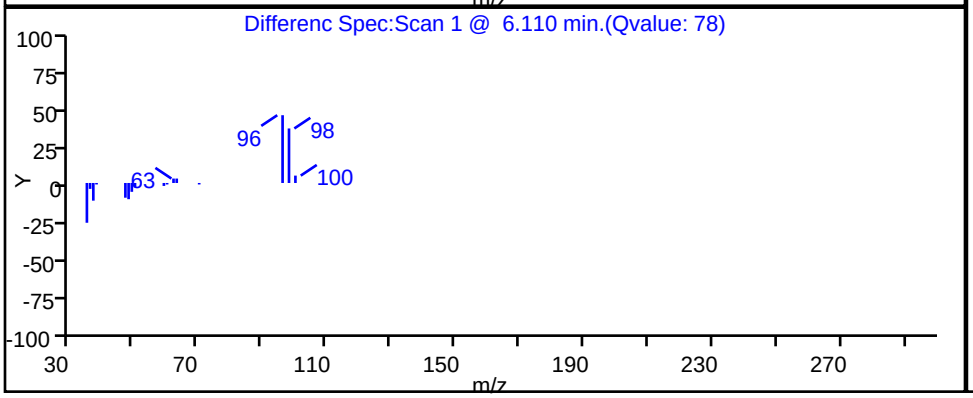
Data File:	\\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060213.D				
Injection Date:	02-Jun-2015 16:03:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-E-21	Lab Sample ID:	180-44321-21		
Client ID:	HD-CW-15A-0/1-0				
Operator ID:	034635	ALS Bottle#:	12	Worklist Smp#:	13
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

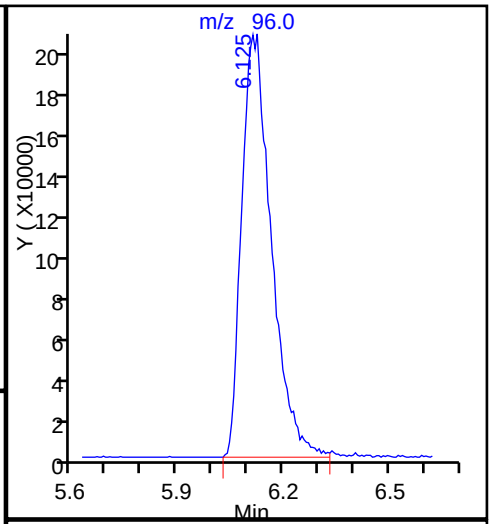
45 cis-1,2-Dichloroethene, CAS: 156-59-2

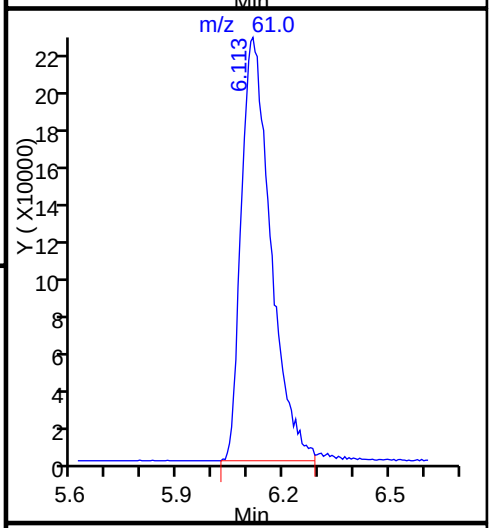


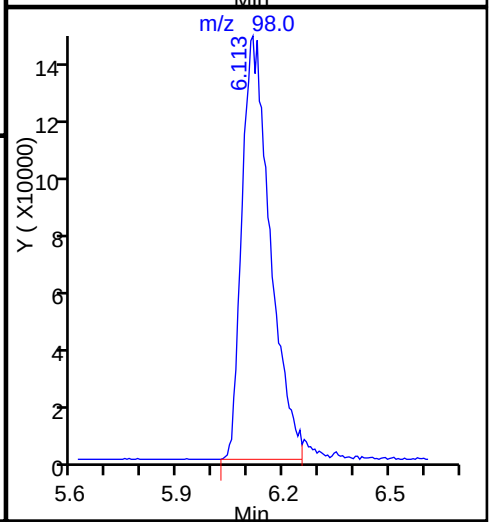












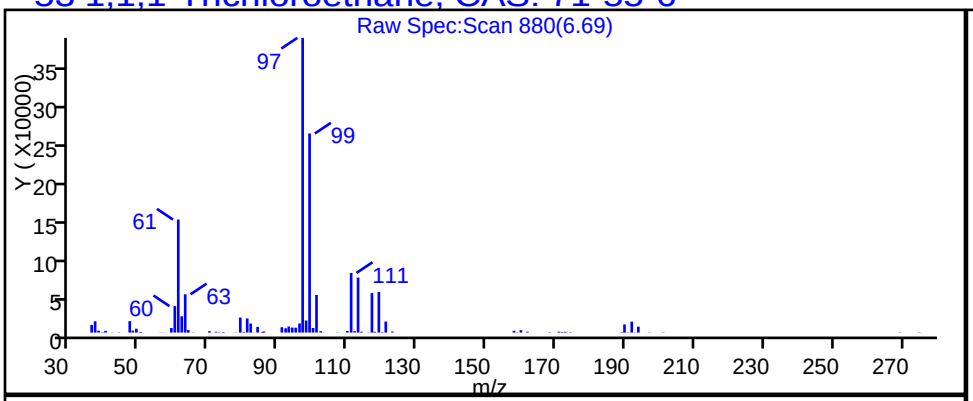
Report Date: 02-Jun-2015 17:05:51 Chrom Revision: 2.2 05-May-2015 11:39:10

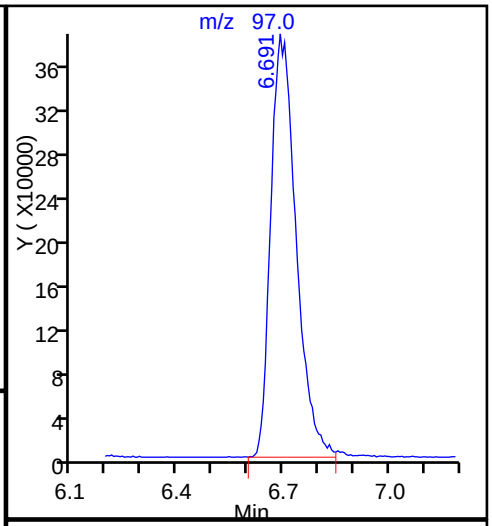
TestAmerica Pittsburgh

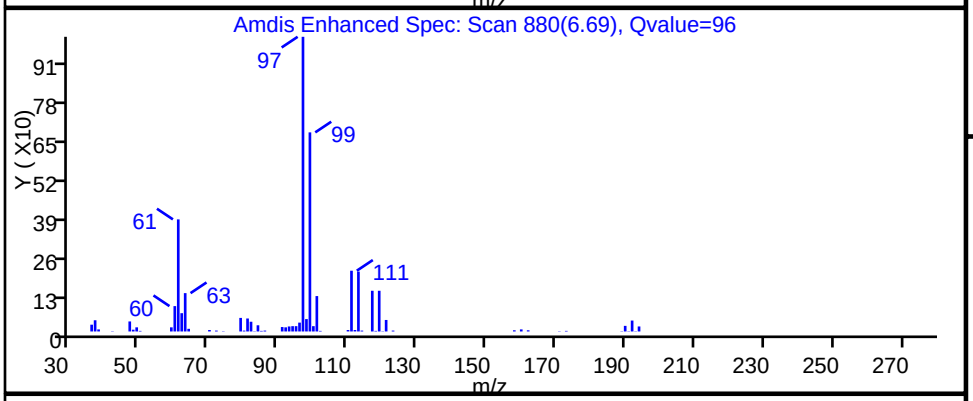
Data File: \\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060213.D

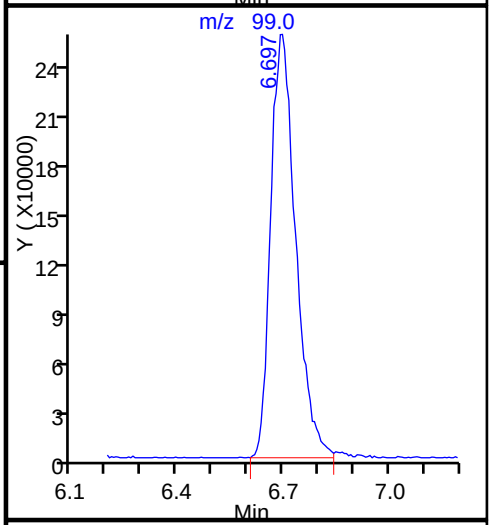
Injection Date:	02-Jun-2015 16:03:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-E-21	Lab Sample ID:	180-44321-21		
Client ID:	HD-CW-15A-0/1-0				
Operator ID:	034635	ALS Bottle#:	12	Worklist Smp#:	13
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

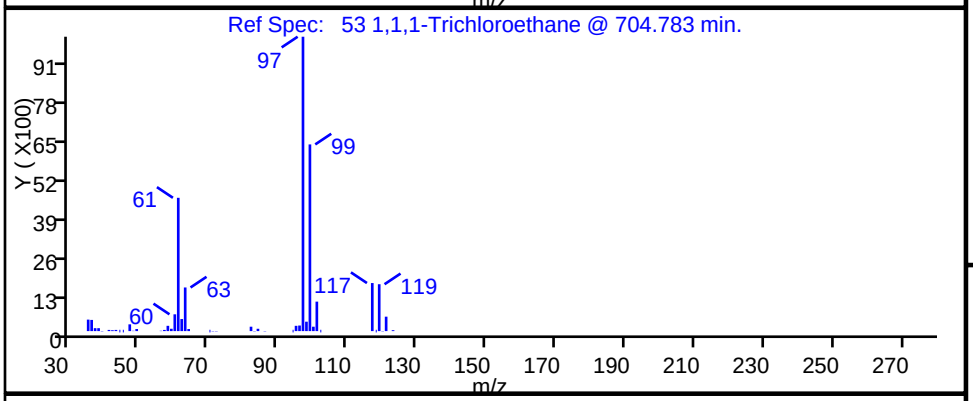
53 1,1,1-Trichloroethane, CAS: 71-55-6

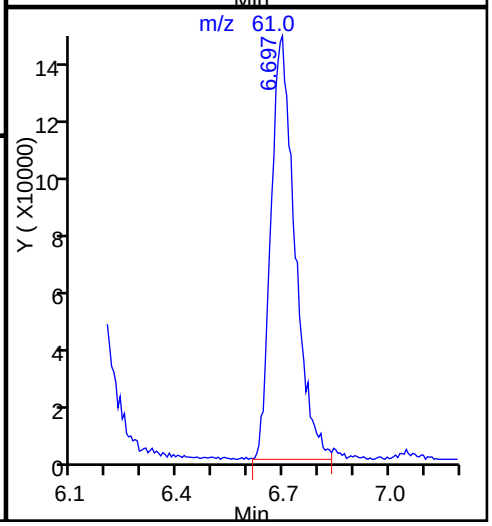


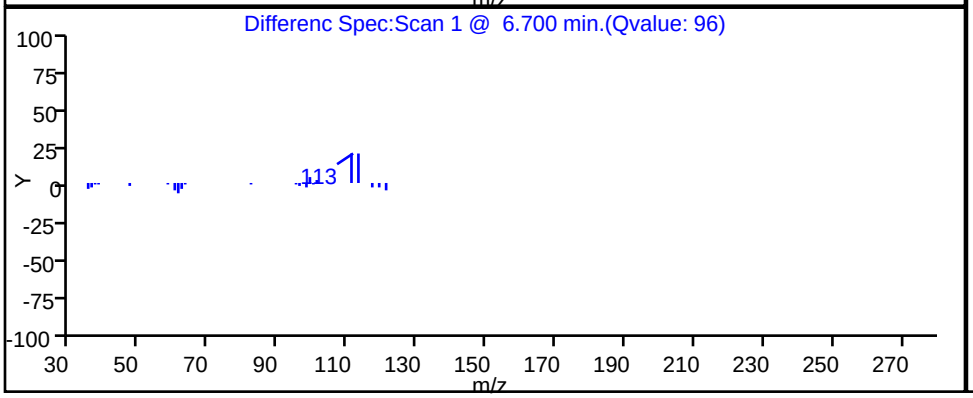












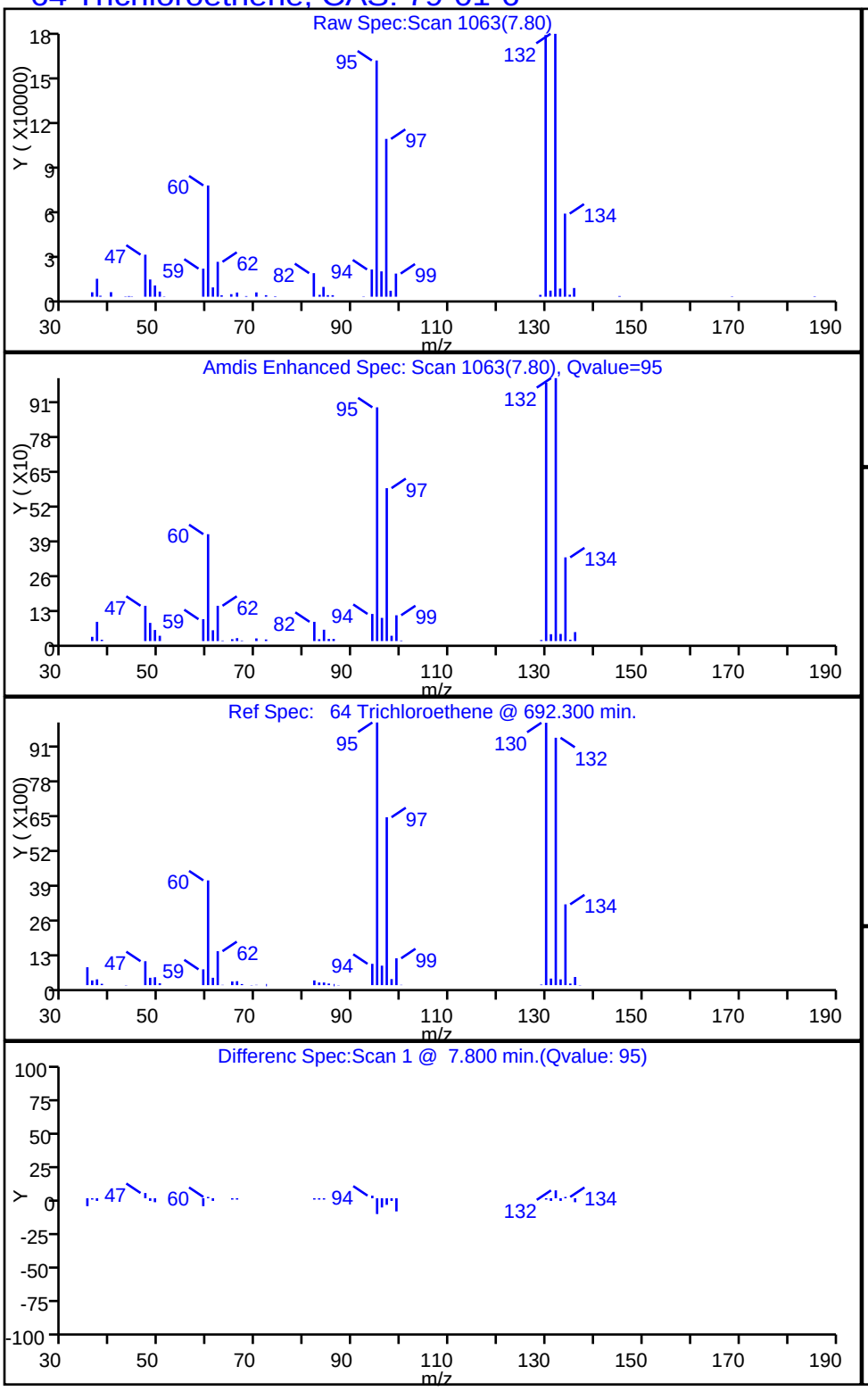
Report Date: 02-Jun-2015 17:05:51 Chrom Revision: 2.2 05-May-2015 11:39:10

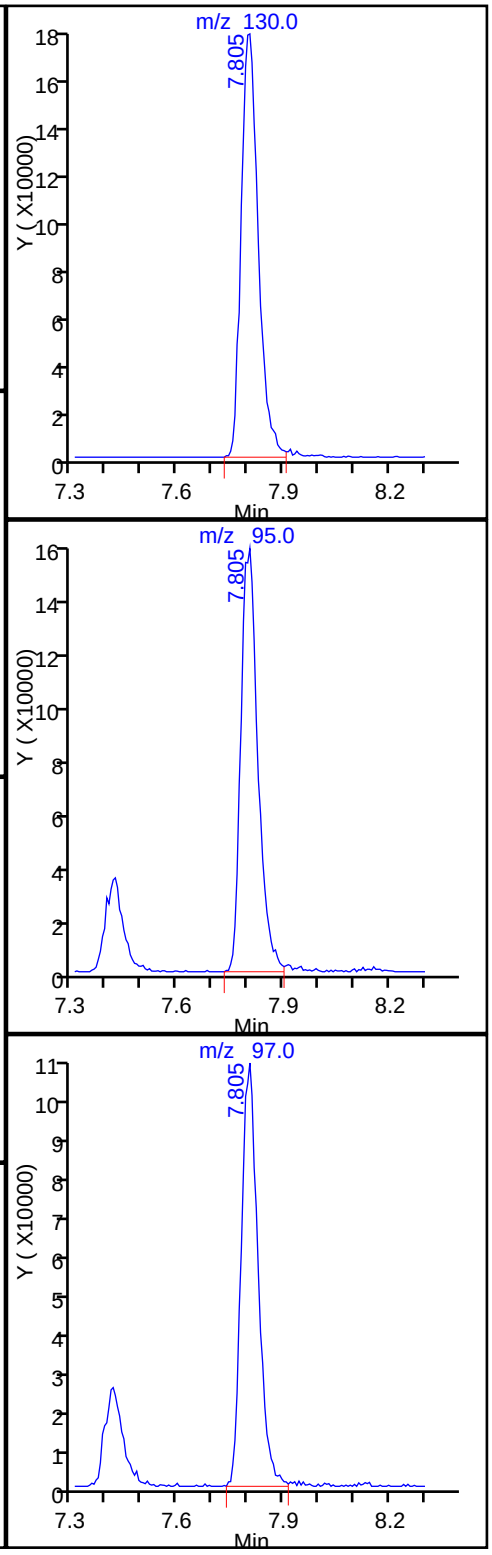
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060213.D

Injection Date:	02-Jun-2015 16:03:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-E-21	Lab Sample ID:	180-44321-21		
Client ID:	HD-CW-15A-0/1-0				
Operator ID:	034635	ALS Bottle#:	12	Worklist Smp#:	13
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

64 Trichloroethene, CAS: 79-01-6





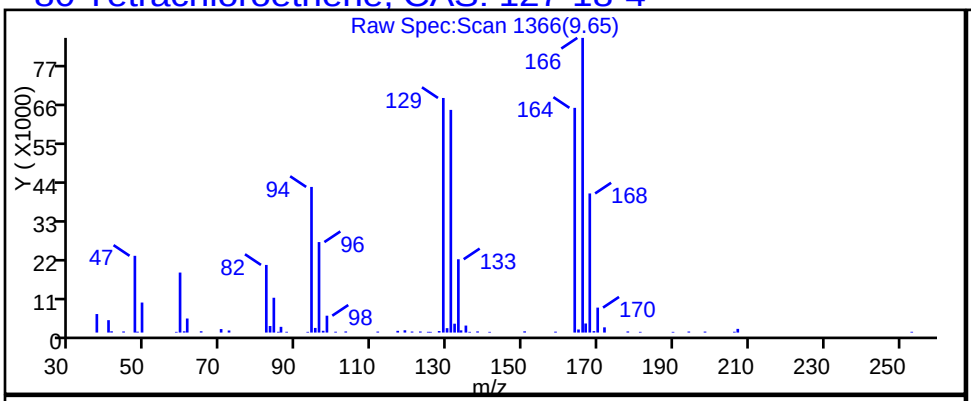
Report Date: 02-Jun-2015 17:05:51 Chrom Revision: 2.2 05-May-2015 11:39:10

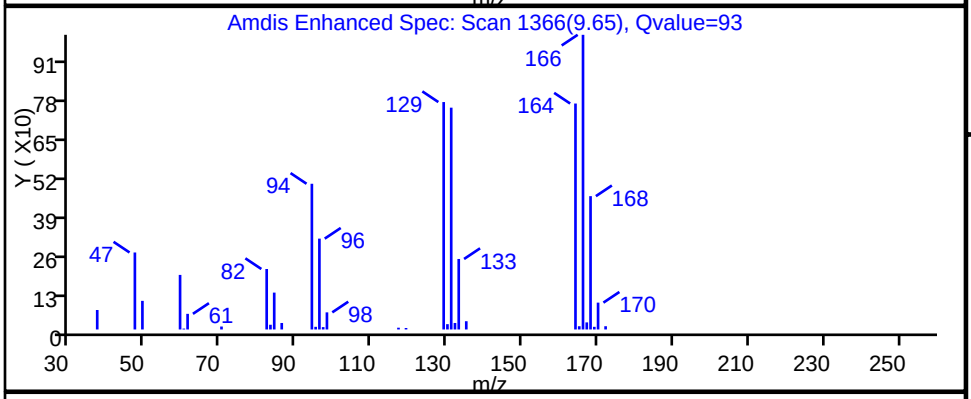
TestAmerica Pittsburgh

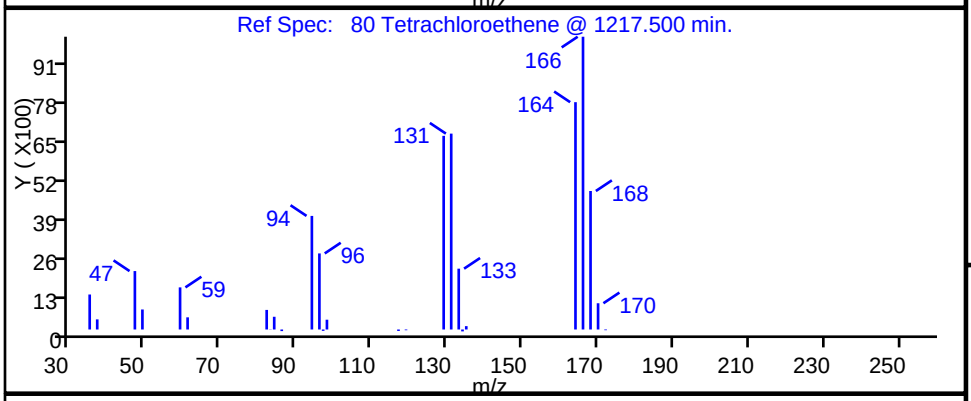
Data File: \\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060213.D

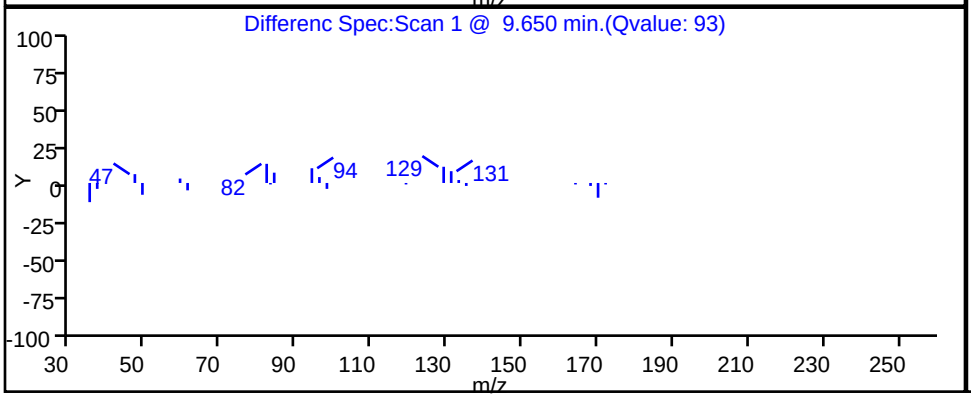
Injection Date:	02-Jun-2015 16:03:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-E-21	Lab Sample ID:	180-44321-21		
Client ID:	HD-CW-15A-0/1-0				
Operator ID:	034635	ALS Bottle#:	12	Worklist Smp#:	13
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

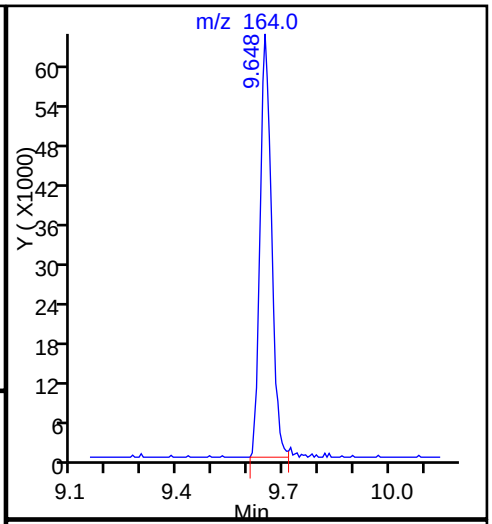
80 Tetrachloroethene, CAS: 127-18-4

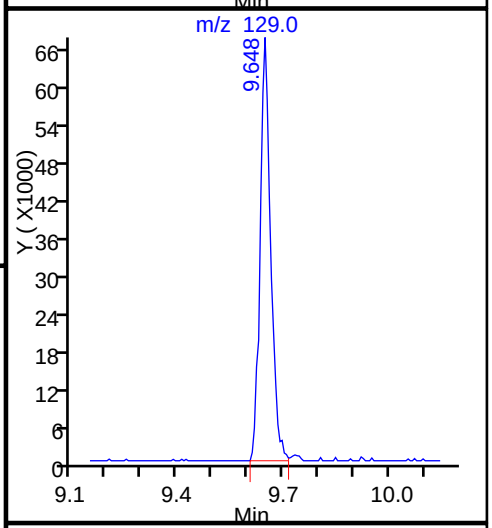


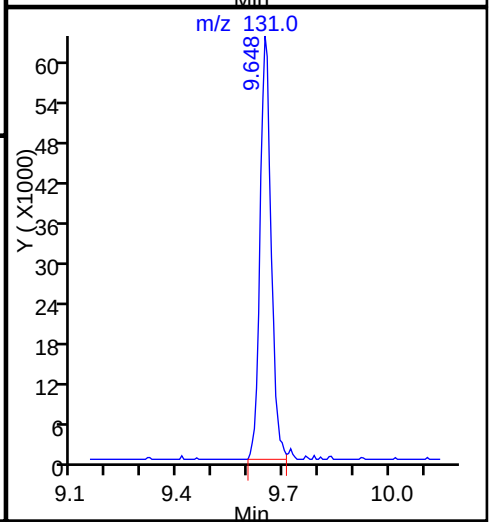












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-CW-17-0/1-0 Lab Sample ID: 180-44321-22

Matrix: Water Lab File ID: 7060114.D

Analysis Method: 8260C Date Collected: 05/20/2015 10:35

Sample wt/vol: 20(mL) Date Analyzed: 06/01/2015 16:12

Soil Aliquot Vol: Dilution Factor: 3

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143422 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	3.0	U *	3.0	0.85
75-01-4	Vinyl chloride	3.0	U	3.0	0.68
74-83-9	Bromomethane	3.0	U	3.0	0.94
75-00-3	Chloroethane	3.0	U	3.0	0.64
75-35-4	1,1-Dichloroethene	1.4	J	3.0	0.89
67-64-1	Acetone	15	U	15	7.5
75-15-0	Carbon disulfide	3.0	U	3.0	0.64
75-09-2	Methylene Chloride	3.0	U	3.0	0.38
156-60-5	trans-1,2-Dichloroethene	3.0	U	3.0	0.51
1634-04-4	Methyl tert-butyl ether	3.0	U	3.0	0.55
75-34-3	1,1-Dichloroethane	3.0	U	3.0	0.35
156-59-2	cis-1,2-Dichloroethene	34		3.0	0.71
74-97-5	Bromochloromethane	3.0	U	3.0	0.54
78-93-3	2-Butanone (MEK)	15	U	15	1.6
67-66-3	Chloroform	3.0	U	3.0	0.51
71-55-6	1,1,1-Trichloroethane	6.4		3.0	0.86
56-23-5	Carbon tetrachloride	3.0	U	3.0	0.41
71-43-2	Benzene	3.0	U	3.0	0.32
107-06-2	1,2-Dichloroethane	3.0	U	3.0	0.64
79-01-6	Trichloroethene	26		3.0	0.43
78-87-5	1,2-Dichloropropane	3.0	U	3.0	0.28
75-27-4	Bromodichloromethane	3.0	U	3.0	0.39
10061-01-5	cis-1,3-Dichloropropene	3.0	U	3.0	0.56
108-10-1	4-Methyl-2-pentanone (MIBK)	15	U	15	1.6
108-88-3	Toluene	3.0	U	3.0	0.45
10061-02-6	trans-1,3-Dichloropropene	3.0	U	3.0	0.44
79-00-5	1,1,2-Trichloroethane	3.0	U	3.0	0.60
127-18-4	Tetrachloroethene	9.8		3.0	0.45
591-78-6	2-Hexanone	15	U	15	0.48
124-48-1	Dibromochloromethane	3.0	U	3.0	0.41
106-93-4	1,2-Dibromoethane (EDB)	3.0	U	3.0	0.54
108-90-7	Chlorobenzene	3.0	U	3.0	0.41
630-20-6	1,1,1,2-Tetrachloroethane	3.0	U	3.0	0.83
100-41-4	Ethylbenzene	3.0	U	3.0	0.68
1330-20-7	Xylenes, Total	9.0	U	9.0	1.5
100-42-5	Styrene	3.0	U	3.0	0.29

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-CW-17-0/1-0 Lab Sample ID: 180-44321-22

Matrix: Water Lab File ID: 7060114.D

Analysis Method: 8260C Date Collected: 05/20/2015 10:35

Sample wt/vol: 20(mL) Date Analyzed: 06/01/2015 16:12

Soil Aliquot Vol: Dilution Factor: 3

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143422 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	3.0	U	3.0	0.57
79-34-5	1,1,2,2-Tetrachloroethane	3.0	U	3.0	0.60
107-13-1	Acrylonitrile	60	U	60	1.6
123-91-1	1,4-Dioxane	600	U	600	100

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		64-135
2037-26-5	Toluene-d8 (Surr)	115		71-118
460-00-4	4-Bromofluorobenzene (Surr)	107		70-118
1868-53-7	Dibromofluoromethane (Surr)	109		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060114.D
Lims ID: 180-44321-C-22 Lab Sample ID: 180-44321-22
Client ID: HD-CW-17-0/1-0
Sample Type: Client
Inject. Date: 01-Jun-2015 16:12:30 ALS Bottle#: 12 Worklist Smp#: 14
Purge Vol: 20.000 mL Dil. Factor: 3.0000
Sample Info: 180-44321-C-22
Misc. Info.: 180-0007205-014
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 16:53:05 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

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

First Level Reviewer: journetp Date: 01-Jun-2015 16:52:34

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.585	4.665	-0.080	95	328943	4000.0	
* 2 Fluorobenzene (IS)	96	7.414	7.403	0.011	98	1226781	200.0	
* 3 Chlorobenzene-d5	119	10.468	10.463	0.005	86	329945	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.792	12.787	0.005	95	354573	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.678	6.679	-0.001	91	426710	218.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.049	7.038	0.011	94	366807	196.6	
$ 7 Toluene-d8 (Surr)	98	9.039	9.033	0.005	93	1129233	230.7	
$ 8 4-Bromofluorobenzene (Surr	95	11.630	11.631	-0.001	89	467439	214.5	
12 Chloromethane	50		2.049				ND	
13 Vinyl chloride	62		2.232				ND	
15 Bromomethane	94		2.506				ND	
16 Chloroethane	64		2.621				ND	
22 1,1-Dichloroethene	96	3.655	3.540	0.115	12	15843	9.62	M
24 Acetone	43		3.783				ND	
26 Carbon disulfide	76		3.868				ND	
31 Methylene Chloride	84		4.398				ND	
34 trans-1,2-Dichloroethene	96		4.781				ND	
33 Acrylonitrile	53		4.799				ND	
35 Methyl tert-butyl ether	73		4.854				ND	
37 1,1-Dichloroethane	63		5.359				ND	
45 cis-1,2-Dichloroethene	96	6.125	6.095	0.030	78	454518	224.1	
46 2-Butanone (MEK)	43		6.180				ND	
49 Chlorobromomethane	128		6.387				ND	
52 Chloroform	83		6.497				ND	
53 1,1,1-Trichloroethane	97	6.696	6.679	0.017	73	131574	43.0	
56 Carbon tetrachloride	117		6.862				ND	
58 Benzene	78		7.099				ND	
59 1,2-Dichloroethane	62		7.123				ND	
64 Trichloroethene	130	7.804	7.798	0.006	96	417367	172.4	
67 1,2-Dichloropropane	63		8.023				ND	
70 1,4-Dioxane	88		8.194				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.315				ND	
74 cis-1,3-Dichloropropene	75		8.772				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.936				ND	
76 Toluene	91		9.100				ND	
77 trans-1,3-Dichloropropene	75		9.325				ND	
79 1,1,2-Trichloroethane	97		9.508				ND	
80 Tetrachloroethene	164	9.647	9.642	0.005	93	126439	65.4	
82 2-Hexanone	43		9.763				ND	
84 Chlorodibromomethane	129		9.897				ND	
85 Ethylene Dibromide	107		10.007				ND	
87 Chlorobenzene	112		10.493				ND	
89 1,1,1,2-Tetrachloroethane	131		10.572				ND	
90 Ethylbenzene	106		10.603				ND	
91 m-Xylene & p-Xylene	106		10.718				ND	
92 o-Xylene	106		11.114				ND	
93 Styrene	104		11.126				ND	
94 Bromoform	173		11.315				ND	
99 1,1,2,2-Tetrachloroethane	83		11.771				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

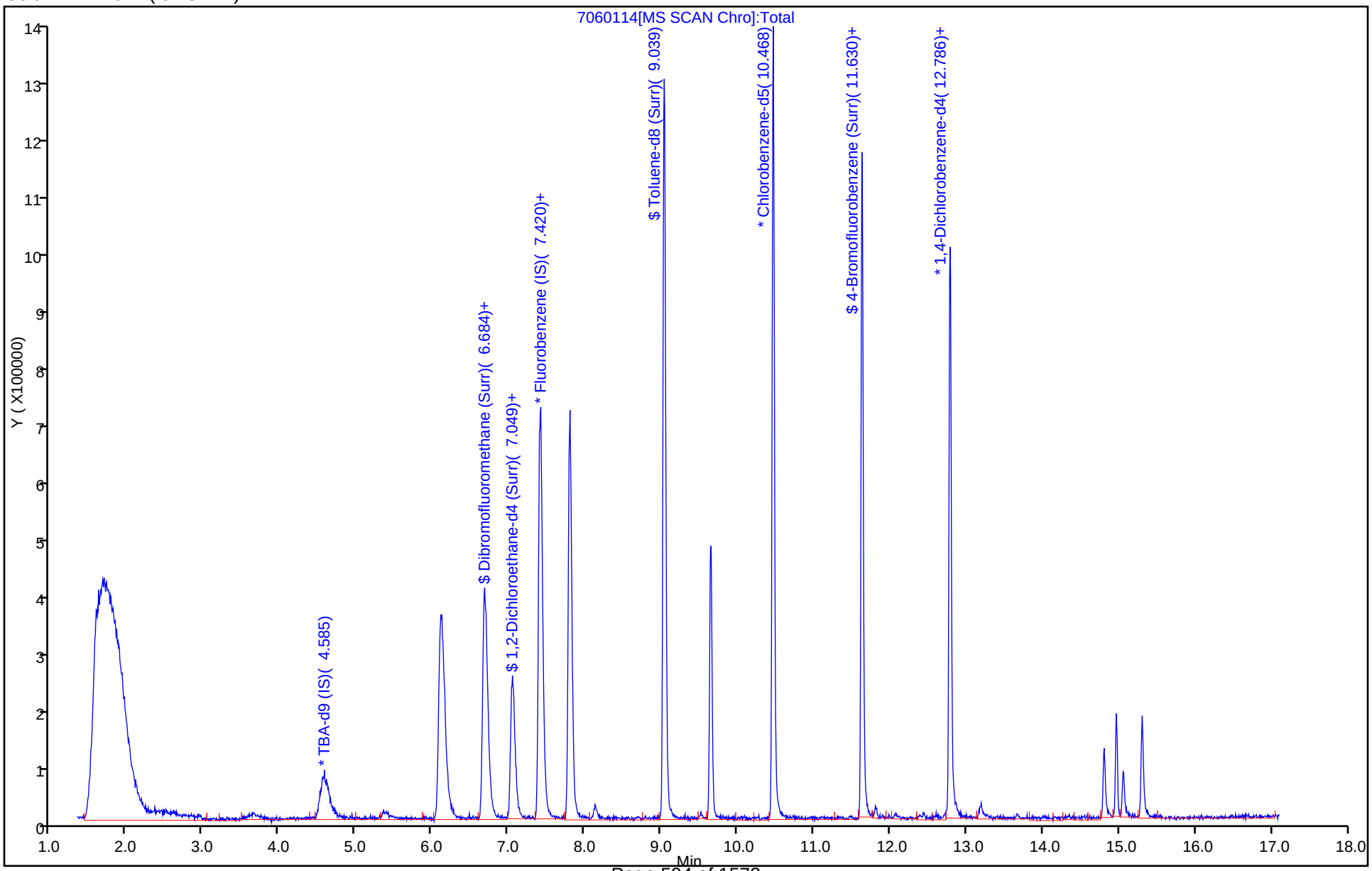
VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

Report Date: 01-Jun-2015 16:53:13 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060114.D				
Injection Date:	01-Jun-2015 16:12:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-44321-C-22	Lab Sample ID:	180-44321-22	Worklist Smp#:	14
Client ID:	HD-CW-17-0/1-0				
Purge Vol:	20.000 mL	Dil. Factor:	3.0000	ALS Bottle#:	12
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060114.D
Lims ID: 180-44321-C-22 Lab Sample ID: 180-44321-22
Client ID: HD-CW-17-0/1-0
Sample Type: Client
Inject. Date: 01-Jun-2015 16:12:30 ALS Bottle#: 12 Worklist Smp#: 14
Purge Vol: 20.000 mL Dil. Factor: 3.0000
Sample Info: 180-44321-C-22
Misc. Info.: 180-0007205-014
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 16:53:05 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

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

First Level Reviewer: journetp Date: 01-Jun-2015 16:52:34

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	200.0	218.1	109.03
$ 6 1,2-Dichloroethane-d4 (Surr)	200.0	196.6	98.30
$ 7 Toluene-d8 (Surr)	200.0	230.7	115.37
$ 8 4-Bromofluorobenzene (Surr)	200.0	214.5	107.27

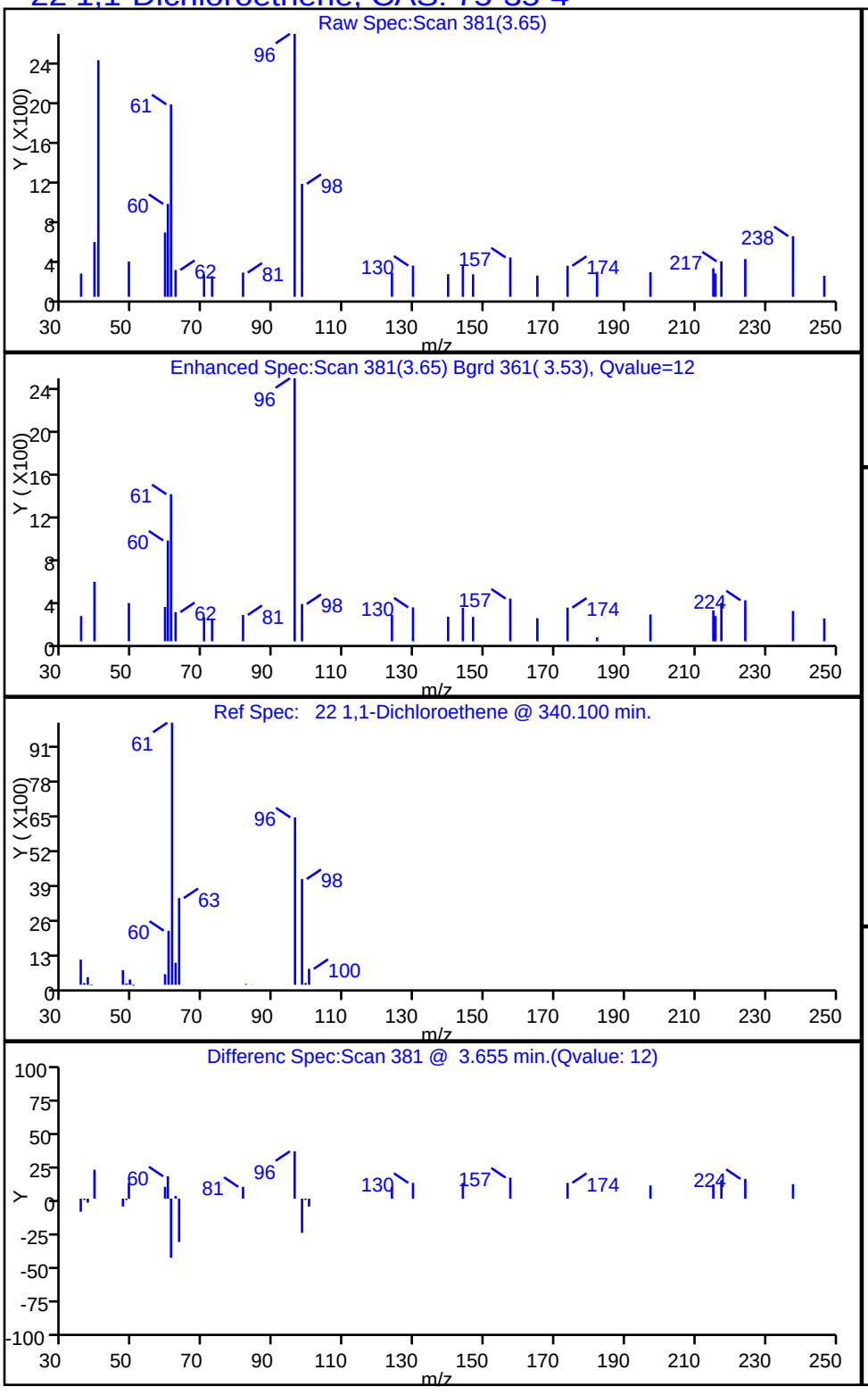
Report Date: 01-Jun-2015 16:53:13 Chrom Revision: 2.2 05-May-2015 11:39:10

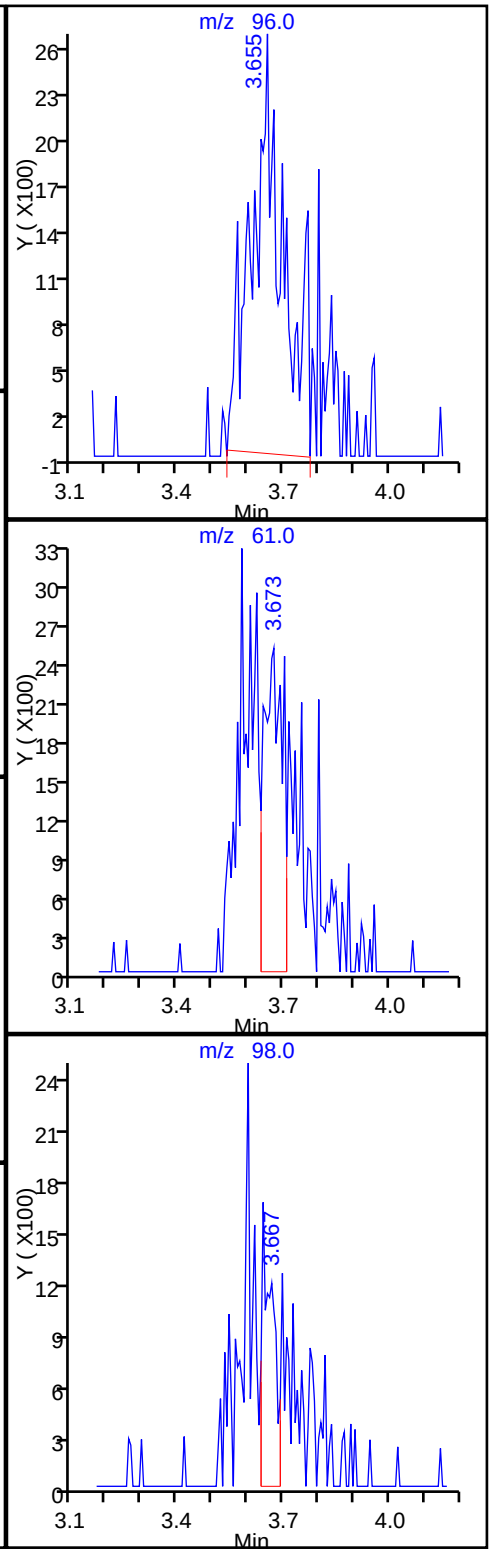
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060114.D

Injection Date:	01-Jun-2015 16:12:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-C-22	Lab Sample ID:	180-44321-22		
Client ID:	HD-CW-17-0/1-0				
Operator ID:	034635	ALS Bottle#:	12	Worklist Smp#:	14
Purge Vol:	20.000 mL	Dil. Factor:	3.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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



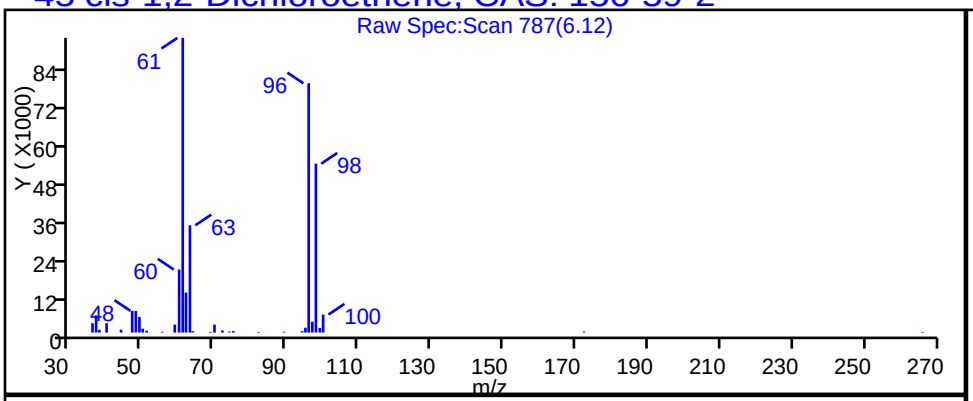


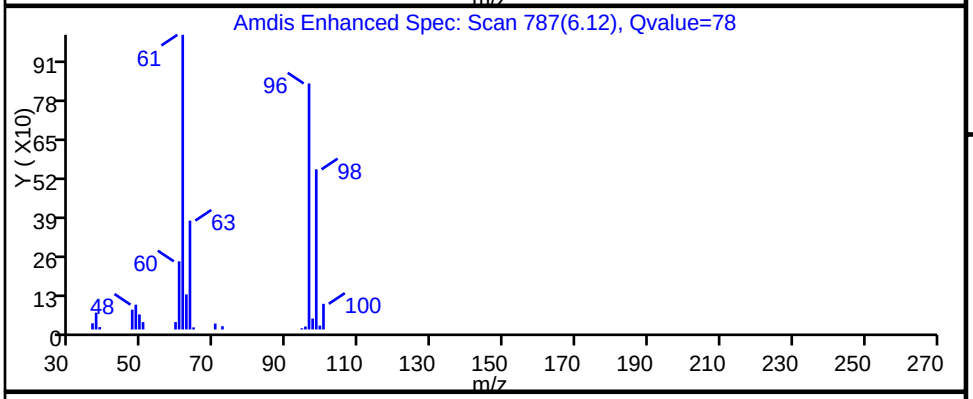
Report Date: 01-Jun-2015 16:53:13 Chrom Revision: 2.2 05-May-2015 11:39:10

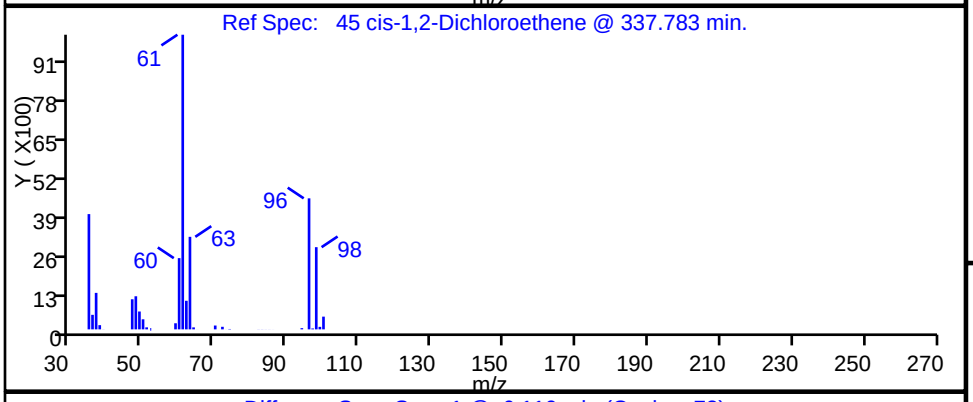
TestAmerica Pittsburgh

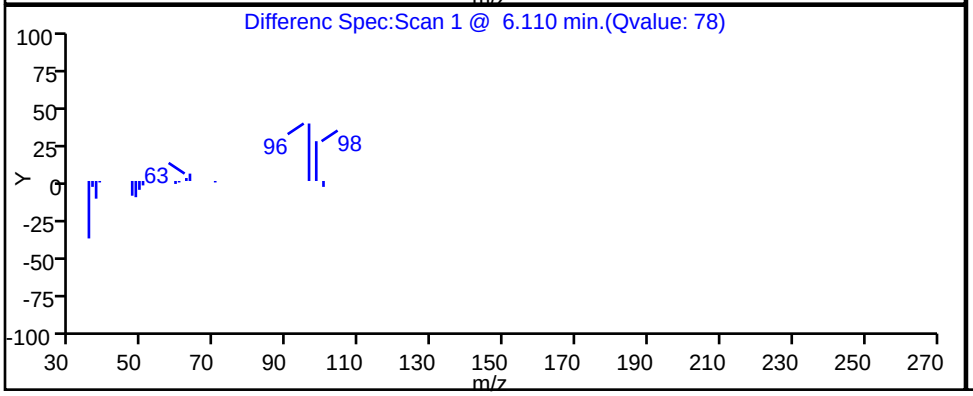
Data File:	\\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060114.D				
Injection Date:	01-Jun-2015 16:12:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-C-22	Lab Sample ID:	180-44321-22		
Client ID:	HD-CW-17-0/1-0				
Operator ID:	034635	ALS Bottle#:	12	Worklist Smp#:	14
Purge Vol:	20.000 mL	Dil. Factor:	3.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

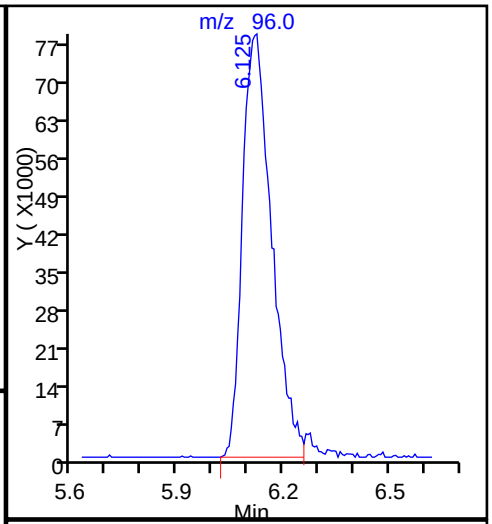
45 cis-1,2-Dichloroethene, CAS: 156-59-2

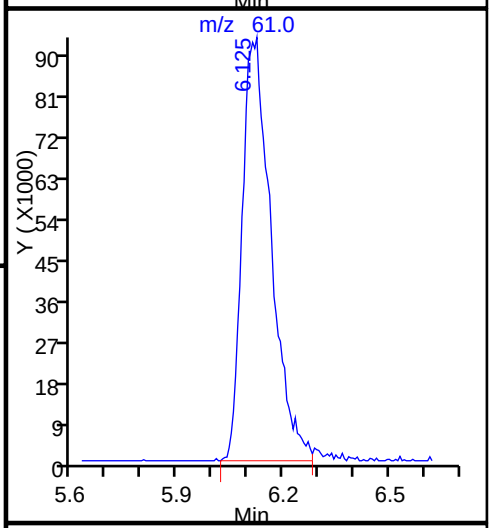


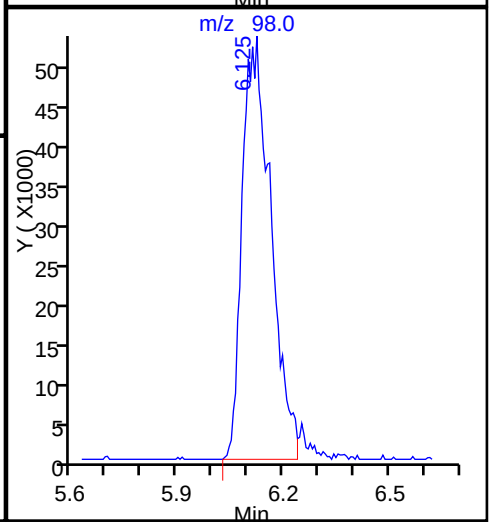












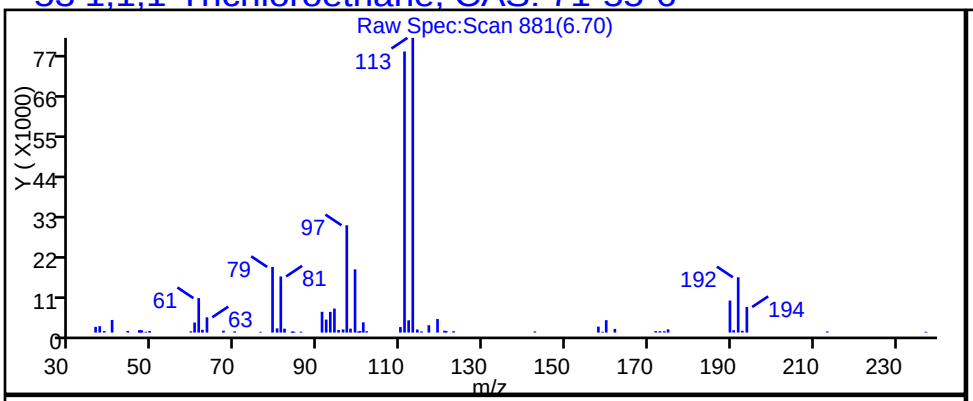
Report Date: 01-Jun-2015 16:53:13 Chrom Revision: 2.2 05-May-2015 11:39:10

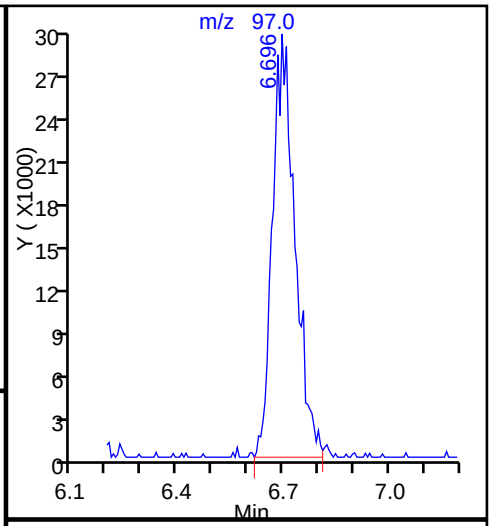
TestAmerica Pittsburgh

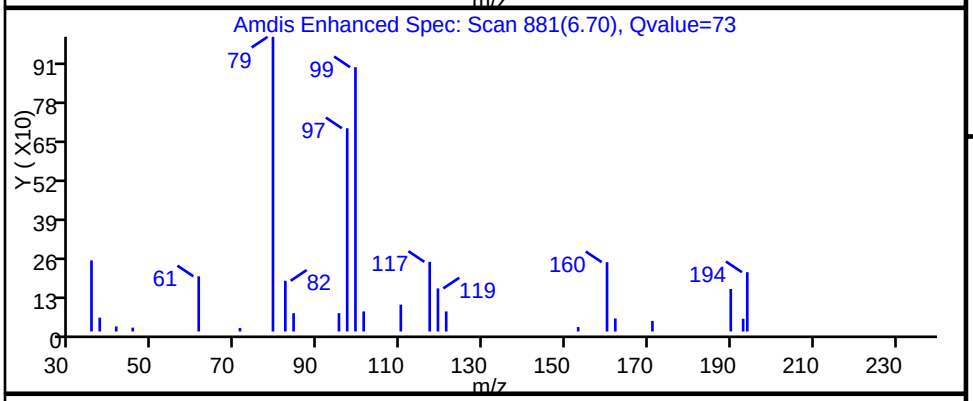
Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060114.D

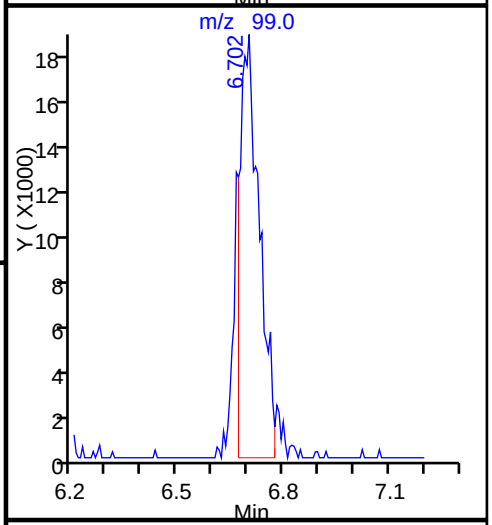
Injection Date:	01-Jun-2015 16:12:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-C-22	Lab Sample ID:	180-44321-22		
Client ID:	HD-CW-17-0/1-0				
Operator ID:	034635	ALS Bottle#:	12	Worklist Smp#:	14
Purge Vol:	20.000 mL	Dil. Factor:	3.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

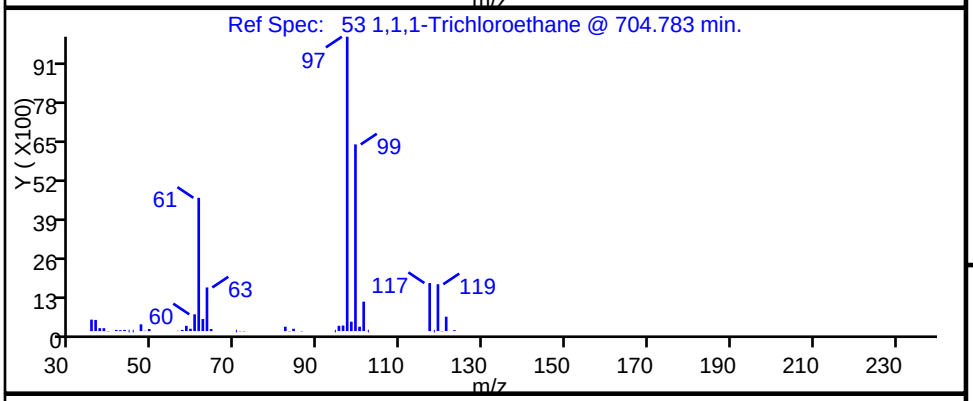
53 1,1,1-Trichloroethane, CAS: 71-55-6

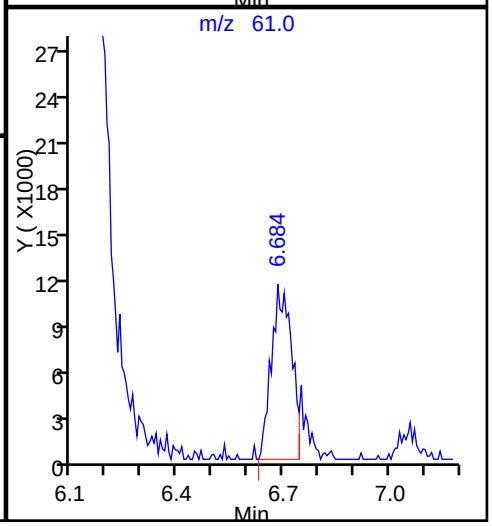


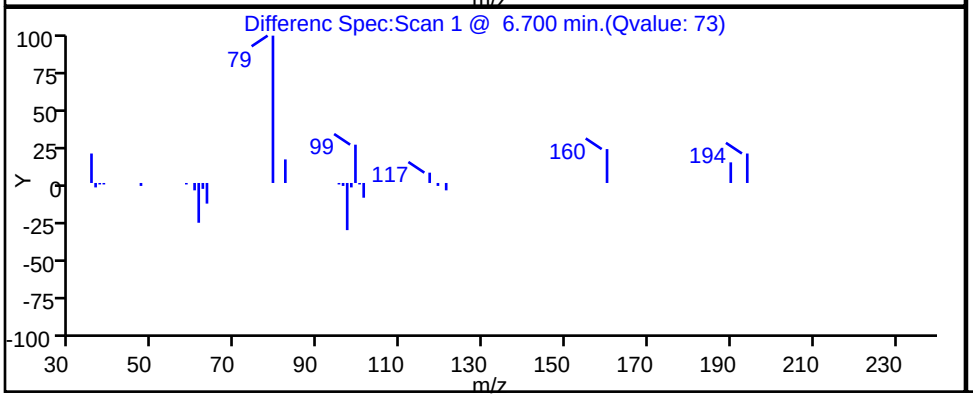












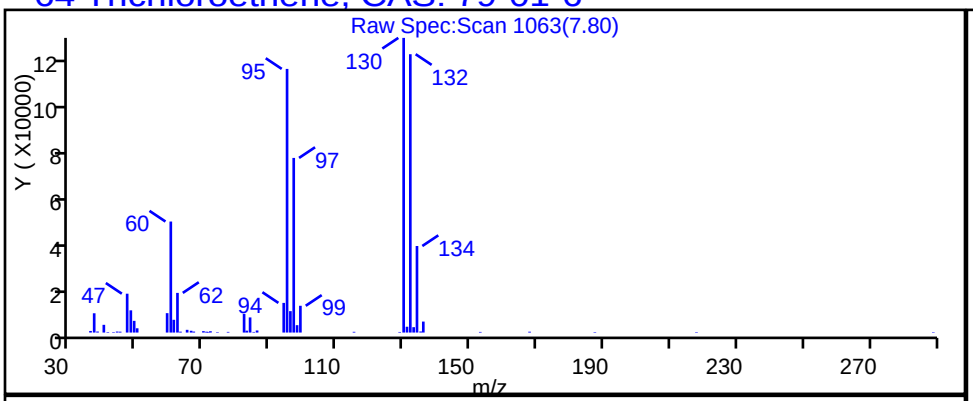
Report Date: 01-Jun-2015 16:53:13 Chrom Revision: 2.2 05-May-2015 11:39:10

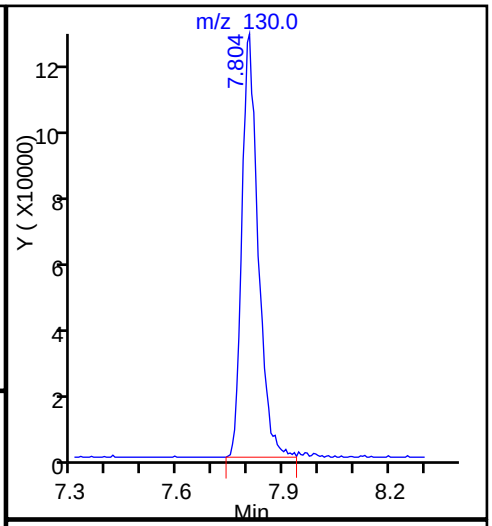
TestAmerica Pittsburgh

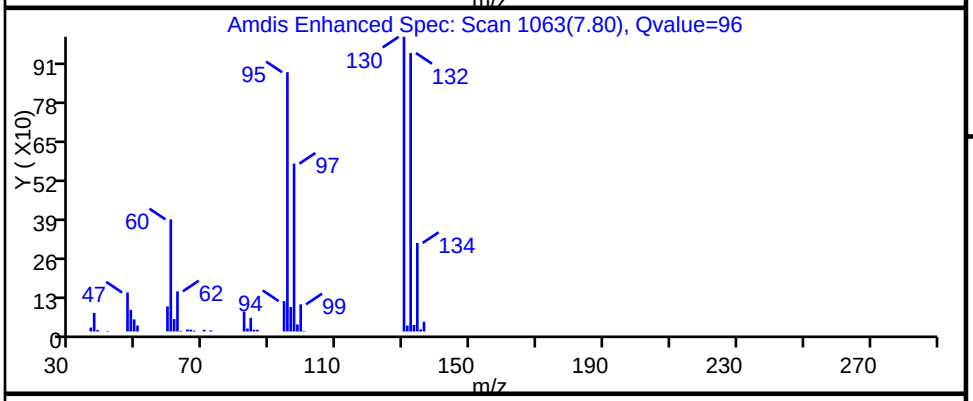
Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060114.D

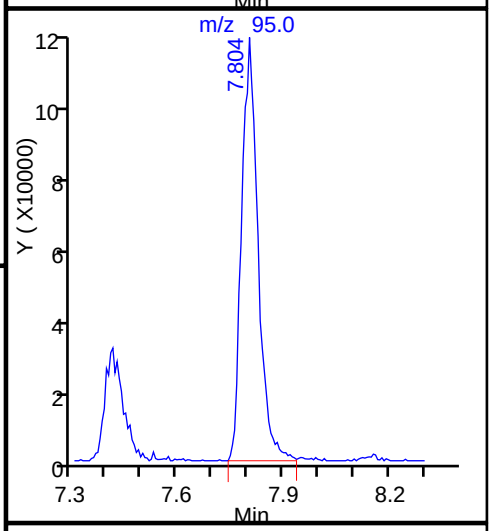
Injection Date:	01-Jun-2015 16:12:30	Instrument ID:	CHHP7
Lims ID:	180-44321-C-22	Lab Sample ID:	180-44321-22
Client ID:	HD-CW-17-0/1-0		
Operator ID:	034635	ALS Bottle#:	12 Worklist Smp#: 14
Purge Vol:	20.000 mL	Dil. Factor:	3.0000
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

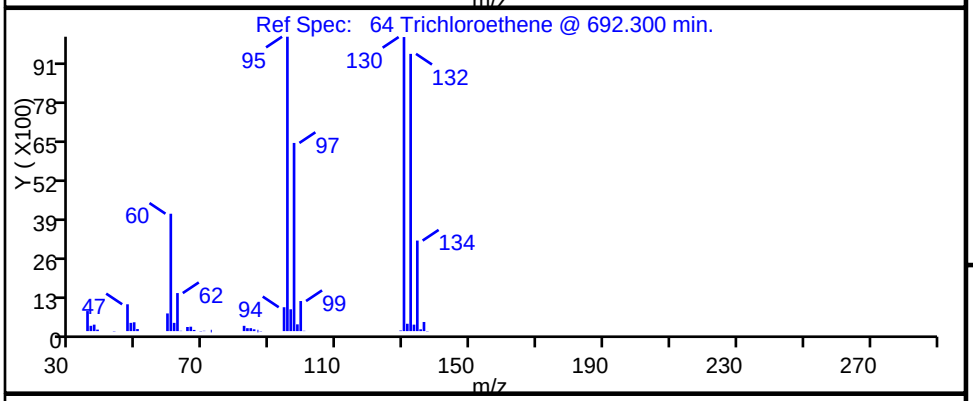
64 Trichloroethene, CAS: 79-01-6

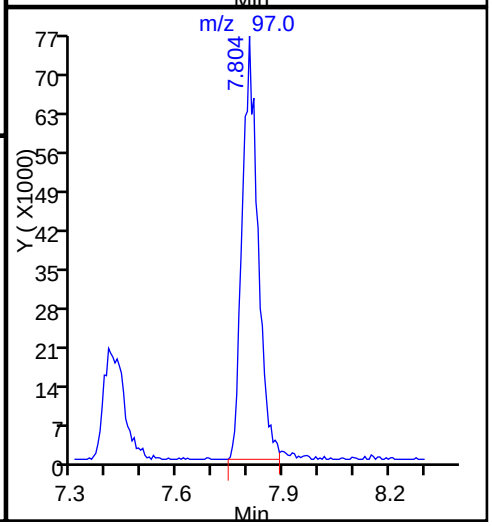


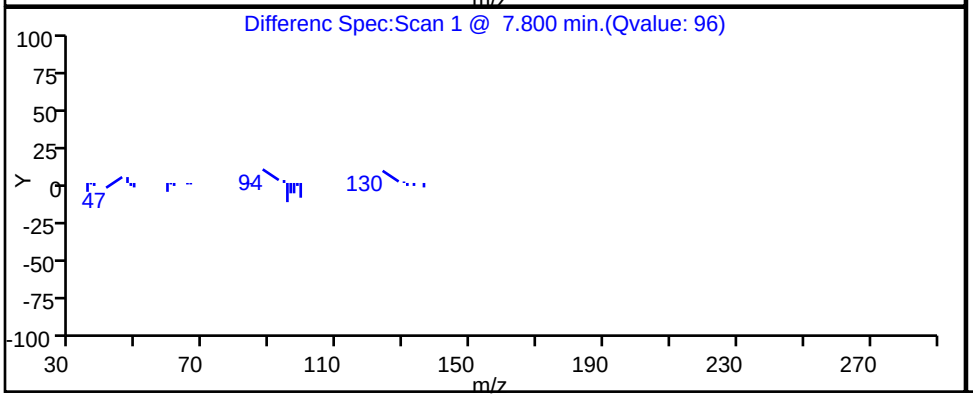












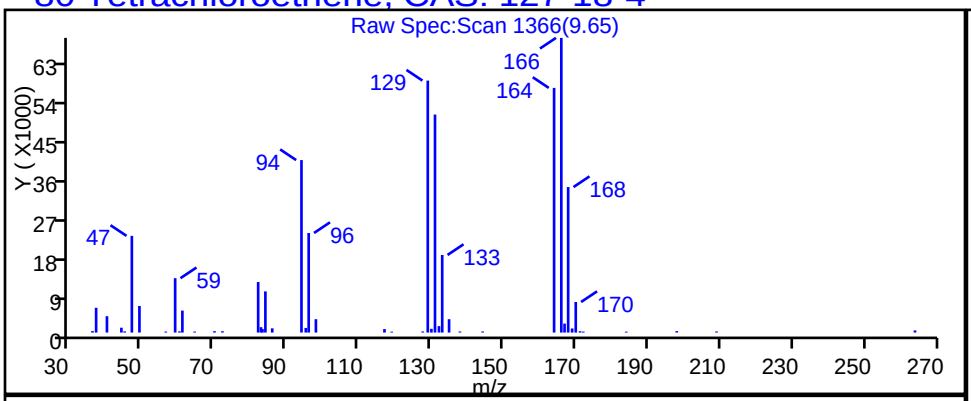
Report Date: 01-Jun-2015 16:53:13 Chrom Revision: 2.2 05-May-2015 11:39:10

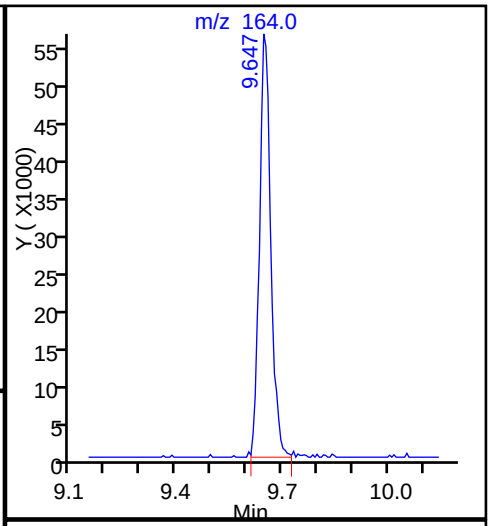
TestAmerica Pittsburgh

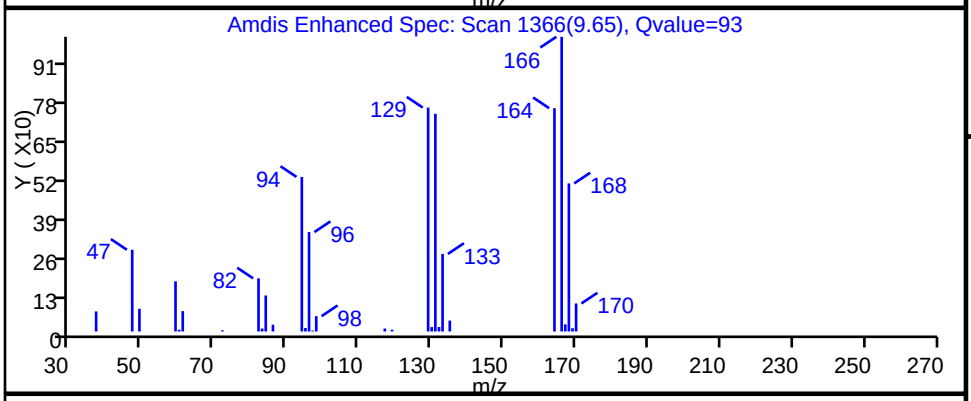
Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060114.D

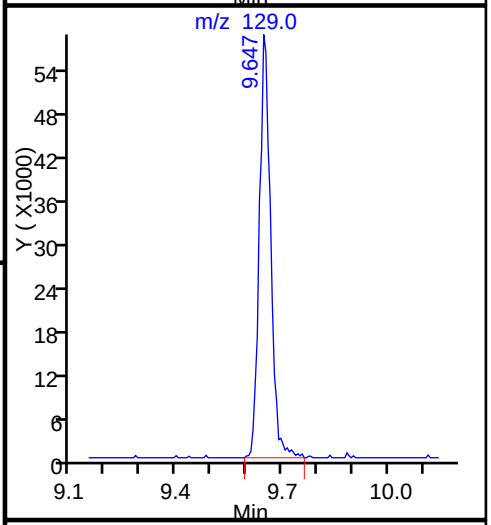
Injection Date:	01-Jun-2015 16:12:30	Instrument ID:	CHHP7
Lims ID:	180-44321-C-22	Lab Sample ID:	180-44321-22
Client ID:	HD-CW-17-0/1-0		
Operator ID:	034635	ALS Bottle#:	12 Worklist Smp#: 14
Purge Vol:	20.000 mL	Dil. Factor:	3.0000
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

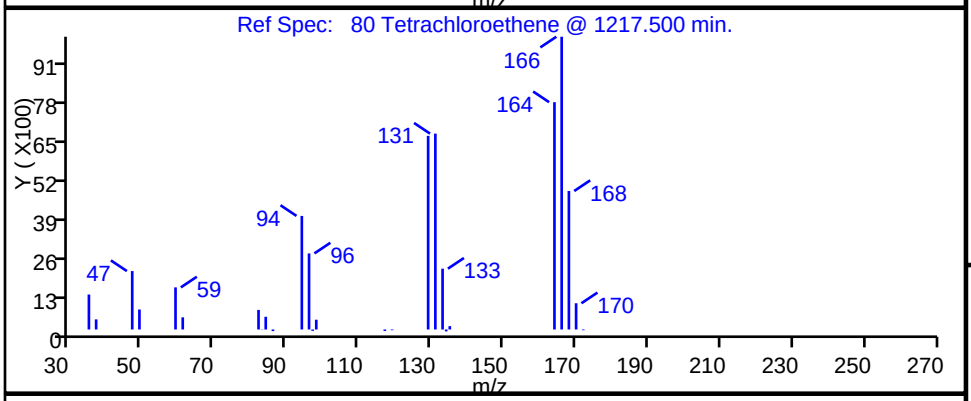
80 Tetrachloroethene, CAS: 127-18-4

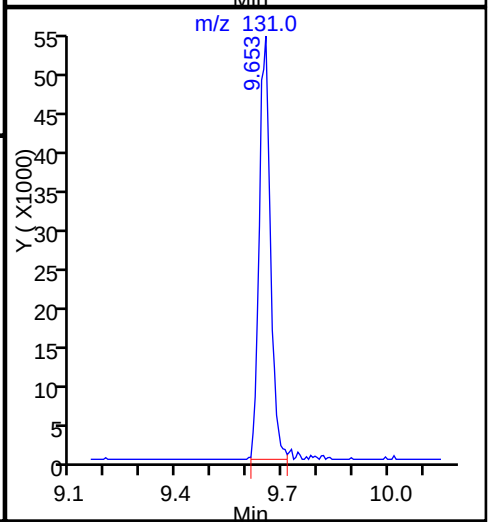


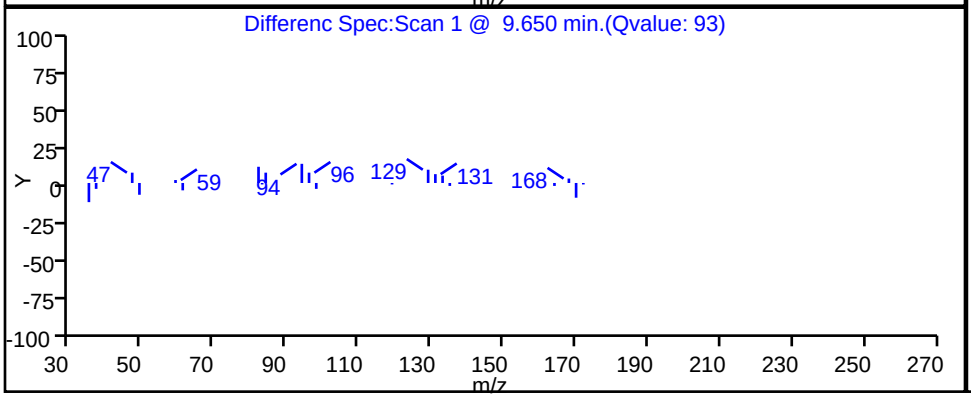












Manual Integration/User Assign Peak Report

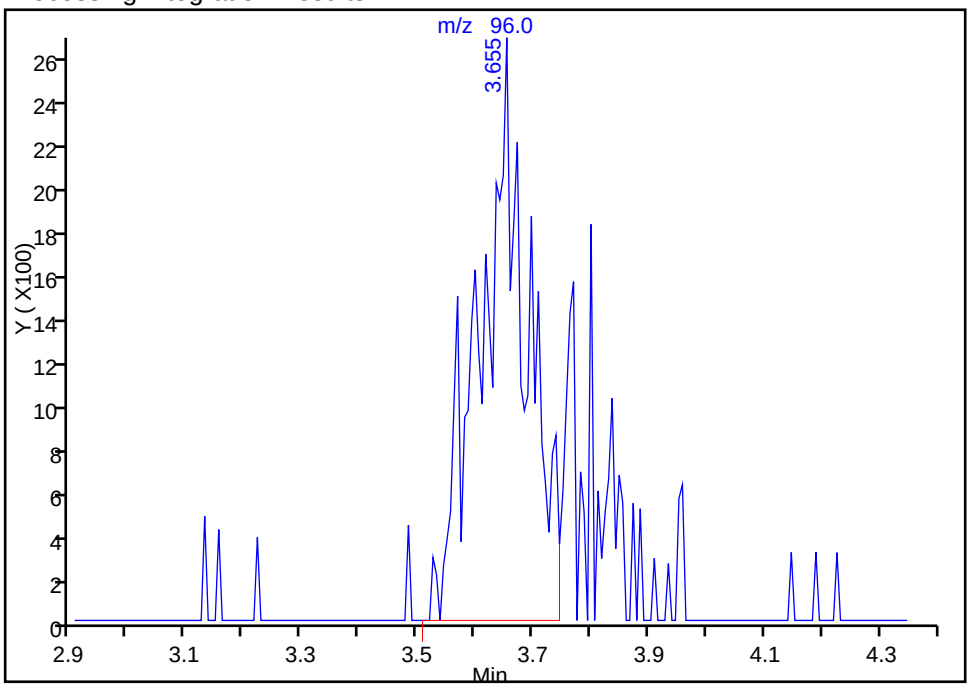
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060114.D				
Injection Date:	01-Jun-2015 16:12:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-C-22	Lab Sample ID:	180-44321-22		
Client ID:	HD-CW-17-0/1-0				
Operator ID:	034635	ALS Bottle#:	12	Worklist Smp#:	14
Purge Vol:	20.000 mL	Dil. Factor:	3.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

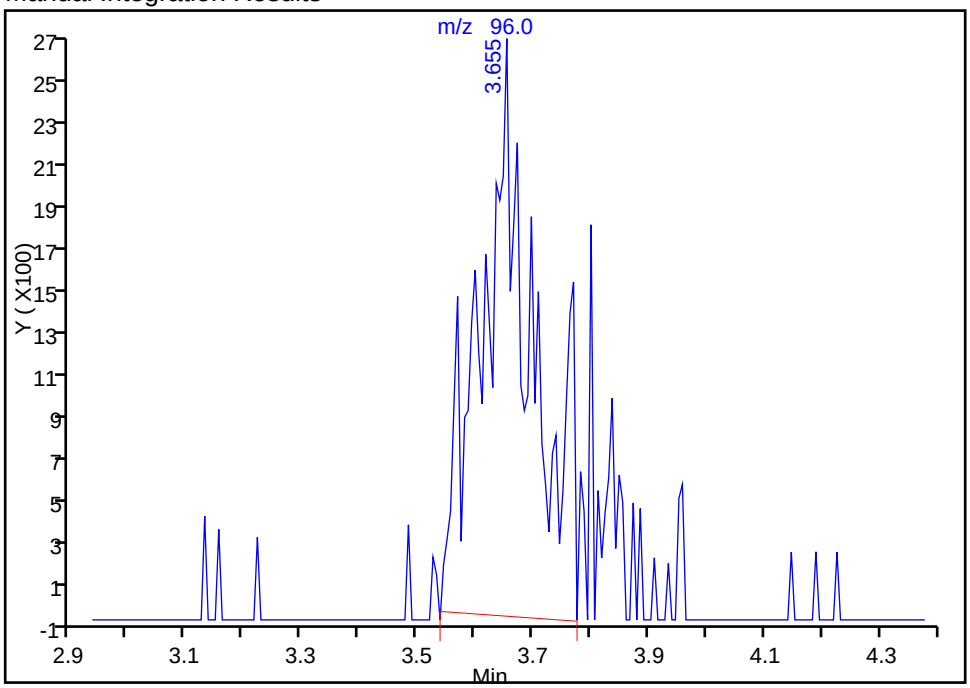
Processing Integration Results

RT: 3.65
Area: 14623
Amount: 8.877783
Amount Units: ng



Manual Integration Results

RT: 3.65
Area: 15843
Amount: 9.618458
Amount Units: ng



Reviewer: journetp, 01-Jun-2015 16:52:34
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-CW-20-0/1-0 Lab Sample ID: 180-44321-23

Matrix: Water Lab File ID: 7060117.D

Analysis Method: 8260C Date Collected: 05/20/2015 10:45

Sample wt/vol: 20(mL) Date Analyzed: 06/01/2015 17:40

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.: 143422 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	17		5.0	1.5
67-64-1	Acetone	25	U	25	13
75-15-0	Carbon disulfide	5.0	U	5.0	1.1
75-09-2	Methylene Chloride	5.0	U	5.0	0.63
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	0.85
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	0.92
75-34-3	1,1-Dichloroethane	5.0	U	5.0	0.58
156-59-2	cis-1,2-Dichloroethene	130		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	75		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*	*290*	*E*	*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*	*NQ*		*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.: 180-44321-1

SDG No.:

Client Sample ID: HD-CW-20-0/1-0 Lab Sample ID: 180-44321-23

Matrix: Water Lab File ID: 7060117.D

Analysis Method: 8260C Date Collected: 05/20/2015 10:45

Sample wt/vol: 20(mL) Date Analyzed: 06/01/2015 17:40

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.: 143422 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)	98		64-135
2037-26-5	Toluene-d8 (Surr)	119	X	71-118
460-00-4	4-Bromofluorobenzene (Surr)	55	X	70-118
1868-53-7	Dibromofluoromethane (Surr)	99		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060117.D
Lims ID: 180-44321-E-23 Lab Sample ID: 180-44321-23
Client ID: HD-CW-20-0/1-0
Sample Type: Client
Inject. Date: 01-Jun-2015 17:40:30 ALS Bottle#: 15 Worklist Smp#: 17
Purge Vol: 20.000 mL Dil. Factor: 5.0000
Sample Info: 180-44321-E-23
Misc. Info.: 180-0007205-017
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 02-Jun-2015 09:47:03 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK014

First Level Reviewer: journetp Date: 01-Jun-2015 18:29:07

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.586	4.666	-0.080	94	341422	4000.0	
* 2 Fluorobenzene (IS)	96	7.414	7.404	0.010	99	1280435	200.0	
* 3 Chlorobenzene-d5	119	10.468	10.470	-0.002	86	329162	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.786	12.787	-0.001	95	183310	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.684	6.680	0.004	73	404724	198.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.049	7.038	0.011	93	383285	196.8	
$ 7 Toluene-d8 (Surr)	98	9.039	9.034	0.005	93	1157169	237.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.630	11.632	-0.002	89	252844	109.5	
12 Chloromethane	50		2.032				ND	
13 Vinyl chloride	62		2.245				ND	
15 Bromomethane	94		2.518				ND	
16 Chloroethane	64		2.646				ND	
22 1,1-Dichloroethene	96	3.637	3.583	0.054	76	120136	69.9	M
24 Acetone	43		3.796				ND	
26 Carbon disulfide	76		3.881				ND	
31 Methylene Chloride	84		4.380				ND	
34 trans-1,2-Dichloroethene	96		4.763				ND	
33 Acrylonitrile	53		4.794				ND	
35 Methyl tert-butyl ether	73		4.854				ND	
37 1,1-Dichloroethane	63		5.359				ND	
45 cis-1,2-Dichloroethene	96	6.119	6.102	0.017	75	1102755	521.0	
46 2-Butanone (MEK)	43		6.175				ND	
49 Chlorobromomethane	128		6.381				ND	
52 Chloroform	83		6.497				ND	
53 1,1,1-Trichloroethane	97	6.703	6.680	0.023	96	961007	300.6	
56 Carbon tetrachloride	117		6.868				ND	
58 Benzene	78		7.099				ND	
59 1,2-Dichloroethane	62		7.124				ND	
64 Trichloroethene	130	7.804	7.793	0.011	93	2922333	1156.8	E
67 1,2-Dichloropropane	63		8.140				ND	
70 1,4-Dioxane	88		8.188				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.316				ND	
74 cis-1,3-Dichloropropene	75		8.766				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.937				ND	
76 Toluene	91		9.101				ND	
77 trans-1,3-Dichloropropene	75		9.320				ND	
79 1,1,2-Trichloroethane	97		9.502				ND	
80 Tetrachloroethene	164	9.659	9.642	0.017	85	3392903		NQ
82 2-Hexanone	43		9.758				ND	
84 Chlorodibromomethane	129		9.898				ND	
85 Ethylene Dibromide	107		10.007				ND	
87 Chlorobenzene	112		10.500				ND	
89 1,1,1,2-Tetrachloroethane	131		10.573				ND	
90 Ethylbenzene	106		10.603				ND	
91 m-Xylene & p-Xylene	106		10.719				ND	
92 o-Xylene	106		11.108				ND	
93 Styrene	104		11.127				ND	
94 Bromoform	173		11.315				ND	
99 1,1,2,2-Tetrachloroethane	83		11.771				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Processing Flags

NQ - Not Quantifiable

E - Exceeded Maximum Amount

Review Flags

M - Manually Integrated

Reagents:

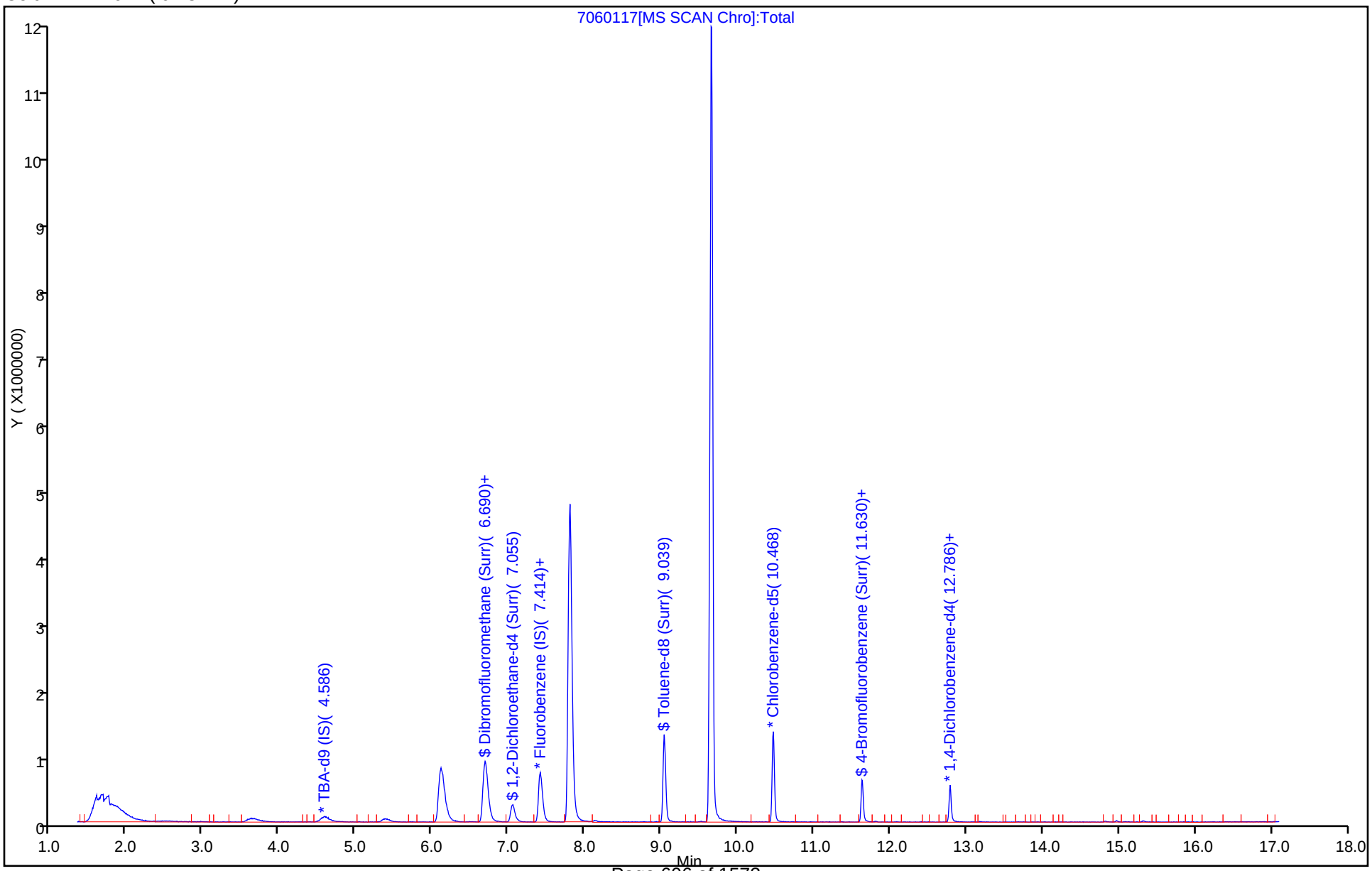
VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

Report Date: 02-Jun-2015 09:51:58 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060117.D				
Injection Date:	01-Jun-2015 17:40:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-44321-E-23	Lab Sample ID:	180-44321-23	Worklist Smp#:	17
Client ID:	HD-CW-20-0/1-0				
Purge Vol:	20.000 mL	Dil. Factor:	5.0000	ALS Bottle#:	15
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File:	\\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060117.D				
Lims ID:	180-44321-E-23	Lab Sample ID:	180-44321-23		
Client ID:	HD-CW-20-0/1-0				
Sample Type:	Client				
Inject. Date:	01-Jun-2015 17:40:30	ALS Bottle#:	15	Worklist Smp#:	17
Purge Vol:	20.000 mL	Dil. Factor:	5.0000		
Sample Info:	180-44321-E-23				
Misc. Info.:	180-0007205-017				
Operator ID:	034635	Instrument ID:	CHHP7		
Method:	\\PITCHROM\ChromData\CHHP7\20150601-7205.b\MSVOA_LL_CHHP7.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	02-Jun-2015 09:47:03	Calib Date:	30-Mar-2015 14:36:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK014				
First Level Reviewer: journetp		Date:	01-Jun-2015 18:29:07		

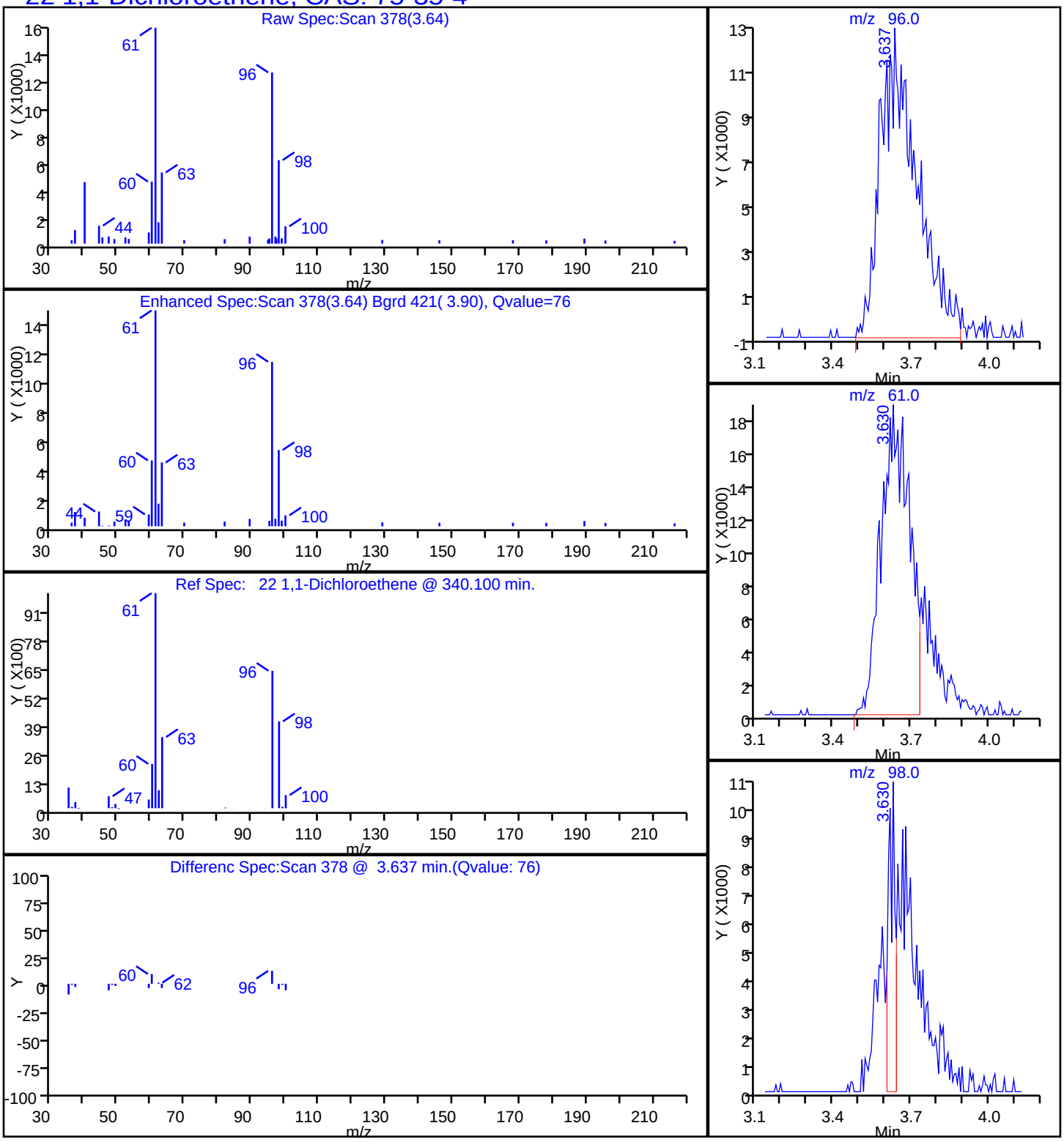
Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	200.0	198.2	99.08
$ 6 1,2-Dichloroethane-d4 (Surr)	200.0	196.8	98.42
$ 7 Toluene-d8 (Surr)	200.0	237.0	118.51
$ 8 4-Bromofluorobenzene (Surr)	200.0	109.5	54.74

Report Date: 02-Jun-2015 09:51:58 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060117.D				
Injection Date:	01-Jun-2015 17:40:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-E-23	Lab Sample ID:	180-44321-23		
Client ID:	HD-CW-20-0/1-0				
Operator ID:	034635	ALS Bottle#:	15	Worklist Smp#:	17
Purge Vol:	20.000 mL	Dil. Factor:	5.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

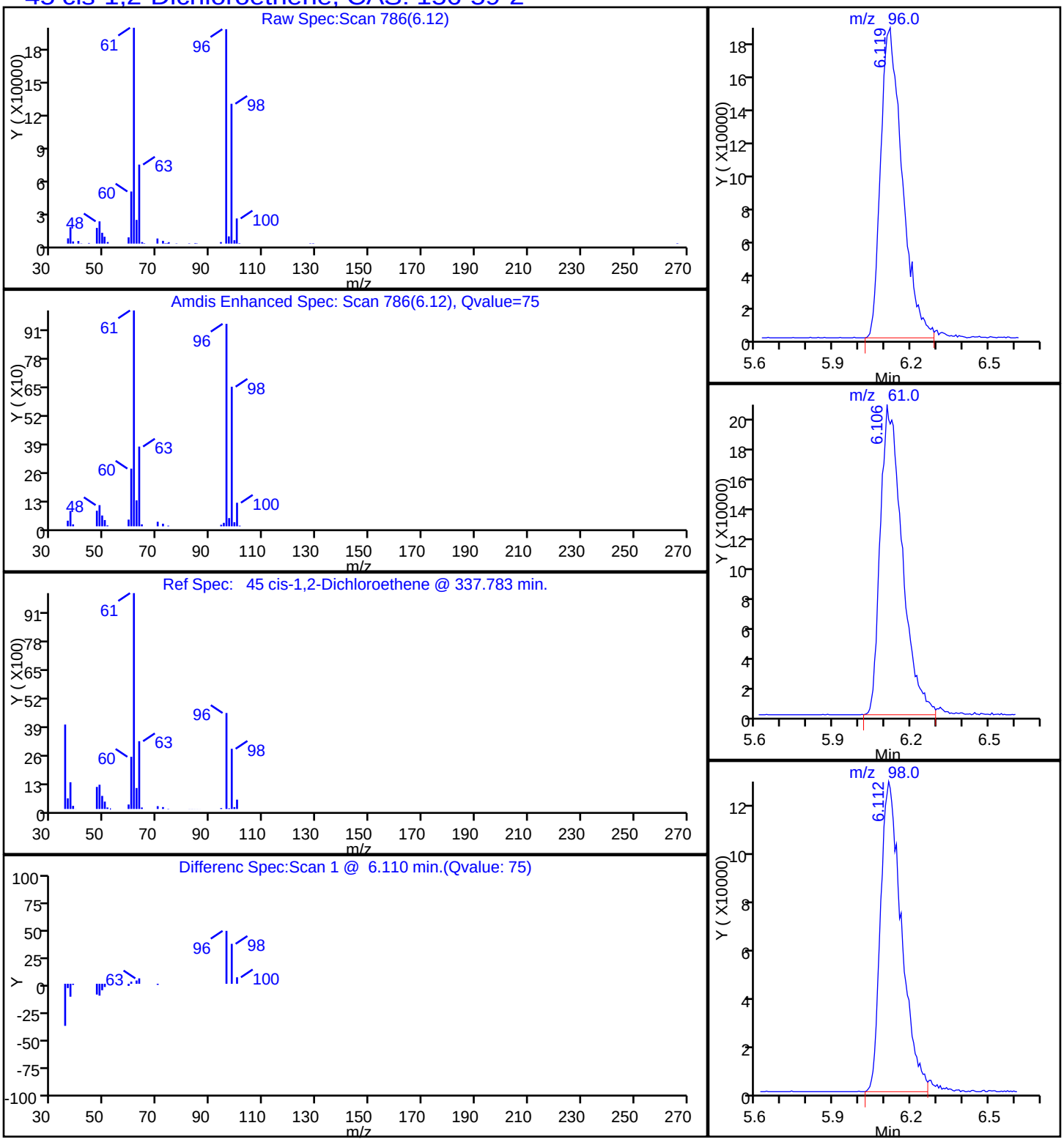


Report Date: 02-Jun-2015 09:51:58 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060117.D				
Injection Date:	01-Jun-2015 17:40:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-E-23	Lab Sample ID:	180-44321-23		
Client ID:	HD-CW-20-0/1-0				
Operator ID:	034635	ALS Bottle#:	15	Worklist Smp#:	17
Purge Vol:	20.000 mL	Dil. Factor:	5.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

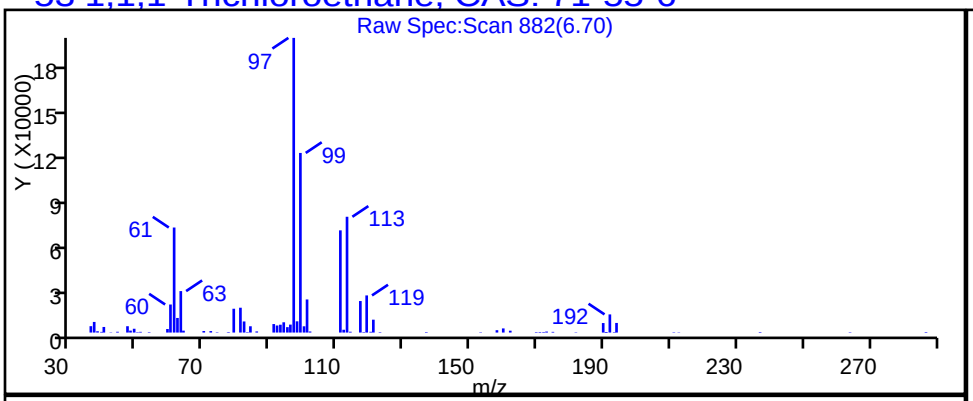


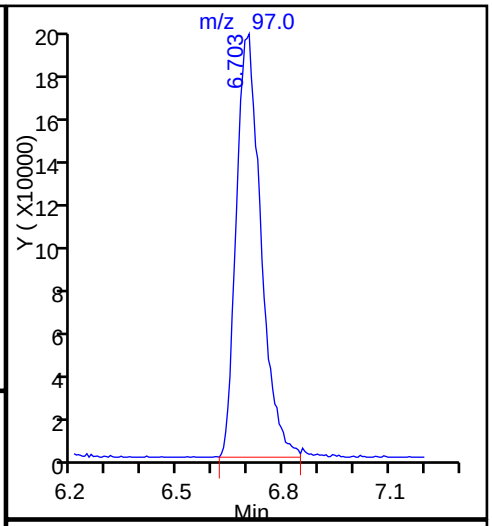
Report Date: 02-Jun-2015 09:51:58 Chrom Revision: 2.2 05-May-2015 11:39:10

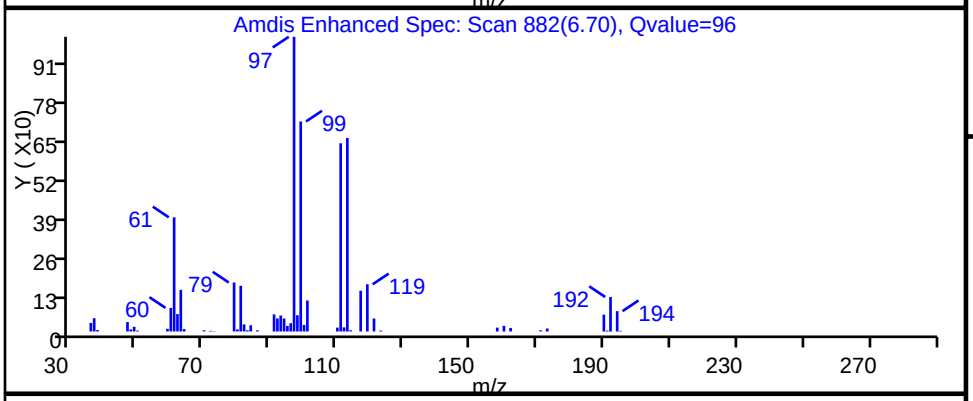
TestAmerica Pittsburgh

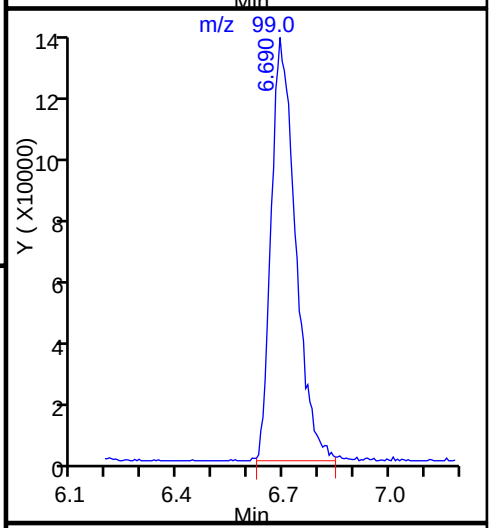
Data File:	\\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060117.D				
Injection Date:	01-Jun-2015 17:40:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-E-23	Lab Sample ID:	180-44321-23		
Client ID:	HD-CW-20-0/1-0				
Operator ID:	034635	ALS Bottle#:	15	Worklist Smp#:	17
Purge Vol:	20.000 mL	Dil. Factor:	5.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

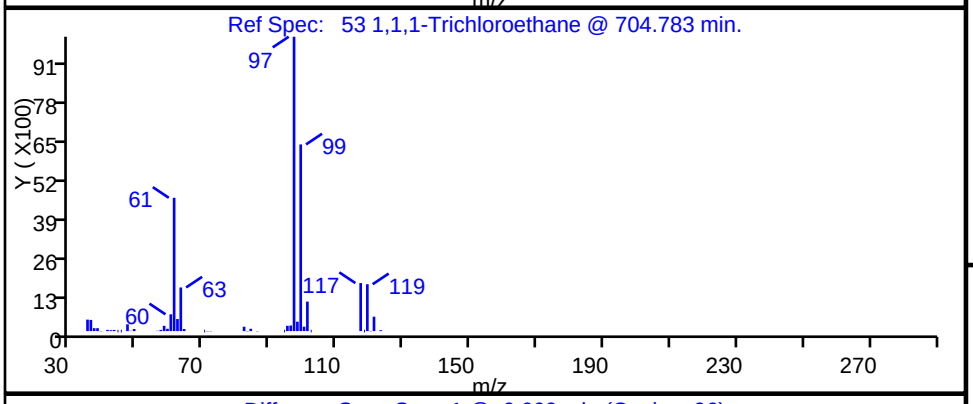
53 1,1,1-Trichloroethane, CAS: 71-55-6

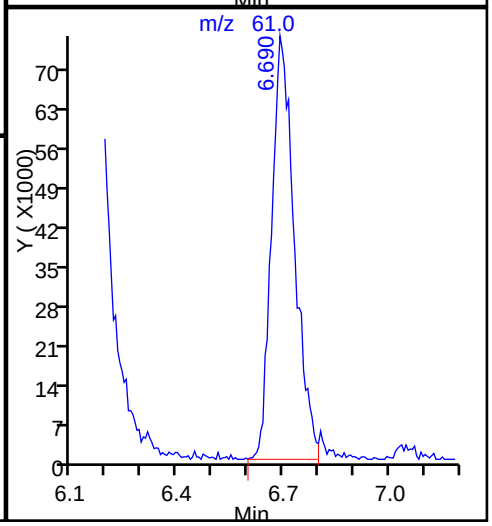


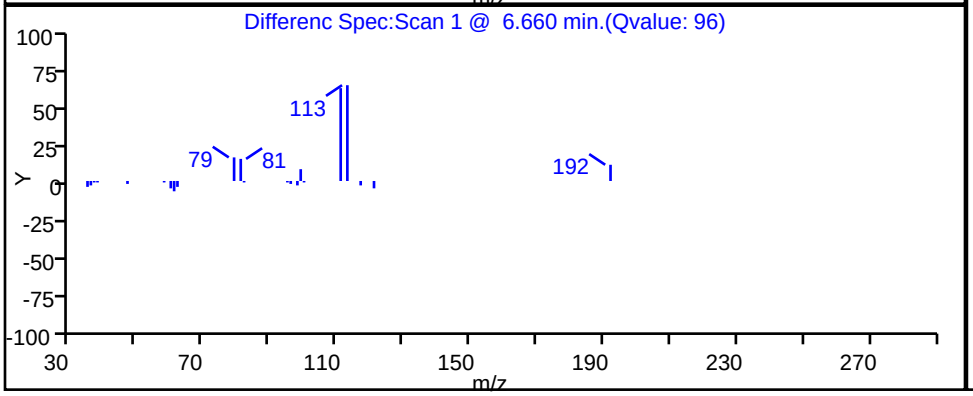










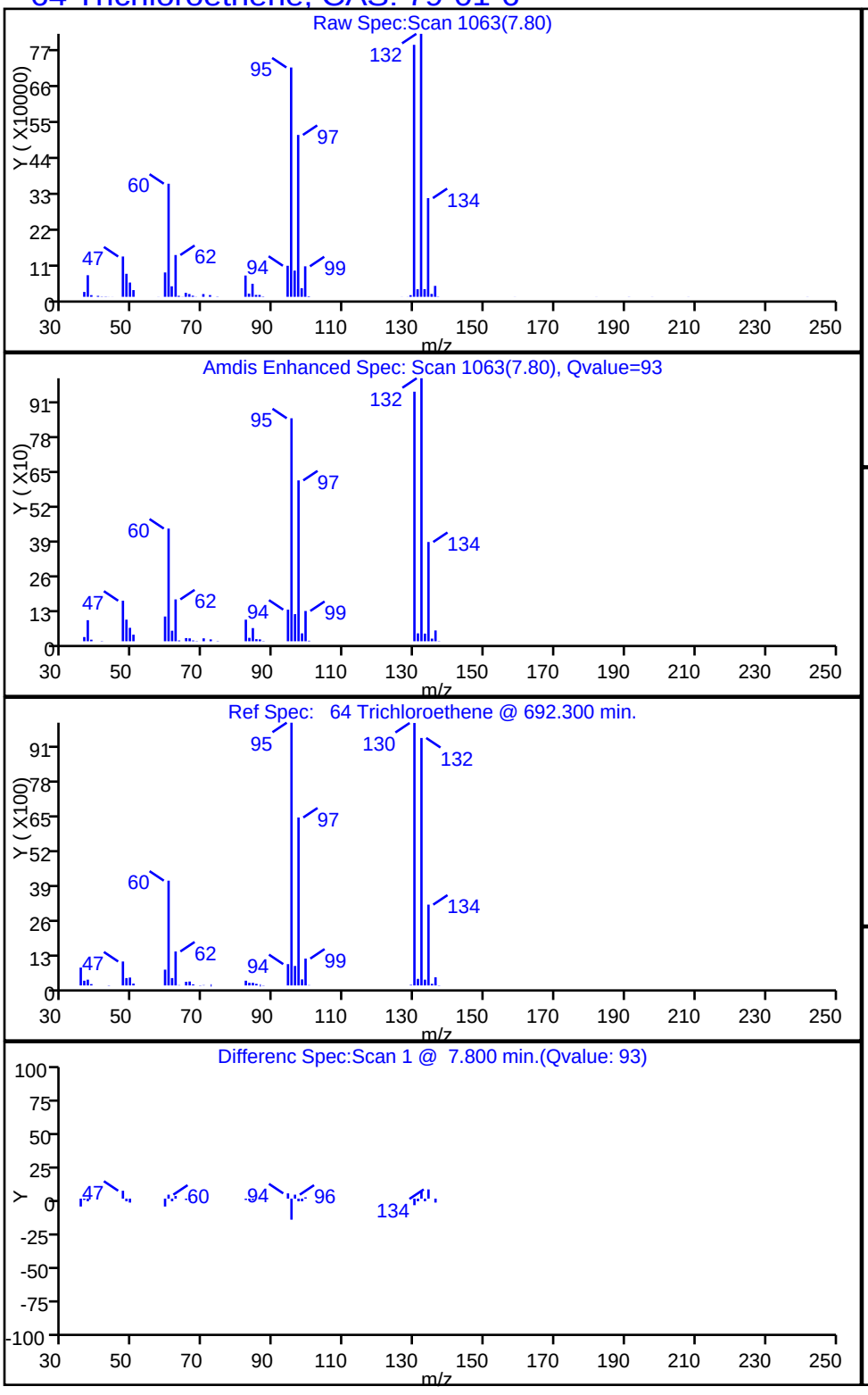


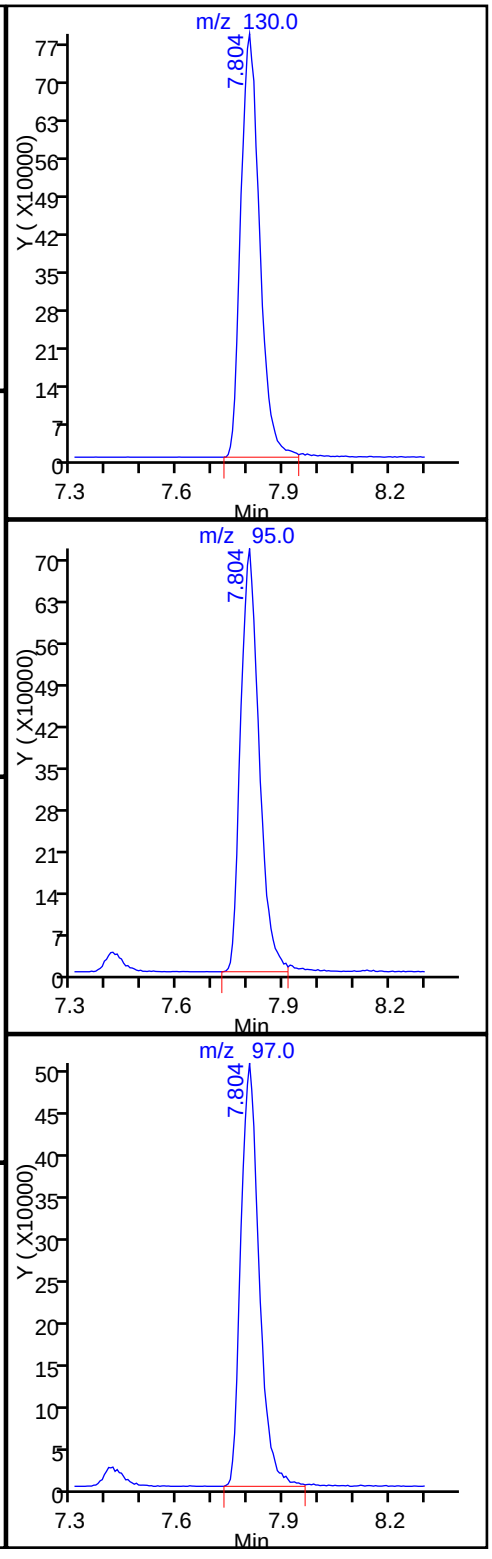
Report Date: 02-Jun-2015 09:51:58 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060117.D				
Injection Date:	01-Jun-2015 17:40:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-E-23	Lab Sample ID:	180-44321-23		
Client ID:	HD-CW-20-0/1-0				
Operator ID:	034635	ALS Bottle#:	15	Worklist Smp#:	17
Purge Vol:	20.000 mL	Dil. Factor:	5.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

64 Trichloroethene, CAS: 79-01-6





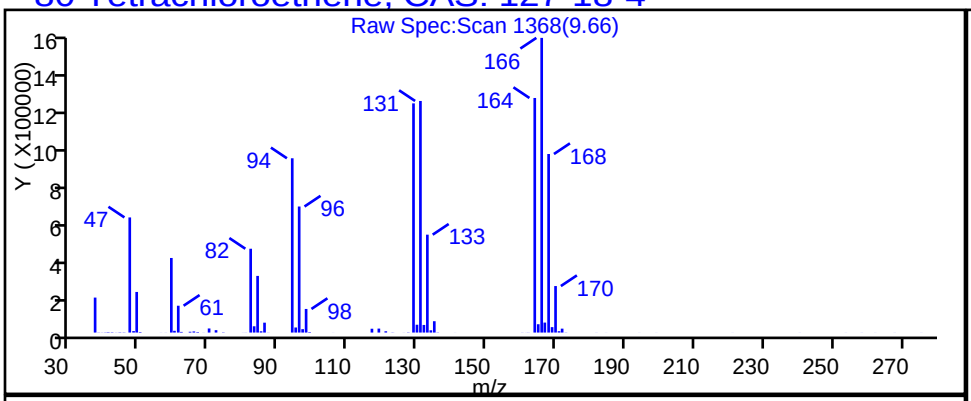
Report Date: 02-Jun-2015 09:51:58 Chrom Revision: 2.2 05-May-2015 11:39:10

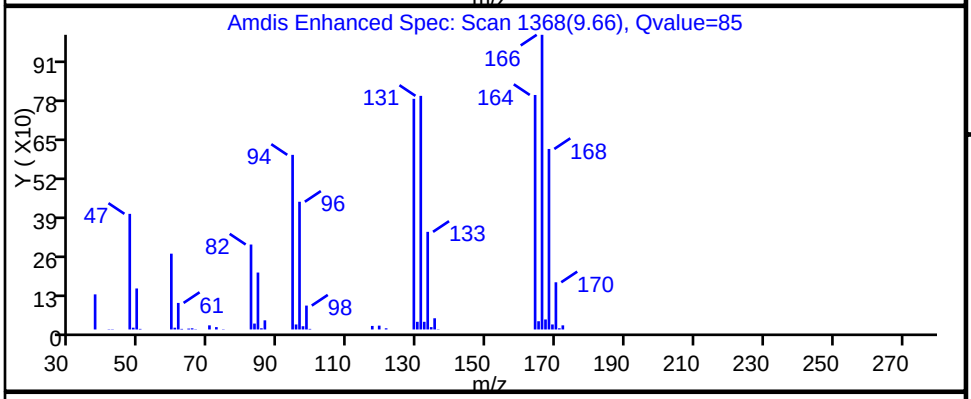
TestAmerica Pittsburgh

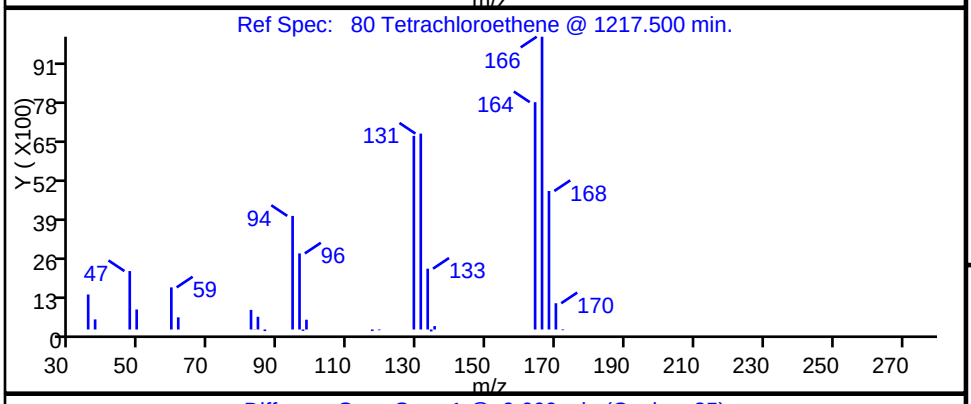
Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060117.D

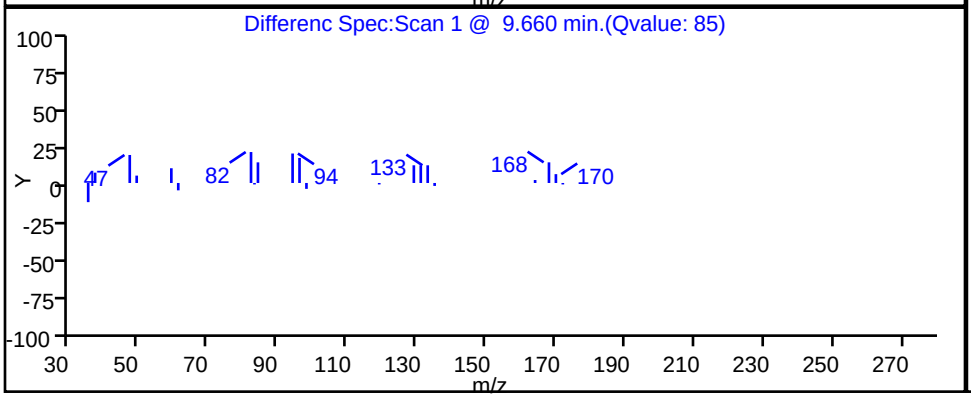
Injection Date:	01-Jun-2015 17:40:30	Instrument ID:	CHHP7
Lims ID:	180-44321-E-23	Lab Sample ID:	180-44321-23
Client ID:	HD-CW-20-0/1-0		
Operator ID:	034635	ALS Bottle#:	15 Worklist Smp#: 17
Purge Vol:	20.000 mL	Dil. Factor:	5.0000
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

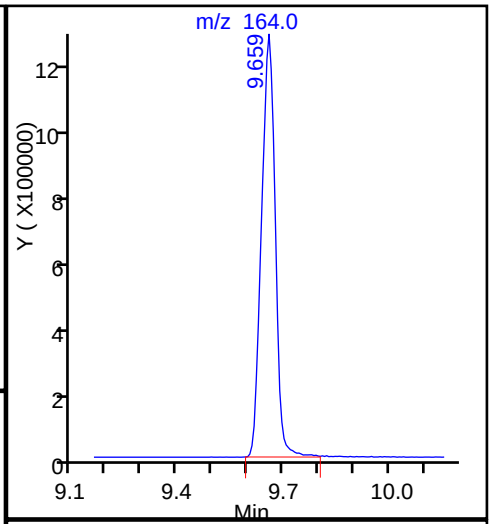
80 Tetrachloroethene, CAS: 127-18-4

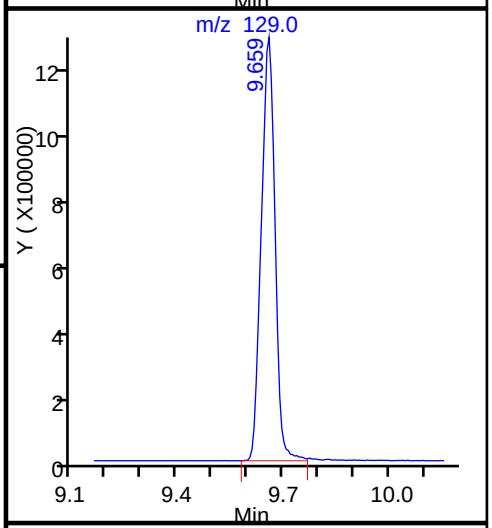


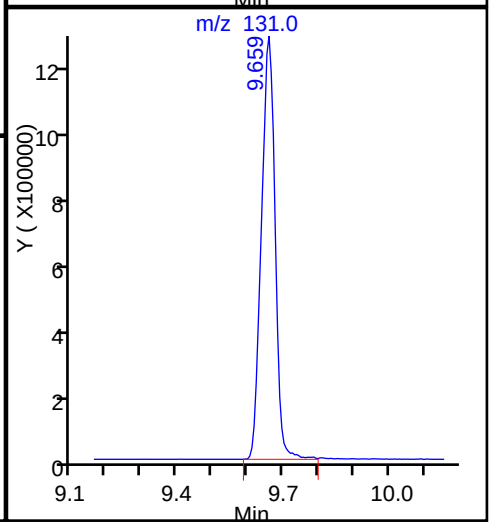












Manual Integration/User Assign Peak Report

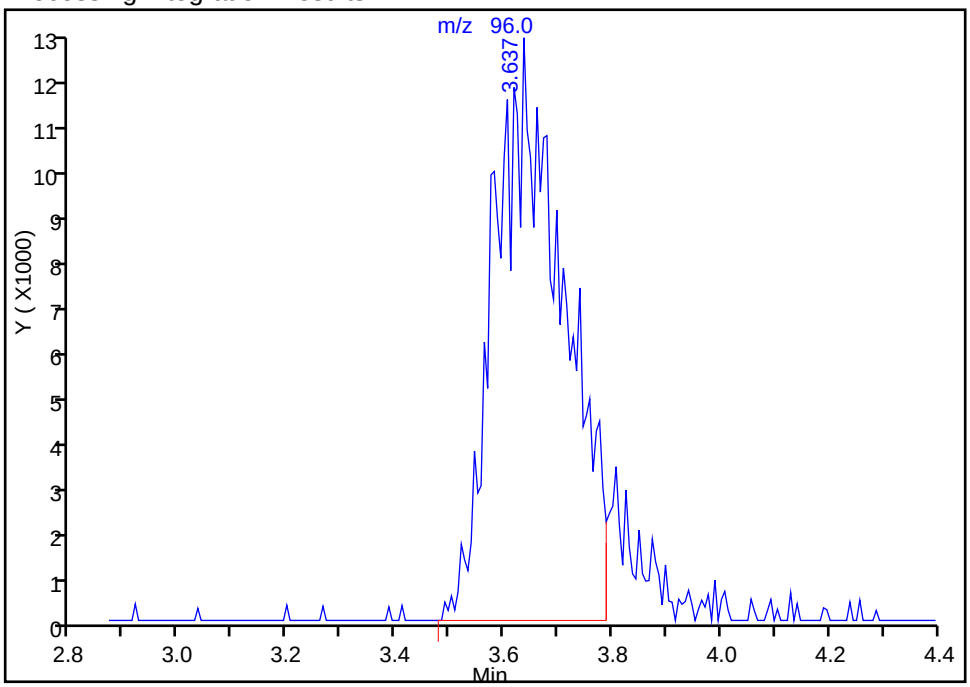
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060117.D				
Injection Date:	01-Jun-2015 17:40:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-E-23	Lab Sample ID:	180-44321-23		
Client ID:	HD-CW-20-0/1-0				
Operator ID:	034635	ALS Bottle#:	15	Worklist Smp#:	17
Purge Vol:	20.000 mL	Dil. Factor:	5.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

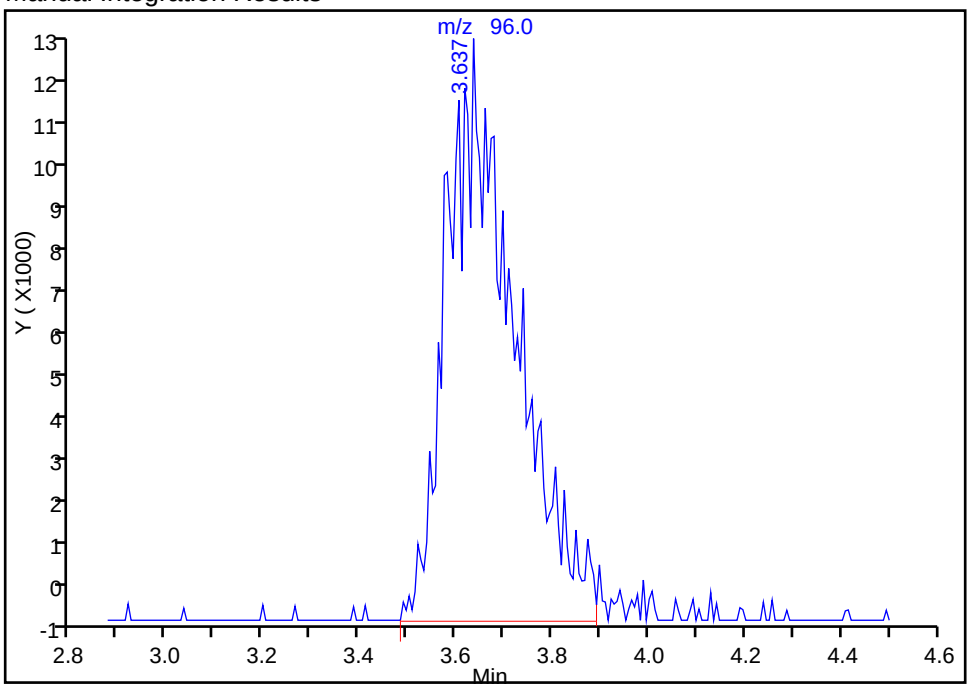
Processing Integration Results

RT: 3.64
Area: 109987
Amount: 63.976268
Amount Units: ng



Manual Integration Results

RT: 3.64
Area: 120136
Amount: 69.879649
Amount Units: ng



Reviewer: journetp, 02-Jun-2015 09:47:03
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-CW-20-0/1-0 DL | Lab Sample ID: 180-44321-23 DL

Matrix: Water | Lab File ID: 60530026.D

Analysis Method: 8260C | Date Collected: 05/20/2015 10:45

Sample wt/vol: 5(mL) | Date Analyzed: 05/31/2015 18:50

Soil Aliquot Vol: | Dilution Factor: 50

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

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

Analysis Batch No.: 143337 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	50	U	50	14
75-01-4	Vinyl chloride	50	U	50	11
74-83-9	Bromomethane	50	U	50	16
75-00-3	Chloroethane	50	U	50	11
75-35-4	1,1-Dichloroethene	50	U	50	15
67-64-1	Acetone	250	U	250	130
75-15-0	Carbon disulfide	50	U	50	11
75-09-2	Methylene Chloride	48	J B	50	6.3
156-60-5	trans-1,2-Dichloroethene	50	U	50	8.5
1634-04-4	Methyl tert-butyl ether	50	U	50	9.2
75-34-3	1,1-Dichloroethane	9.9	J	50	5.8
156-59-2	cis-1,2-Dichloroethene	140		50	12
74-97-5	Bromochloromethane	50	U	50	9.0
78-93-3	2-Butanone (MEK)	250	U	250	27
67-66-3	Chloroform	50	U	50	8.5
71-55-6	1,1,1-Trichloroethane	57		50	14
56-23-5	Carbon tetrachloride	50	U	50	6.8
71-43-2	Benzene	50	U	50	5.3
107-06-2	1,2-Dichloroethane	50	U	50	11
79-01-6	Trichloroethene	580		50	7.2
78-87-5	1,2-Dichloropropane	50	U	50	4.7
75-27-4	Bromodichloromethane	50	U	50	6.5
10061-01-5	cis-1,3-Dichloropropene	50	U	50	9.3
108-10-1	4-Methyl-2-pentanone (MIBK)	250	U	250	26
108-88-3	Toluene	50	U	50	7.5
10061-02-6	trans-1,3-Dichloropropene	50	U	50	7.4
79-00-5	1,1,2-Trichloroethane	50	U	50	10
127-18-4	Tetrachloroethene	1200		50	7.4
591-78-6	2-Hexanone	250	U	250	8.0
124-48-1	Dibromochloromethane	50	U	50	6.8
106-93-4	1,2-Dibromoethane (EDB)	50	U	50	9.0
108-90-7	Chlorobenzene	50	U	50	6.8
630-20-6	1,1,1,2-Tetrachloroethane	50	U	50	14
100-41-4	Ethylbenzene	50	U	50	11
1330-20-7	Xylenes, Total	150	U	150	24
100-42-5	Styrene	50	U	50	4.8

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-CW-20-0/1-0 DL | Lab Sample ID: 180-44321-23 DL

Matrix: Water | Lab File ID: 60530026.D

Analysis Method: 8260C | Date Collected: 05/20/2015 10:45

Sample wt/vol: 5(mL) | Date Analyzed: 05/31/2015 18:50

Soil Aliquot Vol: | Dilution Factor: 50

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

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

Analysis Batch No.: 143337 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	*Bromoform*	*50*	*U*	*50*	*9.6*
79-34-5	*1,1,2,2-Tetrachloroethane*	*50*	*U*	*50*	*10*
107-13-1	*Acrylonitrile*	*1000*	*U*	*1000*	*27*
123-91-1	*1,4-Dioxane*	*10000*	*U*	*10000*	*1700*

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	89		64-135
2037-26-5	Toluene-d8 (Surr)	78		71-118
460-00-4	4-Bromofluorobenzene (Surr)	93		70-118
1868-53-7	Dibromofluoromethane (Surr)	101		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530026.D
Lims ID: 180-44321-D-23 Lab Sample ID: 180-44321-23
Client ID: HD-CW-20-0/1-0
Sample Type: Client
Inject. Date: 31-May-2015 18:50:30 ALS Bottle#: 23 Worklist Smp#: 26
Purge Vol: 5.000 mL Dil. Factor: 50.0000
Sample Info: 180-44321-D-23, x50
Misc. Info.: 180-0007190-026
Operator ID: 034635 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 08:35:45 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK048

First Level Reviewer: fergusond Date: 01-Jun-2015 08:35:45

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.229	4.236	-0.007	89	156986	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.284	0.005	98	532468	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.393	0.005	89	128003	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.746	12.747	-0.001	97	197036	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.553	6.554	-0.001	93	111670	50.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.931	6.925	0.005	71	164141	44.6	
$ 7 Toluene-d8 (Surr)	98	8.944	8.939	0.005	94	422816	39.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.584	11.579	0.005	85	205214	46.5	
12 Chloromethane	50		1.760				ND	
13 Vinyl chloride	62		1.882				ND	
15 Bromomethane	94		2.229				ND	
16 Chloroethane	64		2.375				ND	
22 1,1-Dichloroethene	96	3.341	3.336	0.005	37	3154	1.28	
24 Acetone	43		3.421				ND	
26 Carbon disulfide	76		3.628				ND	
31 Methylene Chloride	84	4.120	4.115	0.005	69	14490	4.84	
33 Acrylonitrile	53		4.498				ND	
34 trans-1,2-Dichloroethene	96		4.553				ND	
35 Methyl tert-butyl ether	73		4.565				ND	
37 1,1-Dichloroethane	63	5.209	5.198	0.011	0	5106	0.9884	M
43 cis-1,2-Dichloroethene	96	5.945	5.940	0.005	81	44734	14.3	
44 2-Butanone (MEK)	43		5.940				ND	
48 Chlorobromomethane	128		6.226				ND	
50 Chloroform	83		6.366				ND	
51 1,1,1-Trichloroethane	97	6.541	6.536	0.005	51	23457	5.72	
53 Carbon tetrachloride	117		6.712				ND	
56 Benzene	78		6.943				ND	
57 1,2-Dichloroethane	62		7.016				ND	
61 Trichloroethene	130	7.685	7.673	0.012	96	147139	58.1	
64 1,2-Dichloropropane	63		7.947				ND	
65 1,4-Dioxane	88		8.020				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.227				ND	
71 cis-1,3-Dichloropropene	75		8.677				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.823				ND	
73 Toluene	91		9.012				ND	
74 trans-1,3-Dichloropropene	75		9.255				ND	
76 1,1,2-Trichloroethane	97		9.450				ND	
77 Tetrachloroethene	164	9.528	9.523	0.005	95	272869	124.9	
79 2-Hexanone	43		9.657				ND	
81 Chlorodibromomethane	129		9.821				ND	
82 Ethylene Dibromide	107		9.937				ND	
84 Chlorobenzene	112		10.423				ND	
86 1,1,1,2-Tetrachloroethane	131		10.521				ND	
87 Ethylbenzene	106		10.527				ND	
88 m-Xylene & p-Xylene	106		10.654				ND	
89 o-Xylene	106		11.044				ND	
90 Styrene	104		11.062				ND	
91 Bromoform	173		11.244				ND	
96 1,1,2,2-Tetrachloroethane	83		11.713				ND	
S 131 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

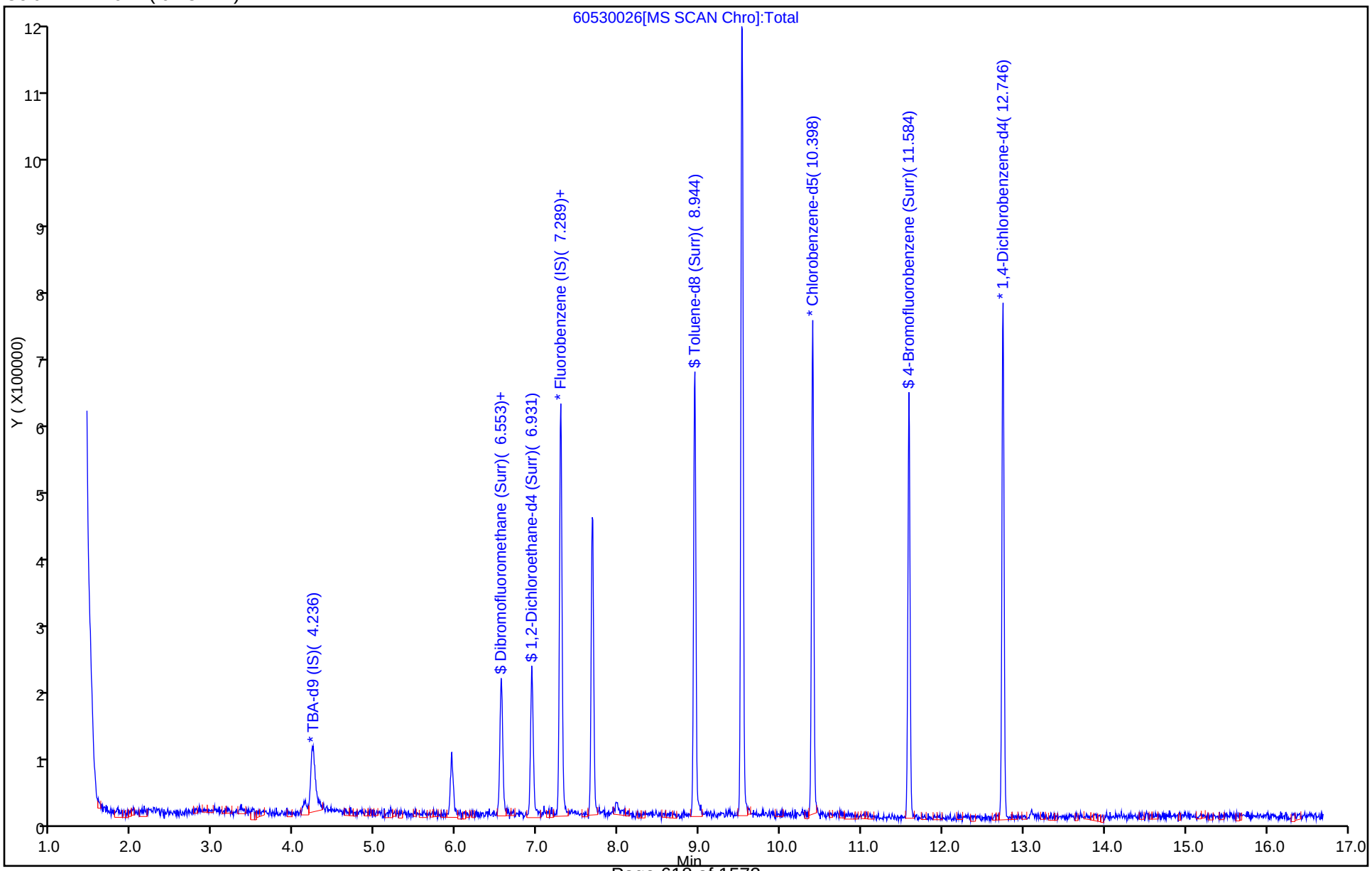
VOA8260INT_00033	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00035	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 01-Jun-2015 08:35:45 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530026.D				
Injection Date:	31-May-2015 18:50:30	Instrument ID:	CHHP6	Operator ID:	034635
Lims ID:	180-44321-D-23	Lab Sample ID:	180-44321-23	Worklist Smp#:	26
Client ID:	HD-CW-20-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	50.0000	ALS Bottle#:	23
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530026.D
Lims ID: 180-44321-D-23 Lab Sample ID: 180-44321-23
Client ID: HD-CW-20-0/1-0
Sample Type: Client
Inject. Date: 31-May-2015 18:50:30 ALS Bottle#: 23 Worklist Smp#: 26
Purge Vol: 5.000 mL Dil. Factor: 50.0000
Sample Info: 180-44321-D-23, x50
Misc. Info.: 180-0007190-026
Operator ID: 034635 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 08:35:45 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK048

First Level Reviewer: fergusond Date: 01-Jun-2015 08:35:45

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	50.7	101.37
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	44.6	89.18
$ 7 Toluene-d8 (Surr)	50.0	39.0	78.08
$ 8 4-Bromofluorobenzene (Surr)	50.0	46.5	92.96

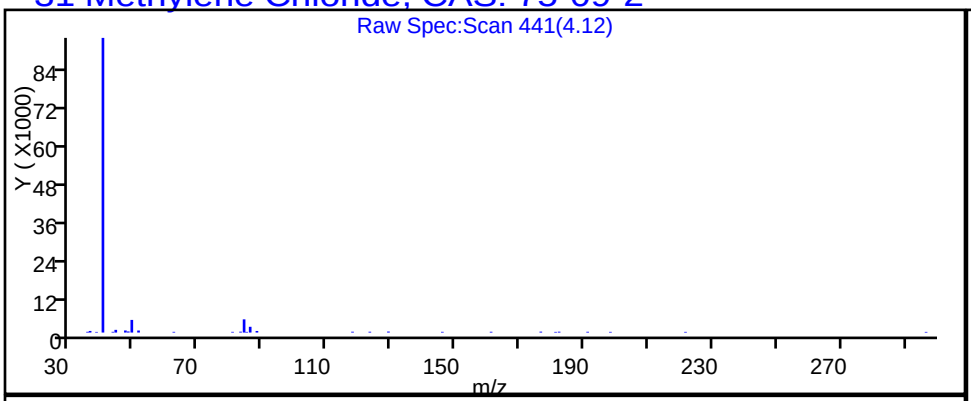
Report Date: 01-Jun-2015 08:35:45 Chrom Revision: 2.2 05-May-2015 11:39:10

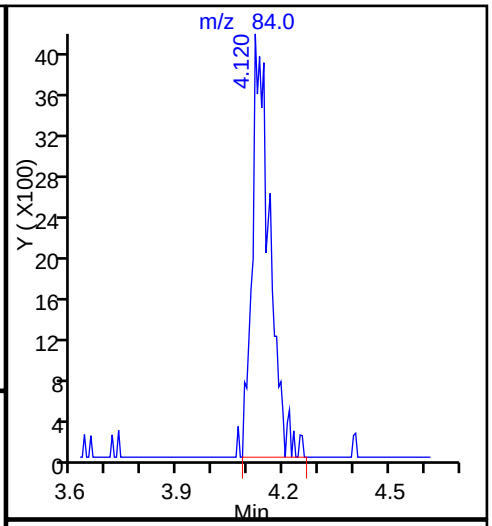
TestAmerica Pittsburgh

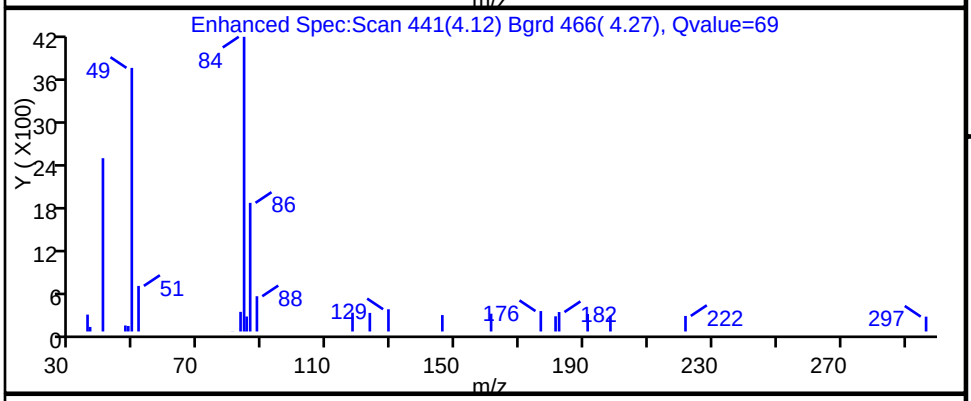
Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530026.D

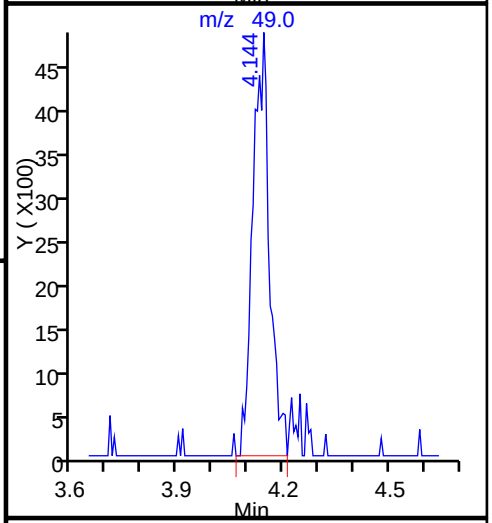
Injection Date:	31-May-2015 18:50:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-D-23	Lab Sample ID:	180-44321-23		
Client ID:	HD-CW-20-0/1-0				
Operator ID:	034635	ALS Bottle#:	23	Worklist Smp#:	26
Purge Vol:	5.000 mL	Dil. Factor:	50.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

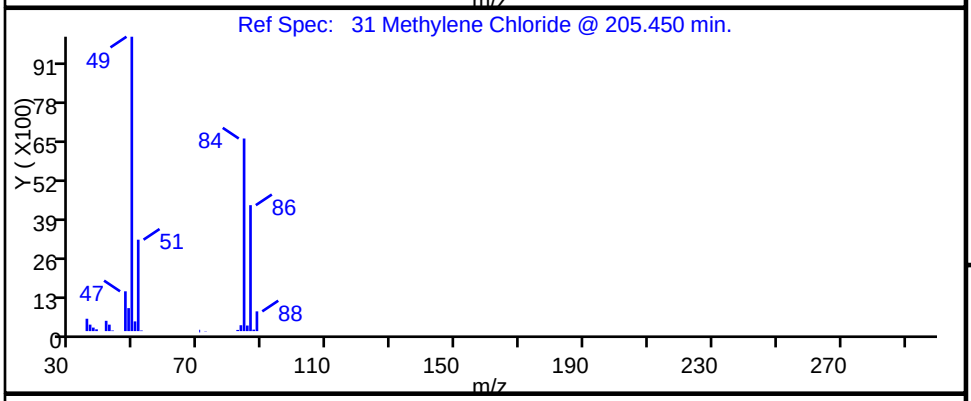
31 Methylene Chloride, CAS: 75-09-2

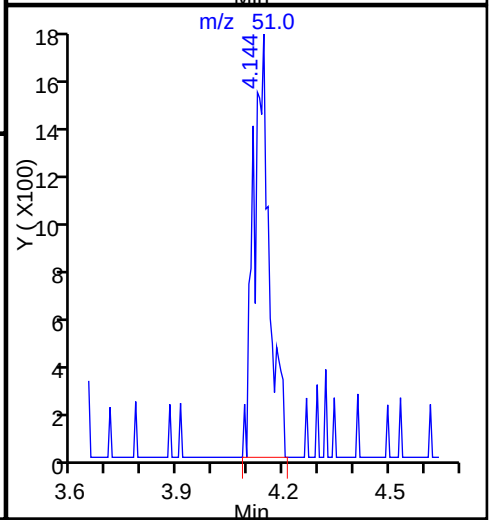


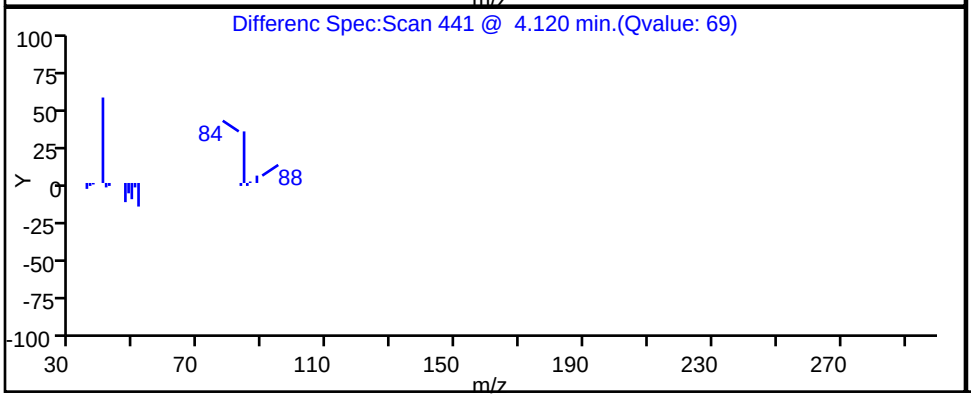












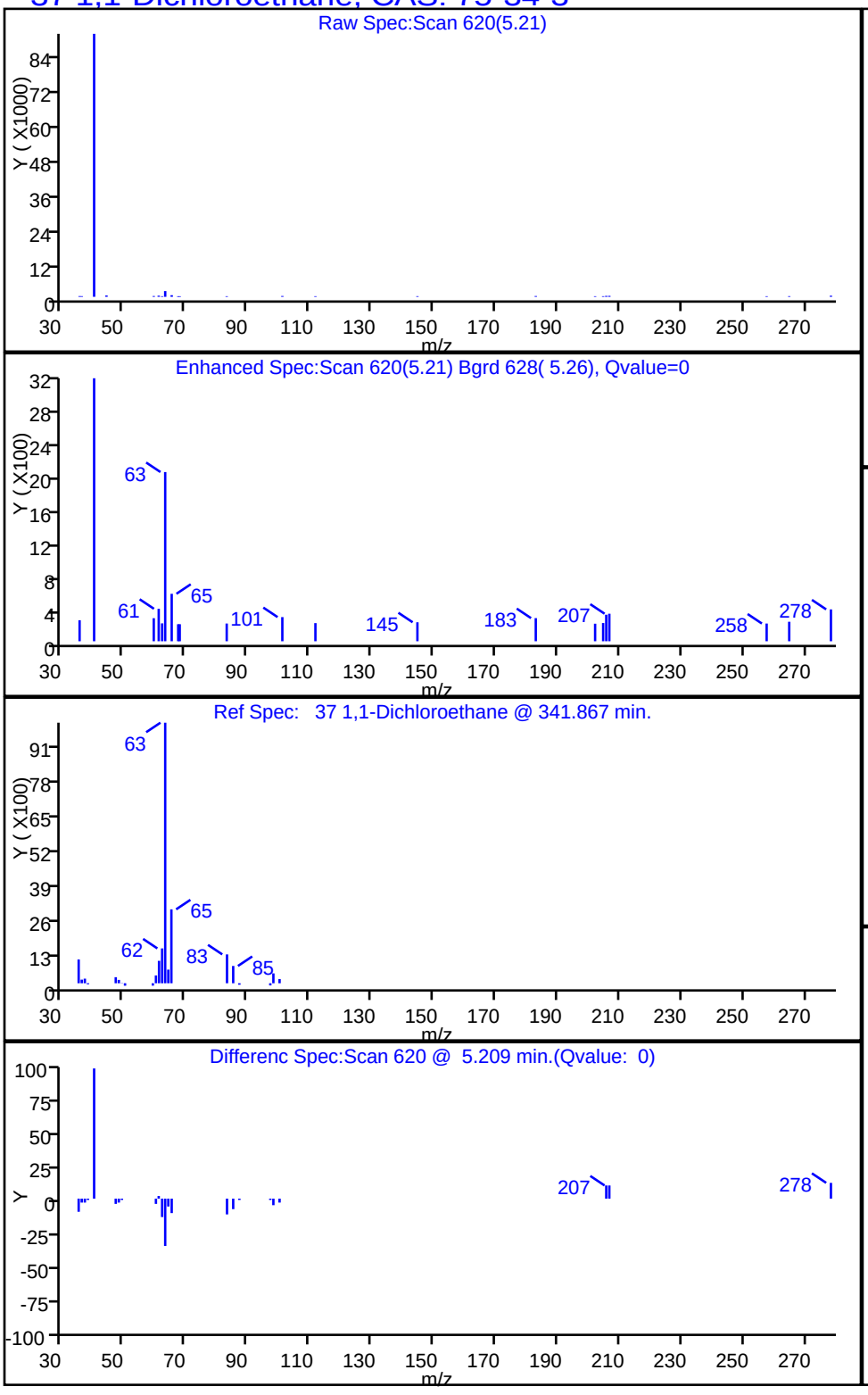
Report Date: 01-Jun-2015 08:35:45 Chrom Revision: 2.2 05-May-2015 11:39:10

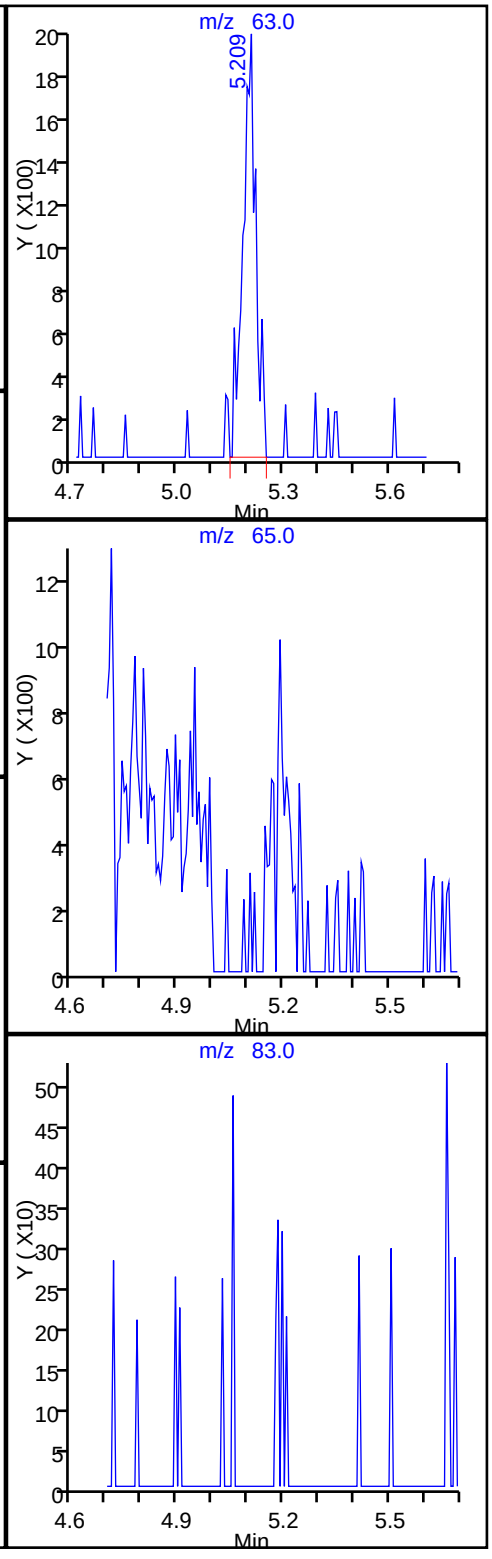
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530026.D

Injection Date:	31-May-2015 18:50:30	Instrument ID:	CHHP6
Lims ID:	180-44321-D-23	Lab Sample ID:	180-44321-23
Client ID:	HD-CW-20-0/1-0		
Operator ID:	034635	ALS Bottle#:	23 Worklist Smp#: 26
Purge Vol:	5.000 mL	Dil. Factor:	50.0000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

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





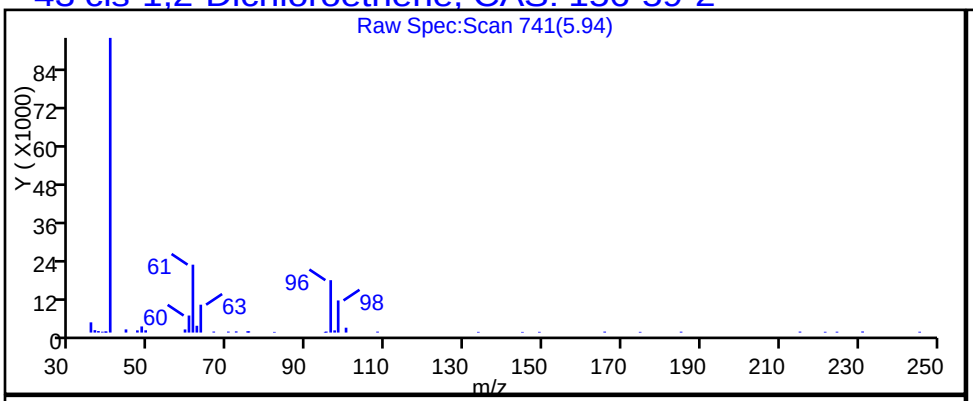
Report Date: 01-Jun-2015 08:35:46 Chrom Revision: 2.2 05-May-2015 11:39:10

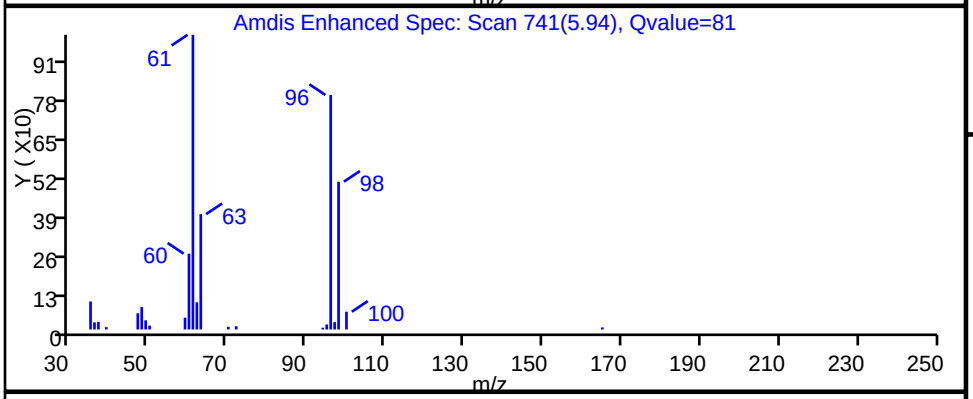
TestAmerica Pittsburgh

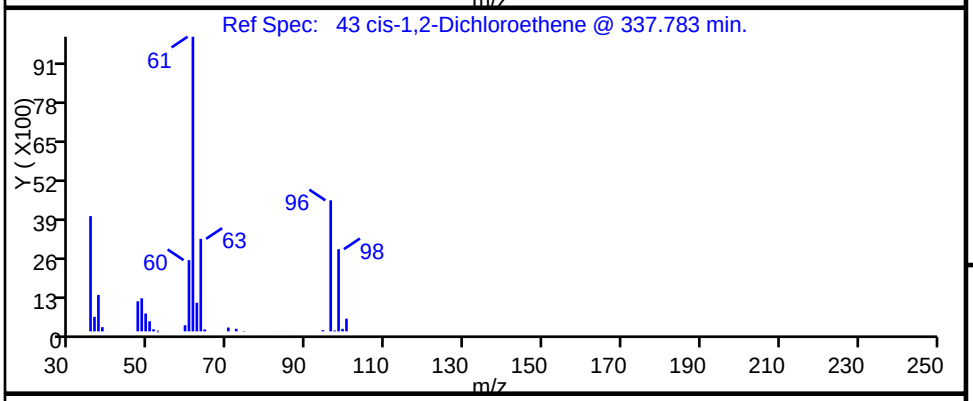
Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530026.D

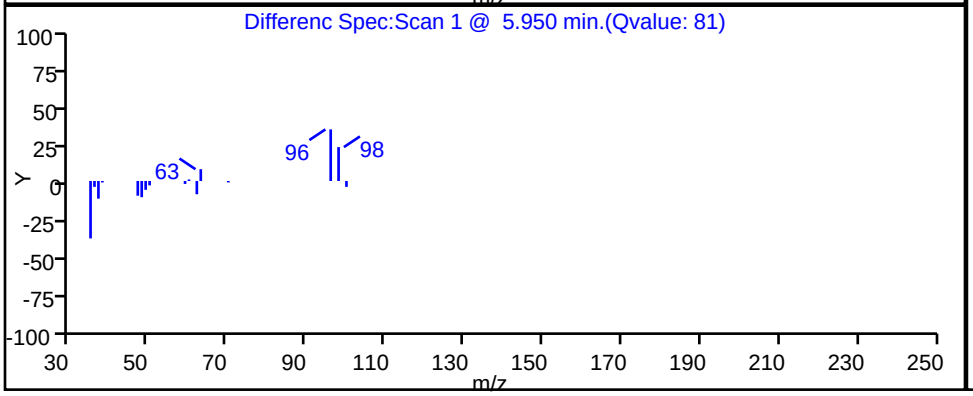
Injection Date:	31-May-2015 18:50:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-D-23	Lab Sample ID:	180-44321-23		
Client ID:	HD-CW-20-0/1-0				
Operator ID:	034635	ALS Bottle#:	23	Worklist Smp#:	26
Purge Vol:	5.000 mL	Dil. Factor:	50.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

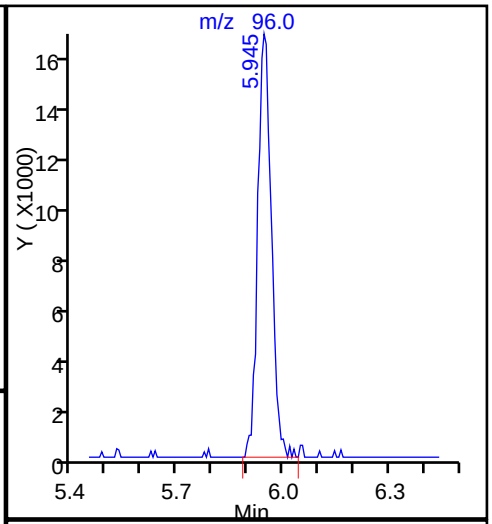
43 cis-1,2-Dichloroethene, CAS: 156-59-2

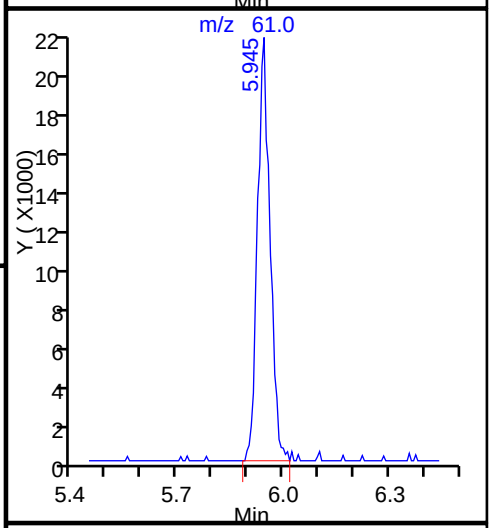


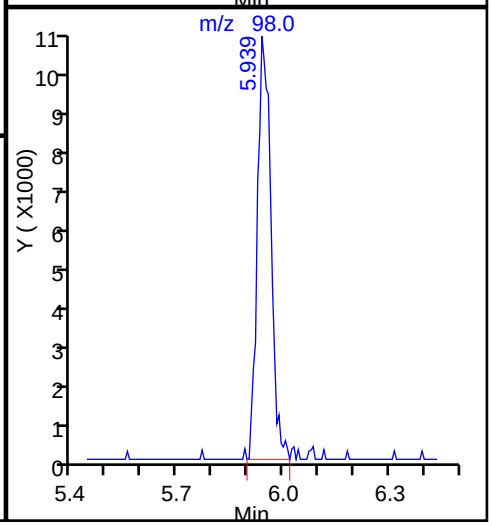










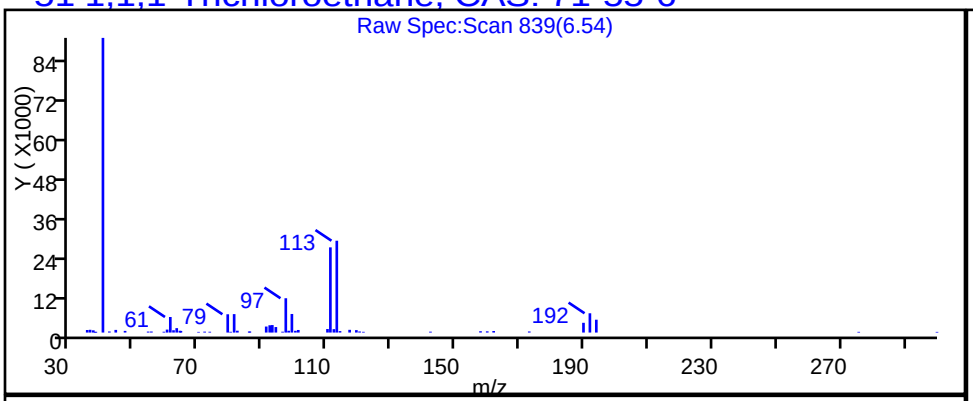


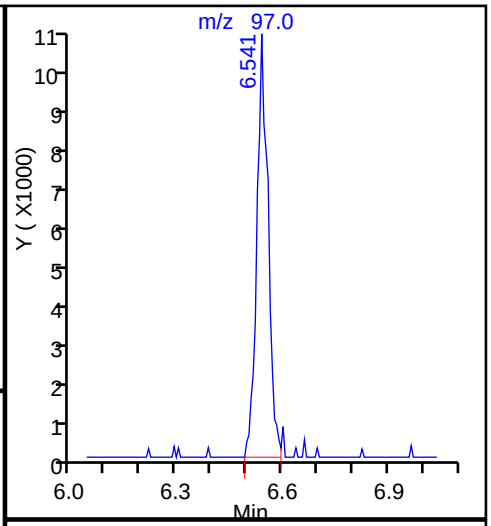
Report Date: 01-Jun-2015 08:35:46 Chrom Revision: 2.2 05-May-2015 11:39:10

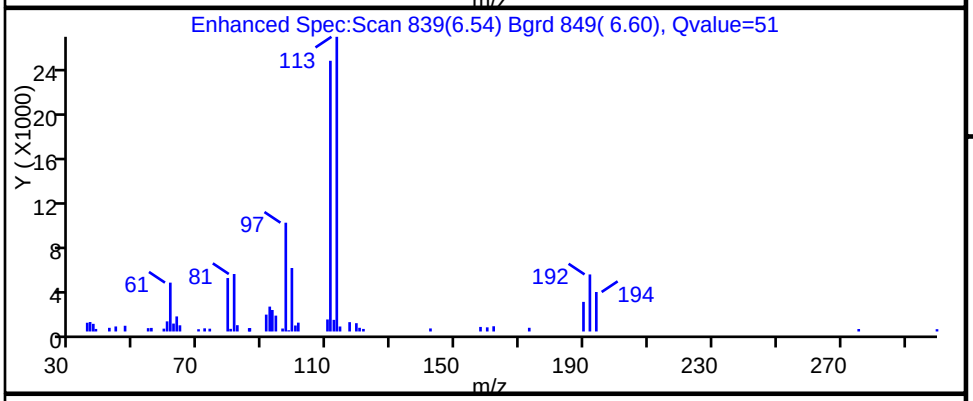
TestAmerica Pittsburgh

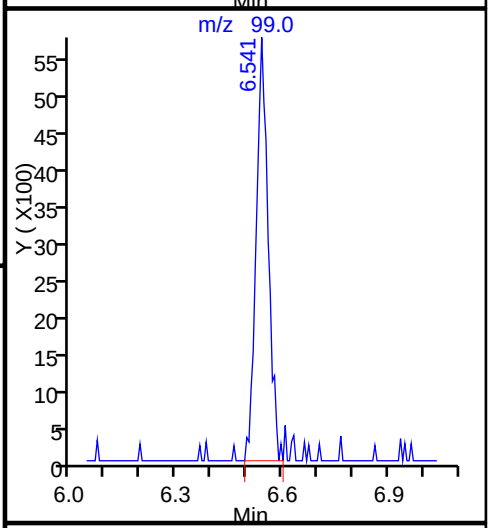
Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530026.D				
Injection Date:	31-May-2015 18:50:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-D-23	Lab Sample ID:	180-44321-23		
Client ID:	HD-CW-20-0/1-0				
Operator ID:	034635	ALS Bottle#:	23	Worklist Smp#:	26
Purge Vol:	5.000 mL	Dil. Factor:	50.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

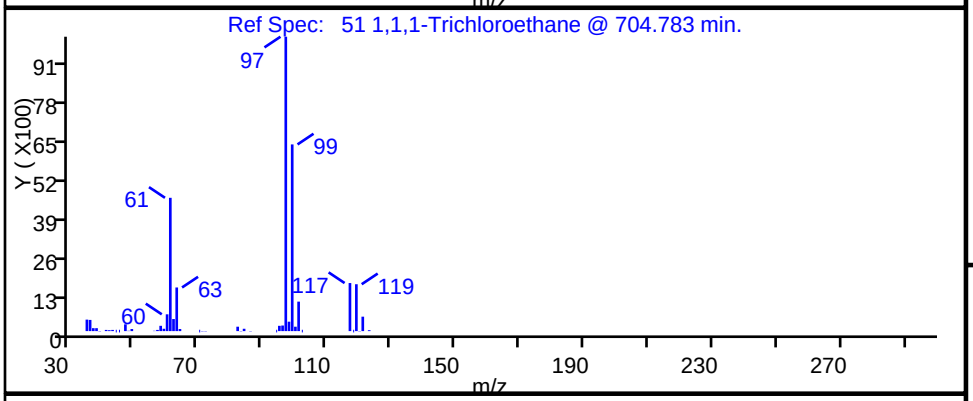
51 1,1,1-Trichloroethane, CAS: 71-55-6

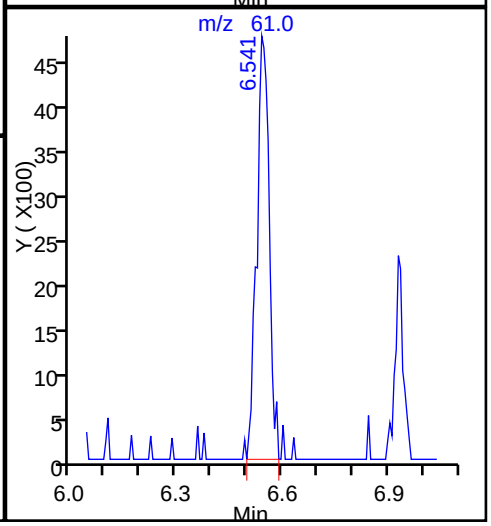


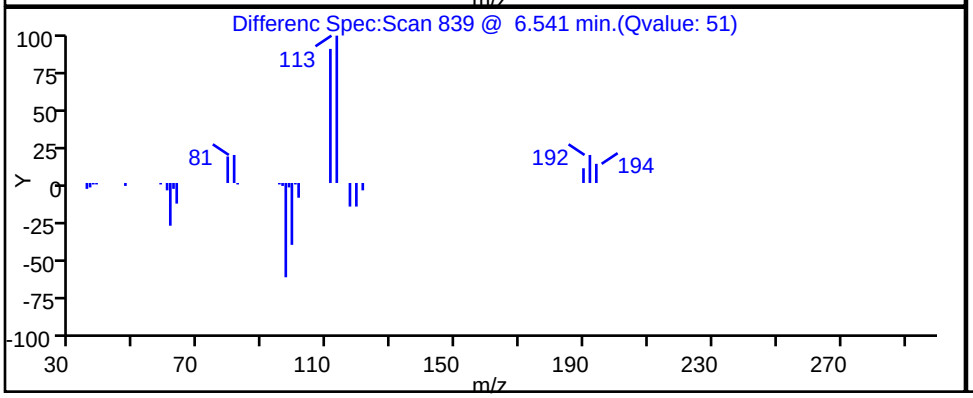










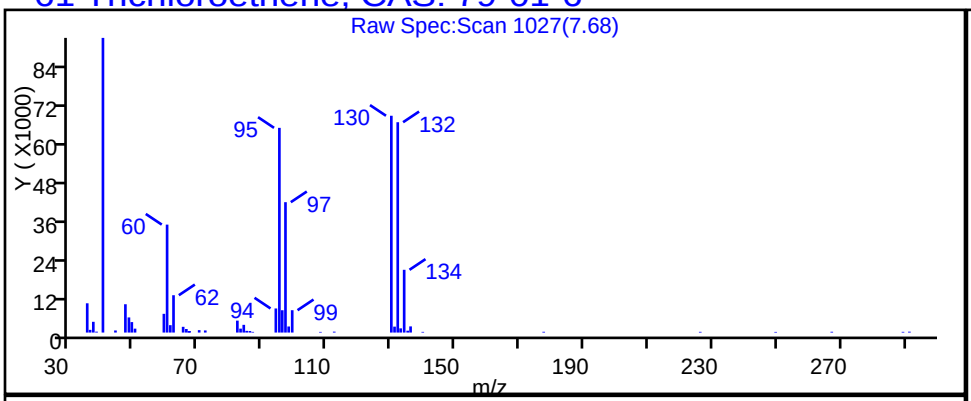


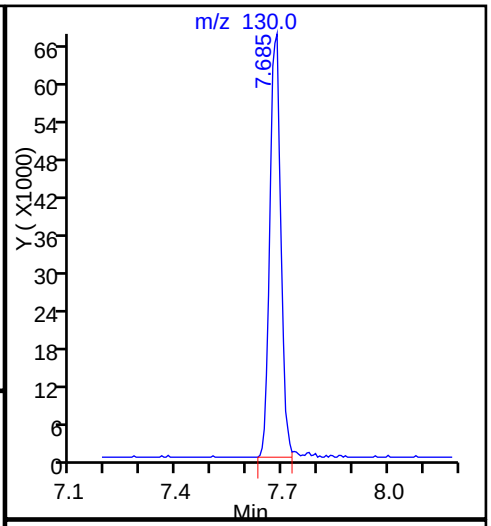
Report Date: 01-Jun-2015 08:35:46 Chrom Revision: 2.2 05-May-2015 11:39:10

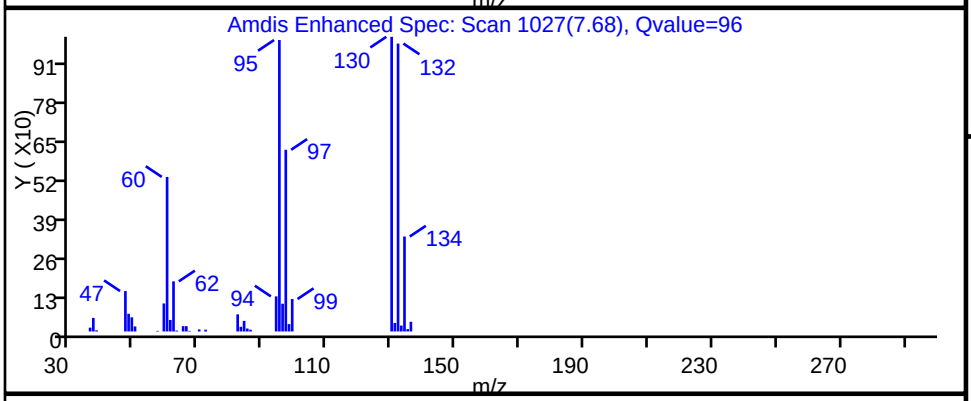
TestAmerica Pittsburgh

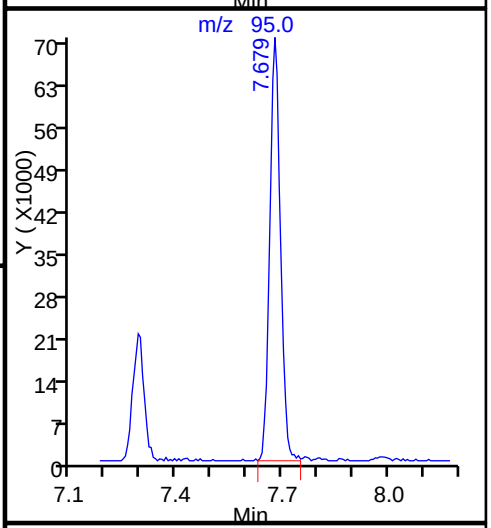
Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530026.D				
Injection Date:	31-May-2015 18:50:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-D-23	Lab Sample ID:	180-44321-23		
Client ID:	HD-CW-20-0/1-0				
Operator ID:	034635	ALS Bottle#:	23	Worklist Smp#:	26
Purge Vol:	5.000 mL	Dil. Factor:	50.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

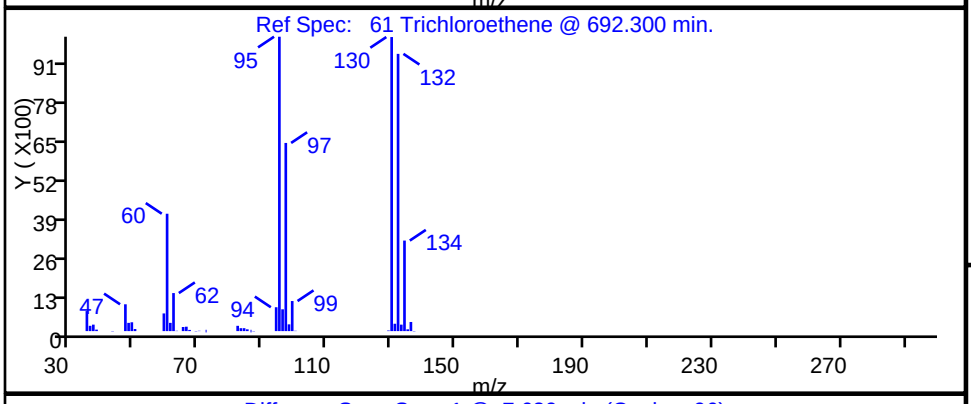
61 Trichloroethene, CAS: 79-01-6

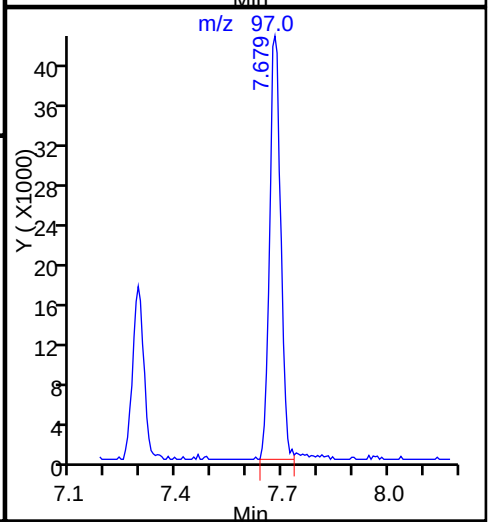


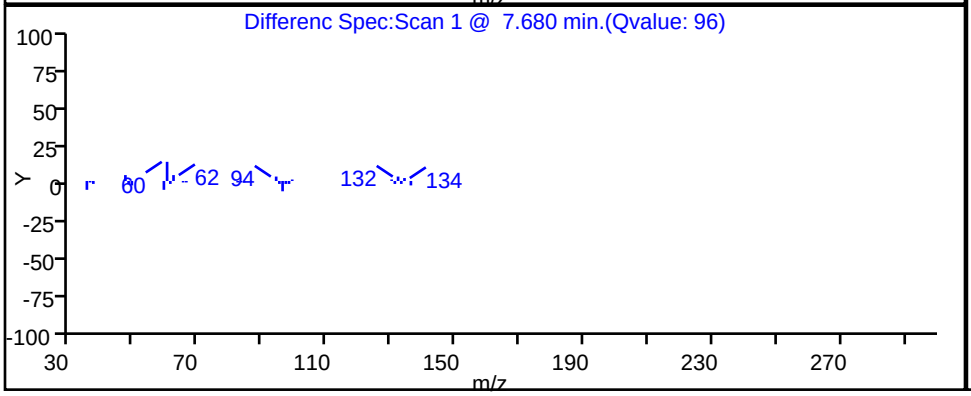












Report Date: 01-Jun-2015 08:35:46 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530026.D

Injection Date: 31-May-2015 18:50:30 Instrument ID: CHHP6

Lims ID: 180-44321-D-23 Lab Sample ID: 180-44321-23

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

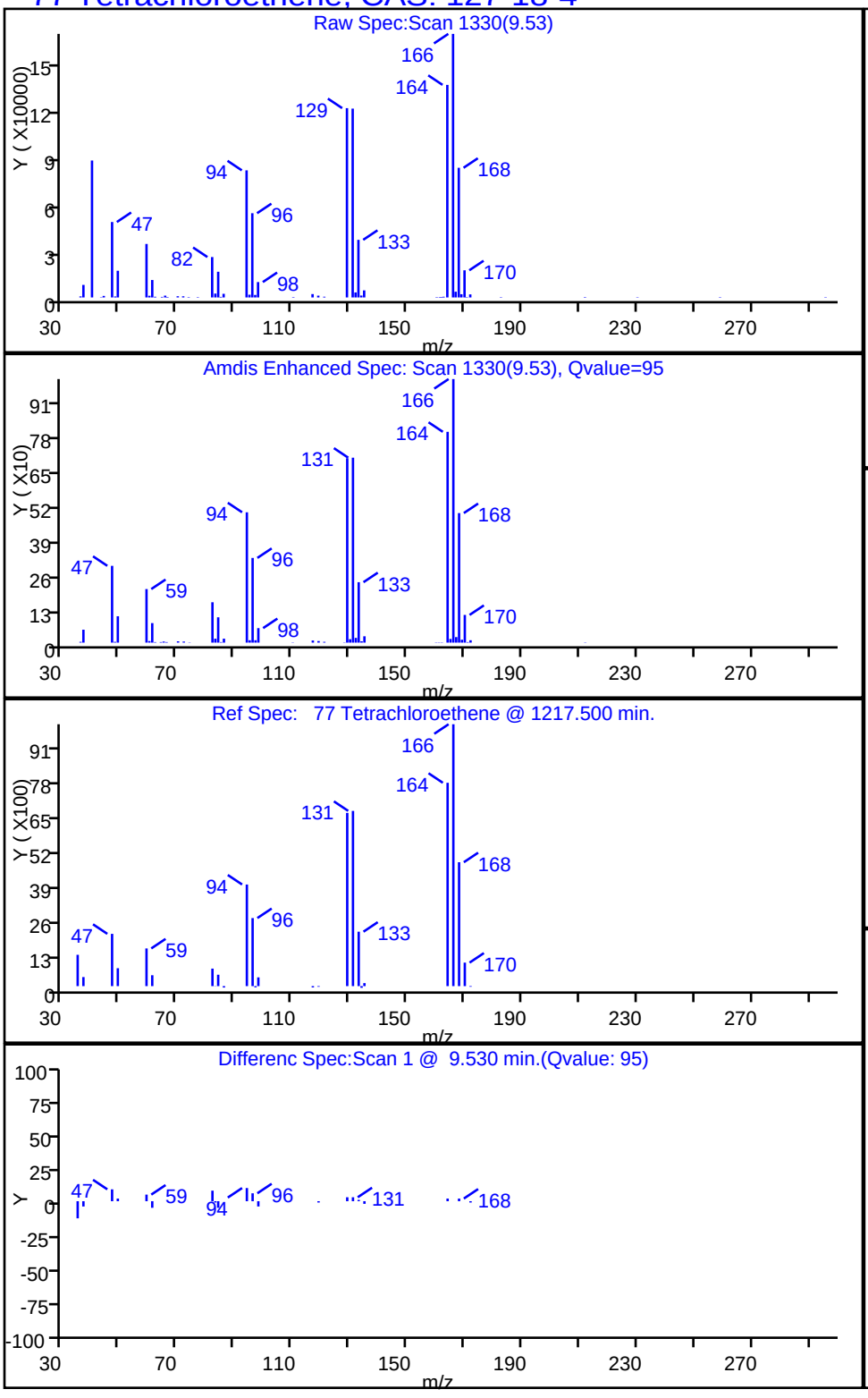
Operator ID: 034635 ALS Bottle#: 23 Worklist Smp#: 26

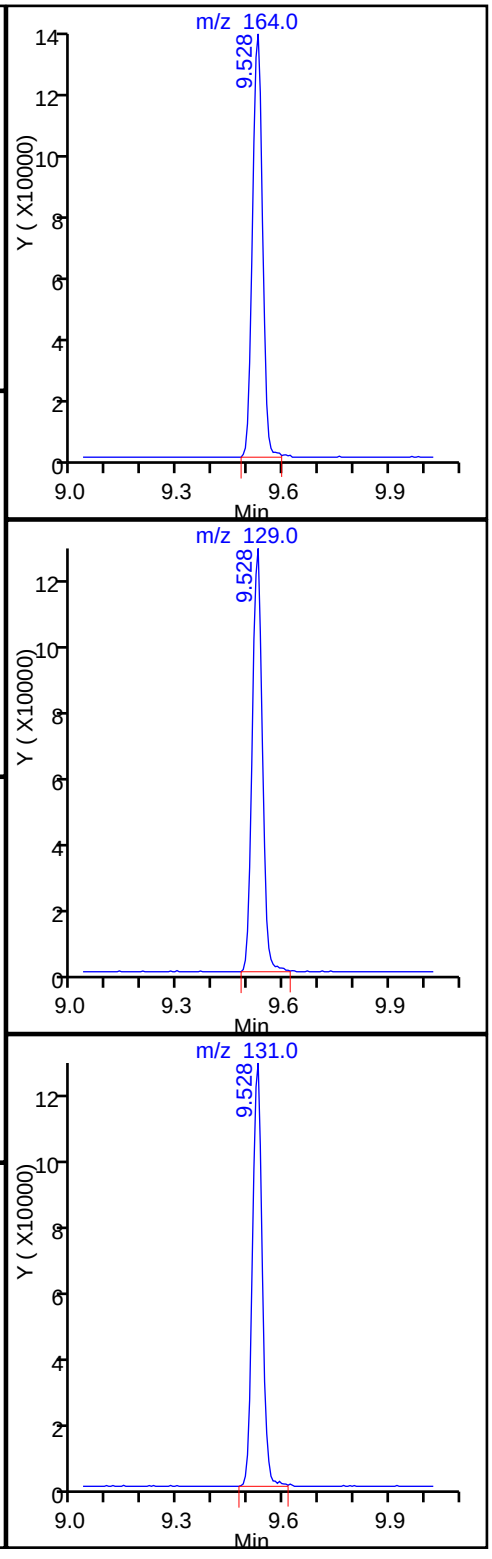
Purge Vol: 5.000 mL Dil. Factor: 50.0000

Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL

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

77 Tetrachloroethene, CAS: 127-18-4





Manual Integration/User Assign Peak Report

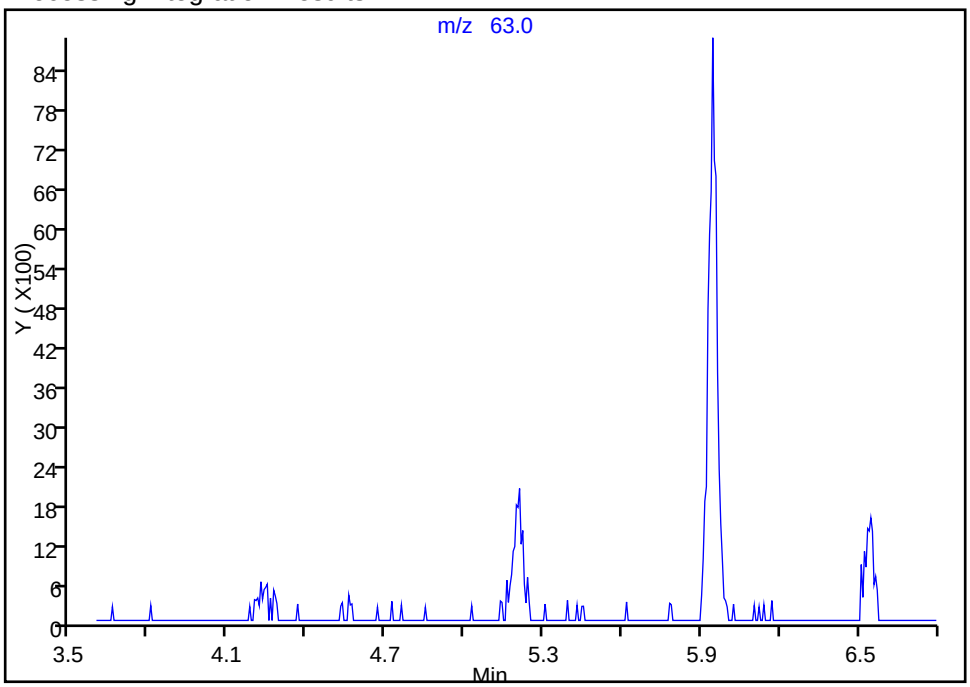
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530026.D				
Injection Date:	31-May-2015 18:50:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-D-23	Lab Sample ID:	180-44321-23		
Client ID:	HD-CW-20-0/1-0				
Operator ID:	034635	ALS Bottle#:	23	Worklist Smp#:	26
Purge Vol:	5.000 mL	Dil. Factor:	50.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

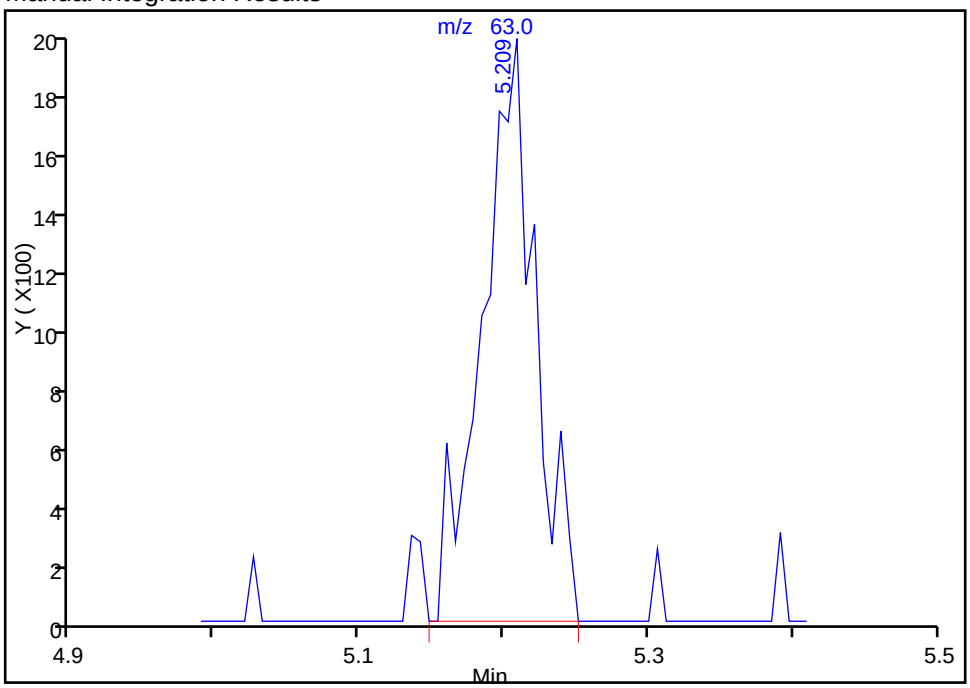
Not Detected
Expected RT: 5.20

Processing Integration Results



Manual Integration Results

RT: 5.21
Area: 5106
Amount: 0.988403
Amount Units: ng



Reviewer: fergusond, 01-Jun-2015 08:35:45
Audit Action: Manually Integrated
Audit Reason: Peak Not Integrated

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-MW-95-0/1-0 | Lab Sample ID: 180-44321-24

Matrix: Water | Lab File ID: 60530011.D

Analysis Method: 8260C | Date Collected: 05/20/2015 09:25

Sample wt/vol: 5(mL) | Date Analyzed: 05/31/2015 12:49

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.: 143337 | 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	0.58	J B	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	6.1		1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	1.0	U	1.0	0.17
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	2.8	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	1.9		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.: 180-44321-1

SDG No.:

Client Sample ID: HD-MW-95-0/1-0 Lab Sample ID: 180-44321-24

Matrix: Water Lab File ID: 60530011.D

Analysis Method: 8260C Date Collected: 05/20/2015 09:25

Sample wt/vol: 5(mL) Date Analyzed: 05/31/2015 12:49

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.: 143337 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		64-135
2037-26-5	Toluene-d8 (Surr)	97		71-118
460-00-4	4-Bromofluorobenzene (Surr)	117		70-118
1868-53-7	Dibromofluoromethane (Surr)	114		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530011.D
Lims ID: 180-44321-D-24 Lab Sample ID: 180-44321-24
Client ID: HD-MW-95-0/1-0
Sample Type: Client
Inject. Date: 31-May-2015 12:49:30 ALS Bottle#: 2 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-44321-D-24
Misc. Info.: 180-0007190-011
Operator ID: 034635 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 31-May-2015 16:21:03 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK001

First Level Reviewer: journetp Date: 31-May-2015 15:58:45

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.220	4.236	-0.016	90	150894	1000.0	
* 2 Fluorobenzene (IS)	96	7.286	7.284	0.002	98	507198	50.0	
* 3 Chlorobenzene-d5	119	10.401	10.393	0.008	90	114855	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.743	12.747	-0.004	98	182870	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.556	6.554	0.002	92	119657	57.0	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.933	6.925	0.008	70	179248	51.1	
$ 7 Toluene-d8 (Surr)	98	8.941	8.939	0.002	93	470294	48.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.581	11.579	0.002	83	231802	58.5	
12 Chloromethane	50		1.760				ND	
13 Vinyl chloride	62		1.882				ND	
15 Bromomethane	94		2.229				ND	
16 Chloroethane	64		2.375				ND	
22 1,1-Dichloroethene	96		3.336				ND	
24 Acetone	43	3.447	3.421	0.026	1	4425	6.57	M
26 Carbon disulfide	76		3.628				ND	
31 Methylene Chloride	84	4.135	4.115	0.020	54	8224	2.88	
33 Acrylonitrile	53		4.498				ND	
34 trans-1,2-Dichloroethene	96		4.553				ND	
35 Methyl tert-butyl ether	73		4.565				ND	
37 1,1-Dichloroethane	63		5.198				ND	
43 cis-1,2-Dichloroethene	96	5.948	5.940	0.008	79	90933	30.6	
44 2-Butanone (MEK)	43		5.940				ND	
48 Chlorobromomethane	128		6.226				ND	
50 Chloroform	83		6.366				ND	
51 1,1,1-Trichloroethane	97		6.536				ND	
53 Carbon tetrachloride	117		6.712				ND	
56 Benzene	78		6.943				ND	
57 1,2-Dichloroethane	62		7.016				ND	
61 Trichloroethene	130	7.675	7.673	0.002	94	33780	14.0	
64 1,2-Dichloropropane	63		7.947				ND	
65 1,4-Dioxane	88		8.020				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.227				ND	
71 cis-1,3-Dichloropropene	75		8.677				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.823				ND	
73 Toluene	91		9.012				ND	
74 trans-1,3-Dichloropropene	75		9.255				ND	
76 1,1,2-Trichloroethane	97		9.450				ND	
77 Tetrachloroethene	164	9.525	9.523	0.002	94	19078	9.73	
79 2-Hexanone	43		9.657				ND	
81 Chlorodibromomethane	129		9.821				ND	
82 Ethylene Dibromide	107		9.937				ND	
84 Chlorobenzene	112		10.423				ND	
86 1,1,1,2-Tetrachloroethane	131		10.521				ND	
87 Ethylbenzene	106		10.527				ND	
88 m-Xylene & p-Xylene	106		10.654				ND	
89 o-Xylene	106		11.044				ND	
90 Styrene	104		11.062				ND	
91 Bromoform	173		11.244				ND	
96 1,1,2,2-Tetrachloroethane	83		11.713				ND	
S 131 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

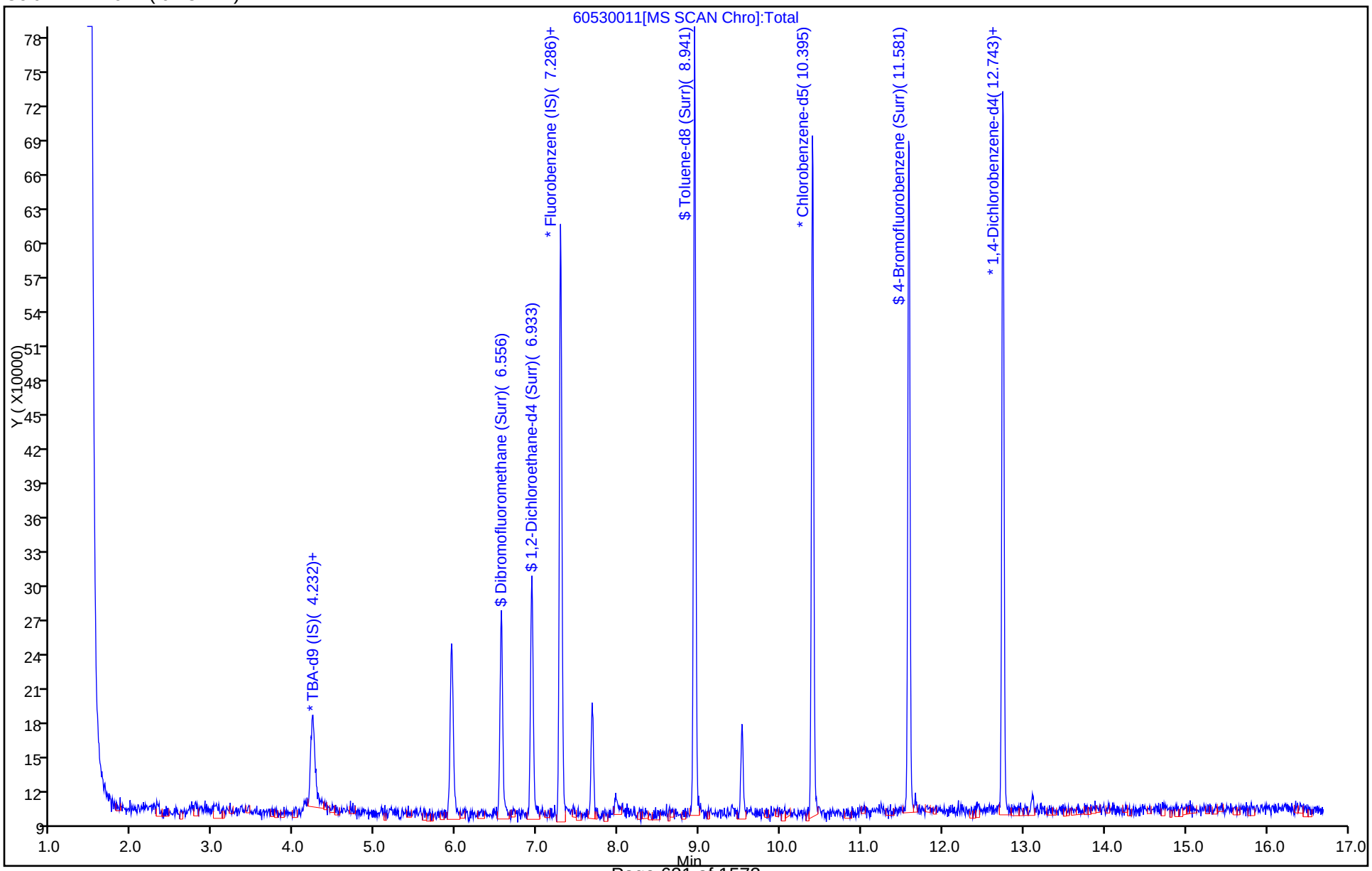
VOA8260INT_00033	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00035	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 31-May-2015 16:21:08 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530011.D				
Injection Date:	31-May-2015 12:49:30	Instrument ID:	CHHP6	Operator ID:	034635
Lims ID:	180-44321-D-24	Lab Sample ID:	180-44321-24	Worklist Smp#:	11
Client ID:	HD-MW-95-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530011.D				
Lims ID:	180-44321-D-24	Lab Sample ID:	180-44321-24		
Client ID:	HD-MW-95-0/1-0				
Sample Type:	Client				
Inject. Date:	31-May-2015 12:49:30	ALS Bottle#:	2	Worklist Smp#:	11
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Sample Info:	180-44321-D-24				
Misc. Info.:	180-0007190-011				
Operator ID:	034635	Instrument ID:	CHHP6		
Method:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\MSVOA_LL_CHHP6.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	31-May-2015 16:21:03	Calib Date:	01-May-2015 16:46:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK001				

First Level Reviewer: journetp Date: 31-May-2015 15:58:45

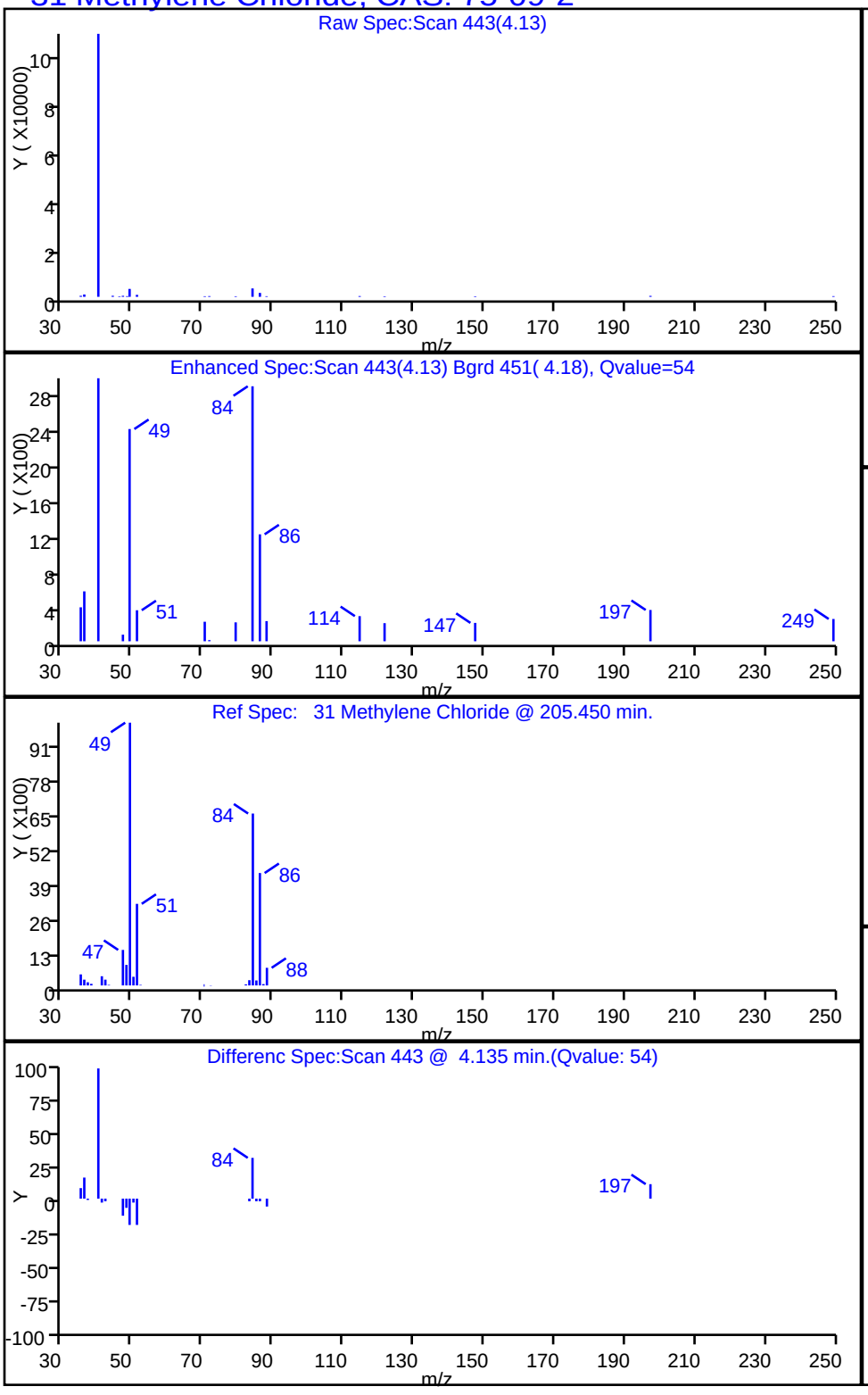
Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	57.0	114.04
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	51.1	102.24
$ 7 Toluene-d8 (Surr)	50.0	48.4	96.79
$ 8 4-Bromofluorobenzene (Surr)	50.0	58.5	117.03

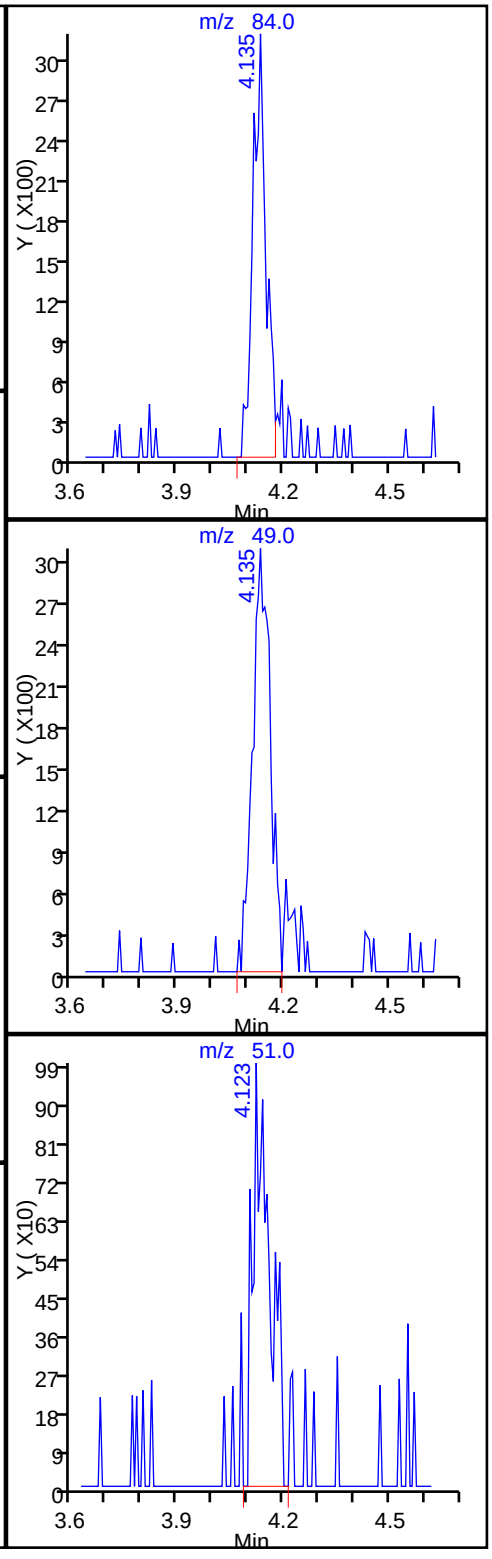
Report Date: 31-May-2015 16:21:08 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530011.D				
Injection Date:	31-May-2015 12:49:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-D-24	Lab Sample ID:	180-44321-24		
Client ID:	HD-MW-95-0/1-0				
Operator ID:	034635	ALS Bottle#:	2	Worklist Smp#:	11
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

31 Methylene Chloride, CAS: 75-09-2



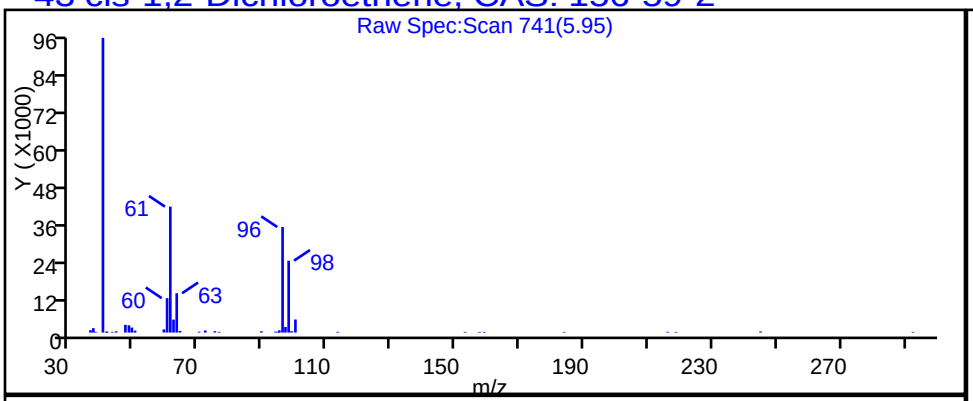


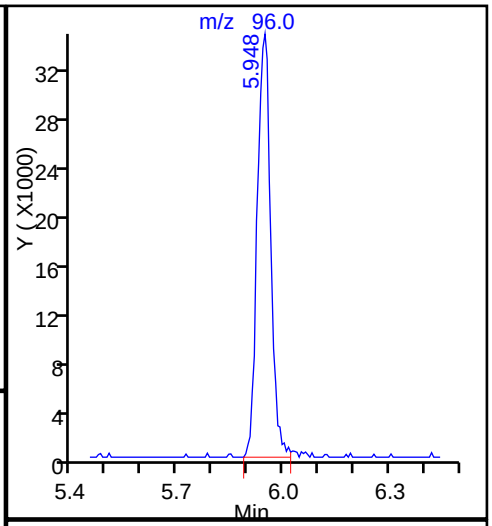
Report Date: 31-May-2015 16:21:08 Chrom Revision: 2.2 05-May-2015 11:39:10

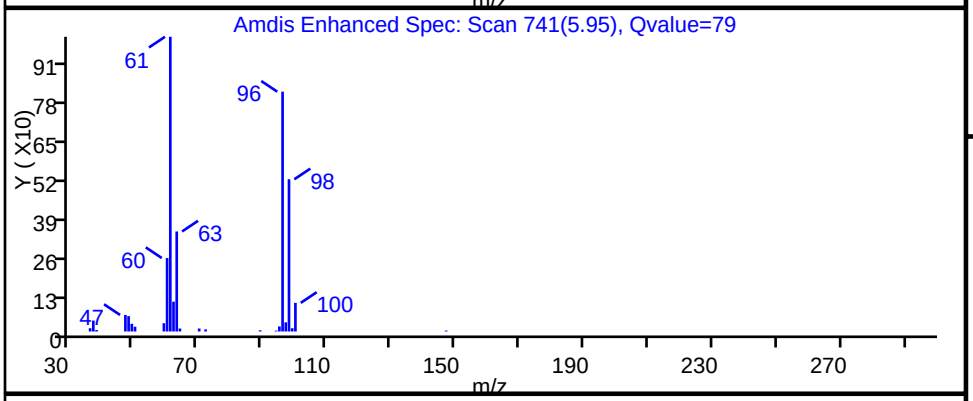
TestAmerica Pittsburgh

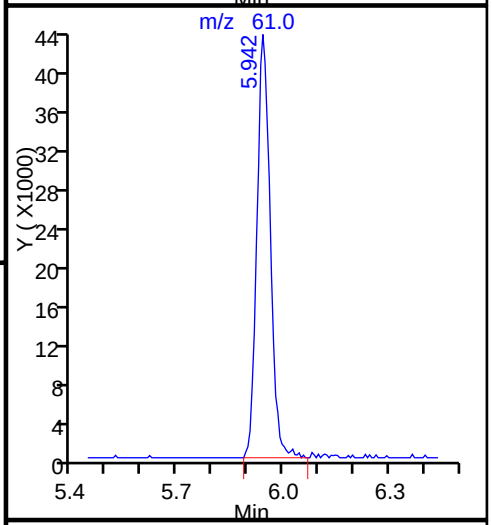
Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530011.D				
Injection Date:	31-May-2015 12:49:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-D-24	Lab Sample ID:	180-44321-24		
Client ID:	HD-MW-95-0/1-0				
Operator ID:	034635	ALS Bottle#:	2	Worklist Smp#:	11
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

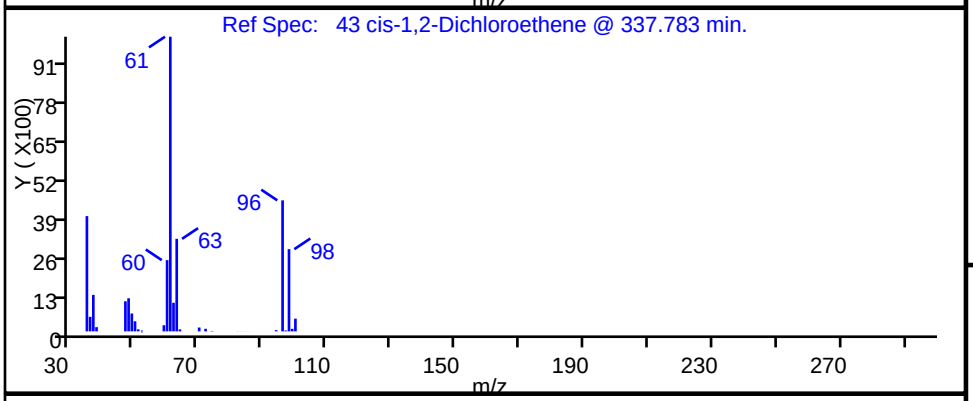
43 cis-1,2-Dichloroethene, CAS: 156-59-2

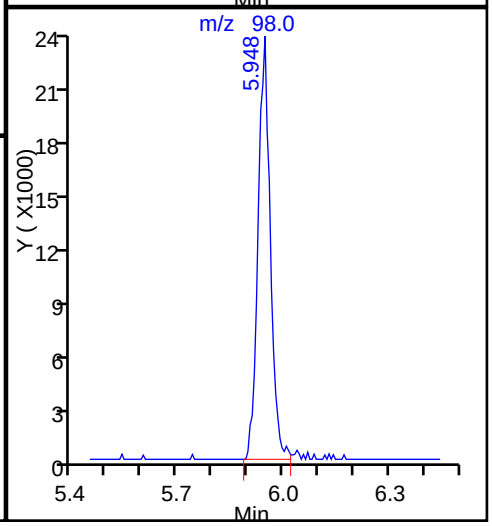


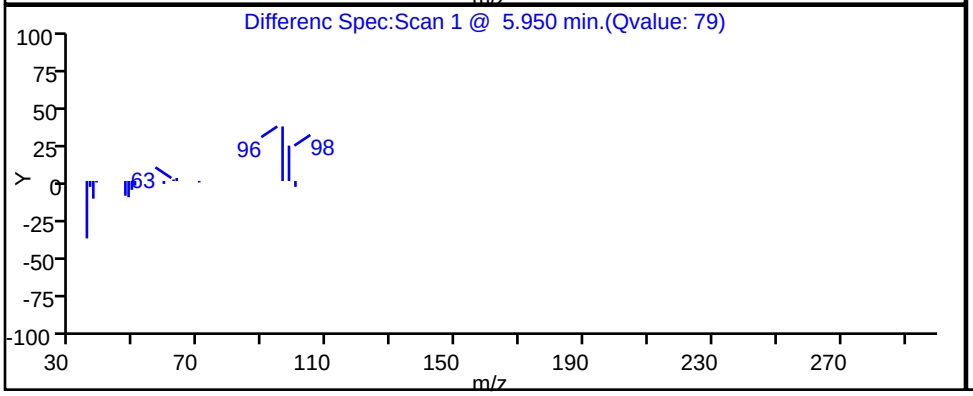










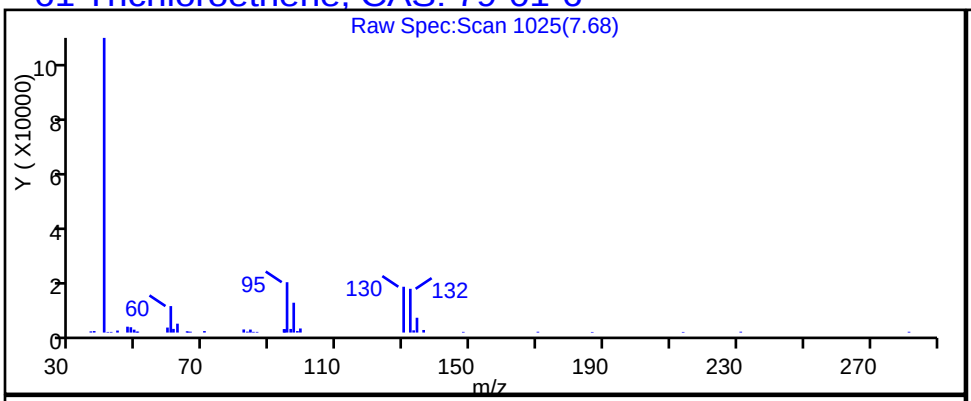


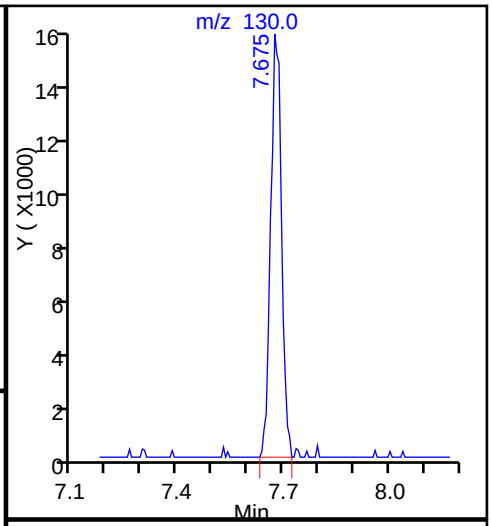
Report Date: 31-May-2015 16:21:08 Chrom Revision: 2.2 05-May-2015 11:39:10

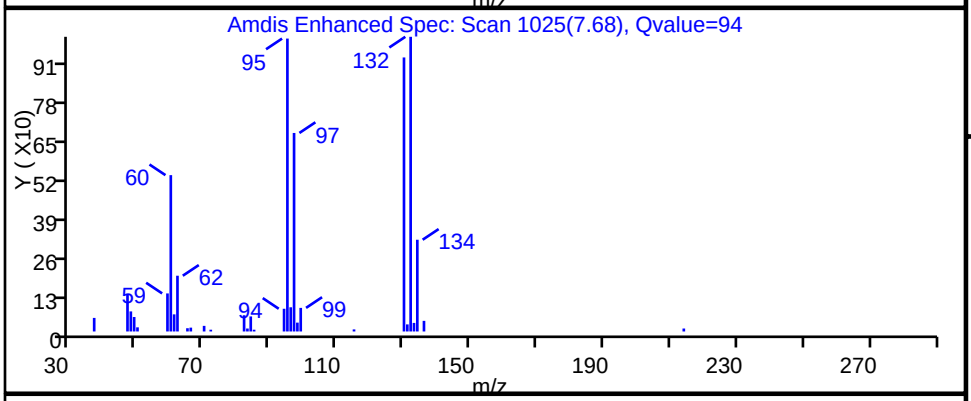
TestAmerica Pittsburgh

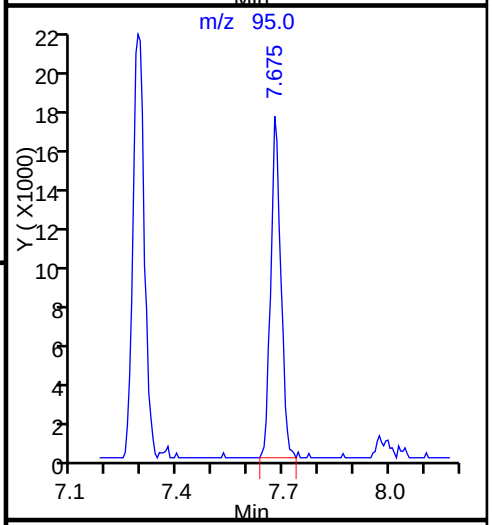
Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530011.D				
Injection Date:	31-May-2015 12:49:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-D-24	Lab Sample ID:	180-44321-24		
Client ID:	HD-MW-95-0/1-0				
Operator ID:	034635	ALS Bottle#:	2	Worklist Smp#:	11
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

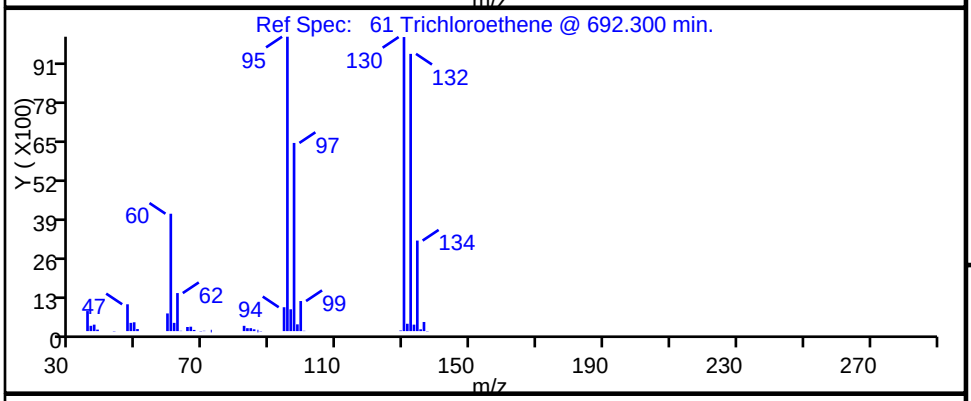
61 Trichloroethene, CAS: 79-01-6

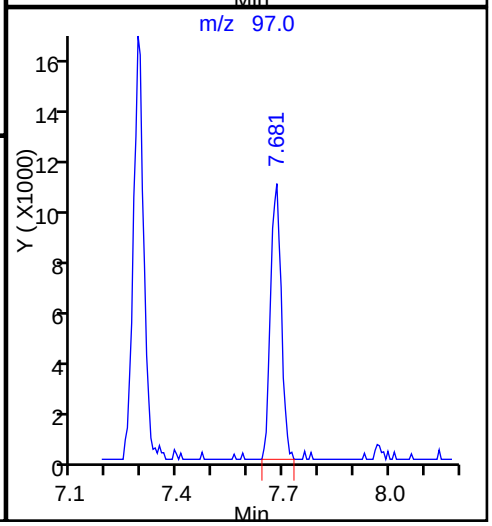


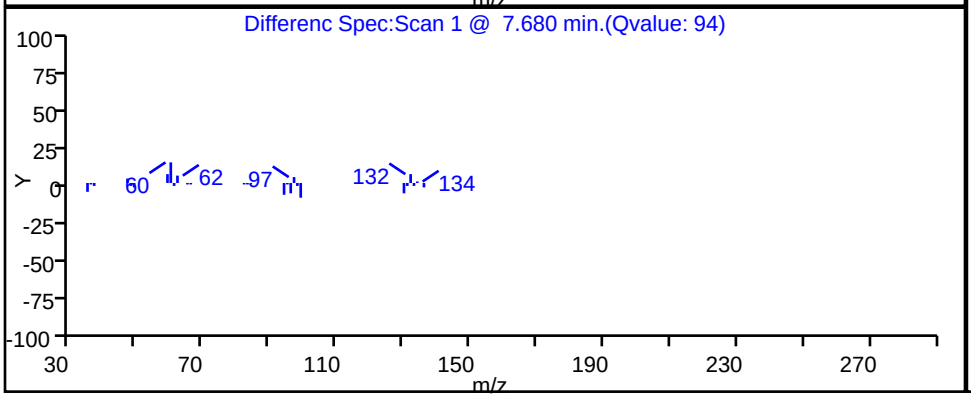










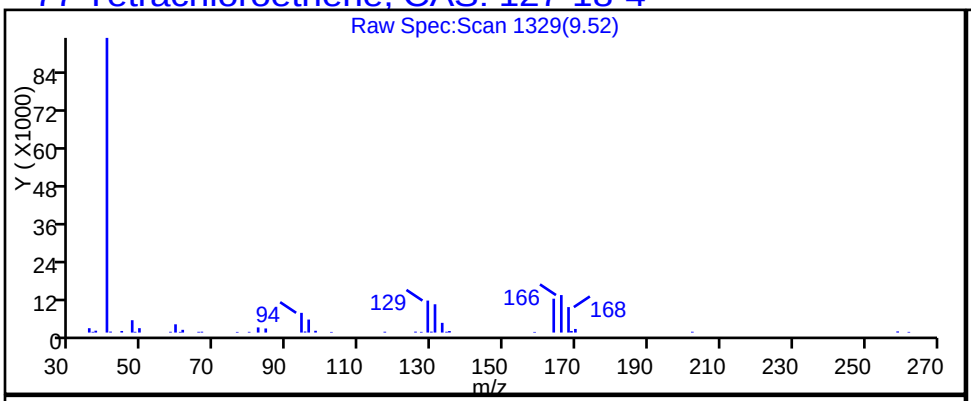


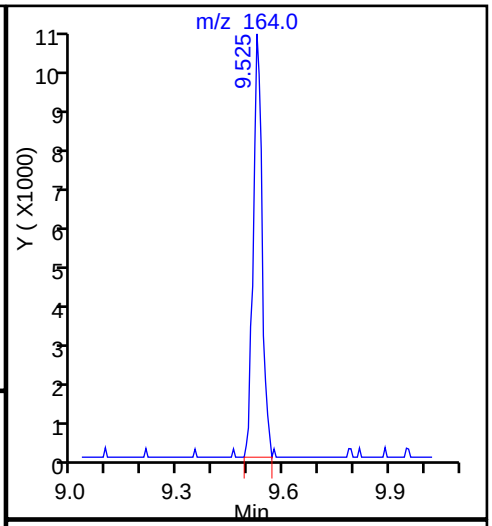
Report Date: 31-May-2015 16:21:08 Chrom Revision: 2.2 05-May-2015 11:39:10

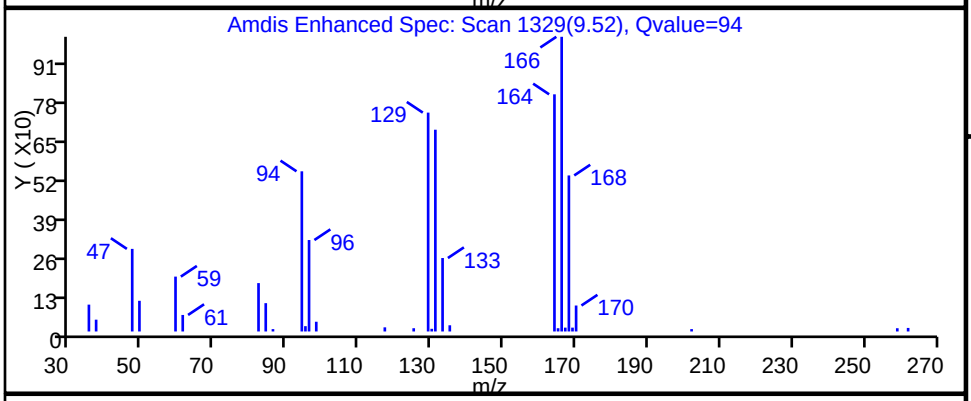
TestAmerica Pittsburgh

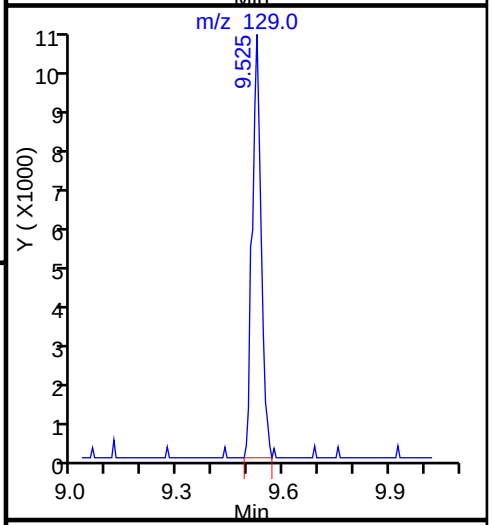
Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530011.D		
Injection Date:	31-May-2015 12:49:30	Instrument ID:	CHHP6
Lims ID:	180-44321-D-24	Lab Sample ID:	180-44321-24
Client ID:	HD-MW-95-0/1-0		
Operator ID:	034635	ALS Bottle#:	2 Worklist Smp#: 11
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

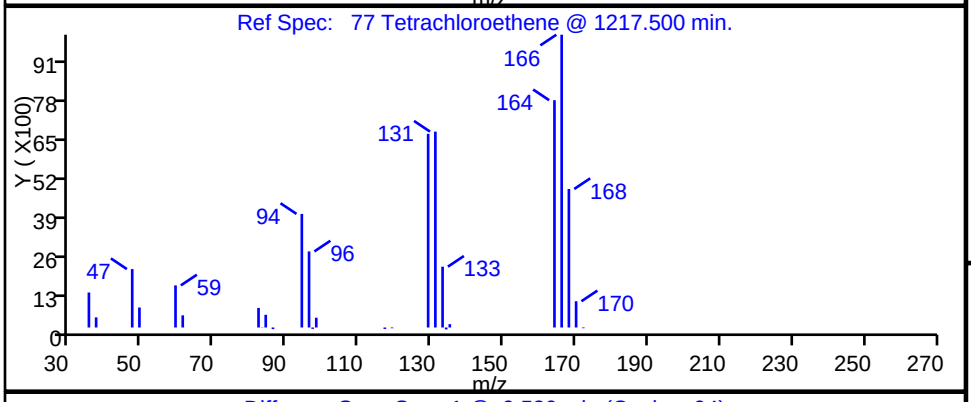
77 Tetrachloroethene, CAS: 127-18-4

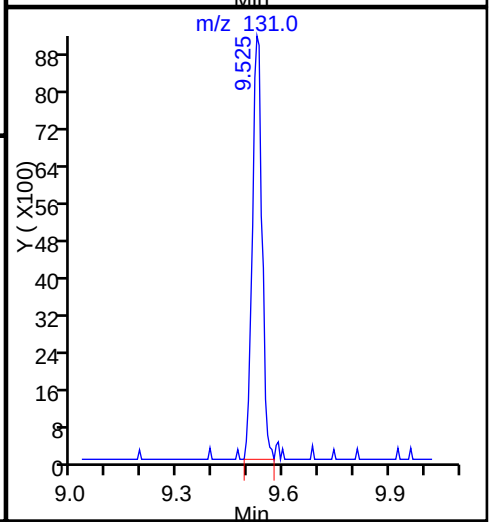


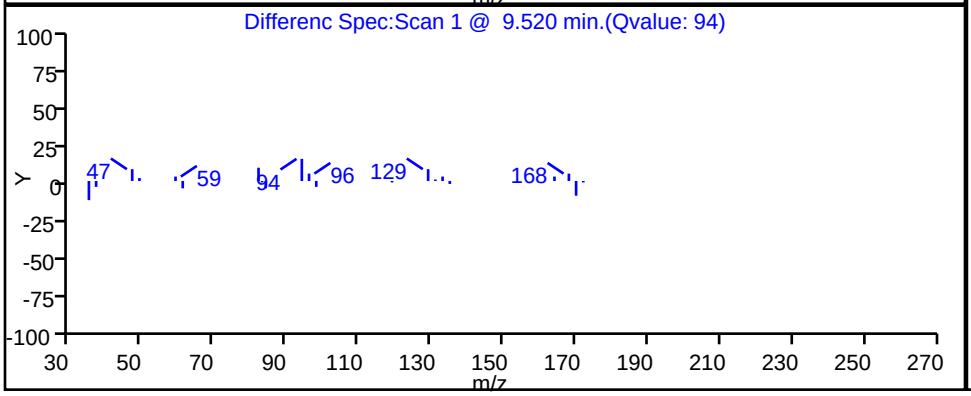












Manual Integration/User Assign Peak Report

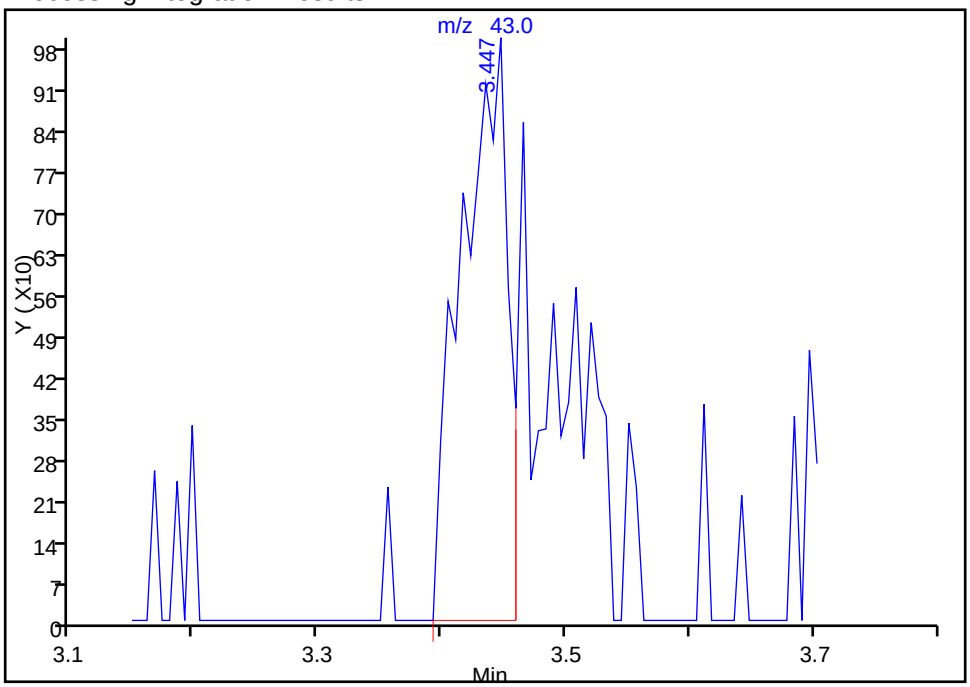
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530011.D				
Injection Date:	31-May-2015 12:49:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-D-24	Lab Sample ID:	180-44321-24		
Client ID:	HD-MW-95-0/1-0				
Operator ID:	034635	ALS Bottle#:	2	Worklist Smp#:	11
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

24 Acetone, CAS: 67-64-1

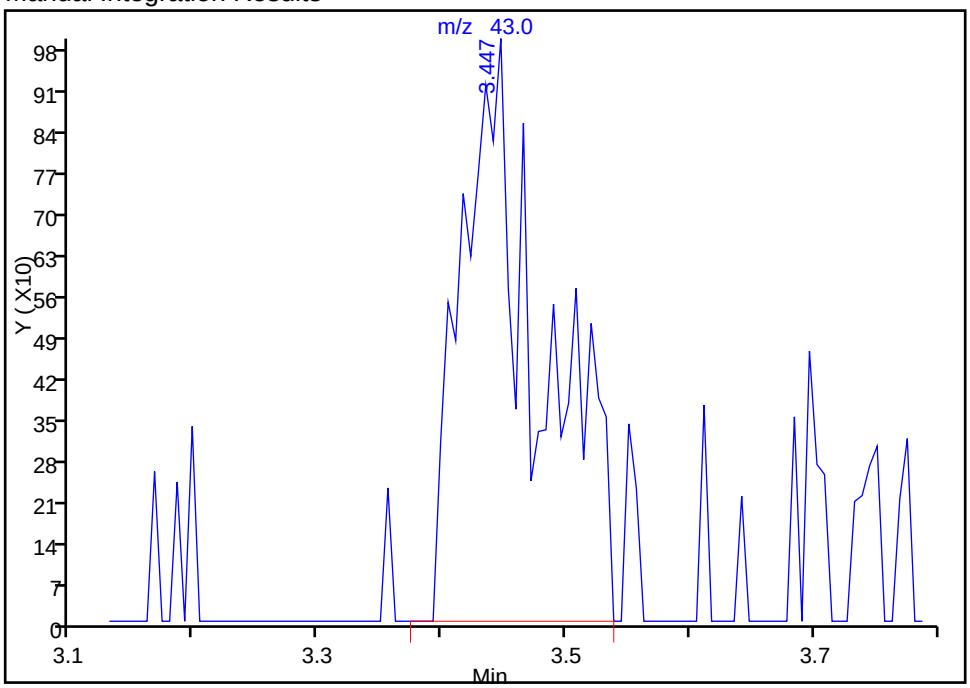
Processing Integration Results

RT: 3.45
Area: 2586
Amount: 3.841830
Amount Units: ng



Manual Integration Results

RT: 3.45
Area: 4425
Amount: 6.573897
Amount Units: ng



Reviewer: journetp, 31-May-2015 15:58:45
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-MW-96S-0/1-0 | Lab Sample ID: 180-44321-25

Matrix: Water | Lab File ID: 7060118.D

Analysis Method: 8260C | Date Collected: 05/20/2015 11:30

Sample wt/vol: 20(mL) | Date Analyzed: 06/01/2015 18:08

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 143422 | 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	0.38	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	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	1.3		1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	*Trichloroethene*	*28*		*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*	*NQ*		*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.: 180-44321-1

SDG No.:

Client Sample ID: HD-MW-96S-0/1-0 Lab Sample ID: 180-44321-25

Matrix: Water Lab File ID: 7060118.D

Analysis Method: 8260C Date Collected: 05/20/2015 11:30

Sample wt/vol: 20(mL) Date Analyzed: 06/01/2015 18:08

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143422 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)	87		64-135
2037-26-5	Toluene-d8 (Surr)	114		71-118
460-00-4	4-Bromofluorobenzene (Surr)	101		70-118
1868-53-7	Dibromofluoromethane (Surr)	97		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060118.D
Lims ID: 180-44321-E-25 Lab Sample ID: 180-44321-25
Client ID: HD-MW-96S-0/1-0
Sample Type: Client
Inject. Date: 01-Jun-2015 18:08:30 ALS Bottle#: 16 Worklist Smp#: 18
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 180-44321-E-25
Misc. Info.: 180-0007205-018
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 02-Jun-2015 09:47:03 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK014

First Level Reviewer: journetp Date: 02-Jun-2015 09:43:12

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.556	4.666	-0.110	94	285038	4000.0	
* 2 Fluorobenzene (IS)	96	7.416	7.404	0.012	99	1176386	200.0	
* 3 Chlorobenzene-d5	119	10.470	10.470	0.000	84	289624	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.787	12.787	0.000	96	316950	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.692	6.680	0.012	92	364103	194.0	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.051	7.038	0.013	94	310312	173.5	
$ 7 Toluene-d8 (Surr)	98	9.040	9.034	0.006	93	980358	228.2	
$ 8 4-Bromofluorobenzene (Surr	95	11.632	11.632	0.000	91	386158	201.0	
12 Chloromethane	50		2.032				ND	
13 Vinyl chloride	62		2.245				ND	
15 Bromomethane	94		2.518				ND	
16 Chloroethane	64		2.646				ND	
22 1,1-Dichloroethene	96	3.668	3.583	0.085	1	11850	7.50	M
24 Acetone	43		3.796				ND	
26 Carbon disulfide	76		3.881				ND	
31 Methylene Chloride	84		4.380				ND	
34 trans-1,2-Dichloroethene	96		4.763				ND	
33 Acrylonitrile	53		4.794				ND	
35 Methyl tert-butyl ether	73		4.854				ND	
37 1,1-Dichloroethane	63		5.359				ND	
45 cis-1,2-Dichloroethene	96	6.120	6.102	0.018	79	520867	267.8	
46 2-Butanone (MEK)	43		6.175				ND	
49 Chlorobromomethane	128		6.381				ND	
52 Chloroform	83		6.497				ND	
53 1,1,1-Trichloroethane	97	6.698	6.680	0.018	78	77049	26.2	
56 Carbon tetrachloride	117		6.868				ND	
58 Benzene	78		7.099				ND	
59 1,2-Dichloroethane	62		7.124				ND	
64 Trichloroethene	130	7.805	7.793	0.012	92	1278845	551.0	
67 1,2-Dichloropropane	63		8.140				ND	
70 1,4-Dioxane	88		8.188				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.316				ND	
74 cis-1,3-Dichloropropene	75		8.766				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.937				ND	
76 Toluene	91		9.101				ND	
77 trans-1,3-Dichloropropene	75		9.320				ND	
79 1,1,2-Trichloroethane	97		9.502				ND	
80 Tetrachloroethene	164	9.654	9.642	0.012	90	1872745		NQ
82 2-Hexanone	43		9.758				ND	
84 Chlorodibromomethane	129		9.898				ND	
85 Ethylene Dibromide	107		10.007				ND	
87 Chlorobenzene	112		10.500				ND	
89 1,1,1,2-Tetrachloroethane	131		10.573				ND	
90 Ethylbenzene	106		10.603				ND	
91 m-Xylene & p-Xylene	106		10.719				ND	
92 o-Xylene	106		11.108				ND	
93 Styrene	104		11.127				ND	
94 Bromoform	173		11.315				ND	
99 1,1,2,2-Tetrachloroethane	83		11.771				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Processing Flags

NQ - Not Quantifiable

Review Flags

M - Manually Integrated

Reagents:

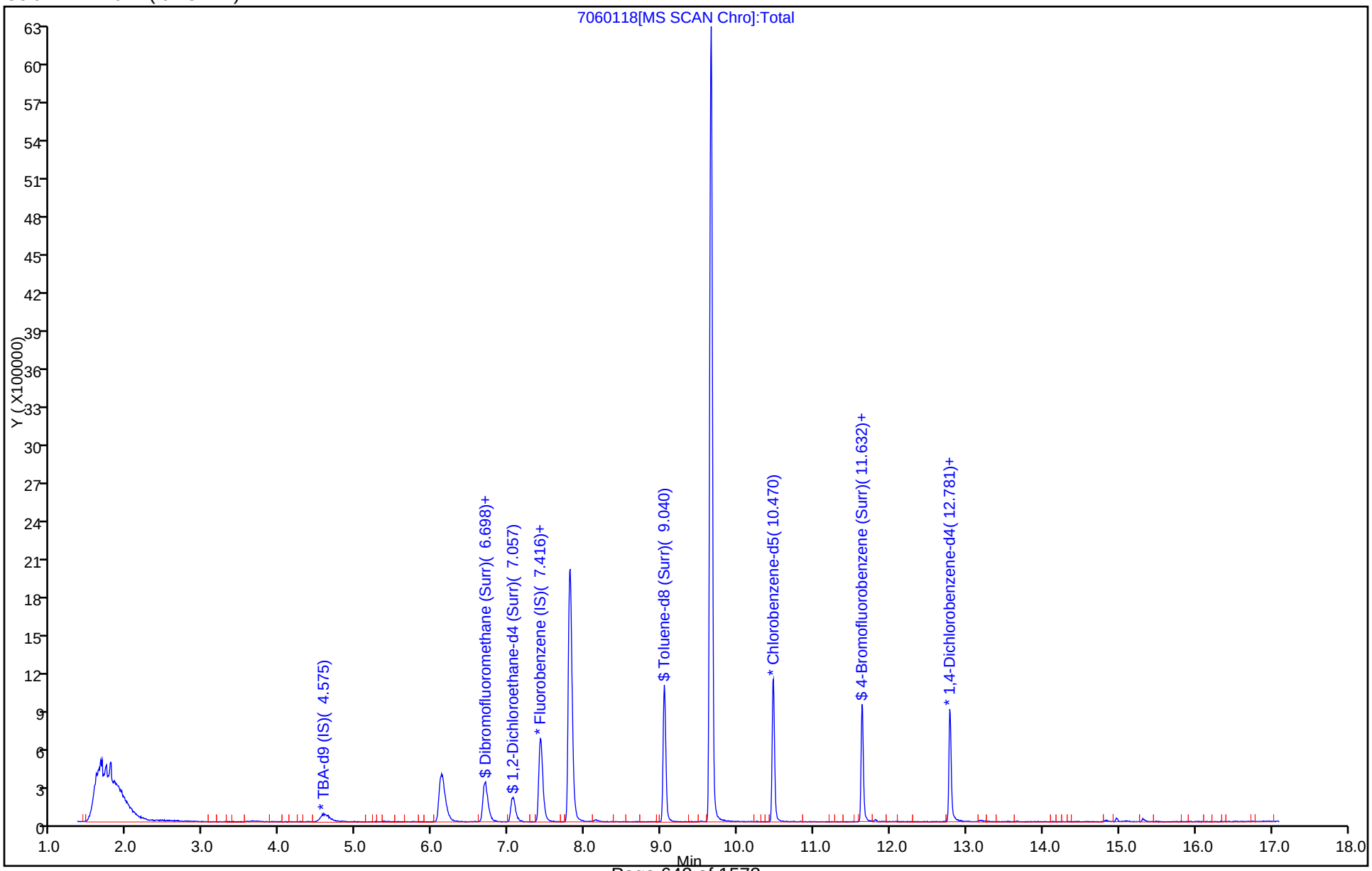
VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

Report Date: 02-Jun-2015 09:51:56 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060118.D				
Injection Date:	01-Jun-2015 18:08:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-44321-E-25	Lab Sample ID:	180-44321-25	Worklist Smp#:	18
Client ID:	HD-MW-96S-0/1-0				
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060118.D
Lims ID: 180-44321-E-25 Lab Sample ID: 180-44321-25
Client ID: HD-MW-96S-0/1-0
Sample Type: Client
Inject. Date: 01-Jun-2015 18:08:30 ALS Bottle#: 16 Worklist Smp#: 18
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 180-44321-E-25
Misc. Info.: 180-0007205-018
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 02-Jun-2015 09:47:03 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK014

First Level Reviewer: journetp Date: 02-Jun-2015 09:43:12

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	200.0	194.0	97.02
$ 6 1,2-Dichloroethane-d4 (Surr)	200.0	173.5	86.73
$ 7 Toluene-d8 (Surr)	200.0	228.2	114.11
$ 8 4-Bromofluorobenzene (Surr)	200.0	201.0	100.52

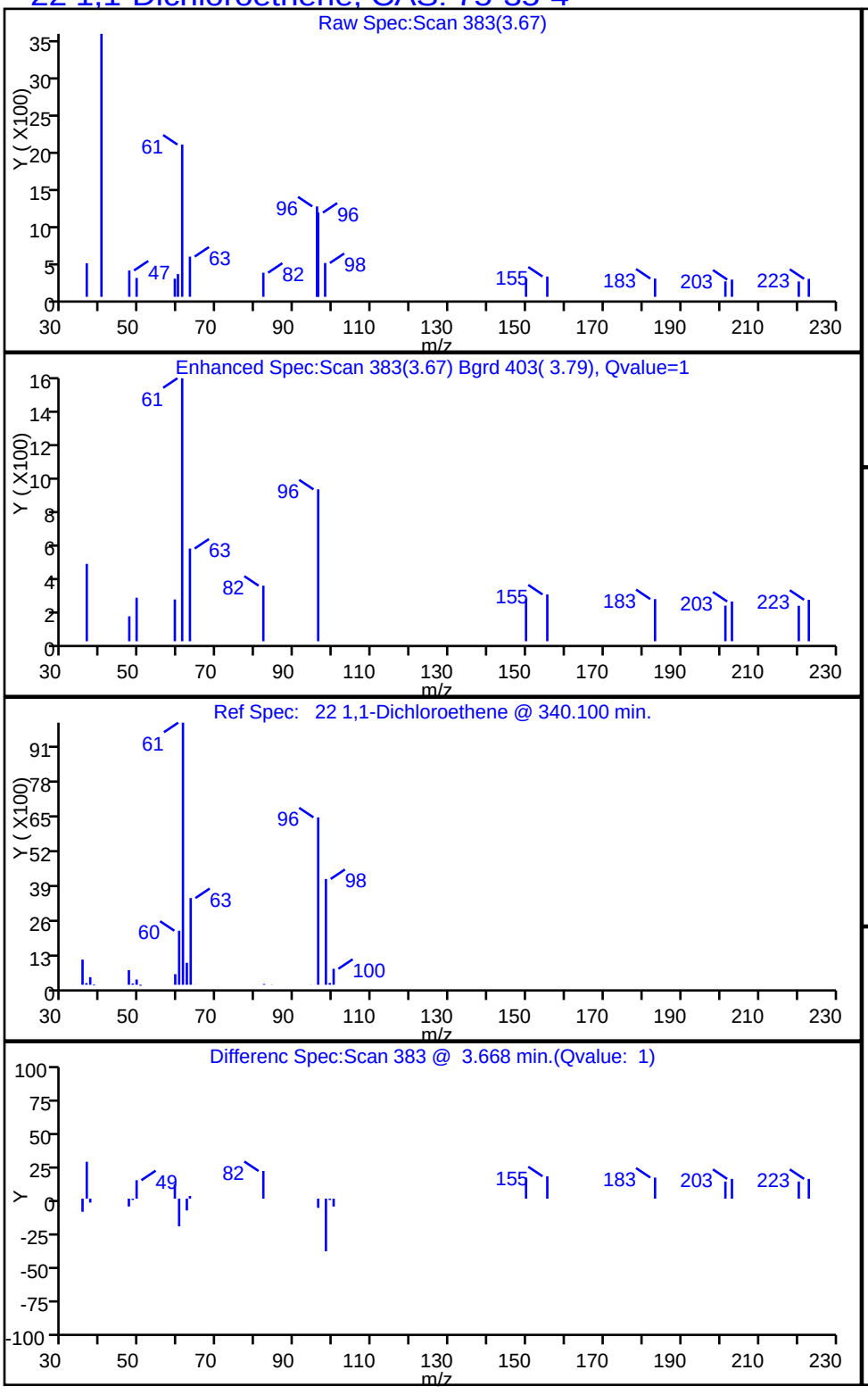
Report Date: 02-Jun-2015 09:51:56 Chrom Revision: 2.2 05-May-2015 11:39:10

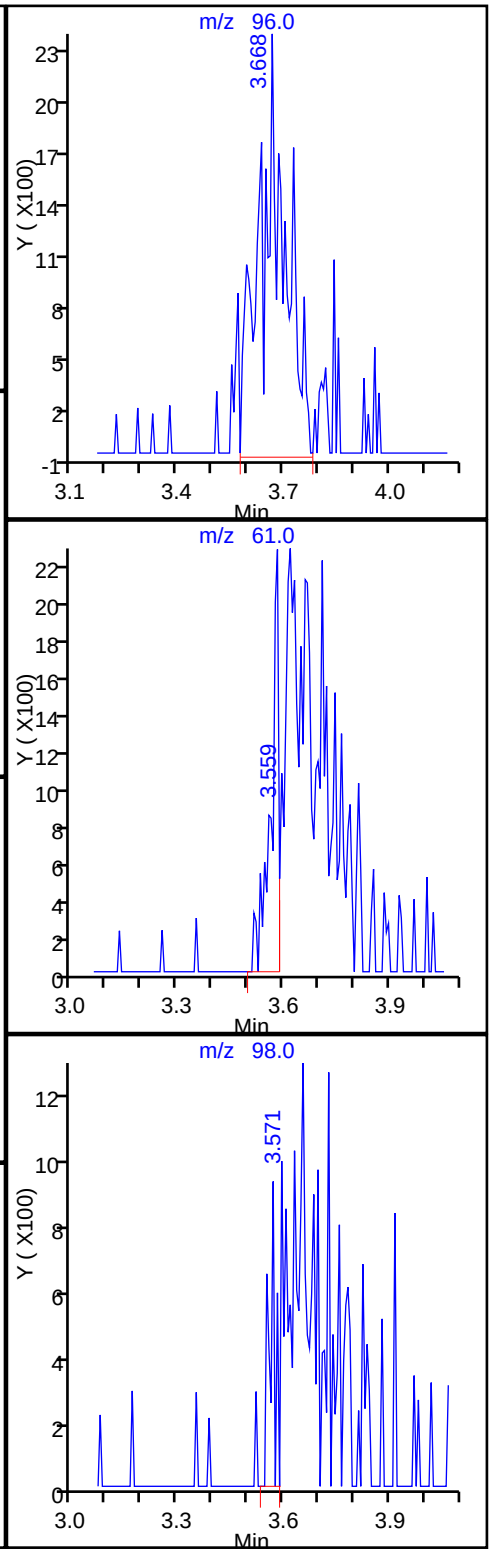
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060118.D

Injection Date:	01-Jun-2015 18:08:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-E-25	Lab Sample ID:	180-44321-25		
Client ID:	HD-MW-96S-0/1-0				
Operator ID:	034635	ALS Bottle#:	16	Worklist Smp#:	18
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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



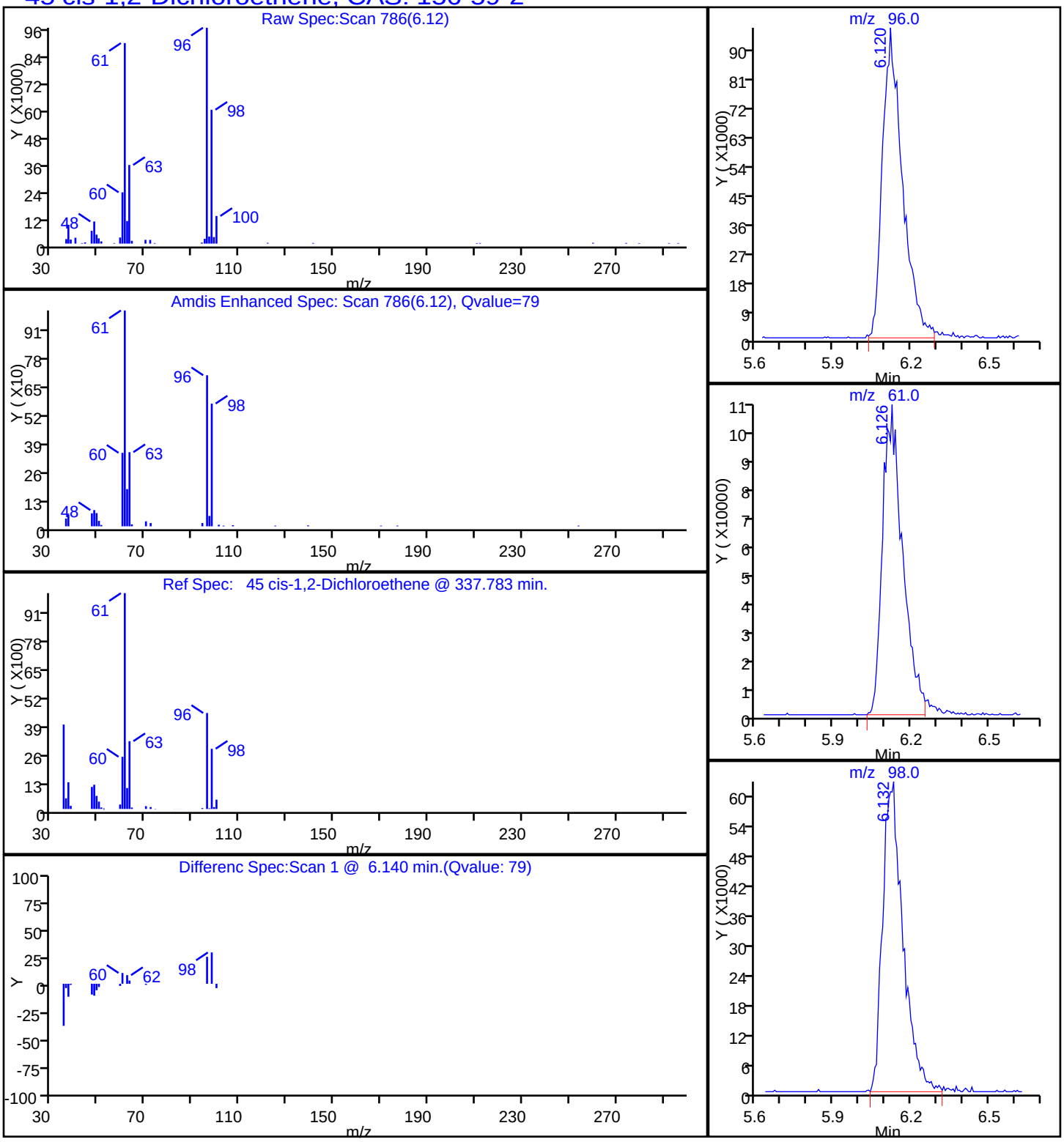


Report Date: 02-Jun-2015 09:51:57 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060118.D				
Injection Date:	01-Jun-2015 18:08:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-E-25	Lab Sample ID:	180-44321-25		
Client ID:	HD-MW-96S-0/1-0				
Operator ID:	034635	ALS Bottle#:	16	Worklist Smp#:	18
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

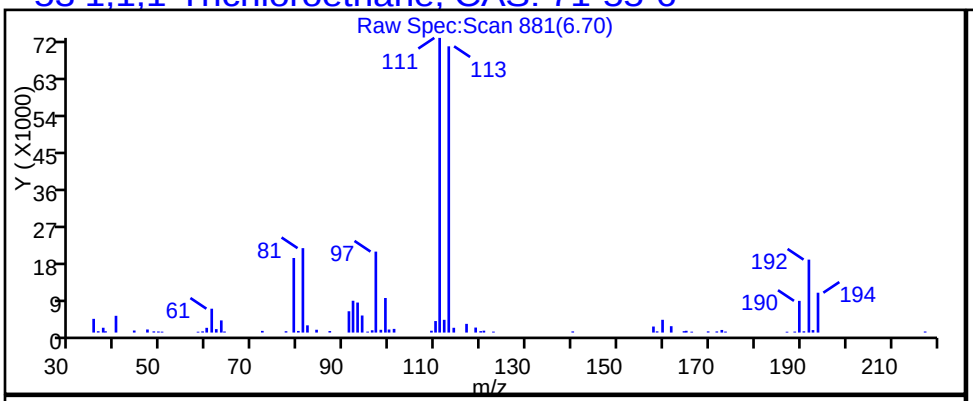


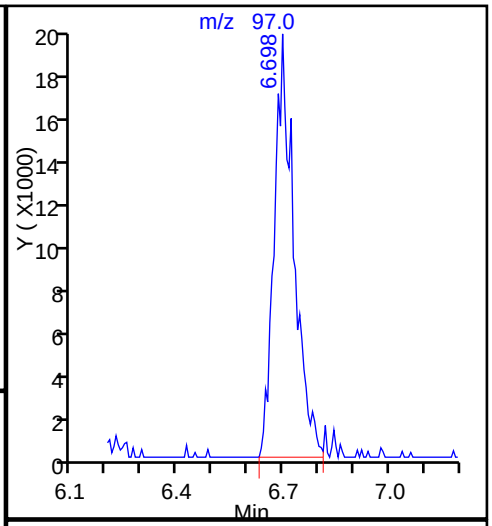
Report Date: 02-Jun-2015 09:51:57 Chrom Revision: 2.2 05-May-2015 11:39:10

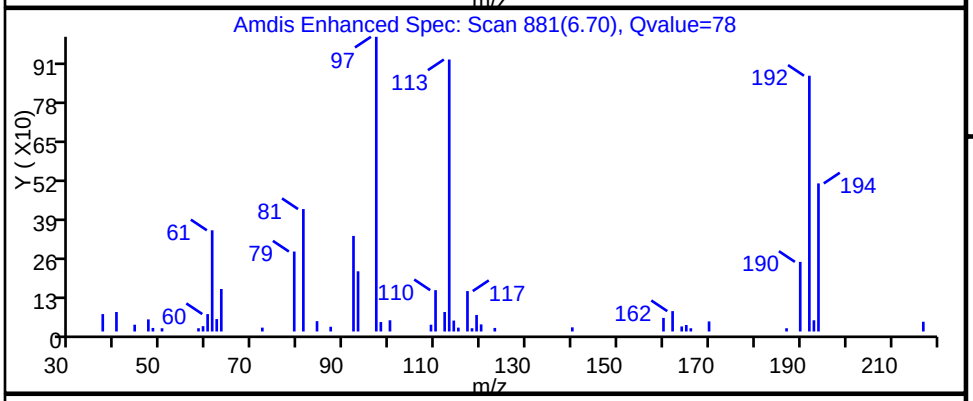
TestAmerica Pittsburgh

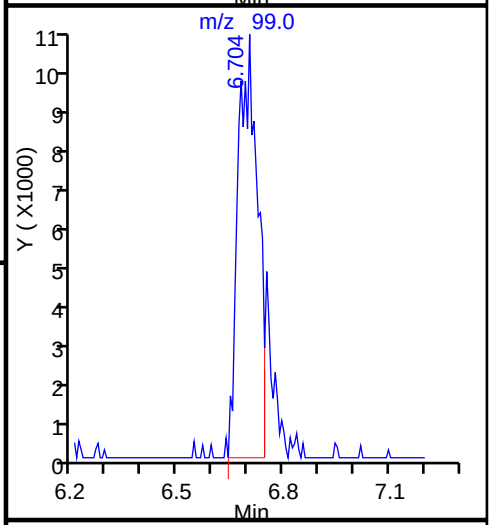
Data File:	\\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060118.D				
Injection Date:	01-Jun-2015 18:08:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-E-25	Lab Sample ID:	180-44321-25		
Client ID:	HD-MW-96S-0/1-0				
Operator ID:	034635	ALS Bottle#:	16	Worklist Smp#:	18
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

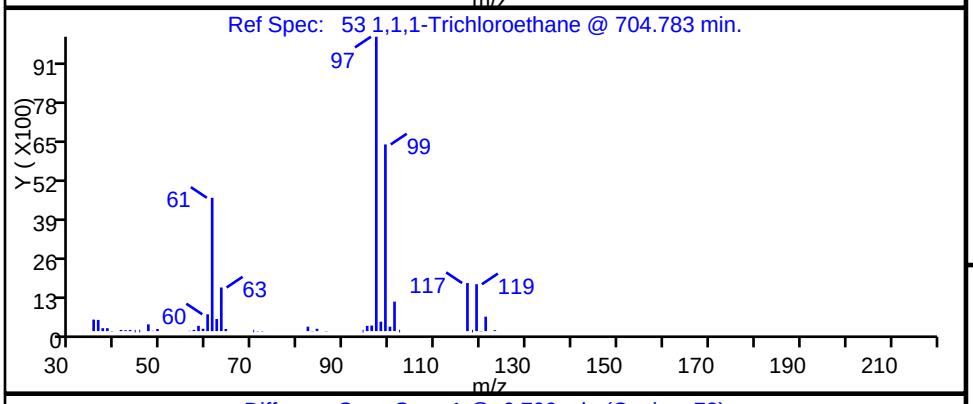
53 1,1,1-Trichloroethane, CAS: 71-55-6

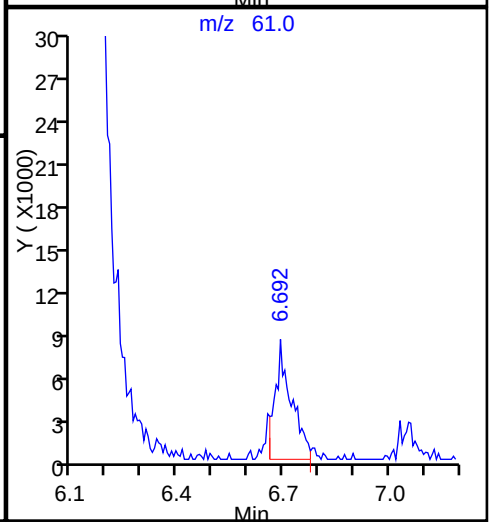


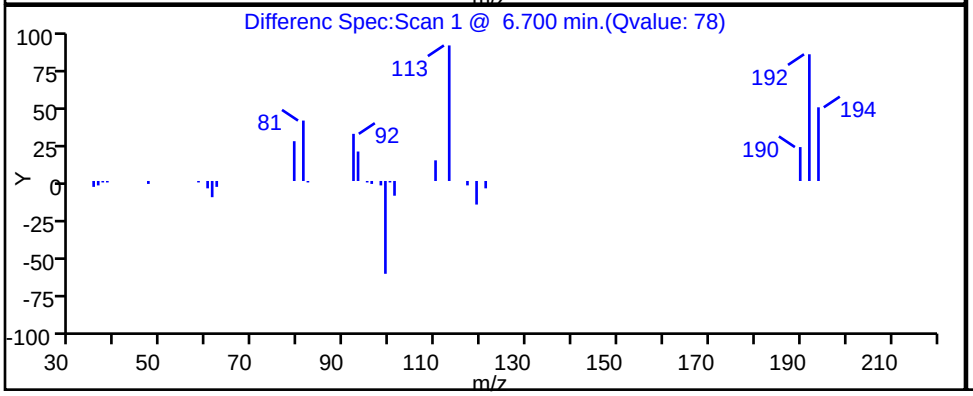












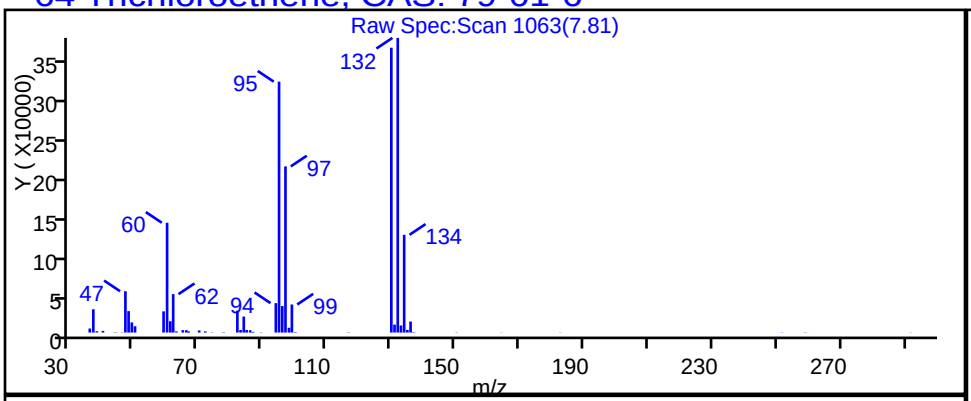
Report Date: 02-Jun-2015 09:51:57 Chrom Revision: 2.2 05-May-2015 11:39:10

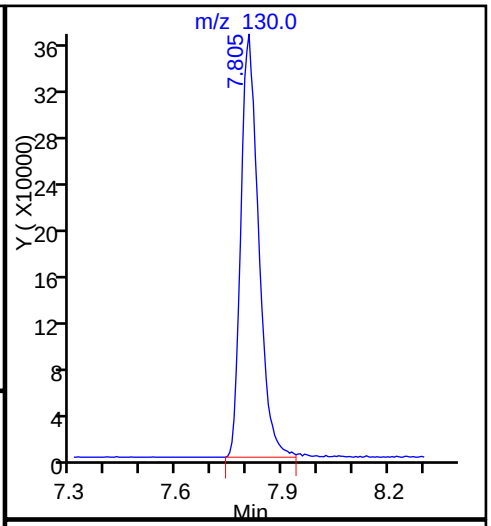
TestAmerica Pittsburgh

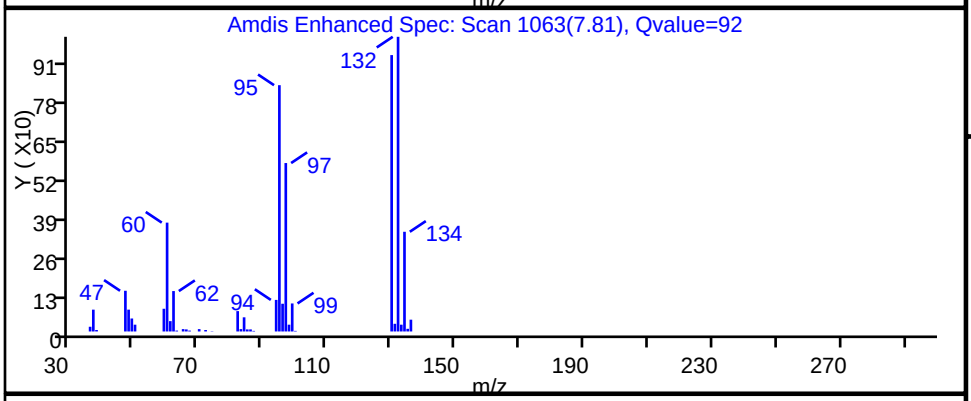
Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060118.D

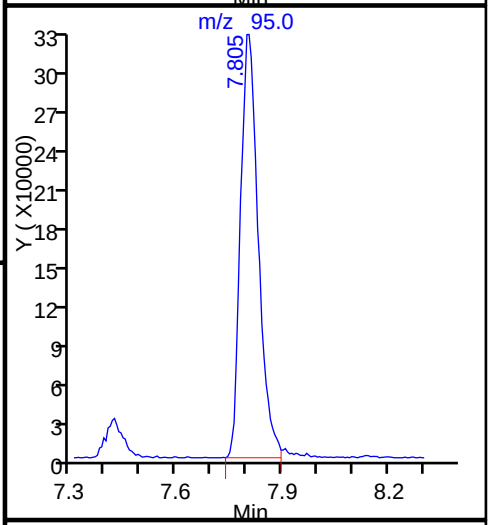
Injection Date:	01-Jun-2015 18:08:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-E-25	Lab Sample ID:	180-44321-25		
Client ID:	HD-MW-96S-0/1-0				
Operator ID:	034635	ALS Bottle#:	16	Worklist Smp#:	18
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

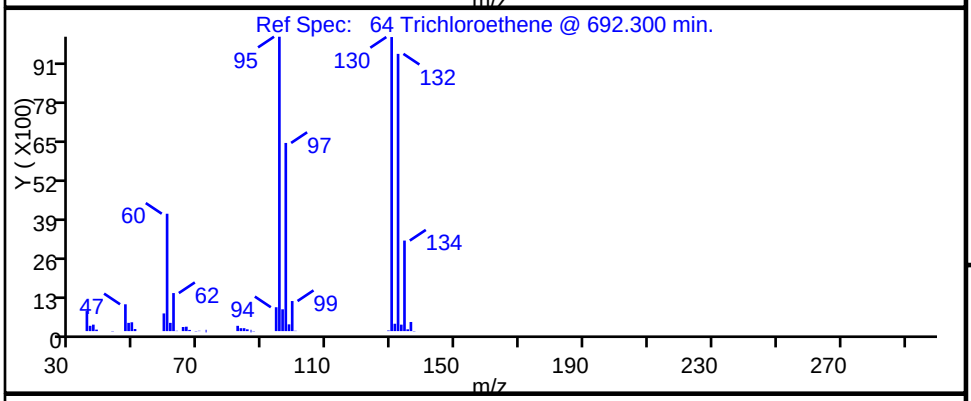
64 Trichloroethene, CAS: 79-01-6

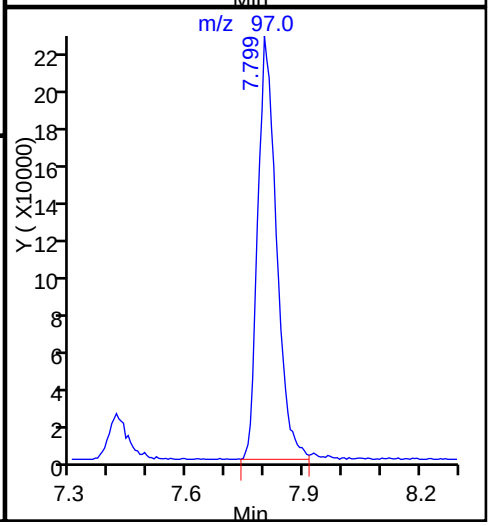


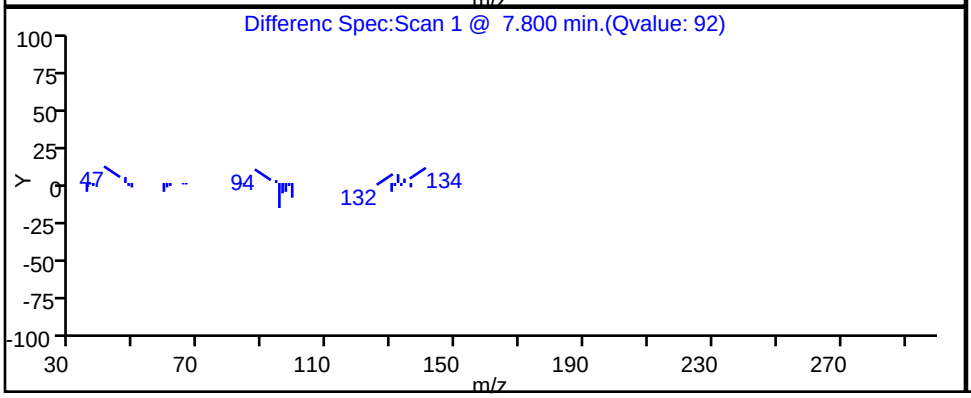












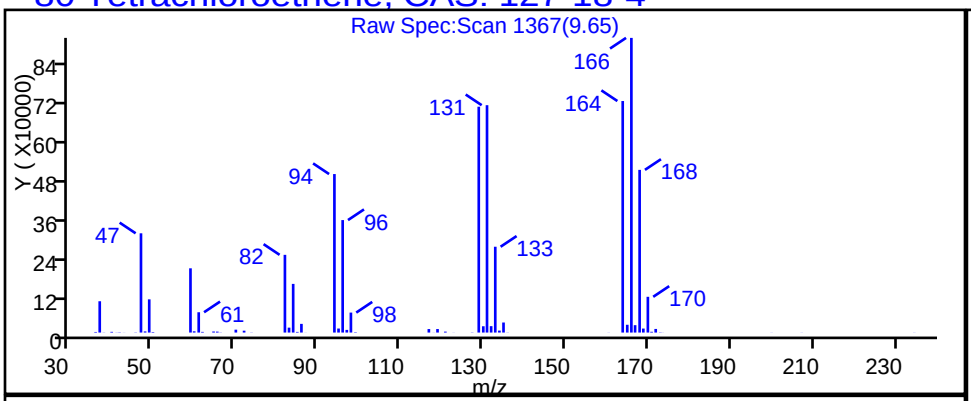
Report Date: 02-Jun-2015 09:51:57 Chrom Revision: 2.2 05-May-2015 11:39:10

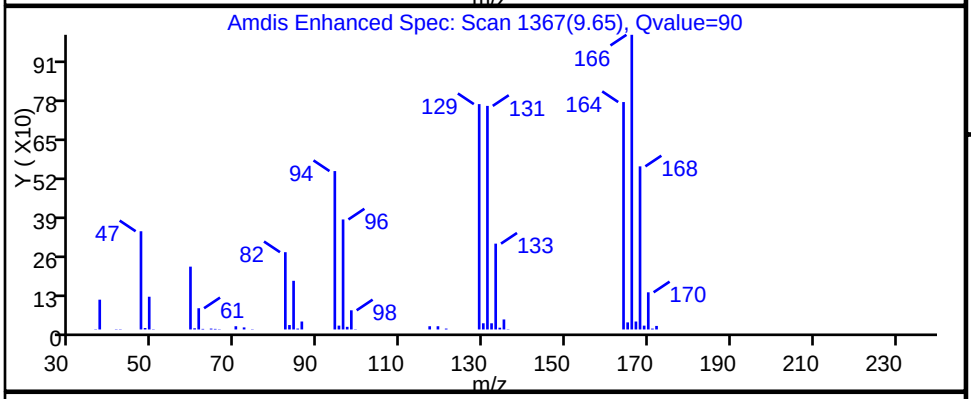
TestAmerica Pittsburgh

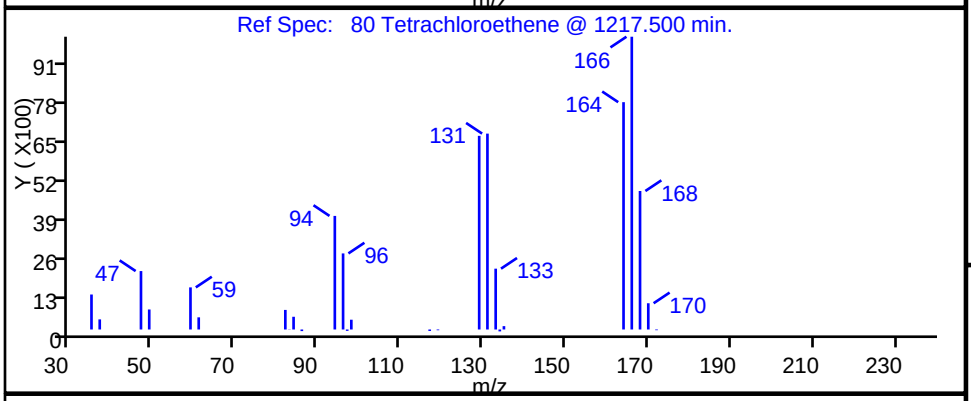
Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060118.D

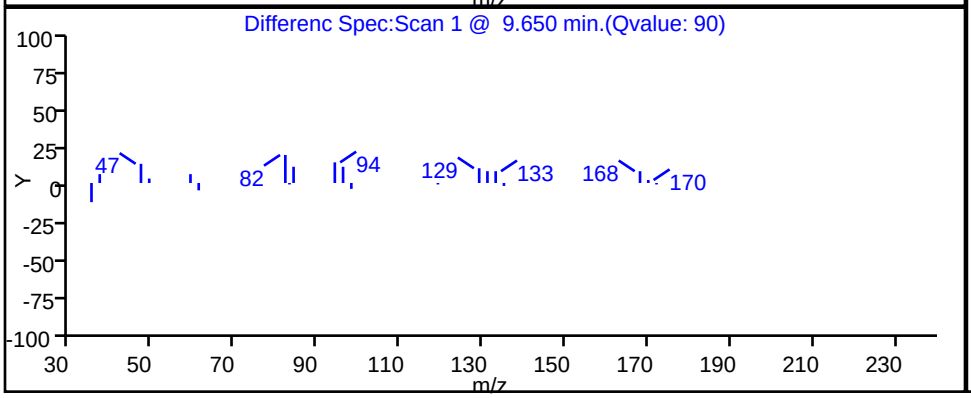
Injection Date:	01-Jun-2015 18:08:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-E-25	Lab Sample ID:	180-44321-25		
Client ID:	HD-MW-96S-0/1-0				
Operator ID:	034635	ALS Bottle#:	16	Worklist Smp#:	18
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

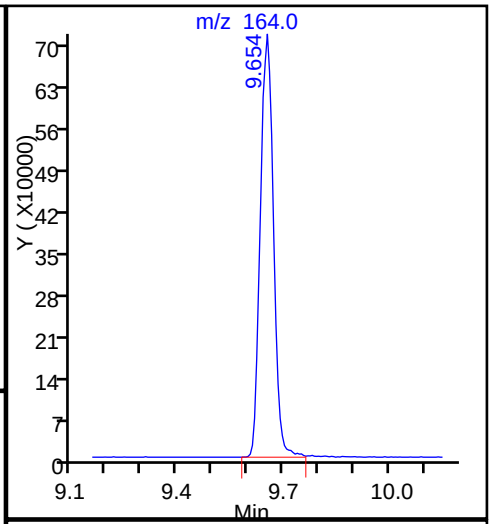
80 Tetrachloroethene, CAS: 127-18-4

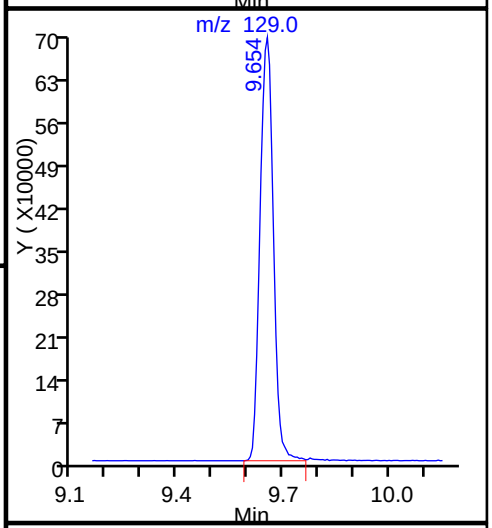


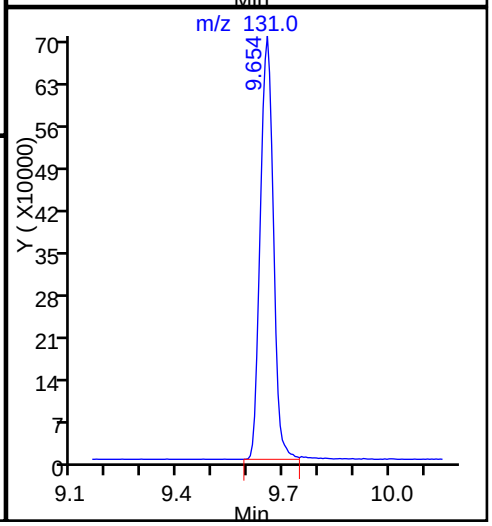












Manual Integration/User Assign Peak Report

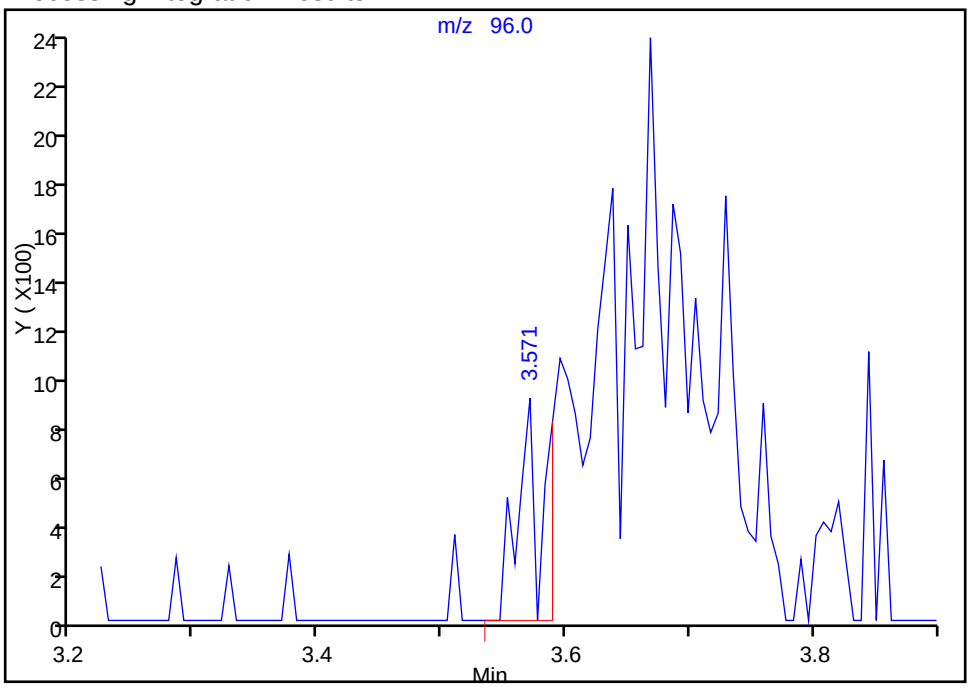
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060118.D				
Injection Date:	01-Jun-2015 18:08:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-E-25	Lab Sample ID:	180-44321-25		
Client ID:	HD-MW-96S-0/1-0				
Operator ID:	034635	ALS Bottle#:	16	Worklist Smp#:	18
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

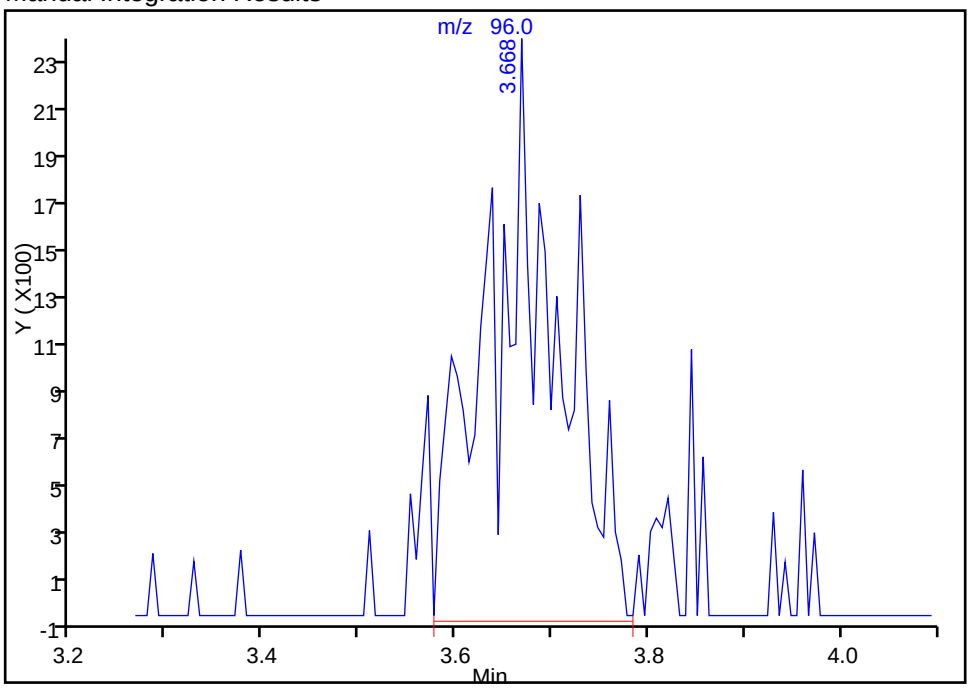
Processing Integration Results

RT: 3.57
Area: 1291
Amount: 0.817356
Amount Units: ng



Manual Integration Results

RT: 3.67
Area: 11850
Amount: 7.502458
Amount Units: ng



Reviewer: journetp, 02-Jun-2015 09:43:12
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-MW-96S-0/1-0 DL | Lab Sample ID: 180-44321-25 DL

Matrix: Water | Lab File ID: 60530028.D

Analysis Method: 8260C | Date Collected: 05/20/2015 11:30

Sample wt/vol: 5(mL) | Date Analyzed: 05/31/2015 19:38

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.: 143337 | 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	10	U	10	3.0
67-64-1	Acetone	50	U	50	25
75-15-0	Carbon disulfide	10	U	10	2.1
75-09-2	Methylene Chloride	4.6	J B	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	10	U	10	1.2
156-59-2	cis-1,2-Dichloroethene	26		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	10	U	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	80		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	200		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.: 180-44321-1

SDG No.:

Client Sample ID: HD-MW-96S-0/1-0 DL Lab Sample ID: 180-44321-25 DL

Matrix: Water Lab File ID: 60530028.D

Analysis Method: 8260C Date Collected: 05/20/2015 11:30

Sample wt/vol: 5(mL) Date Analyzed: 05/31/2015 19:38

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.: 143337 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)	84		64-135
2037-26-5	Toluene-d8 (Surr)	77		71-118
460-00-4	4-Bromofluorobenzene (Surr)	101		70-118
1868-53-7	Dibromofluoromethane (Surr)	97		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530028.D
Lims ID: 180-44321-D-25 Lab Sample ID: 180-44321-25
Client ID: HD-MW-96S-0/1-0
Sample Type: Client
Inject. Date: 31-May-2015 19:38:30 ALS Bottle#: 25 Worklist Smp#: 28
Purge Vol: 5.000 mL Dil. Factor: 10.0000
Sample Info: 180-44321-D-25, x10
Misc. Info.: 180-0007190-028
Operator ID: 034635 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 08:39:58 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK048

First Level Reviewer: fergusond Date: 01-Jun-2015 08:39:58

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.238	4.236	0.002	88	137992	1000.0	
* 2 Fluorobenzene (IS)	96	7.292	7.284	0.008	99	552797	50.0	
* 3 Chlorobenzene-d5	119	10.395	10.393	0.002	90	127751	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.743	12.747	-0.004	97	199019	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.556	6.554	0.002	92	110818	48.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.933	6.925	0.008	70	159704	41.8	
$ 7 Toluene-d8 (Surr)	98	8.941	8.939	0.002	94	416740	38.6	
$ 8 4-Bromofluorobenzene (Surr	95	11.581	11.579	0.002	85	221714	50.3	
12 Chloromethane	50		1.760				ND	
13 Vinyl chloride	62		1.882				ND	
15 Bromomethane	94		2.229				ND	
16 Chloroethane	64		2.375				ND	
22 1,1-Dichloroethene	96		3.336				ND	
24 Acetone	43		3.421				ND	
26 Carbon disulfide	76		3.628				ND	
31 Methylene Chloride	84	4.123	4.115	0.008	85	7216	2.32	
33 Acrylonitrile	53		4.498				ND	
34 trans-1,2-Dichloroethene	96		4.553				ND	
35 Methyl tert-butyl ether	73		4.565				ND	
37 1,1-Dichloroethane	63		5.198				ND	
43 cis-1,2-Dichloroethene	96	5.948	5.940	0.008	81	42153	13.0	
44 2-Butanone (MEK)	43		5.940				ND	
48 Chlorobromomethane	128		6.226				ND	
50 Chloroform	83	6.368	6.366	0.002	16	1989	0.3841	
51 1,1,1-Trichloroethane	97	6.550	6.536	0.014	1	3572	0.8391	M
53 Carbon tetrachloride	117		6.712				ND	
56 Benzene	78		6.943				ND	
57 1,2-Dichloroethane	62		7.016				ND	
61 Trichloroethene	130	7.682	7.673	0.009	97	105549	40.1	
64 1,2-Dichloropropane	63		7.947				ND	
65 1,4-Dioxane	88		8.020				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.227				ND	
71 cis-1,3-Dichloropropene	75		8.677				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.823				ND	
73 Toluene	91		9.012				ND	
74 trans-1,3-Dichloropropene	75		9.255				ND	
76 1,1,2-Trichloroethane	97		9.450				ND	
77 Tetrachloroethene	164	9.525	9.523	0.002	95	220307	101.0	
79 2-Hexanone	43		9.657				ND	
81 Chlorodibromomethane	129		9.821				ND	
82 Ethylene Dibromide	107		9.937				ND	
84 Chlorobenzene	112		10.423				ND	
86 1,1,1,2-Tetrachloroethane	131		10.521				ND	
87 Ethylbenzene	106		10.527				ND	
88 m-Xylene & p-Xylene	106		10.654				ND	
89 o-Xylene	106		11.044				ND	
90 Styrene	104		11.062				ND	
91 Bromoform	173		11.244				ND	
96 1,1,2,2-Tetrachloroethane	83		11.713				ND	
S 131 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

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

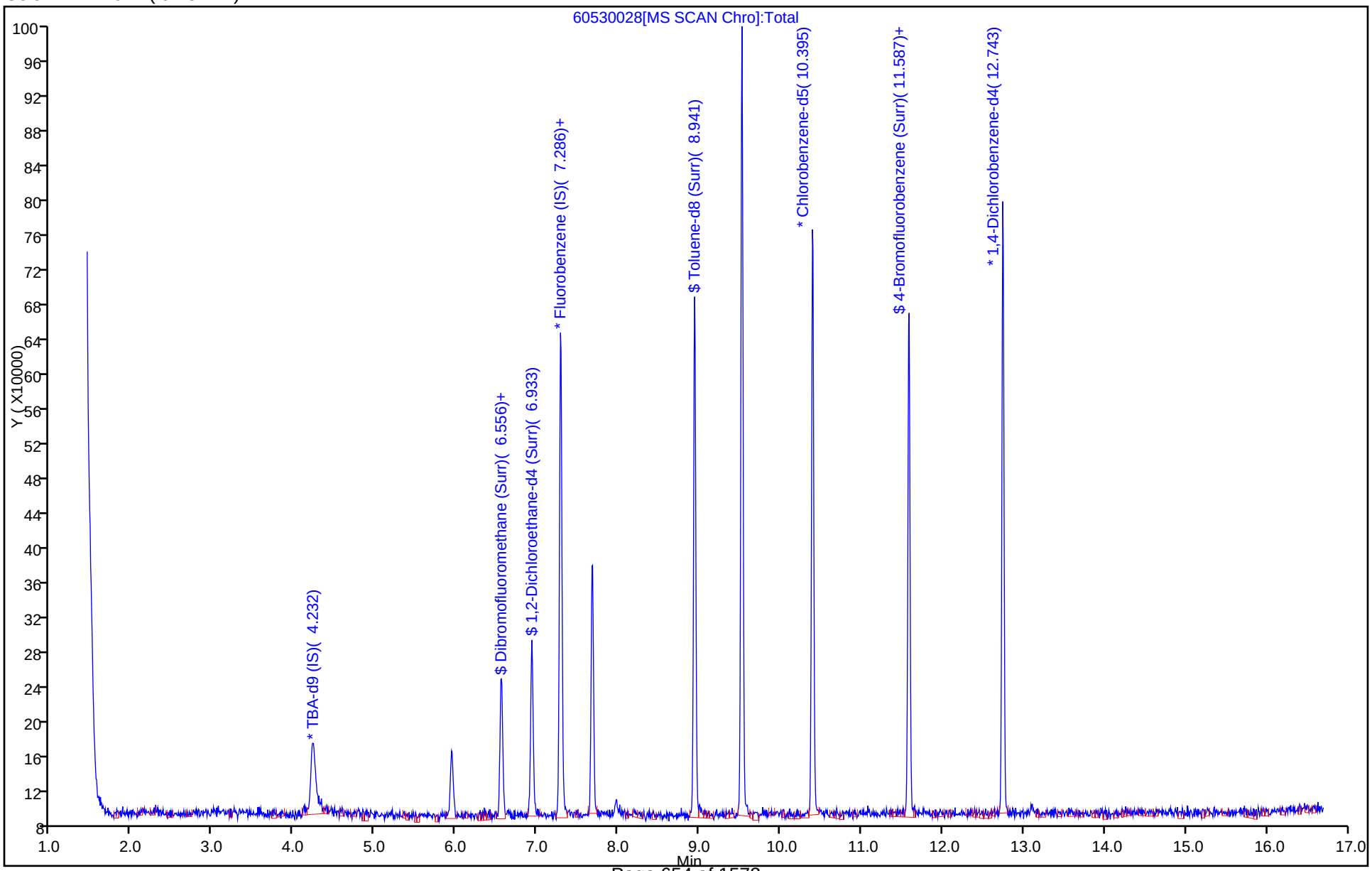
Report Date: 01-Jun-2015 08:39:59 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530028.D

Injection Date:	31-May-2015 19:38:30	Instrument ID:	CHHP6	Operator ID:	034635
Lims ID:	180-44321-D-25	Lab Sample ID:	180-44321-25	Worklist Smp#:	28
Client ID:	HD-MW-96S-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	10.0000	ALS Bottle#:	25
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530028.D
Lims ID: 180-44321-D-25 Lab Sample ID: 180-44321-25
Client ID: HD-MW-96S-0/1-0
Sample Type: Client
Inject. Date: 31-May-2015 19:38:30 ALS Bottle#: 25 Worklist Smp#: 28
Purge Vol: 5.000 mL Dil. Factor: 10.0000
Sample Info: 180-44321-D-25, x10
Misc. Info.: 180-0007190-028
Operator ID: 034635 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 08:39:58 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK048

First Level Reviewer: fergusond Date: 01-Jun-2015 08:39:58

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	48.5	96.90
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	41.8	83.58
$ 7 Toluene-d8 (Surr)	50.0	38.6	77.11
$ 8 4-Bromofluorobenzene (Surr)	50.0	50.3	100.64

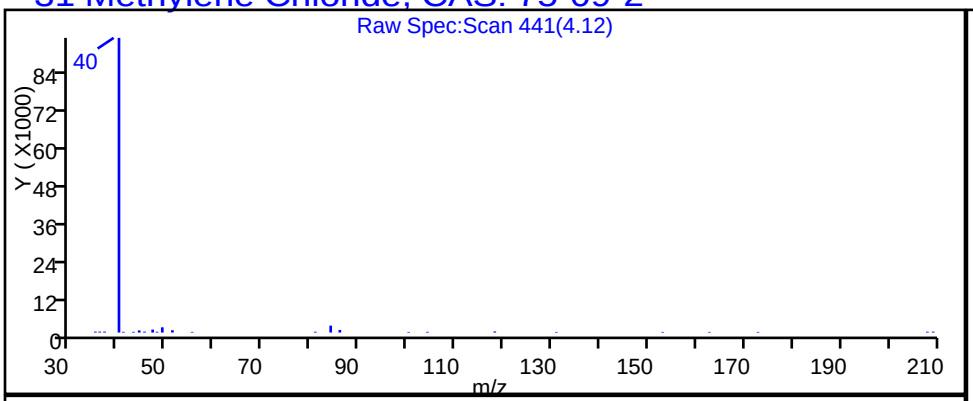
Report Date: 01-Jun-2015 08:39:59 Chrom Revision: 2.2 05-May-2015 11:39:10

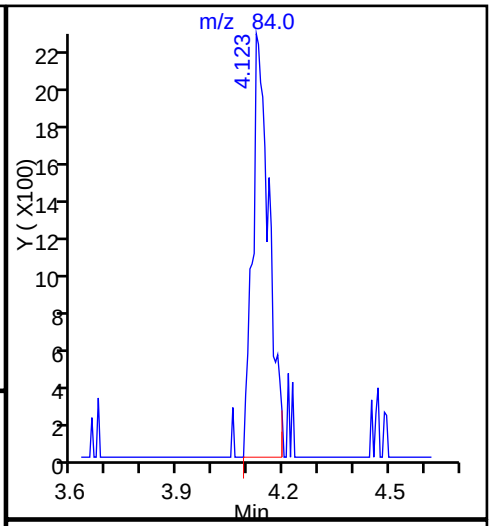
TestAmerica Pittsburgh

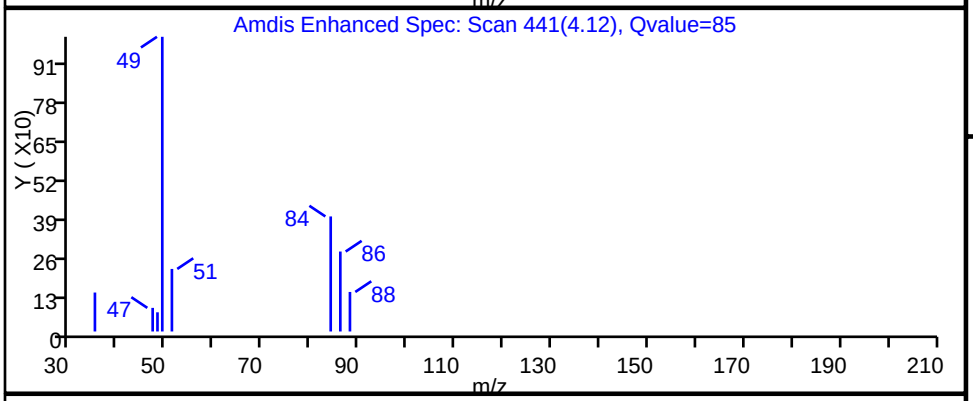
Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530028.D

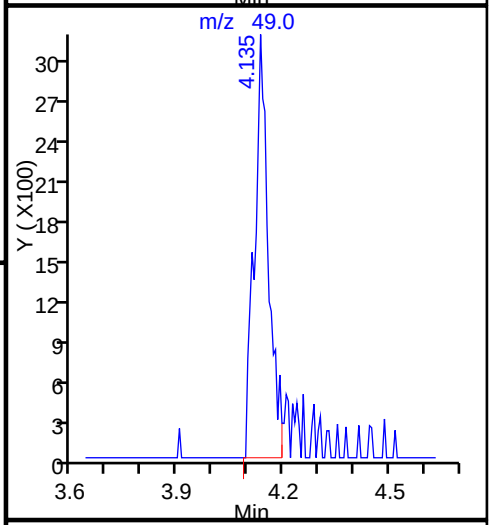
Injection Date:	31-May-2015 19:38:30	Instrument ID:	CHHP6
Lims ID:	180-44321-D-25	Lab Sample ID:	180-44321-25
Client ID:	HD-MW-96S-0/1-0		
Operator ID:	034635	ALS Bottle#:	25 Worklist Smp#: 28
Purge Vol:	5.000 mL	Dil. Factor:	10.0000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

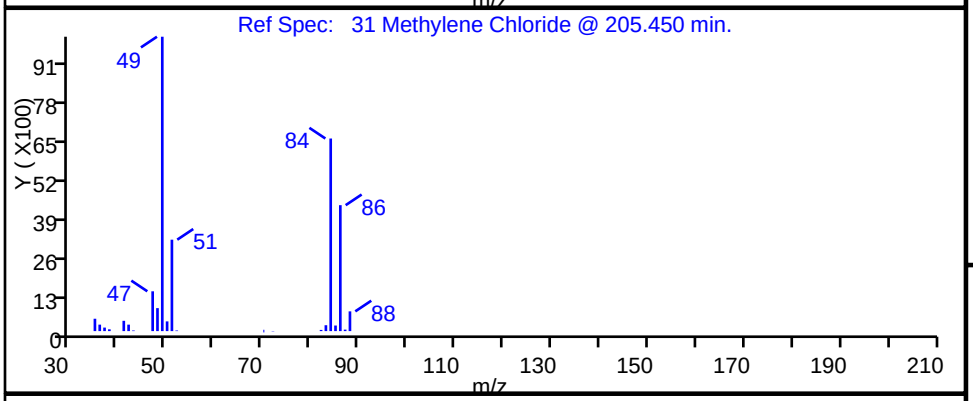
31 Methylene Chloride, CAS: 75-09-2

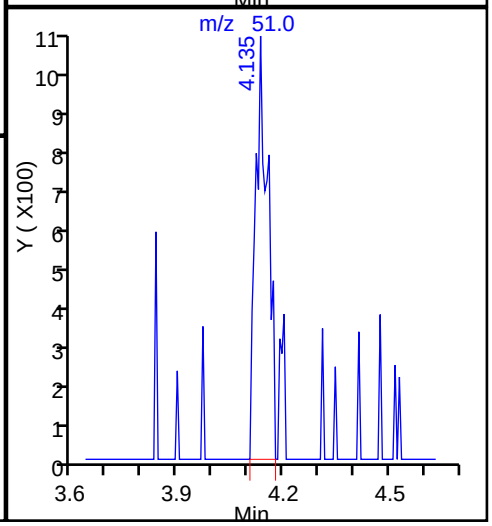


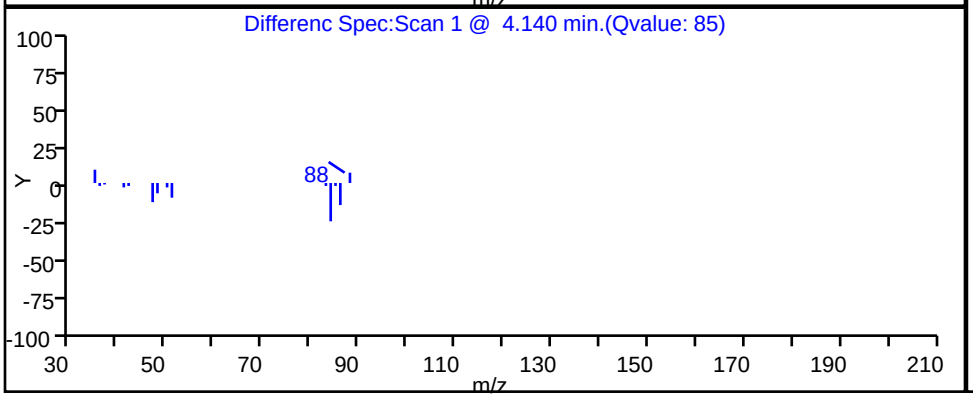










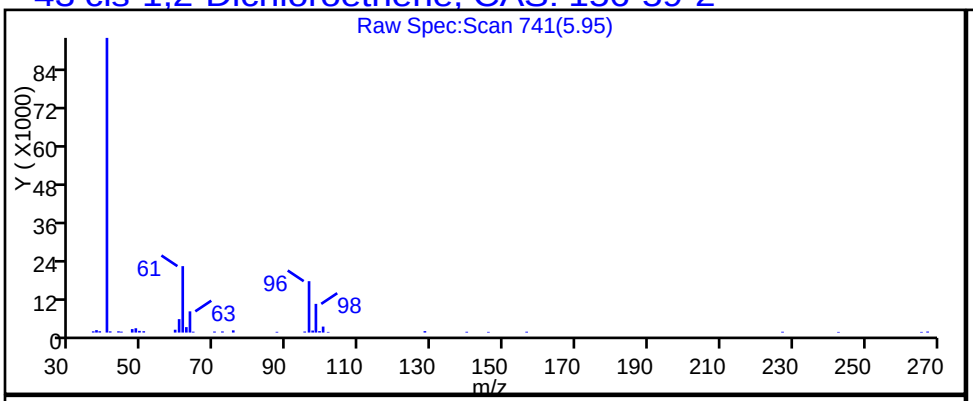


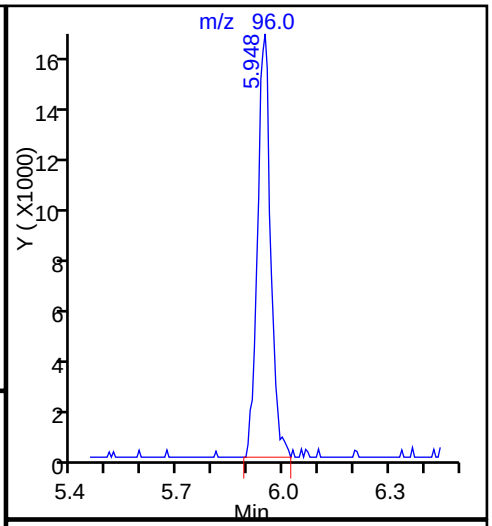
Report Date: 01-Jun-2015 08:39:59 Chrom Revision: 2.2 05-May-2015 11:39:10

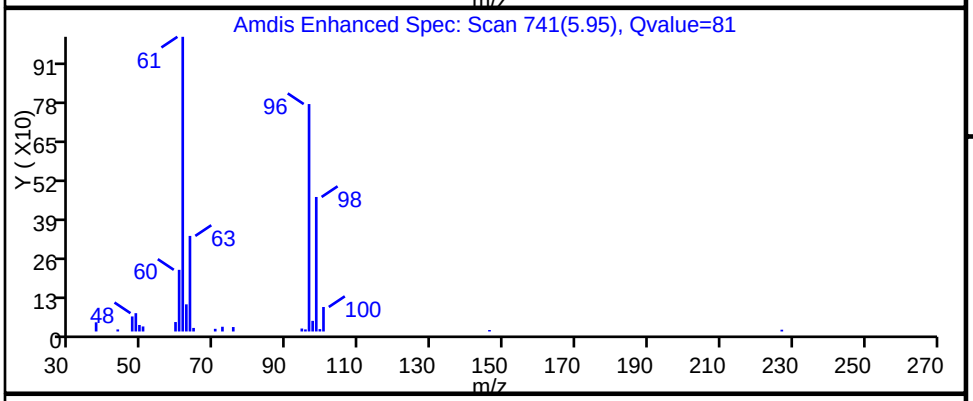
TestAmerica Pittsburgh

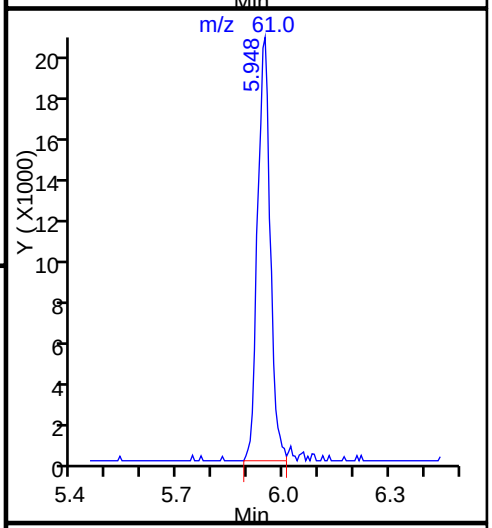
Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530028.D		
Injection Date:	31-May-2015 19:38:30	Instrument ID:	CHHP6
Lims ID:	180-44321-D-25	Lab Sample ID:	180-44321-25
Client ID:	HD-MW-96S-0/1-0		
Operator ID:	034635	ALS Bottle#:	25 Worklist Smp#: 28
Purge Vol:	5.000 mL	Dil. Factor:	10.0000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

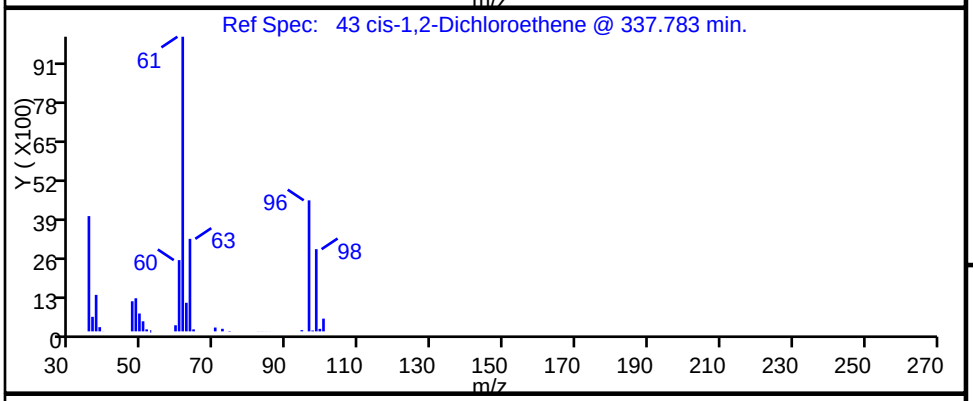
43 cis-1,2-Dichloroethene, CAS: 156-59-2

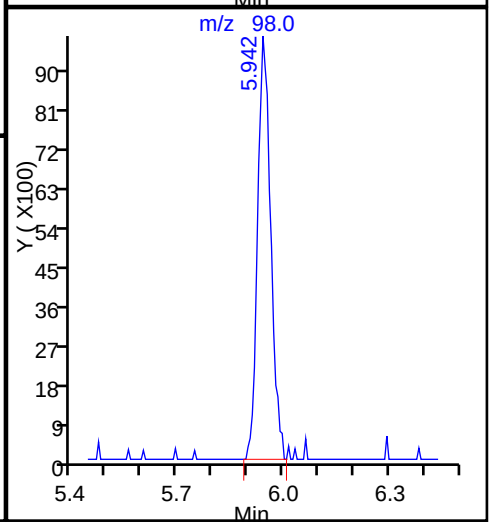


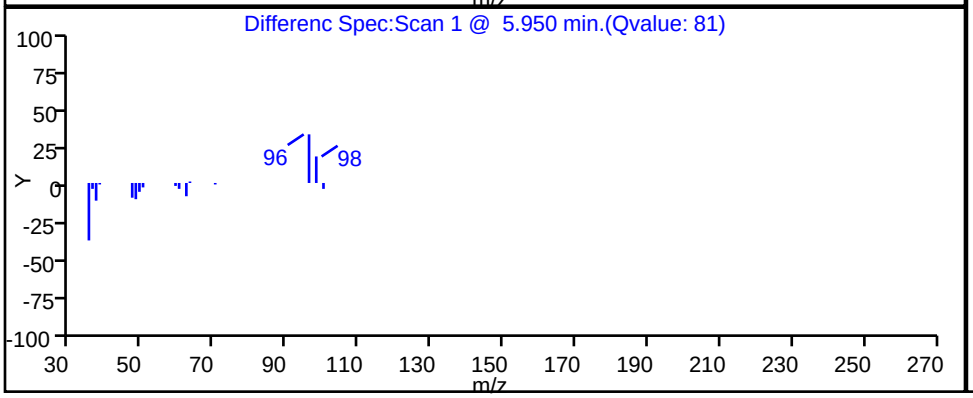










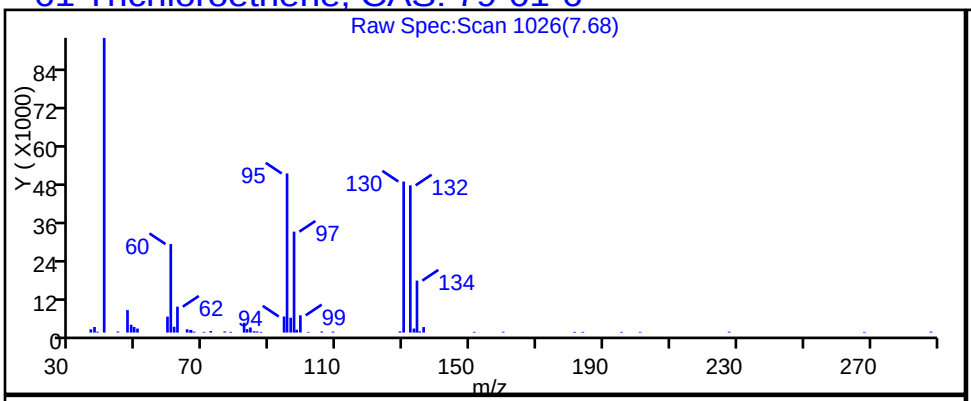


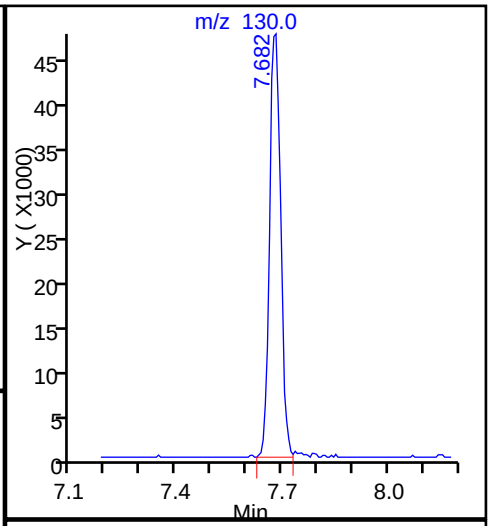
Report Date: 01-Jun-2015 08:39:59 Chrom Revision: 2.2 05-May-2015 11:39:10

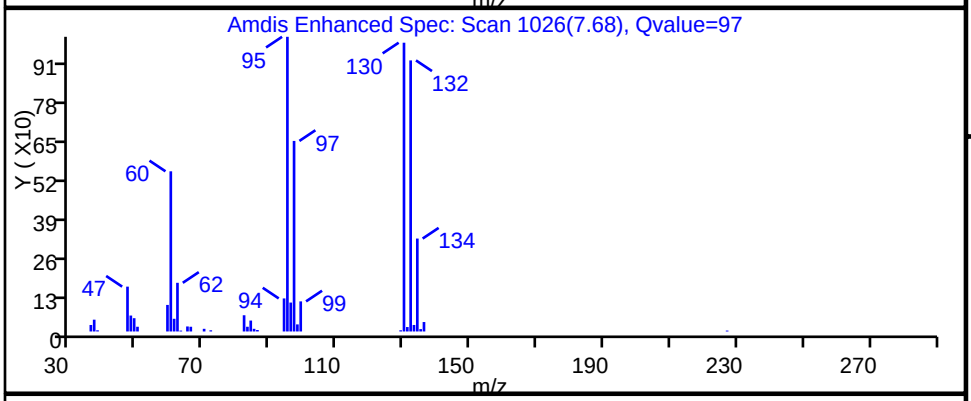
TestAmerica Pittsburgh

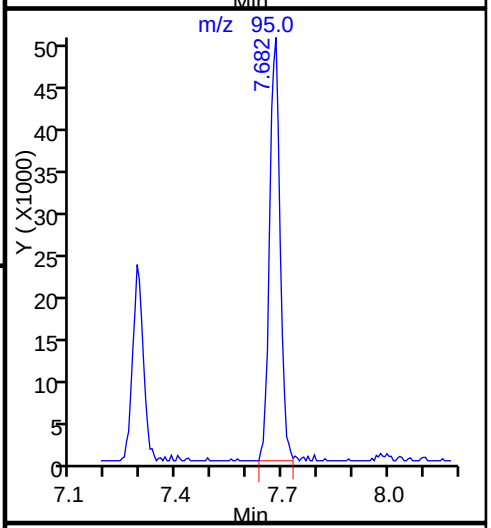
Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530028.D				
Injection Date:	31-May-2015 19:38:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-D-25	Lab Sample ID:	180-44321-25		
Client ID:	HD-MW-96S-0/1-0				
Operator ID:	034635	ALS Bottle#:	25	Worklist Smp#:	28
Purge Vol:	5.000 mL	Dil. Factor:	10.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

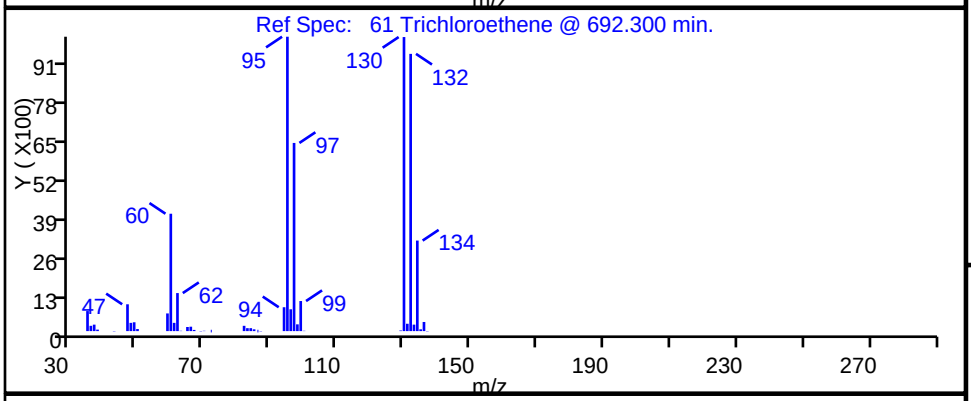
61 Trichloroethene, CAS: 79-01-6

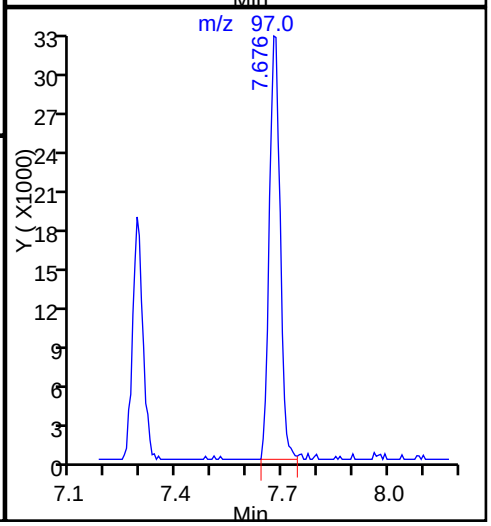


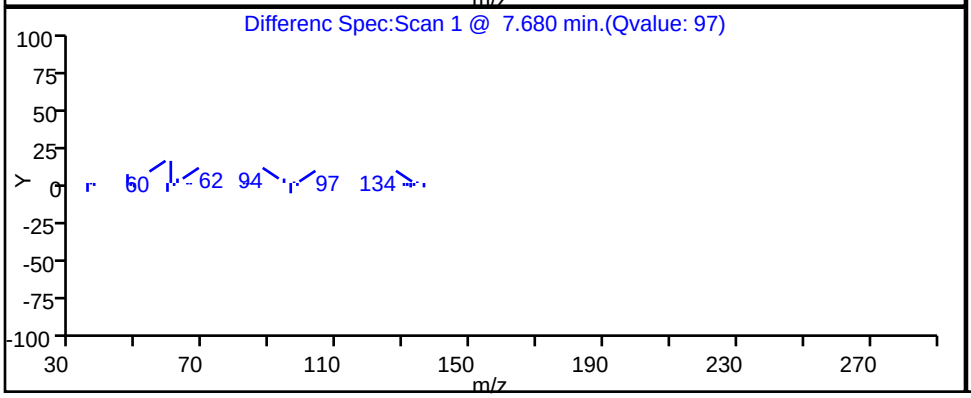












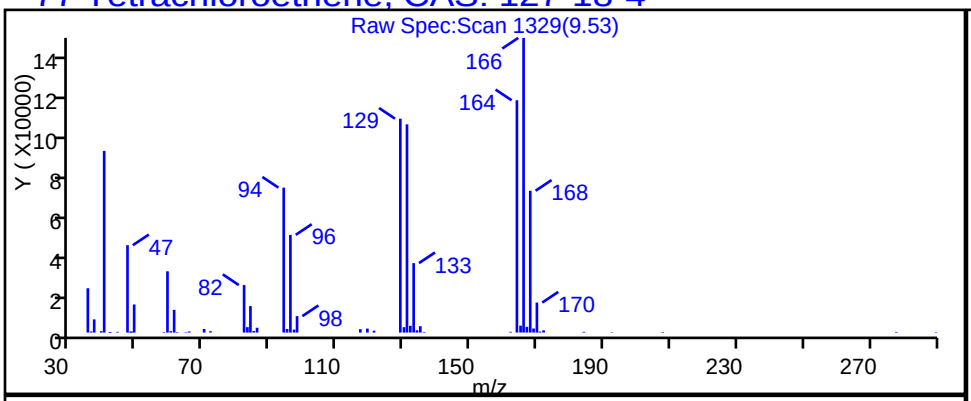
Report Date: 01-Jun-2015 08:39:59 Chrom Revision: 2.2 05-May-2015 11:39:10

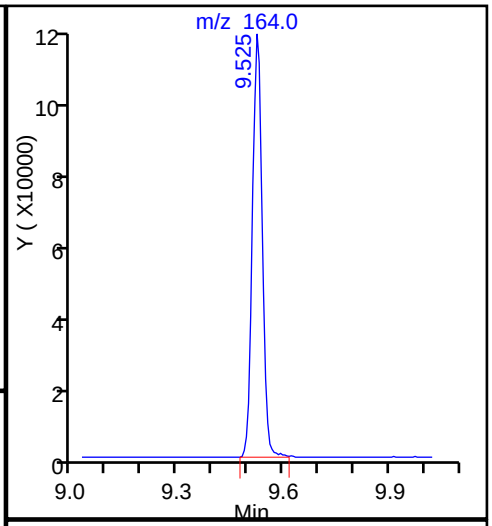
TestAmerica Pittsburgh

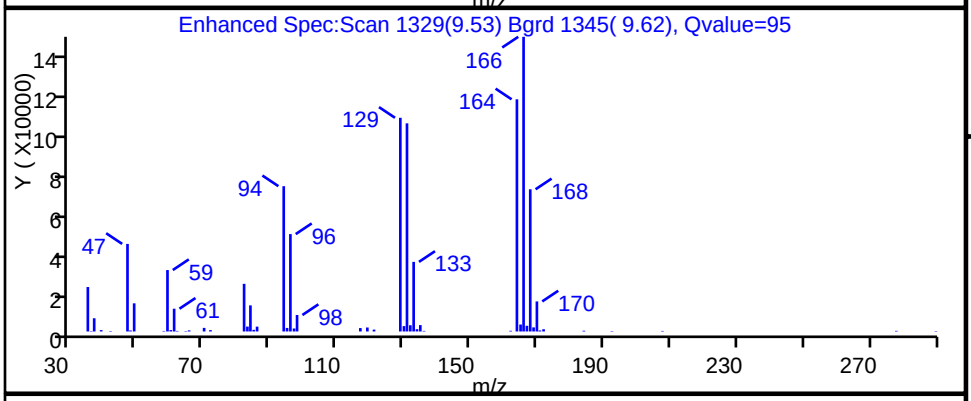
Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530028.D

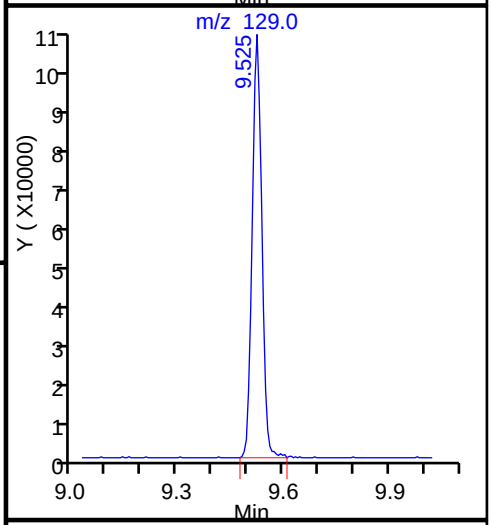
Injection Date:	31-May-2015 19:38:30	Instrument ID:	CHHP6
Lims ID:	180-44321-D-25	Lab Sample ID:	180-44321-25
Client ID:	HD-MW-96S-0/1-0		
Operator ID:	034635	ALS Bottle#:	25 Worklist Smp#: 28
Purge Vol:	5.000 mL	Dil. Factor:	10.0000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

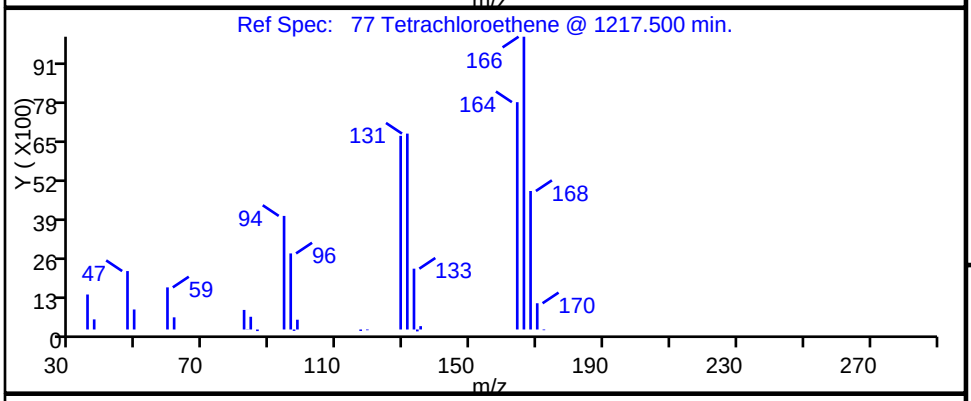
77 Tetrachloroethene, CAS: 127-18-4

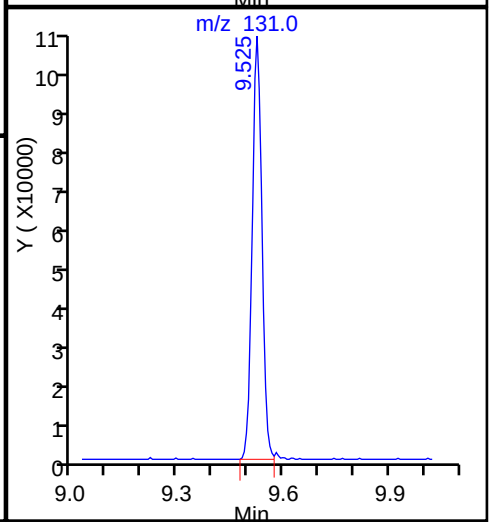


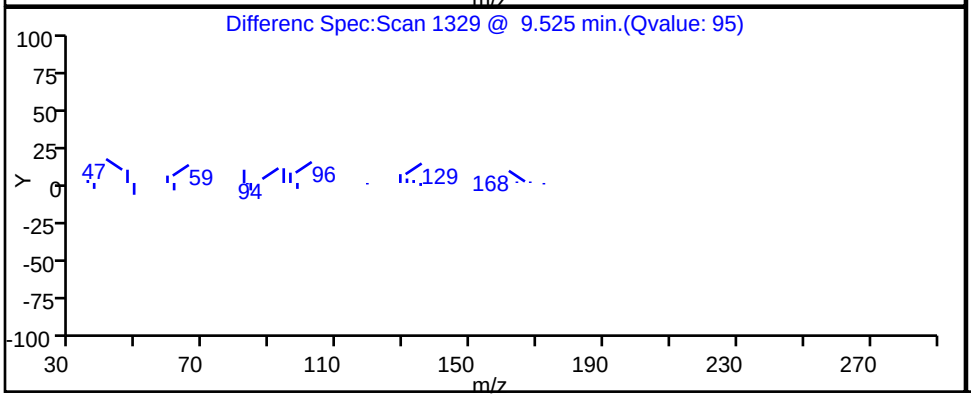












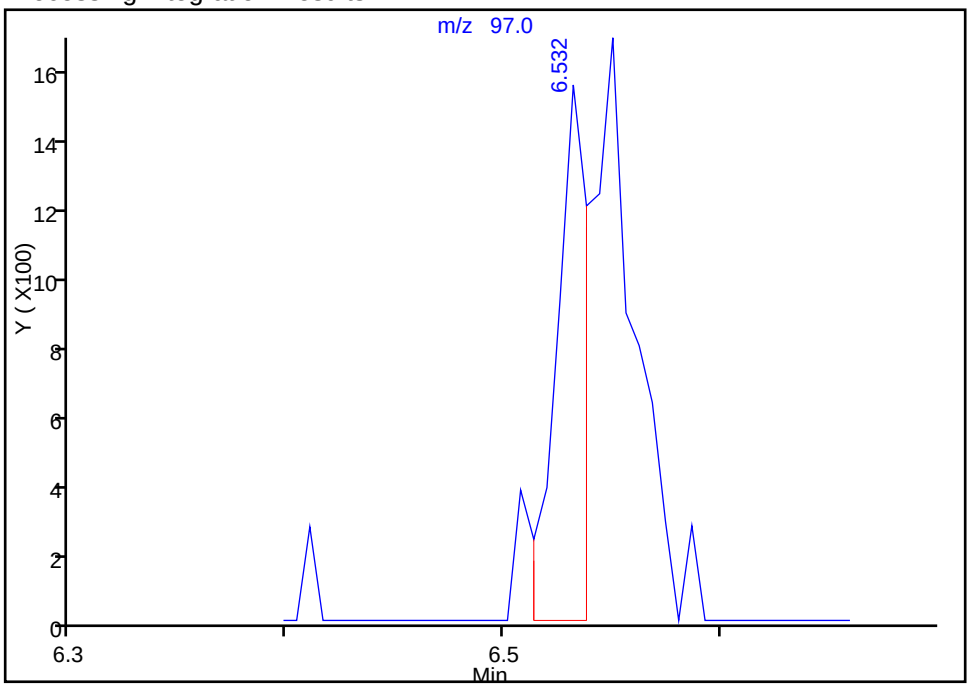
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530028.D				
Injection Date:	31-May-2015 19:38:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-D-25	Lab Sample ID:	180-44321-25		
Client ID:	HD-MW-96S-0/1-0				
Operator ID:	034635	ALS Bottle#:	25	Worklist Smp#:	28
Purge Vol:	5.000 mL	Dil. Factor:	10.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

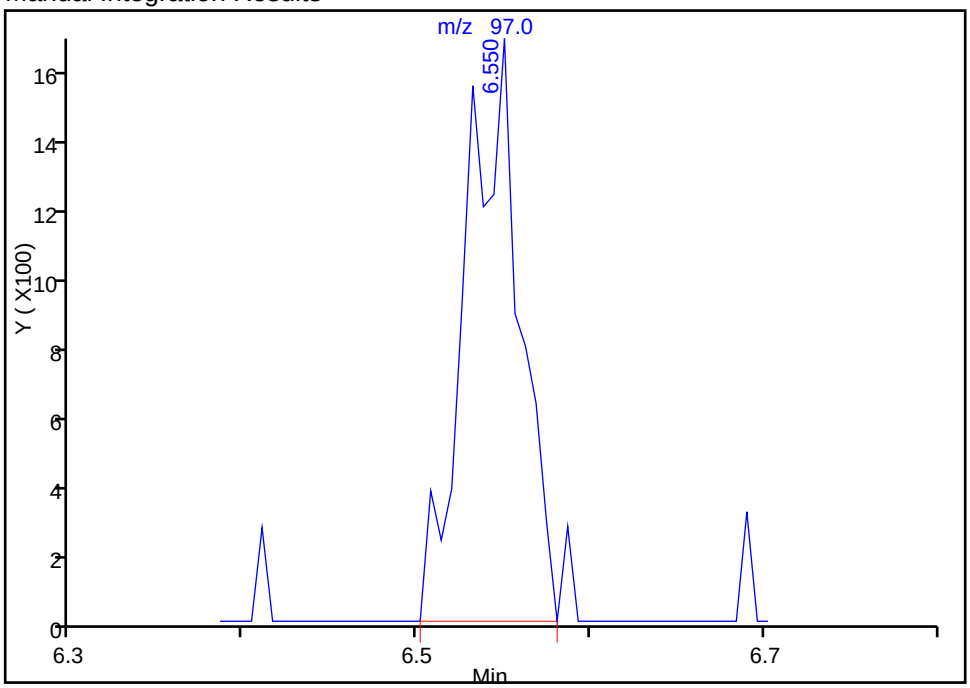
Processing Integration Results

RT: 6.53
Area: 1506
Amount: 0.353761
Amount Units: ng



Manual Integration Results

RT: 6.55
Area: 3572
Amount: 0.839067
Amount Units: ng



Reviewer: fergusond, 01-Jun-2015 08:39:58
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-MW-96D-0/1-0 | Lab Sample ID: 180-44321-26

Matrix: Water | Lab File ID: 7060115.D

Analysis Method: 8260C | Date Collected: 05/20/2015 10:50

Sample wt/vol: 20(mL) | Date Analyzed: 06/01/2015 16:40

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.: 143422 | 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	3.5	J	10	3.0
67-64-1	Acetone	50	U	50	25
75-15-0	Carbon disulfide	10	U	10	2.1
75-09-2	Methylene Chloride	10	U	10	1.3
156-60-5	trans-1,2-Dichloroethene	10	U	10	1.7
1634-04-4	Methyl tert-butyl ether	10	U	10	1.8
75-34-3	1,1-Dichloroethane	10	U	10	1.2
156-59-2	cis-1,2-Dichloroethene	140		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	14		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	310		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.: 180-44321-1

SDG No.:

Client Sample ID: HD-MW-96D-0/1-0 Lab Sample ID: 180-44321-26

Matrix: Water Lab File ID: 7060115.D

Analysis Method: 8260C Date Collected: 05/20/2015 10:50

Sample wt/vol: 20(mL) Date Analyzed: 06/01/2015 16:40

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.: 143422 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)	94		64-135
2037-26-5	Toluene-d8 (Surr)	110		71-118
460-00-4	4-Bromofluorobenzene (Surr)	102		70-118
1868-53-7	Dibromofluoromethane (Surr)	99		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060115.D
Lims ID: 180-44321-C-26 Lab Sample ID: 180-44321-26
Client ID: HD-MW-96D-0/1-0
Sample Type: Client
Inject. Date: 01-Jun-2015 16:40:30 ALS Bottle#: 13 Worklist Smp#: 15
Purge Vol: 20.000 mL Dil. Factor: 10.0000
Sample Info: 180-44321-C-26
Misc. Info.: 180-0007205-014
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 17:16:16 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

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

First Level Reviewer: journetp Date: 01-Jun-2015 17:16:16

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.585	4.666	-0.081	94	338459	4000.0	
* 2 Fluorobenzene (IS)	96	7.408	7.404	0.004	99	1263764	200.0	
* 3 Chlorobenzene-d5	119	10.468	10.470	-0.002	86	337324	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.786	12.787	-0.001	96	362294	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.690	6.680	0.010	93	400319	198.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.049	7.038	0.011	93	361254	188.0	
$ 7 Toluene-d8 (Surr)	98	9.038	9.034	0.004	93	1096257	219.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.630	11.632	-0.002	89	455111	203.6	
12 Chloromethane	50		2.032				ND	
13 Vinyl chloride	62		2.245				ND	
15 Bromomethane	94		2.518				ND	
16 Chloroethane	64		2.646				ND	
22 1,1-Dichloroethene	96	3.581	3.583	-0.002	1	12031	7.09	
24 Acetone	43		3.796				ND	
26 Carbon disulfide	76		3.881				ND	
31 Methylene Chloride	84		4.380				ND	
34 trans-1,2-Dichloroethene	96		4.763				ND	
33 Acrylonitrile	53		4.794				ND	
35 Methyl tert-butyl ether	73		4.854				ND	
37 1,1-Dichloroethane	63		5.359				ND	
45 cis-1,2-Dichloroethene	96	6.106	6.102	0.004	78	600739	287.5	
46 2-Butanone (MEK)	43		6.175				ND	
49 Chlorobromomethane	128		6.381				ND	
52 Chloroform	83	6.538	6.497	0.041	1	4973	1.43	M
53 1,1,1-Trichloroethane	97	6.696	6.680	0.016	56	88613	28.1	
56 Carbon tetrachloride	117		6.868				ND	
58 Benzene	78		7.099				ND	
59 1,2-Dichloroethane	62		7.124				ND	
64 Trichloroethene	130	7.803	7.793	0.010	93	1561948	626.5	
67 1,2-Dichloropropane	63		8.140				ND	
70 1,4-Dioxane	88		8.188				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
71 Dichlorobromomethane	83		8.316				ND	
74 cis-1,3-Dichloropropene	75		8.766				ND	
75 4-Methyl-2-pentanone (MIBK	43		8.937				ND	
76 Toluene	91		9.101				ND	
77 trans-1,3-Dichloropropene	75		9.320				ND	
79 1,1,2-Trichloroethane	97		9.502				ND	
80 Tetrachloroethene	164	9.647	9.642	0.005	93	441404	296.4	
82 2-Hexanone	43		9.758				ND	
84 Chlorodibromomethane	129		9.898				ND	
85 Ethylene Dibromide	107		10.007				ND	
87 Chlorobenzene	112		10.500				ND	
89 1,1,1,2-Tetrachloroethane	131		10.573				ND	
90 Ethylbenzene	106		10.603				ND	
91 m-Xylene & p-Xylene	106		10.719				ND	
92 o-Xylene	106		11.108				ND	
93 Styrene	104		11.127				ND	
94 Bromoform	173		11.315				ND	
99 1,1,2,2-Tetrachloroethane	83		11.771				ND	
S 133 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

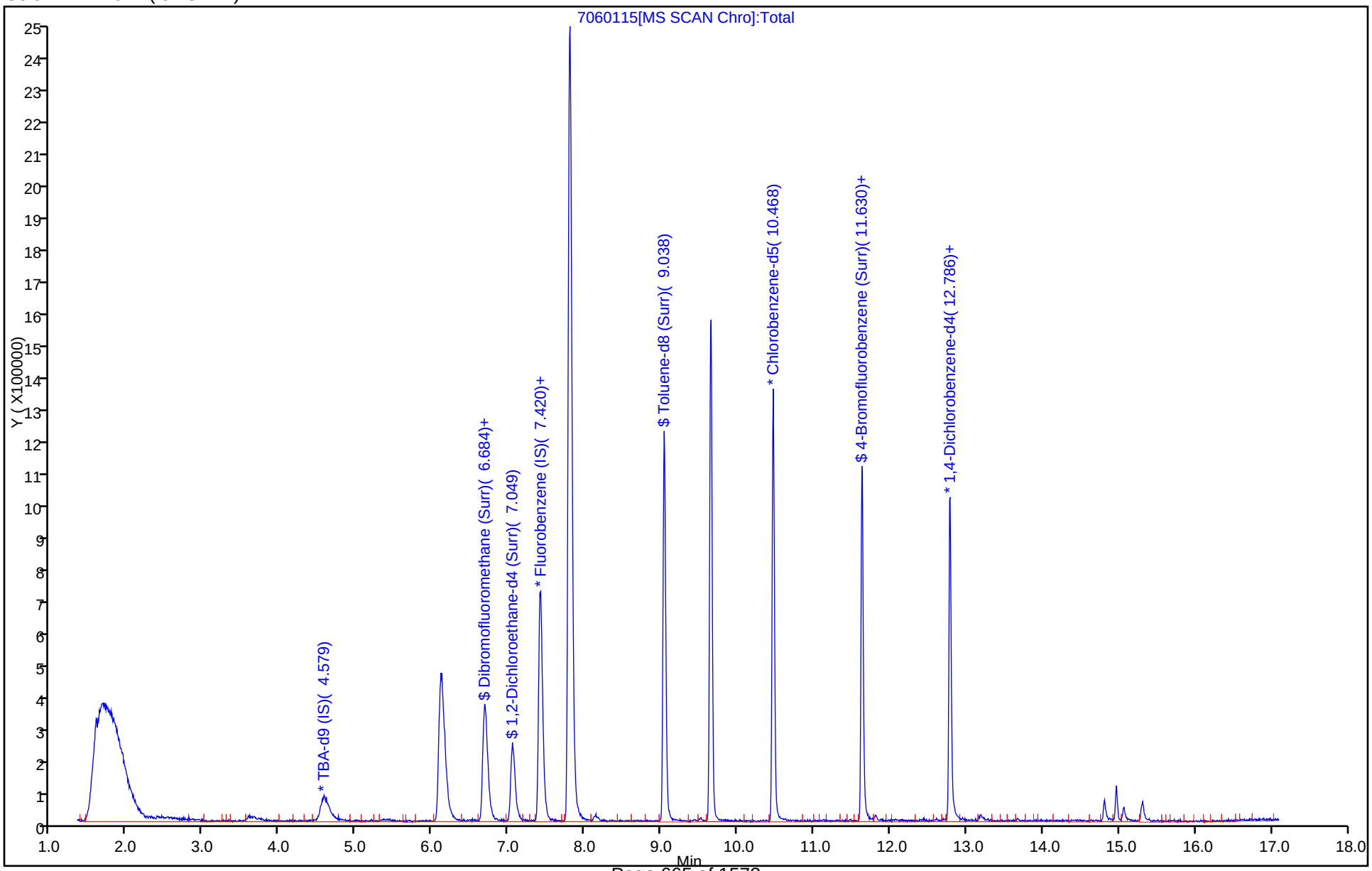
VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

Report Date: 01-Jun-2015 17:16:24 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060115.D				
Injection Date:	01-Jun-2015 16:40:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-44321-C-26	Lab Sample ID:	180-44321-26	Worklist Smp#:	15
Client ID:	HD-MW-96D-0/1-0				
Purge Vol:	20.000 mL	Dil. Factor:	10.0000	ALS Bottle#:	13
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060115.D
Lims ID: 180-44321-C-26 Lab Sample ID: 180-44321-26
Client ID: HD-MW-96D-0/1-0
Sample Type: Client
Inject. Date: 01-Jun-2015 16:40:30 ALS Bottle#: 13 Worklist Smp#: 15
Purge Vol: 20.000 mL Dil. Factor: 10.0000
Sample Info: 180-44321-C-26
Misc. Info.: 180-0007205-014
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 17:16:16 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

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

First Level Reviewer: journetp Date: 01-Jun-2015 17:16:16

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	200.0	198.6	99.29
$ 6 1,2-Dichloroethane-d4 (Surr)	200.0	188.0	93.98
$ 7 Toluene-d8 (Surr)	200.0	219.1	109.55
$ 8 4-Bromofluorobenzene (Surr)	200.0	203.6	101.80

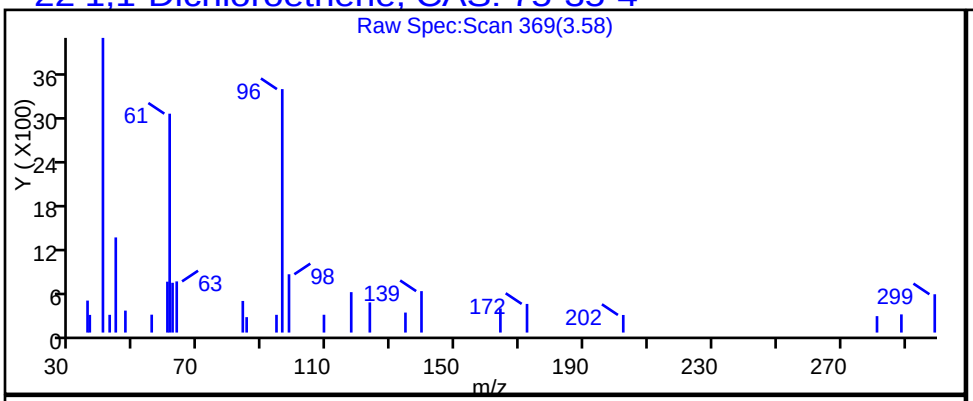
Report Date: 01-Jun-2015 17:16:24 Chrom Revision: 2.2 05-May-2015 11:39:10

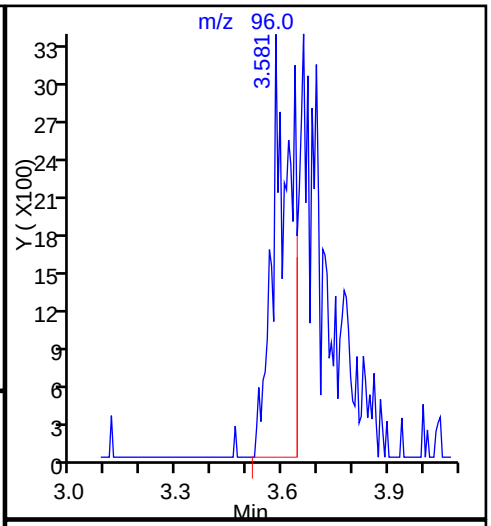
TestAmerica Pittsburgh

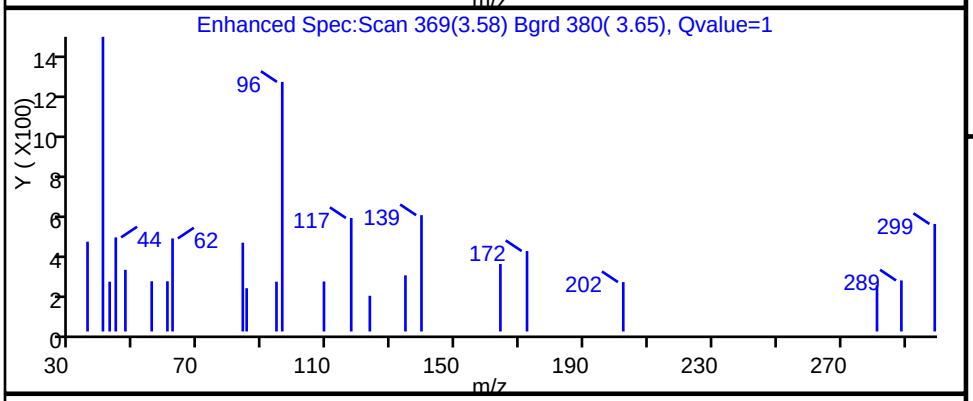
Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060115.D

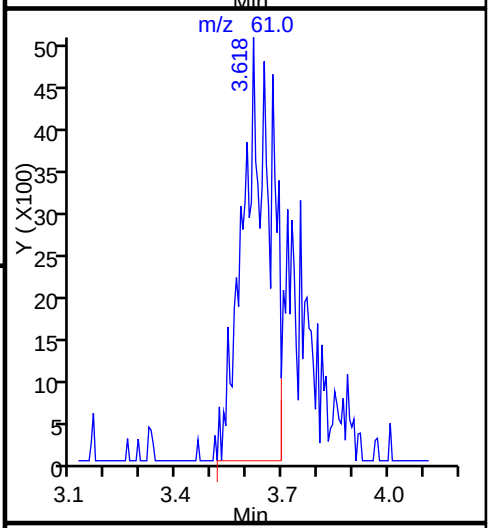
Injection Date:	01-Jun-2015 16:40:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-C-26	Lab Sample ID:	180-44321-26		
Client ID:	HD-MW-96D-0/1-0				
Operator ID:	034635	ALS Bottle#:	13	Worklist Smp#:	15
Purge Vol:	20.000 mL	Dil. Factor:	10.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

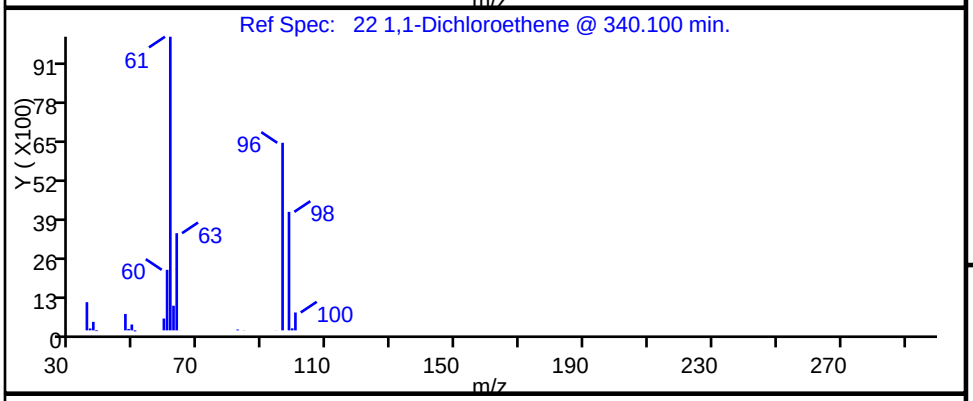
22 1,1-Dichloroethene, CAS: 75-35-4

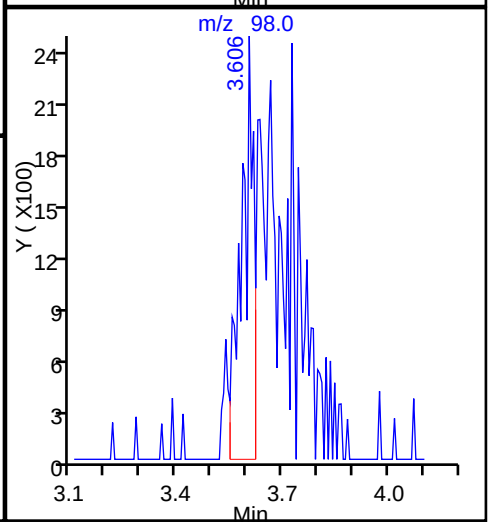


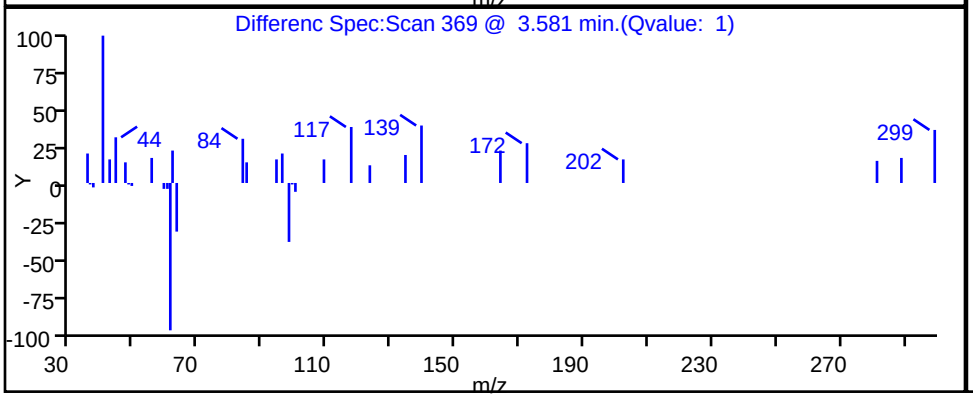










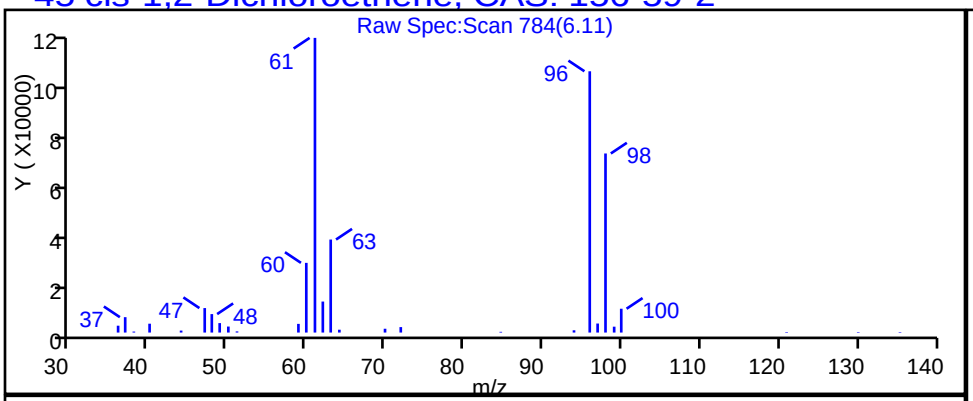


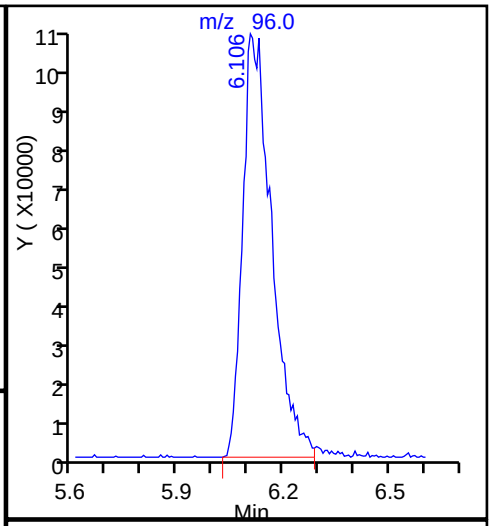
Report Date: 01-Jun-2015 17:16:24 Chrom Revision: 2.2 05-May-2015 11:39:10

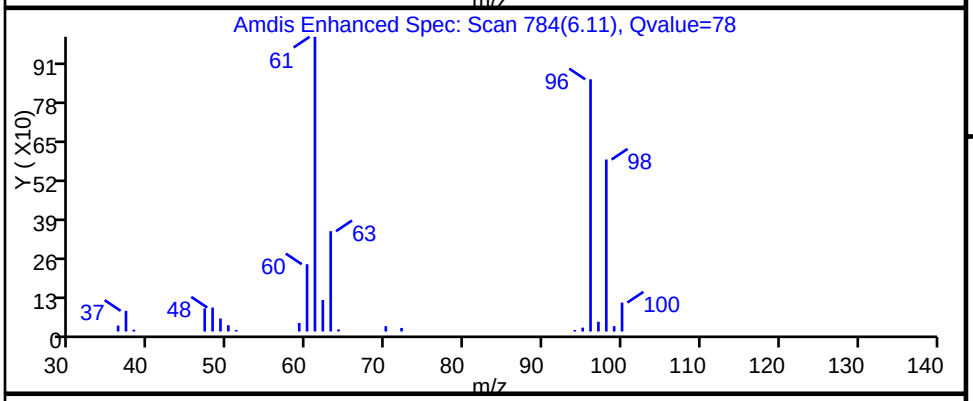
TestAmerica Pittsburgh

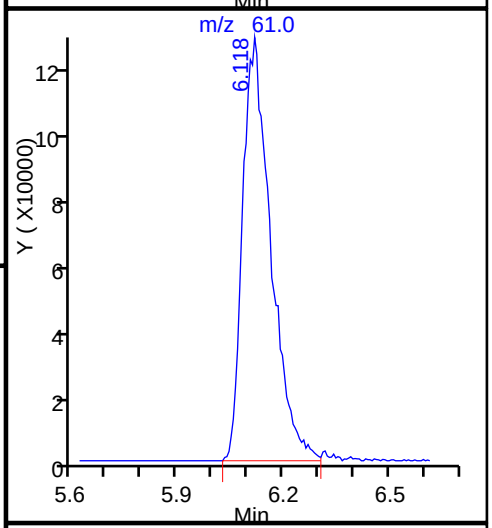
Data File:	\\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060115.D				
Injection Date:	01-Jun-2015 16:40:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-C-26	Lab Sample ID:	180-44321-26		
Client ID:	HD-MW-96D-0/1-0				
Operator ID:	034635	ALS Bottle#:	13	Worklist Smp#:	15
Purge Vol:	20.000 mL	Dil. Factor:	10.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

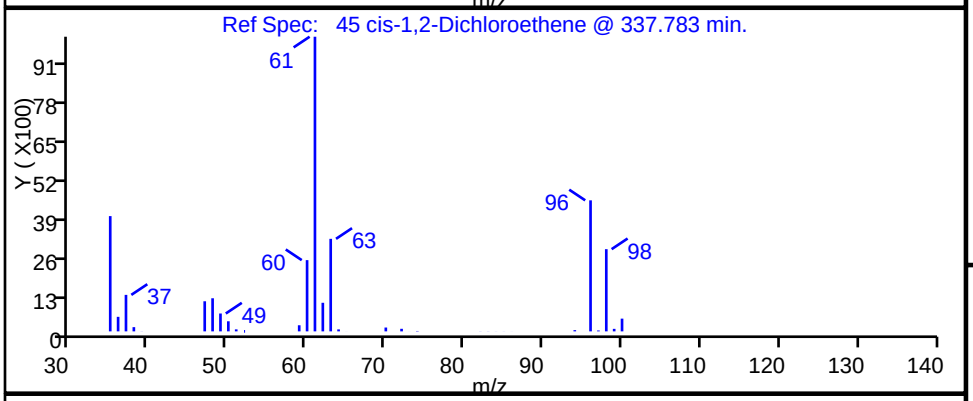
45 cis-1,2-Dichloroethene, CAS: 156-59-2

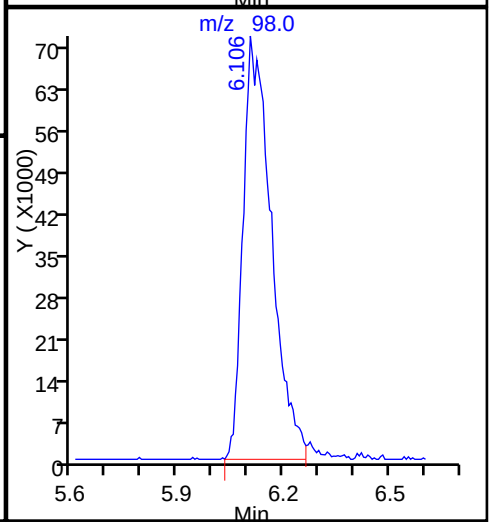


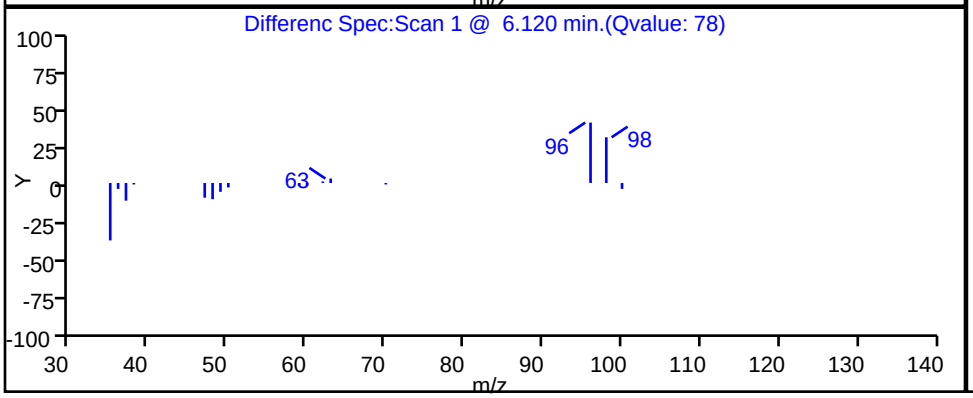










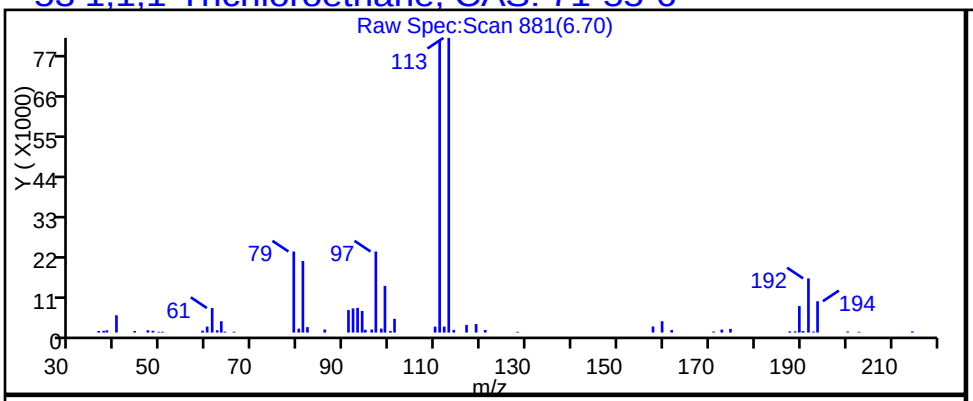


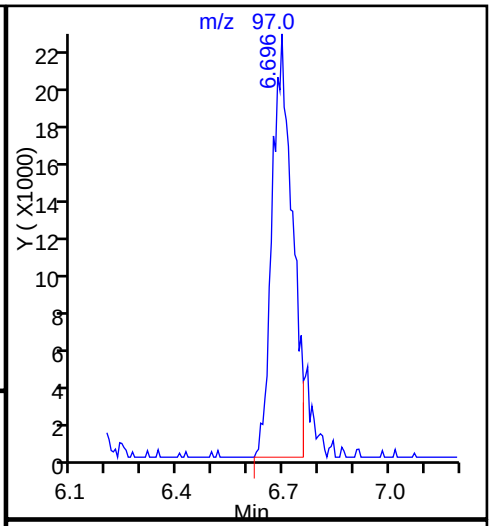
Report Date: 01-Jun-2015 17:16:24 Chrom Revision: 2.2 05-May-2015 11:39:10

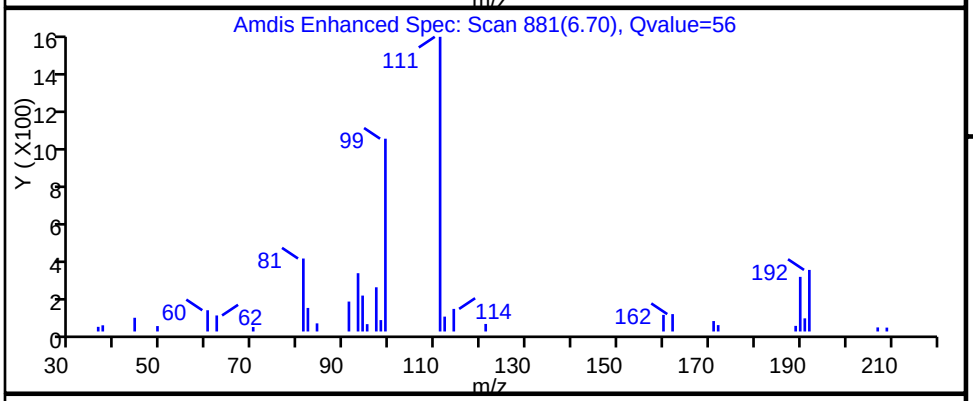
TestAmerica Pittsburgh

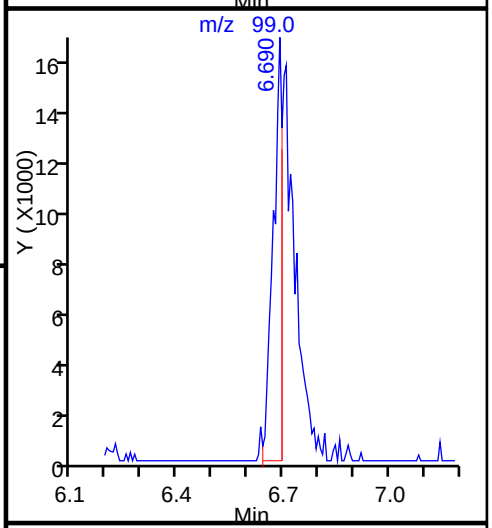
Data File:	\\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060115.D				
Injection Date:	01-Jun-2015 16:40:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-C-26	Lab Sample ID:	180-44321-26		
Client ID:	HD-MW-96D-0/1-0				
Operator ID:	034635	ALS Bottle#:	13	Worklist Smp#:	15
Purge Vol:	20.000 mL	Dil. Factor:	10.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

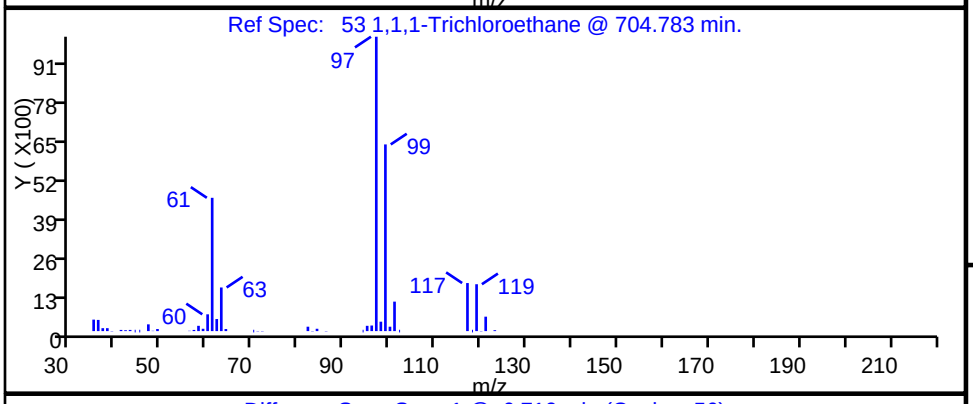
53 1,1,1-Trichloroethane, CAS: 71-55-6

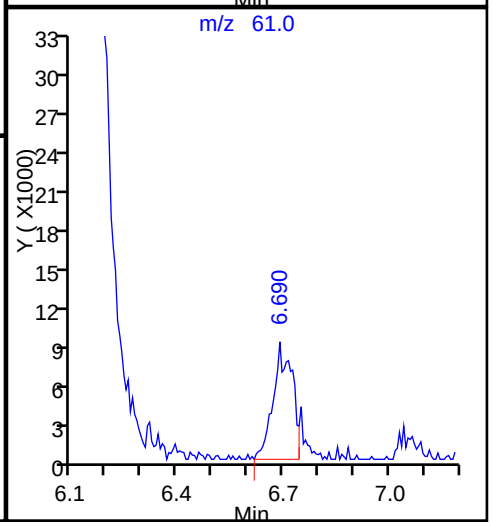


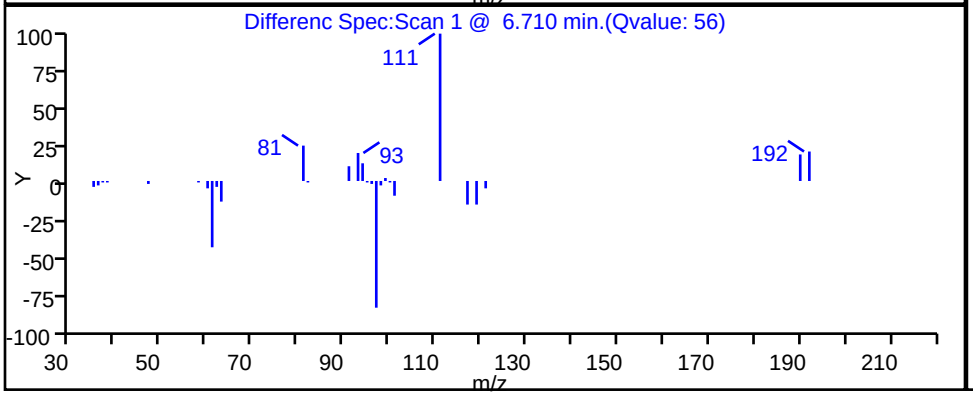












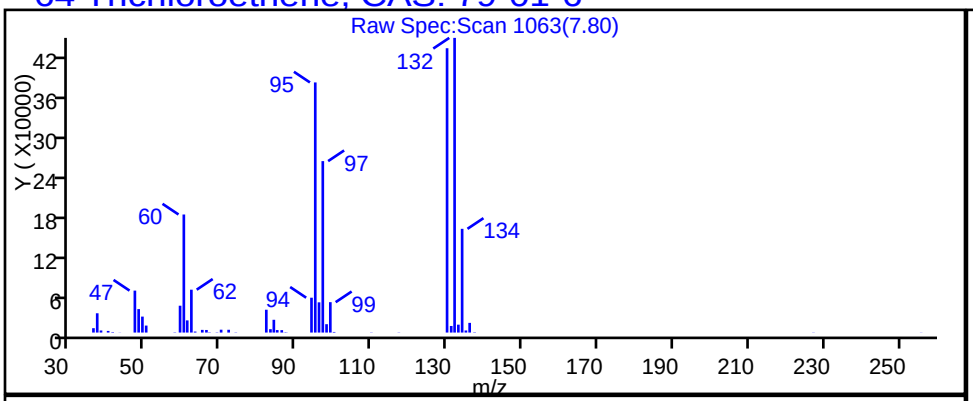
Report Date: 01-Jun-2015 17:16:24 Chrom Revision: 2.2 05-May-2015 11:39:10

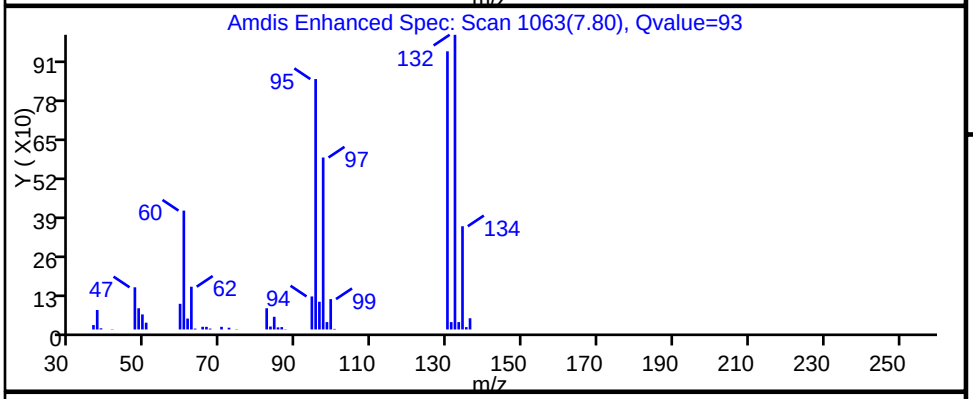
TestAmerica Pittsburgh

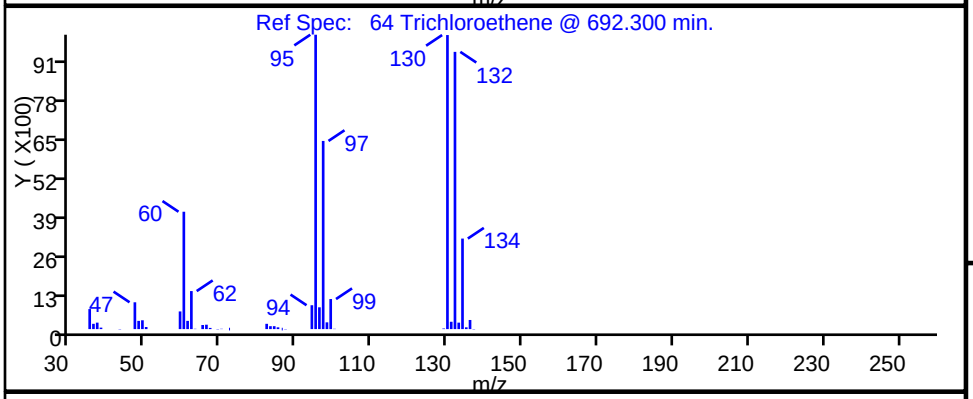
Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060115.D

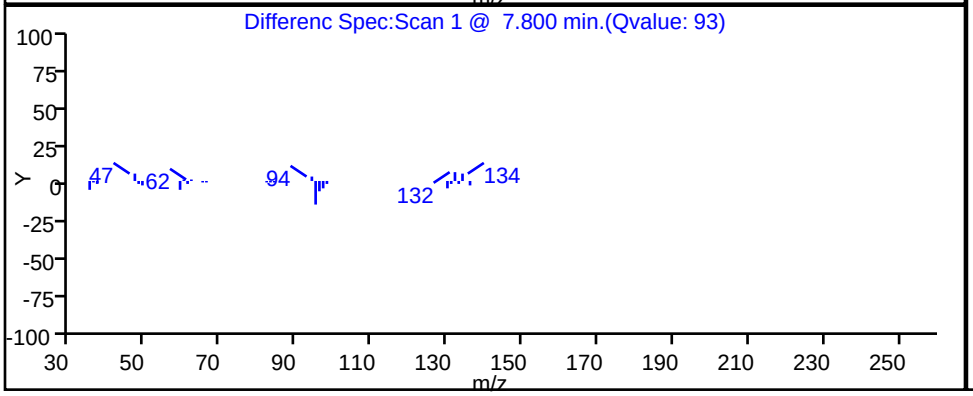
Injection Date:	01-Jun-2015 16:40:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-C-26	Lab Sample ID:	180-44321-26		
Client ID:	HD-MW-96D-0/1-0				
Operator ID:	034635	ALS Bottle#:	13	Worklist Smp#:	15
Purge Vol:	20.000 mL	Dil. Factor:	10.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

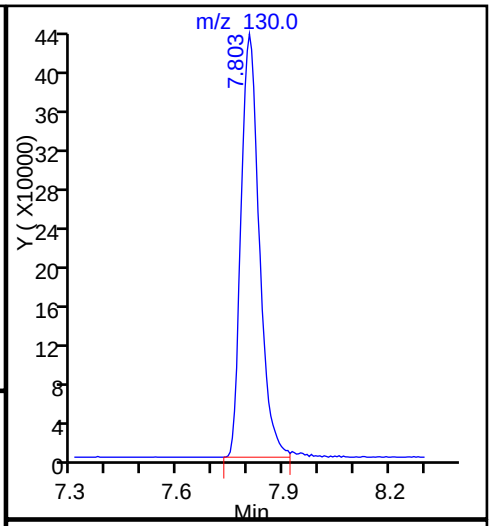
64 Trichloroethene, CAS: 79-01-6

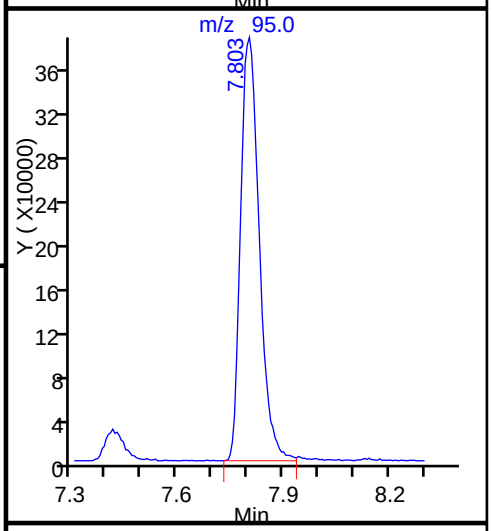


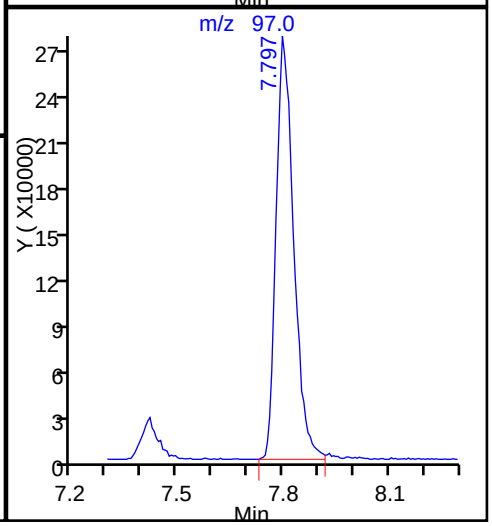












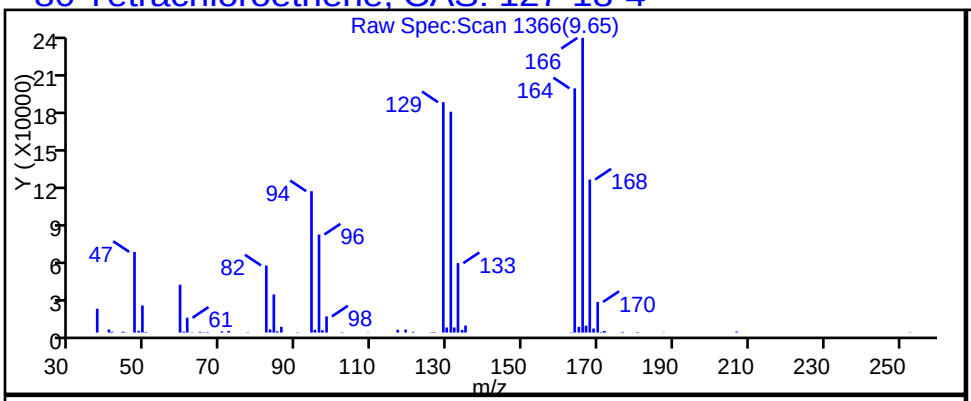
Report Date: 01-Jun-2015 17:16:24 Chrom Revision: 2.2 05-May-2015 11:39:10

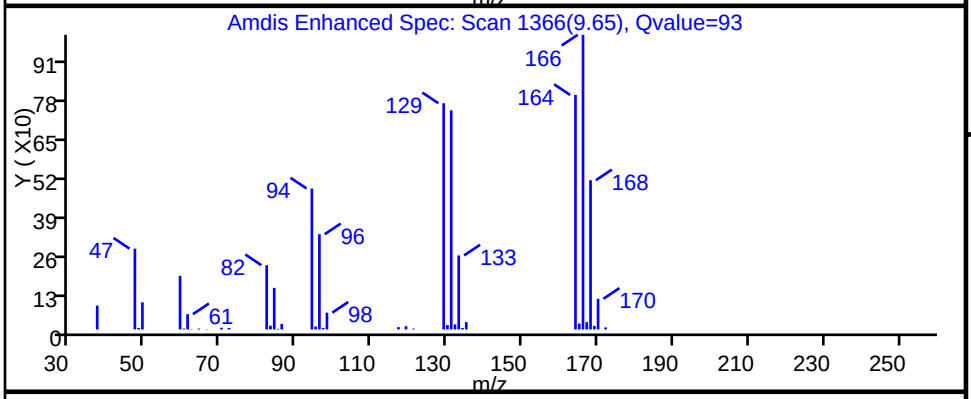
TestAmerica Pittsburgh

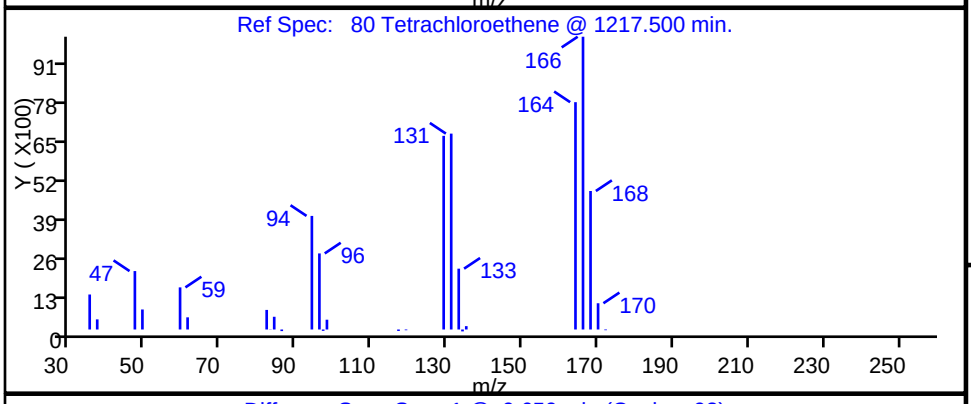
Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060115.D

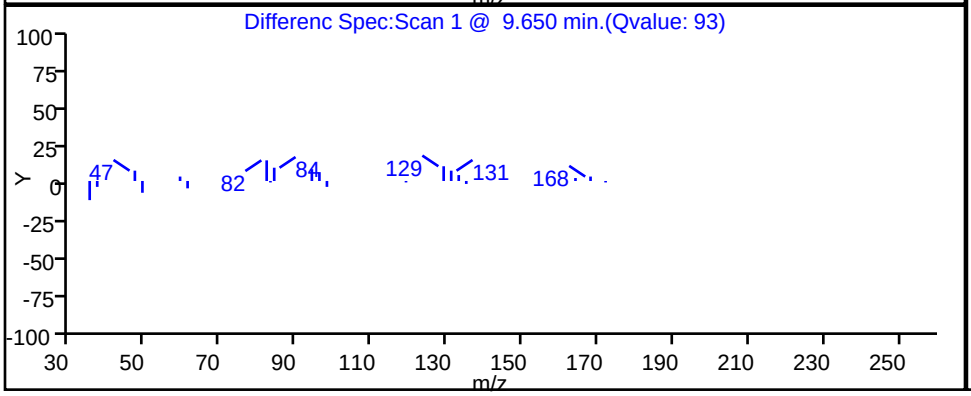
Injection Date:	01-Jun-2015 16:40:30	Instrument ID:	CHHP7
Lims ID:	180-44321-C-26	Lab Sample ID:	180-44321-26
Client ID:	HD-MW-96D-0/1-0		
Operator ID:	034635	ALS Bottle#:	13 Worklist Smp#: 15
Purge Vol:	20.000 mL	Dil. Factor:	10.0000
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

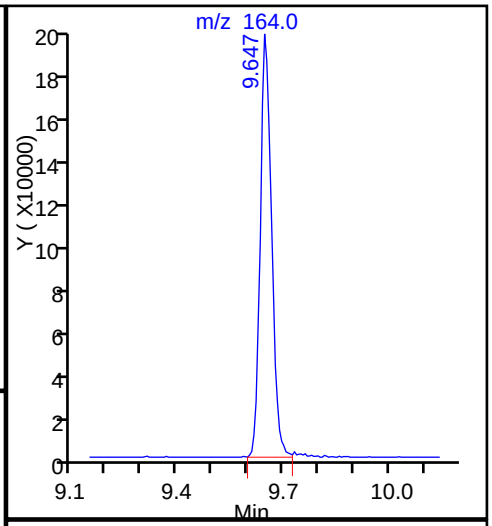
80 Tetrachloroethene, CAS: 127-18-4

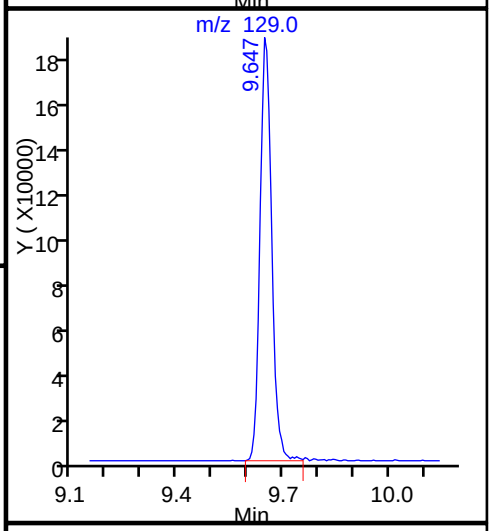


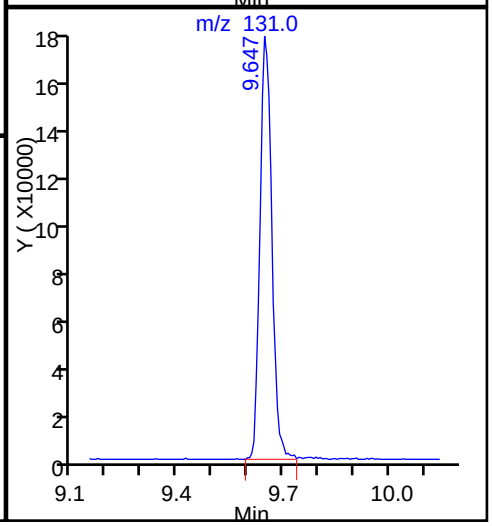












Manual Integration/User Assign Peak Report

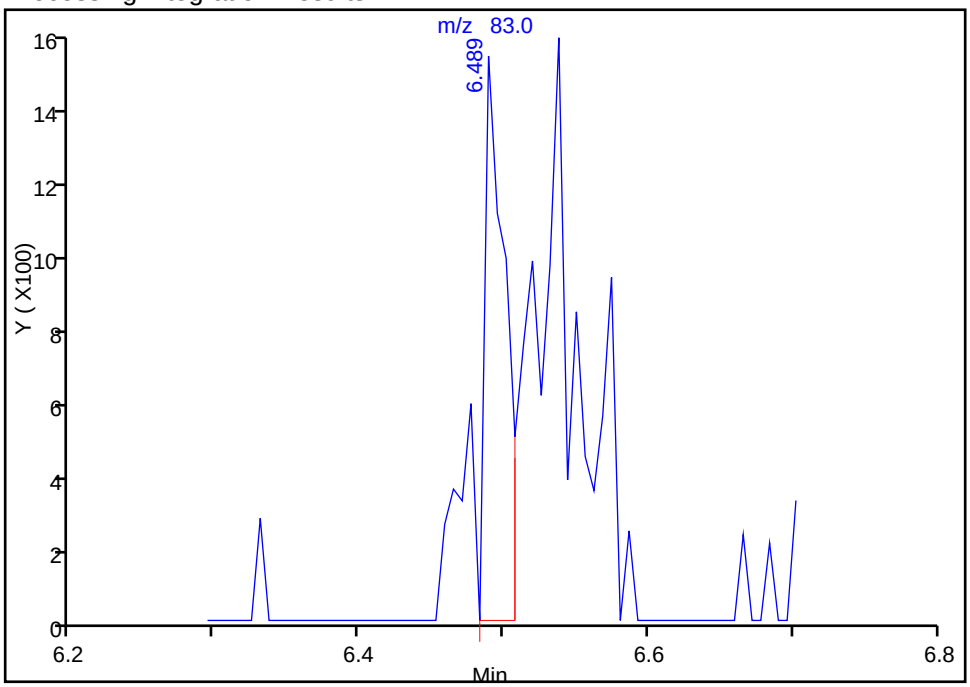
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060115.D				
Injection Date:	01-Jun-2015 16:40:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-C-26	Lab Sample ID:	180-44321-26		
Client ID:	HD-MW-96D-0/1-0				
Operator ID:	034635	ALS Bottle#:	13	Worklist Smp#:	15
Purge Vol:	20.000 mL	Dil. Factor:	10.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

52 Chloroform, CAS: 67-66-3

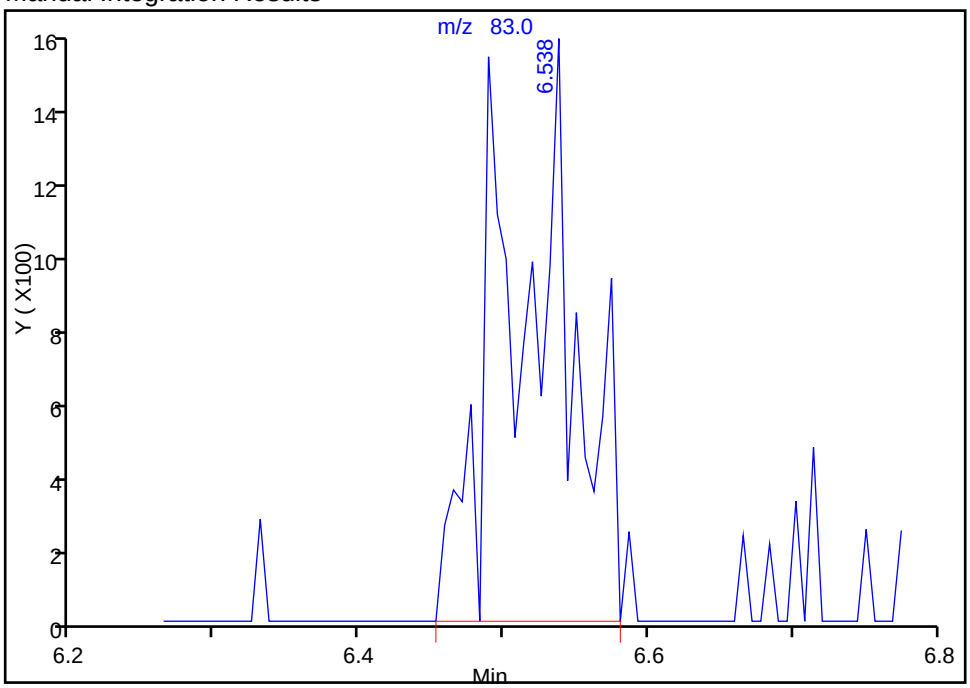
Processing Integration Results

RT: 6.49
Area: 1460
Amount: 0.420171
Amount Units: ng



Manual Integration Results

RT: 6.54
Area: 4973
Amount: 1.431172
Amount Units: ng



Reviewer: journetp, 01-Jun-2015 17:16:16
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-MW-97-0/1-0 | Lab Sample ID: 180-44321-27

Matrix: Water | Lab File ID: 60530013.D

Analysis Method: 8260C | Date Collected: 05/20/2015 12:50

Sample wt/vol: 5(mL) | Date Analyzed: 05/31/2015 13:37

Soil Aliquot Vol: | Dilution Factor: 25

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

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

Analysis Batch No.: 143337 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	25	U	25	7.1
75-01-4	Vinyl chloride	25	U	25	5.7
74-83-9	Bromomethane	25	U	25	7.8
75-00-3	Chloroethane	25	U	25	5.4
75-35-4	1,1-Dichloroethene	8.6	J	25	7.4
67-64-1	Acetone	130	U	130	63
75-15-0	Carbon disulfide	25	U	25	5.3
75-09-2	Methylene Chloride	23	J B	25	3.1
156-60-5	trans-1,2-Dichloroethene	25	U	25	4.2
1634-04-4	Methyl tert-butyl ether	25	U	25	4.6
75-34-3	1,1-Dichloroethane	25	U	25	2.9
156-59-2	cis-1,2-Dichloroethene	240		25	5.9
74-97-5	Bromochloromethane	25	U	25	4.5
78-93-3	2-Butanone (MEK)	130	U	130	14
67-66-3	Chloroform	25	U	25	4.3
71-55-6	1,1,1-Trichloroethane	11	J	25	7.2
56-23-5	Carbon tetrachloride	25	U	25	3.4
71-43-2	Benzene	25	U	25	2.6
107-06-2	1,2-Dichloroethane	25	U	25	5.3
79-01-6	Trichloroethene	470		25	3.6
78-87-5	1,2-Dichloropropane	25	U	25	2.4
75-27-4	Bromodichloromethane	25	U	25	3.3
10061-01-5	cis-1,3-Dichloropropene	25	U	25	4.7
108-10-1	4-Methyl-2-pentanone (MIBK)	130	U	130	13
108-88-3	Toluene	25	U	25	3.8
10061-02-6	trans-1,3-Dichloropropene	25	U	25	3.7
79-00-5	1,1,2-Trichloroethane	25	U	25	5.0
127-18-4	Tetrachloroethene	79		25	3.7
591-78-6	2-Hexanone	130	U	130	4.0
124-48-1	Dibromochloromethane	25	U	25	3.4
106-93-4	1,2-Dibromoethane (EDB)	25	U	25	4.5
108-90-7	Chlorobenzene	25	U	25	3.4
630-20-6	1,1,1,2-Tetrachloroethane	25	U	25	6.9
100-41-4	Ethylbenzene	25	U	25	5.7
1330-20-7	Xylenes, Total	75	U	75	12
100-42-5	Styrene	25	U	25	2.4

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-MW-97-0/1-0 Lab Sample ID: 180-44321-27

Matrix: Water Lab File ID: 60530013.D

Analysis Method: 8260C Date Collected: 05/20/2015 12:50

Sample wt/vol: 5(mL) Date Analyzed: 05/31/2015 13:37

Soil Aliquot Vol: Dilution Factor: 25

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143337 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	25	U	25	4.8
79-34-5	1,1,2,2-Tetrachloroethane	25	U	25	5.0
107-13-1	Acrylonitrile	500	U	500	14
123-91-1	1,4-Dioxane	5000	U	5000	860

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	84		64-135
2037-26-5	Toluene-d8 (Surr)	81		71-118
460-00-4	4-Bromofluorobenzene (Surr)	110		70-118
1868-53-7	Dibromofluoromethane (Surr)	91		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530013.D
Lims ID: 180-44321-D-27 Lab Sample ID: 180-44321-27
Client ID: HD-MW-97-0/1-0
Sample Type: Client
Inject. Date: 31-May-2015 13:37:30 ALS Bottle#: 4 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 25.0000
Sample Info: 180-44321-D-27, x25
Misc. Info.: 180-0007190-013
Operator ID: 034635 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 31-May-2015 16:21:03 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK001

First Level Reviewer: journetp Date: 31-May-2015 16:00:30

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.233	4.236	-0.003	91	157437	1000.0	
* 2 Fluorobenzene (IS)	96	7.287	7.284	0.003	98	603859	50.0	
* 3 Chlorobenzene-d5	119	10.395	10.393	0.002	89	136893	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.743	12.747	-0.004	97	219820	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.557	6.554	0.003	92	113780	45.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.934	6.925	0.009	70	174532	41.8	
$ 7 Toluene-d8 (Surr)	98	8.941	8.939	0.002	94	466845	40.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.581	11.579	0.002	84	260764	55.2	
12 Chloromethane	50		1.760				ND	
13 Vinyl chloride	62	1.878	1.882	-0.004	93	3382	1.04	
15 Bromomethane	94		2.229				ND	
16 Chloroethane	64		2.375				ND	
22 1,1-Dichloroethene	96	3.338	3.336	0.002	36	4805	1.72	
24 Acetone	43	3.448	3.421	0.027	47	5139	6.41	M
26 Carbon disulfide	76		3.628				ND	
31 Methylene Chloride	84	4.141	4.115	0.026	76	15879	4.68	
33 Acrylonitrile	53		4.498				ND	
34 trans-1,2-Dichloroethene	96		4.553				ND	
35 Methyl tert-butyl ether	73		4.565				ND	
37 1,1-Dichloroethane	63		5.198				ND	
43 cis-1,2-Dichloroethene	96	5.948	5.940	0.008	84	169189	47.8	
44 2-Butanone (MEK)	43		5.940				ND	
48 Chlorobromomethane	128		6.226				ND	
50 Chloroform	83	6.374	6.366	0.008	17	1574	0.2783	
51 1,1,1-Trichloroethane	97	6.532	6.536	-0.004	1	10435	2.24	M
53 Carbon tetrachloride	117		6.712				ND	
56 Benzene	78		6.943				ND	
57 1,2-Dichloroethane	62		7.016				ND	
61 Trichloroethene	130	7.682	7.673	0.009	97	271180	94.4	
64 1,2-Dichloropropane	63		7.947				ND	
65 1,4-Dioxane	88		8.020				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.227				ND	
71 cis-1,3-Dichloropropene	75		8.677				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.823				ND	
73 Toluene	91		9.012				ND	
74 trans-1,3-Dichloropropene	75		9.255				ND	
76 1,1,2-Trichloroethane	97		9.450				ND	
77 Tetrachloroethene	164	9.525	9.523	0.002	94	36935	15.8	
79 2-Hexanone	43		9.657				ND	
81 Chlorodibromomethane	129		9.821				ND	
82 Ethylene Dibromide	107		9.937				ND	
84 Chlorobenzene	112		10.423				ND	
86 1,1,1,2-Tetrachloroethane	131		10.521				ND	
87 Ethylbenzene	106		10.527				ND	
88 m-Xylene & p-Xylene	106		10.654				ND	
89 o-Xylene	106		11.044				ND	
90 Styrene	104		11.062				ND	
91 Bromoform	173		11.244				ND	
96 1,1,2,2-Tetrachloroethane	83		11.713				ND	
S 131 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

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

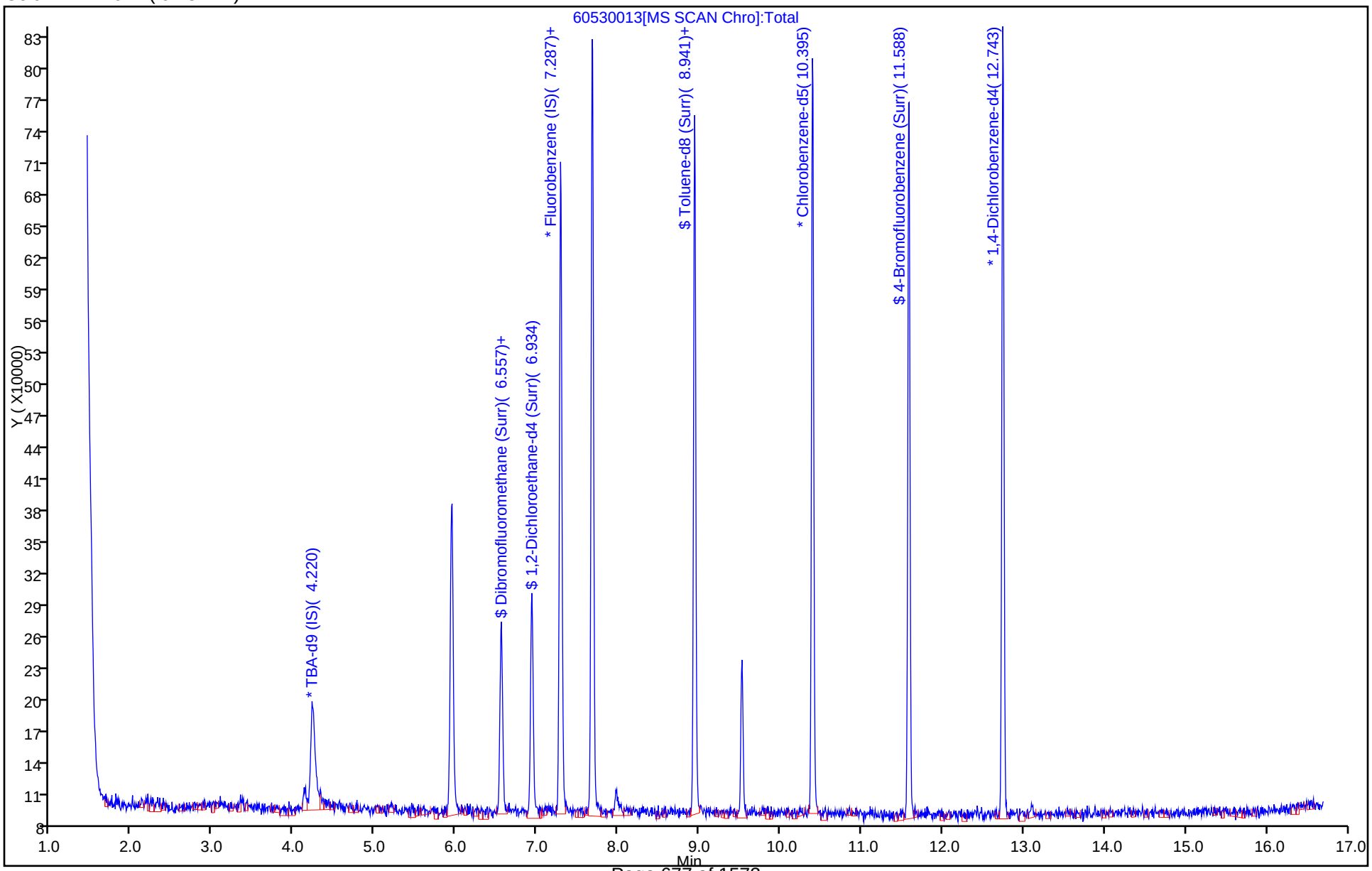
Report Date: 31-May-2015 16:21:09 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530013.D

Injection Date:	31-May-2015 13:37:30	Instrument ID:	CHHP6	Operator ID:	034635
Lims ID:	180-44321-D-27	Lab Sample ID:	180-44321-27	Worklist Smp#:	13
Client ID:	HD-MW-97-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	25.0000	ALS Bottle#:	4
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530013.D				
Lims ID:	180-44321-D-27	Lab Sample ID:	180-44321-27		
Client ID:	HD-MW-97-0/1-0				
Sample Type:	Client				
Inject. Date:	31-May-2015 13:37:30	ALS Bottle#:	4	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	25.0000		
Sample Info:	180-44321-D-27, x25				
Misc. Info.:	180-0007190-013				
Operator ID:	034635	Instrument ID:	CHHP6		
Method:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\MSVOA_LL_CHHP6.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	31-May-2015 16:21:03	Calib Date:	01-May-2015 16:46:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK001				
First Level Reviewer: journetp		Date:	31-May-2015 16:00:30		

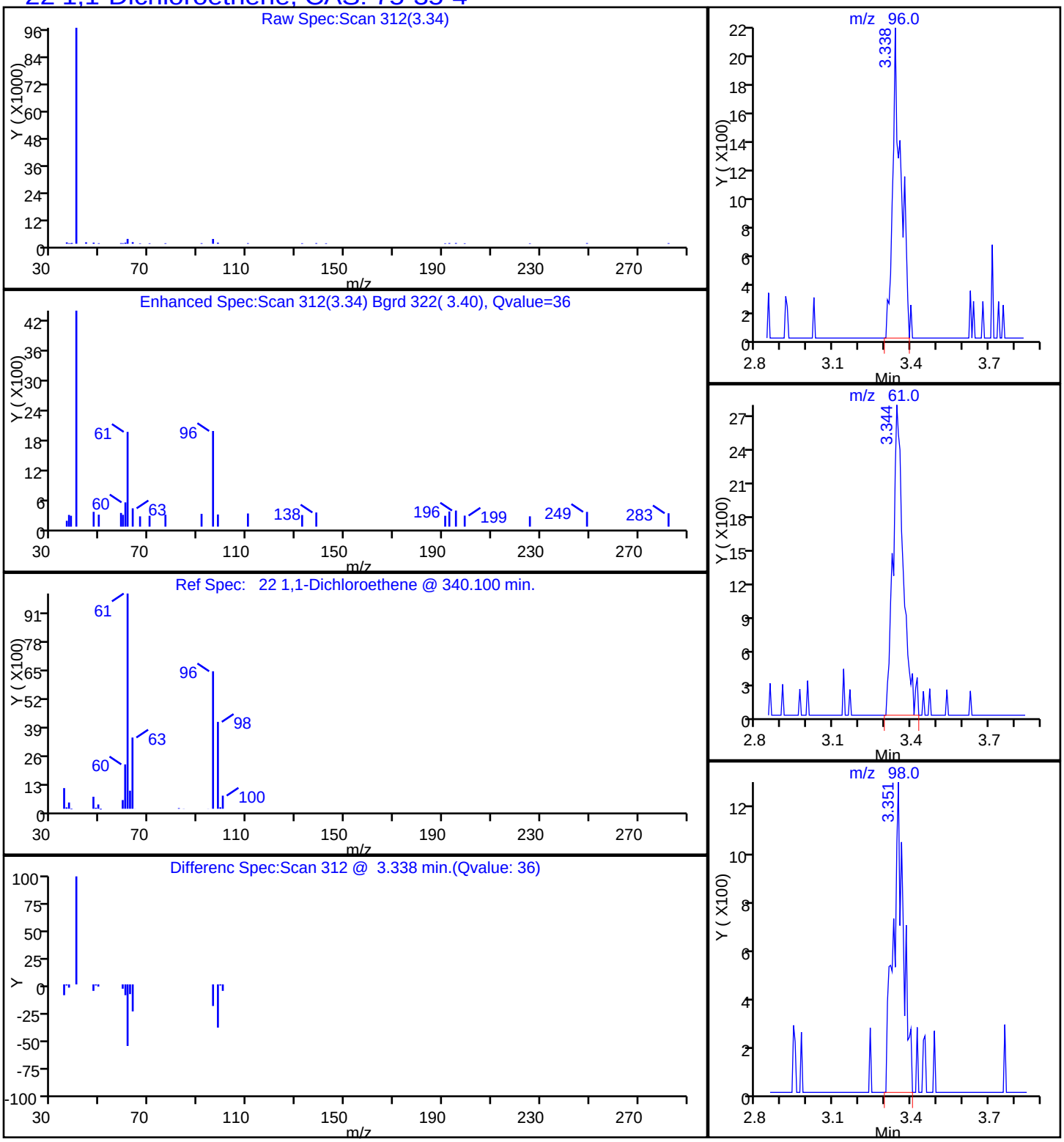
Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	45.5	91.08
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	41.8	83.62
$ 7 Toluene-d8 (Surr)	50.0	40.3	80.61
$ 8 4-Bromofluorobenzene (Surr)	50.0	55.2	110.46

Report Date: 31-May-2015 16:21:09 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530013.D				
Injection Date:	31-May-2015 13:37:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-D-27	Lab Sample ID:	180-44321-27		
Client ID:	HD-MW-97-0/1-0				
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

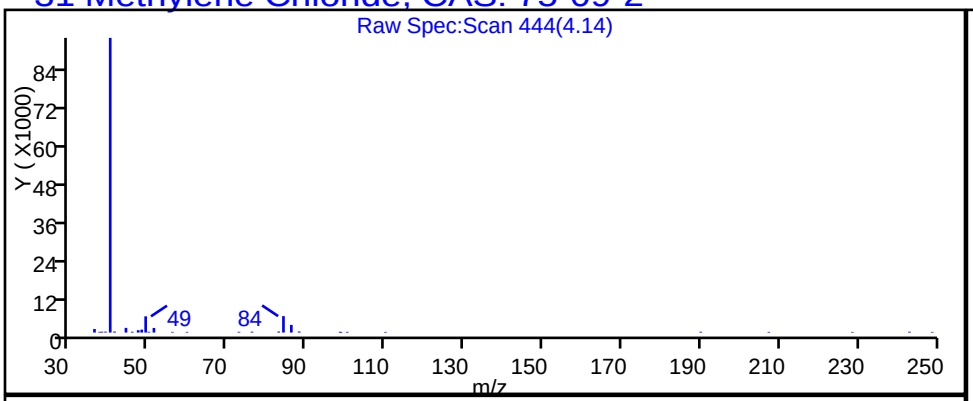


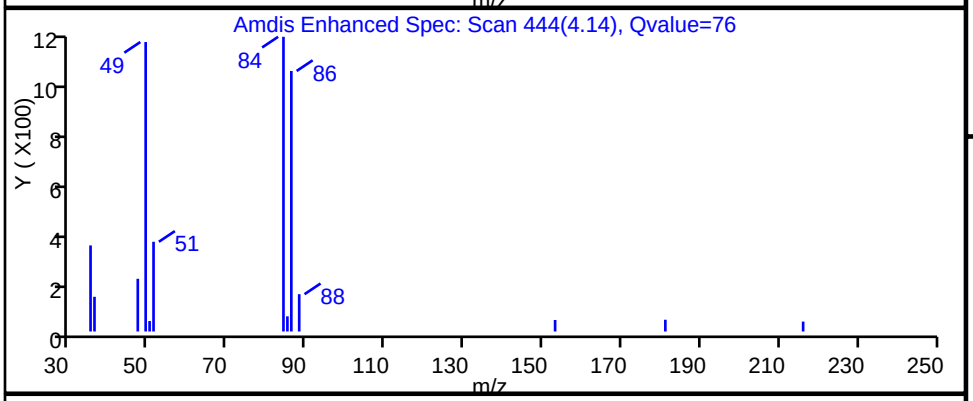
Report Date: 31-May-2015 16:21:09 Chrom Revision: 2.2 05-May-2015 11:39:10

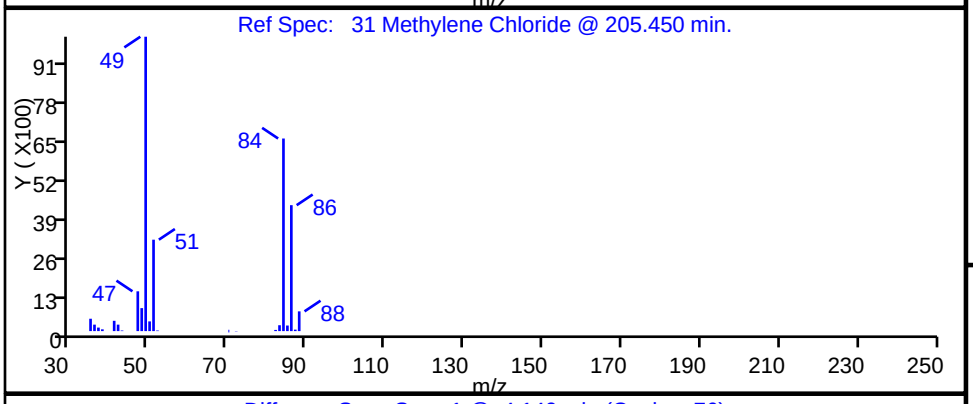
TestAmerica Pittsburgh

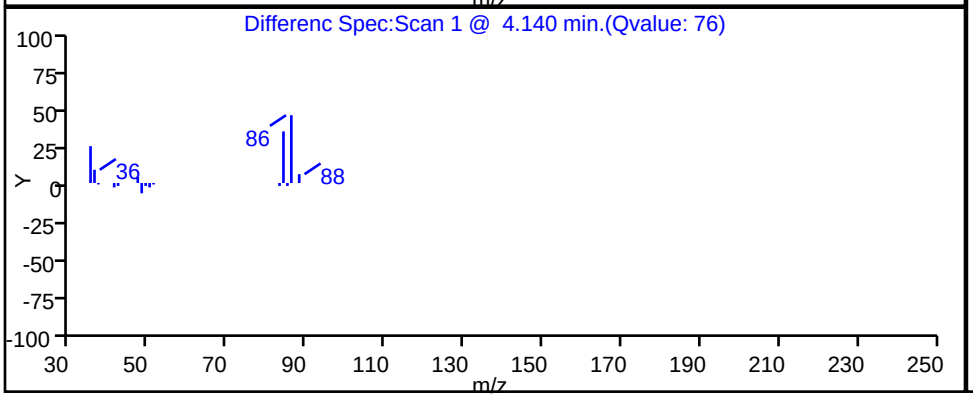
Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530013.D				
Injection Date:	31-May-2015 13:37:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-D-27	Lab Sample ID:	180-44321-27		
Client ID:	HD-MW-97-0/1-0				
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

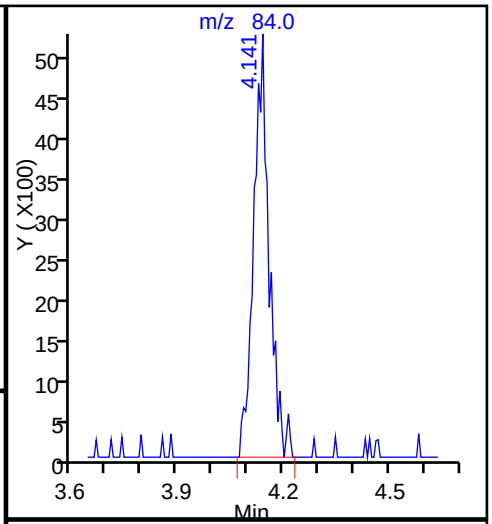
31 Methylene Chloride, CAS: 75-09-2

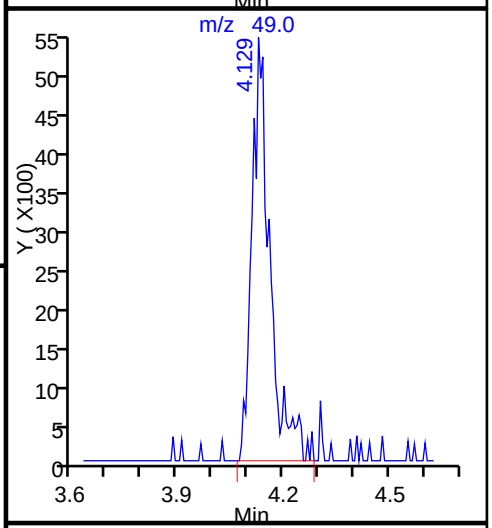


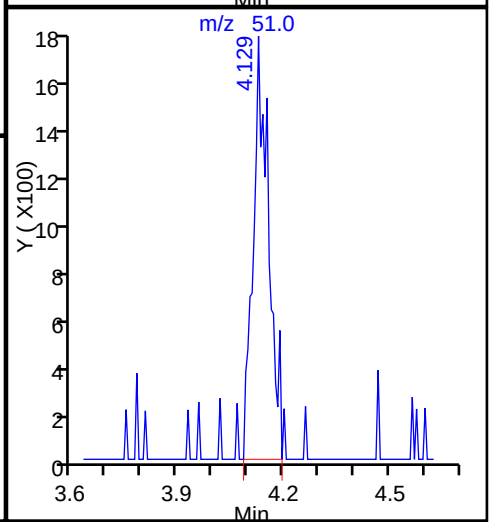










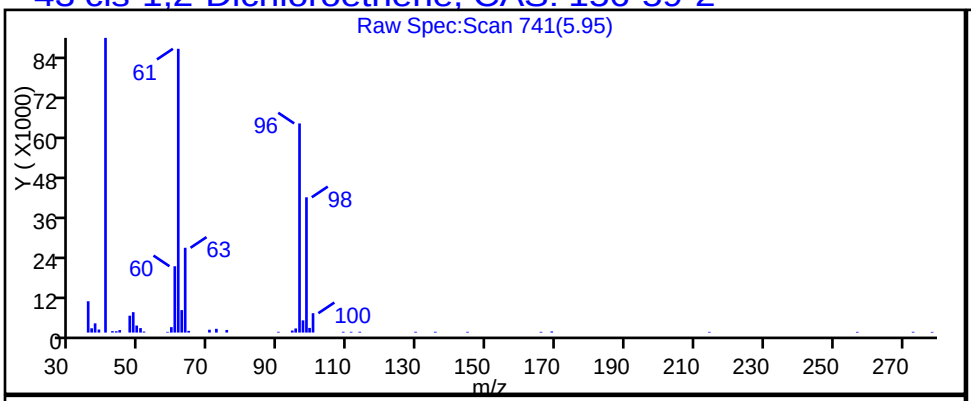


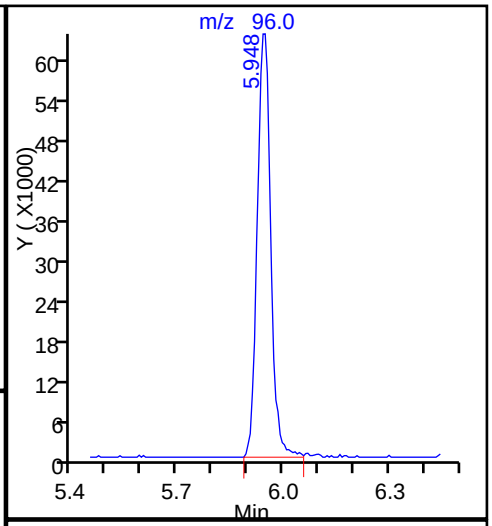
Report Date: 31-May-2015 16:21:09 Chrom Revision: 2.2 05-May-2015 11:39:10

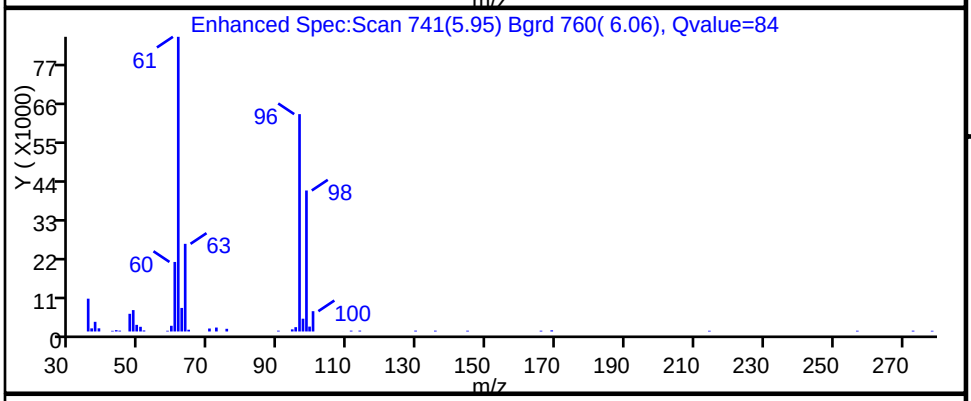
TestAmerica Pittsburgh

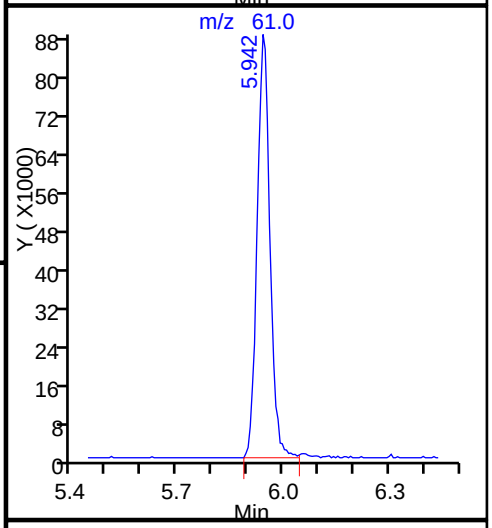
Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530013.D				
Injection Date:	31-May-2015 13:37:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-D-27	Lab Sample ID:	180-44321-27		
Client ID:	HD-MW-97-0/1-0				
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

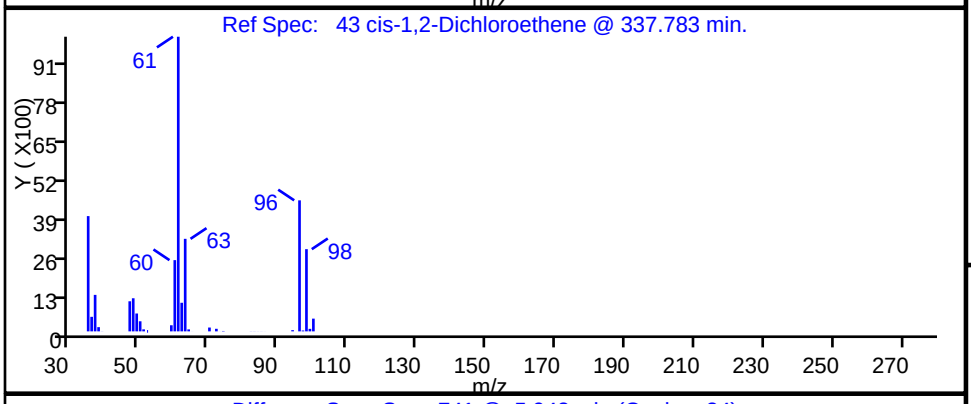
43 cis-1,2-Dichloroethene, CAS: 156-59-2

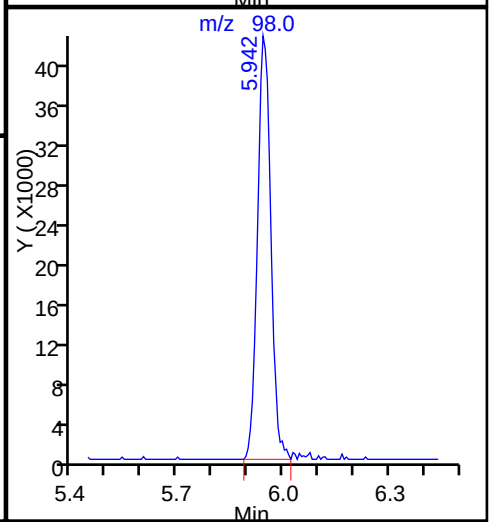


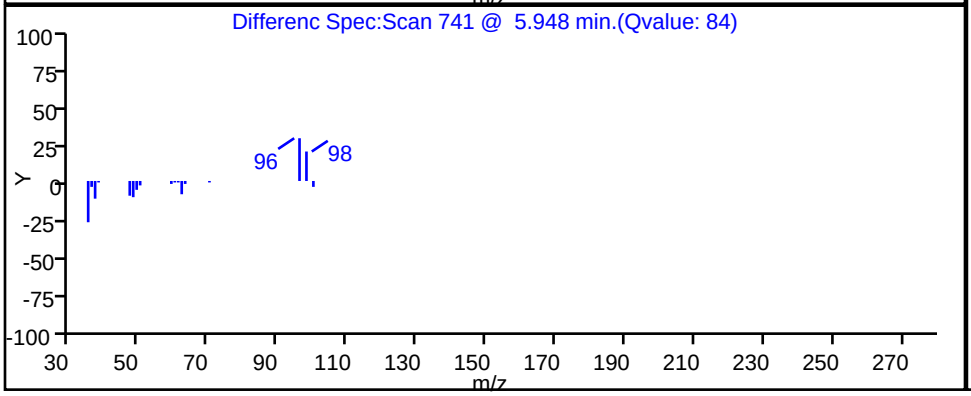










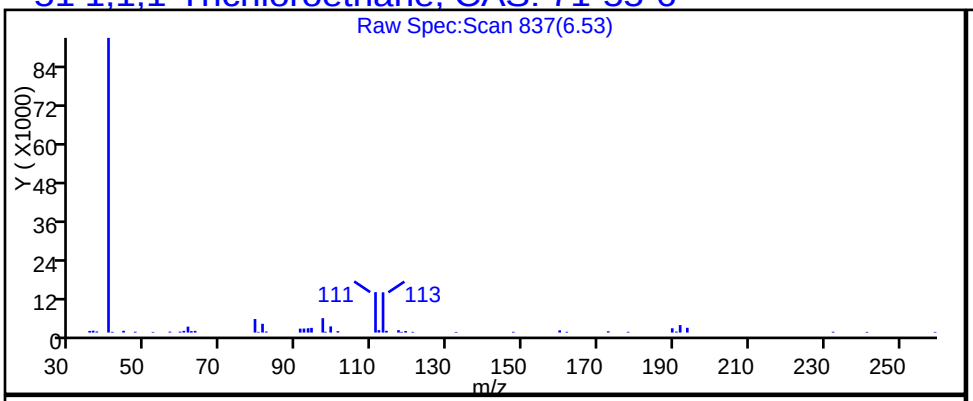


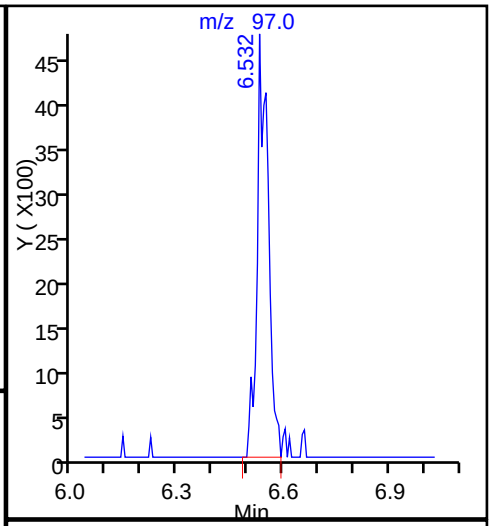
Report Date: 31-May-2015 16:21:09 Chrom Revision: 2.2 05-May-2015 11:39:10

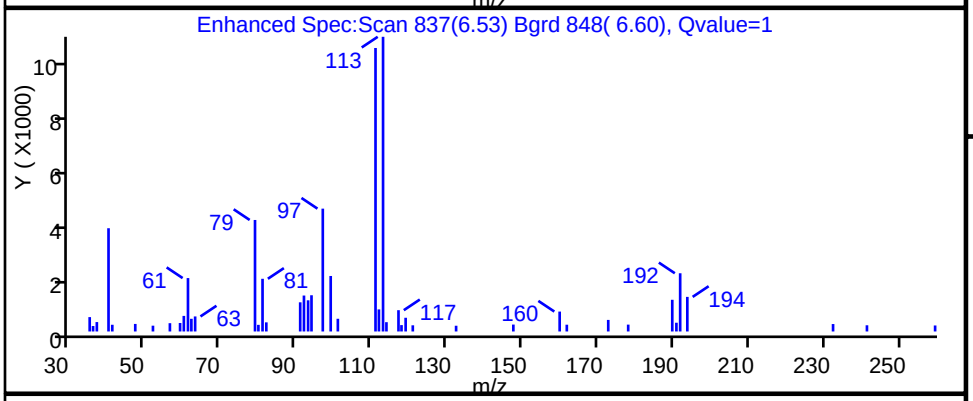
TestAmerica Pittsburgh

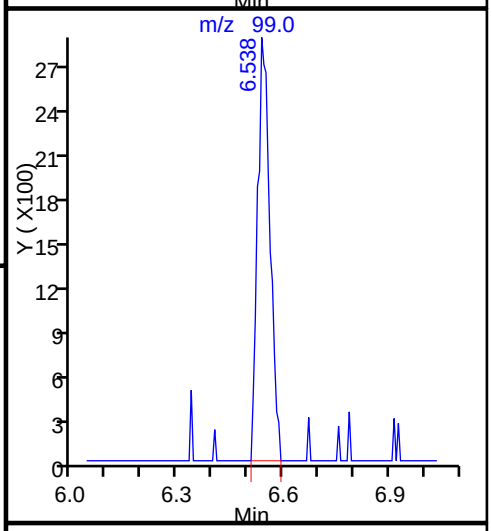
Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530013.D				
Injection Date:	31-May-2015 13:37:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-D-27	Lab Sample ID:	180-44321-27		
Client ID:	HD-MW-97-0/1-0				
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

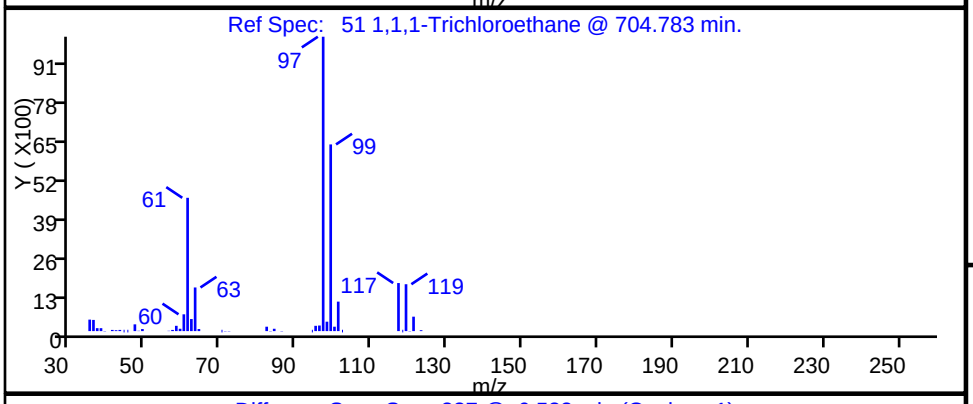
51 1,1,1-Trichloroethane, CAS: 71-55-6

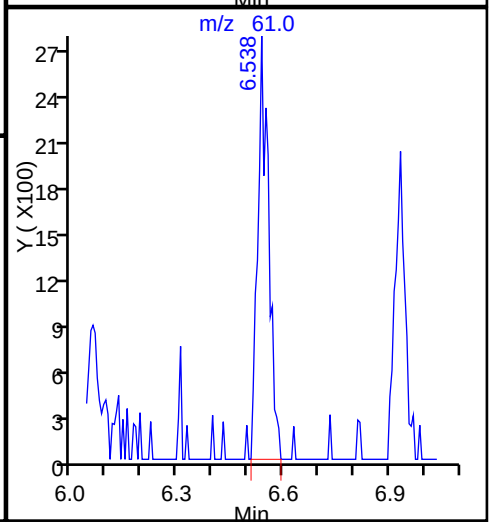


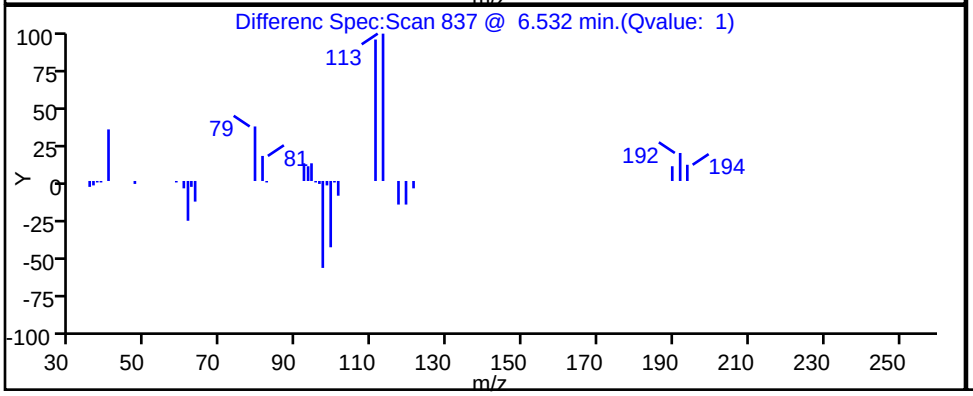










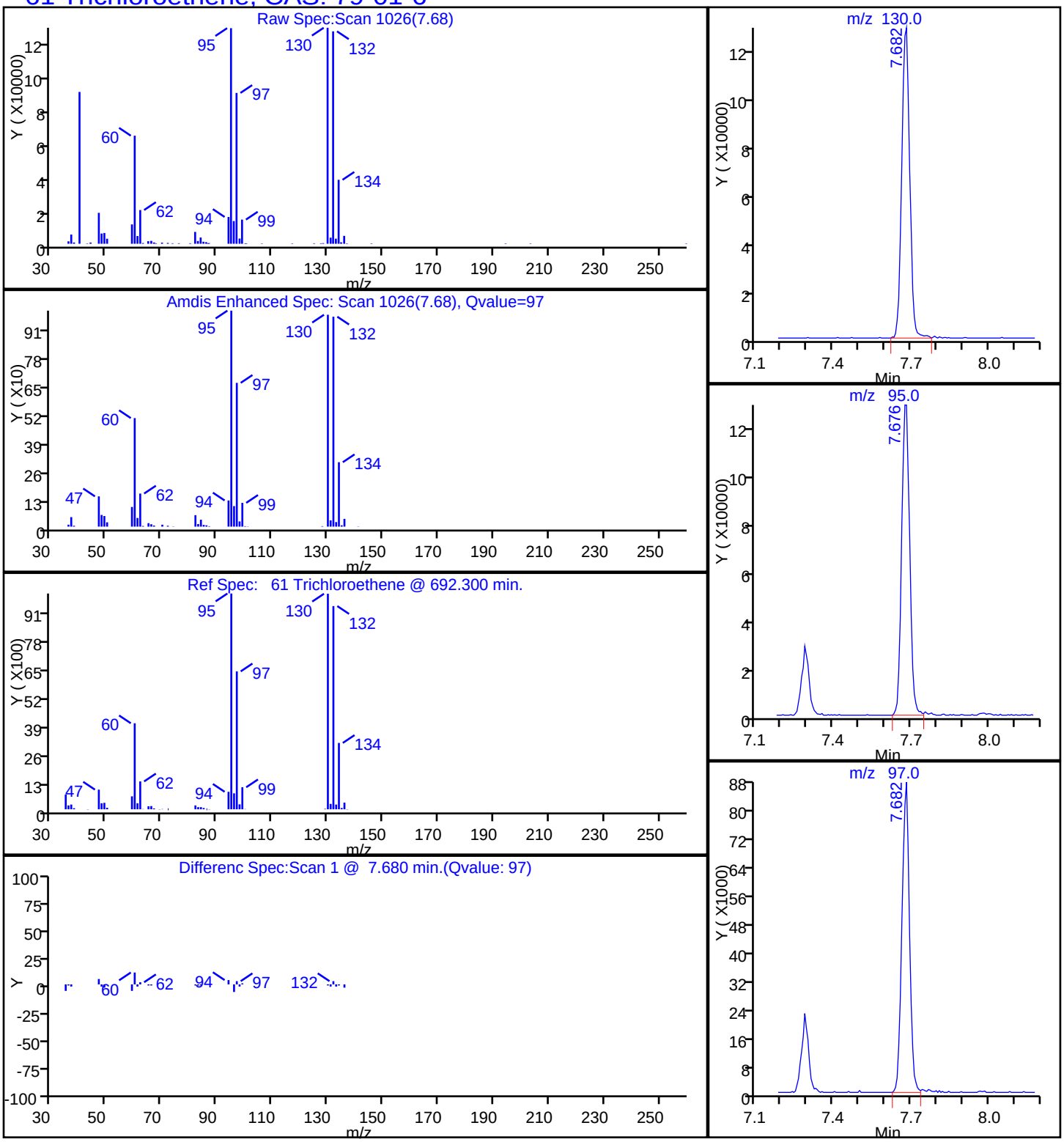


Report Date: 31-May-2015 16:21:09 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530013.D		
Injection Date:	31-May-2015 13:37:30	Instrument ID:	CHHP6
Lims ID:	180-44321-D-27	Lab Sample ID:	180-44321-27
Client ID:	HD-MW-97-0/1-0		
Operator ID:	034635	ALS Bottle#:	4 Worklist Smp#: 13
Purge Vol:	5.000 mL	Dil. Factor:	25.0000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

61 Trichloroethene, CAS: 79-01-6

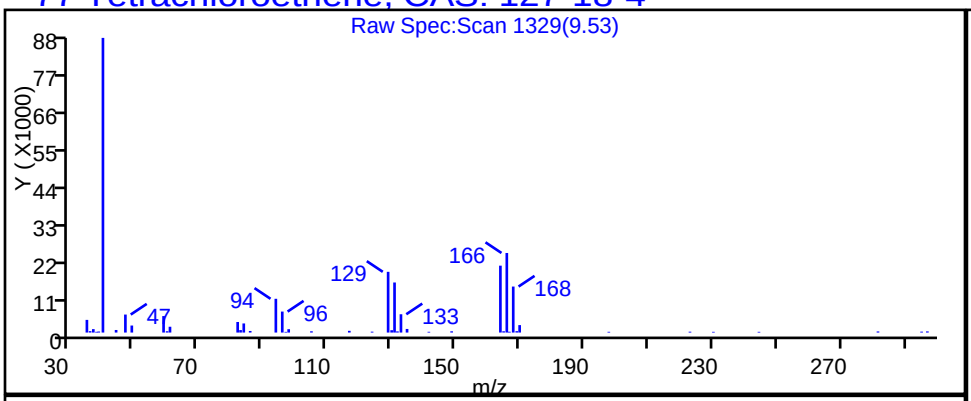


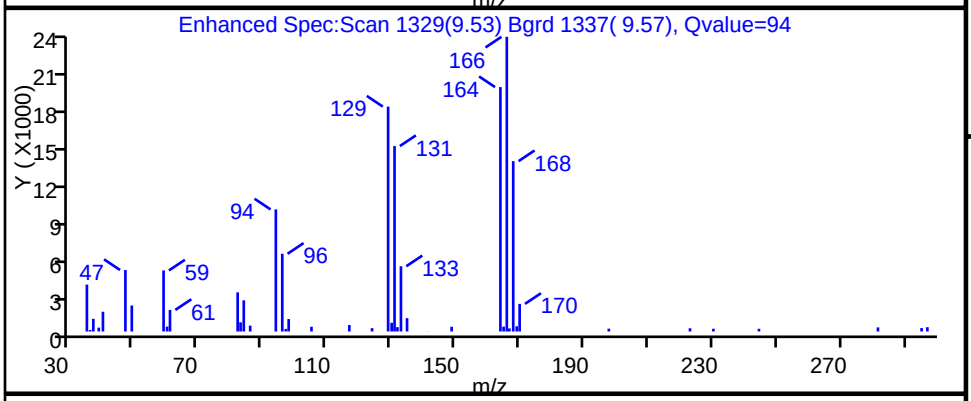
Report Date: 31-May-2015 16:21:09 Chrom Revision: 2.2 05-May-2015 11:39:10

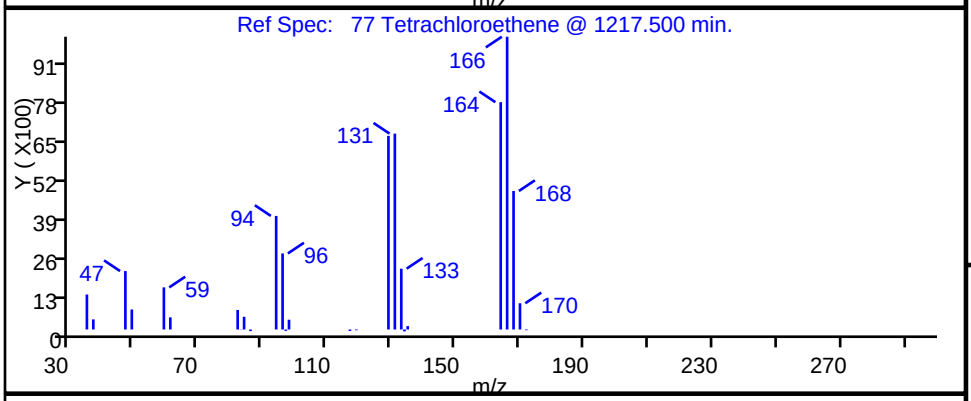
TestAmerica Pittsburgh

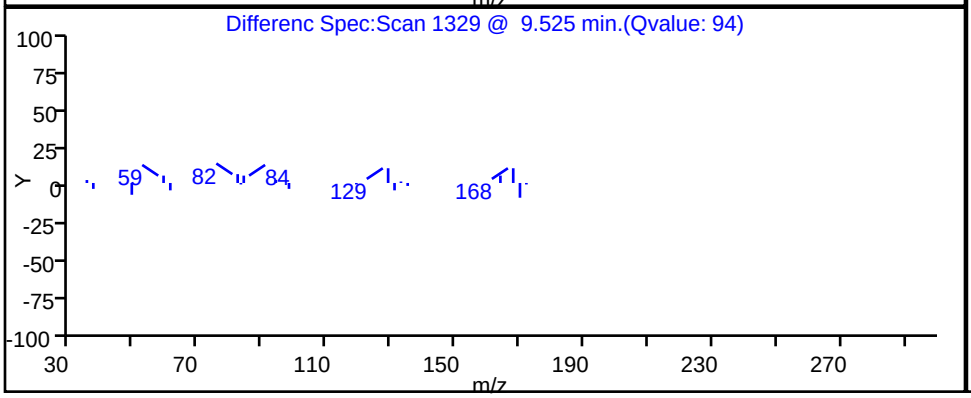
Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530013.D				
Injection Date:	31-May-2015 13:37:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-D-27	Lab Sample ID:	180-44321-27		
Client ID:	HD-MW-97-0/1-0				
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

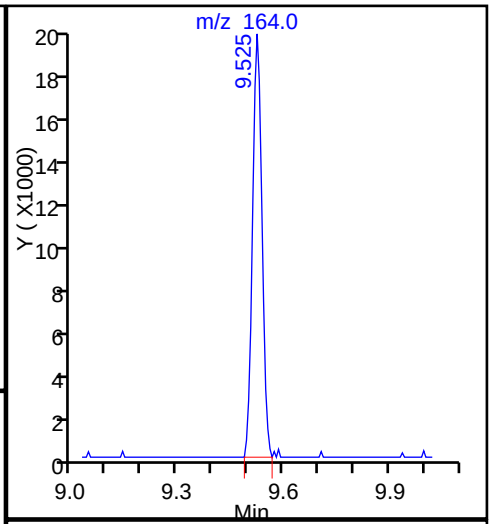
77 Tetrachloroethene, CAS: 127-18-4

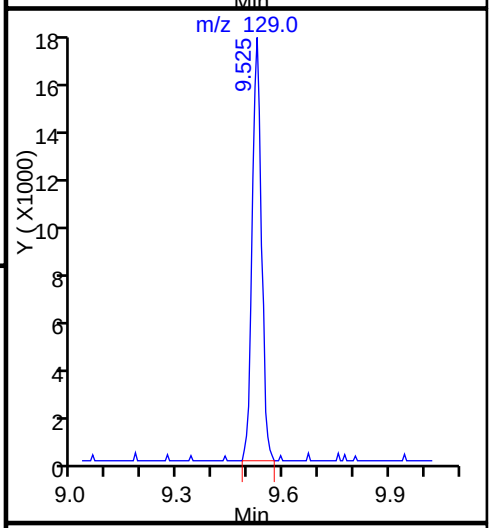


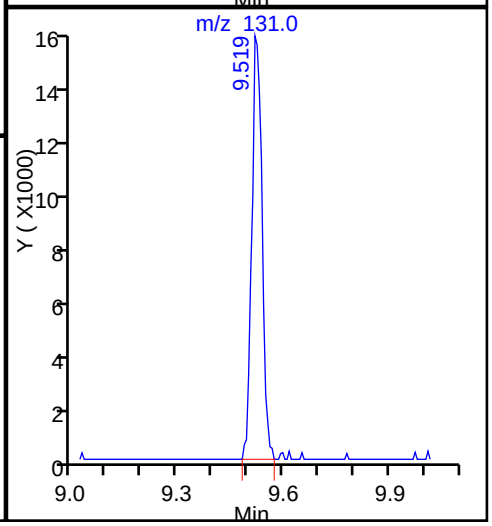












Manual Integration/User Assign Peak Report

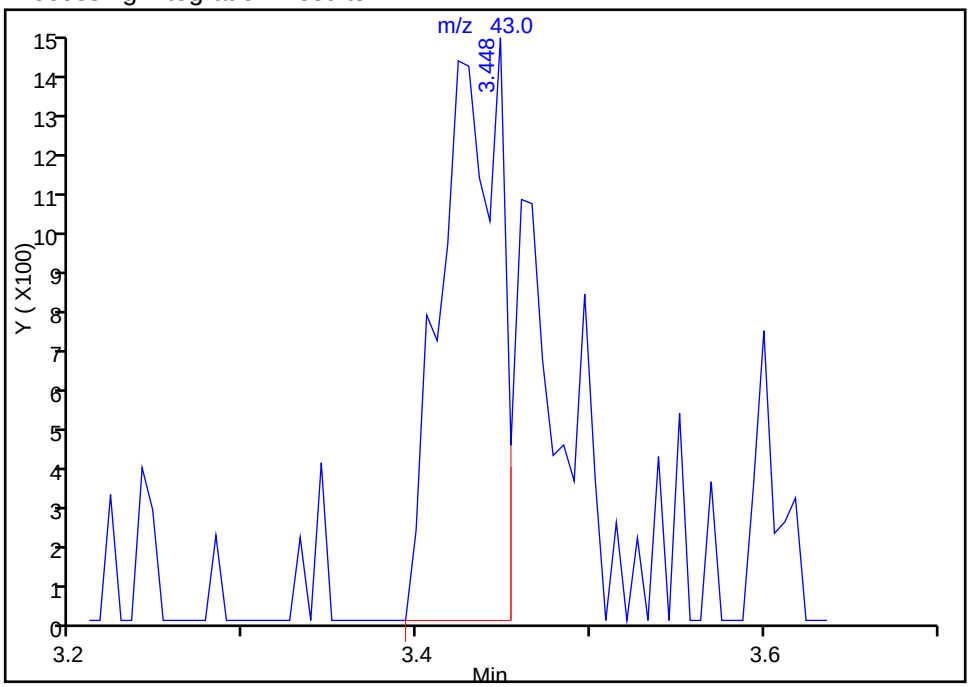
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530013.D				
Injection Date:	31-May-2015 13:37:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-D-27	Lab Sample ID:	180-44321-27		
Client ID:	HD-MW-97-0/1-0				
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

24 Acetone, CAS: 67-64-1

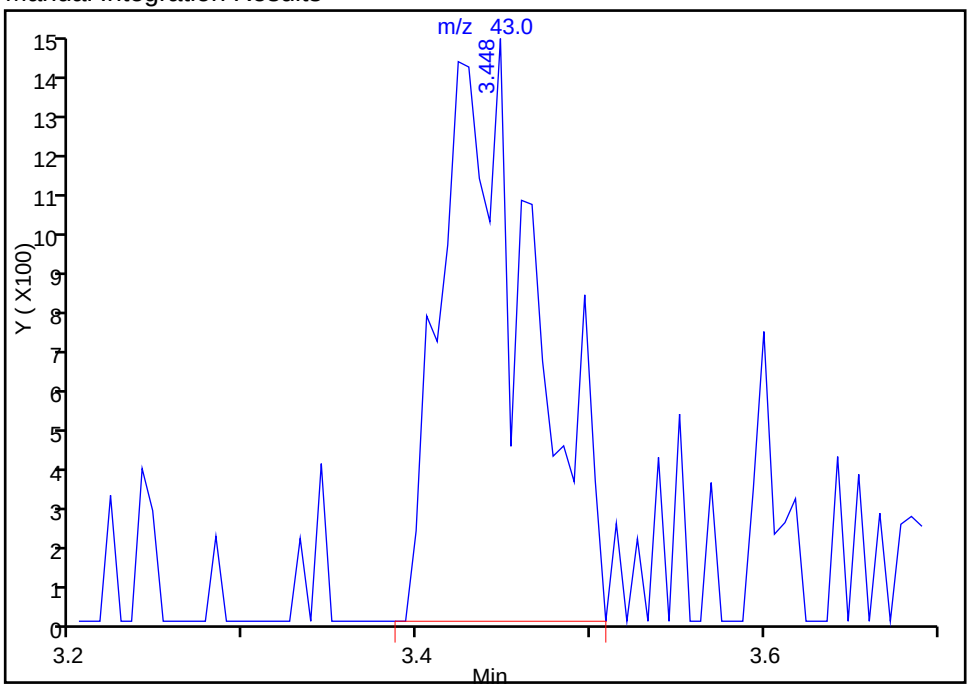
Processing Integration Results

RT: 3.45
Area: 3331
Amount: 4.156485
Amount Units: ng



Manual Integration Results

RT: 3.45
Area: 5139
Amount: 6.412542
Amount Units: ng



Reviewer: journetp, 31-May-2015 16:00:30
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

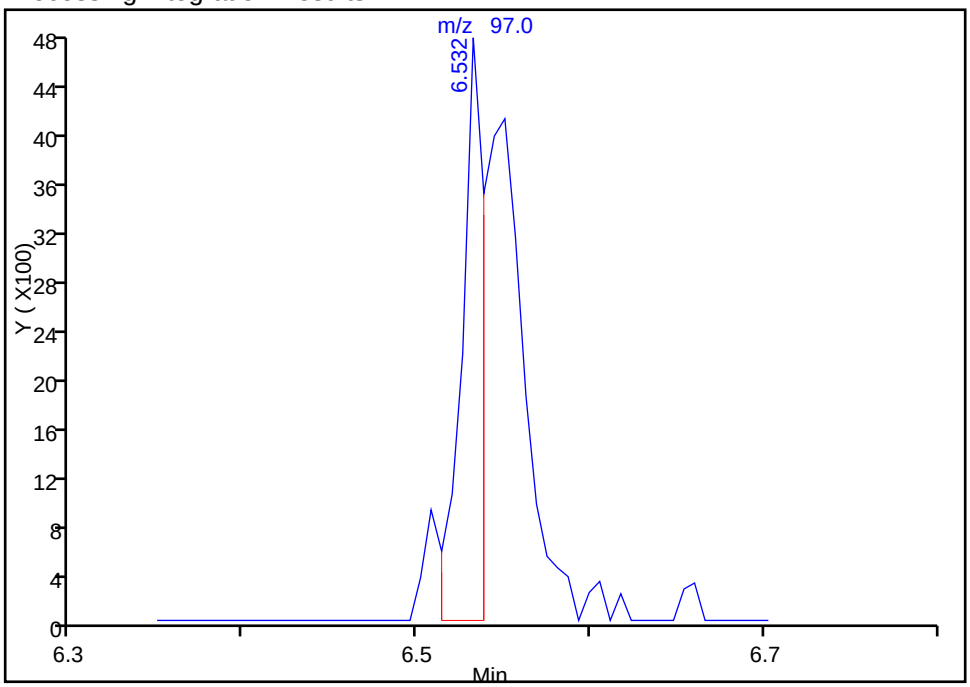
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530013.D				
Injection Date:	31-May-2015 13:37:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-D-27	Lab Sample ID:	180-44321-27		
Client ID:	HD-MW-97-0/1-0				
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	25.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

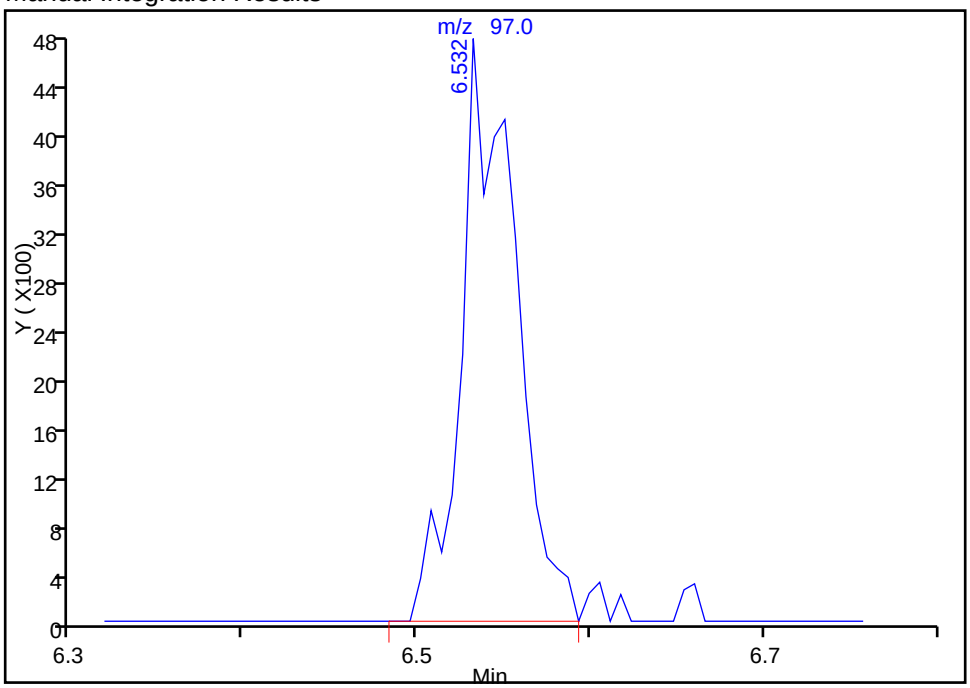
Processing Integration Results

RT: 6.53
Area: 4392
Amount: 0.944448
Amount Units: ng



Manual Integration Results

RT: 6.53
Area: 10435
Amount: 2.243923
Amount Units: ng



Reviewer: journetp, 31-May-2015 16:00:30
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-CW-18-0/1-0 Lab Sample ID: 180-44321-28

Matrix: Water Lab File ID: 60530014.D

Analysis Method: 8260C Date Collected: 05/20/2015 14:00

Sample wt/vol: 5(mL) Date Analyzed: 05/31/2015 14:01

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143337 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	1.0	U	1.0	0.28
75-01-4	Vinyl chloride	1.0	U	1.0	0.23
74-83-9	Bromomethane	1.0	U	1.0	0.31
75-00-3	Chloroethane	1.0	U	1.0	0.21
75-35-4	1,1-Dichloroethene	0.80	J	1.0	0.30
67-64-1	Acetone	5.0	U	5.0	2.5
75-15-0	Carbon disulfide	1.0	U	1.0	0.21
75-09-2	Methylene Chloride	1.0	U	1.0	0.13
156-60-5	trans-1,2-Dichloroethene	1.0	U	1.0	0.17
1634-04-4	Methyl tert-butyl ether	1.0	U	1.0	0.18
75-34-3	1,1-Dichloroethane	1.2		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	30		1.0	0.24
74-97-5	Bromochloromethane	1.0	U	1.0	0.18
78-93-3	2-Butanone (MEK)	5.0	U	5.0	0.55
67-66-3	Chloroform	1.0	U	1.0	0.17
71-55-6	1,1,1-Trichloroethane	1.0	U	1.0	0.29
56-23-5	Carbon tetrachloride	1.0	U	1.0	0.14
71-43-2	Benzene	1.0	U	1.0	0.11
107-06-2	1,2-Dichloroethane	1.0	U	1.0	0.21
79-01-6	Trichloroethene	6.6		1.0	0.14
78-87-5	1,2-Dichloropropane	1.0	U	1.0	0.095
75-27-4	Bromodichloromethane	1.0	U	1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	1.0	U	1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	5.0	U	5.0	0.53
108-88-3	Toluene	1.0	U	1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	1.0	U	1.0	0.15
79-00-5	1,1,2-Trichloroethane	1.0	U	1.0	0.20
127-18-4	Tetrachloroethene	0.34	J	1.0	0.15
591-78-6	2-Hexanone	5.0	U	5.0	0.16
124-48-1	Dibromochloromethane	1.0	U	1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	1.0	0.18
108-90-7	Chlorobenzene	1.0	U	1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	1.0	0.28
100-41-4	Ethylbenzene	1.0	U	1.0	0.23
1330-20-7	Xylenes, Total	3.0	U	3.0	0.49
100-42-5	Styrene	1.0	U	1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-CW-18-0/1-0 Lab Sample ID: 180-44321-28

Matrix: Water Lab File ID: 60530014.D

Analysis Method: 8260C Date Collected: 05/20/2015 14:00

Sample wt/vol: 5(mL) Date Analyzed: 05/31/2015 14:01

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143337 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)	92		64-135
2037-26-5	Toluene-d8 (Surr)	90		71-118
460-00-4	4-Bromofluorobenzene (Surr)	101		70-118
1868-53-7	Dibromofluoromethane (Surr)	103		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530014.D
Lims ID: 180-44321-D-28 Lab Sample ID: 180-44321-28
Client ID: HD-CW-18-0/1-0
Sample Type: Client
Inject. Date: 31-May-2015 14:01:30 ALS Bottle#: 5 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-44321-D-28
Misc. Info.: 180-0007190-014
Operator ID: 034635 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 31-May-2015 16:21:03 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK001

First Level Reviewer: journetp Date: 31-May-2015 16:14:28

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.229	4.236	-0.007	88	163546	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.284	0.005	98	532924	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.393	0.005	91	118871	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.746	12.747	-0.001	98	182418	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.559	6.554	0.005	92	113451	51.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.930	6.925	0.005	70	169549	46.0	
$ 7 Toluene-d8 (Surr)	98	8.944	8.939	0.005	93	452558	45.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.584	11.579	0.005	84	206416	50.3	
12 Chloromethane	50		1.760				ND	
13 Vinyl chloride	62	1.881	1.882	-0.001	23	2361	0.8197	
15 Bromomethane	94		2.229				ND	
16 Chloroethane	64		2.375				ND	
22 1,1-Dichloroethene	96	3.347	3.336	0.011	95	9881	4.00	
24 Acetone	43	3.438	3.421	0.017	1	3369	4.76	M
26 Carbon disulfide	76		3.628				ND	
31 Methylene Chloride	84		4.115				ND	
33 Acrylonitrile	53		4.498				ND	
34 trans-1,2-Dichloroethene	96	4.564	4.553	0.011	3	1899	0.6906	M
35 Methyl tert-butyl ether	73		4.565				ND	
37 1,1-Dichloroethane	63	5.203	5.198	0.005	96	31648	6.12	
43 cis-1,2-Dichloroethene	96	5.945	5.940	0.005	84	462468	147.9	
44 2-Butanone (MEK)	43		5.940				ND	
48 Chlorobromomethane	128		6.226				ND	
50 Chloroform	83		6.366				ND	
51 1,1,1-Trichloroethane	97		6.536				ND	
53 Carbon tetrachloride	117		6.712				ND	
56 Benzene	78		6.943				ND	
57 1,2-Dichloroethane	62		7.016				ND	
61 Trichloroethene	130	7.679	7.673	0.006	98	83394	32.9	
64 1,2-Dichloropropane	63		7.947				ND	
65 1,4-Dioxane	88		8.020				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.227				ND	
71 cis-1,3-Dichloropropene	75		8.677				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.823				ND	
73 Toluene	91		9.012				ND	
74 trans-1,3-Dichloropropene	75		9.255				ND	
76 1,1,2-Trichloroethane	97		9.450				ND	
77 Tetrachloroethene	164	9.516	9.523	-0.007	91	3425	1.69	M
79 2-Hexanone	43		9.657				ND	
81 Chlorodibromomethane	129		9.821				ND	
82 Ethylene Dibromide	107		9.937				ND	
84 Chlorobenzene	112		10.423				ND	
86 1,1,1,2-Tetrachloroethane	131		10.521				ND	
87 Ethylbenzene	106		10.527				ND	
88 m-Xylene & p-Xylene	106		10.654				ND	
89 o-Xylene	106		11.044				ND	
90 Styrene	104		11.062				ND	
91 Bromoform	173		11.244				ND	
96 1,1,2,2-Tetrachloroethane	83		11.713				ND	
S 131 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

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

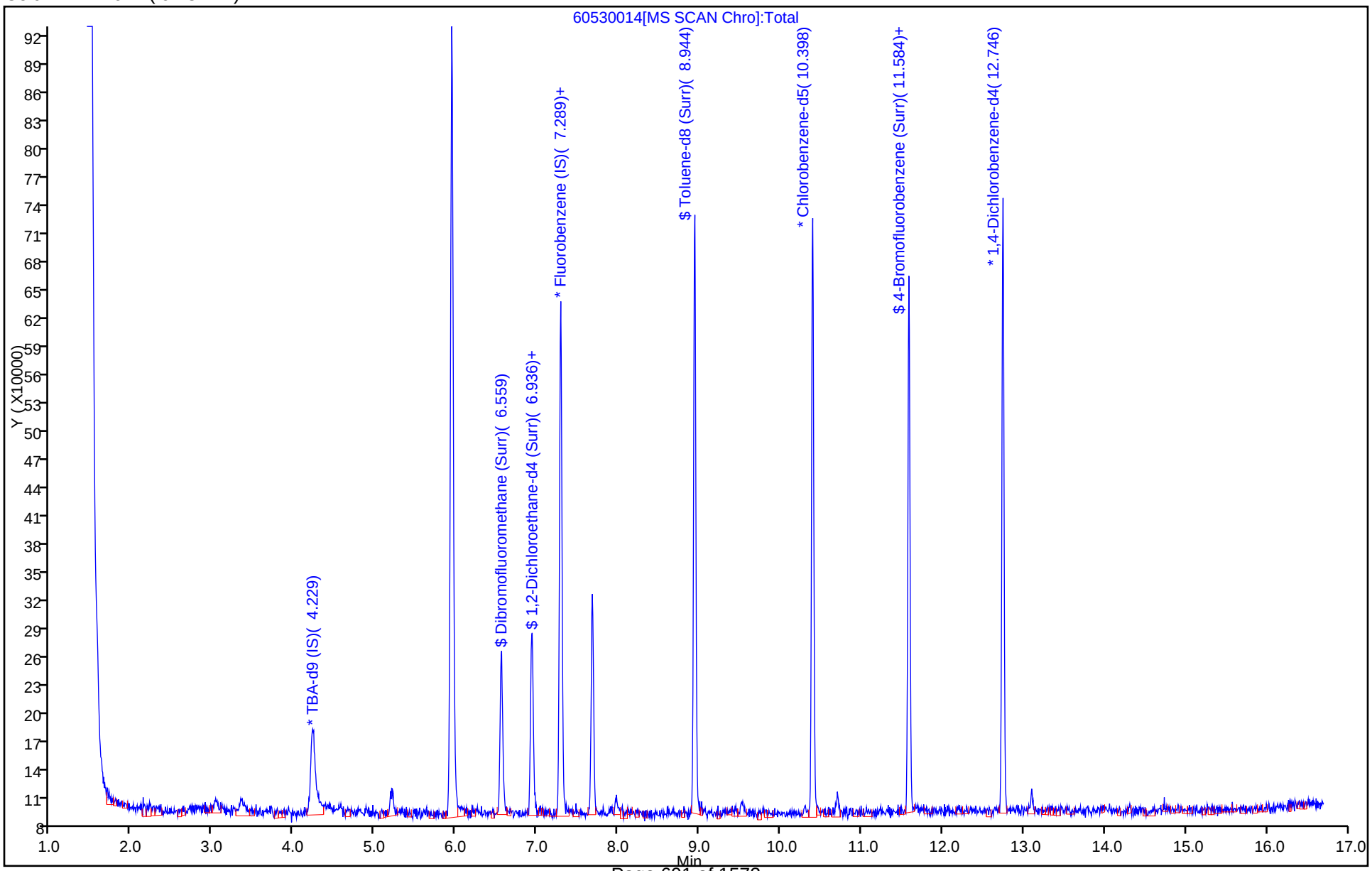
Report Date: 31-May-2015 16:21:10 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530014.D

Injection Date:	31-May-2015 14:01:30	Instrument ID:	CHHP6	Operator ID:	034635
Lims ID:	180-44321-D-28	Lab Sample ID:	180-44321-28	Worklist Smp#:	14
Client ID:	HD-CW-18-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530014.D				
Lims ID:	180-44321-D-28	Lab Sample ID:	180-44321-28		
Client ID:	HD-CW-18-0/1-0				
Sample Type:	Client				
Inject. Date:	31-May-2015 14:01:30	ALS Bottle#:	5	Worklist Smp#:	14
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Sample Info:	180-44321-D-28				
Misc. Info.:	180-0007190-014				
Operator ID:	034635	Instrument ID:	CHHP6		
Method:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\MSVOA_LL_CHHP6.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	31-May-2015 16:21:03	Calib Date:	01-May-2015 16:46:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK001				
First Level Reviewer: journetp		Date:	31-May-2015 16:14:28		

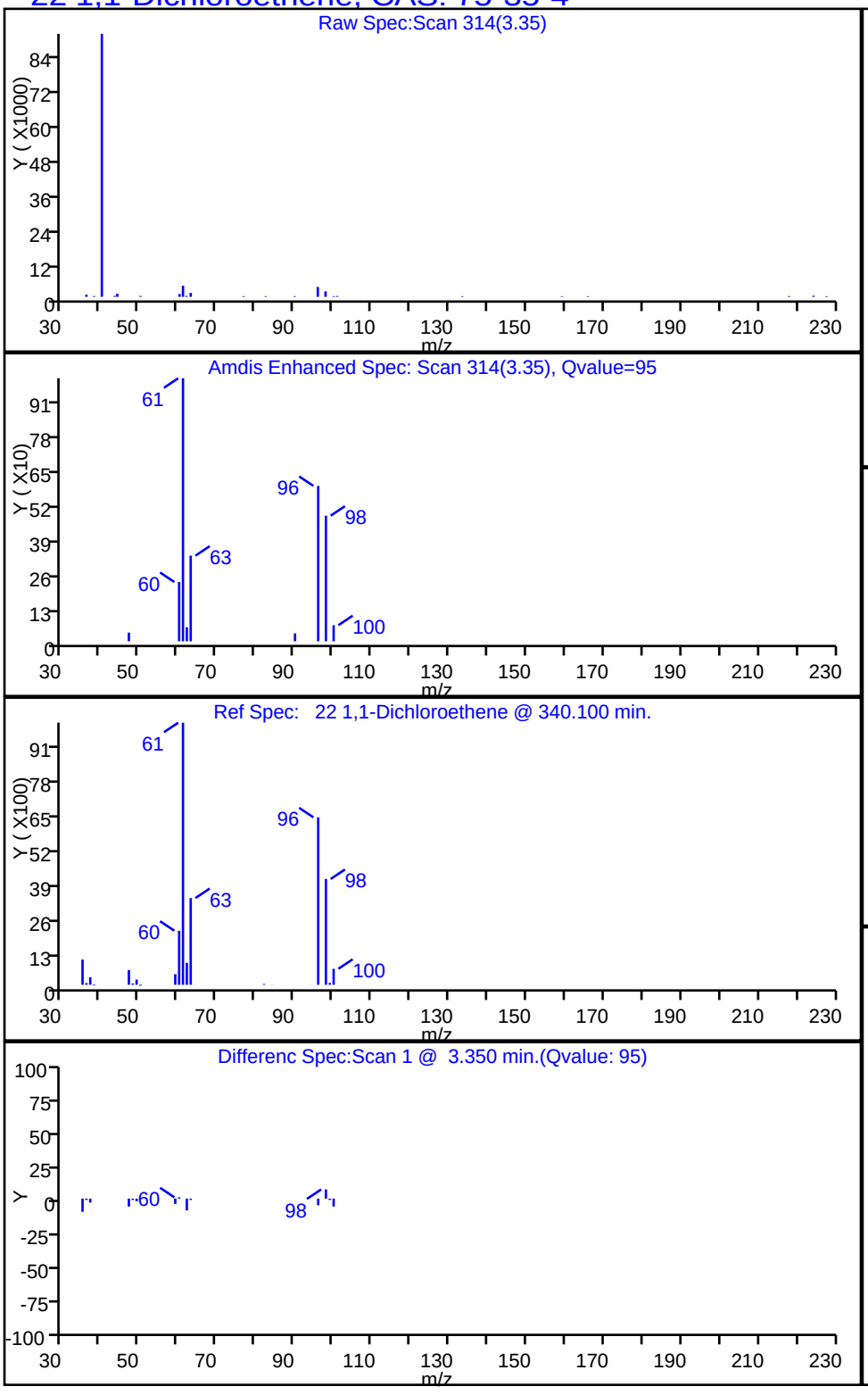
Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	51.5	102.90
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	46.0	92.04
$ 7 Toluene-d8 (Surr)	50.0	45.0	89.99
$ 8 4-Bromofluorobenzene (Surr)	50.0	50.3	100.69

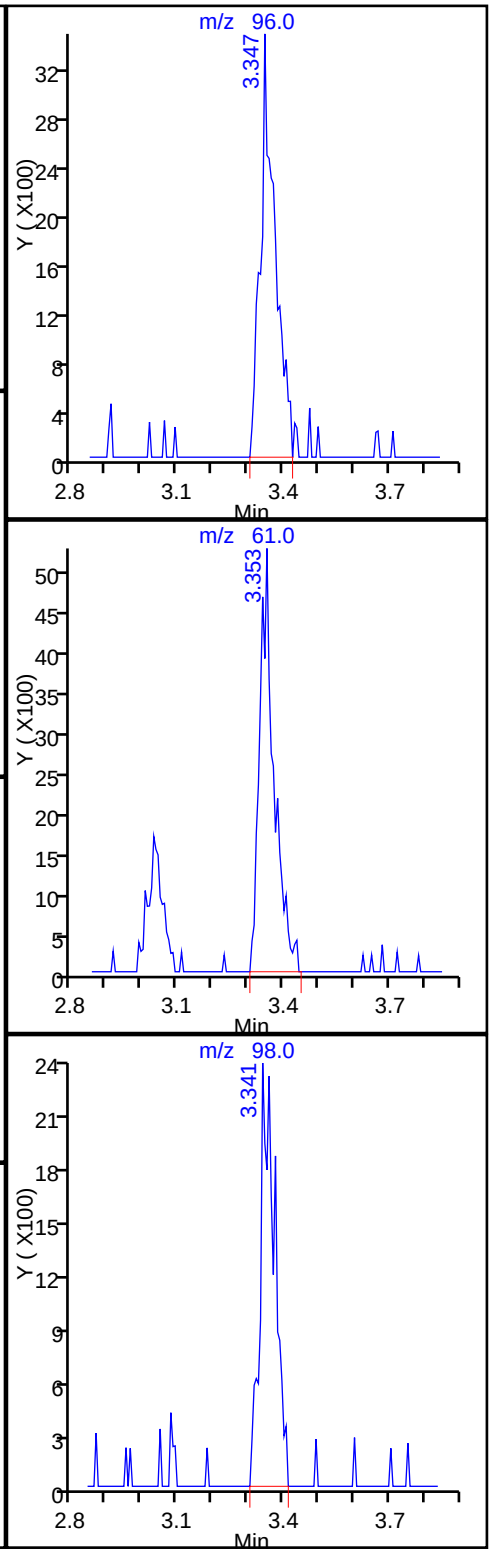
Report Date: 31-May-2015 16:21:10 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530014.D				
Injection Date:	31-May-2015 14:01:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-D-28	Lab Sample ID:	180-44321-28		
Client ID:	HD-CW-18-0/1-0				
Operator ID:	034635	ALS Bottle#:	5	Worklist Smp#:	14
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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



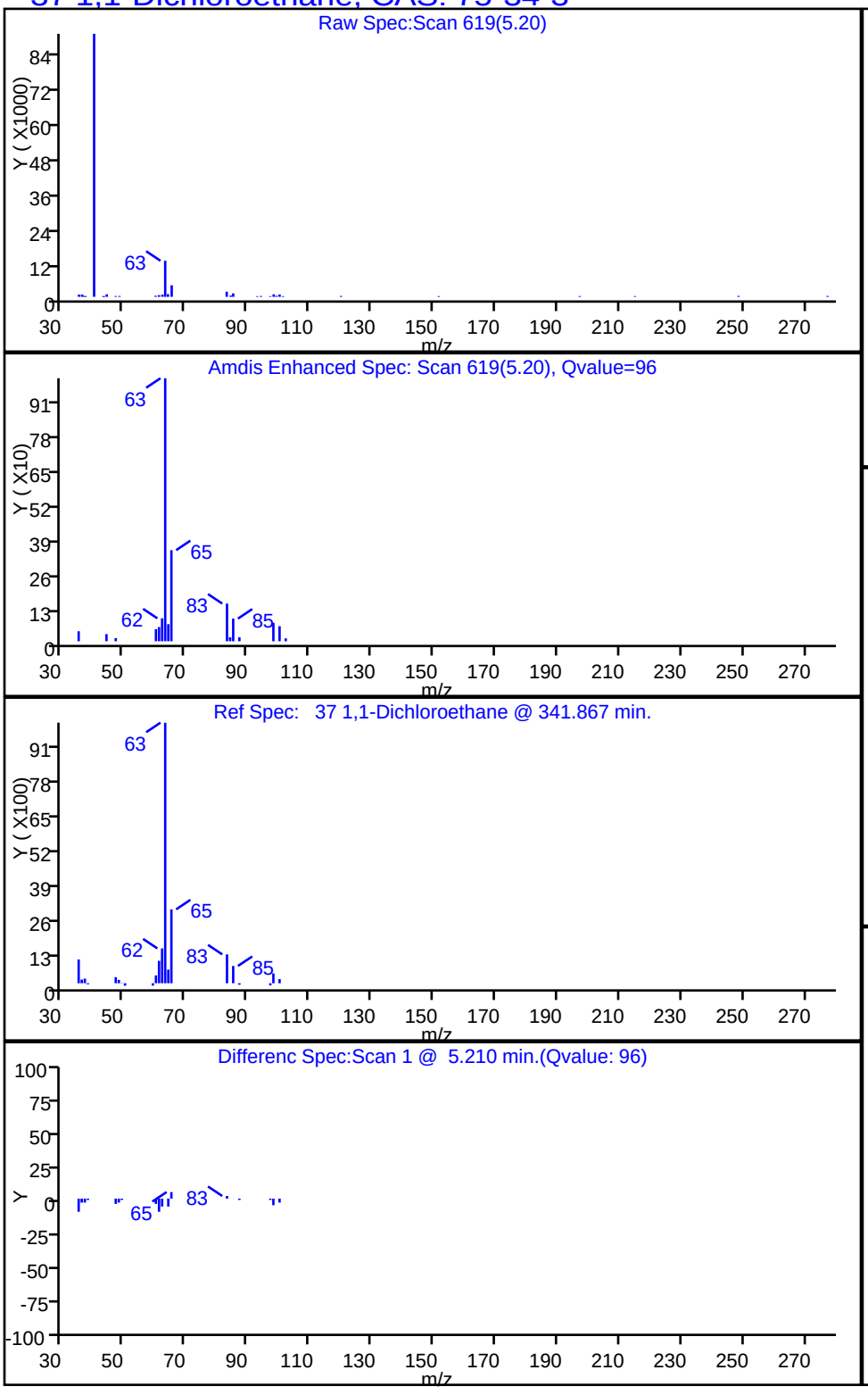


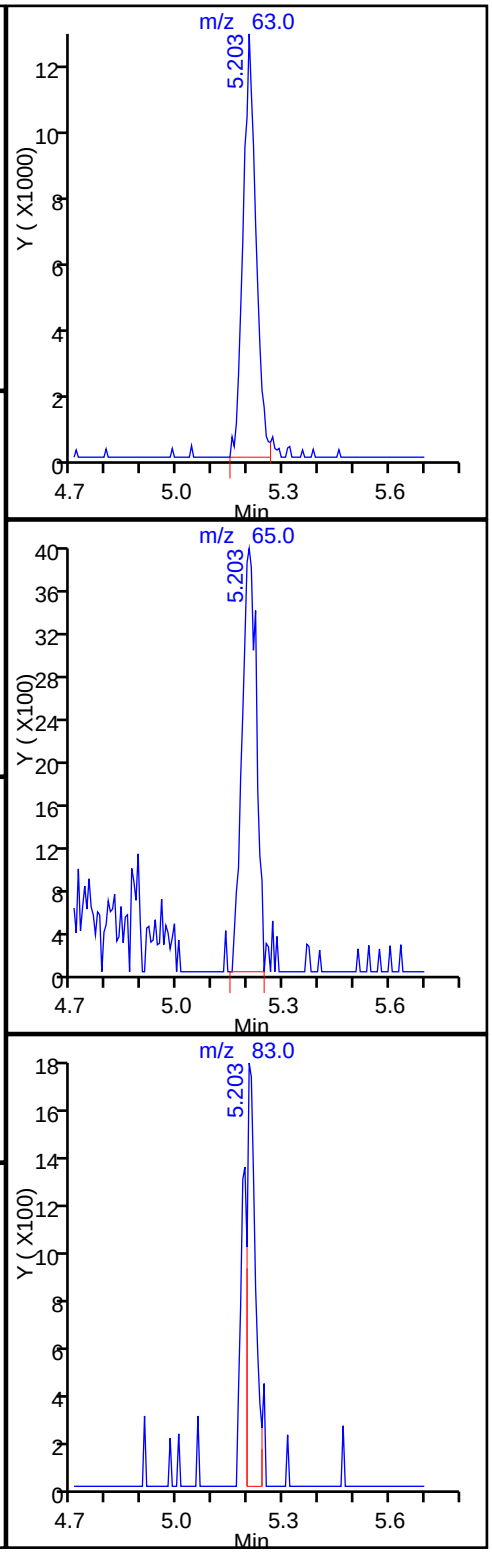
Report Date: 31-May-2015 16:21:10 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530014.D				
Injection Date:	31-May-2015 14:01:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-D-28	Lab Sample ID:	180-44321-28		
Client ID:	HD-CW-18-0/1-0				
Operator ID:	034635	ALS Bottle#:	5	Worklist Smp#:	14
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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



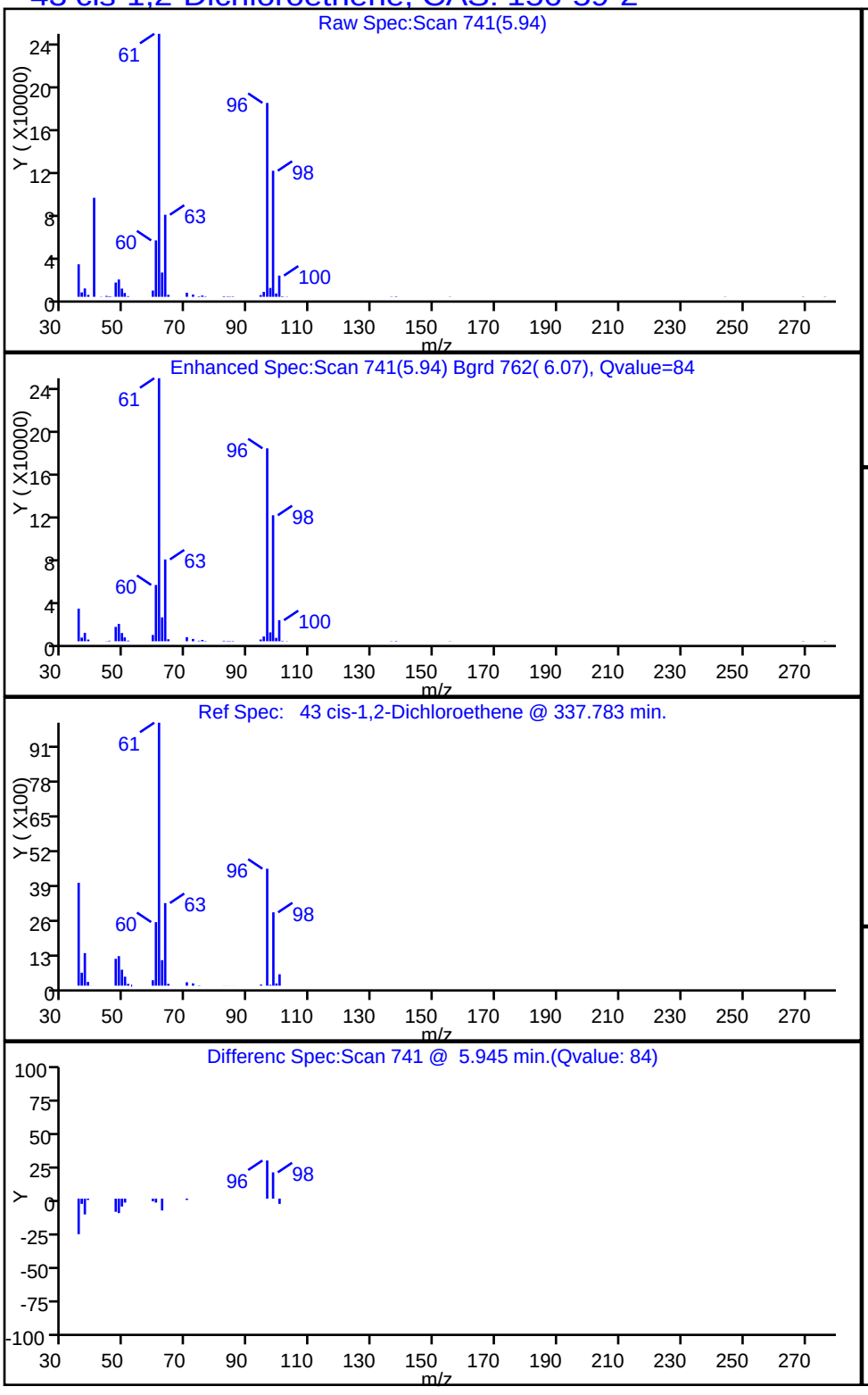


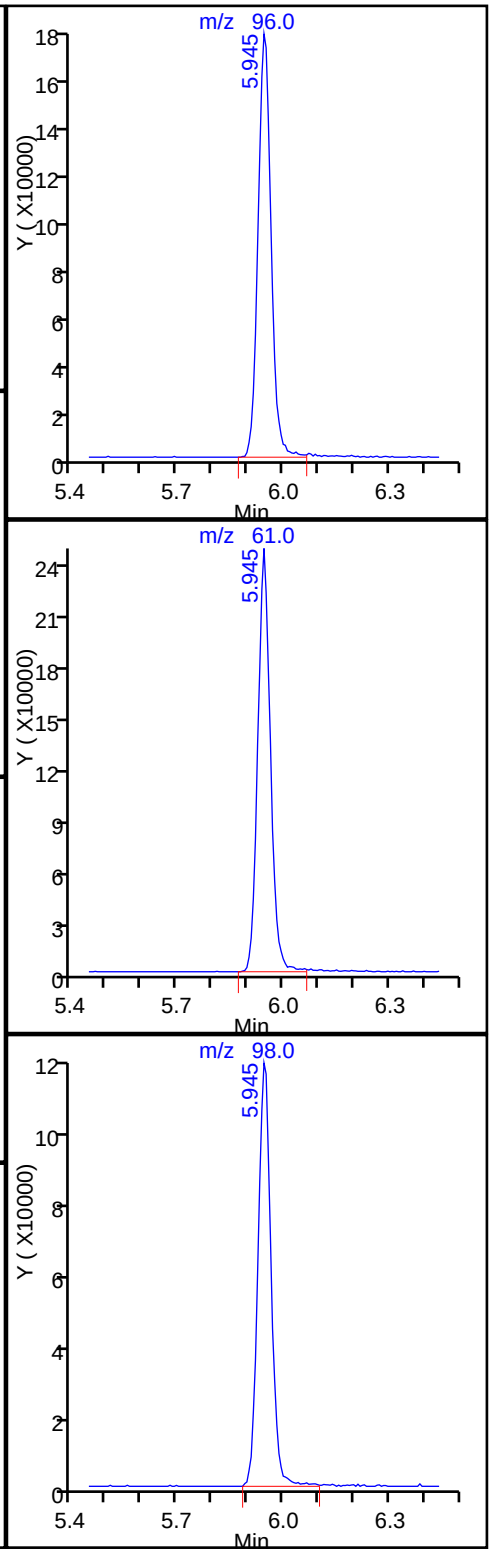
Report Date: 31-May-2015 16:21:10 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530014.D				
Injection Date:	31-May-2015 14:01:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-D-28	Lab Sample ID:	180-44321-28		
Client ID:	HD-CW-18-0/1-0				
Operator ID:	034635	ALS Bottle#:	5	Worklist Smp#:	14
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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



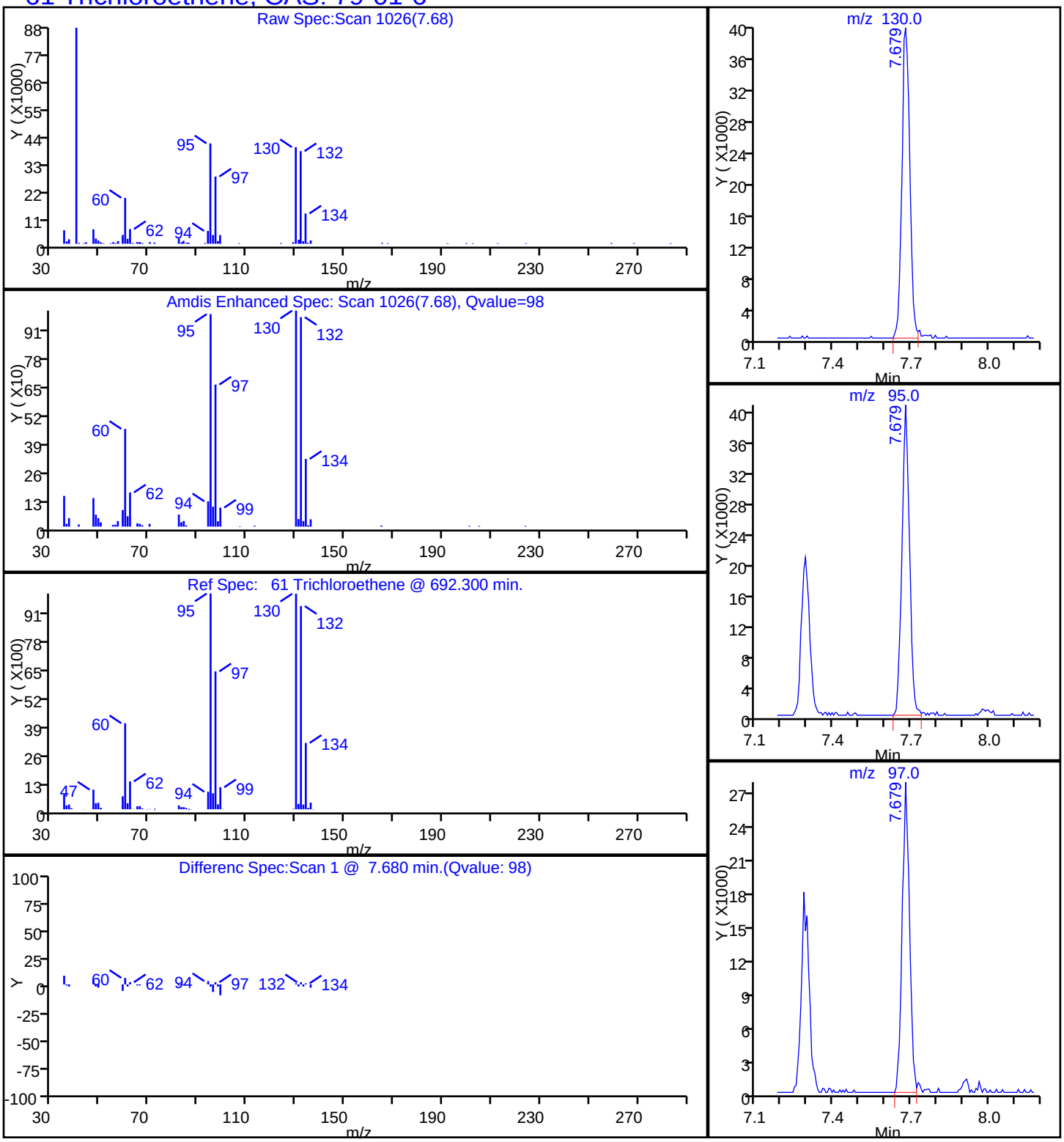


Report Date: 31-May-2015 16:21:10 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530014.D				
Injection Date:	31-May-2015 14:01:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-D-28	Lab Sample ID:	180-44321-28		
Client ID:	HD-CW-18-0/1-0				
Operator ID:	034635	ALS Bottle#:	5	Worklist Smp#:	14
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

61 Trichloroethene, CAS: 79-01-6

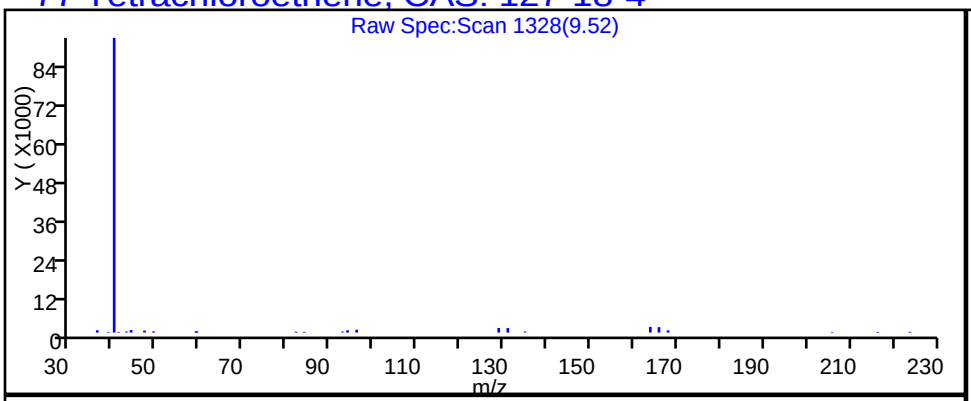


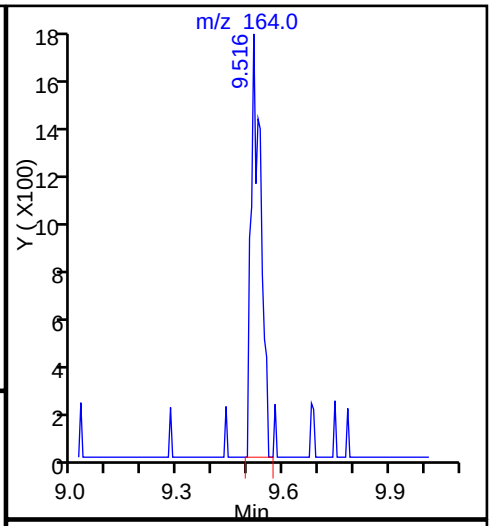
Report Date: 31-May-2015 16:21:10 Chrom Revision: 2.2 05-May-2015 11:39:10

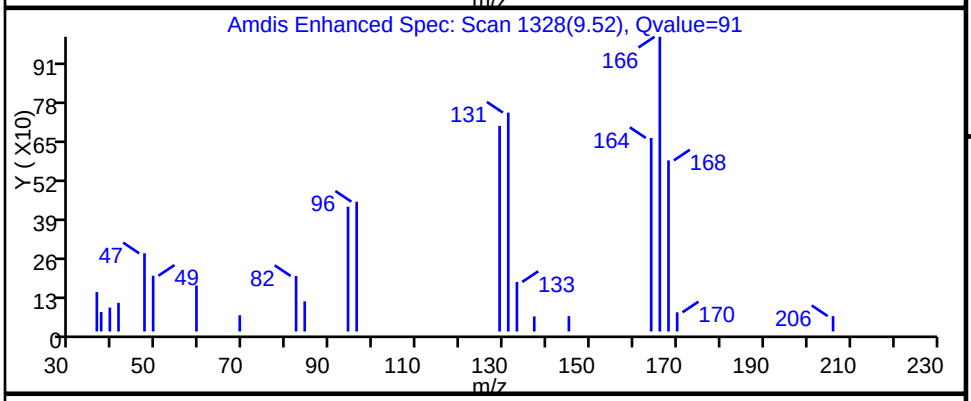
TestAmerica Pittsburgh

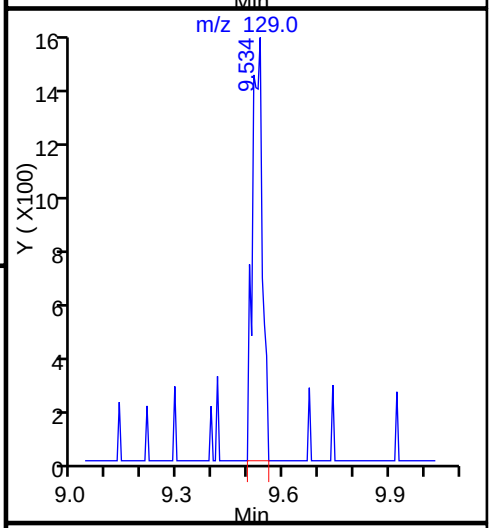
Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530014.D		
Injection Date:	31-May-2015 14:01:30	Instrument ID:	CHHP6
Lims ID:	180-44321-D-28	Lab Sample ID:	180-44321-28
Client ID:	HD-CW-18-0/1-0		
Operator ID:	034635	ALS Bottle#:	5 Worklist Smp#: 14
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

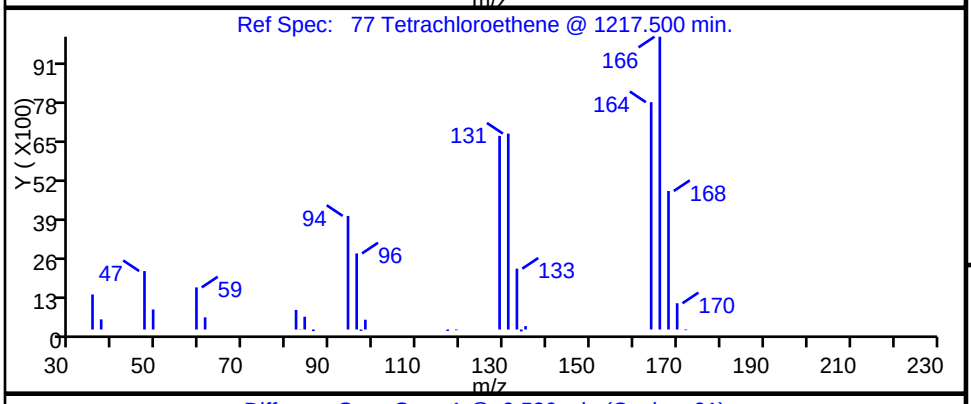
77 Tetrachloroethene, CAS: 127-18-4

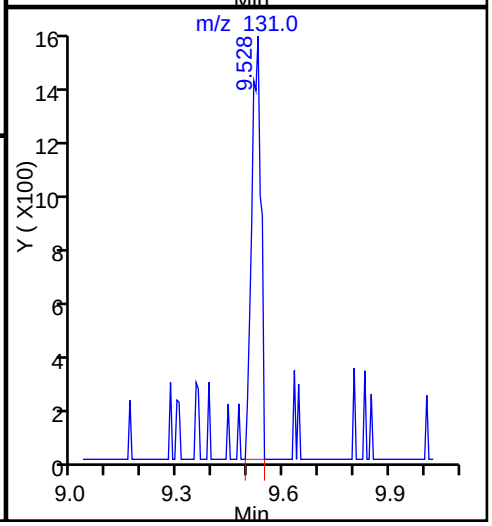


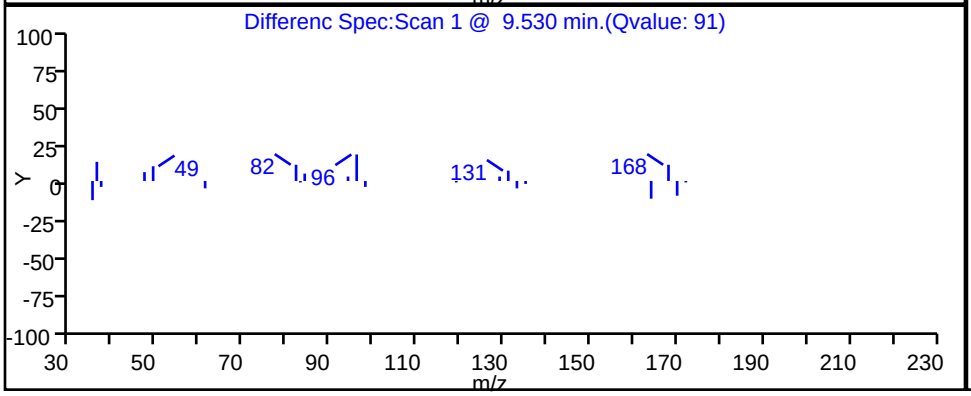












Manual Integration/User Assign Peak Report

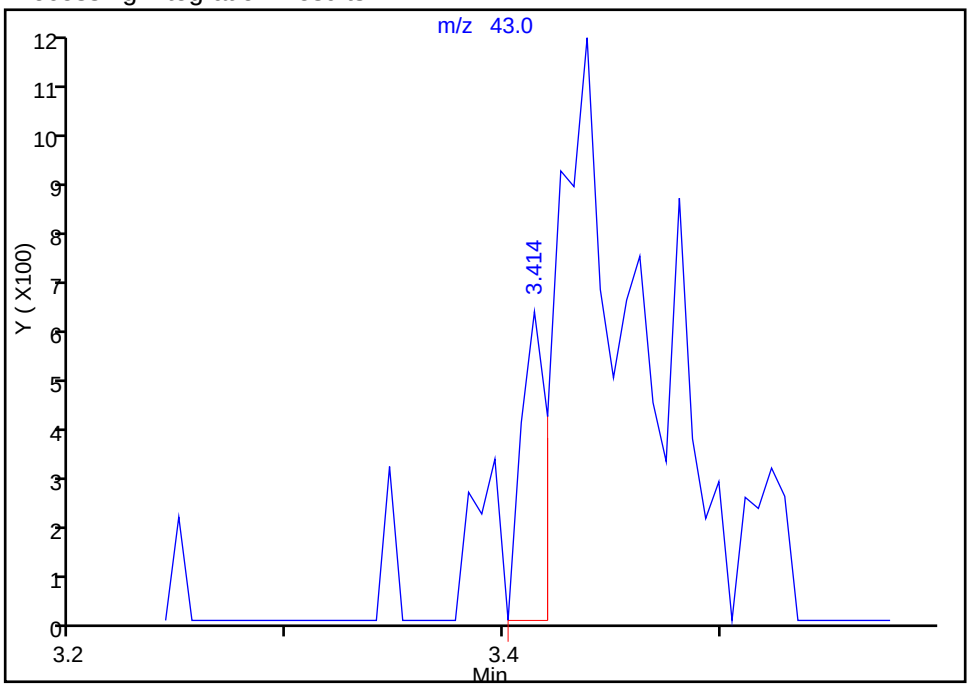
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530014.D				
Injection Date:	31-May-2015 14:01:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-D-28	Lab Sample ID:	180-44321-28		
Client ID:	HD-CW-18-0/1-0				
Operator ID:	034635	ALS Bottle#:	5	Worklist Smp#:	14
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

24 Acetone, CAS: 67-64-1

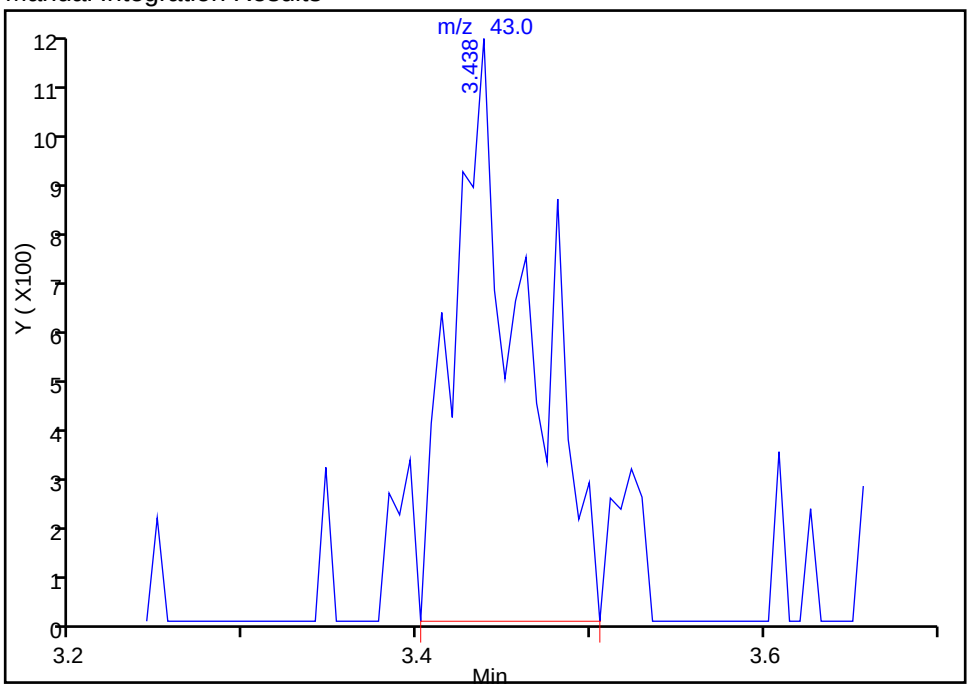
Processing Integration Results

RT: 3.41
Area: 514
Amount: 0.726750
Amount Units: ng



Manual Integration Results

RT: 3.44
Area: 3369
Amount: 4.763464
Amount Units: ng



Reviewer: journetp, 31-May-2015 16:14:28
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

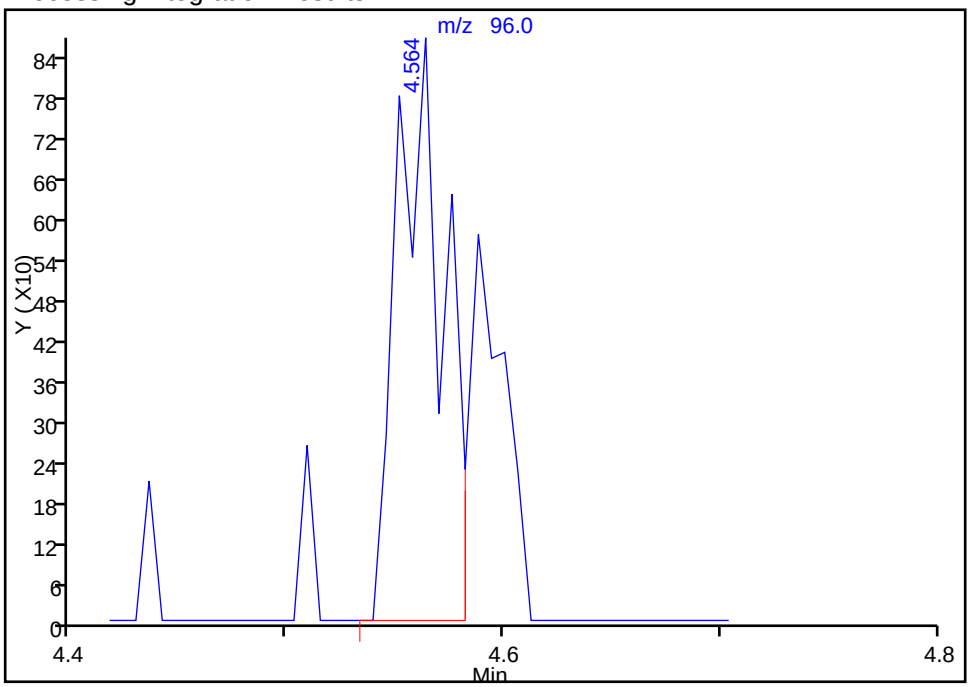
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530014.D				
Injection Date:	31-May-2015 14:01:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-D-28	Lab Sample ID:	180-44321-28		
Client ID:	HD-CW-18-0/1-0				
Operator ID:	034635	ALS Bottle#:	5	Worklist Smp#:	14
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

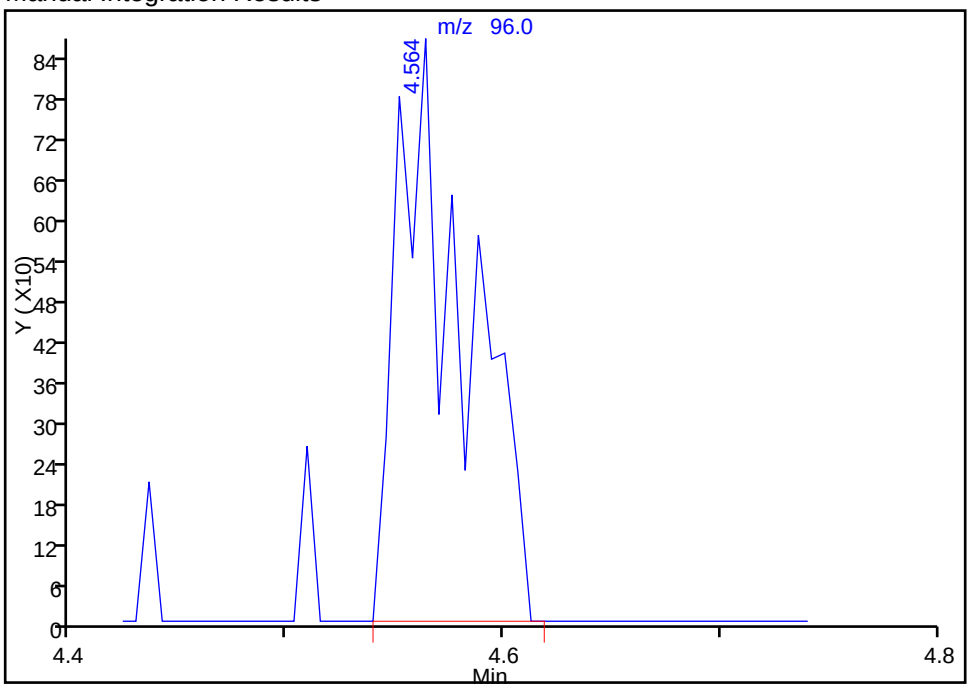
Processing Integration Results

RT: 4.56
Area: 1322
Amount: 0.480798
Amount Units: ng



Manual Integration Results

RT: 4.56
Area: 1899
Amount: 0.690646
Amount Units: ng



Reviewer: journetp, 31-May-2015 16:14:28
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

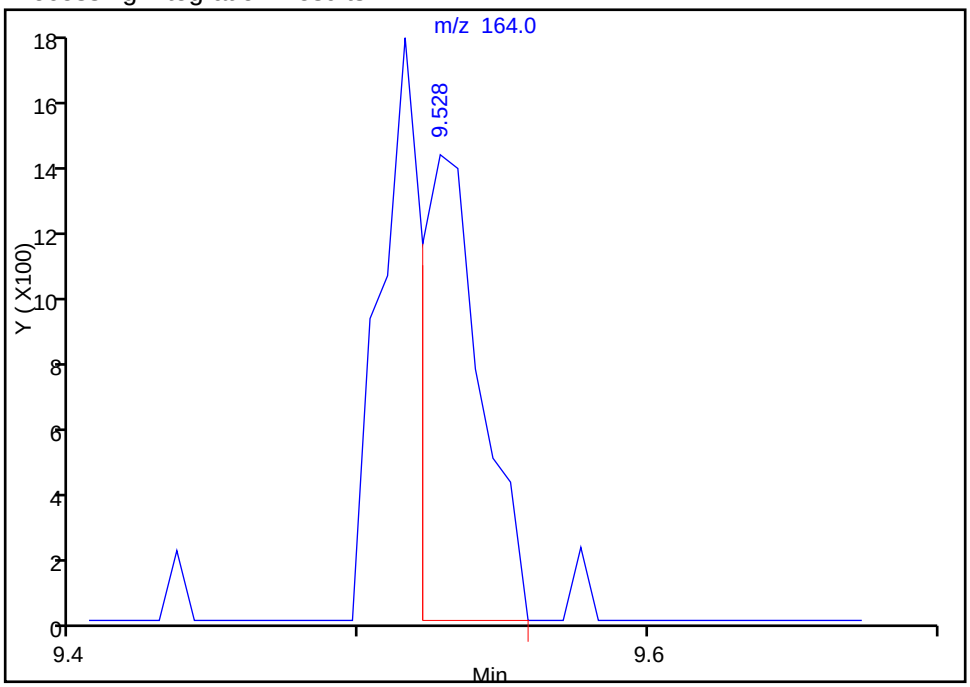
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530014.D				
Injection Date:	31-May-2015 14:01:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-D-28	Lab Sample ID:	180-44321-28		
Client ID:	HD-CW-18-0/1-0				
Operator ID:	034635	ALS Bottle#:	5	Worklist Smp#:	14
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

77 Tetrachloroethene, CAS: 127-18-4

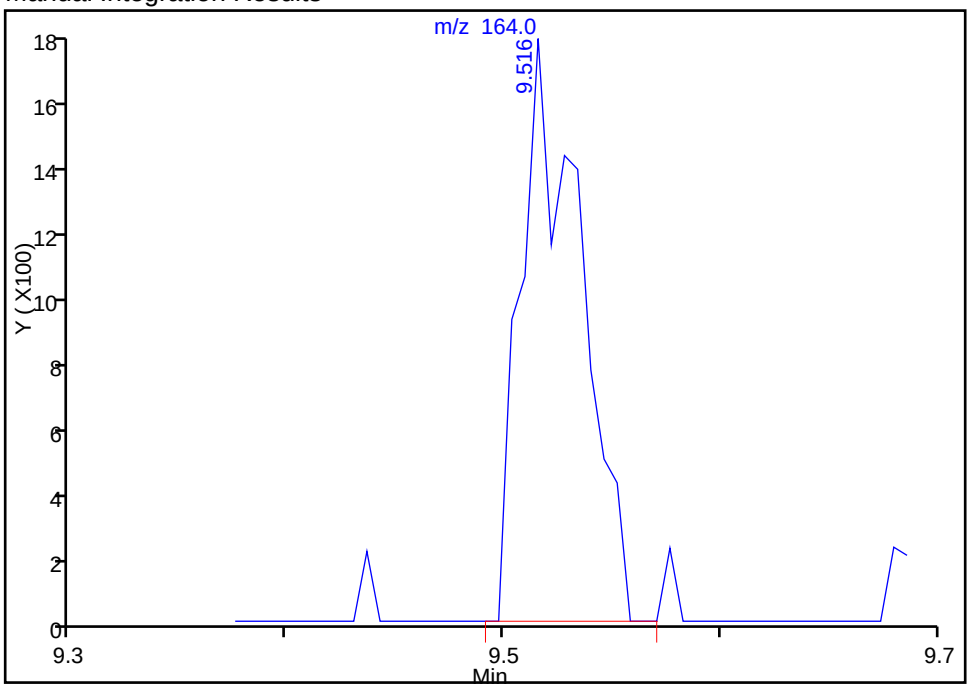
Processing Integration Results

RT: 9.53
Area: 2056
Amount: 1.013477
Amount Units: ng



Manual Integration Results

RT: 9.52
Area: 3425
Amount: 1.688306
Amount Units: ng



Reviewer: journetp, 31-May-2015 16:14:28
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-MW-50D-0/1-0 | Lab Sample ID: 180-44321-29

Matrix: Water | Lab File ID: 60530015.D

Analysis Method: 8260C | Date Collected: 05/20/2015 10:07

Sample wt/vol: 5(mL) | Date Analyzed: 05/31/2015 14:25

Soil Aliquot Vol: | Dilution Factor: 125

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

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

Analysis Batch No.: 143337 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	130	U	130	35
75-01-4	Vinyl chloride	40	J	130	28
74-83-9	Bromomethane	130	U	130	39
75-00-3	Chloroethane	130	U	130	27
75-35-4	1,1-Dichloroethene	370		130	37
67-64-1	Acetone	630	U	630	310
75-15-0	Carbon disulfide	130	U	130	27
75-09-2	Methylene Chloride	110	J B	130	16
156-60-5	trans-1,2-Dichloroethene	130	U	130	21
1634-04-4	Methyl tert-butyl ether	130	U	130	23
75-34-3	1,1-Dichloroethane	760		130	15
156-59-2	cis-1,2-Dichloroethene	4900		130	30
74-97-5	Bromochloromethane	130	U	130	23
78-93-3	2-Butanone (MEK)	630	U	630	68
67-66-3	Chloroform	130	U	130	21
71-55-6	1,1,1-Trichloroethane	340		130	36
56-23-5	Carbon tetrachloride	130	U	130	17
71-43-2	Benzene	130	U	130	13
107-06-2	1,2-Dichloroethane	130	U	130	26
79-01-6	Trichloroethene	6200		130	18
78-87-5	1,2-Dichloropropane	130	U	130	12
75-27-4	Bromodichloromethane	130	U	130	16
10061-01-5	cis-1,3-Dichloropropene	130	U	130	23
108-10-1	4-Methyl-2-pentanone (MIBK)	630	U	630	66
108-88-3	Toluene	130	U	130	19
10061-02-6	trans-1,3-Dichloropropene	130	U	130	19
79-00-5	1,1,2-Trichloroethane	130	U	130	25
127-18-4	Tetrachloroethene	550		130	19
591-78-6	2-Hexanone	630	U	630	20
124-48-1	Dibromochloromethane	130	U	130	17
106-93-4	1,2-Dibromoethane (EDB)	130	U	130	23
108-90-7	Chlorobenzene	130	U	130	17
630-20-6	1,1,1,2-Tetrachloroethane	130	U	130	35
100-41-4	Ethylbenzene	130	U	130	28
1330-20-7	Xylenes, Total	380	U	380	61
100-42-5	Styrene	130	U	130	12

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-MW-50D-0/1-0 Lab Sample ID: 180-44321-29

Matrix: Water Lab File ID: 60530015.D

Analysis Method: 8260C Date Collected: 05/20/2015 10:07

Sample wt/vol: 5(mL) Date Analyzed: 05/31/2015 14:25

Soil Aliquot Vol: Dilution Factor: 125

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143337 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	130	U	130	24
79-34-5	1,1,2,2-Tetrachloroethane	130	U	130	25
107-13-1	Acrylonitrile	2500	U	2500	68
123-91-1	1,4-Dioxane	25000	U	25000	4300

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	83		64-135
2037-26-5	Toluene-d8 (Surr)	78		71-118
460-00-4	4-Bromofluorobenzene (Surr)	107		70-118
1868-53-7	Dibromofluoromethane (Surr)	93		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530015.D
Lims ID: 180-44321-D-29 Lab Sample ID: 180-44321-29
Client ID: HD-MW-50D-0/1-0
Sample Type: Client
Inject. Date: 31-May-2015 14:25:30 ALS Bottle#: 6 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 125.0000
Sample Info: 180-44321-D-29, x125
Misc. Info.: 180-0007190-015
Operator ID: 034635 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 31-May-2015 16:21:03 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK001

First Level Reviewer: journetp Date: 31-May-2015 16:18:27

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.224	4.236	-0.012	89	185766	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.284	0.006	98	588813	50.0	M
* 3 Chlorobenzene-d5	119	10.399	10.393	0.006	90	137401	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.747	12.747	0.000	98	205082	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.560	6.554	0.006	92	113285	46.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.931	6.925	0.006	70	168141	41.3	
$ 7 Toluene-d8 (Surr)	98	8.945	8.939	0.006	94	454689	39.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.585	11.579	0.006	84	253897	53.6	
12 Chloromethane	50		1.760				ND	
13 Vinyl chloride	62	1.888	1.882	0.006	51	5040	1.58	M
15 Bromomethane	94		2.229				ND	
16 Chloroethane	64		2.375				ND	
22 1,1-Dichloroethene	96	3.354	3.336	0.018	95	40145	14.7	
24 Acetone	43	3.421	3.421	0.000	2	1860	2.38	
26 Carbon disulfide	76		3.628				ND	
31 Methylene Chloride	84	4.133	4.115	0.018	91	14089	4.26	
33 Acrylonitrile	53		4.498				ND	
34 trans-1,2-Dichloroethene	96		4.553				ND	
35 Methyl tert-butyl ether	73		4.565				ND	
37 1,1-Dichloroethane	63	5.198	5.198	0.000	97	173429	30.4	
43 cis-1,2-Dichloroethene	96	5.946	5.940	0.006	80	678032	196.3	
44 2-Butanone (MEK)	43		5.940				ND	
48 Chlorobromomethane	128		6.226				ND	
50 Chloroform	83		6.366				ND	
51 1,1,1-Trichloroethane	97	6.542	6.536	0.006	98	60851	13.4	
53 Carbon tetrachloride	117		6.712				ND	
56 Benzene	78		6.943				ND	
57 1,2-Dichloroethane	62		7.016				ND	
61 Trichloroethene	130	7.680	7.673	0.007	97	696900	248.7	
64 1,2-Dichloropropane	63		7.947				ND	
65 1,4-Dioxane	88		8.020				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.227				ND	
71 cis-1,3-Dichloropropene	75		8.677				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.823				ND	
73 Toluene	91		9.012				ND	
74 trans-1,3-Dichloropropene	75		9.255				ND	
76 1,1,2-Trichloroethane	97		9.450				ND	
77 Tetrachloroethene	164	9.523	9.523	0.000	96	51509	22.0	
79 2-Hexanone	43		9.657				ND	
81 Chlorodibromomethane	129		9.821				ND	
82 Ethylene Dibromide	107		9.937				ND	
84 Chlorobenzene	112		10.423				ND	
86 1,1,1,2-Tetrachloroethane	131		10.521				ND	
87 Ethylbenzene	106		10.527				ND	
88 m-Xylene & p-Xylene	106		10.654				ND	
89 o-Xylene	106		11.044				ND	
90 Styrene	104		11.062				ND	
91 Bromoform	173		11.244				ND	
96 1,1,2,2-Tetrachloroethane	83		11.713				ND	
S 131 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

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

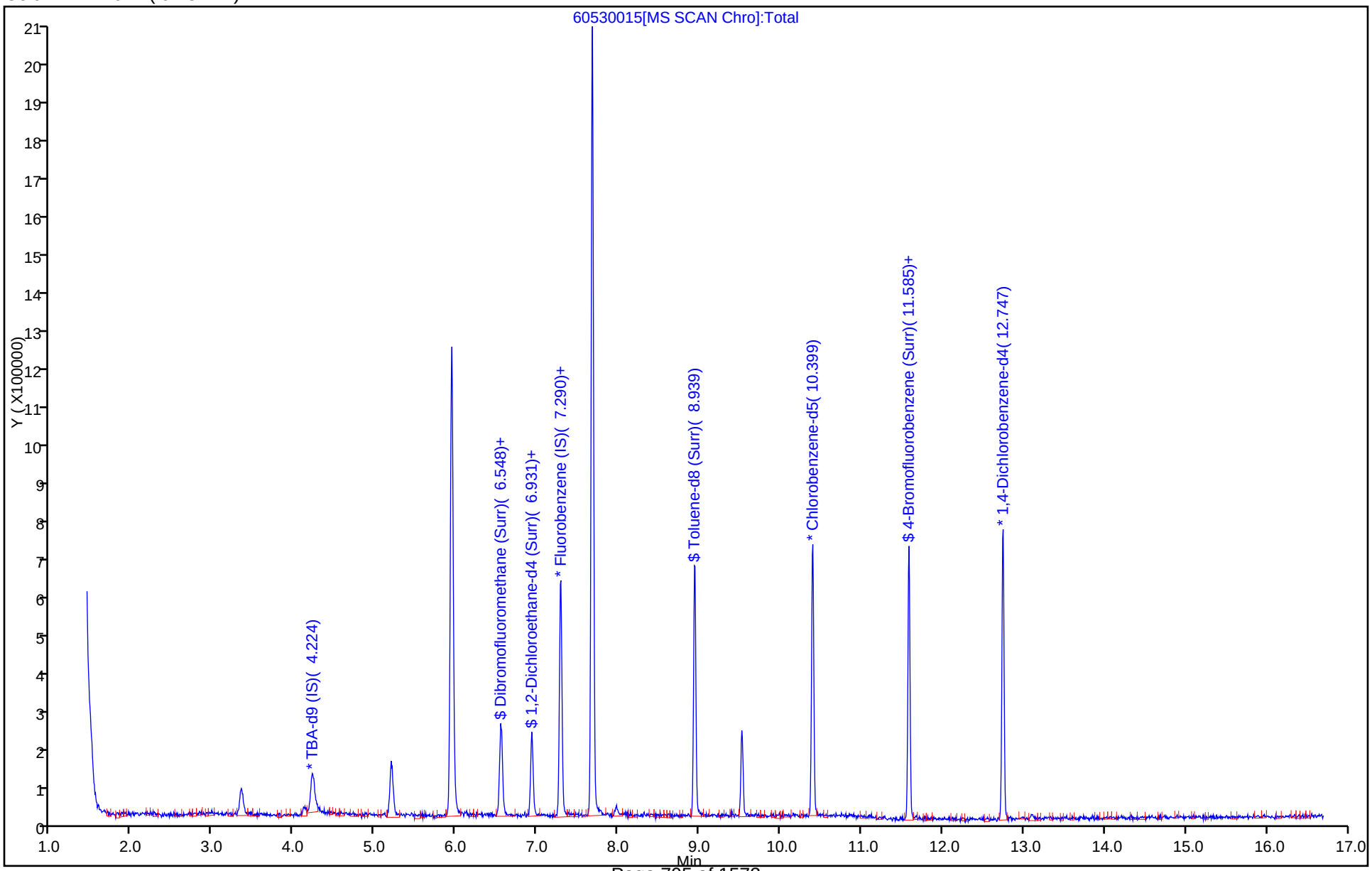
Report Date: 31-May-2015 16:21:11 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530015.D

Injection Date:	31-May-2015 14:25:30	Instrument ID:	CHHP6	Operator ID:	034635
Lims ID:	180-44321-D-29	Lab Sample ID:	180-44321-29	Worklist Smp#:	15
Client ID:	HD-MW-50D-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	125.0000	ALS Bottle#:	6
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530015.D				
Lims ID:	180-44321-D-29	Lab Sample ID:	180-44321-29		
Client ID:	HD-MW-50D-0/1-0				
Sample Type:	Client				
Inject. Date:	31-May-2015 14:25:30	ALS Bottle#:	6	Worklist Smp#:	15
Purge Vol:	5.000 mL	Dil. Factor:	125.0000		
Sample Info:	180-44321-D-29, x125				
Misc. Info.:	180-0007190-015				
Operator ID:	034635	Instrument ID:	CHHP6		
Method:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\MSVOA_LL_CHHP6.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	31-May-2015 16:21:03	Calib Date:	01-May-2015 16:46:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK001				
First Level Reviewer: journetp		Date:	31-May-2015 16:18:27		

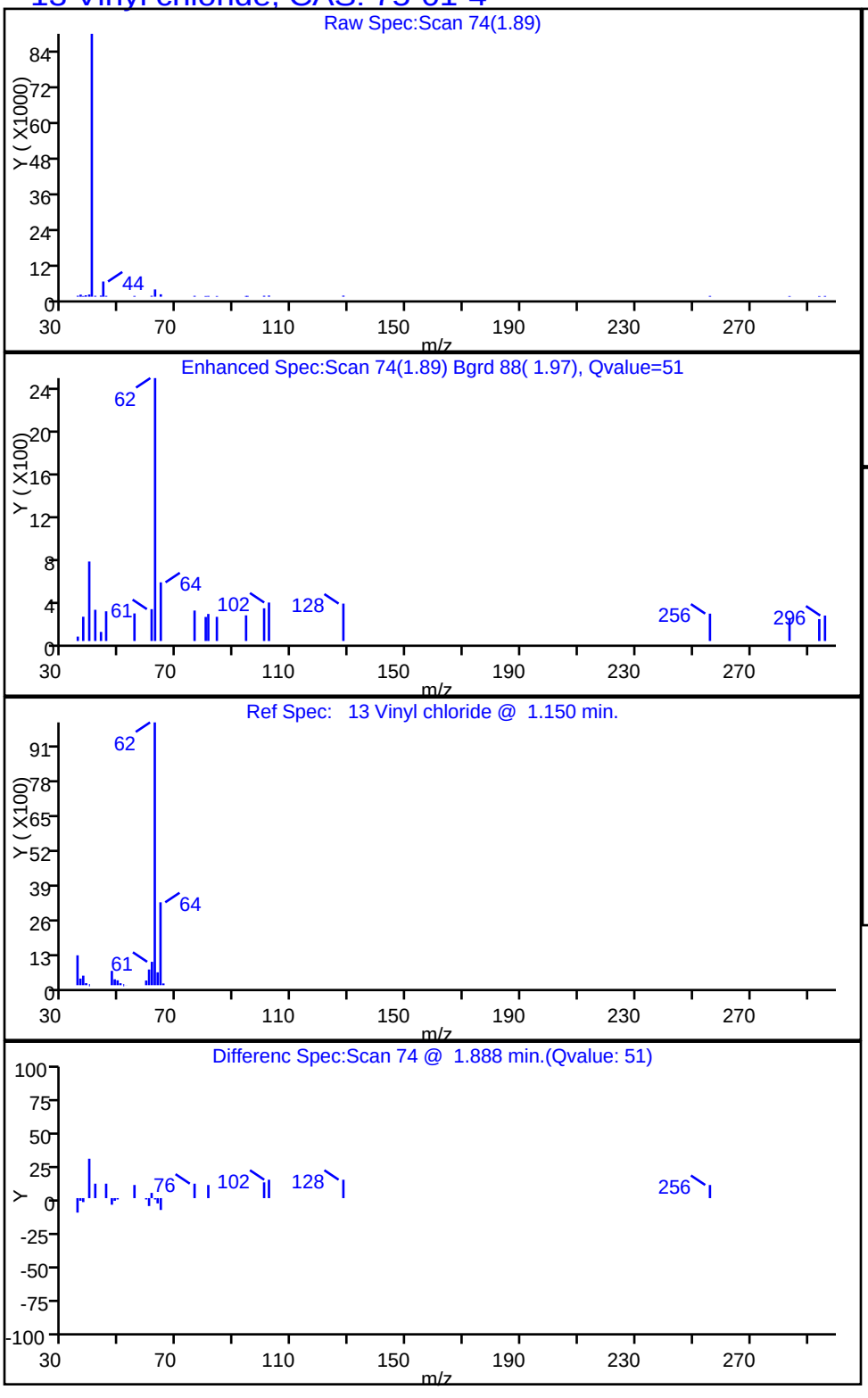
Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	46.5	93.00
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	41.3	82.61
$ 7 Toluene-d8 (Surr)	50.0	39.1	78.22
$ 8 4-Bromofluorobenzene (Surr)	50.0	53.6	107.15

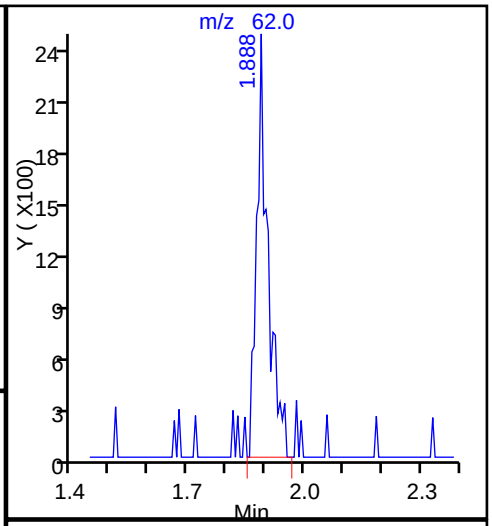
Report Date: 31-May-2015 16:21:11 Chrom Revision: 2.2 05-May-2015 11:39:10

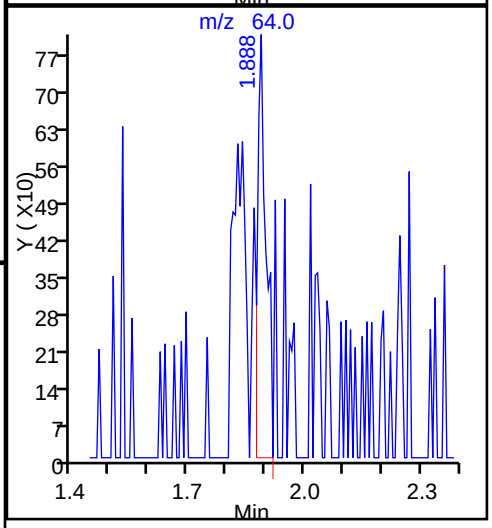
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530015.D		
Injection Date:	31-May-2015 14:25:30	Instrument ID:	CHHP6
Lims ID:	180-44321-D-29	Lab Sample ID:	180-44321-29
Client ID:	HD-MW-50D-0/1-0		
Operator ID:	034635	ALS Bottle#:	6 Worklist Smp#: 15
Purge Vol:	5.000 mL	Dil. Factor:	125.0000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

13 Vinyl chloride, CAS: 75-01-4





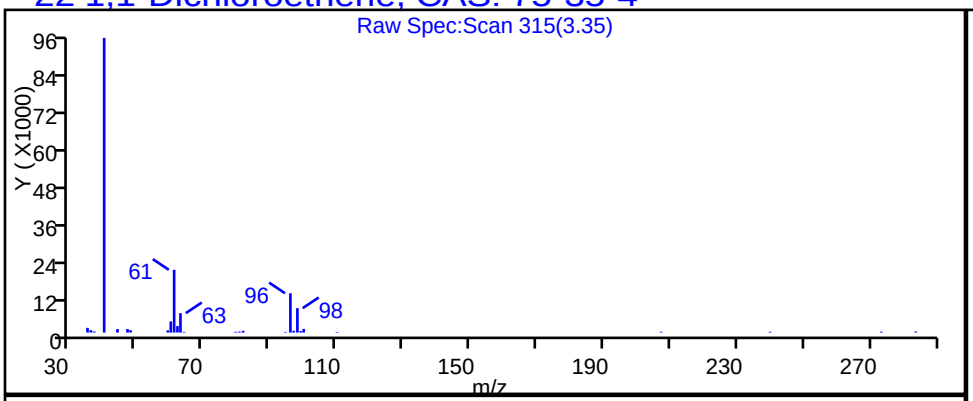


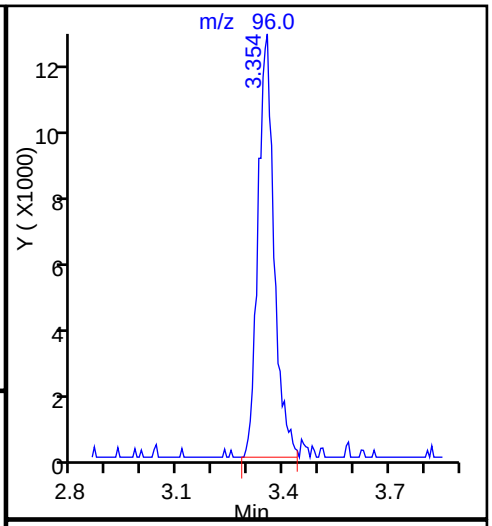
Report Date: 31-May-2015 16:21:11 Chrom Revision: 2.2 05-May-2015 11:39:10

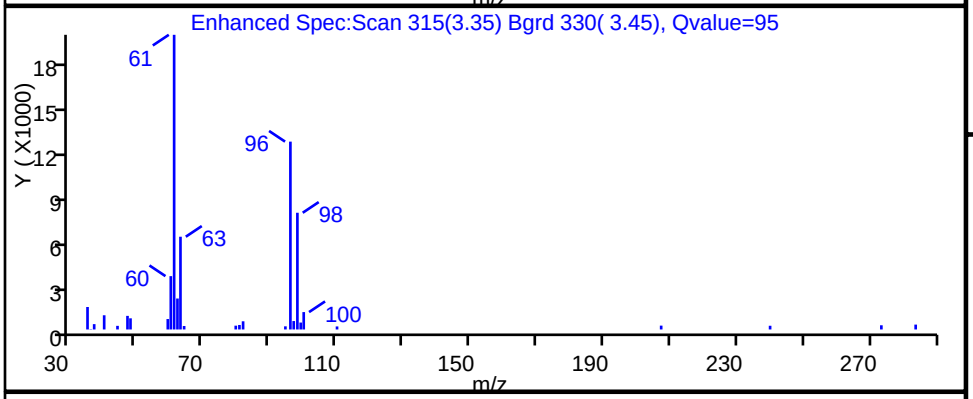
TestAmerica Pittsburgh

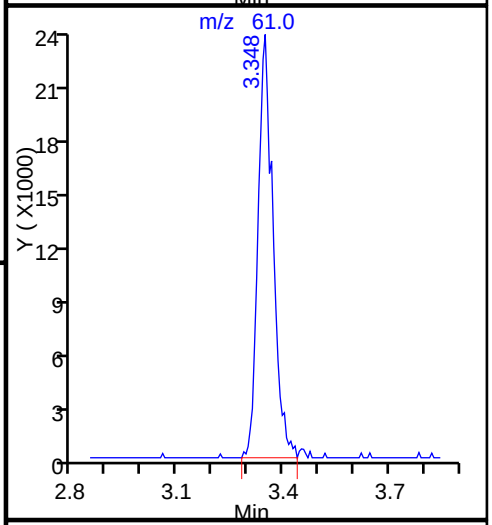
Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530015.D		
Injection Date:	31-May-2015 14:25:30	Instrument ID:	CHHP6
Lims ID:	180-44321-D-29	Lab Sample ID:	180-44321-29
Client ID:	HD-MW-50D-0/1-0		
Operator ID:	034635	ALS Bottle#:	6 Worklist Smp#: 15
Purge Vol:	5.000 mL	Dil. Factor:	125.0000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

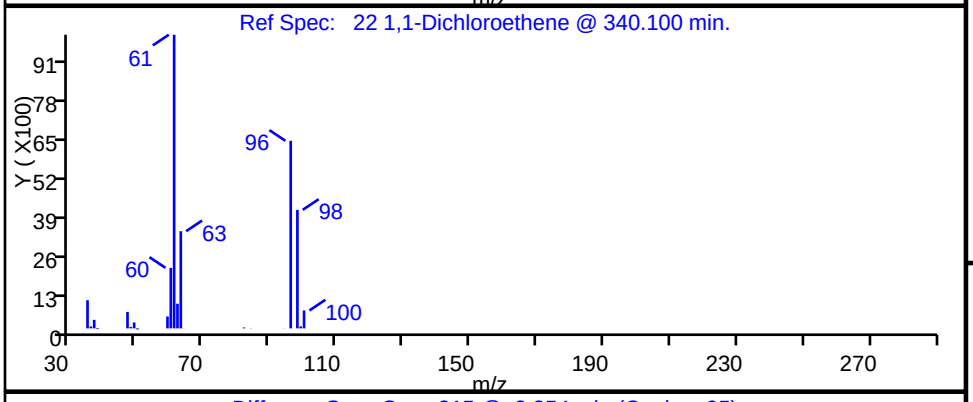
22 1,1-Dichloroethene, CAS: 75-35-4

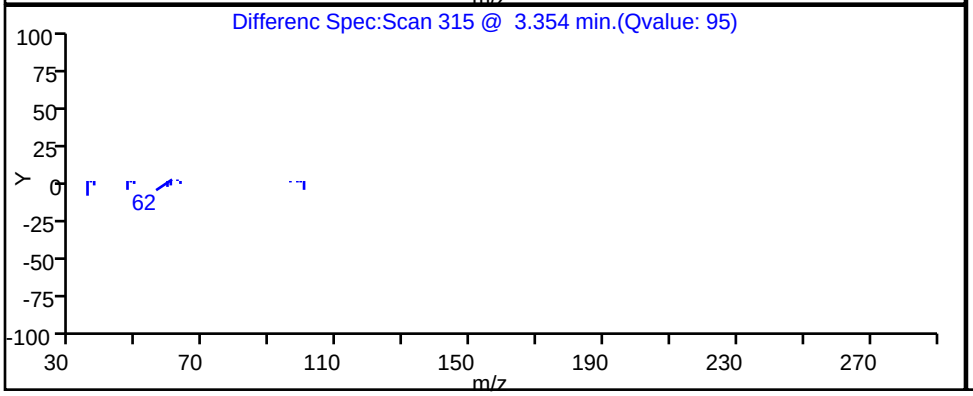


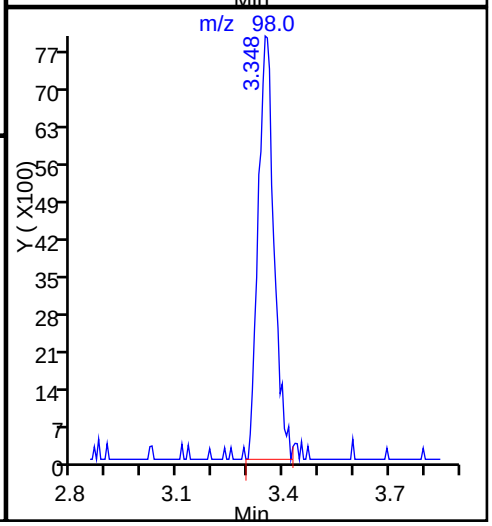










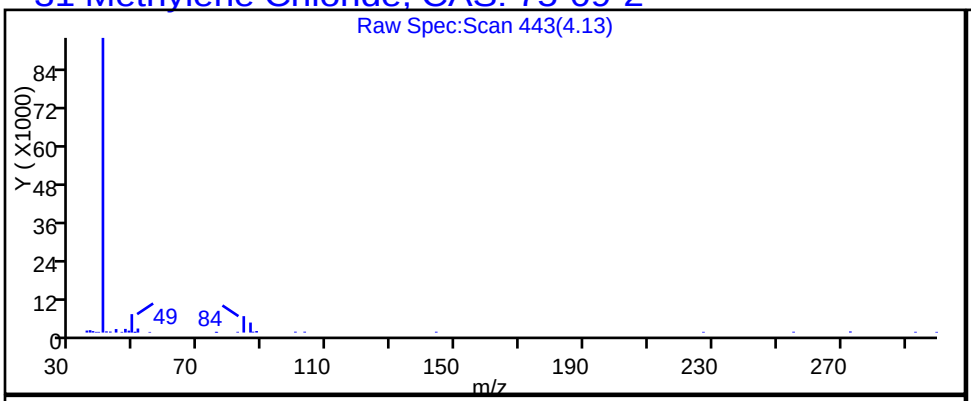


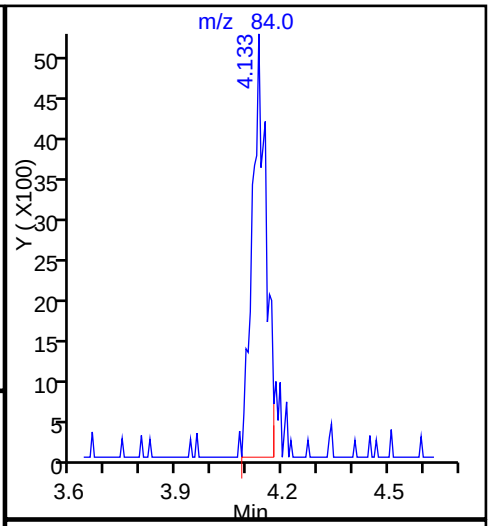
Report Date: 31-May-2015 16:21:11 Chrom Revision: 2.2 05-May-2015 11:39:10

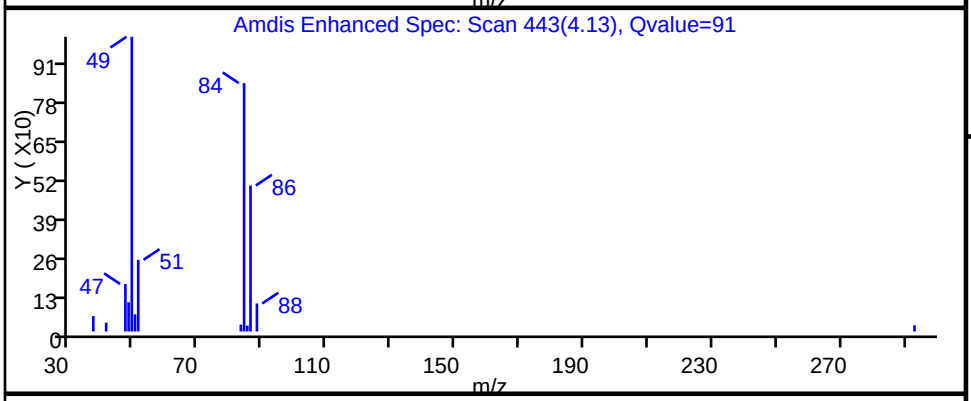
TestAmerica Pittsburgh

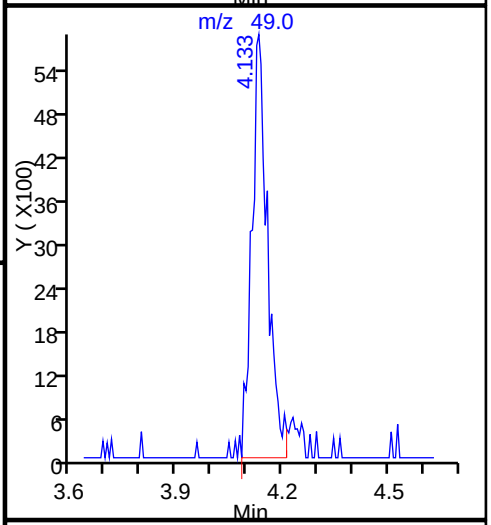
Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530015.D		
Injection Date:	31-May-2015 14:25:30	Instrument ID:	CHHP6
Lims ID:	180-44321-D-29	Lab Sample ID:	180-44321-29
Client ID:	HD-MW-50D-0/1-0		
Operator ID:	034635	ALS Bottle#:	6 Worklist Smp#: 15
Purge Vol:	5.000 mL	Dil. Factor:	125.0000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

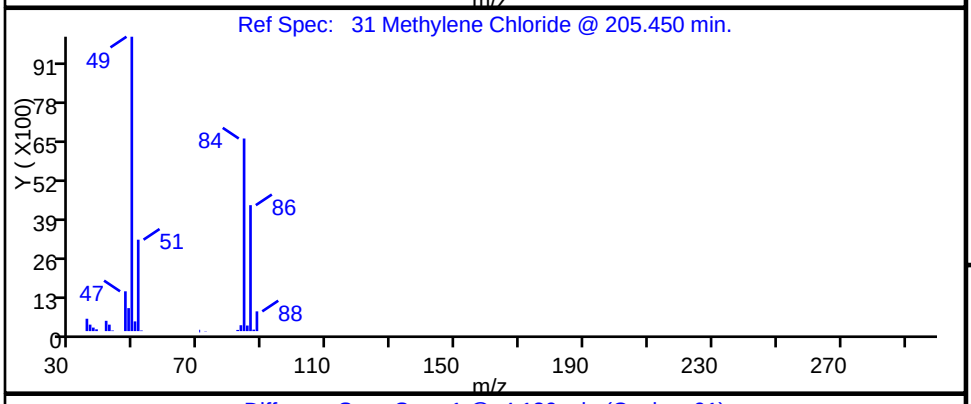
31 Methylene Chloride, CAS: 75-09-2

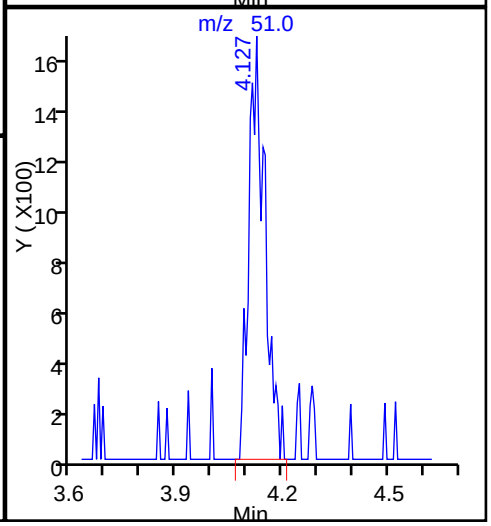


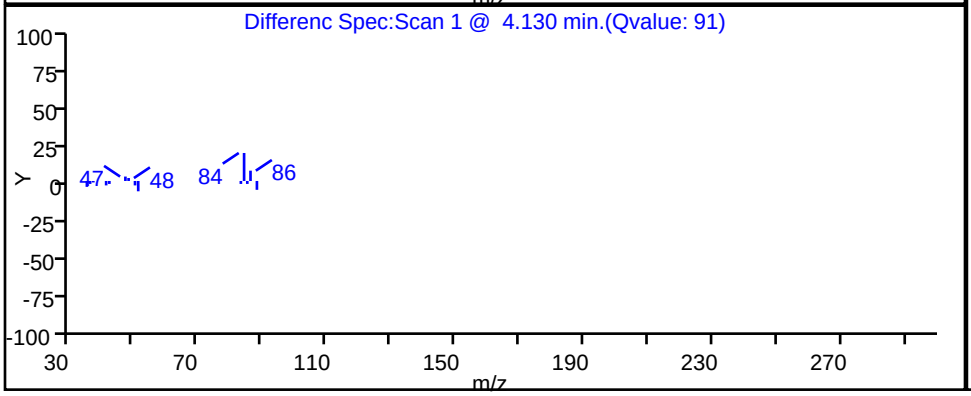










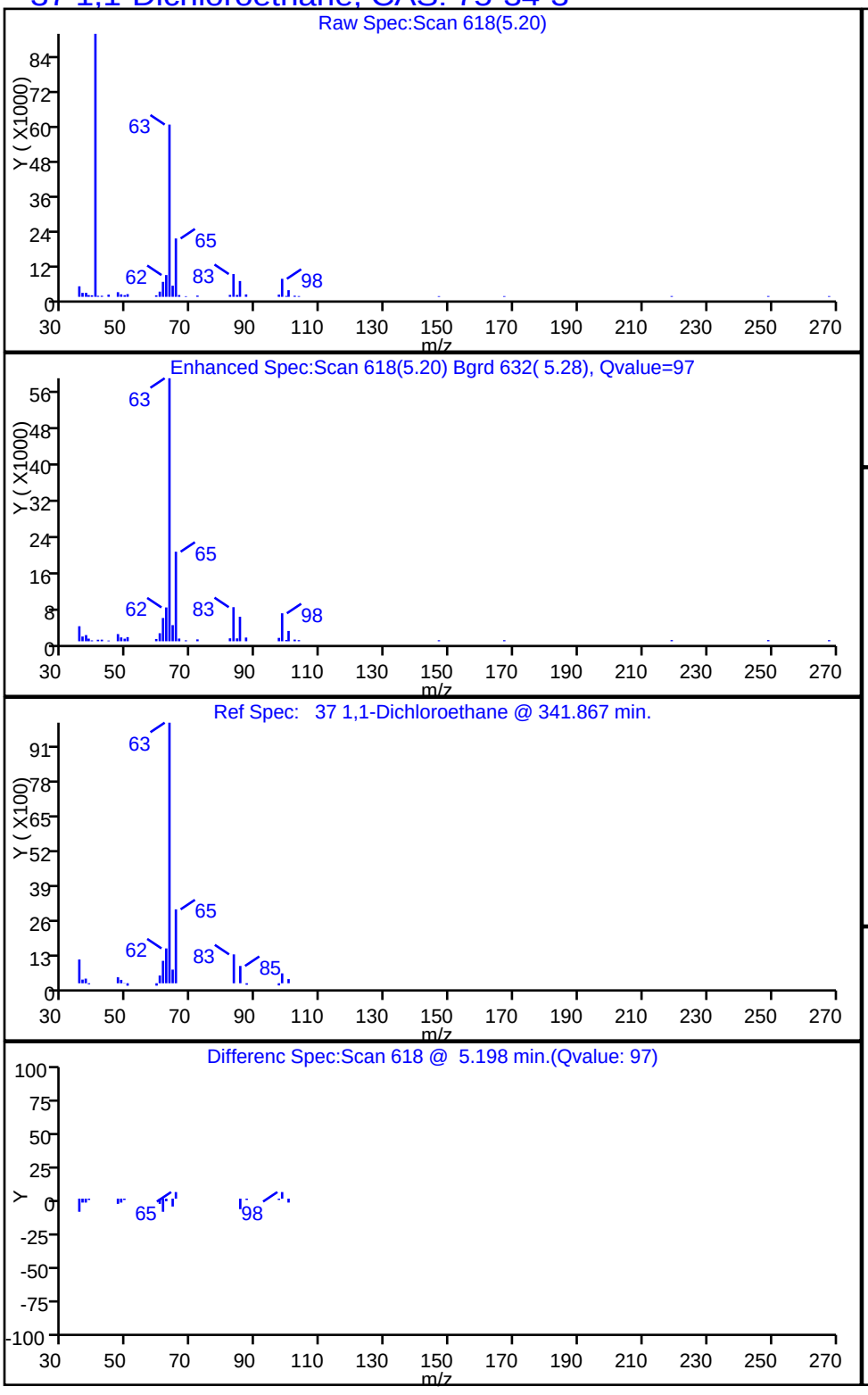


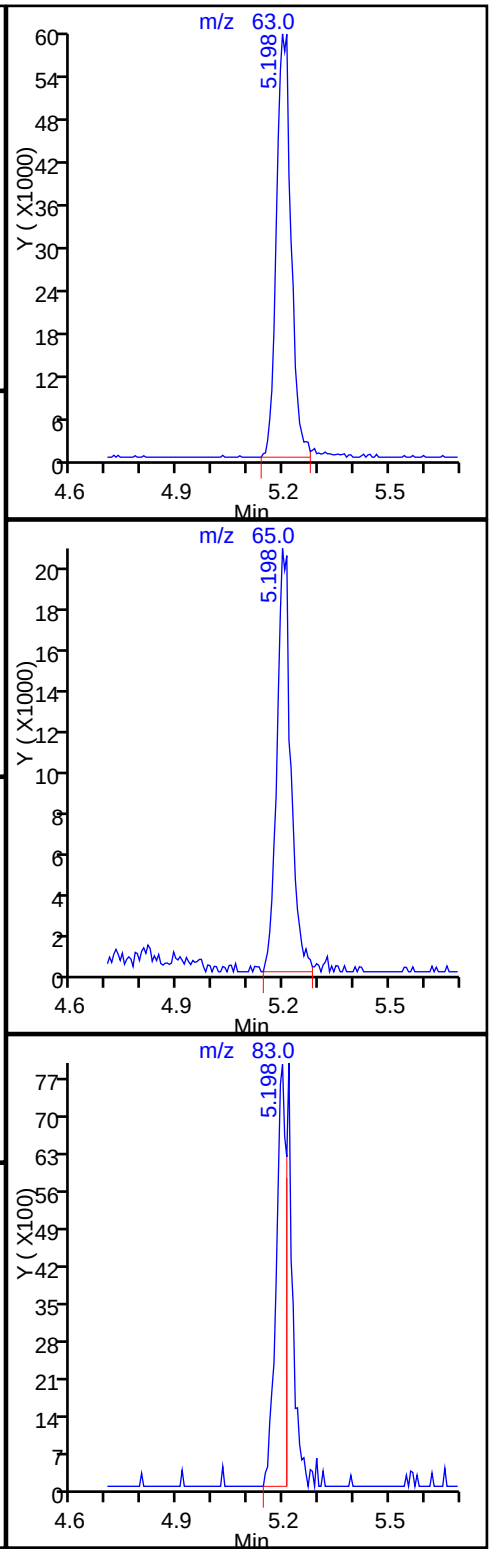
Report Date: 31-May-2015 16:21:11 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530015.D				
Injection Date:	31-May-2015 14:25:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-D-29	Lab Sample ID:	180-44321-29		
Client ID:	HD-MW-50D-0/1-0				
Operator ID:	034635	ALS Bottle#:	6	Worklist Smp#:	15
Purge Vol:	5.000 mL	Dil. Factor:	125.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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



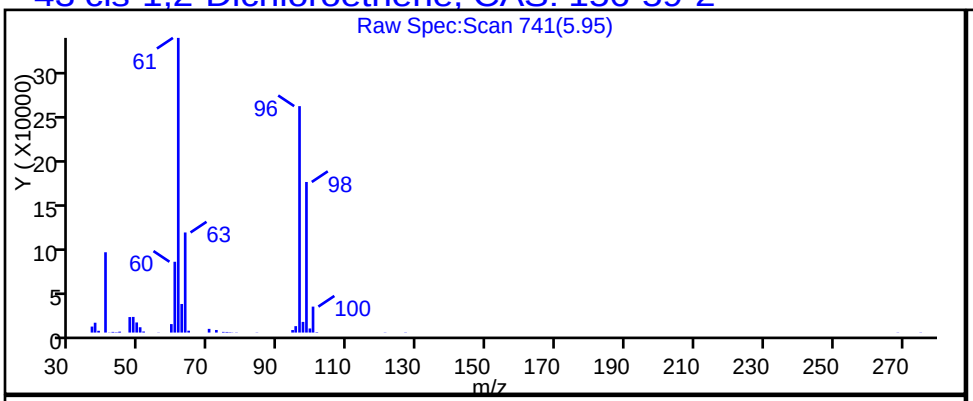


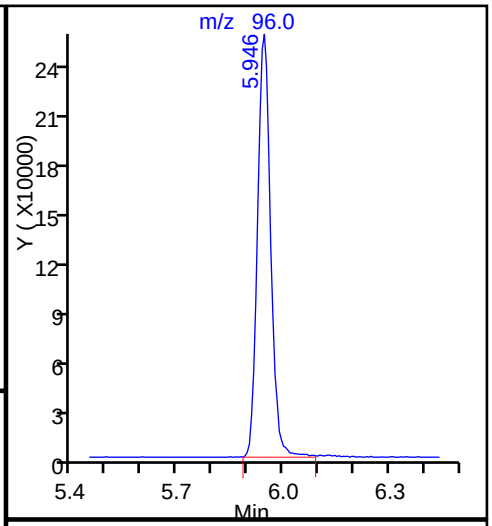
Report Date: 31-May-2015 16:21:11 Chrom Revision: 2.2 05-May-2015 11:39:10

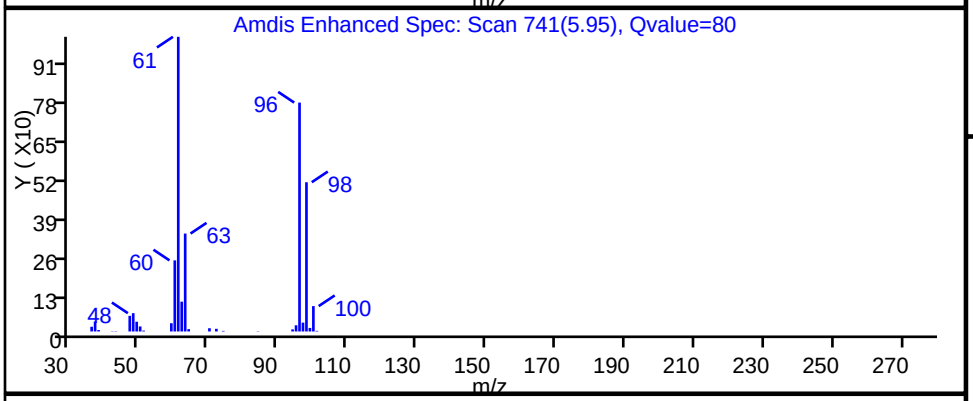
TestAmerica Pittsburgh

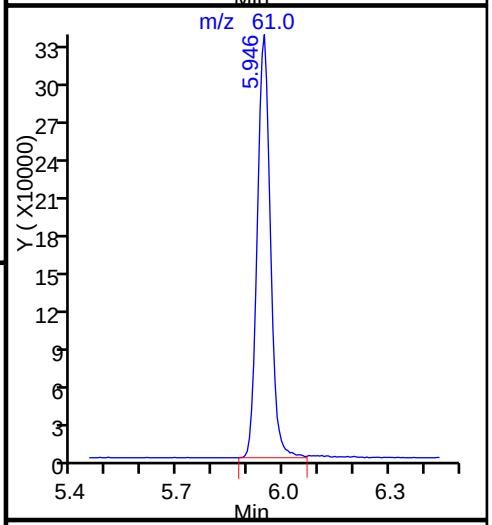
Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530015.D		
Injection Date:	31-May-2015 14:25:30	Instrument ID:	CHHP6
Lims ID:	180-44321-D-29	Lab Sample ID:	180-44321-29
Client ID:	HD-MW-50D-0/1-0		
Operator ID:	034635	ALS Bottle#:	6 Worklist Smp#: 15
Purge Vol:	5.000 mL	Dil. Factor:	125.0000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

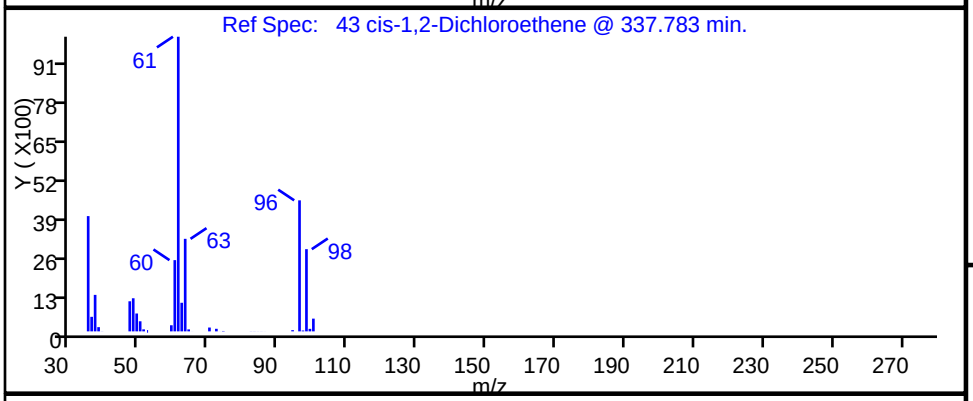
43 cis-1,2-Dichloroethene, CAS: 156-59-2

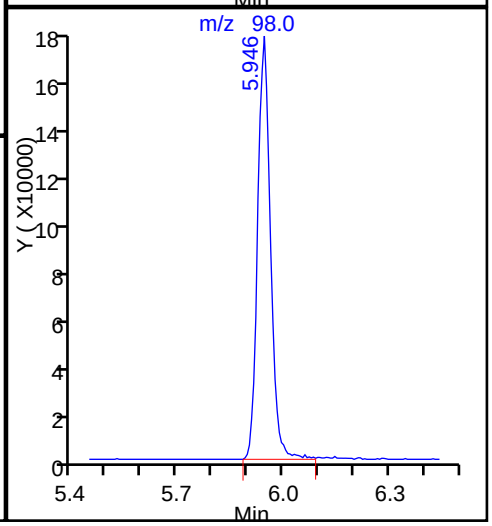


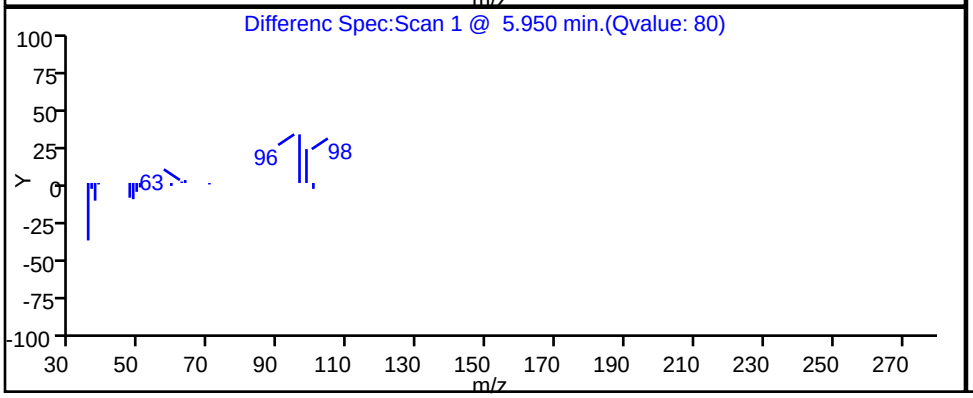










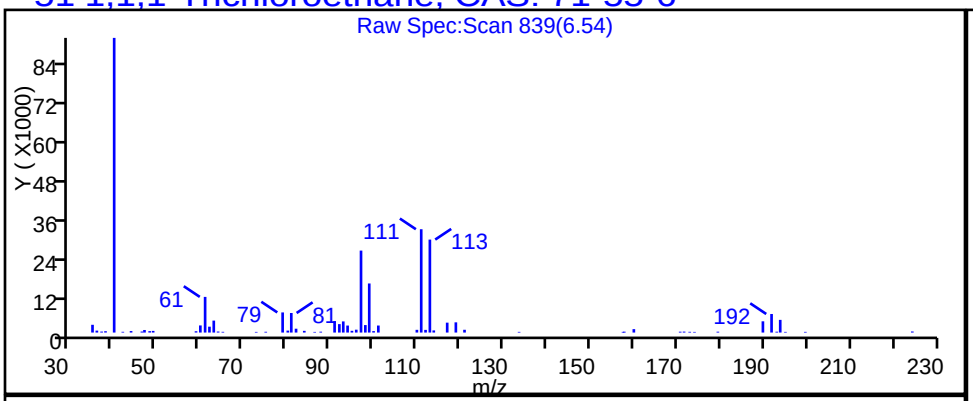


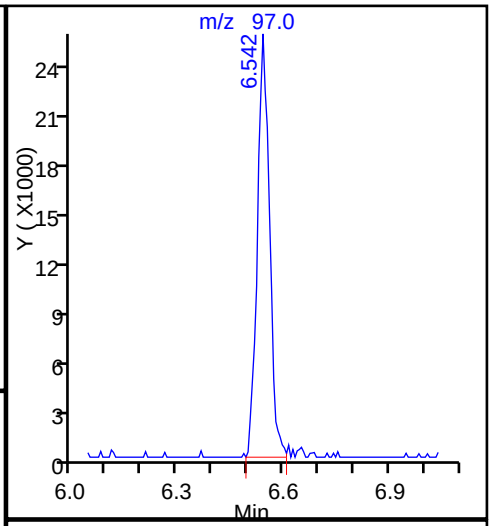
Report Date: 31-May-2015 16:21:11 Chrom Revision: 2.2 05-May-2015 11:39:10

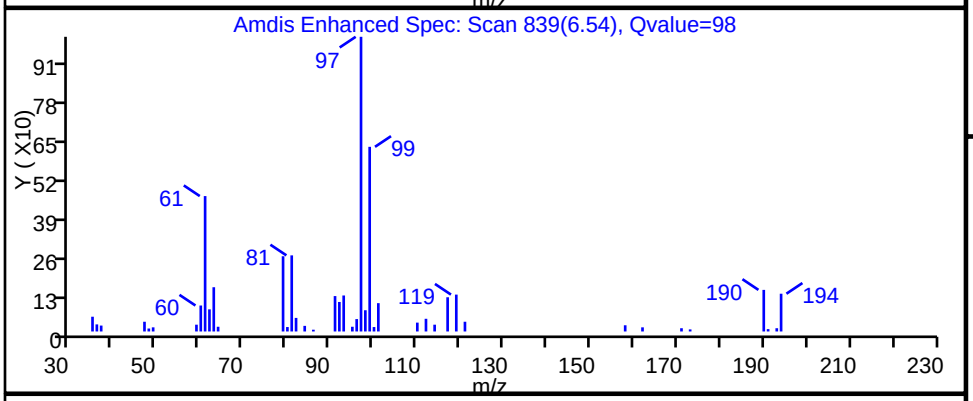
TestAmerica Pittsburgh

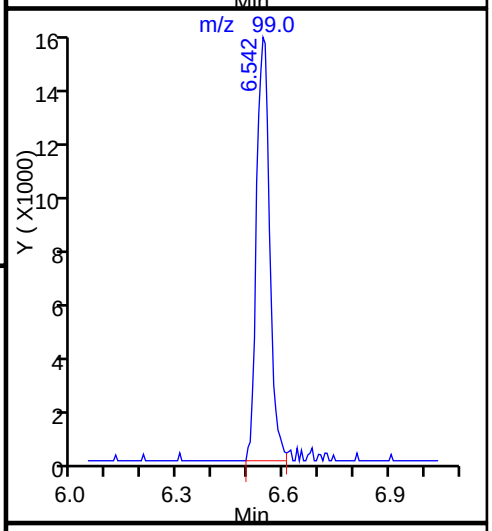
Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530015.D				
Injection Date:	31-May-2015 14:25:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-D-29	Lab Sample ID:	180-44321-29		
Client ID:	HD-MW-50D-0/1-0				
Operator ID:	034635	ALS Bottle#:	6	Worklist Smp#:	15
Purge Vol:	5.000 mL	Dil. Factor:	125.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

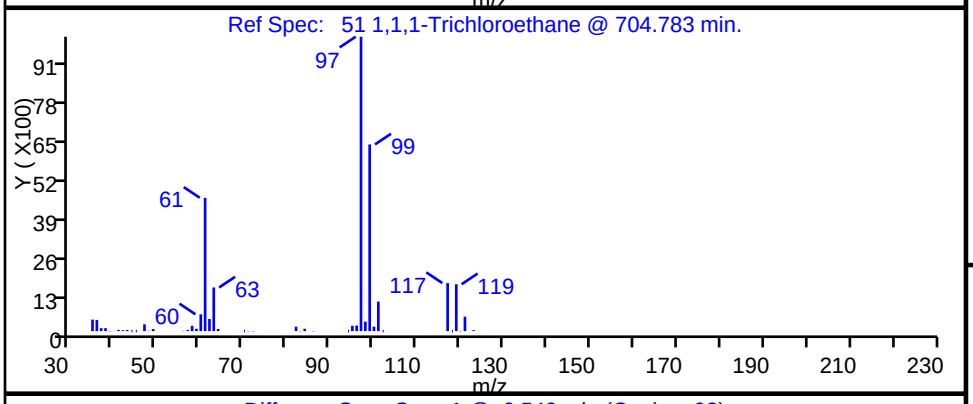
51 1,1,1-Trichloroethane, CAS: 71-55-6

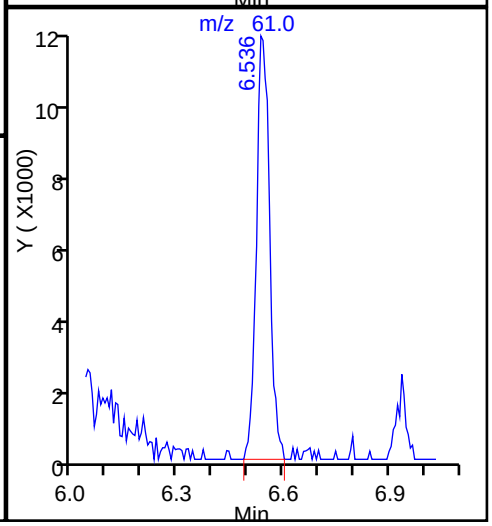


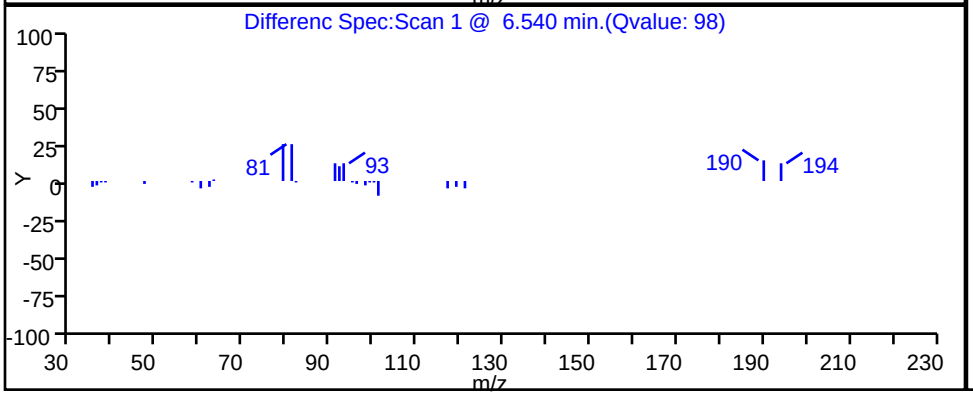










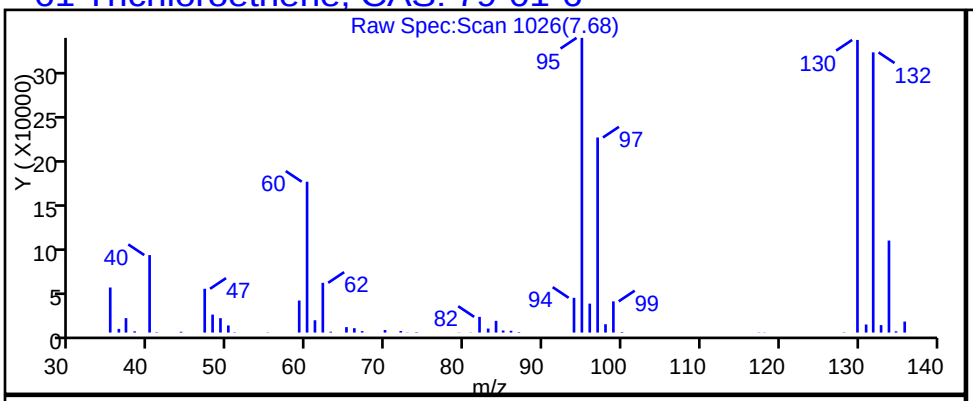


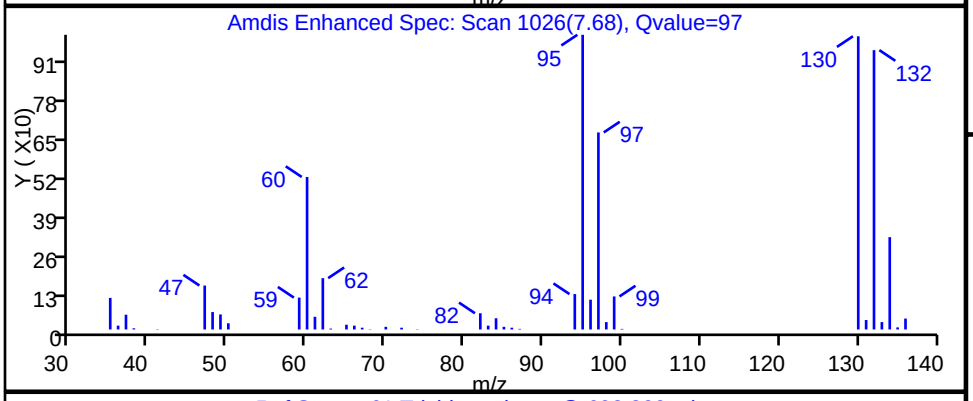
Report Date: 31-May-2015 16:21:11 Chrom Revision: 2.2 05-May-2015 11:39:10

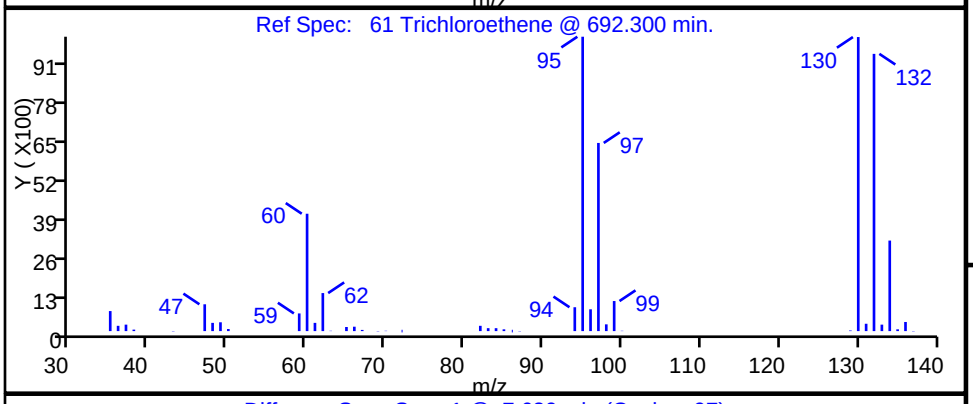
TestAmerica Pittsburgh

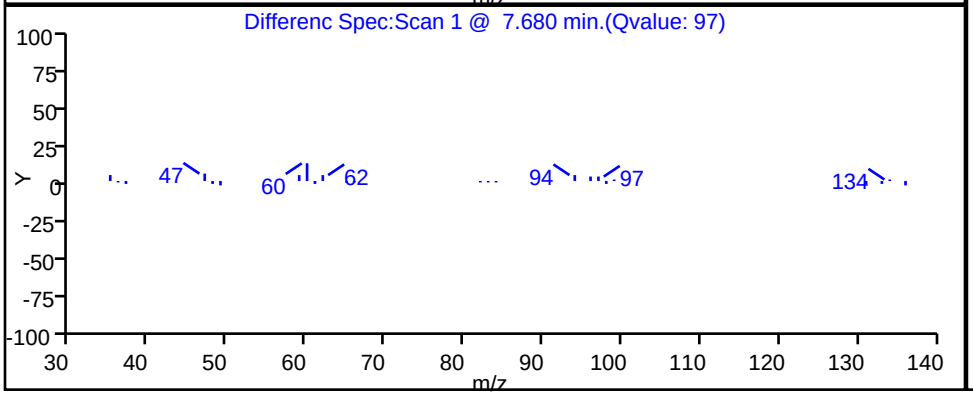
Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530015.D				
Injection Date:	31-May-2015 14:25:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-D-29	Lab Sample ID:	180-44321-29		
Client ID:	HD-MW-50D-0/1-0				
Operator ID:	034635	ALS Bottle#:	6	Worklist Smp#:	15
Purge Vol:	5.000 mL	Dil. Factor:	125.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

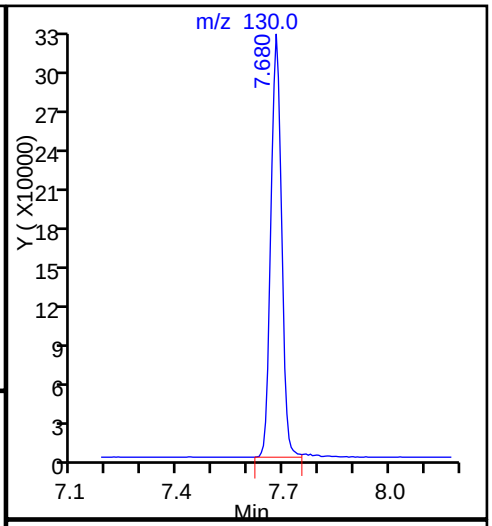
61 Trichloroethene, CAS: 79-01-6

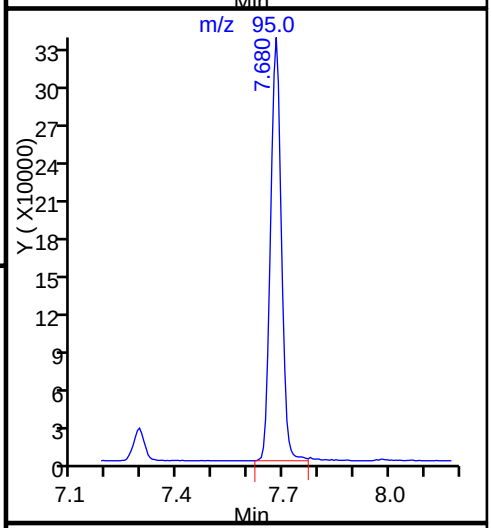


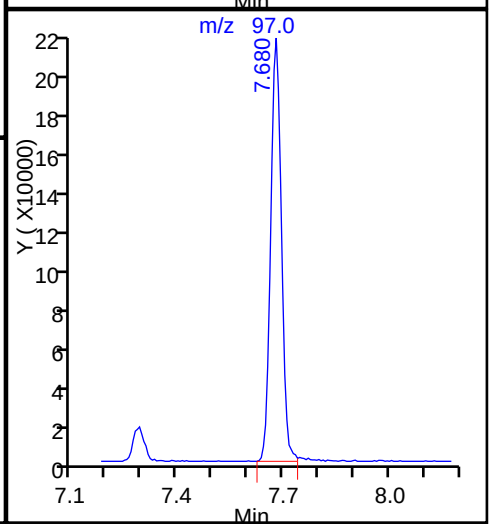










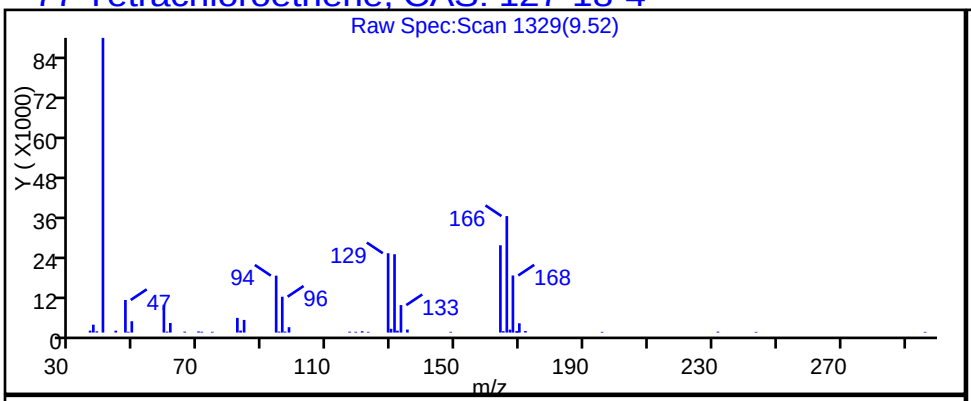


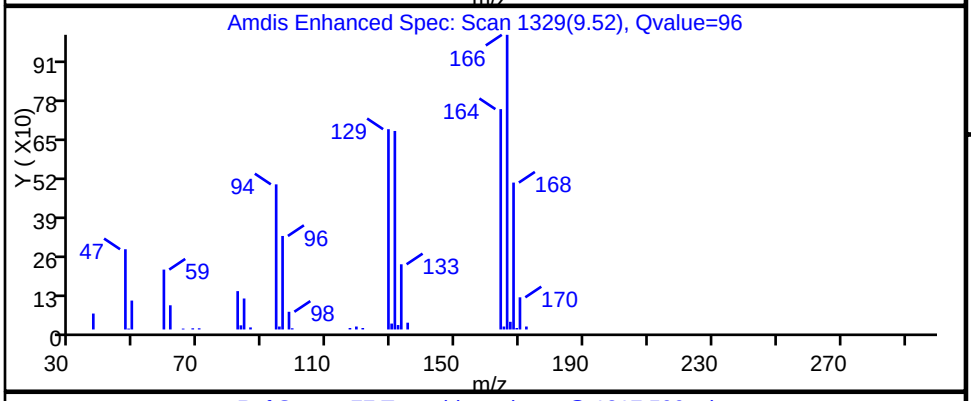
Report Date: 31-May-2015 16:21:11 Chrom Revision: 2.2 05-May-2015 11:39:10

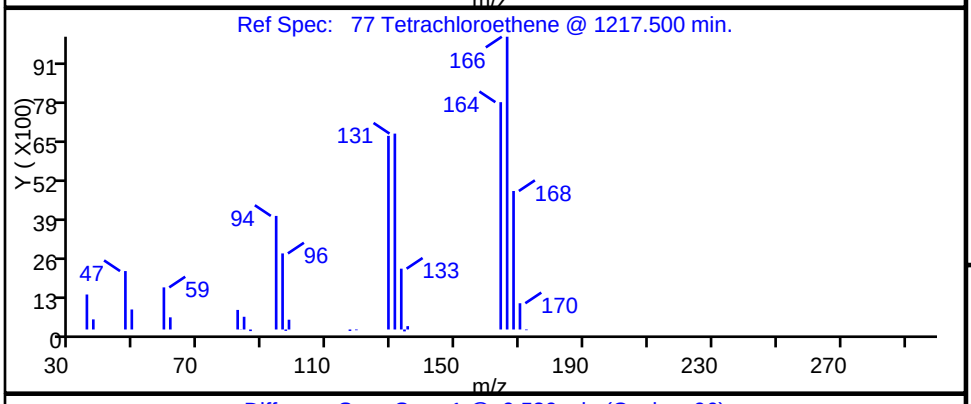
TestAmerica Pittsburgh

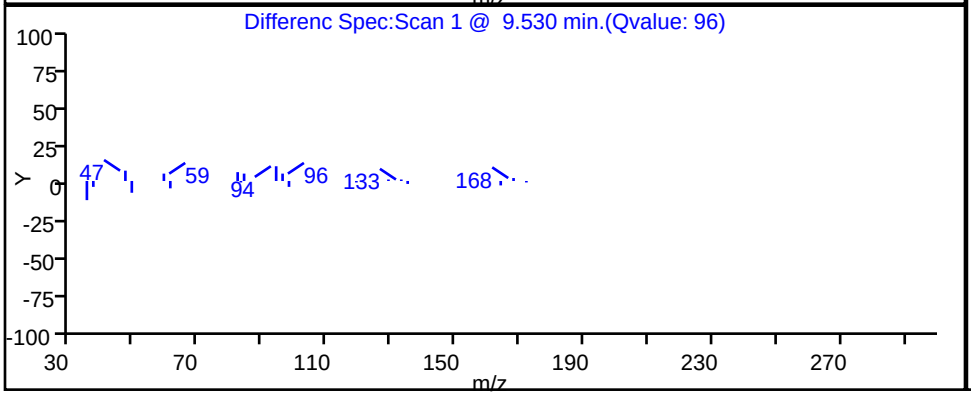
Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530015.D				
Injection Date:	31-May-2015 14:25:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-D-29	Lab Sample ID:	180-44321-29		
Client ID:	HD-MW-50D-0/1-0				
Operator ID:	034635	ALS Bottle#:	6	Worklist Smp#:	15
Purge Vol:	5.000 mL	Dil. Factor:	125.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

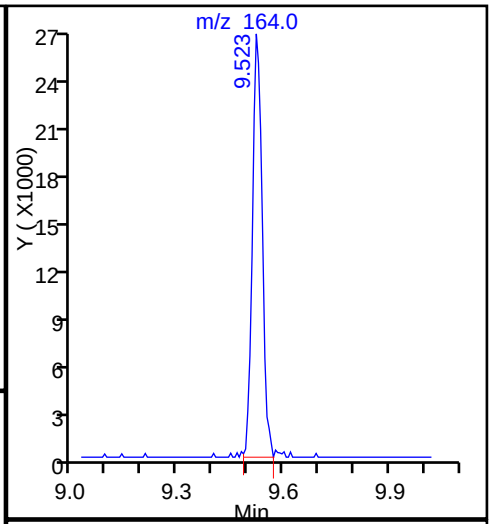
77 Tetrachloroethene, CAS: 127-18-4

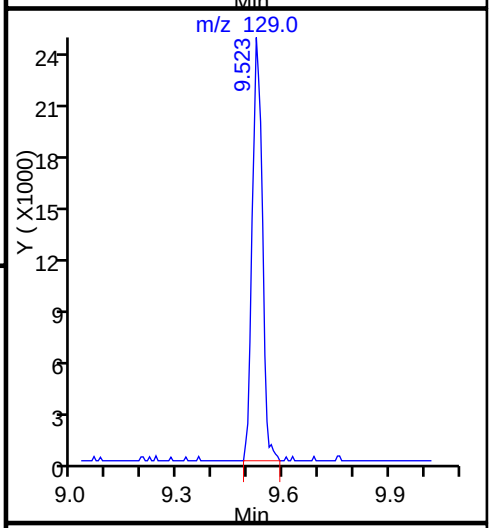


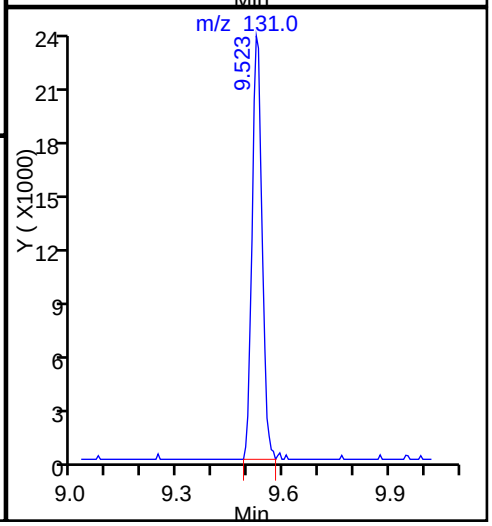












Manual Integration/User Assign Peak Report

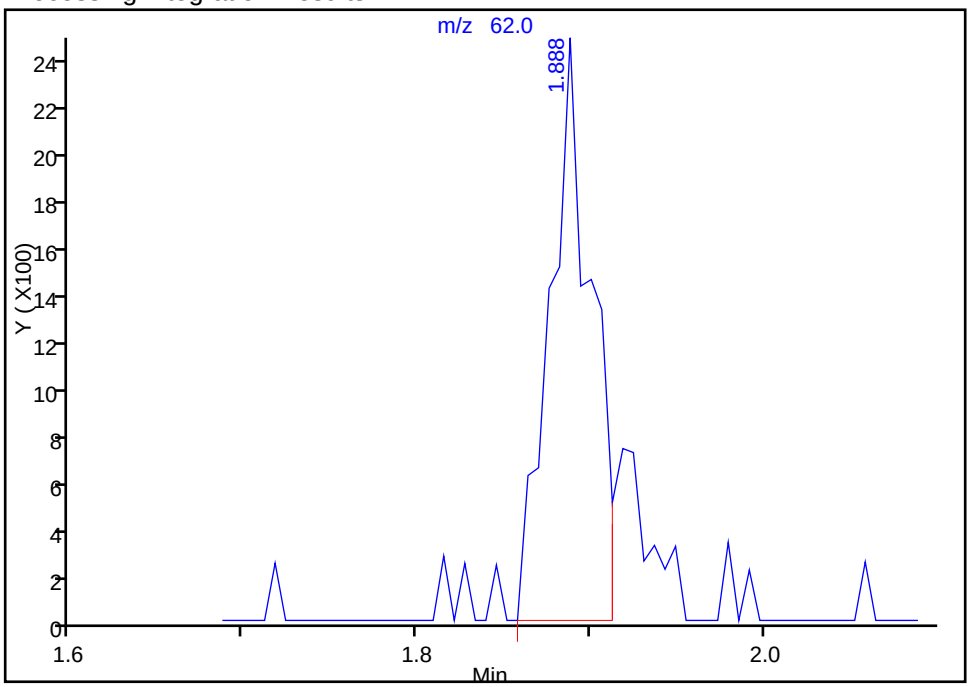
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530015.D				
Injection Date:	31-May-2015 14:25:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-D-29	Lab Sample ID:	180-44321-29		
Client ID:	HD-MW-50D-0/1-0				
Operator ID:	034635	ALS Bottle#:	6	Worklist Smp#:	15
Purge Vol:	5.000 mL	Dil. Factor:	125.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

13 Vinyl chloride, CAS: 75-01-4

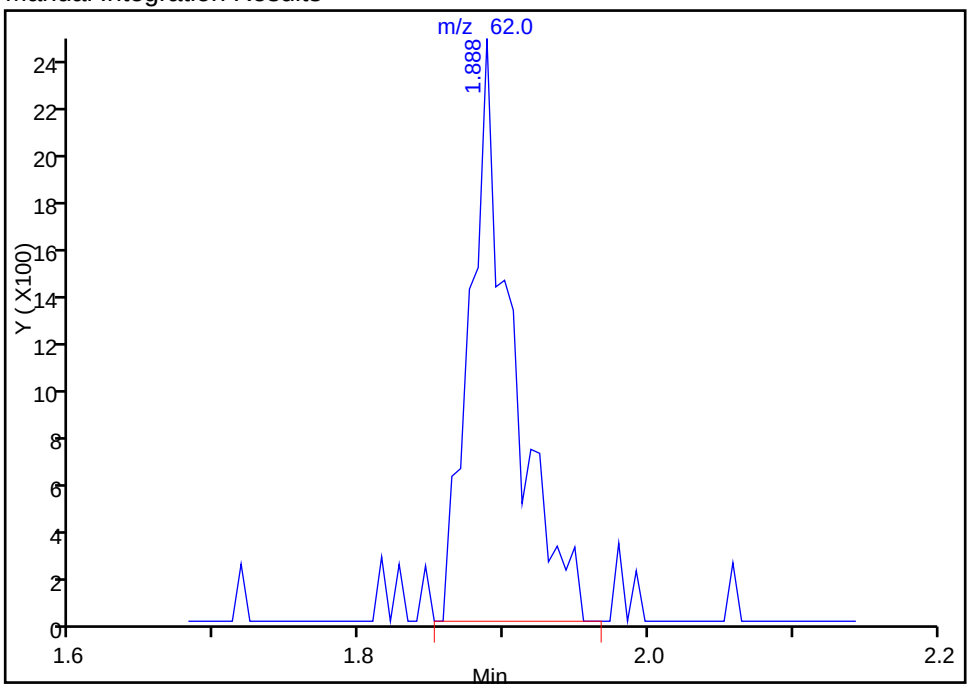
Processing Integration Results

RT: 1.89
Area: 4116
Amount: 1.293301
Amount Units: ng



Manual Integration Results

RT: 1.89
Area: 5040
Amount: 1.583634
Amount Units: ng



Reviewer: journetp, 31-May-2015 16:18:27
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

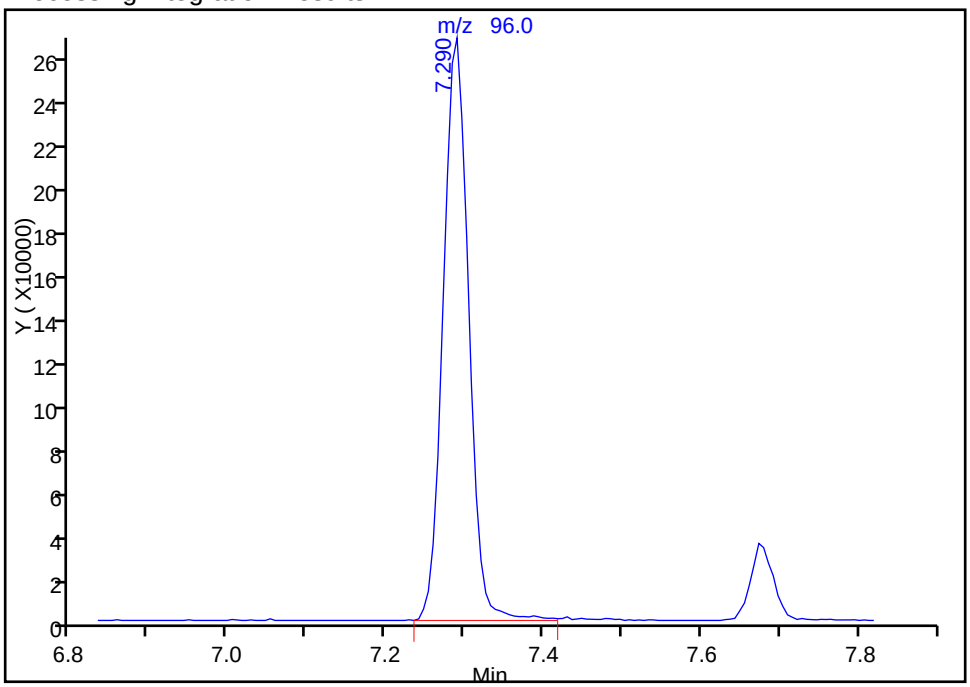
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530015.D				
Injection Date:	31-May-2015 14:25:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-D-29	Lab Sample ID:	180-44321-29		
Client ID:	HD-MW-50D-0/1-0				
Operator ID:	034635	ALS Bottle#:	6	Worklist Smp#:	15
Purge Vol:	5.000 mL	Dil. Factor:	125.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

* 2 Fluorobenzene (IS), CAS: 462-06-6

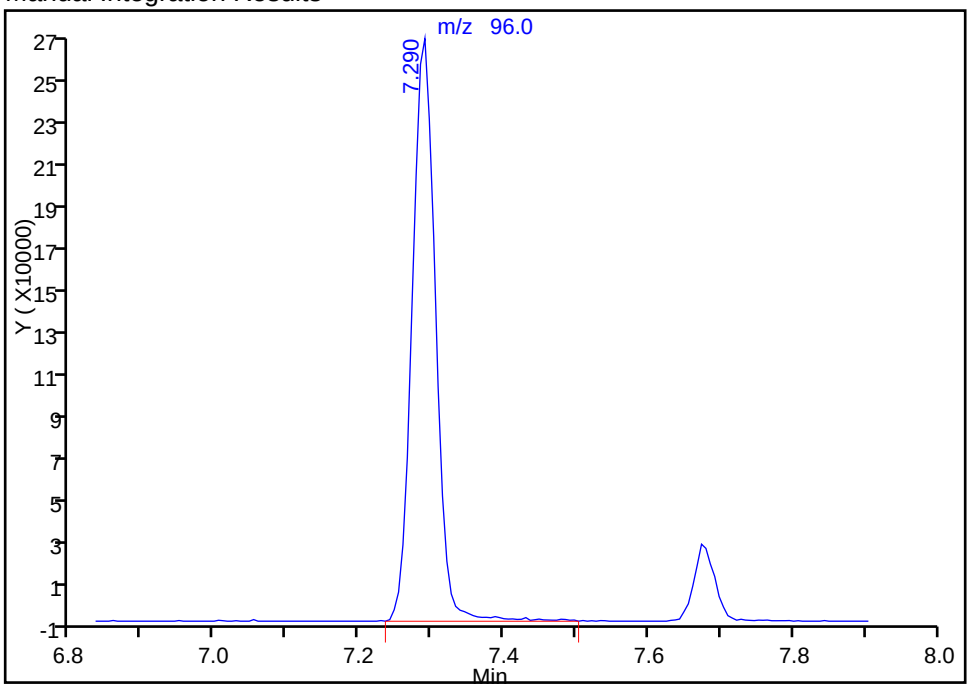
Processing Integration Results

RT: 7.29
Area: 585184
Amount: 50.000000
Amount Units: ng



Manual Integration Results

RT: 7.29
Area: 588813
Amount: 50.000000
Amount Units: ng



Reviewer: journetp, 31-May-2015 16:18:27
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-MW-51S-0/1-0 | Lab Sample ID: 180-44321-30

Matrix: Water | Lab File ID: 60530016.D

Analysis Method: 8260C | Date Collected: 05/20/2015 12:31

Sample wt/vol: 5(mL) | Date Analyzed: 05/31/2015 14:49

Soil Aliquot Vol: | Dilution Factor: 50

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

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

Analysis Batch No.: 143337 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	50	U	50	14
75-01-4	Vinyl chloride	50	U	50	11
74-83-9	Bromomethane	50	U	50	16
75-00-3	Chloroethane	50	U	50	11
75-35-4	1,1-Dichloroethene	46	J	50	15
67-64-1	Acetone	250	U	250	130
75-15-0	Carbon disulfide	50	U	50	11
75-09-2	Methylene Chloride	24	J B	50	6.3
156-60-5	trans-1,2-Dichloroethene	50	U	50	8.5
1634-04-4	Methyl tert-butyl ether	50	U	50	9.2
75-34-3	1,1-Dichloroethane	50	U	50	5.8
156-59-2	cis-1,2-Dichloroethene	620		50	12
74-97-5	Bromochloromethane	50	U	50	9.0
78-93-3	2-Butanone (MEK)	250	U	250	27
67-66-3	Chloroform	50	U	50	8.5
71-55-6	1,1,1-Trichloroethane	95		50	14
56-23-5	Carbon tetrachloride	50	U	50	6.8
71-43-2	Benzene	50	U	50	5.3
107-06-2	1,2-Dichloroethane	50	U	50	11
79-01-6	Trichloroethene	720		50	7.2
78-87-5	1,2-Dichloropropane	50	U	50	4.7
75-27-4	Bromodichloromethane	50	U	50	6.5
10061-01-5	cis-1,3-Dichloropropene	50	U	50	9.3
108-10-1	4-Methyl-2-pentanone (MIBK)	250	U	250	26
108-88-3	Toluene	50	U	50	7.5
10061-02-6	trans-1,3-Dichloropropene	50	U	50	7.4
79-00-5	1,1,2-Trichloroethane	50	U	50	10
127-18-4	Tetrachloroethene	480		50	7.4
591-78-6	2-Hexanone	250	U	250	8.0
124-48-1	Dibromochloromethane	50	U	50	6.8
106-93-4	1,2-Dibromoethane (EDB)	50	U	50	9.0
108-90-7	Chlorobenzene	50	U	50	6.8
630-20-6	1,1,1,2-Tetrachloroethane	50	U	50	14
100-41-4	Ethylbenzene	50	U	50	11
1330-20-7	Xylenes, Total	150	U	150	24
100-42-5	Styrene	50	U	50	4.8

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-MW-51S-0/1-0 Lab Sample ID: 180-44321-30

Matrix: Water Lab File ID: 60530016.D

Analysis Method: 8260C Date Collected: 05/20/2015 12:31

Sample wt/vol: 5(mL) Date Analyzed: 05/31/2015 14:49

Soil Aliquot Vol: Dilution Factor: 50

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143337 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	50	U	50	9.6
79-34-5	1,1,2,2-Tetrachloroethane	50	U	50	10
107-13-1	Acrylonitrile	1000	U	1000	27
123-91-1	1,4-Dioxane	10000	U	10000	1700

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	83		64-135
2037-26-5	Toluene-d8 (Surr)	79		71-118
460-00-4	4-Bromofluorobenzene (Surr)	108		70-118
1868-53-7	Dibromofluoromethane (Surr)	95		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530016.D
Lims ID: 180-44321-D-30 Lab Sample ID: 180-44321-30
Client ID: HD-MW-51S-0/1-0
Sample Type: Client
Inject. Date: 31-May-2015 14:49:30 ALS Bottle#: 10 Worklist Smp#: 16
Purge Vol: 5.000 mL Dil. Factor: 50.0000
Sample Info: 180-44321-D-30, x50
Misc. Info.: 180-0007190-016
Operator ID: 034635 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 31-May-2015 16:21:03 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK001

First Level Reviewer: journetp Date: 31-May-2015 16:19:04

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.217	4.236	-0.019	92	160764	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.284	0.006	98	589555	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.393	0.005	90	136731	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.746	12.747	-0.001	97	209827	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.553	6.554	-0.001	93	115825	47.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.931	6.925	0.006	70	169894	41.7	
$ 7 Toluene-d8 (Surr)	98	8.938	8.939	-0.001	95	454783	39.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.585	11.579	0.006	84	255564	54.2	
12 Chloromethane	50		1.760				ND	
13 Vinyl chloride	62		1.882				ND	
15 Bromomethane	94		2.229				ND	
16 Chloroethane	64		2.375				ND	
22 1,1-Dichloroethene	96	3.335	3.336	-0.001	96	12509	4.58	
24 Acetone	43		3.421				ND	
26 Carbon disulfide	76		3.628				ND	
31 Methylene Chloride	84	4.126	4.115	0.011	53	8024	2.42	
33 Acrylonitrile	53		4.498				ND	
34 trans-1,2-Dichloroethene	96		4.553				ND	
35 Methyl tert-butyl ether	73		4.565				ND	
37 1,1-Dichloroethane	63		5.198				ND	
43 cis-1,2-Dichloroethene	96	5.945	5.940	0.005	81	213982	61.9	
44 2-Butanone (MEK)	43		5.940				ND	
48 Chlorobromomethane	128		6.226				ND	
50 Chloroform	83	6.377	6.366	0.011	28	2317	0.4195	
51 1,1,1-Trichloroethane	97	6.535	6.536	-0.001	98	42933	9.46	
53 Carbon tetrachloride	117		6.712				ND	
56 Benzene	78		6.943				ND	
57 1,2-Dichloroethane	62		7.016				ND	
61 Trichloroethene	130	7.679	7.673	0.006	97	202278	72.1	
64 1,2-Dichloropropane	63		7.947				ND	
65 1,4-Dioxane	88		8.020				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.227				ND	
71 cis-1,3-Dichloropropene	75		8.677				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.823				ND	
73 Toluene	91		9.012				ND	
74 trans-1,3-Dichloropropene	75		9.255				ND	
76 1,1,2-Trichloroethane	97		9.450				ND	
77 Tetrachloroethene	164	9.528	9.523	0.005	95	112286	48.1	
79 2-Hexanone	43		9.657				ND	
81 Chlorodibromomethane	129		9.821				ND	
82 Ethylene Dibromide	107		9.937				ND	
84 Chlorobenzene	112		10.423				ND	
86 1,1,1,2-Tetrachloroethane	131		10.521				ND	
87 Ethylbenzene	106		10.527				ND	
88 m-Xylene & p-Xylene	106		10.654				ND	
89 o-Xylene	106		11.044				ND	
90 Styrene	104		11.062				ND	
91 Bromoform	173		11.244				ND	
96 1,1,2,2-Tetrachloroethane	83		11.713				ND	
S 131 Xylenes, Total	106		1.000				ND	

Reagents:

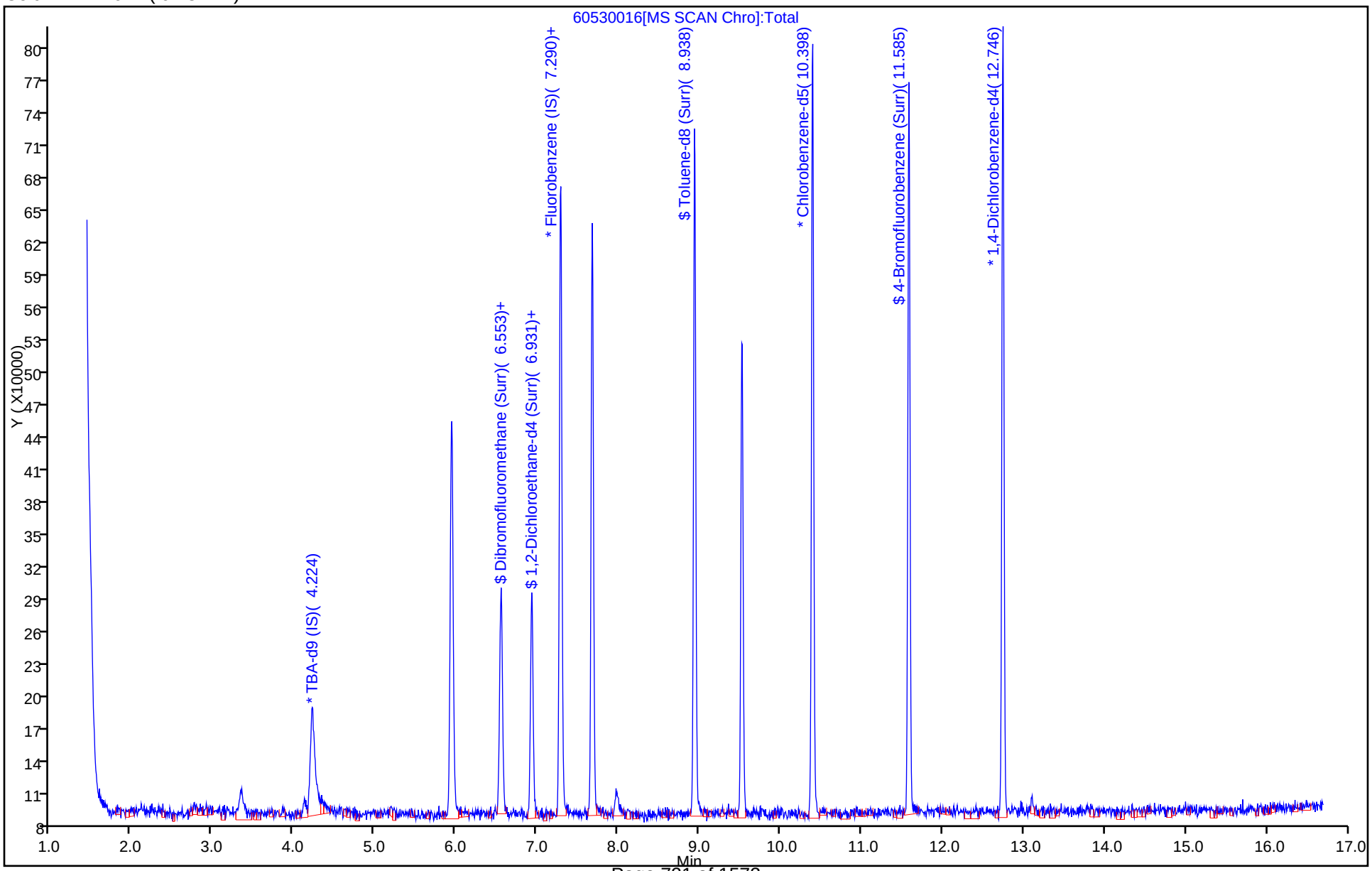
VOA8260INT_00033	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00035	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 31-May-2015 16:21:12 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530016.D				
Injection Date:	31-May-2015 14:49:30	Instrument ID:	CHHP6	Operator ID:	034635
Lims ID:	180-44321-D-30	Lab Sample ID:	180-44321-30	Worklist Smp#:	16
Client ID:	HD-MW-51S-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	50.0000	ALS Bottle#:	10
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530016.D				
Lims ID:	180-44321-D-30	Lab Sample ID:	180-44321-30		
Client ID:	HD-MW-51S-0/1-0				
Sample Type:	Client				
Inject. Date:	31-May-2015 14:49:30	ALS Bottle#:	10	Worklist Smp#:	16
Purge Vol:	5.000 mL	Dil. Factor:	50.0000		
Sample Info:	180-44321-D-30, x50				
Misc. Info.:	180-0007190-016				
Operator ID:	034635	Instrument ID:	CHHP6		
Method:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\MSVOA_LL_CHHP6.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	31-May-2015 16:21:03	Calib Date:	01-May-2015 16:46:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK001				
First Level Reviewer: journetp		Date:	31-May-2015 16:19:04		

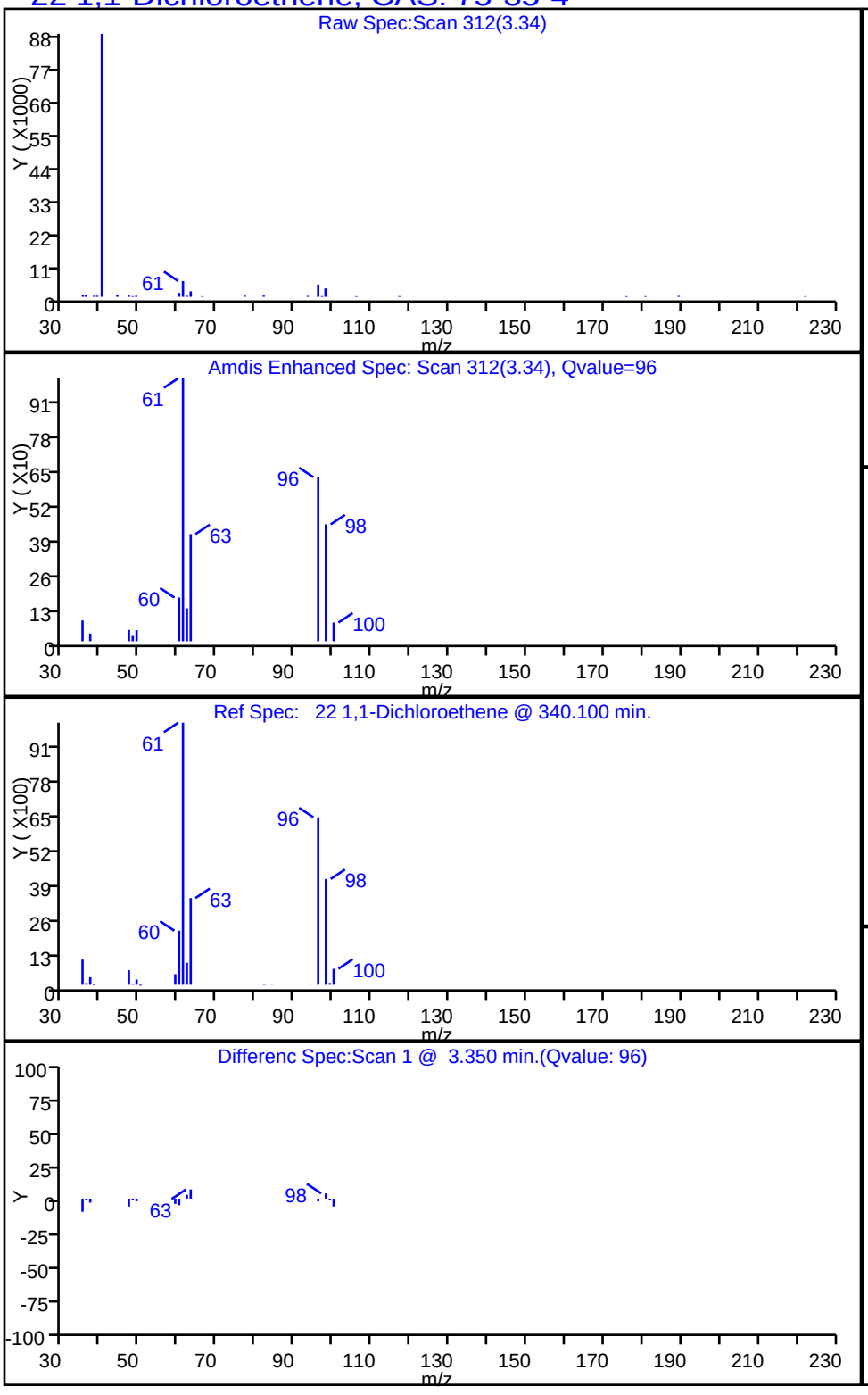
Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	47.5	94.96
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	41.7	83.37
$ 7 Toluene-d8 (Surr)	50.0	39.3	78.62
$ 8 4-Bromofluorobenzene (Surr)	50.0	54.2	108.38

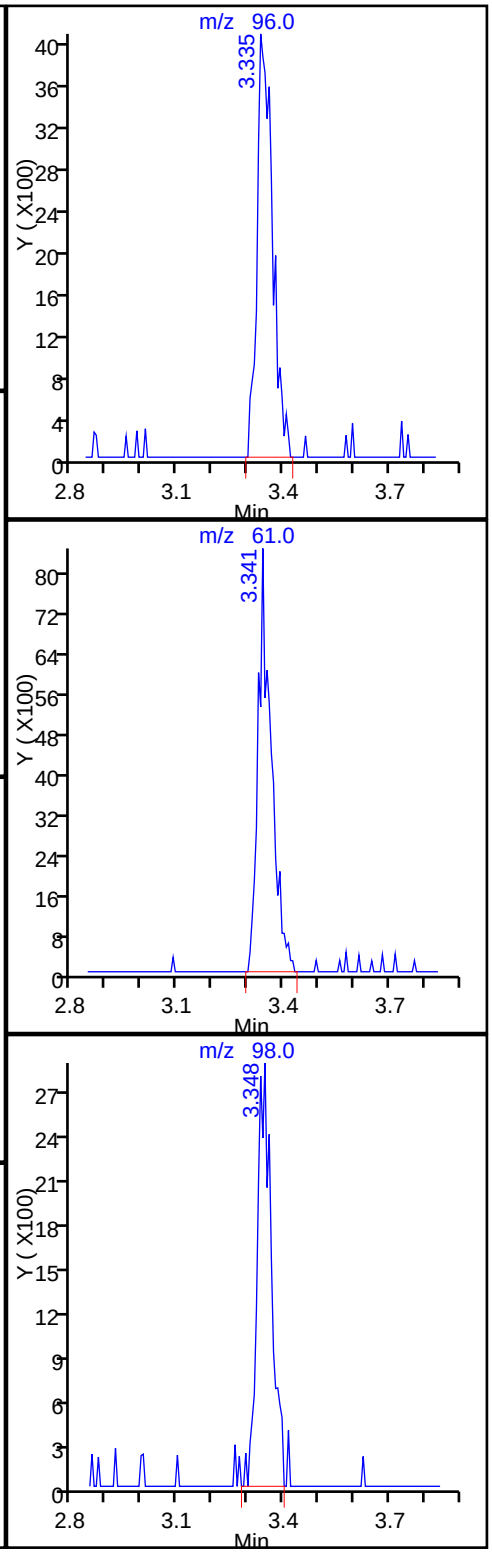
Report Date: 31-May-2015 16:21:12 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530016.D				
Injection Date:	31-May-2015 14:49:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-D-30	Lab Sample ID:	180-44321-30		
Client ID:	HD-MW-51S-0/1-0				
Operator ID:	034635	ALS Bottle#:	10	Worklist Smp#:	16
Purge Vol:	5.000 mL	Dil. Factor:	50.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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



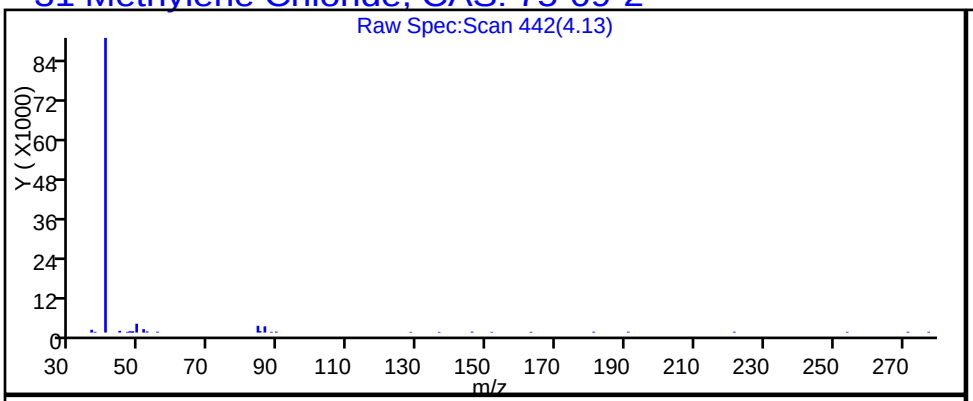


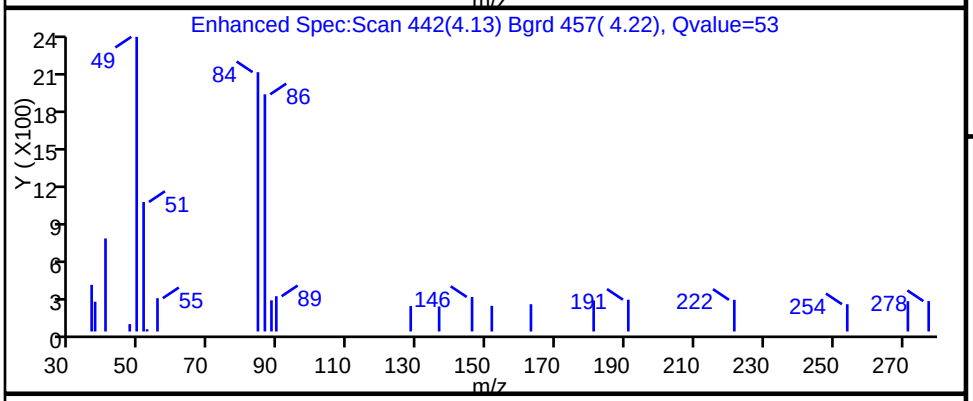
Report Date: 31-May-2015 16:21:12 Chrom Revision: 2.2 05-May-2015 11:39:10

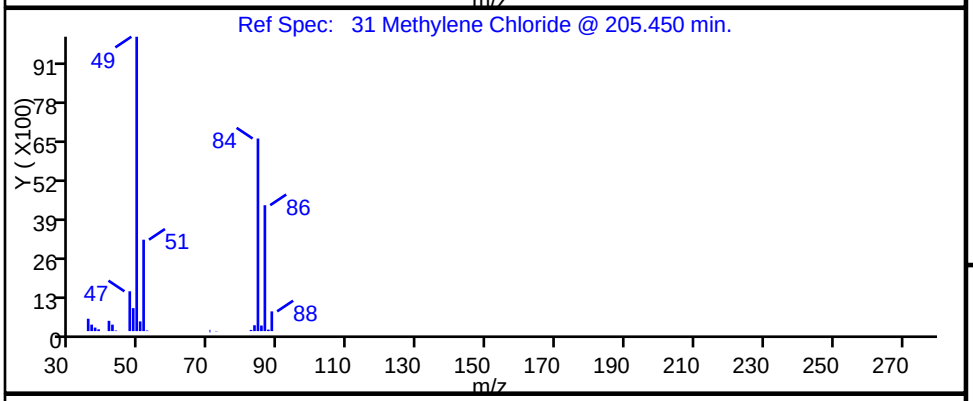
TestAmerica Pittsburgh

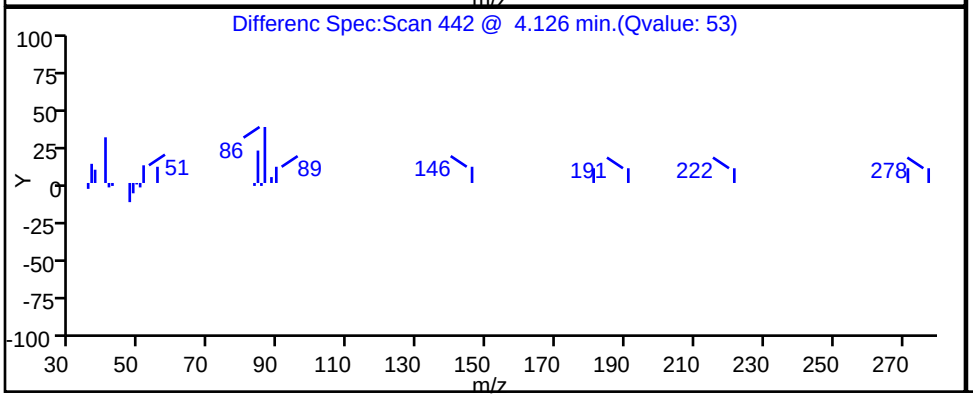
Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530016.D				
Injection Date:	31-May-2015 14:49:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-D-30	Lab Sample ID:	180-44321-30		
Client ID:	HD-MW-51S-0/1-0				
Operator ID:	034635	ALS Bottle#:	10	Worklist Smp#:	16
Purge Vol:	5.000 mL	Dil. Factor:	50.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

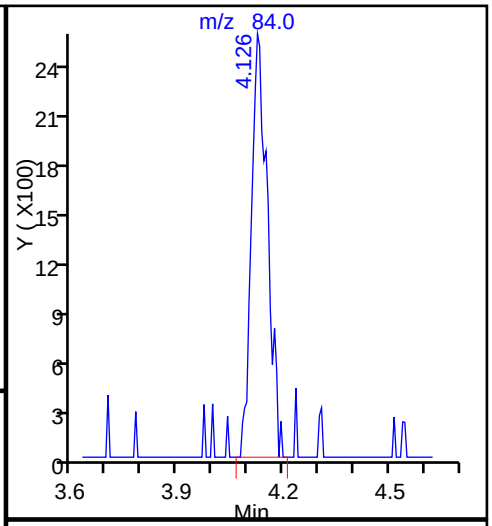
31 Methylene Chloride, CAS: 75-09-2

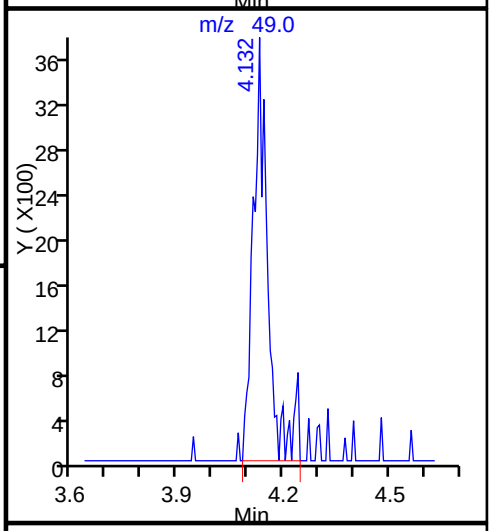


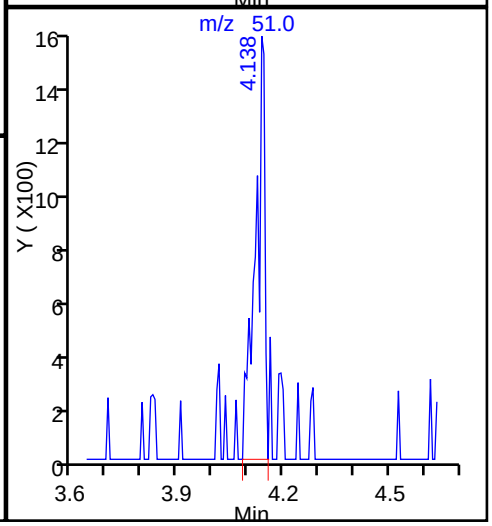










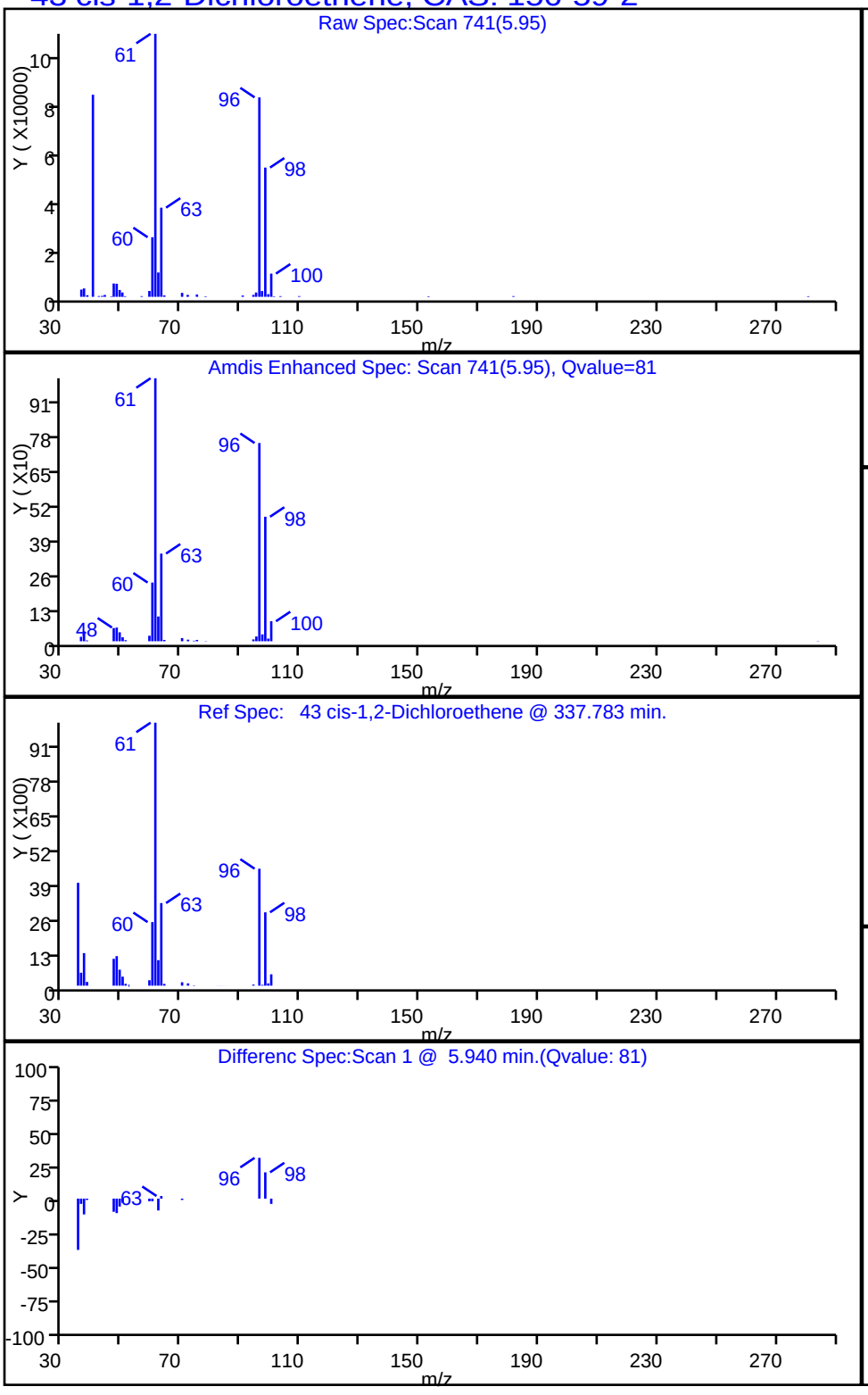


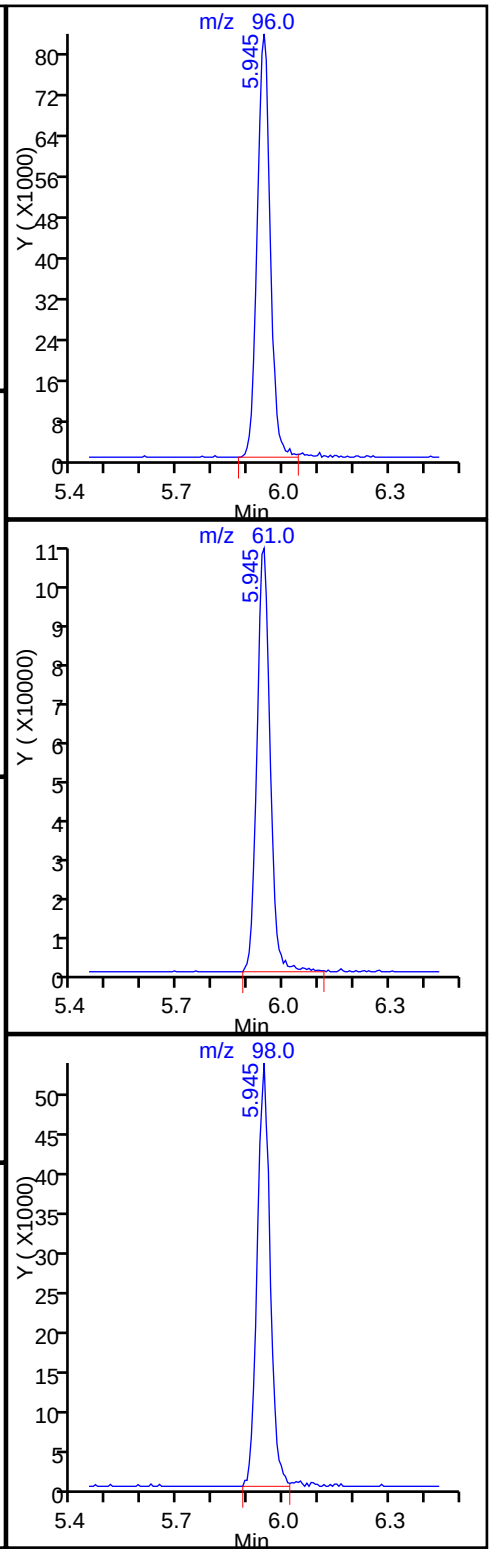
Report Date: 31-May-2015 16:21:12 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530016.D				
Injection Date:	31-May-2015 14:49:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-D-30	Lab Sample ID:	180-44321-30		
Client ID:	HD-MW-51S-0/1-0				
Operator ID:	034635	ALS Bottle#:	10	Worklist Smp#:	16
Purge Vol:	5.000 mL	Dil. Factor:	50.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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



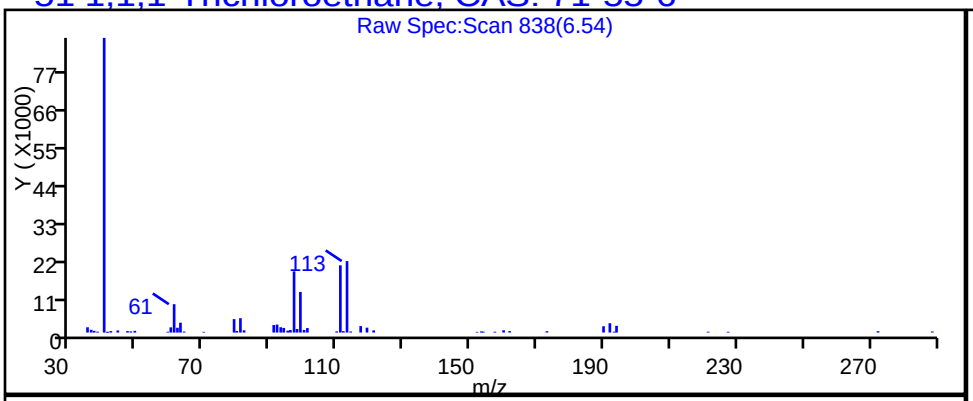


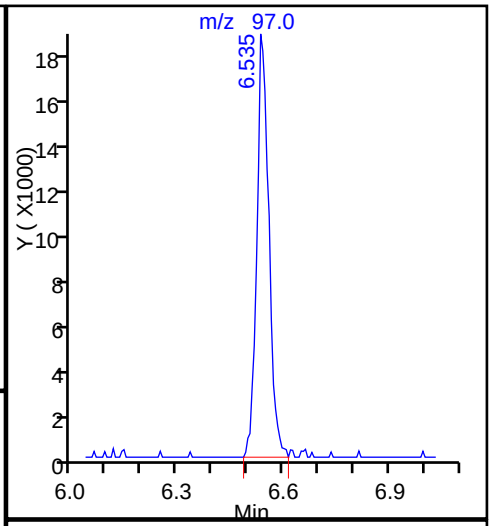
Report Date: 31-May-2015 16:21:12 Chrom Revision: 2.2 05-May-2015 11:39:10

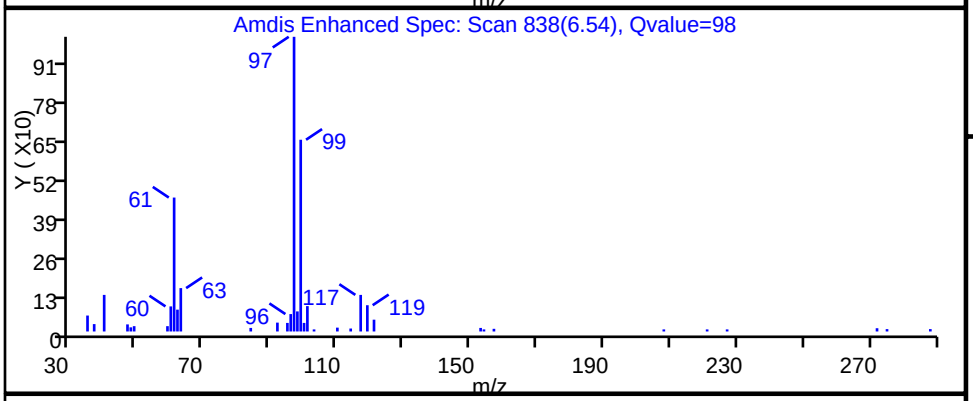
TestAmerica Pittsburgh

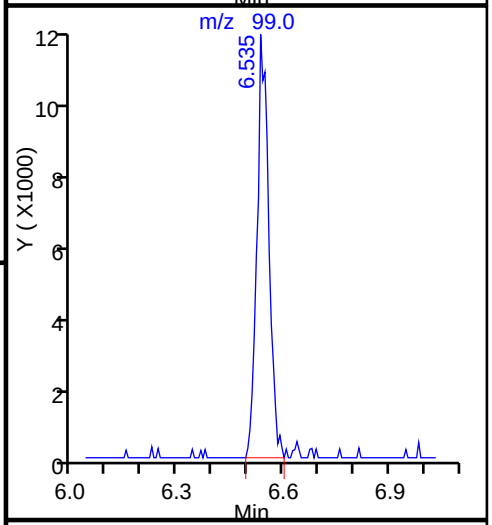
Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530016.D				
Injection Date:	31-May-2015 14:49:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-D-30	Lab Sample ID:	180-44321-30		
Client ID:	HD-MW-51S-0/1-0				
Operator ID:	034635	ALS Bottle#:	10	Worklist Smp#:	16
Purge Vol:	5.000 mL	Dil. Factor:	50.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

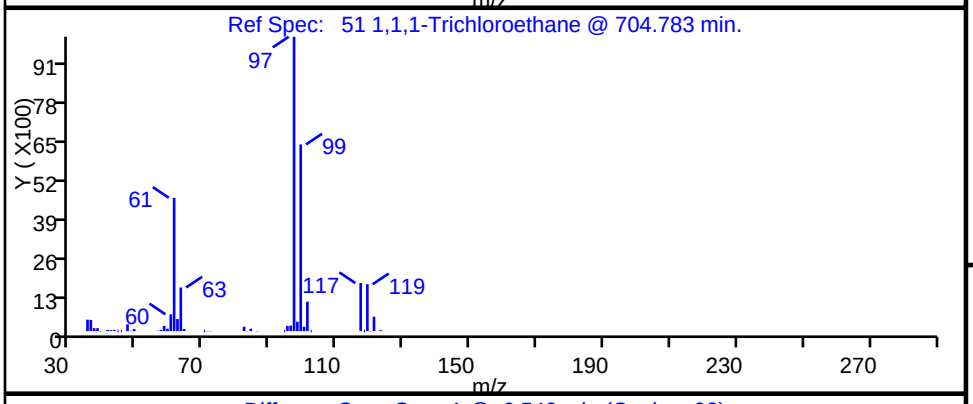
51 1,1,1-Trichloroethane, CAS: 71-55-6

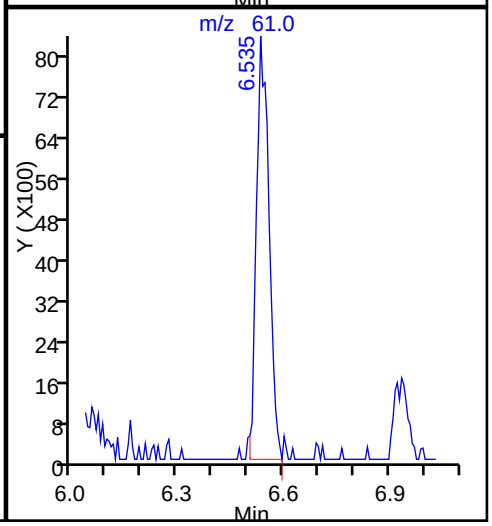


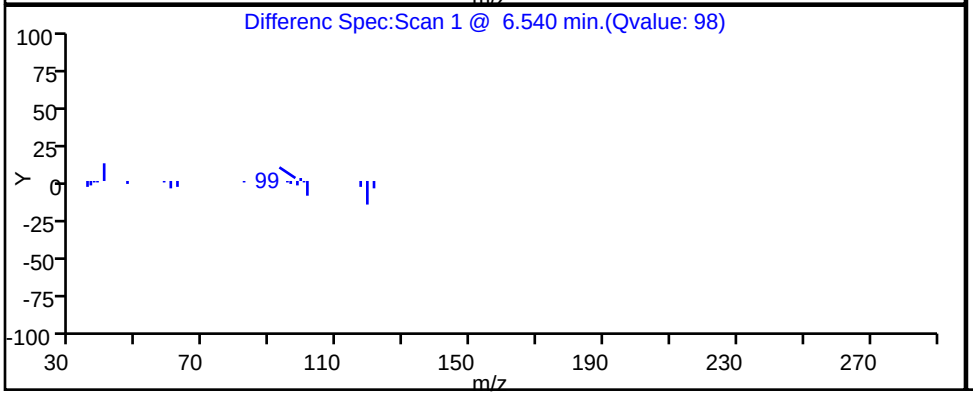










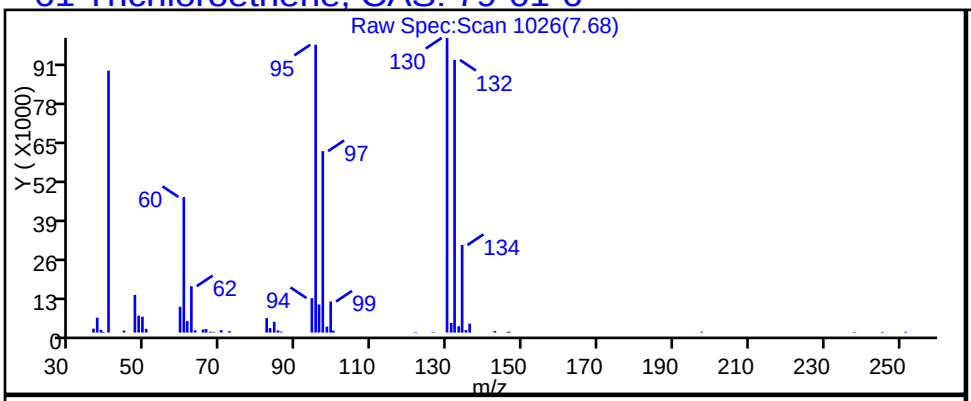


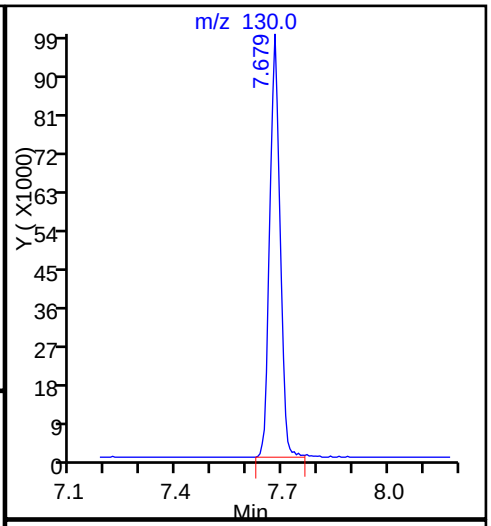
Report Date: 31-May-2015 16:21:12 Chrom Revision: 2.2 05-May-2015 11:39:10

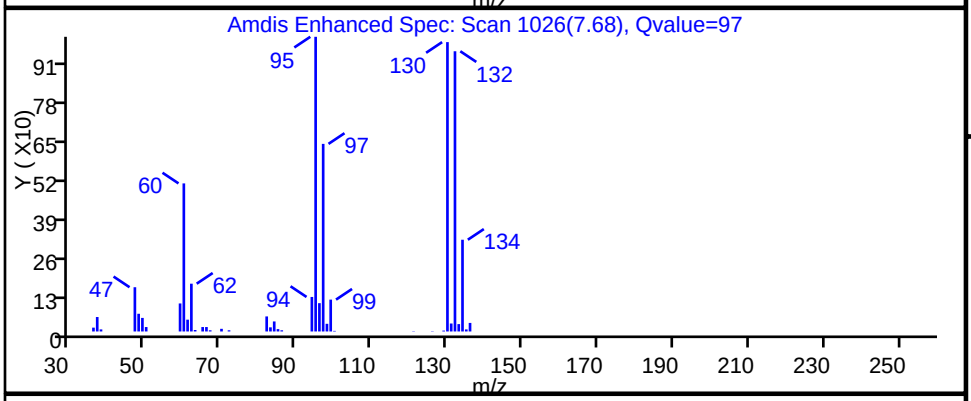
TestAmerica Pittsburgh

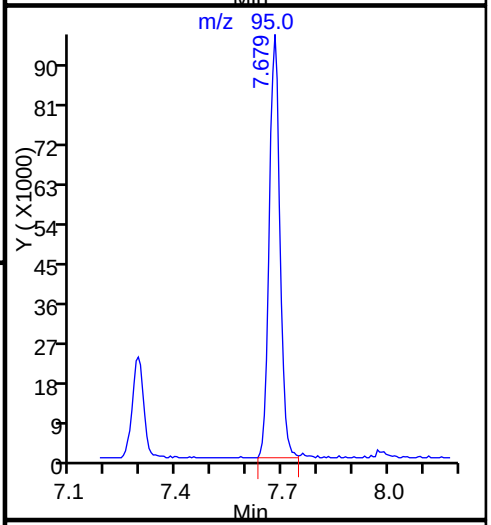
Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530016.D		
Injection Date:	31-May-2015 14:49:30	Instrument ID:	CHHP6
Lims ID:	180-44321-D-30	Lab Sample ID:	180-44321-30
Client ID:	HD-MW-51S-0/1-0		
Operator ID:	034635	ALS Bottle#:	10 Worklist Smp#: 16
Purge Vol:	5.000 mL	Dil. Factor:	50.0000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

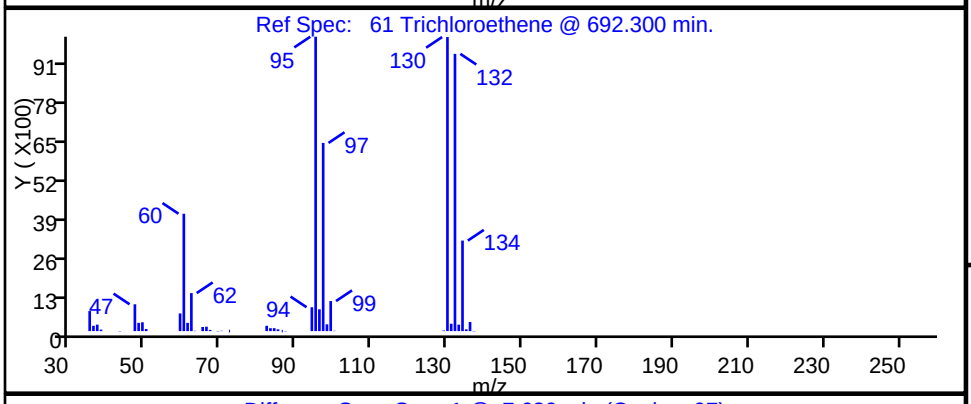
61 Trichloroethene, CAS: 79-01-6

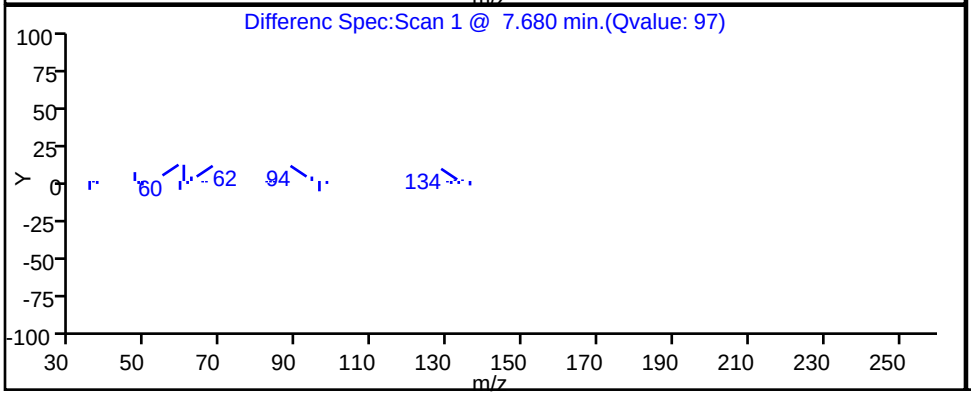


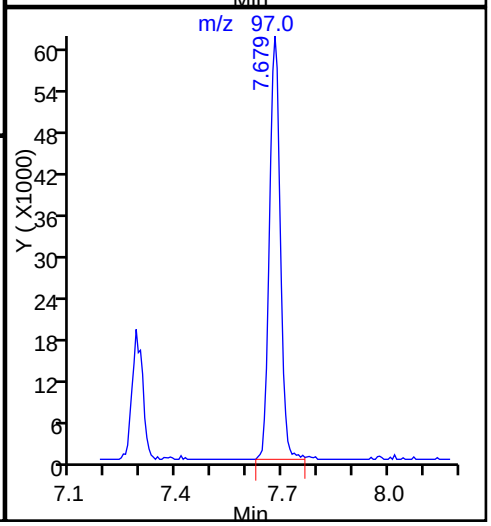












Report Date: 31-May-2015 16:21:12 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530016.D

Injection Date: 31-May-2015 14:49:30 Instrument ID: CHHP6

Lims ID: 180-44321-D-30 Lab Sample ID: 180-44321-30

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

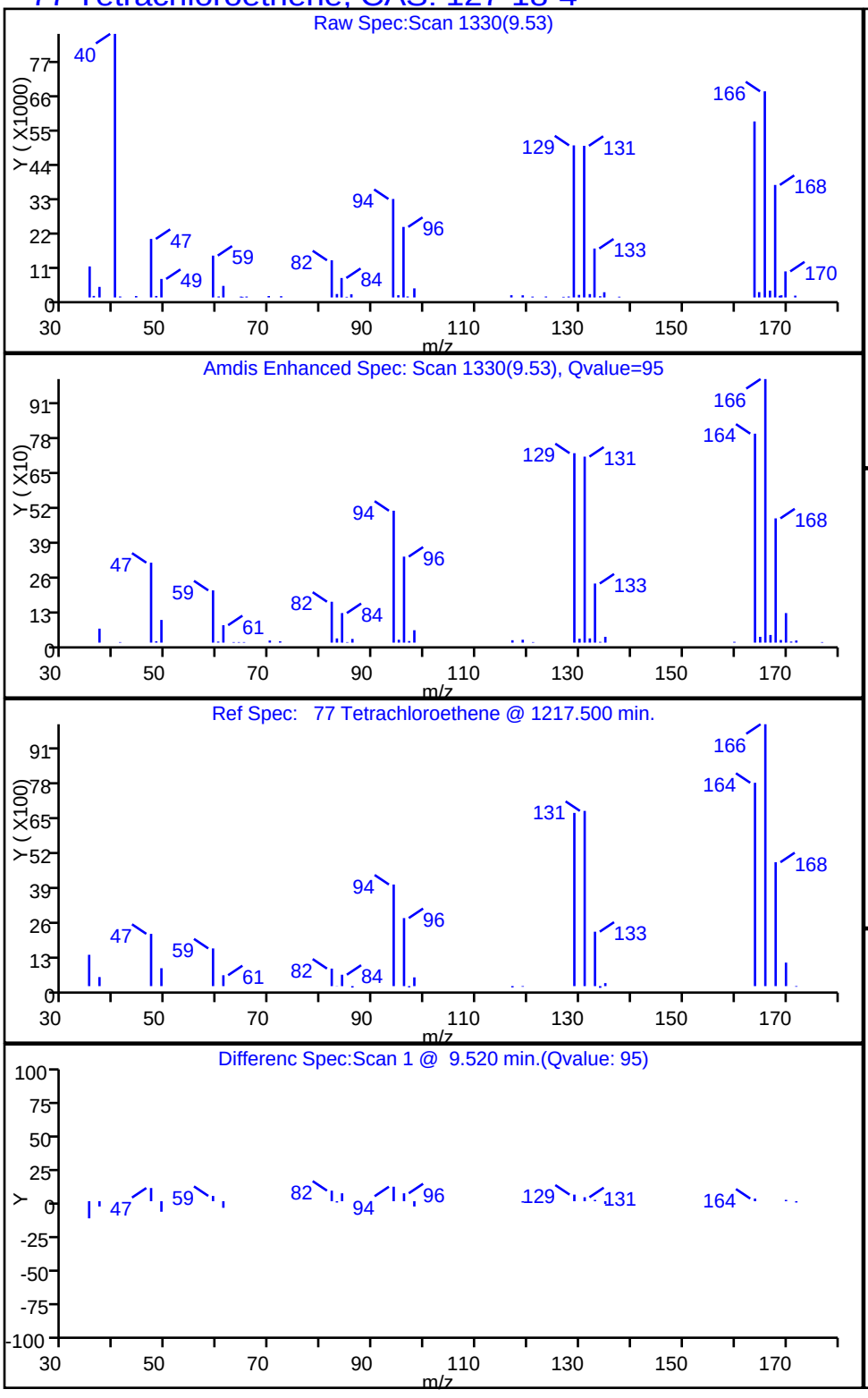
Operator ID: 034635 ALS Bottle#: 10 Worklist Smp#: 16

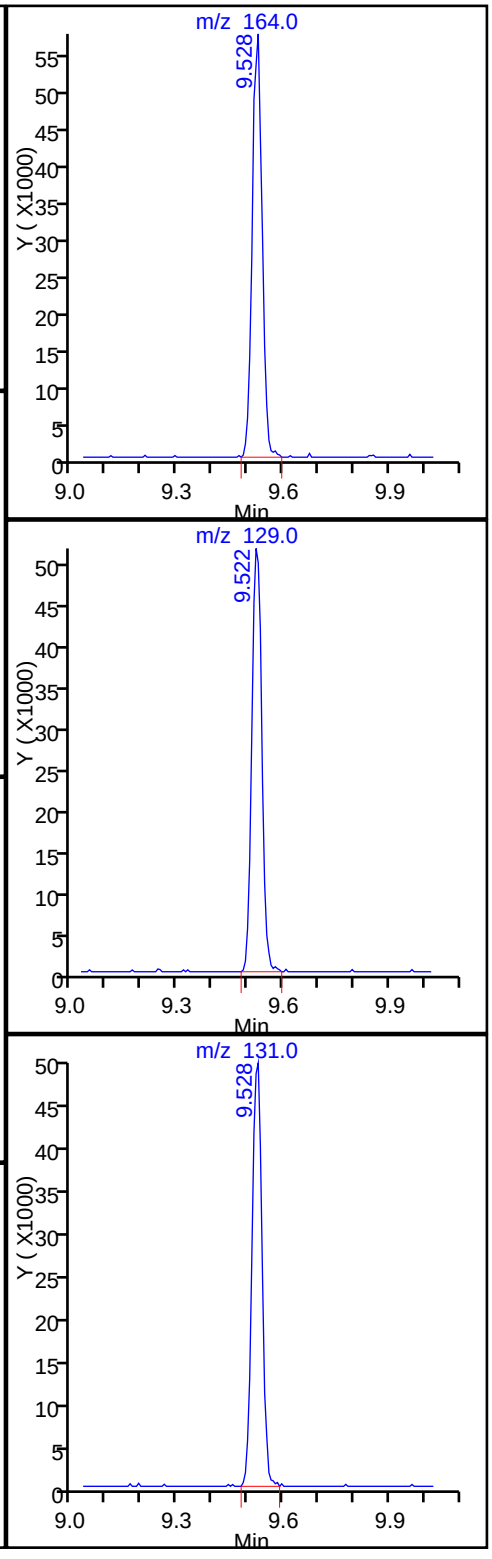
Purge Vol: 5.000 mL Dil. Factor: 50.0000

Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL

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

77 Tetrachloroethene, CAS: 127-18-4





FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-QC4-0/1-2 | Lab Sample ID: 180-44321-31

Matrix: Water | Lab File ID: 60530006.D

Analysis Method: 8260C | Date Collected: 05/20/2015 12:01

Sample wt/vol: 5(mL) | Date Analyzed: 05/31/2015 10:42

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 143337 | 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.: 180-44321-1

SDG No.:

Client Sample ID: HD-QC4-0/1-2 Lab Sample ID: 180-44321-31

Matrix: Water Lab File ID: 60530006.D

Analysis Method: 8260C Date Collected: 05/20/2015 12:01

Sample wt/vol: 5(mL) Date Analyzed: 05/31/2015 10:42

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143337 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	109		64-135
2037-26-5	Toluene-d8 (Surr)	97		71-118
460-00-4	4-Bromofluorobenzene (Surr)	86		70-118
1868-53-7	Dibromofluoromethane (Surr)	114		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530006.D
Lims ID: 180-44321-B-31 Lab Sample ID: 180-44321-31
Client ID: HD-QC4-0/1-2
Sample Type: Client
Inject. Date: 31-May-2015 10:42:30 ALS Bottle#: 6 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-44321-B-31
Misc. Info.: 180-0007190-006
Operator ID: 034635 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 31-May-2015 16:21:03 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK001

First Level Reviewer: journetp Date: 31-May-2015 12:38:12

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.224	4.236	-0.012	87	137302	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.284	0.006	98	472478	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.393	0.005	90	104743	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.747	12.747	0.000	97	163811	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.560	6.554	0.006	93	111379	57.0	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.931	6.925	0.006	71	178358	54.6	
$ 7 Toluene-d8 (Surr)	98	8.938	8.939	-0.001	94	431260	48.7	
$ 8 4-Bromofluorobenzene (Surr	95	11.585	11.579	0.006	84	155695	43.1	
12 Chloromethane	50		1.760				ND	
13 Vinyl chloride	62		1.882				ND	
15 Bromomethane	94		2.229				ND	
16 Chloroethane	64		2.375				ND	
22 1,1-Dichloroethene	96		3.336				ND	
24 Acetone	43		3.421				ND	
26 Carbon disulfide	76		3.628				ND	
31 Methylene Chloride	84		4.115				ND	
33 Acrylonitrile	53		4.498				ND	
34 trans-1,2-Dichloroethene	96		4.553				ND	
35 Methyl tert-butyl ether	73		4.565				ND	
37 1,1-Dichloroethane	63		5.198				ND	
43 cis-1,2-Dichloroethene	96		5.940				ND	
44 2-Butanone (MEK)	43		5.940				ND	
48 Chlorobromomethane	128		6.226				ND	
50 Chloroform	83		6.366				ND	
51 1,1,1-Trichloroethane	97		6.536				ND	
53 Carbon tetrachloride	117		6.712				ND	
56 Benzene	78		6.943				ND	
57 1,2-Dichloroethane	62		7.016				ND	
61 Trichloroethene	130		7.673				ND	
64 1,2-Dichloropropane	63		7.947				ND	
65 1,4-Dioxane	88		8.020				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.227				ND	
71 cis-1,3-Dichloropropene	75		8.677				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.823				ND	
73 Toluene	91		9.012				ND	
74 trans-1,3-Dichloropropene	75		9.255				ND	
76 1,1,2-Trichloroethane	97		9.450				ND	
77 Tetrachloroethene	164		9.523				ND	
79 2-Hexanone	43		9.657				ND	
81 Chlorodibromomethane	129		9.821				ND	
82 Ethylene Dibromide	107		9.937				ND	
84 Chlorobenzene	112		10.423				ND	
86 1,1,1,2-Tetrachloroethane	131		10.521				ND	
87 Ethylbenzene	106		10.527				ND	
88 m-Xylene & p-Xylene	106		10.654				ND	
89 o-Xylene	106		11.044				ND	
90 Styrene	104		11.062				ND	
91 Bromoform	173		11.244				ND	
96 1,1,2,2-Tetrachloroethane	83		11.713				ND	
S 131 Xylenes, Total	106		1.000				ND	

Reagents:

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

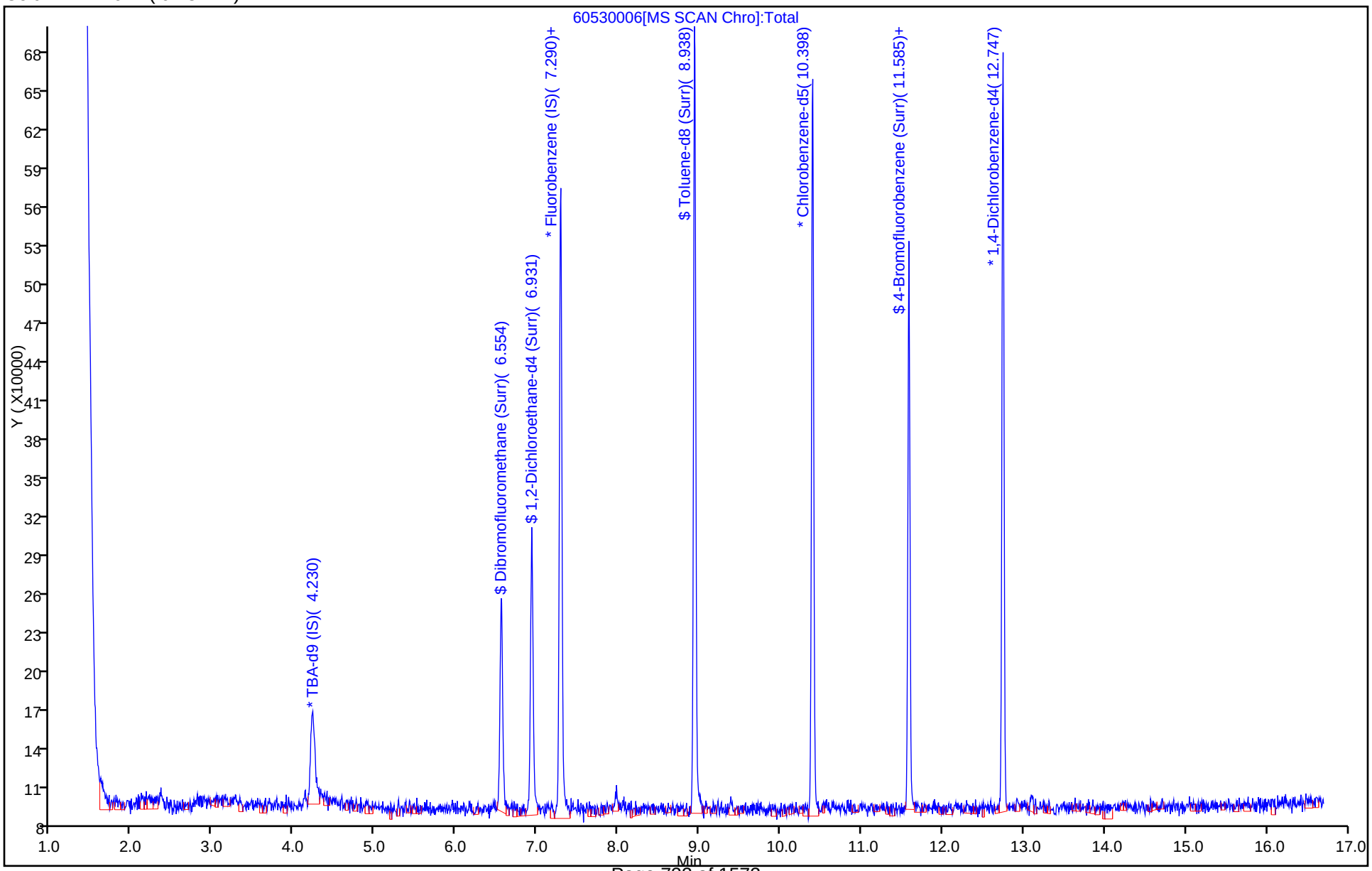
Report Date: 31-May-2015 16:21:06 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530006.D

Injection Date:	31-May-2015 10:42:30	Instrument ID:	CHHP6	Operator ID:	034635
Lims ID:	180-44321-B-31	Lab Sample ID:	180-44321-31	Worklist Smp#:	6
Client ID:	HD-QC4-0/1-2				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530006.D
Lims ID: 180-44321-B-31 Lab Sample ID: 180-44321-31
Client ID: HD-QC4-0/1-2
Sample Type: Client
Inject. Date: 31-May-2015 10:42:30 ALS Bottle#: 6 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-44321-B-31
Misc. Info.: 180-0007190-006
Operator ID: 034635 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 31-May-2015 16:21:03 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK001

First Level Reviewer: journetp Date: 31-May-2015 12:38:12

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	57.0	113.95
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	54.6	109.21
$ 7 Toluene-d8 (Surr)	50.0	48.7	97.32
$ 8 4-Bromofluorobenzene (Surr)	50.0	43.1	86.19

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-QC1-0/1-4 | Lab Sample ID: 180-44321-32

Matrix: Water | Lab File ID: 60530019.D

Analysis Method: 8260C | Date Collected: 05/20/2015 08:20

Sample wt/vol: 5(mL) | Date Analyzed: 05/31/2015 16:02

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.: 143337 | 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	2.6	J	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)	2.2	J	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.: 180-44321-1

SDG No.:

Client Sample ID: HD-QC1-0/1-4 Lab Sample ID: 180-44321-32

Matrix: Water Lab File ID: 60530019.D

Analysis Method: 8260C Date Collected: 05/20/2015 08:20

Sample wt/vol: 5(mL) Date Analyzed: 05/31/2015 16:02

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.: 143337 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		64-135
2037-26-5	Toluene-d8 (Surr)	89		71-118
460-00-4	4-Bromofluorobenzene (Surr)	108		70-118
1868-53-7	Dibromofluoromethane (Surr)	107		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530019.D
Lims ID: 180-44321-B-32 Lab Sample ID: 180-44321-32
Client ID: HD-QC1-0/1-4
Sample Type: Client
Inject. Date: 31-May-2015 16:02:30 ALS Bottle#: 13 Worklist Smp#: 19
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-44321-B-32
Misc. Info.: 180-0007190-019
Operator ID: 034635 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 08:23:00 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK048

First Level Reviewer: fergusond Date: 01-Jun-2015 08:23:00

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.224	4.236	-0.012	91	120957	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.284	0.006	98	491667	50.0	
* 3 Chlorobenzene-d5	119	10.393	10.393	0.000	89	111176	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.747	12.747	0.000	97	179050	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.554	6.554	0.000	93	109341	53.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.931	6.925	0.006	71	165340	48.6	
$ 7 Toluene-d8 (Surr)	98	8.939	8.939	0.000	93	417382	44.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.585	11.579	0.006	86	206187	53.8	
12 Chloromethane	50		1.760				ND	
13 Vinyl chloride	62		1.882				ND	
15 Bromomethane	94		2.229				ND	
16 Chloroethane	64		2.375				ND	
22 1,1-Dichloroethene	96		3.336				ND	
24 Acetone	43	3.427	3.421	0.006	22	8602	13.2	
26 Carbon disulfide	76		3.628				ND	
31 Methylene Chloride	84		4.115				ND	
33 Acrylonitrile	53		4.498				ND	
34 trans-1,2-Dichloroethene	96		4.553				ND	
35 Methyl tert-butyl ether	73		4.565				ND	
37 1,1-Dichloroethane	63		5.198				ND	
43 cis-1,2-Dichloroethene	96		5.940				ND	
44 2-Butanone (MEK)	43	5.940	5.940	0.000	98	11725	10.8	
48 Chlorobromomethane	128		6.226				ND	
50 Chloroform	83		6.366				ND	
51 1,1,1-Trichloroethane	97		6.536				ND	
53 Carbon tetrachloride	117		6.712				ND	
56 Benzene	78		6.943				ND	
57 1,2-Dichloroethane	62		7.016				ND	
61 Trichloroethene	130		7.673				ND	
64 1,2-Dichloropropane	63		7.947				ND	
65 1,4-Dioxane	88		8.020				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.227				ND	
71 cis-1,3-Dichloropropene	75		8.677				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.823				ND	
73 Toluene	91		9.012				ND	
74 trans-1,3-Dichloropropene	75		9.255				ND	
76 1,1,2-Trichloroethane	97		9.450				ND	
77 Tetrachloroethene	164		9.523				ND	
79 2-Hexanone	43		9.657				ND	
81 Chlorodibromomethane	129		9.821				ND	
82 Ethylene Dibromide	107		9.937				ND	
84 Chlorobenzene	112		10.423				ND	
86 1,1,1,2-Tetrachloroethane	131		10.521				ND	
87 Ethylbenzene	106		10.527				ND	
88 m-Xylene & p-Xylene	106		10.654				ND	
89 o-Xylene	106		11.044				ND	
90 Styrene	104		11.062				ND	
91 Bromoform	173		11.244				ND	
96 1,1,2,2-Tetrachloroethane	83		11.713				ND	
S 131 Xylenes, Total	106		1.000				ND	

Reagents:

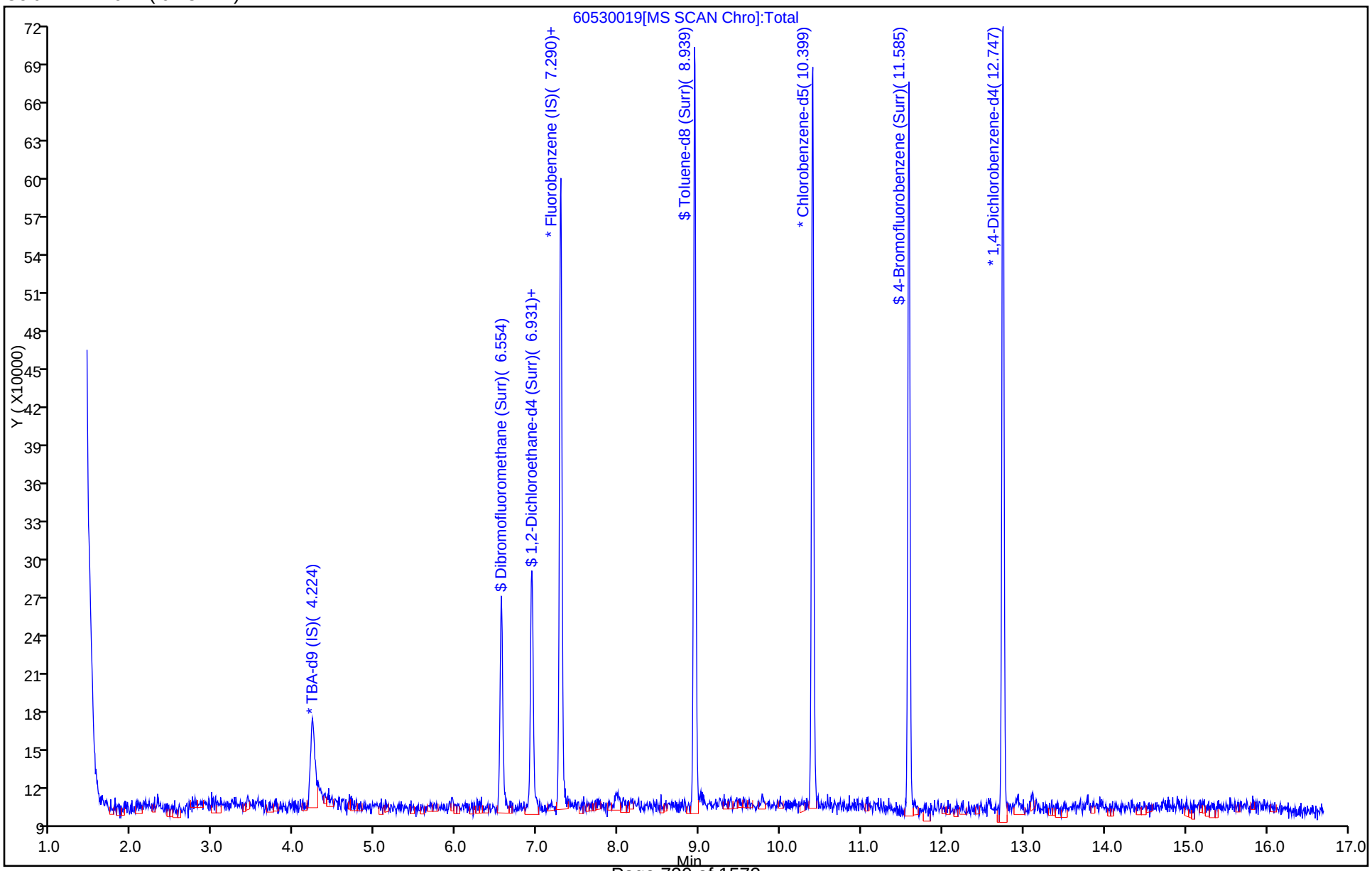
VOA8260INT_00033	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00035	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 01-Jun-2015 08:23:01 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530019.D				
Injection Date:	31-May-2015 16:02:30	Instrument ID:	CHHP6	Operator ID:	034635
Lims ID:	180-44321-B-32	Lab Sample ID:	180-44321-32	Worklist Smp#:	19
Client ID:	HD-QC1-0/1-4				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530019.D
Lims ID: 180-44321-B-32 Lab Sample ID: 180-44321-32
Client ID: HD-QC1-0/1-4
Sample Type: Client
Inject. Date: 31-May-2015 16:02:30 ALS Bottle#: 13 Worklist Smp#: 19
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-44321-B-32
Misc. Info.: 180-0007190-019
Operator ID: 034635 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 08:23:00 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK048

First Level Reviewer: fergusond Date: 01-Jun-2015 08:23:00

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	53.7	107.50
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	48.6	97.29
$ 7 Toluene-d8 (Surr)	50.0	44.4	88.74
$ 8 4-Bromofluorobenzene (Surr)	50.0	53.8	107.54

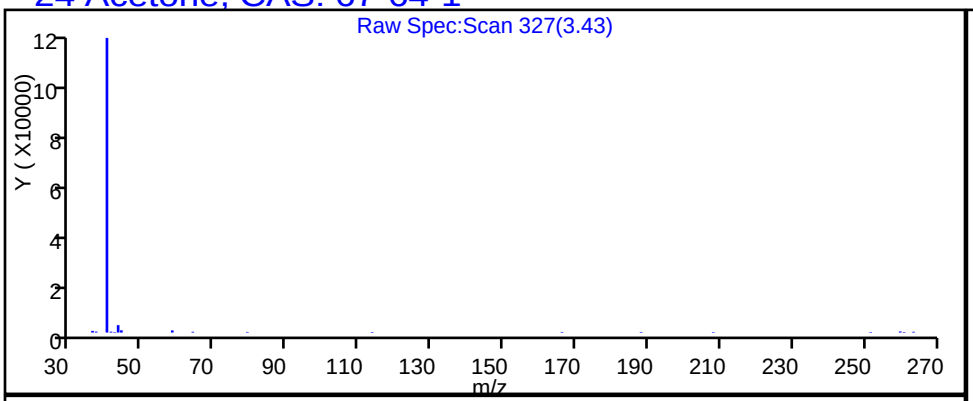
Report Date: 01-Jun-2015 08:23:01 Chrom Revision: 2.2 05-May-2015 11:39:10

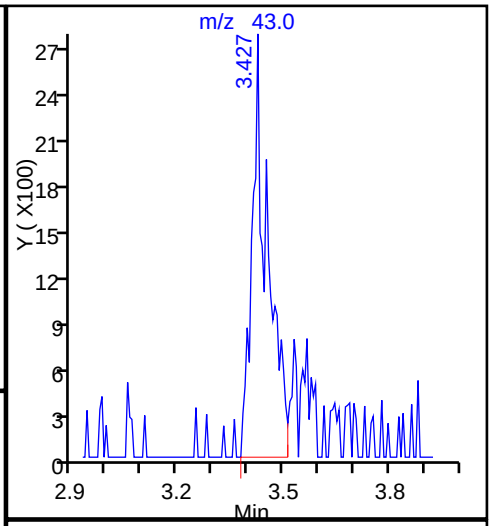
TestAmerica Pittsburgh

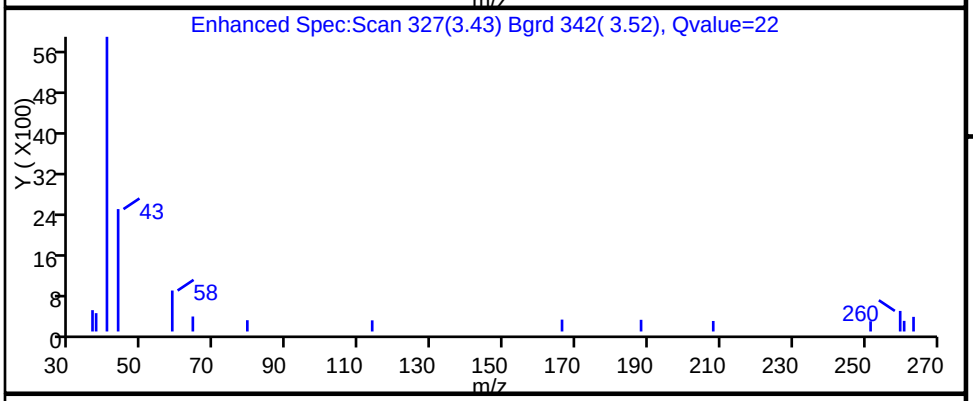
Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530019.D

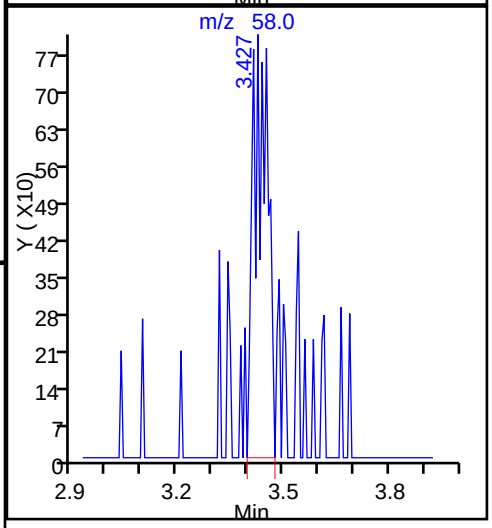
Injection Date:	31-May-2015 16:02:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-B-32	Lab Sample ID:	180-44321-32		
Client ID:	HD-QC1-0/1-4				
Operator ID:	034635	ALS Bottle#:	13	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

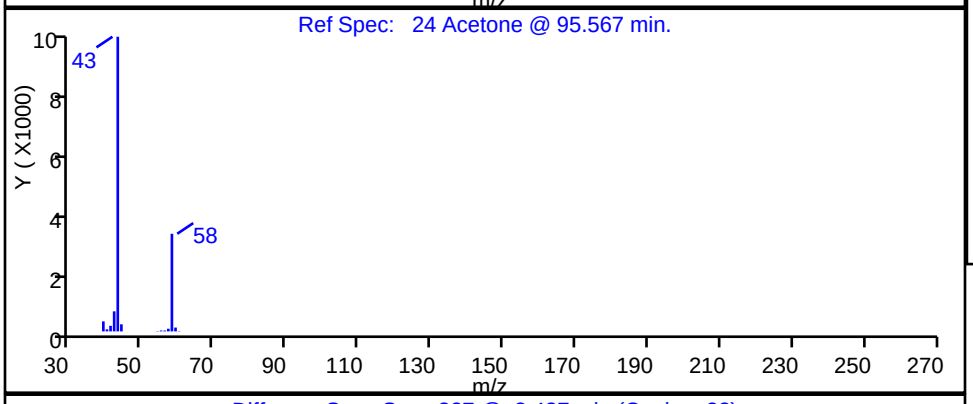
24 Acetone, CAS: 67-64-1

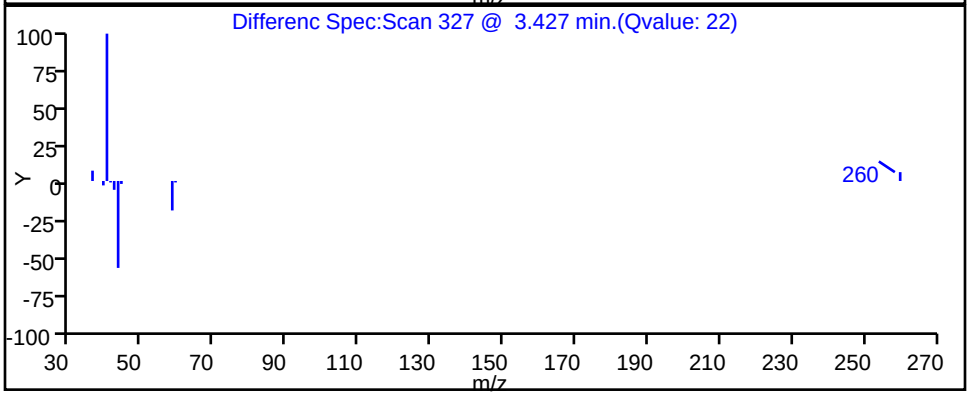












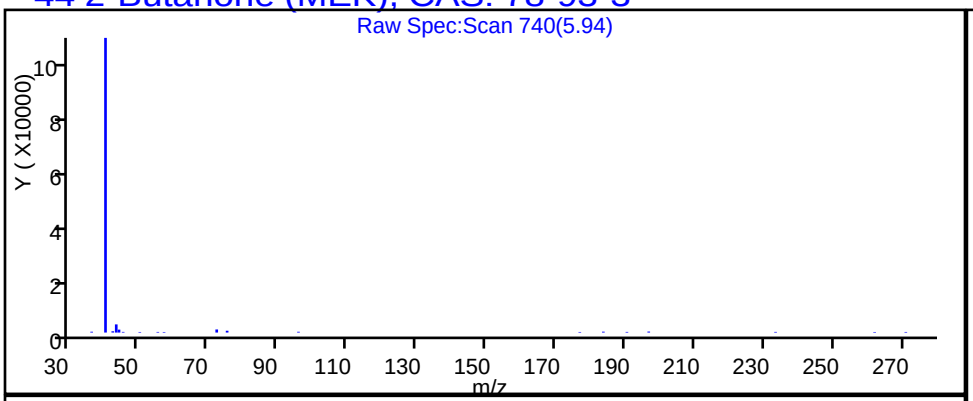
Report Date: 01-Jun-2015 08:23:01 Chrom Revision: 2.2 05-May-2015 11:39:10

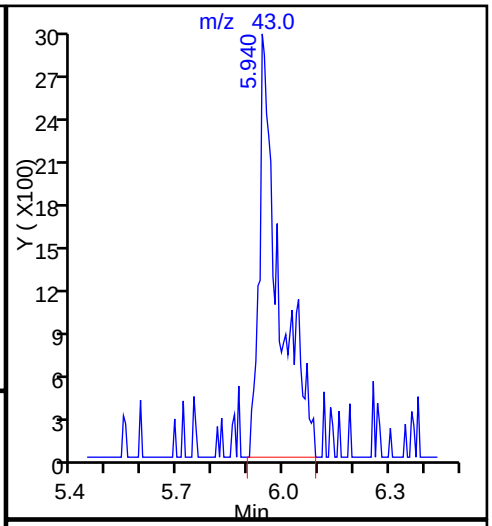
TestAmerica Pittsburgh

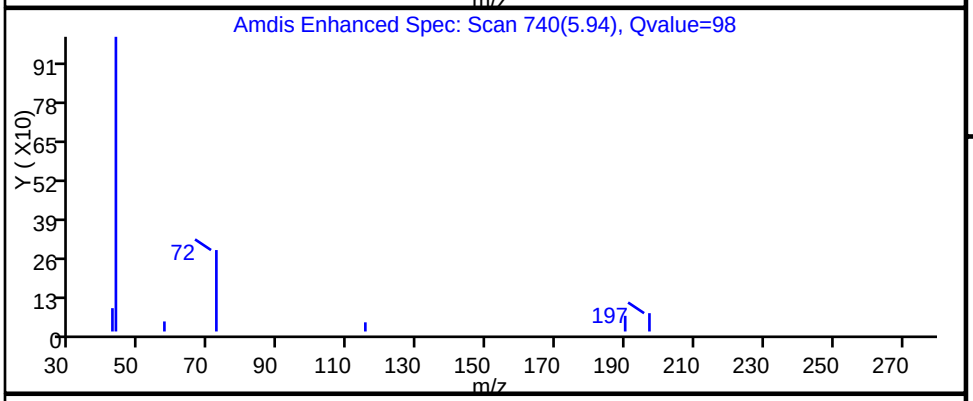
Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530019.D

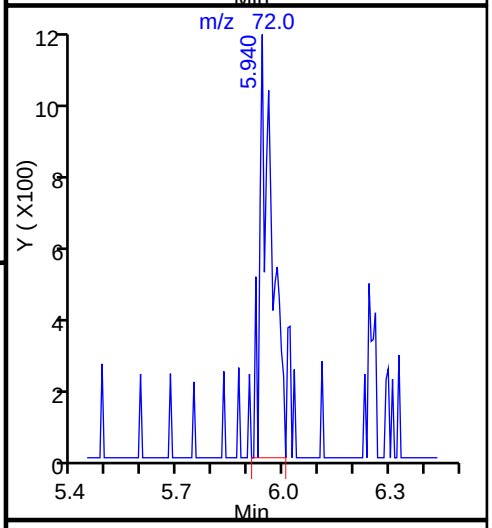
Injection Date:	31-May-2015 16:02:30	Instrument ID:	CHHP6
Lims ID:	180-44321-B-32	Lab Sample ID:	180-44321-32
Client ID:	HD-QC1-0/1-4		
Operator ID:	034635	ALS Bottle#:	13 Worklist Smp#: 19
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

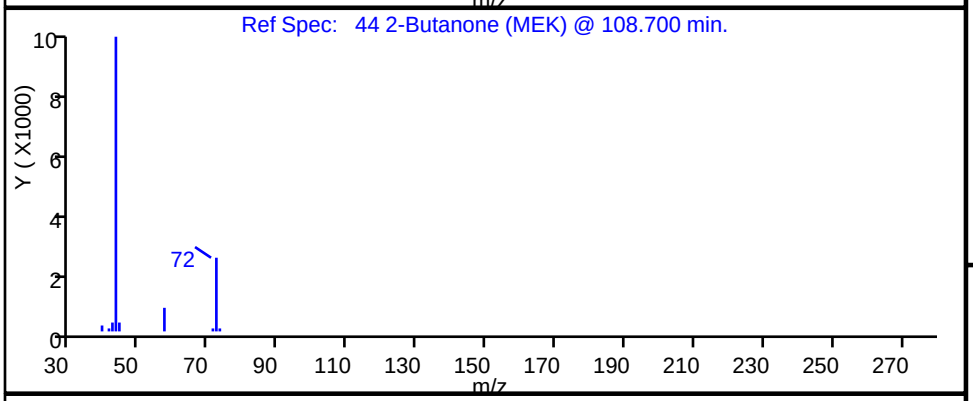
44 2-Butanone (MEK), CAS: 78-93-3

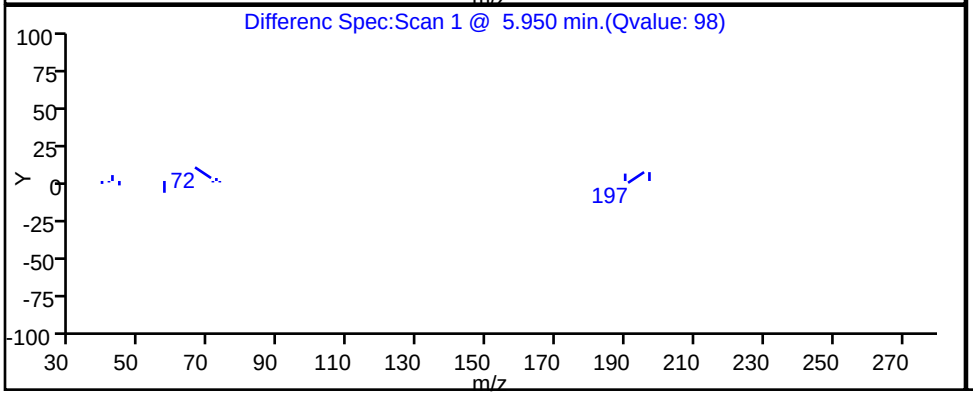


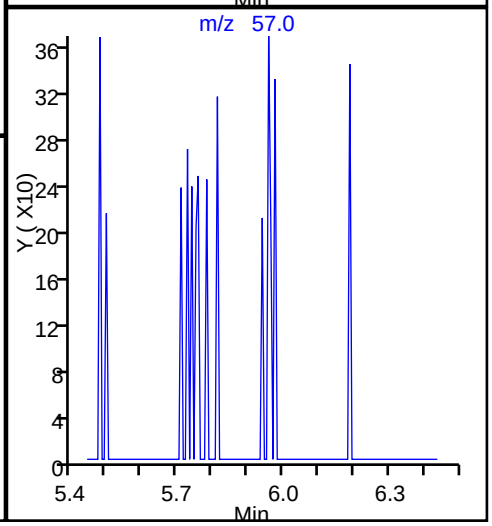












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-QC1-0/1-3 | Lab Sample ID: 180-44321-33

Matrix: Water | Lab File ID: 60530020.D

Analysis Method: 8260C | Date Collected: 05/20/2015 08:15

Sample wt/vol: 5(mL) | Date Analyzed: 05/31/2015 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.: 143337 | 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)	1.7	J	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.: 180-44321-1

SDG No.:

Client Sample ID: HD-QC1-0/1-3 Lab Sample ID: 180-44321-33

Matrix: Water Lab File ID: 60530020.D

Analysis Method: 8260C Date Collected: 05/20/2015 08:15

Sample wt/vol: 5(mL) Date Analyzed: 05/31/2015 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.: 143337 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		64-135
2037-26-5	Toluene-d8 (Surr)	89		71-118
460-00-4	4-Bromofluorobenzene (Surr)	113		70-118
1868-53-7	Dibromofluoromethane (Surr)	106		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530020.D
Lims ID: 180-44321-A-33 Lab Sample ID: 180-44321-33
Client ID: HD-QC1-0/1-3
Sample Type: Client
Inject. Date: 31-May-2015 16:26:30 ALS Bottle#: 14 Worklist Smp#: 20
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-44321-A-33
Misc. Info.: 180-0007190-020
Operator ID: 034635 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 08:24:25 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK048

First Level Reviewer: fergusond Date: 01-Jun-2015 08:24:25

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.231	4.236	-0.006	87	147827	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.284	0.006	98	503025	50.0	
* 3 Chlorobenzene-d5	119	10.399	10.393	0.006	90	113565	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.747	12.747	0.000	98	178033	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.554	6.554	0.000	93	110191	52.9	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.932	6.925	0.007	70	168715	48.5	
$ 7 Toluene-d8 (Surr)	98	8.945	8.939	0.006	94	427477	44.5	
$ 8 4-Bromofluorobenzene (Surr	95	11.585	11.579	0.006	85	221808	56.6	
12 Chloromethane	50		1.760				ND	
13 Vinyl chloride	62		1.882				ND	
15 Bromomethane	94		2.229				ND	
16 Chloroethane	64		2.375				ND	
22 1,1-Dichloroethene	96		3.336				ND	
24 Acetone	43	3.427	3.421	0.006	86	7002	10.5	M
26 Carbon disulfide	76		3.628				ND	
31 Methylene Chloride	84		4.115				ND	
33 Acrylonitrile	53		4.498				ND	
34 trans-1,2-Dichloroethene	96		4.553				ND	
35 Methyl tert-butyl ether	73		4.565				ND	
37 1,1-Dichloroethane	63		5.198				ND	
43 cis-1,2-Dichloroethene	96		5.940				ND	
44 2-Butanone (MEK)	43	5.952	5.940	0.012	99	9641	8.68	
48 Chlorobromomethane	128		6.226				ND	
50 Chloroform	83		6.366				ND	
51 1,1,1-Trichloroethane	97		6.536				ND	
53 Carbon tetrachloride	117		6.712				ND	
56 Benzene	78		6.943				ND	
57 1,2-Dichloroethane	62		7.016				ND	
61 Trichloroethene	130		7.673				ND	
64 1,2-Dichloropropane	63		7.947				ND	
65 1,4-Dioxane	88		8.020				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ng	Flags
68 Dichlorobromomethane	83		8.227				ND	
71 cis-1,3-Dichloropropene	75		8.677				ND	
72 4-Methyl-2-pentanone (MIBK	43		8.823				ND	
73 Toluene	91		9.012				ND	
74 trans-1,3-Dichloropropene	75		9.255				ND	
76 1,1,2-Trichloroethane	97		9.450				ND	
77 Tetrachloroethene	164		9.523				ND	
79 2-Hexanone	43		9.657				ND	
81 Chlorodibromomethane	129		9.821				ND	
82 Ethylene Dibromide	107		9.937				ND	
84 Chlorobenzene	112		10.423				ND	
86 1,1,1,2-Tetrachloroethane	131		10.521				ND	
87 Ethylbenzene	106		10.527				ND	
88 m-Xylene & p-Xylene	106		10.654				ND	
89 o-Xylene	106		11.044				ND	
90 Styrene	104		11.062				ND	
91 Bromoform	173		11.244				ND	
96 1,1,2,2-Tetrachloroethane	83		11.713				ND	
S 131 Xylenes, Total	106		1.000				ND	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

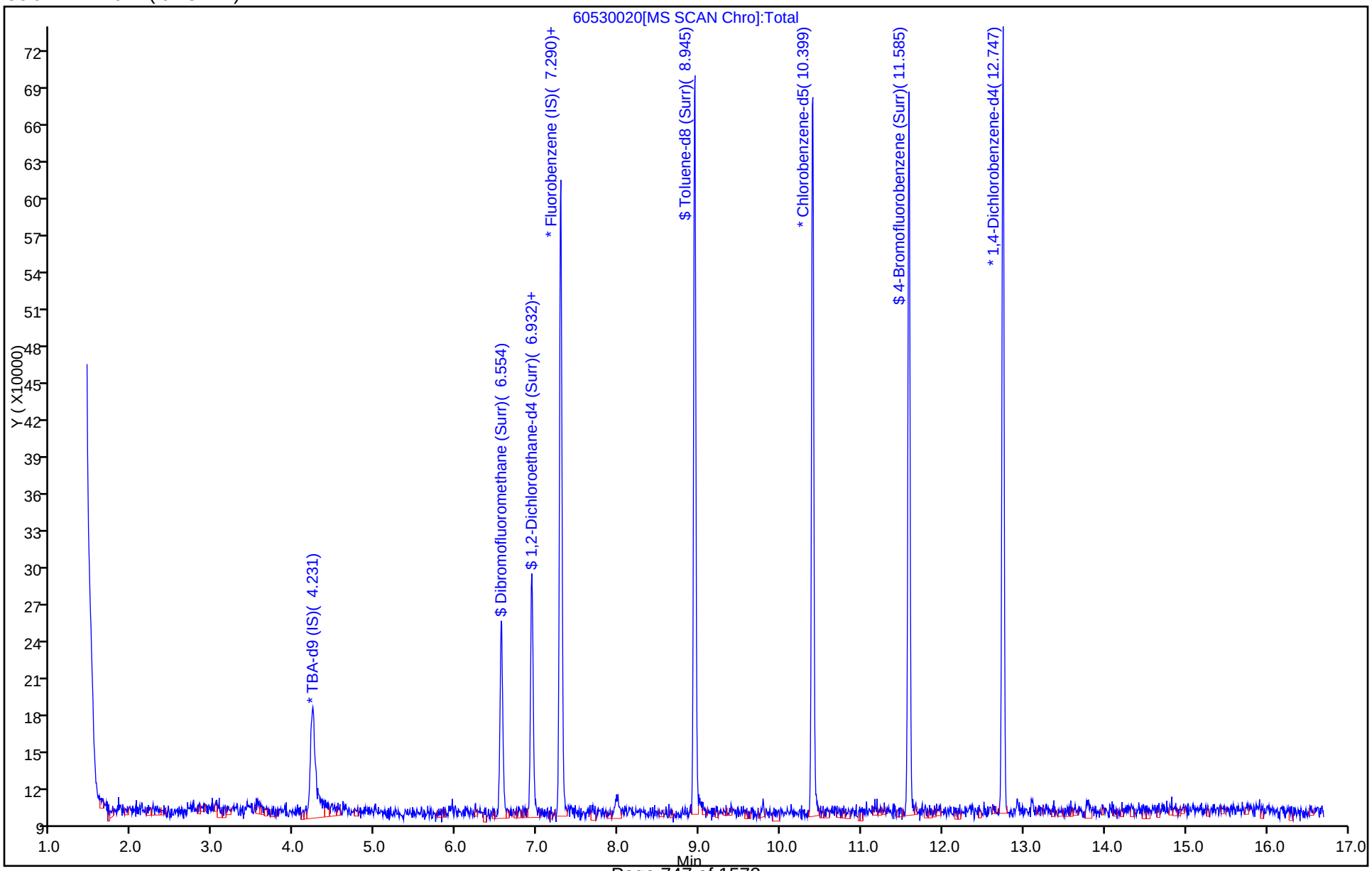
VOA8260INT_00033	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00035	Amount Added:	2.00	Units: uL	Run Reagent

Report Date: 01-Jun-2015 08:24:26 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530020.D				
Injection Date:	31-May-2015 16:26:30	Instrument ID:	CHHP6	Operator ID:	034635
Lims ID:	180-44321-A-33	Lab Sample ID:	180-44321-33	Worklist Smp#:	20
Client ID:	HD-QC1-0/1-3				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530020.D
Lims ID: 180-44321-A-33 Lab Sample ID: 180-44321-33
Client ID: HD-QC1-0/1-3
Sample Type: Client
Inject. Date: 31-May-2015 16:26:30 ALS Bottle#: 14 Worklist Smp#: 20
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-44321-A-33
Misc. Info.: 180-0007190-020
Operator ID: 034635 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 08:24:25 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK048

First Level Reviewer: fergusond Date: 01-Jun-2015 08:24:25

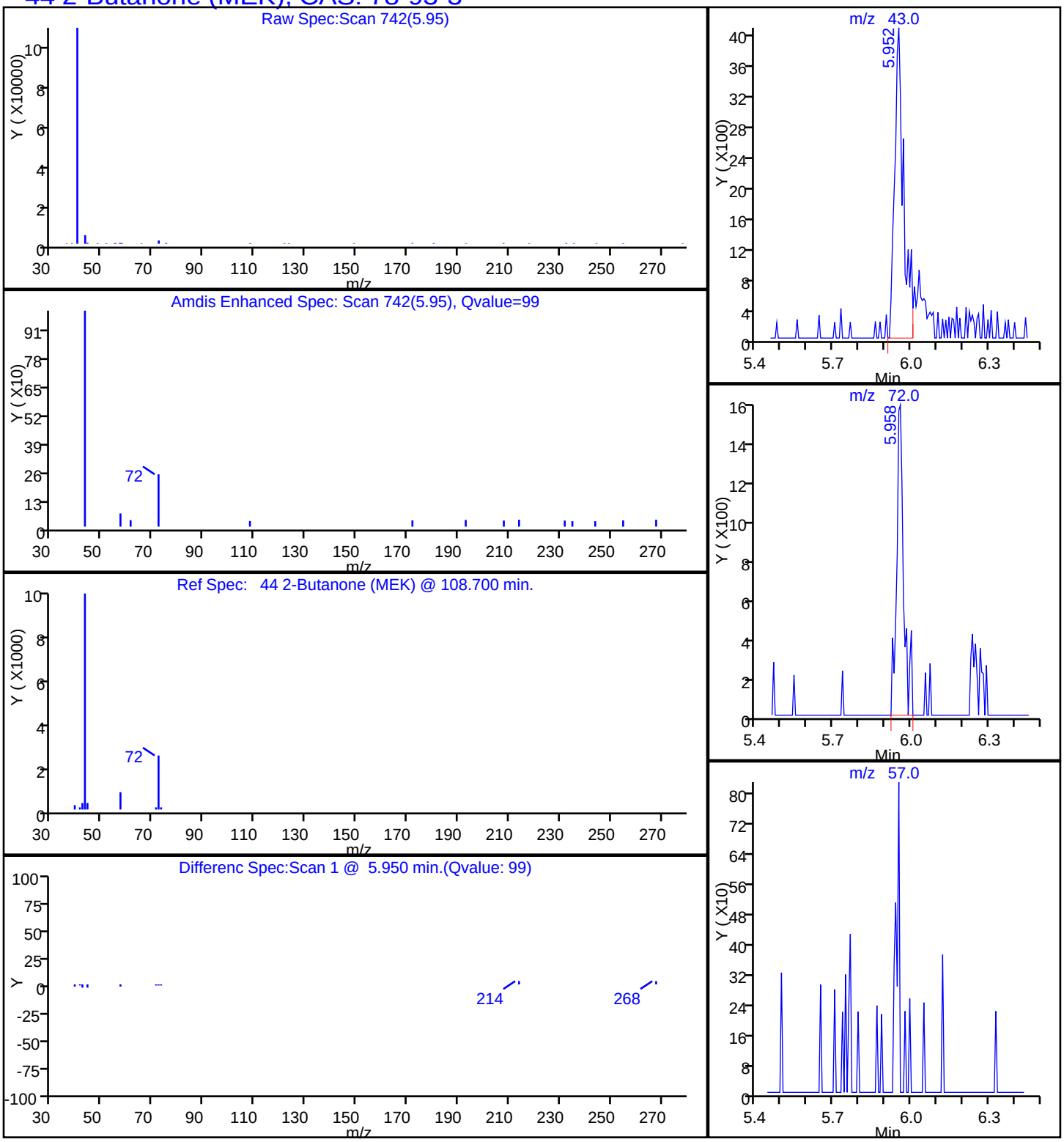
Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	52.9	105.89
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	48.5	97.03
$ 7 Toluene-d8 (Surr)	50.0	44.5	88.97
$ 8 4-Bromofluorobenzene (Surr)	50.0	56.6	113.26

Report Date: 01-Jun-2015 08:24:26 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530020.D		
Injection Date:	31-May-2015 16:26:30	Instrument ID:	CHHP6
Lims ID:	180-44321-A-33	Lab Sample ID:	180-44321-33
Client ID:	HD-QC1-0/1-3		
Operator ID:	034635	ALS Bottle#:	14 Worklist Smp#: 20
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL
Column:	DB-624 (0.18 mm)	Detector	MS SCAN

44 2-Butanone (MEK), CAS: 78-93-3



Manual Integration/User Assign Peak Report

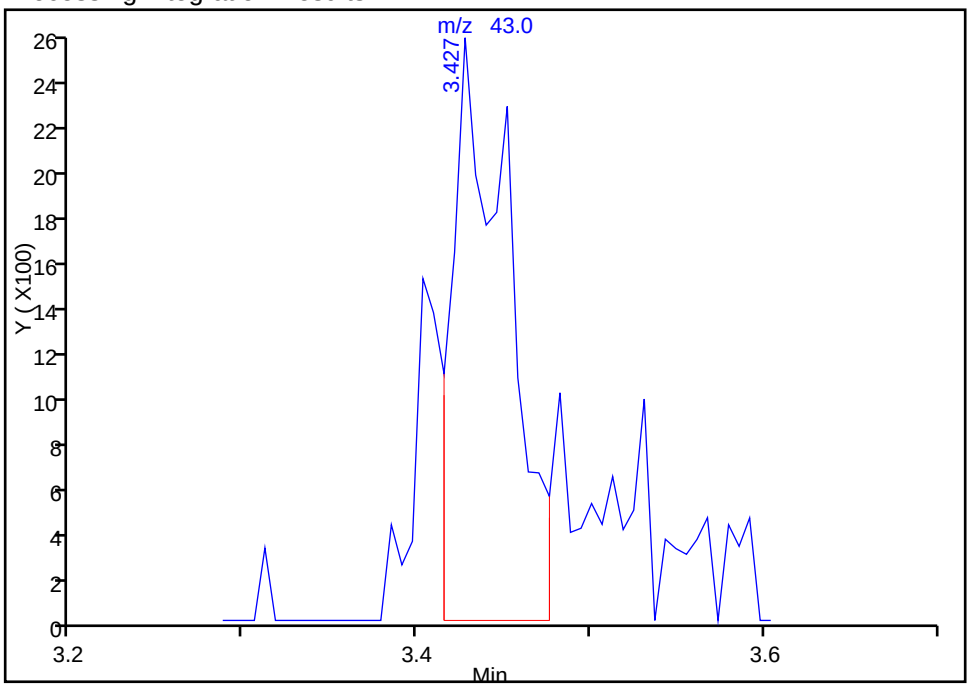
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530020.D				
Injection Date:	31-May-2015 16:26:30	Instrument ID:	CHHP6		
Lims ID:	180-44321-A-33	Lab Sample ID:	180-44321-33		
Client ID:	HD-QC1-0/1-3				
Operator ID:	034635	ALS Bottle#:	14	Worklist Smp#:	20
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

24 Acetone, CAS: 67-64-1

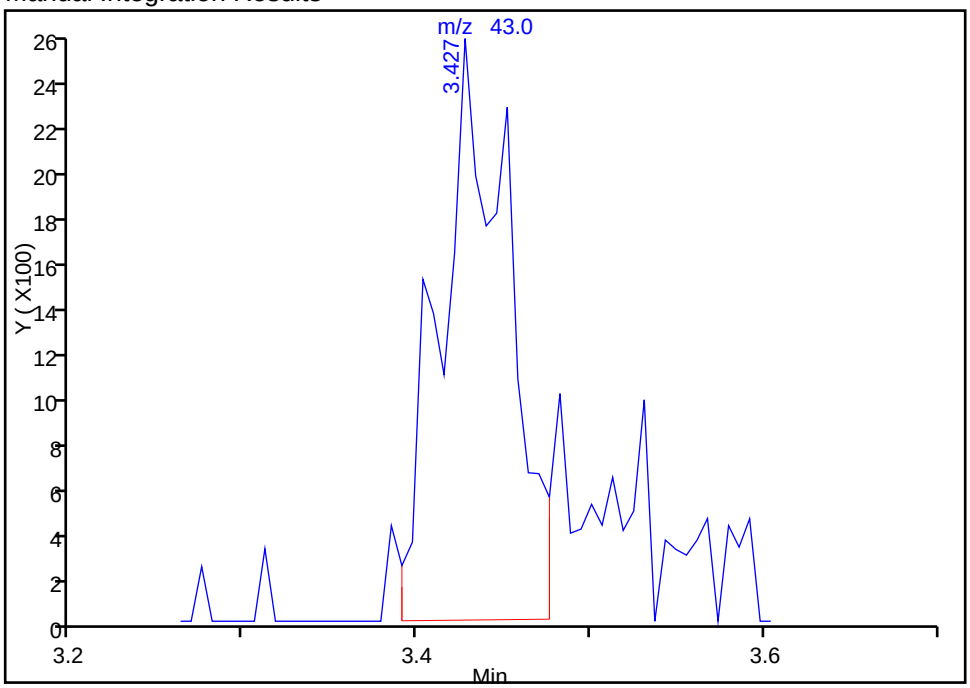
Processing Integration Results

RT: 3.43
Area: 5781
Amount: 8.659655
Amount Units: ng



Manual Integration Results

RT: 3.43
Area: 7002
Amount: 10.488653
Amount Units: ng



Reviewer: fergusond, 01-Jun-2015 08:24:25
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1 Analy Batch No.: 140280

SDG No.:

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/01/2015 13:53 Calibration End Date: 05/01/2015 16:46 Calibration ID: 23671

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-140280/3	60501003.D
Level 2	IC 180-140280/6	60501006.D
Level 3	ICIS 180-140280/7	60501007.D
Level 4	IC 180-140280/8	60501008.D
Level 5	IC 180-140280/9	60501009.D
Level 6	IC 180-140280/10	60501010.D
Level 7	IC 180-140280/11	60501011.D
Level 8	IC 180-140280/12	60501012.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.3486 0.2827	0.3150 0.3020	0.2923 0.2839	0.3161	0.3026	Ave		0.3054			0.1000	7.0		20.0			
Chloromethane	0.3209 0.2323	0.2691 0.2406	0.2341 0.2361	0.2581	0.2392	Ave		0.2538			0.1000	11.8		20.0			
Vinyl chloride	0.3151 0.2504	0.2847 0.2684	0.2565 0.2554	0.2689	0.2627	Ave		0.2703			0.1000	7.8		20.0			
1,3-Butadiene	0.3651 0.2243	0.2740 0.2442	0.2482 0.2289	0.2429	0.2364	Ave		0.2580			0.0100	17.7		20.0			
Bromomethane	0.1854 0.1321	0.1463 0.1393	0.1244 0.1347	0.1314	0.1324	Ave		0.1407			0.0500	13.6		20.0			
Chloroethane	0.2262 0.1611	0.1679 0.1699	0.1466 0.1556	0.1724	0.1629	Ave		0.1703			0.0500	14.1		20.0			
Dichlorofluoromethane	0.4776 0.3760	0.4560 0.4012	0.3952 0.3718	0.4114	0.4013	Ave		0.4113			0.0100	9.0		20.0			
Trichlorofluoromethane	0.3562 0.2923	0.3407 0.3023	0.2925 0.2849	0.3167	0.3141	Ave		0.3125			0.1000	8.0		20.0			
Ethyl ether	0.2739 0.2311	0.2559 0.2065	0.2121 0.2229	0.2294	0.2336	Ave		0.2332			0.0100	9.5		20.0			
Acrolein	0.0432 0.0419	0.0430 0.0383	0.0393 0.0414	0.0427	0.0413	Ave		0.0414			0.0100	4.2		20.0			
1,1-Dichloroethene	0.2755 0.2147	0.2404 0.2225	0.2260 0.2192	0.2289	0.2251	Ave		0.2315			0.1000	8.3		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.2750 0.2169	0.2451 0.2269	0.2250 0.2192	0.2368	0.2253	Ave		0.2338			0.1000	8.1		20.0			
Acetone	0.0696 0.0652	0.0723 0.0566	0.0628 0.0704	0.0692	0.0646	Ave		0.0664			0.0500	7.7		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1 Analy Batch No.: 140280

SDG No.:

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/01/2015 13:53 Calibration End Date: 05/01/2015 16:46 Calibration ID: 23671

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Iodomethane	0.3175 0.2842	0.3128 0.2903	0.2868 0.2809	0.3057	0.2900	Ave		0.2960			0.0100	4.7		20.0			
Carbon disulfide	0.7842 0.6293	0.7272 0.6654	0.6482 0.6230	0.6894	0.6593	Ave		0.6782			0.1000	8.0		20.0			
Allyl chloride	0.1764 0.1567	0.1753 0.1592	0.1527 0.1584	0.1601	0.1609	Ave		0.1625			0.0100	5.3		20.0			
Methyl acetate	0.2266 0.2203	0.2385 0.2030	0.2068 0.2104	0.2282	0.2188	Ave		0.2191			0.1000	5.5		20.0			
Methylene Chloride	0.3350 0.2730	0.2894 0.2662	0.2624 0.2655	0.2918	0.2650	Ave		0.2810			0.1000	8.7		20.0			
tert-Butyl alcohol	1.0636 1.1642	1.1377 1.0891	1.1066 0.9445	1.1091	1.1001	Ave		1.0894			0.0100	6.0		20.0			
Acrylonitrile	0.1084 0.1159	0.1191 0.1028	0.1087 0.1081	0.1183	0.1131	Ave		0.1118			0.0100	5.1		20.0			
trans-1,2-Dichloroethene	0.2932 0.2453	0.2739 0.2498	0.2450 0.2417	0.2606	0.2544	Ave		0.2580			0.1000	6.8		20.0			
Methyl tert-butyl ether	0.9007 0.9321	0.9593 0.8926	0.9006 0.9017	0.9967	0.9265	Ave		0.9263			0.1000	3.9		20.0			
Hexane	0.4228 0.3233	0.3595 0.3408	0.3262 0.3236	0.3435	0.3289	Ave		0.3461			0.0100	9.7		20.0			
1,1-Dichloroethane	0.5170 0.4679	0.5250 0.4696	0.4714 0.4599	0.5018	0.4681	Ave		0.4851			0.2000	5.2		20.0			
Vinyl acetate	0.5970 0.5479	0.6352 0.5382	0.5814 0.5748	0.6089	0.5821	Ave		0.5832			0.0100	5.4		20.0			
2,2-Dichloropropane	0.3319 0.2831	0.3322 0.2906	0.2897 0.2681	0.3122	0.2953	Ave		0.3004			0.0100	7.7		20.0			
cis-1,2-Dichloroethene	0.3501 0.2788	0.3072 0.2782	0.2765 0.2726	0.3026	0.2806	Ave		0.2933			0.1000	8.9		20.0			
2-Butanone (MEK)	0.1170 0.1123	0.1159 0.0988	0.0988 0.1169	0.1148	0.1091	Ave		0.1105			0.0500	6.9		20.0			
Bromochloromethane	0.1429 0.1178	0.1271 0.1104	0.1121 0.1138	0.1203	0.1181	Ave		0.1203			0.0100	8.7		20.0			
Tetrahydrofuran	0.1295 0.0997	0.1074 0.0917	0.0947 0.0981	0.1056	0.0940	Ave		0.1026			0.0100	11.9		20.0			
Chloroform	0.5191 0.4540	0.5102 0.4498	0.4363 0.4431	0.4752	0.4592	Ave		0.4684			0.2000	6.6		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1 Analy Batch No.: 140280

SDG No.:

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/01/2015 13:53 Calibration End Date: 05/01/2015 16:46 Calibration ID: 23671

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
1,1,1-Trichloroethane	0.4309 0.3699	0.3959 0.3824	0.3652 0.3690	0.3960	0.3712	Ave		0.3851			0.1000	5.7		20.0			
Cyclohexane	0.5558 0.4313	0.4731 0.4508	0.4433 0.4227	0.4663	0.4530	Ave		0.4620			0.1000	9.0		20.0			
Carbon tetrachloride	0.3359 0.2788	0.3048 0.2954	0.2697 0.2878	0.2910	0.2882	Ave		0.2940			0.1000	6.8		20.0			
1,1-Dichloropropene	0.4216 0.3511	0.3875 0.3690	0.3523 0.3568	0.3782	0.3641	Ave		0.3726			0.0100	6.3		20.0			
Isobutyl alcohol	0.0101 0.0100	0.0113 0.0082	0.0099 0.0102	0.0106	0.0103	Ave		0.0101			0.0100	8.7		20.0			
Benzene	1.3012 1.0375	1.1968 1.0199	1.0488 0.9834	1.1390	1.0729	Ave		1.0999			0.5000	9.6		20.0			
1,2-Dichloroethane	0.4169 0.4242	0.4457 0.4048	0.3924 0.4107	0.4376	0.4110	Ave		0.4179			0.1000	4.2		20.0			
n-Heptane	0.3696 0.2414	0.2670 0.2581	0.2417 0.2395	0.2574	0.2528	Ave		0.2659			0.0100	16.2		20.0			
Trichloroethene	0.2659 0.2283	0.2513 0.2298	0.2253 0.2221	0.2450	0.2355	Ave		0.2379			0.2000	6.3		20.0			
Methylcyclohexane	0.5216 0.4200	0.4663 0.4421	0.4303 0.4134	0.4526	0.4392	Ave		0.4482			0.1000	7.6		20.0			
1,2-Dichloropropane	0.3569 0.2779	0.3034 0.2753	0.2639 0.2716	0.2942	0.2769	Ave		0.2900			0.1000	10.3		20.0			
1,4-Dioxane	0.0031 0.0027	0.0029 0.0026	0.0027 0.0028	0.0029	0.0027	Ave		0.0028		*	0.0100	6.2		20.0			
Dibromomethane	0.1960 0.1754	0.1756 0.1684	0.1679 0.1713	0.1797	0.1712	Ave		0.1757			0.0100	5.2		20.0			
Bromodichloromethane	0.3546 0.3552	0.3667 0.3488	0.3250 0.3519	0.3593	0.3460	Ave		0.3510			0.2000	3.5		20.0			
cis-1,3-Dichloropropene	0.4778 0.4674	0.4837 0.4564	0.4280 0.4560	0.4861	0.4600	Ave		0.4644			0.2000	4.1		20.0			
4-Methyl-2-pentanone (MIBK)	1.2844 1.3453	1.4737 1.2221	1.3609 1.2275	1.4462	1.3607	Ave		1.3401			0.1000	6.9		20.0			
Toluene	6.9520 4.6351	5.9471 4.3736	5.1756 4.1162	5.3908	4.8886	Ave		5.1849			0.4000	17.8		20.0			
trans-1,3-Dichloropropene	2.0804 1.8574	2.0888 1.7255	1.8056 1.7170	1.9804	1.8472	Ave		1.8878			0.1000	7.8		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1 Analy Batch No.: 140280

SDG No.:

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/01/2015 13:53 Calibration End Date: 05/01/2015 16:46 Calibration ID: 23671

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
Ethyl methacrylate	1.9430 1.9170	2.0477 1.7286	1.8819 1.7451	2.0170	1.8481	Ave		1.8910			0.0100	6.1		20.0			
1,1,2-Trichloroethane	1.3090 1.0972	1.1937 1.0111	1.1015 1.0164	1.2035	1.0964	Ave		1.1286			0.1000	9.0		20.0			
Tetrachloroethene	1.0559 0.7799	0.9436 0.7743	0.8447 0.7287	0.8773	0.8221	Ave		0.8533			0.2000	12.4		20.0			
1,3-Dichloropropane	2.3851 2.0739	2.3736 1.8996	2.1124 1.8879	2.2638	2.0862	Ave		2.1353			0.0100	9.0		20.0			
2-Hexanone	0.8137 0.8180	0.8895 0.7426	0.8132 0.7959	0.8713	0.7922	Ave		0.8171			0.1000	5.6		20.0			
Dibromochloromethane	0.9167 0.9114	0.9437 0.8460	0.8397 0.8533	0.9210	0.8760	Ave		0.8885			0.1000	4.5		20.0			
1,2-Dibromoethane (EDB)	1.2139 1.0591	1.1581 0.9625	1.0311 0.9525	1.1248	1.0337	Ave		1.0670			0.1000	8.7		20.0			
3-Chlorobenzotrifluoride	1.9805 1.4626	1.6674 1.4754	1.6219 1.3101	1.6115	1.5409	Ave		1.5838			0.0100	12.4		20.0			
Chlorobenzene	4.1572 3.0173	3.6944 2.8262	3.2363 2.6981	3.4110	3.1473	Ave		3.2735			0.5000	14.6		20.0			
4-Chlorobenzotrifluoride	1.7944 1.3844	1.5995 1.4056	1.5949 1.2457	1.5342	1.4650	Ave		1.5030			0.0100	11.1		20.0			
1,1,1,2-Tetrachloroethane	1.0462 0.9323	1.0556 0.8891	0.9455 0.8654	1.0123	0.9304	Ave		0.9596			0.0100	7.4		20.0			
Ethylbenzene	2.1434 1.7309	2.0220 1.6580	1.8071 1.5780	1.9438	1.7518	Ave		1.8294			0.1000	10.5		20.0			
m-Xylene & p-Xylene	2.7561 2.1427	2.5607 2.0419	2.2355 1.9778	2.3726	2.2356	Ave		2.2904			0.1000	11.5		20.0			
o-Xylene	2.5889 2.0760	2.4881 1.9690	2.2413 1.8727	2.3686	2.1678	Ave		2.2215			0.3000	11.3		20.0			
Styrene	4.2036 3.4635	4.1366 3.2025	3.6392 3.0610	3.9430	3.5757	Ave		3.6531			0.3000	11.4		20.0			
Bromoform	0.5584 0.5947	0.5952 0.5417	0.5243 0.5638	0.6035	0.5628	Ave		0.5680			0.1000	4.9		20.0			
2-Chlorobenzotrifluoride	1.9675 1.4709	1.6890 1.4639	1.6132 1.3327	1.6729	1.5786	Ave		1.5986			0.0100	12.0		20.0			
Isopropylbenzene	6.7613 4.7610	6.2753 4.5877	5.5543 4.2667	5.7405	5.2468	Ave		5.3992			0.1000	15.9		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1 Analy Batch No.: 140280

SDG No.:

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/01/2015 13:53 Calibration End Date: 05/01/2015 16:46 Calibration ID: 23671

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
1,1,2,2-Tetrachloroethane	1.7406 1.4945	1.7556 1.3542	1.5202 1.3660	1.6481	1.5198	Ave		1.5499			0.3000	9.9		20.0			
Bromobenzene	0.8541 0.8053	0.8436 0.7956	0.7867 0.7784	0.8441	0.7802	Ave		0.8110			0.0100	3.9		20.0			
trans-1,4-Dichloro-2-butene	0.3636 0.3906	0.3775 0.3896	0.3354 0.3834	0.3759	0.3637	Ave		0.3725			0.0100	4.9		20.0			
1,2,3-Trichloropropane	0.3519 0.3764	0.3580 0.3604	0.3344 0.3601	0.3631	0.3476	Ave		0.3565			0.0100	3.4		20.0			
N-Propylbenzene	1.0677 0.9565	1.0033 0.9784	0.9374 0.9298	1.0131	0.9370	Ave		0.9779			0.0100	4.9		20.0			
2-Chlorotoluene	0.8628 0.7831	0.8481 0.7932	0.7692 0.7626	0.8214	0.7902	Ave		0.8038			0.0100	4.5		20.0			
3-Chlorotoluene	0.9393 0.8788	0.8948 0.8891	0.8480 0.8035	0.9060	0.8425	Ave		0.8753			0.0100	4.8		20.0			
1,3,5-Trimethylbenzene	3.4045 2.9658	3.3453 3.0076	3.0340 2.7998	3.2793	3.0536	Ave		3.1112			0.0100	6.7		20.0			
4-Chlorotoluene	0.9042 0.8212	0.8863 0.8300	0.8235 0.8181	0.8794	0.8188	Ave		0.8477			0.0100	4.2		20.0			
tert-Butylbenzene	2.5515 2.2638	2.5374 2.3472	2.3376 2.1899	2.4758	2.3734	Ave		2.3846			0.0100	5.4		20.0			
1,2,4-Trimethylbenzene	3.5873 3.1129	3.5167 3.0959	3.1889 2.9089	3.4241	3.2298	Ave		3.2580			0.0100	7.1		20.0			
3,4-Dichlorobenzotrifluoride	0.9327 0.7872	0.8183 0.8349	0.8149 0.7441	0.8385	0.7934	Ave		0.8205			0.0100	6.6		20.0			
sec-Butylbenzene	4.0858 3.4212	3.8506 3.4857	3.6000 3.1968	3.8098	3.5861	Ave		3.6295			0.0100	7.7		20.0			
1,3-Dichlorobenzene	1.6565 1.5022	1.6535 1.5010	1.4791 1.4375	1.6349	1.5185	Ave		1.5479			0.6000	5.6		20.0			
4-Isopropyltoluene	3.1670 2.7206	3.0629 2.7728	2.8091 2.5586	3.0162	2.8478	Ave		2.8694			0.0100	7.0		20.0			
1,4-Dichlorobenzene	1.7468 1.5253	1.7372 1.5273	1.5452 1.4750	1.6893	1.5519	Ave		1.5997			0.5000	6.7		20.0			
2,4-Dichlorobenzotrifluoride	0.9158 0.7446	0.8383 0.8321	0.8043 0.7049	0.8446	0.8128	Ave		0.8122			0.0100	7.9		20.0			
2,5-Dichlorobenzotrifluoride	0.9825 0.8895	0.8751 0.8714	0.8798 0.8144	0.9199	0.8750	Ave		0.8885			0.0100	5.4		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1 Analy Batch No.: 140280

SDG No.:

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/01/2015 13:53 Calibration End Date: 05/01/2015 16:46 Calibration ID: 23671

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5		B	M1	M2								
n-Butylbenzene	3.2634 2.6981	3.0747 2.7532	2.8311 2.5522	3.0336	2.8801	Ave		2.8858			0.0100	7.9		20.0			
1,2-Dichlorobenzene	1.6790 1.4921	1.6306 1.4418	1.4765 1.3972	1.6122	1.5146	Ave		1.5305			0.4000	6.5		20.0			
1,2-Dibromo-3-Chloropropane	0.2183 0.2510	0.2425 0.2258	0.2143 0.2414	0.2408	0.2338	Ave		0.2335			0.0500	5.5		20.0			
2,4- & 2,5- & 2,6- Dichlorotoluene	1.4464 1.2059	1.3950 1.1587	1.3449 1.0516	1.4184	1.3141	Ave		1.2919			0.0100	10.8		20.0			
2,3- & 3,4- Dichlorotoluene	1.5897 1.3275	1.5001 1.2417	1.4703 1.1761	1.5867	1.4378	Ave		1.4162			0.0100	10.9		20.0			
1,2,4-Trichlorobenzene	1.1835 1.0025	1.2046 0.9061	1.0578 0.9365	1.2090	1.0778	Ave		1.0722			0.2000	11.1		20.0			
Hexachlorobutadiene	0.4789 0.3274	0.3961 0.3177	0.3567 0.3053	0.3905	0.3508	Ave		0.3654			0.0100	15.4		20.0			
Naphthalene	2.9245 2.7208	3.1203 2.3816	2.8947 2.5219	3.2380	2.9038	Ave		2.8382			0.0100	10.1		20.0			
1,2,3-Trichlorobenzene	1.1359 0.9221	1.1475 0.8130	0.9868 0.8910	1.1440	1.0070	Ave		1.0059			0.0100	12.7		20.0			
2,4,5-Trichlorotoluene	0.7426 0.5474	0.6592 0.5993	0.6129 0.6293	0.7138	0.5831	Ave		0.6359			0.0100	10.4		20.0			
2,3,6-Trichlorotoluene	0.6980 0.4946	0.5983 0.5342	0.5392 0.5788	0.6361	0.5370	Ave		0.5770			0.0100	11.4		20.0			
Dibromofluoromethane (Surr)	0.2166 0.2058	0.2131 0.1988	0.2115 0.2011	0.2161	0.1920	Ave		0.2069				4.3		20.0			
1,2-Dichloroethane-d4 (Surr)	0.3840 0.3371	0.3499 0.3249	0.3449 0.3345	0.3681	0.3218	Ave		0.3457				6.2		20.0			
Toluene-d8 (Surr)	5.4309 3.7758	4.7338 3.5724	4.6852 3.4669	4.4758	3.7046	Ave		4.2307				16.6		20.0			
4-Bromofluorobenzene (Surr)	2.0654 1.5977	1.9677 1.4921	1.8550 1.4803	1.7933	1.5449	Ave		1.7245				13.1		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1 Analy Batch No.: 140280

SDG No.:

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/01/2015 13:53 Calibration End Date: 05/01/2015 16:46 Calibration ID: 23671

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-140280/3	60501003.D
Level 2	IC 180-140280/6	60501006.D
Level 3	ICIS 180-140280/7	60501007.D
Level 4	IC 180-140280/8	60501008.D
Level 5	IC 180-140280/9	60501009.D
Level 6	IC 180-140280/10	60501010.D
Level 7	IC 180-140280/11	60501011.D
Level 8	IC 180-140280/12	60501012.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	14620 393068	62218 499728	126679 575476	187095	250149	5.00 175	25.0 200	50.0 250	75.0	100
Chloromethane	FB	Ave	13456 322970	53152 398212	101459 478453	152788	197707	5.00 175	25.0 200	50.0 250	75.0	100
Vinyl chloride	FB	Ave	13213 348129	56220 444140	111175 517720	159170	217145	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Butadiene	FB	Ave	15310 311831	54119 404201	107576 464004	143792	195445	5.00 175	25.0 200	50.0 250	75.0	100
Bromomethane	FB	Ave	7774 183599	28897 230594	53923 272991	77761	109446	5.00 175	25.0 200	50.0 250	75.0	100
Chloroethane	FB	Ave	9487 224025	33151 281244	63525 315384	102015	134678	5.00 175	25.0 200	50.0 250	75.0	100
Dichlorofluoromethane	FB	Ave	20031 522769	90056 664016	171304 753551	243522	331737	5.00 175	25.0 200	50.0 250	75.0	100
Trichlorofluoromethane	FB	Ave	14937 406408	67290 500291	126784 577522	187475	259631	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl ether	FB	Ave	11485 321282	50543 341678	91939 451701	135802	193102	5.00 175	25.0 200	50.0 250	75.0	100
Acrolein	FB	Ave	36220 74857	42429 79297	51168 92403	59022	68259	100 225	125 250	150 275	175	200
1,1-Dichloroethene	FB	Ave	11555 298478	47470 368258	97947 444270	135482	186100	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	11531 301559	48408 375445	97512 444261	140183	186259	5.00 175	25.0 200	50.0 250	75.0	100
Acetone	FB	Ave	14591 181333	28568 187221	54459 285567	81971	106890	25.0 350	50.0 400	100 500	150	200
Iodomethane	FB	Ave	13317 395139	61771 480425	124319 569324	180970	239779	5.00 175	25.0 200	50.0 250	75.0	100
Carbon disulfide	FB	Ave	32888 874906	143618 1101219	280976 1262586	408054	545025	5.00 175	25.0 200	50.0 250	75.0	100

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1 Analy Batch No.: 140280

SDG No.:

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/01/2015 13:53 Calibration End Date: 05/01/2015 16:46 Calibration ID: 23671

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Allyl chloride	FB	Ave	7399 217864	34624 263380	66194 320994	94749	133021	5.00 175	25.0 200	50.0 250	75.0	100
Methyl acetate	FB	Ave	47506 1531708	235556 1680076	448132 2131842	675270	904615	25.0 875	125 1000	250 1250	375	500
Methylene Chloride	FB	Ave	14048 379527	57152 440482	113752 538163	172741	219046	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butyl alcohol	TBA	Ave	12674 437766	75192 423693	148632 561100	211317	284065	50.0 1750	250 2000	500 2500	750	1000
Acrylonitrile	FB	Ave	45474 1611348	235229 1701239	471254 2190199	700311	935388	50.0 1750	250 2000	500 2500	750	1000
trans-1,2-Dichloroethene	FB	Ave	12297 341011	54099 413336	106188 489846	154219	210289	5.00 175	25.0 200	50.0 250	75.0	100
Methyl tert-butyl ether	FB	Ave	37775 1295877	189455 1477234	390371 1827456	589934	765940	5.00 175	25.0 200	50.0 250	75.0	100
Hexane	FB	Ave	17731 449492	70993 563934	141416 655934	203332	271882	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloroethane	FB	Ave	21682 650535	103692 777143	204336 932123	297015	386941	5.00 175	25.0 200	50.0 250	75.0	100
Vinyl acetate	FB	Ave	25035 761767	125444 890652	252021 1164902	360384	481236	5.00 175	25.0 200	50.0 250	75.0	100
2,2-Dichloropropane	FB	Ave	13921 393550	65618 480936	125582 543470	184800	244089	5.00 175	25.0 200	50.0 250	75.0	100
cis-1,2-Dichloroethene	FB	Ave	14682 387653	60662 460452	119864 552410	179083	231955	5.00 175	25.0 200	50.0 250	75.0	100
2-Butanone (MEK)	FB	Ave	24544 312233	45773 327104	85635 473847	135914	180453	25.0 350	50.0 400	100 500	150	200
Bromochloromethane	FB	Ave	5991 163837	25094 182772	48600 230583	71233	97630	5.00 175	25.0 200	50.0 250	75.0	100
Tetrahydrofuran	FB	Ave	10864 277320	42422 303387	82088 397850	124988	155359	10.0 350	50.0 400	100 500	150	200
Chloroform	FB	Ave	21772 631187	100773 744366	189114 898092	281261	379639	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1-Trichloroethane	FB	Ave	18072 514270	78188 632812	158279 747775	234417	306831	5.00 175	25.0 200	50.0 250	75.0	100
Cyclohexane	FB	Ave	23311 599552	93429 746051	192149 856768	275975	374513	5.00 175	25.0 200	50.0 250	75.0	100
Carbon tetrachloride	FB	Ave	14088 387561	60197 488872	116915 583377	172271	238253	5.00 175	25.0 200	50.0 250	75.0	100
1,1-Dichloropropene	FB	Ave	17681 488097	76537 610679	152706 723072	223842	301032	5.00 175	25.0 200	50.0 250	75.0	100
Isobutyl alcohol	FB	Ave	10633 348172	55741 339375	106831 518160	157057	212107	125 4375	625 5000	1250 6250	1875	2500

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1 Analy Batch No.: 140280

SDG No.:

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/01/2015 13:53 Calibration End Date: 05/01/2015 16:46 Calibration ID: 23671

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Benzene	FB	Ave	54569 1442452	236377 1687761	454609 1993212	674168	886979	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloroethane	FB	Ave	17485 589729	88016 669830	170097 832399	259031	339774	5.00 175	25.0 200	50.0 250	75.0	100
n-Heptane	FB	Ave	15500 335663	52724 427101	104766 485433	152333	209022	5.00 175	25.0 200	50.0 250	75.0	100
Trichloroethene	FB	Ave	11152 317378	49633 380219	97663 450242	145038	194700	5.00 175	25.0 200	50.0 250	75.0	100
Methylcyclohexane	FB	Ave	21875 583932	92085 731561	186510 837825	267913	363050	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloropropane	FB	Ave	14968 386326	59925 455627	114408 550561	174135	228950	5.00 175	25.0 200	50.0 250	75.0	100
1,4-Dioxane	FB	Ave	2630 75662	11389 85036	23730 113034	33881	43846	100 3500	500 4000	1000 5000	1500	2000
Dibromomethane	FB	Ave	8221 243858	34683 278635	72777 347141	106380	141515	5.00 175	25.0 200	50.0 250	75.0	100
Bromodichloromethane	FB	Ave	14873 493846	72416 577215	140878 713291	212684	286051	5.00 175	25.0 200	50.0 250	75.0	100
cis-1,3-Dichloropropene	FB	Ave	20037 649830	95523 755309	185519 924184	287718	380296	5.00 175	25.0 200	50.0 250	75.0	100
4-Methyl-2-pentanone (MIBK)	CBZ	Ave	54251 852834	122138 957320	248428 1201067	371586	506634	25.0 350	50.0 400	100 500	150	200
Toluene	CBZ	Ave	58730 1469166	246446 1712971	472389 2013806	692573	910104	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,3-Dichloropropene	CBZ	Ave	17575 588746	86561 675791	164800 840048	254423	343888	5.00 175	25.0 200	50.0 250	75.0	100
Ethyl methacrylate	CBZ	Ave	16414 607621	84855 677036	171769 853762	259135	344058	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2-Trichloroethane	CBZ	Ave	11058 347762	49466 396004	100537 497273	154621	204111	5.00 175	25.0 200	50.0 250	75.0	100
Tetrachloroethene	CBZ	Ave	8920 247215	39101 303279	77095 356494	112710	153046	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Dichloropropane	CBZ	Ave	20149 657365	98360 744014	192805 923637	290836	388394	5.00 175	25.0 200	50.0 250	75.0	100
2-Hexanone	CBZ	Ave	34369 518554	73724 581725	148448 778828	223875	294952	25.0 350	50.0 400	100 500	150	200
Dibromochloromethane	CBZ	Ave	7744 288883	39108 331360	76638 417451	118323	163091	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dibromoethane (EDB)	CBZ	Ave	10255 335705	47993 376974	94113 466009	144503	192453	5.00 175	25.0 200	50.0 250	75.0	100
3-Chlorobenzotrifluoride	CBZ	Ave	16731 463604	69099 577854	148039 640982	207040	286874	5.00 175	25.0 200	50.0 250	75.0	100

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1 Analy Batch No.: 140280

SDG No.:

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/01/2015 13:53 Calibration End Date: 05/01/2015 16:46 Calibration ID: 23671

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Chlorobenzene	CBZ	Ave	35120 956397	153098 1106916	295391 1320047	438228	585932	5.00 175	25.0 200	50.0 250	75.0	100
4-Chlorobenzotrifluoride	CBZ	Ave	15159 438815	66283 550514	145575 609472	197098	272731	5.00 175	25.0 200	50.0 250	75.0	100
1,1,1,2-Tetrachloroethane	CBZ	Ave	8838 295523	43746 348221	86295 423407	130058	173217	5.00 175	25.0 200	50.0 250	75.0	100
Ethylbenzene	CBZ	Ave	18107 548629	83792 649357	164938 772048	249733	326136	5.00 175	25.0 200	50.0 250	75.0	100
m-Xylene & p-Xylene	CBZ	Ave	23283 679172	106116 799744	204038 967652	304814	416204	5.00 175	25.0 200	50.0 250	75.0	100
o-Xylene	CBZ	Ave	21871 658013	103108 771182	204569 916218	304301	403574	5.00 175	25.0 200	50.0 250	75.0	100
Styrene	CBZ	Ave	35512 1097806	171422 1254290	332158 1497570	506573	665694	5.00 175	25.0 200	50.0 250	75.0	100
Bromoform	CBZ	Ave	4717 188498	24665 212157	47850 275852	77540	104771	5.00 175	25.0 200	50.0 250	75.0	100
2-Chlorobenzotrifluoride	CBZ	Ave	16621 466230	69992 573355	147246 652016	214923	293892	5.00 175	25.0 200	50.0 250	75.0	100
Isopropylbenzene	CBZ	Ave	57119 1509094	260050 1796814	506955 2087440	737501	976791	5.00 175	25.0 200	50.0 250	75.0	100
1,1,2,2-Tetrachloroethane	CBZ	Ave	14704 473696	72752 530388	138753 668303	211742	282941	5.00 175	25.0 200	50.0 250	75.0	100
Bromobenzene	DCB	Ave	11822 351137	54793 402872	108631 493553	160950	209662	5.00 175	25.0 200	50.0 250	75.0	100
trans-1,4-Dichloro-2-butene	DCB	Ave	5033 170289	24523 197280	46308 243093	71679	97726	5.00 175	25.0 200	50.0 250	75.0	100
1,2,3-Trichloropropane	DCB	Ave	4871 164103	23251 182497	46172 228328	69230	93411	5.00 175	25.0 200	50.0 250	75.0	100
N-Propylbenzene	DCB	Ave	14778 417057	65168 495397	129444 589561	193168	251809	5.00 175	25.0 200	50.0 250	75.0	100
2-Chlorotoluene	DCB	Ave	11942 341443	55085 401659	106218 483577	156618	212346	5.00 175	25.0 200	50.0 250	75.0	100
3-Chlorotoluene	DCB	Ave	13001 383186	58118 450187	117101 509493	172757	226403	5.00 175	25.0 200	50.0 250	75.0	100
1,3,5-Trimethylbenzene	DCB	Ave	47124 1293117	217291 1522884	418940 1775313	625299	820602	5.00 175	25.0 200	50.0 250	75.0	100
4-Chlorotoluene	DCB	Ave	12516 358037	57566 420291	113709 518735	167686	220038	5.00 175	25.0 200	50.0 250	75.0	100
tert-Butylbenzene	DCB	Ave	35316 987056	164817 1188495	322788 1388596	472090	637815	5.00 175	25.0 200	50.0 250	75.0	100
1,2,4-Trimethylbenzene	DCB	Ave	49653 1357258	228421 1567584	440328 1844484	652905	867967	5.00 175	25.0 200	50.0 250	75.0	100

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1 Analy Batch No.: 140280

SDG No.:

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/01/2015 13:53 Calibration End Date: 05/01/2015 16:46 Calibration ID: 23671

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
3,4-Dichlorobenzotrifluoride	DCB	Ave	12910 343227	53155 422746	112527 471815	159882	213219	5.00 175	25.0 200	50.0 250	75.0	100
sec-Butylbenzene	DCB	Ave	56554 1491702	250114 1764994	497104 2027020	726443	963722	5.00 175	25.0 200	50.0 250	75.0	100
1,3-Dichlorobenzene	DCB	Ave	22929 654979	107399 760032	204242 911485	311742	408084	5.00 175	25.0 200	50.0 250	75.0	100
4-Isopropyltoluene	DCB	Ave	43836 1186196	198948 1403979	387889 1622356	575133	765296	5.00 175	25.0 200	50.0 250	75.0	100
1,4-Dichlorobenzene	DCB	Ave	24178 665067	112838 773327	213363 935299	322104	417041	5.00 175	25.0 200	50.0 250	75.0	100
2,4-Dichlorobenzotrifluoride	DCB	Ave	12676 324649	54452 421311	111058 446968	161041	218417	5.00 175	25.0 200	50.0 250	75.0	100
2,5-Dichlorobenzotrifluoride	DCB	Ave	13599 387822	56843 441248	121492 516380	175409	235142	5.00 175	25.0 200	50.0 250	75.0	100
n-Butylbenzene	DCB	Ave	45170 1176426	199711 1394081	390925 1618275	578451	773974	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichlorobenzene	DCB	Ave	23240 650565	105916 730064	203881 885916	307417	407040	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dibromo-3-Chloropropane	DCB	Ave	3021 109457	15751 114309	29597 153064	45915	62834	5.00 175	25.0 200	50.0 250	75.0	100
2,4- & 2,5- & 2,6- Dichlorotoluene	DCB	Ave	60061 1577392	271825 1760189	557142 2000436	811375	1059454	15.0 525	75.0 600	150 750	225	300
2,3- & 3,4- Dichlorotoluene	DCB	Ave	44007 1157594	194878 1257444	406060 1491443	605114	772795	10.0 350	50.0 400	100 500	150	200
1,2,4-Trichlorobenzene	DCB	Ave	16381 437105	78246 458809	146069 593825	230538	289639	5.00 175	25.0 200	50.0 250	75.0	100
Hexachlorobutadiene	DCB	Ave	6629 142741	25727 160877	49256 193594	74455	94269	5.00 175	25.0 200	50.0 250	75.0	100
Naphthalene	DCB	Ave	40480 1186321	202675 1205925	399712 1599080	617410	780358	5.00 175	25.0 200	50.0 250	75.0	100
1,2,3-Trichlorobenzene	DCB	Ave	15722 402043	74534 411642	136259 564994	218128	270622	5.00 175	25.0 200	50.0 250	75.0	100
2,4,5-Trichlorotoluene	DCB	Ave	10279 238660	42820 303439	84630 398998	136106	156693	5.00 175	25.0 200	50.0 250	75.0	100
2,3,6-Trichlorotoluene	DCB	Ave	9662 215650	38864 270492	74459 367031	121283	144312	5.00 175	25.0 200	50.0 250	75.0	100
Dibromofluoromethane (Surr)	FB	Ave	9082 286117	42078 328982	91685 407664	127929	158749	5.00 175	25.0 200	50.0 250	75.0	100
1,2-Dichloroethane-d4 (Surr)	FB	Ave	16103 468642	69113 537741	149513 677859	217902	266001	5.00 175	25.0 200	50.0 250	75.0	100
Toluene-d8 (Surr)	CBZ	Ave	45880 1196797	196169 1399177	427631 1696172	575027	689691	5.00 175	25.0 200	50.0 250	75.0	100

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1 Analy Batch No.: 140280

SDG No.:

Instrument ID: CHHP6 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/01/2015 13:53 Calibration End Date: 05/01/2015 16:46 Calibration ID: 23671

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
4-Bromofluorobenzene (Surr)	CBZ	Ave	17448 506432	81543 584398	169309 724215	230387	287611	5.00 175	25.0 200	50.0 250	75.0	100

Curve Type Legend
Ave = Average ISTD

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501003.D
Lims ID: IC VSTD1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 01-May-2015 13:53:30 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD1
Misc. Info.: 180-0006721-003
Operator ID: 001562 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub5

Method: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 02-May-2015 10:49:23 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK027

First Level Reviewer: fergusond Date: 02-May-2015 10:38:44

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.256	4.255	0.001	100	238315	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.285	7.291	-0.006	98	419378	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.400	10.405	-0.005	90	84479	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.754	12.748	0.006	98	138415	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.555	6.555	0.000	90	9082	5.00	5.23	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.926	6.938	-0.012	61	16103	5.00	5.55	
$ 7 Toluene-d8 (Surr)	98	8.946	8.945	0.001	92	45880	5.00	6.42	
$ 8 4-Bromofluorobenzene (Surr	95	11.586	11.592	-0.006	79	17448	5.00	5.99	
11 Dichlorodifluoromethane	85	1.603	1.603	0.000	93	14620	5.00	5.71	
12 Chloromethane	50	1.762	1.755	0.007	98	13456	5.00	6.32	
13 Vinyl chloride	62	1.883	1.889	-0.006	96	13213	5.00	5.83	
14 Butadiene	39	1.938	1.931	0.007	87	15310	5.00	7.07	
15 Bromomethane	94	2.236	2.229	0.007	81	7774	5.00	6.59	M
16 Chloroethane	64	2.376	2.381	-0.005	94	9487	5.00	6.64	
17 Dichlorofluoromethane	67	2.656	2.655	0.001	1	20031	5.00	5.81	M
18 Trichlorofluoromethane	101	2.650	2.692	-0.042	67	14937	5.00	5.70	
20 Ethyl ether	59	3.045	3.051	-0.006	90	11485	5.00	5.87	
21 Acrolein	56	3.228	3.227	0.001	96	36220	100.0	104.0	
22 1,1-Dichloroethene	96	3.337	3.343	-0.006	97	11555	5.00	5.95	
23 1,1,2-Trichloro-1,2,2-trif	101	3.404	3.403	0.001	92	11531	5.00	5.88	
24 Acetone	43	3.435	3.440	-0.005	99	14591	25.0	26.2	
25 Iodomethane	142	3.526	3.543	-0.017	97	13317	5.00	5.36	
26 Carbon disulfide	76	3.623	3.641	-0.018	99	32888	5.00	5.78	
29 3-Chloro-1-propene	76	3.897	3.914	-0.017	91	7399	5.00	5.43	
30 Methyl acetate	43	3.933	3.939	-0.006	96	47506	25.0	25.9	
31 Methylene Chloride	84	4.122	4.133	-0.011	91	14048	5.00	5.96	
32 2-Methyl-2-propanol	59	4.384	4.389	-0.005	96	12674	50.0	48.8	
33 Acrylonitrile	53	4.499	4.511	-0.012	97	45474	50.0	48.5	
34 trans-1,2-Dichloroethene	96	4.548	4.565	-0.017	95	12297	5.00	5.68	
35 Methyl tert-butyl ether	73	4.578	4.584	-0.006	95	37775	5.00	4.86	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.986	4.991	-0.005	88	17731	5.00	6.11	
37 1,1-Dichloroethane	63	5.187	5.198	-0.011	65	21682	5.00	5.33	
38 Vinyl acetate	43	5.229	5.247	-0.018	98	25035	5.00	5.12	
42 2,2-Dichloropropane	77	5.941	5.946	-0.005	65	13921	5.00	5.52	
43 cis-1,2-Dichloroethene	96	5.935	5.946	-0.011	83	14682	5.00	5.97	
44 2-Butanone (MEK)	43	5.953	5.952	0.001	98	24544	25.0	26.5	
48 Chlorobromomethane	128	6.233	6.238	-0.005	96	5991	5.00	5.94	
49 Tetrahydrofuran	42	6.257	6.257	0.000	87	10864	10.0	12.6	
50 Chloroform	83	6.373	6.372	0.001	95	21772	5.00	5.54	
51 1,1,1-Trichloroethane	97	6.543	6.542	0.001	98	18072	5.00	5.60	
52 Cyclohexane	56	6.616	6.622	-0.006	88	23311	5.00	6.02	
53 Carbon tetrachloride	117	6.714	6.719	-0.005	73	14088	5.00	5.71	
54 1,1-Dichloropropene	75	6.726	6.731	-0.005	94	17681	5.00	5.66	
55 Isobutyl alcohol	41	6.908	6.908	0.000	93	10633	125.0	125.8	
56 Benzene	78	6.939	6.944	-0.005	97	54569	5.00	5.91	
57 1,2-Dichloroethane	62	7.024	7.023	0.001	98	17485	5.00	4.99	
59 n-Heptane	43	7.304	7.315	-0.011	91	15500	5.00	6.95	
61 Trichloroethene	130	7.681	7.680	0.001	94	11152	5.00	5.59	
63 Methylcyclohexane	83	7.924	7.923	0.001	90	21875	5.00	5.82	
64 1,2-Dichloropropane	63	7.955	7.954	0.001	81	14968	5.00	8.07	
65 1,4-Dioxane	88	8.028	8.039	-0.011	38	2630	100.0	121.4	
67 Dibromomethane	93	8.046	8.039	0.007	86	8221	5.00	5.58	
68 Dichlorobromomethane	83	8.234	8.234	0.000	97	14873	5.00	5.05	
71 cis-1,3-Dichloropropene	75	8.679	8.678	0.000	91	20037	5.00	5.14	
72 4-Methyl-2-pentanone (MIBK	43	8.825	8.830	-0.006	95	54251	25.0	24.0	
73 Toluene	91	9.013	9.012	0.001	98	58730	5.00	6.70	
74 trans-1,3-Dichloropropene	75	9.250	9.256	-0.006	96	17575	5.00	5.51	
75 Ethyl methacrylate	69	9.317	9.317	0.000	87	16414	5.00	5.14	
76 1,1,2-Trichloroethane	97	9.451	9.456	-0.005	90	11058	5.00	5.80	
77 Tetrachloroethene	164	9.530	9.529	0.001	91	8920	5.00	6.19	
78 1,3-Dichloropropane	76	9.615	9.615	0.000	91	20149	5.00	5.58	
79 2-Hexanone	43	9.664	9.663	0.001	97	34369	25.0	24.9	
81 Chlorodibromomethane	129	9.828	9.828	0.000	87	7744	5.00	5.16	
82 Ethylene Dibromide	107	9.938	9.943	-0.005	97	10255	5.00	5.69	
83 3-Chlorobenzotrifluoride	180	10.400	10.399	0.001	56	16731	5.00	6.25	
84 Chlorobenzene	112	10.431	10.430	0.001	93	35120	5.00	6.35	
85 4-Chlorobenzotrifluoride	180	10.485	10.491	-0.006	97	15159	5.00	5.97	
86 1,1,1,2-Tetrachloroethane	131	10.528	10.527	0.001	41	8838	5.00	5.45	
87 Ethylbenzene	106	10.534	10.533	0.001	99	18107	5.00	5.86	
88 m-Xylene & p-Xylene	106	10.662	10.661	0.001	99	23283	5.00	6.02	
89 o-Xylene	106	11.045	11.044	0.001	96	21871	5.00	5.83	
90 Styrene	104	11.063	11.063	0.001	91	35512	5.00	5.75	
91 Bromoform	173	11.252	11.251	0.001	92	4717	5.00	4.91	
92 2-Chlorobenzotrifluoride	180	11.313	11.306	0.007	93	16621	5.00	6.15	
93 Isopropylbenzene	105	11.410	11.409	0.001	96	57119	5.00	6.26	
96 1,1,2,2-Tetrachloroethane	83	11.720	11.720	0.000	73	14704	5.00	5.62	
95 Bromobenzene	156	11.726	11.726	0.000	92	11822	5.00	5.27	
97 trans-1,4-Dichloro-2-buten	53	11.757	11.756	0.001	81	5033	5.00	4.88	
98 1,2,3-Trichloropropane	110	11.775	11.774	0.001	80	4871	5.00	4.94	
99 N-Propylbenzene	120	11.830	11.829	0.001	99	14778	5.00	5.46	
100 2-Chlorotoluene	126	11.915	11.914	0.001	94	11942	5.00	5.37	
101 3-Chlorotoluene	126	11.982	11.981	0.001	99	13001	5.00	5.37	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.012	12.012	0.000	92	47124	5.00	5.47	
103 4-Chlorotoluene	126	12.043	12.042	0.001	98	12516	5.00	5.33	
104 tert-Butylbenzene	119	12.329	12.328	0.001	91	35316	5.00	5.35	
106 1,2,4-Trimethylbenzene	105	12.389	12.389	0.000	98	49653	5.00	5.51	
107 1,2-dichloro-4-(trifluorom	214	12.420	12.425	-0.005	96	12910	5.00	5.68	
108 sec-Butylbenzene	105	12.554	12.553	0.001	95	56554	5.00	5.63	
109 1,3-Dichlorobenzene	146	12.669	12.669	0.000	94	22929	5.00	5.35	
110 4-Isopropyltoluene	119	12.706	12.711	-0.005	96	43836	5.00	5.52	
111 1,4-Dichlorobenzene	146	12.779	12.772	0.007	88	24178	5.00	5.46	
113 2,4-Dichloro-1-(triflourom	214	12.791	12.796	-0.005	93	12676	5.00	5.64	
114 2,5-Dichlorobenzotrifluori	214	12.834	12.833	0.001	96	13599	5.00	5.77	
116 n-Butylbenzene	91	13.119	13.119	0.000	98	45170	5.00	5.65	
117 1,2-Dichlorobenzene	146	13.126	13.125	0.001	92	23240	5.00	5.49	
118 1,2-Dibromo-3-Chloropropan	75	13.916	13.922	-0.006	74	3021	5.00	4.67	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.062	14.062	0.000	98	60061	15.0	16.8	
121 2,3- & 3,4- Dichlorotoluen	125	14.476	14.481	-0.005	99	44007	10.0	11.2	
122 1,2,4-Trichlorobenzene	180	14.744	14.743	0.001	92	16381	5.00	5.52	
123 Hexachlorobutadiene	225	14.896	14.895	0.001	93	6629	5.00	6.55	
124 Naphthalene	128	15.011	15.011	0.000	97	40480	5.00	5.15	
125 1,2,3-Trichlorobenzene	180	15.230	15.236	-0.006	92	15722	5.00	5.65	
126 2,4,5-Trichlorotoluene	159	16.015	16.008	0.007	0	10279	5.00	5.84	
127 2,3,6-Trichlorotoluene	159	16.119	16.112	0.007	91	9662	5.00	6.05	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		10.0	11.7	
S 131 Xylenes, Total	106				0		10.0	11.8	
S 132 1,3-Dichloropropene, Total	1				0		10.0	10.7	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWeemixPRI_00002	Amount Added:	0.20	Units: uL	
VOA8260VOAPRI_00114	Amount Added:	0.20	Units: uL	
voaWketPri Re_00005	Amount Added:	0.80	Units: uL	
voaWVA2ndRes_00001	Amount Added:	0.20	Units: uL	
VOA8260SURR_00034	Amount Added:	0.20	Units: uL	
VOAACROPRI_00005	Amount Added:	4.00	Units: uL	
VOA8260INT_00032	Amount Added:	2.00	Units: uL	Run Reagent

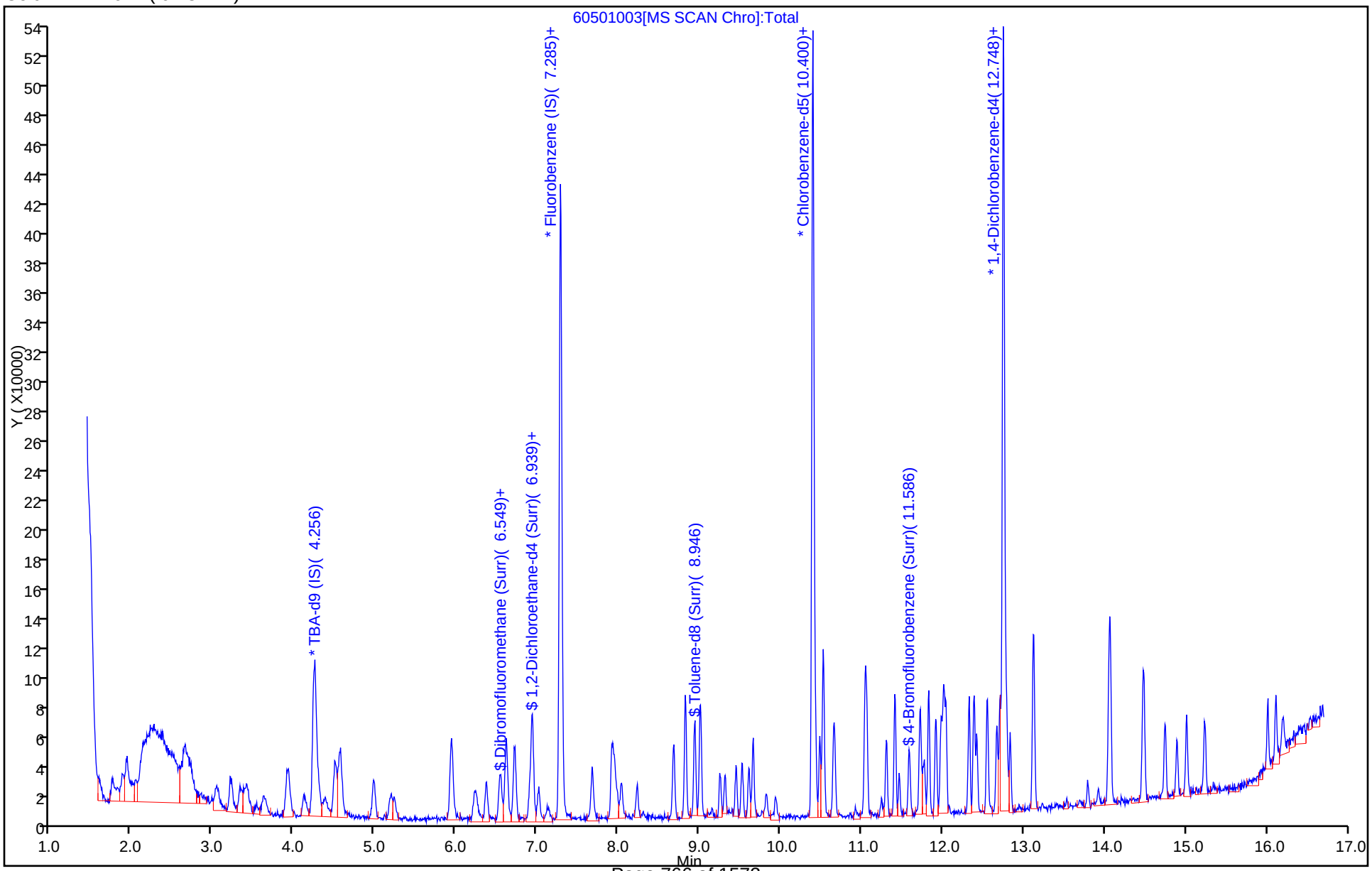
Report Date: 02-May-2015 10:49:24 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501003.D

Injection Date:	01-May-2015 13:53:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	IC VSTD1			Worklist Smp#:	3
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

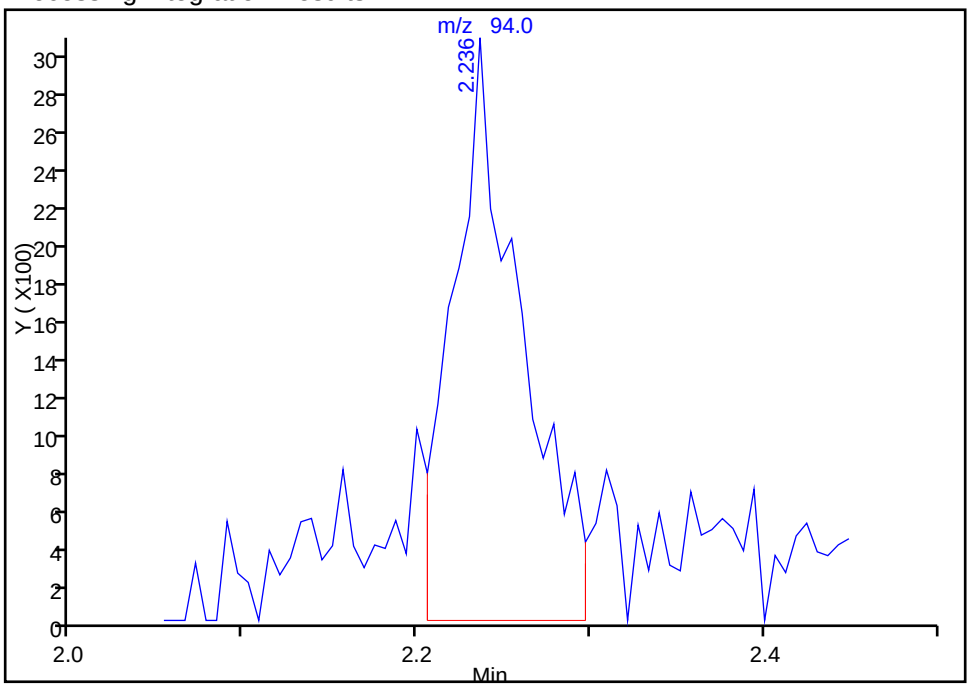
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501003.D				
Injection Date:	01-May-2015 13:53:30	Instrument ID:	CHHP6		
Lims ID:	IC VSTD1				
Client ID:					
Operator ID:	001562	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

15 Bromomethane, CAS: 74-83-9

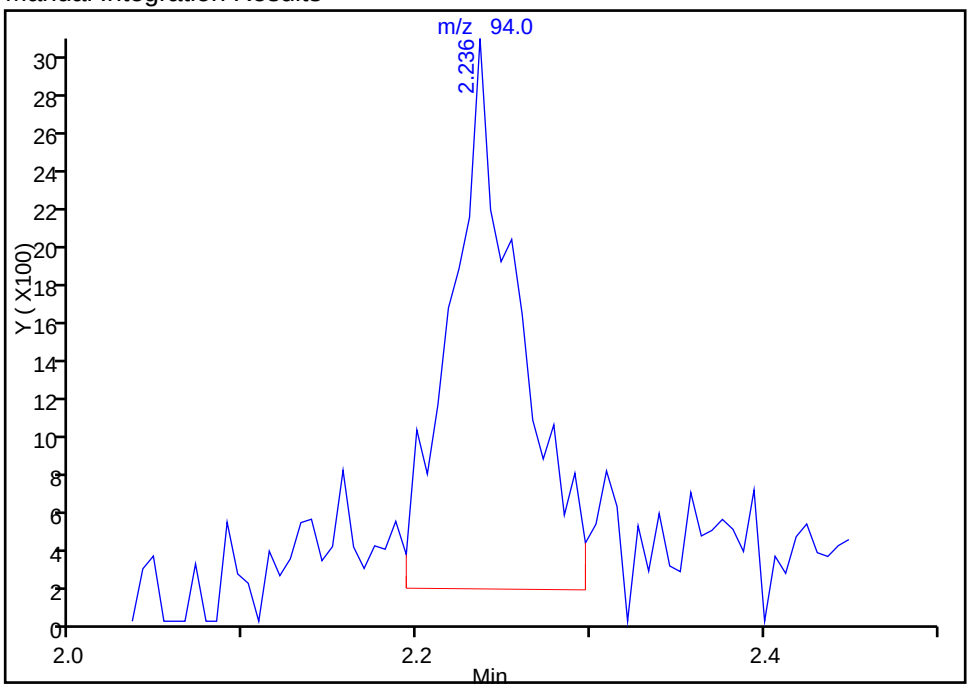
Processing Integration Results

RT: 2.24
Area: 8392
Amount: 5.021302
Amount Units: ng



Manual Integration Results

RT: 2.24
Area: 7774
Amount: 6.585385
Amount Units: ng



Reviewer: fergusond, 02-May-2015 10:38:44
Audit Action: Manually Integrated
Audit Reason: Baseline

Manual Integration/User Assign Peak Report

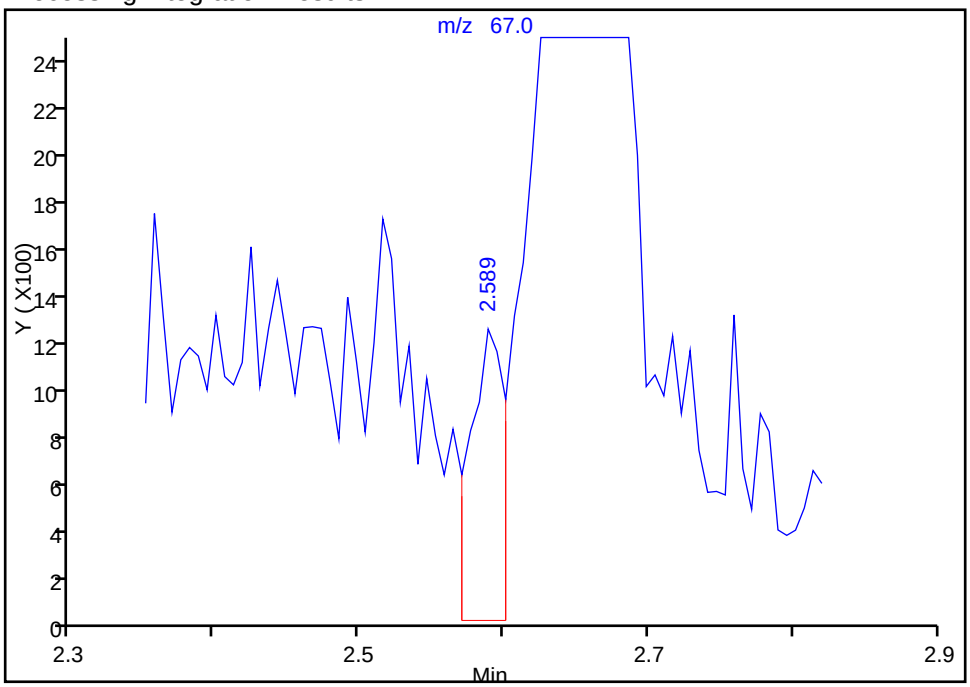
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501003.D
Injection Date: 01-May-2015 13:53:30 Instrument ID: CHHP6
Lims ID: IC VSTD1
Client ID:
Operator ID: 001562 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

17 Dichlorofluoromethane, CAS: 75-43-4

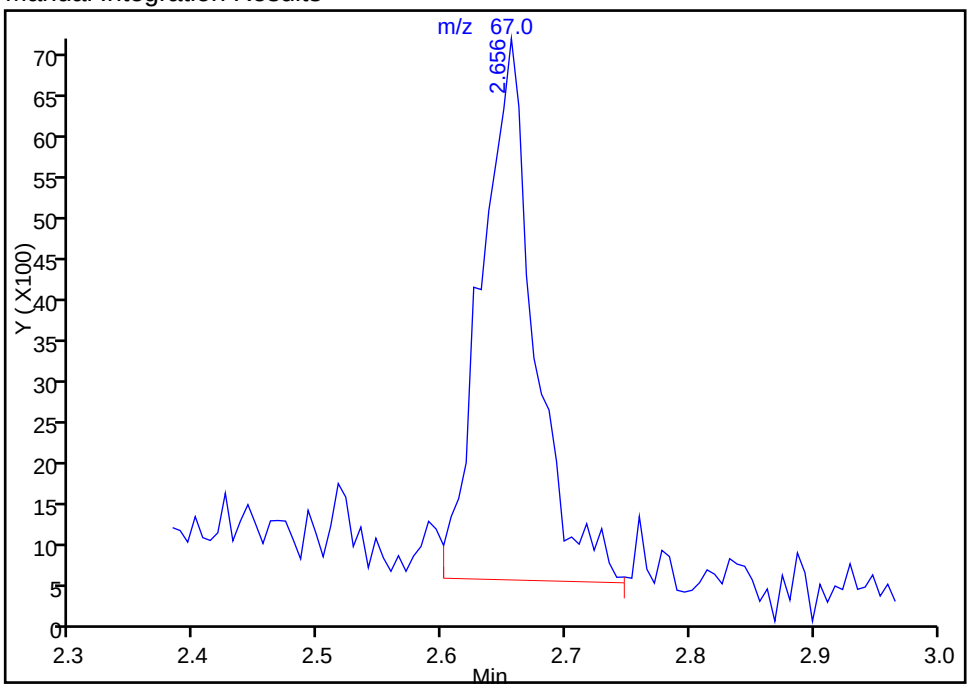
Processing Integration Results

RT: 2.59
Area: 2061
Amount: 3.312701
Amount Units: ng



Manual Integration Results

RT: 2.66
Area: 20031
Amount: 5.806076
Amount Units: ng



Reviewer: fergusond, 02-May-2015 10:38:44
Audit Action: Manually Integrated
Audit Reason: Baseline

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501006.D
Lims ID: IC VSTD5
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 01-May-2015 14:17:30 ALS Bottle#: 4 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD5
Misc. Info.: 180-0006721-006
Operator ID: 001562 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub5

Method: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 02-May-2015 10:49:25 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK027

First Level Reviewer: fergusond Date: 02-May-2015 10:42:12

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.257	4.255	0.002	100	264370	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.287	7.291	-0.004	98	394999	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.402	10.405	-0.003	91	82880	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.750	12.748	0.002	97	129908	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.557	6.555	0.002	92	42078	25.0	25.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.934	6.938	-0.004	78	69113	25.0	25.3	
$ 7 Toluene-d8 (Surr)	98	8.948	8.945	0.003	93	196169	25.0	28.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.588	11.592	-0.004	80	81543	25.0	28.5	
11 Dichlorodifluoromethane	85	1.605	1.603	0.002	99	62218	25.0	25.8	
12 Chloromethane	50	1.763	1.755	0.008	100	53152	25.0	26.5	
13 Vinyl chloride	62	1.897	1.889	0.008	97	56220	25.0	26.3	
14 Butadiene	39	1.946	1.931	0.015	94	54119	25.0	26.6	
15 Bromomethane	94	2.250	2.229	0.021	91	28897	25.0	26.0	
16 Chloroethane	64	2.390	2.381	0.009	99	33151	25.0	24.6	
17 Dichlorofluoromethane	67	2.657	2.655	0.002	99	90056	25.0	27.7	
18 Trichlorofluoromethane	101	2.694	2.692	0.002	82	67290	25.0	27.3	
20 Ethyl ether	59	3.053	3.051	0.002	87	50543	25.0	27.4	
21 Acrolein	56	3.235	3.227	0.008	99	42429	125.0	129.3	
22 1,1-Dichloroethene	96	3.339	3.343	-0.004	96	47470	25.0	26.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.418	3.403	0.015	95	48408	25.0	26.2	
24 Acetone	43	3.436	3.440	-0.004	97	28568	50.0	54.5	
25 Iodomethane	142	3.545	3.543	0.002	99	61771	25.0	26.4	
26 Carbon disulfide	76	3.631	3.641	-0.010	99	143618	25.0	26.8	
29 3-Chloro-1-propene	76	3.923	3.914	0.009	90	34624	25.0	27.0	
30 Methyl acetate	43	3.935	3.939	-0.004	97	235556	125.0	136.1	
31 Methylene Chloride	84	4.136	4.133	0.003	92	57152	25.0	25.7	
32 2-Methyl-2-propanol	59	4.391	4.389	0.002	100	75192	250.0	261.1	
33 Acrylonitrile	53	4.513	4.511	0.002	99	235229	250.0	266.3	
34 trans-1,2-Dichloroethene	96	4.561	4.565	-0.004	94	54099	25.0	26.5	
35 Methyl tert-butyl ether	73	4.580	4.584	-0.004	95	189455	25.0	25.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.993	4.991	0.002	89	70993	25.0	26.0	
37 1,1-Dichloroethane	63	5.200	5.198	0.002	96	103692	25.0	27.1	
38 Vinyl acetate	43	5.243	5.247	-0.004	97	125444	25.0	27.2	
42 2,2-Dichloropropane	77	5.942	5.946	-0.004	74	65618	25.0	27.6	
43 cis-1,2-Dichloroethene	96	5.942	5.946	-0.004	84	60662	25.0	26.2	
44 2-Butanone (MEK)	43	5.955	5.952	0.003	95	45773	50.0	52.5	
48 Chlorobromomethane	128	6.234	6.238	-0.004	96	25094	25.0	26.4	
49 Tetrahydrofuran	42	6.259	6.257	0.002	82	42422	50.0	52.3	
50 Chloroform	83	6.374	6.372	0.002	95	100773	25.0	27.2	
51 1,1,1-Trichloroethane	97	6.545	6.542	0.003	98	78188	25.0	25.7	
52 Cyclohexane	56	6.624	6.622	0.002	89	93429	25.0	25.6	
53 Carbon tetrachloride	117	6.715	6.719	-0.004	85	60197	25.0	25.9	
54 1,1-Dichloropropene	75	6.727	6.731	-0.004	94	76537	25.0	26.0	
55 Isobutyl alcohol	41	6.910	6.908	0.002	95	55741	625.0	700.2	
56 Benzene	78	6.946	6.944	0.002	96	236377	25.0	27.2	
57 1,2-Dichloroethane	62	7.019	7.023	-0.004	98	88016	25.0	26.7	
59 n-Heptane	43	7.311	7.315	-0.004	89	52724	25.0	25.1	
61 Trichloroethene	130	7.682	7.680	0.002	93	49633	25.0	26.4	
63 Methylcyclohexane	83	7.919	7.923	-0.004	91	92085	25.0	26.0	
64 1,2-Dichloropropane	63	7.956	7.954	0.002	83	59925	25.0	34.3	
65 1,4-Dioxane	88	8.047	8.039	0.008	41	11389	500.0	558.1	M
67 Dibromomethane	93	8.041	8.039	0.002	92	34683	25.0	25.0	
68 Dichlorobromomethane	83	8.236	8.234	0.002	97	72416	25.0	26.1	
71 cis-1,3-Dichloropropene	75	8.680	8.678	0.002	93	95523	25.0	26.0	
72 4-Methyl-2-pentanone (MIBK	43	8.826	8.830	-0.004	95	122138	50.0	55.0	
73 Toluene	91	9.015	9.012	0.002	98	246446	25.0	28.7	
74 trans-1,3-Dichloropropene	75	9.258	9.256	0.002	95	86561	25.0	27.7	
75 Ethyl methacrylate	69	9.319	9.317	0.002	87	84855	25.0	27.1	
76 1,1,2-Trichloroethane	97	9.453	9.456	-0.003	93	49466	25.0	26.4	
77 Tetrachloroethene	164	9.532	9.529	0.003	95	39101	25.0	27.6	
78 1,3-Dichloropropane	76	9.611	9.615	-0.004	91	98360	25.0	27.8	
79 2-Hexanone	43	9.665	9.663	0.002	95	73724	50.0	54.4	
81 Chlorodibromomethane	129	9.830	9.828	0.002	89	39108	25.0	26.6	
82 Ethylene Dibromide	107	9.945	9.943	0.002	98	47993	25.0	27.1	
83 3-Chlorobenzotrifluoride	180	10.395	10.399	-0.004	88	69099	25.0	26.3	
84 Chlorobenzene	112	10.432	10.430	0.002	93	153098	25.0	28.2	
85 4-Chlorobenzotrifluoride	180	10.487	10.491	-0.004	96	66283	25.0	26.6	
86 1,1,1,2-Tetrachloroethane	131	10.529	10.527	0.002	92	43746	25.0	27.5	
87 Ethylbenzene	106	10.529	10.533	-0.004	99	83792	25.0	27.6	
88 m-Xylene & p-Xylene	106	10.663	10.661	0.002	100	106116	25.0	28.0	
89 o-Xylene	106	11.046	11.044	0.002	97	103108	25.0	28.0	
90 Styrene	104	11.065	11.063	0.003	94	171422	25.0	28.3	
91 Bromoform	173	11.247	11.251	-0.004	93	24665	25.0	26.2	
92 2-Chlorobenzotrifluoride	180	11.308	11.306	0.002	95	69992	25.0	26.4	
93 Isopropylbenzene	105	11.411	11.409	0.002	97	260050	25.0	29.1	
96 1,1,2,2-Tetrachloroethane	83	11.716	11.720	-0.004	96	72752	25.0	28.3	
95 Bromobenzene	156	11.728	11.726	0.002	97	54793	25.0	26.0	
97 trans-1,4-Dichloro-2-buten	53	11.752	11.756	-0.004	83	24523	25.0	25.3	
98 1,2,3-Trichloropropane	110	11.770	11.774	-0.004	85	23251	25.0	25.1	
99 N-Propylbenzene	120	11.831	11.829	0.002	99	65168	25.0	25.6	
100 2-Chlorotoluene	126	11.916	11.914	0.002	93	55085	25.0	26.4	
101 3-Chlorotoluene	126	11.983	11.981	0.002	97	58118	25.0	25.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.014	12.012	0.002	93	217291	25.0	26.9	
103 4-Chlorotoluene	126	12.038	12.042	-0.004	99	57566	25.0	26.1	
104 tert-Butylbenzene	119	12.330	12.328	0.002	90	164817	25.0	26.6	
106 1,2,4-Trimethylbenzene	105	12.385	12.389	-0.004	97	228421	25.0	27.0	
107 1,2-dichloro-4-(trifluorom	214	12.421	12.425	-0.004	96	53155	25.0	24.9	
108 sec-Butylbenzene	105	12.555	12.553	0.002	95	250114	25.0	26.5	
109 1,3-Dichlorobenzene	146	12.671	12.669	0.002	94	107399	25.0	26.7	
110 4-Isopropyltoluene	119	12.707	12.711	-0.004	96	198948	25.0	26.7	
111 1,4-Dichlorobenzene	146	12.774	12.772	0.002	92	112838	25.0	27.1	
113 2,4-Dichloro-1-(triflourom	214	12.792	12.796	-0.004	94	54452	25.0	25.8	
114 2,5-Dichlorobenzotrifluori	214	12.835	12.833	0.002	98	56843	25.0	25.7	
116 n-Butylbenzene	91	13.115	13.119	-0.004	98	199711	25.0	26.6	
117 1,2-Dichlorobenzene	146	13.133	13.125	0.008	93	105916	25.0	26.6	
118 1,2-Dibromo-3-Chloropropan	75	13.924	13.922	0.002	73	15751	25.0	26.0	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.064	14.062	0.002	99	271825	75.0	81.0	
121 2,3- & 3,4- Dichlorotoluen	125	14.477	14.481	-0.004	99	194878	50.0	53.0	
122 1,2,4-Trichlorobenzene	180	14.745	14.743	0.002	92	78246	25.0	28.1	
123 Hexachlorobutadiene	225	14.891	14.895	-0.004	94	25727	25.0	27.1	
124 Naphthalene	128	15.013	15.011	0.002	98	202675	25.0	27.5	
125 1,2,3-Trichlorobenzene	180	15.238	15.236	0.002	94	74534	25.0	28.5	
126 2,4,5-Trichlorotoluene	159	16.010	16.008	0.002	0	42820	25.0	25.9	
127 2,3,6-Trichlorotoluene	159	16.114	16.112	0.002	92	38864	25.0	25.9	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		50.0	52.7	
S 131 Xylenes, Total	106				0		50.0	56.0	
S 132 1,3-Dichloropropene, Total	1				0		50.0	53.7	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOAACROPRI_00005	Amount Added:	5.00	Units: uL	
voaWeemixPRI_00002	Amount Added:	1.00	Units: uL	
voaWVA2ndRes_00001	Amount Added:	1.00	Units: uL	
VOA8260VOAPRI_00114	Amount Added:	1.00	Units: uL	
voaWketPri Re_00005	Amount Added:	1.00	Units: uL	
VOA8260SURR_00034	Amount Added:	1.00	Units: uL	
VOA8260INT_00032	Amount Added:	2.00	Units: uL	Run Reagent

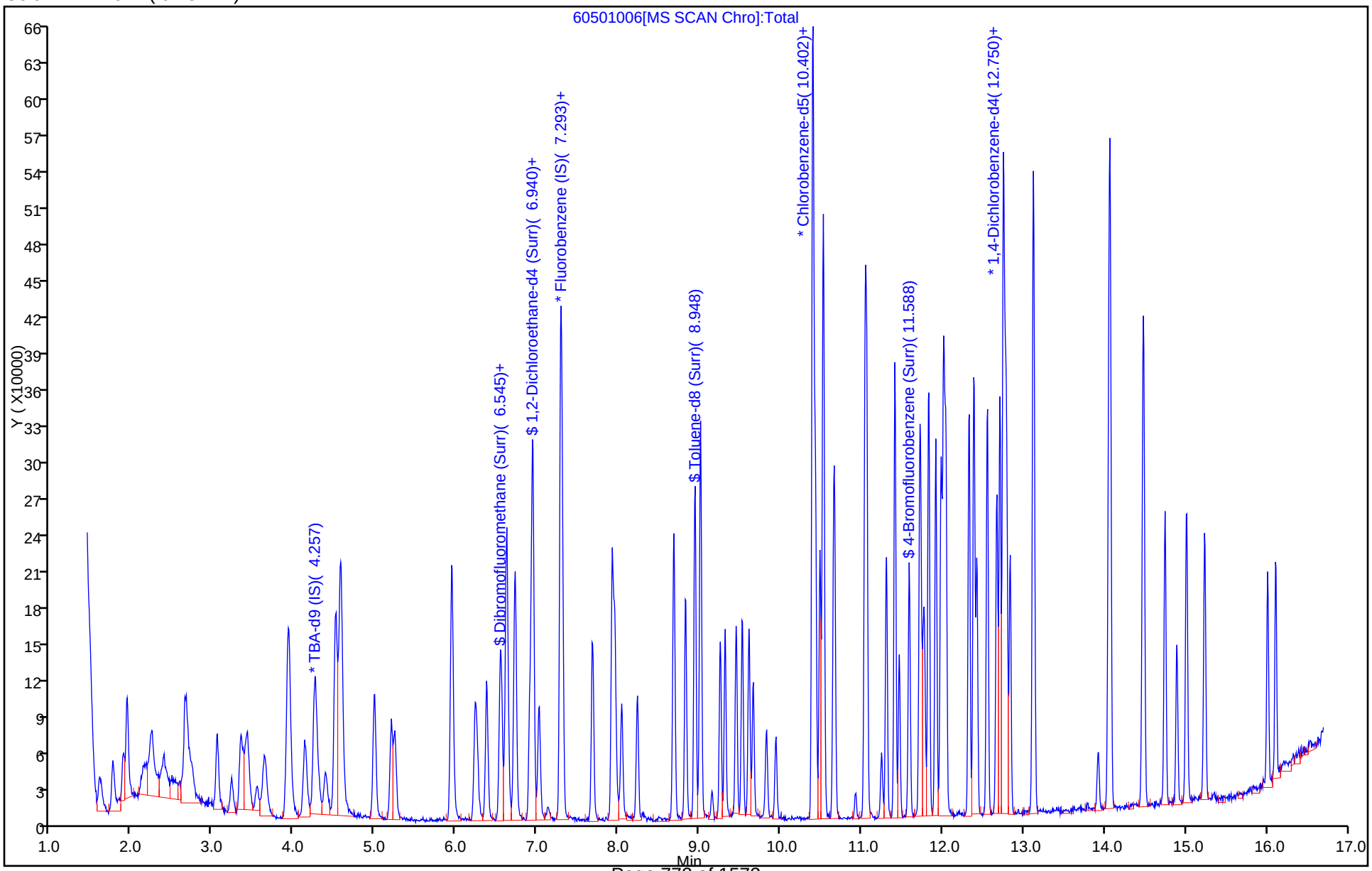
Report Date: 02-May-2015 10:49:25 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501006.D

Injection Date:	01-May-2015 14:17:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	IC VSTD5			Worklist Smp#:	6
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

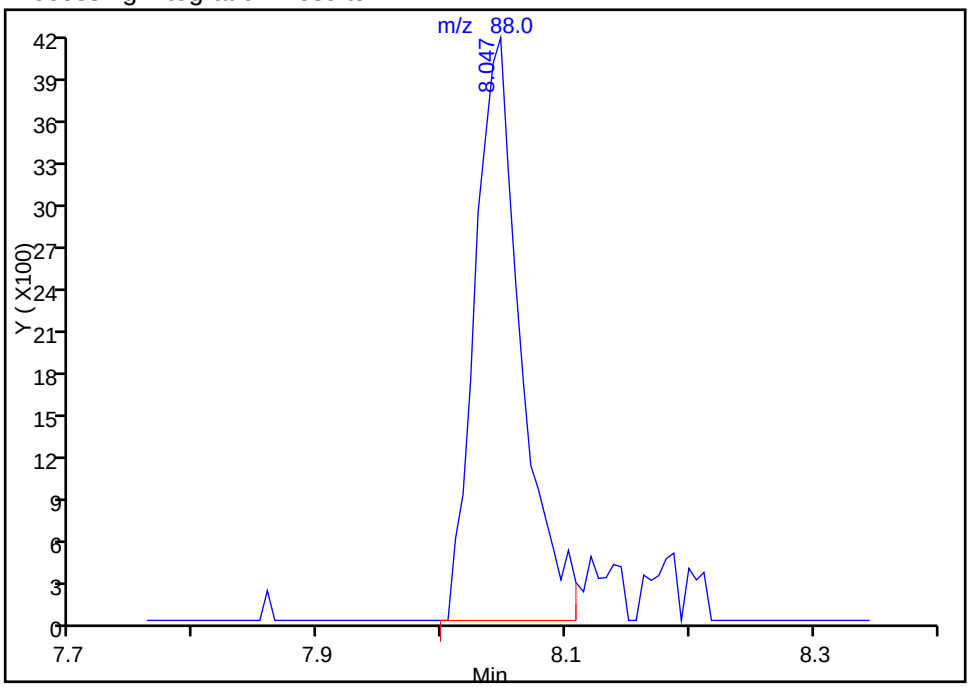
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501006.D				
Injection Date:	01-May-2015 14:17:30	Instrument ID:	CHHP6		
Lims ID:	IC VSTD5				
Client ID:					
Operator ID:	001562	ALS Bottle#:	4	Worklist Smp#:	6
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

65 1,4-Dioxane, CAS: 123-91-1

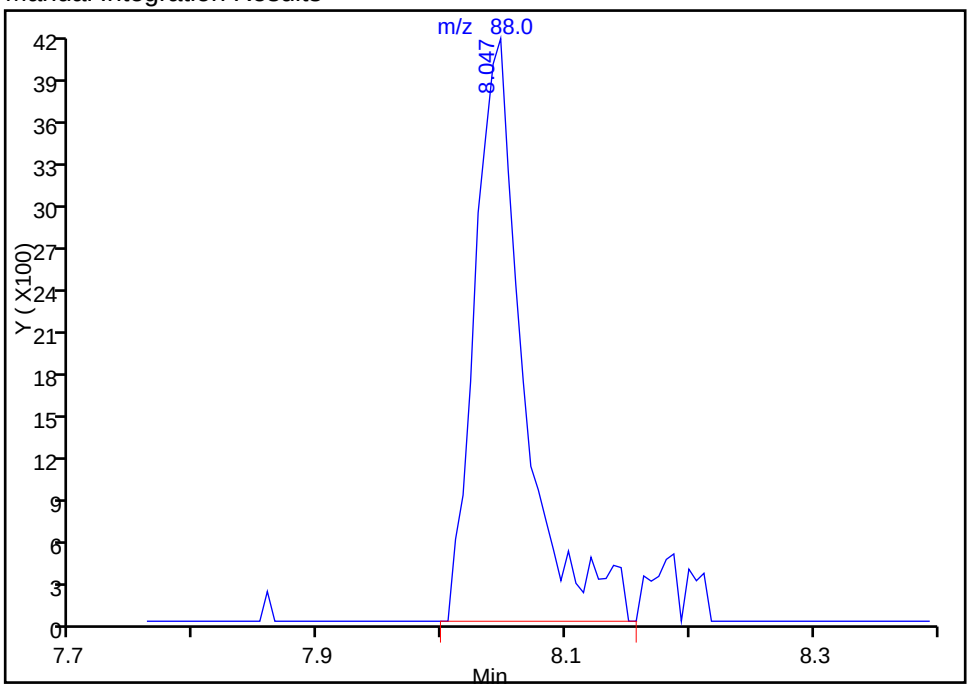
Processing Integration Results

RT: 8.05
Area: 10646
Amount: 680.3497
Amount Units: ng



Manual Integration Results

RT: 8.05
Area: 11389
Amount: 558.1213
Amount Units: ng



Reviewer: fergusond, 02-May-2015 10:42:12
Audit Action: Manually Integrated
Audit Reason: Peak Tail

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501007.D
Lims ID: ICIS VSTD10
Client ID:
Sample Type: ICIS Calib Level: 3
Inject. Date: 01-May-2015 14:41:30 ALS Bottle#: 5 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ICIS VSTD10
Misc. Info.: 180-0006721-007
Operator ID: 001562 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub5

Method: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 02-May-2015 11:11:04 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK027

First Level Reviewer: fergusond Date: 02-May-2015 11:11:04

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.254	4.254	0.000	100	268623	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.290	0.000	98	433461	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.404	10.404	0.000	90	91273	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.753	12.753	0.000	97	138083	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.560	6.560	0.000	91	91685	50.0	51.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.937	6.937	0.000	72	149513	50.0	49.9	
$ 7 Toluene-d8 (Surr)	98	8.944	8.944	0.000	94	427631	50.0	55.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.591	11.591	0.000	80	169309	50.0	53.8	
11 Dichlorodifluoromethane	85	1.602	1.602	0.000	99	126679	50.0	47.8	
12 Chloromethane	50	1.760	1.760	0.000	100	101459	50.0	46.1	
13 Vinyl chloride	62	1.888	1.888	0.000	98	111175	50.0	47.5	
14 Butadiene	39	1.936	1.936	0.000	93	107576	50.0	48.1	
15 Bromomethane	94	2.240	2.240	0.000	90	53923	50.0	44.2	
16 Chloroethane	64	2.386	2.386	0.000	99	63525	50.0	43.0	
17 Dichlorofluoromethane	67	2.660	2.660	0.000	98	171304	50.0	48.0	
18 Trichlorofluoromethane	101	2.697	2.697	0.000	94	126784	50.0	46.8	
20 Ethyl ether	59	3.050	3.050	0.000	89	91939	50.0	45.5	
21 Acrolein	56	3.226	3.226	0.000	99	51168	150.0	142.6	
22 1,1-Dichloroethene	96	3.348	3.348	0.000	98	97947	50.0	48.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.415	3.415	0.000	96	97512	50.0	48.1	
24 Acetone	43	3.433	3.433	0.000	98	54459	100.0	94.7	
25 Iodomethane	142	3.536	3.536	0.000	99	124319	50.0	48.4	
26 Carbon disulfide	76	3.634	3.634	0.000	99	280976	50.0	47.8	
29 3-Chloro-1-propene	76	3.919	3.919	0.000	90	66194	50.0	47.0	
30 Methyl acetate	43	3.938	3.938	0.000	97	448132	250.0	236.0	
31 Methylene Chloride	84	4.138	4.138	0.000	91	113752	50.0	46.7	
32 2-Methyl-2-propanol	59	4.394	4.394	0.000	99	148632	500.0	507.9	
33 Acrylonitrile	53	4.510	4.510	0.000	99	471254	500.0	486.2	
34 trans-1,2-Dichloroethene	96	4.564	4.564	0.000	98	106188	50.0	47.5	
35 Methyl tert-butyl ether	73	4.583	4.583	0.000	95	390371	50.0	48.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.984	4.984	0.000	90	141416	50.0	47.1	
37 1,1-Dichloroethane	63	5.197	5.197	0.000	96	204336	50.0	48.6	
38 Vinyl acetate	43	5.246	5.246	0.000	98	252021	50.0	49.8	
42 2,2-Dichloropropane	77	5.945	5.945	0.000	65	125582	50.0	48.2	
43 cis-1,2-Dichloroethene	96	5.945	5.945	0.000	83	119864	50.0	47.1	
44 2-Butanone (MEK)	43	5.957	5.957	0.000	98	85635	100.0	89.4	
48 Chlorobromomethane	128	6.237	6.237	0.000	97	48600	50.0	46.6	
49 Tetrahydrofuran	42	6.256	6.256	0.000	84	82088	100.0	92.3	
50 Chloroform	83	6.377	6.377	0.000	96	189114	50.0	46.6	
51 1,1,1-Trichloroethane	97	6.548	6.548	0.000	98	158279	50.0	47.4	
52 Cyclohexane	56	6.621	6.621	0.000	89	192149	50.0	48.0	
53 Carbon tetrachloride	117	6.718	6.718	0.000	96	116915	50.0	45.9	
54 1,1-Dichloropropene	75	6.730	6.730	0.000	96	152706	50.0	47.3	
55 Isobutyl alcohol	41	6.906	6.906	0.000	92	106831	1250.0	1222.9	
56 Benzene	78	6.943	6.943	0.000	96	454609	50.0	47.7	
57 1,2-Dichloroethane	62	7.022	7.022	0.000	98	170097	50.0	46.9	
59 n-Heptane	43	7.314	7.314	0.000	89	104766	50.0	45.4	
61 Trichloroethene	130	7.685	7.685	0.000	95	97663	50.0	47.4	
63 Methylcyclohexane	83	7.922	7.922	0.000	90	186510	50.0	48.0	
64 1,2-Dichloropropane	63	7.959	7.959	0.000	93	114408	50.0	45.5	
65 1,4-Dioxane	88	8.044	8.044	0.000	41	23730	1000.0	979.8	M
67 Dibromomethane	93	8.044	8.044	0.000	90	72777	50.0	47.8	
68 Dichlorobromomethane	83	8.233	8.233	0.000	99	140878	50.0	46.3	
71 cis-1,3-Dichloropropene	75	8.683	8.683	0.000	94	185519	50.0	46.1	
72 4-Methyl-2-pentanone (MIBK	43	8.829	8.829	0.000	95	248428	100.0	101.6	
73 Toluene	91	9.011	9.011	0.000	99	472389	50.0	49.9	
74 trans-1,3-Dichloropropene	75	9.261	9.261	0.000	95	164800	50.0	47.8	
75 Ethyl methacrylate	69	9.322	9.322	0.000	87	171769	50.0	49.8	
76 1,1,2-Trichloroethane	97	9.455	9.455	0.000	93	100537	50.0	48.8	
77 Tetrachloroethene	164	9.528	9.528	0.000	95	77095	50.0	49.5	
78 1,3-Dichloropropane	76	9.614	9.614	0.000	91	192805	50.0	49.5	
79 2-Hexanone	43	9.662	9.662	0.000	96	148448	100.0	99.5	
81 Chlorodibromomethane	129	9.827	9.827	0.000	91	76638	50.0	47.3	
82 Ethylene Dibromide	107	9.942	9.942	0.000	98	94113	50.0	48.3	
83 3-Chlorobenzotrifluoride	180	10.398	10.398	0.000	90	148039	50.0	51.2	
84 Chlorobenzene	112	10.429	10.429	0.000	93	295391	50.0	49.4	
85 4-Chlorobenzotrifluoride	180	10.490	10.490	0.000	96	145575	50.0	53.1	
86 1,1,1,2-Tetrachloroethane	131	10.526	10.526	0.000	92	86295	50.0	49.3	
87 Ethylbenzene	106	10.532	10.532	0.000	99	164938	50.0	49.4	
88 m-Xylene & p-Xylene	106	10.660	10.660	0.000	100	204038	50.0	48.8	
89 o-Xylene	106	11.043	11.043	0.000	97	204569	50.0	50.4	
90 Styrene	104	11.061	11.061	0.000	95	332158	50.0	49.8	
91 Bromoform	173	11.250	11.250	0.000	90	47850	50.0	46.1	
92 2-Chlorobenzotrifluoride	180	11.311	11.311	0.000	96	147246	50.0	50.5	
93 Isopropylbenzene	105	11.414	11.414	0.000	97	506955	50.0	51.4	
96 1,1,2,2-Tetrachloroethane	83	11.718	11.718	0.000	96	138753	50.0	49.0	
95 Bromobenzene	156	11.731	11.731	0.000	95	108631	50.0	48.5	
97 trans-1,4-Dichloro-2-buten	53	11.755	11.755	0.000	85	46308	50.0	45.0	
98 1,2,3-Trichloropropane	110	11.779	11.779	0.000	83	46172	50.0	46.9	
99 N-Propylbenzene	120	11.828	11.828	0.000	99	129444	50.0	47.9	
100 2-Chlorotoluene	126	11.919	11.919	0.000	94	106218	50.0	47.8	
101 3-Chlorotoluene	126	11.980	11.980	0.000	97	117101	50.0	48.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.010	12.010	0.000	94	418940	50.0	48.8	
103 4-Chlorotoluene	126	12.041	12.041	0.000	98	113709	50.0	48.6	
104 tert-Butylbenzene	119	12.327	12.327	0.000	91	322788	50.0	49.0	
106 1,2,4-Trimethylbenzene	105	12.388	12.388	0.000	98	440328	50.0	48.9	
107 1,2-dichloro-4-(trifluorom	214	12.424	12.424	0.000	97	112527	50.0	49.7	
108 sec-Butylbenzene	105	12.552	12.552	0.000	96	497104	50.0	49.6	
109 1,3-Dichlorobenzene	146	12.674	12.674	0.000	94	204242	50.0	47.8	
110 4-Isopropyltoluene	119	12.710	12.710	0.000	95	387889	50.0	48.9	
111 1,4-Dichlorobenzene	146	12.777	12.777	0.000	90	213363	50.0	48.3	
113 2,4-Dichloro-1-(triflourom	214	12.795	12.795	0.000	95	111058	50.0	49.5	
114 2,5-Dichlorobenzotrifluori	214	12.838	12.838	0.000	98	121492	50.0	49.5	
116 n-Butylbenzene	91	13.118	13.118	0.000	98	390925	50.0	49.1	
117 1,2-Dichlorobenzene	146	13.130	13.130	0.000	94	203881	50.0	48.2	
118 1,2-Dibromo-3-Chloropropan	75	13.915	13.921	-0.006	73	29597	50.0	45.9	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.061	14.061	0.000	98	557142	150.0	156.2	
121 2,3- & 3,4- Dichlorotoluen	125	14.480	14.480	0.000	99	406060	100.0	103.8	
122 1,2,4-Trichlorobenzene	180	14.748	14.748	0.000	93	146069	50.0	49.3	
123 Hexachlorobutadiene	225	14.894	14.894	0.000	96	49256	50.0	48.8	
124 Naphthalene	128	15.010	15.010	0.000	99	399712	50.0	51.0	
125 1,2,3-Trichlorobenzene	180	15.235	15.235	0.000	93	136259	50.0	49.1	
126 2,4,5-Trichlorotoluene	159	16.013	16.013	0.000	0	84630	50.0	48.2	
127 2,3,6-Trichlorotoluene	159	16.111	16.111	0.000	91	74459	50.0	46.7	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		100.0	94.6	
S 131 Xylenes, Total	106				0		100.0	99.2	
S 132 1,3-Dichloropropene, Total	1				0		100.0	93.9	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260SURR_00034	Amount Added:	2.00	Units: uL	
voaWketPri Re_00005	Amount Added:	2.00	Units: uL	
voaWVA2ndRes_00001	Amount Added:	2.00	Units: uL	
VOA8260VOAPRI_00114	Amount Added:	2.00	Units: uL	
voaWeemixPRI_00002	Amount Added:	2.00	Units: uL	
VOAACROPRI_00005	Amount Added:	6.00	Units: uL	
VOA8260INT_00032	Amount Added:	2.00	Units: uL	Run Reagent

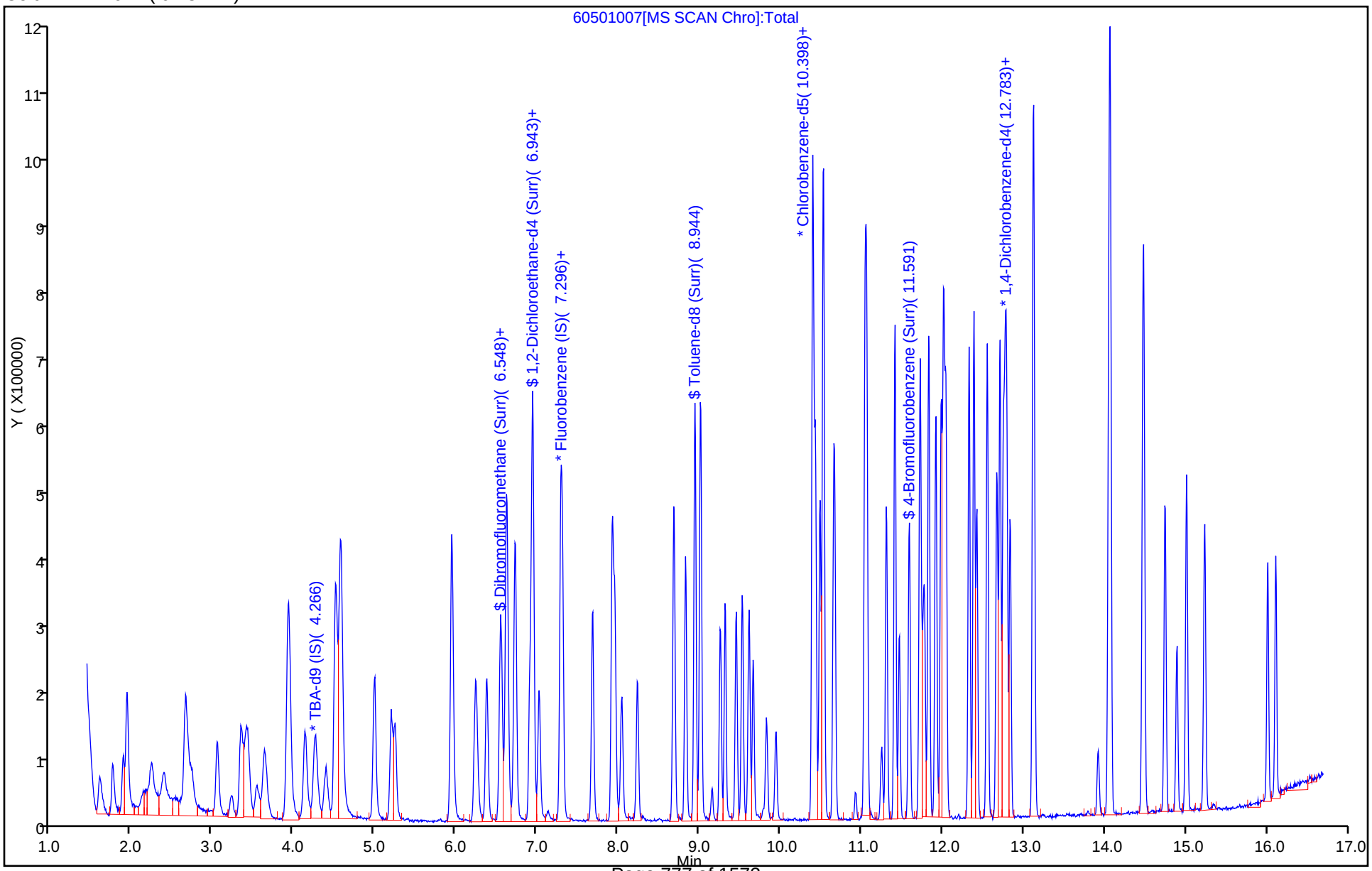
Report Date: 02-May-2015 11:11:04 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501007.D

Injection Date:	01-May-2015 14:41:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	ICIS VSTD10			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

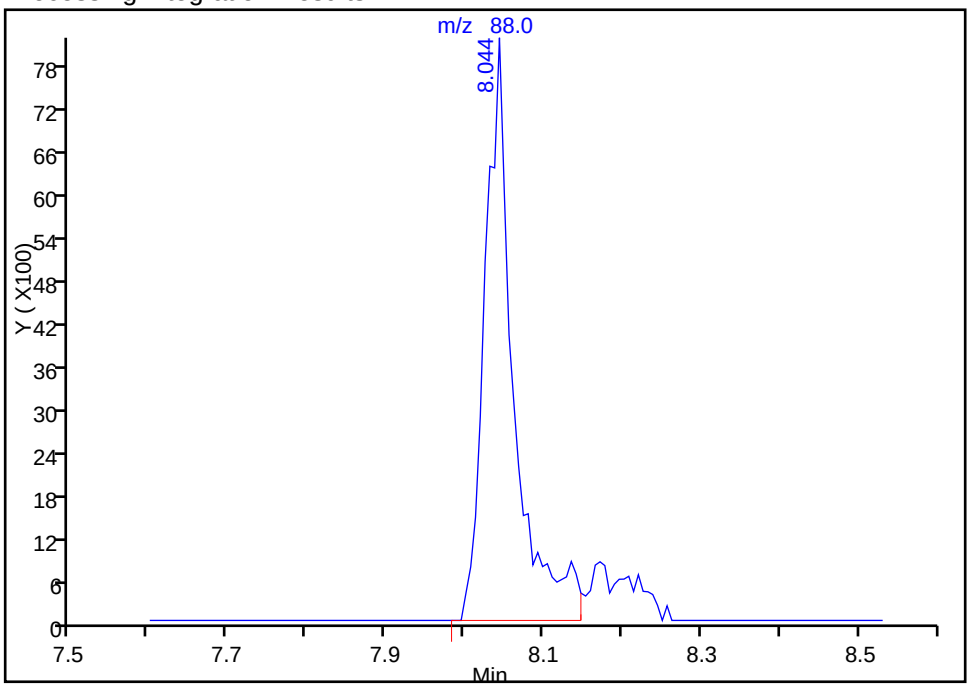
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501007.D				
Injection Date:	01-May-2015 14:41:30	Instrument ID:	CHHP6		
Lims ID:	ICIS VSTD10				
Client ID:					
Operator ID:	001562	ALS Bottle#:	5	Worklist Smp#:	7
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

65 1,4-Dioxane, CAS: 123-91-1

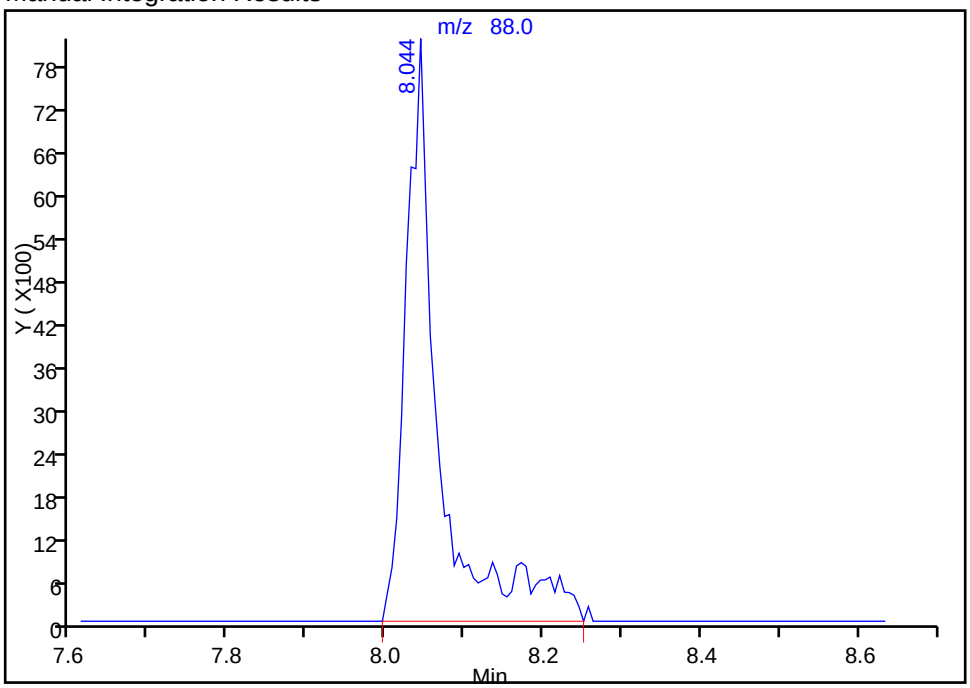
Processing Integration Results

RT: 8.04
Area: 20740
Amount: 1234.6890
Amount Units: ng



Manual Integration Results

RT: 8.04
Area: 23730
Amount: 979.8254
Amount Units: ng



Reviewer: fergusond, 02-May-2015 10:12:54
Audit Action: Manually Integrated
Audit Reason: Peak Tail

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501008.D
Lims ID: IC VSTD15
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 01-May-2015 15:06:30 ALS Bottle#: 6 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD15
Misc. Info.: 180-0006721-008
Operator ID: 001562 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub5

Method: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 02-May-2015 10:49:28 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK027

First Level Reviewer: fergusond Date: 02-May-2015 10:45:43

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.255	4.255	0.000	100	254041	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.291	7.291	0.000	98	394597	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.405	10.405	0.000	90	85649	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.748	12.748	0.000	97	127119	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.555	6.555	0.000	91	127929	75.0	78.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.938	6.938	0.000	82	217902	75.0	79.9	
$ 7 Toluene-d8 (Surr)	98	8.945	8.945	0.000	94	575027	75.0	79.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.592	11.592	0.000	82	230387	75.0	78.0	
11 Dichlorodifluoromethane	85	1.603	1.603	0.000	99	187095	75.0	77.6	
12 Chloromethane	50	1.755	1.755	0.000	99	152788	75.0	76.3	
13 Vinyl chloride	62	1.889	1.889	0.000	99	159170	75.0	74.6	
14 Butadiene	39	1.931	1.931	0.000	94	143792	75.0	70.6	
15 Bromomethane	94	2.229	2.229	0.000	92	77761	75.0	70.0	
16 Chloroethane	64	2.381	2.381	0.000	99	102015	75.0	75.9	
17 Dichlorofluoromethane	67	2.655	2.655	0.000	98	243522	75.0	75.0	
18 Trichlorofluoromethane	101	2.692	2.692	0.000	98	187475	75.0	76.0	
20 Ethyl ether	59	3.051	3.051	0.000	89	135802	75.0	73.8	
21 Acrolein	56	3.227	3.227	0.000	98	59022	175.0	180.0	
22 1,1-Dichloroethene	96	3.343	3.343	0.000	96	135482	75.0	74.1	
23 1,1,2-Trichloro-1,2,2-trif	101	3.403	3.403	0.000	97	140183	75.0	76.0	
24 Acetone	43	3.440	3.440	0.000	94	81971	150.0	156.5	
25 Iodomethane	142	3.543	3.543	0.000	99	180970	75.0	77.5	
26 Carbon disulfide	76	3.641	3.641	0.000	99	408054	75.0	76.2	
29 3-Chloro-1-propene	76	3.914	3.914	0.000	90	94749	75.0	73.9	
30 Methyl acetate	43	3.939	3.939	0.000	97	675270	375.0	390.6	
31 Methylene Chloride	84	4.133	4.133	0.000	92	172741	75.0	77.9	
32 2-Methyl-2-propanol	59	4.389	4.389	0.000	98	211317	750.0	763.6	
33 Acrylonitrile	53	4.511	4.511	0.000	98	700311	750.0	793.6	
34 trans-1,2-Dichloroethene	96	4.565	4.565	0.000	98	154219	75.0	75.7	
35 Methyl tert-butyl ether	73	4.584	4.584	0.000	95	589934	75.0	80.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.991	4.991	0.000	92	203332	75.0	74.4	
37 1,1-Dichloroethane	63	5.198	5.198	0.000	97	297015	75.0	77.6	
38 Vinyl acetate	43	5.247	5.247	0.000	97	360384	75.0	78.3	
42 2,2-Dichloropropane	77	5.946	5.946	0.000	65	184800	75.0	77.9	
43 cis-1,2-Dichloroethene	96	5.946	5.946	0.000	84	179083	75.0	77.4	
44 2-Butanone (MEK)	43	5.952	5.952	0.000	65	135914	150.0	155.9	
48 Chlorobromomethane	128	6.238	6.238	0.000	97	71233	75.0	75.0	
49 Tetrahydrofuran	42	6.257	6.257	0.000	86	124988	150.0	154.4	
50 Chloroform	83	6.372	6.372	0.000	94	281261	75.0	76.1	
51 1,1,1-Trichloroethane	97	6.542	6.542	0.000	97	234417	75.0	77.1	
52 Cyclohexane	56	6.622	6.622	0.000	88	275975	75.0	75.7	
53 Carbon tetrachloride	117	6.719	6.719	0.000	94	172271	75.0	74.3	
54 1,1-Dichloropropene	75	6.731	6.731	0.000	96	223842	75.0	76.1	
55 Isobutyl alcohol	41	6.908	6.908	0.000	93	157057	1875.0	1975.0	
56 Benzene	78	6.944	6.944	0.000	97	674168	75.0	77.7	
57 1,2-Dichloroethane	62	7.023	7.023	0.000	99	259031	75.0	78.5	
59 n-Heptane	43	7.315	7.315	0.000	90	152333	75.0	72.6	
61 Trichloroethene	130	7.680	7.680	0.000	94	145038	75.0	77.2	
63 Methylcyclohexane	83	7.923	7.923	0.000	90	267913	75.0	75.7	
64 1,2-Dichloropropane	63	7.954	7.954	0.000	94	174135	75.0	99.7	
65 1,4-Dioxane	88	8.039	8.039	0.000	51	33881	1500.0	1662.0	M
67 Dibromomethane	93	8.039	8.039	0.000	91	106380	75.0	76.7	
68 Dichlorobromomethane	83	8.234	8.234	0.000	99	212684	75.0	76.8	
71 cis-1,3-Dichloropropene	75	8.678	8.678	0.000	94	287718	75.0	78.5	
72 4-Methyl-2-pentanone (MIBK	43	8.830	8.830	0.000	94	371586	150.0	161.9	
73 Toluene	91	9.012	9.012	0.000	99	692573	75.0	78.0	
74 trans-1,3-Dichloropropene	75	9.256	9.256	0.000	94	254423	75.0	78.7	
75 Ethyl methacrylate	69	9.317	9.317	0.000	88	259135	75.0	80.0	
76 1,1,2-Trichloroethane	97	9.456	9.456	0.000	93	154621	75.0	80.0	
77 Tetrachloroethene	164	9.529	9.529	0.000	95	112710	75.0	77.1	
78 1,3-Dichloropropane	76	9.615	9.615	0.000	90	290836	75.0	79.5	
79 2-Hexanone	43	9.663	9.663	0.000	94	223875	150.0	160.0	
81 Chlorodibromomethane	129	9.828	9.828	0.000	90	118323	75.0	77.7	
82 Ethylene Dibromide	107	9.943	9.943	0.000	100	144503	75.0	79.1	
83 3-Chlorobenzotrifluoride	180	10.399	10.399	0.000	91	207040	75.0	76.3	
84 Chlorobenzene	112	10.430	10.430	0.000	93	438228	75.0	78.2	
85 4-Chlorobenzotrifluoride	180	10.491	10.491	0.000	96	197098	75.0	76.6	
86 1,1,1,2-Tetrachloroethane	131	10.527	10.527	0.000	92	130058	75.0	79.1	
87 Ethylbenzene	106	10.533	10.533	0.000	98	249733	75.0	79.7	
88 m-Xylene & p-Xylene	106	10.661	10.661	0.000	100	304814	75.0	77.7	
89 o-Xylene	106	11.044	11.044	0.000	97	304301	75.0	80.0	
90 Styrene	104	11.063	11.063	0.000	94	506573	75.0	81.0	
91 Bromoform	173	11.251	11.251	0.000	93	77540	75.0	79.7	
92 2-Chlorobenzotrifluoride	180	11.306	11.306	0.000	94	214923	75.0	78.5	
93 Isopropylbenzene	105	11.409	11.409	0.000	97	737501	75.0	79.7	
96 1,1,2,2-Tetrachloroethane	83	11.720	11.720	0.000	97	211742	75.0	79.8	
95 Bromobenzene	156	11.726	11.726	0.000	97	160950	75.0	78.1	
97 trans-1,4-Dichloro-2-buten	53	11.756	11.756	0.000	89	71679	75.0	75.7	
98 1,2,3-Trichloropropane	110	11.774	11.774	0.000	84	69230	75.0	76.4	
99 N-Propylbenzene	120	11.829	11.829	0.000	99	193168	75.0	77.7	
100 2-Chlorotoluene	126	11.914	11.914	0.000	94	156618	75.0	76.6	
101 3-Chlorotoluene	126	11.981	11.981	0.000	97	172757	75.0	77.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.012	12.012	0.000	92	625299	75.0	79.1	
103 4-Chlorotoluene	126	12.042	12.042	0.000	99	167686	75.0	77.8	
104 tert-Butylbenzene	119	12.328	12.328	0.000	90	472090	75.0	77.9	
106 1,2,4-Trimethylbenzene	105	12.389	12.389	0.000	98	652905	75.0	78.8	
107 1,2-dichloro-4-(trifluorom	214	12.425	12.425	0.000	96	159882	75.0	76.6	
108 sec-Butylbenzene	105	12.553	12.553	0.000	96	726443	75.0	78.7	
109 1,3-Dichlorobenzene	146	12.669	12.669	0.000	93	311742	75.0	79.2	
110 4-Isopropyltoluene	119	12.711	12.711	0.000	95	575133	75.0	78.8	
111 1,4-Dichlorobenzene	146	12.772	12.772	0.000	91	322104	75.0	79.2	
113 2,4-Dichloro-1-(triflourom	214	12.796	12.796	0.000	96	161041	75.0	78.0	
114 2,5-Dichlorobenzotrifluori	214	12.833	12.833	0.000	98	175409	75.0	81.0	
116 n-Butylbenzene	91	13.119	13.119	0.000	98	578451	75.0	78.8	
117 1,2-Dichlorobenzene	146	13.125	13.125	0.000	91	307417	75.0	79.0	
118 1,2-Dibromo-3-Chloropropan	75	13.922	13.922	0.000	71	45915	75.0	77.3	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.062	14.062	0.000	98	811375	225.0	247.0	
121 2,3- & 3,4- Dichlorotoluen	125	14.481	14.481	0.000	99	605114	150.0	168.1	
122 1,2,4-Trichlorobenzene	180	14.743	14.743	0.000	92	230538	75.0	84.6	
123 Hexachlorobutadiene	225	14.895	14.895	0.000	96	74455	75.0	80.1	
124 Naphthalene	128	15.011	15.011	0.000	98	617410	75.0	85.6	
125 1,2,3-Trichlorobenzene	180	15.236	15.236	0.000	94	218128	75.0	85.3	
126 2,4,5-Trichlorotoluene	159	16.008	16.008	0.000	0	136106	75.0	84.2	
127 2,3,6-Trichlorotoluene	159	16.112	16.112	0.000	92	121283	75.0	82.7	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		150.0	153.1	
S 131 Xylenes, Total	106				0		150.0	157.7	
S 132 1,3-Dichloropropene, Total	1				0		150.0	157.2	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOAACROPRI_00005	Amount Added:	7.00	Units: uL	
voaWeemixPRI_00002	Amount Added:	3.00	Units: uL	
VOA8260VOAPRI_00114	Amount Added:	3.00	Units: uL	
voaWVA2ndRes_00001	Amount Added:	3.00	Units: uL	
voaWketPri Re_00005	Amount Added:	3.00	Units: uL	
VOA8260SURR_00034	Amount Added:	3.00	Units: uL	
VOA8260INT_00032	Amount Added:	2.00	Units: uL	Run Reagent

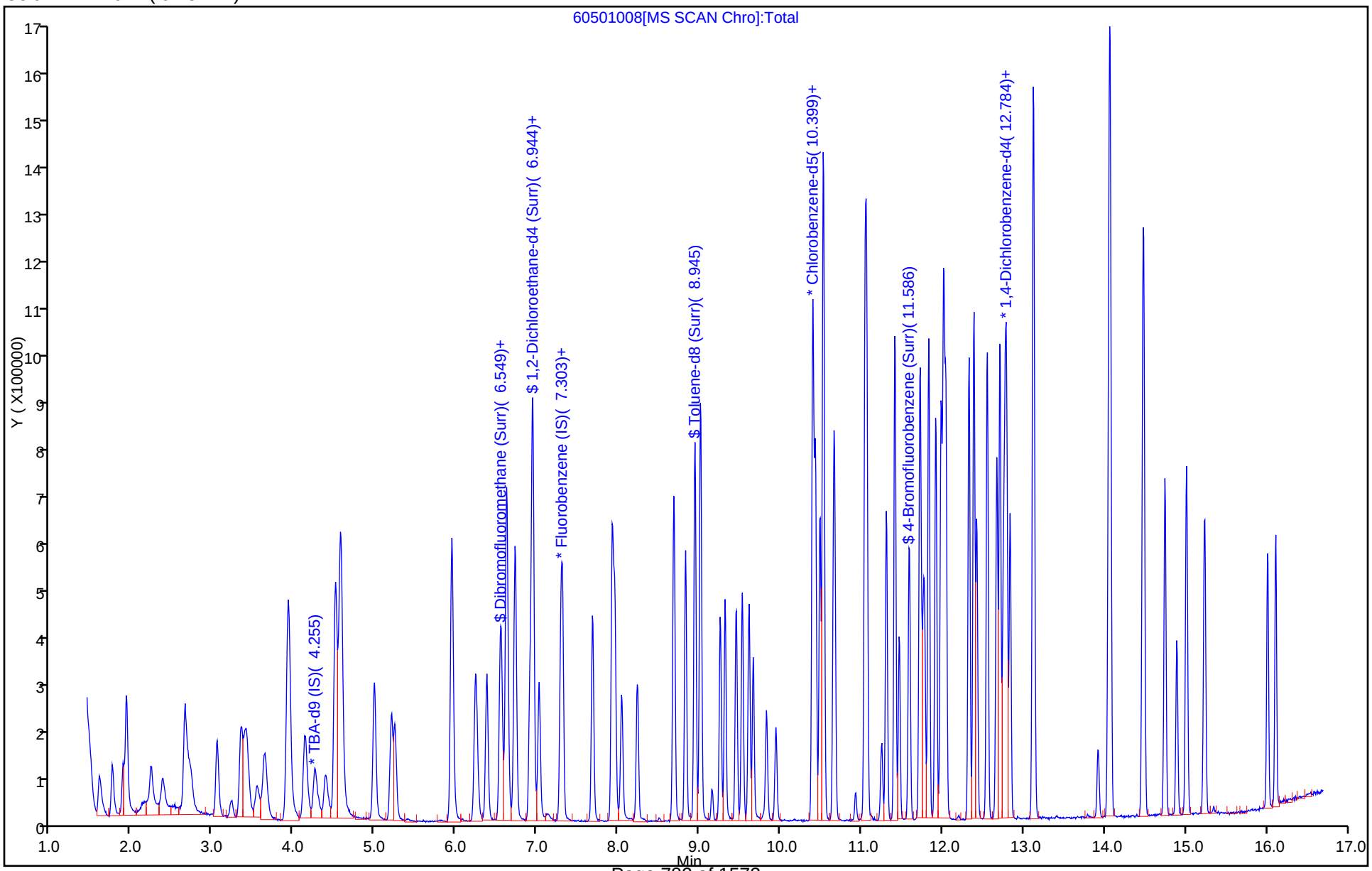
Report Date: 02-May-2015 10:49:28 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501008.D

Injection Date:	01-May-2015 15:06:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	IC VSTD15			Worklist Smp#:	8
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

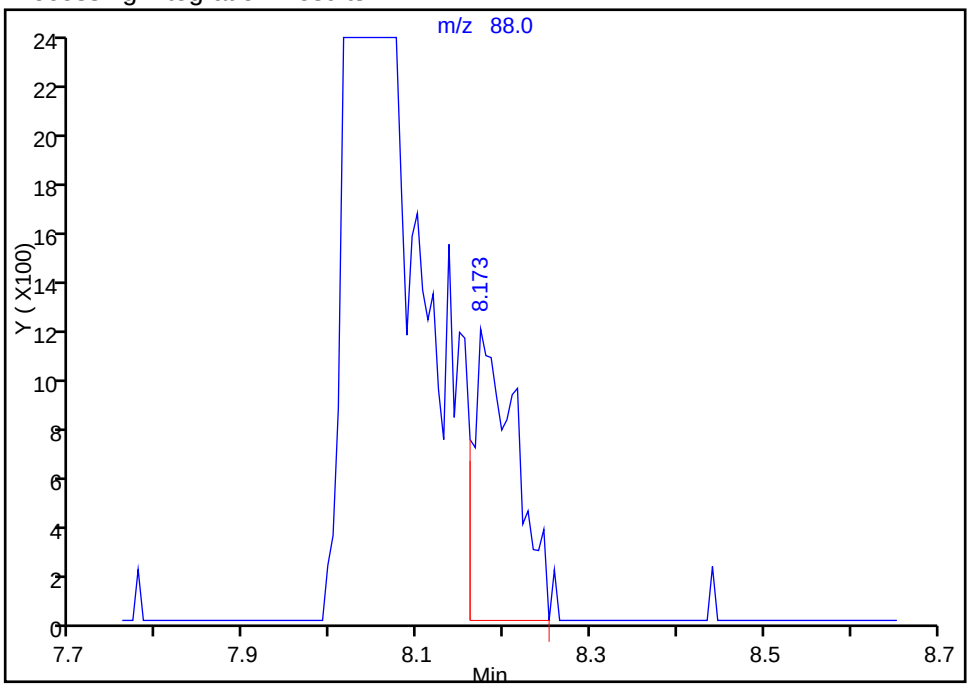
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501008.D				
Injection Date:	01-May-2015 15:06:30	Instrument ID:	CHHP6		
Lims ID:	IC VSTD15				
Client ID:					
Operator ID:	001562	ALS Bottle#:	6	Worklist Smp#:	8
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

65 1,4-Dioxane, CAS: 123-91-1

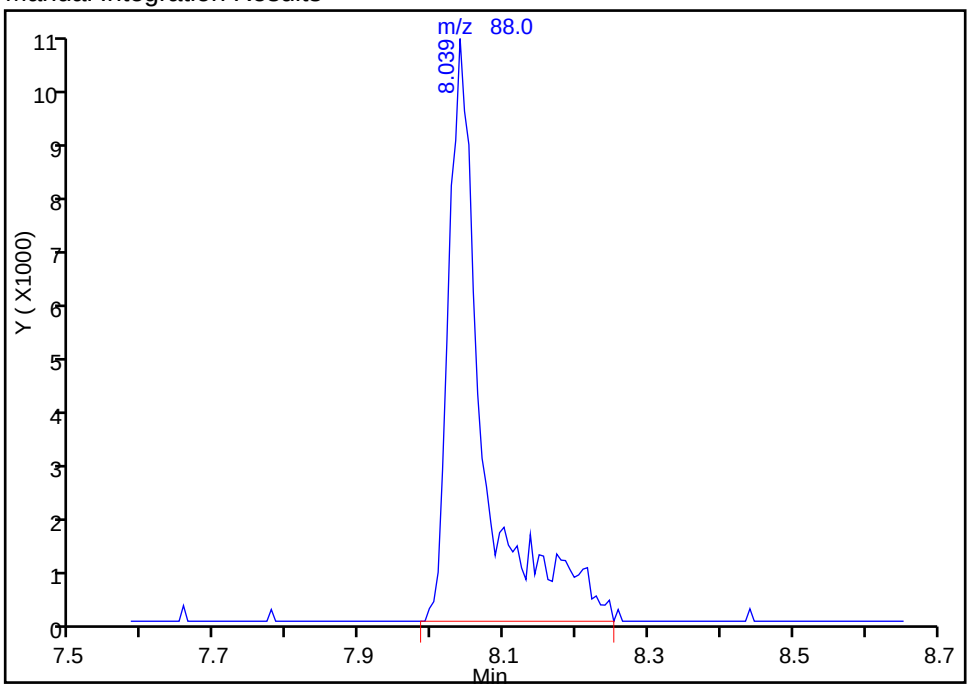
Processing Integration Results

RT: 8.17
Area: 3884
Amount: 245.5513
Amount Units: ng



Manual Integration Results

RT: 8.04
Area: 33881
Amount: 1662.0398
Amount Units: ng



Reviewer: fergusond, 02-May-2015 10:45:43
Audit Action: Manually Integrated
Audit Reason: Peak Tail

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501009.D
Lims ID: IC VSTD20
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 01-May-2015 15:31:30 ALS Bottle#: 7 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD20
Misc. Info.: 180-0006721-009
Operator ID: 001562 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub5

Method: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 02-May-2015 11:01:05 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK027

First Level Reviewer: fergusond Date: 02-May-2015 10:49:03

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.263	4.255	0.008	100	258227	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.292	7.291	0.001	98	413350	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.407	10.405	0.002	89	93085	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.755	12.748	0.007	96	134368	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.562	6.555	0.007	92	158749	100.0	92.8	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.933	6.938	-0.005	78	266001	100.0	93.1	
$ 7 Toluene-d8 (Surr)	98	8.947	8.945	0.002	93	689691	100.0	87.6	
$ 8 4-Bromofluorobenzene (Surr	95	11.587	11.592	-0.005	80	287611	100.0	89.6	
11 Dichlorodifluoromethane	85	1.610	1.603	0.007	99	250149	100.0	99.1	
12 Chloromethane	50	1.762	1.755	0.007	99	197707	100.0	94.2	
13 Vinyl chloride	62	1.896	1.889	0.007	98	217145	100.0	97.2	
14 Butadiene	39	1.939	1.931	0.008	91	195445	100.0	91.6	
15 Bromomethane	94	2.249	2.229	0.020	93	109446	100.0	94.1	M
16 Chloroethane	64	2.395	2.381	0.014	99	134678	100.0	95.6	
17 Dichlorofluoromethane	67	2.657	2.655	0.002	98	331737	100.0	97.6	
18 Trichlorofluoromethane	101	2.687	2.692	-0.005	96	259631	100.0	100.5	
20 Ethyl ether	59	3.052	3.051	0.001	89	193102	100.0	100.2	
21 Acrolein	56	3.222	3.227	-0.005	99	68259	200.0	199.5	
22 1,1-Dichloroethene	96	3.350	3.343	0.007	97	186100	100.0	97.2	
23 1,1,2-Trichloro-1,2,2-trif	101	3.411	3.403	0.008	96	186259	100.0	96.4	
24 Acetone	43	3.441	3.440	0.001	99	106890	200.0	194.9	
25 Iodomethane	142	3.545	3.543	0.002	99	239779	100.0	98.0	
26 Carbon disulfide	76	3.642	3.641	0.001	100	545025	100.0	97.2	
29 3-Chloro-1-propene	76	3.916	3.914	0.002	89	133021	100.0	99.0	
30 Methyl acetate	43	3.940	3.939	0.001	96	904615	500.0	499.5	
31 Methylene Chloride	84	4.141	4.133	0.008	91	219046	100.0	94.3	
32 2-Methyl-2-propanol	59	4.390	4.389	0.001	98	284065	1000.0	1009.8	
33 Acrylonitrile	53	4.512	4.511	0.001	99	935388	1000.0	1012.0	
34 trans-1,2-Dichloroethene	96	4.567	4.565	0.002	97	210289	100.0	98.6	
35 Methyl tert-butyl ether	73	4.585	4.584	0.001	96	765940	100.0	100.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.993	4.991	0.002	91	271882	100.0	95.0	
37 1,1-Dichloroethane	63	5.199	5.198	0.001	96	386941	100.0	96.5	
38 Vinyl acetate	43	5.242	5.247	-0.005	97	481236	100.0	99.8	
42 2,2-Dichloropropane	77	5.942	5.946	-0.004	71	244089	100.0	98.3	
43 cis-1,2-Dichloroethene	96	5.948	5.946	0.002	85	231955	100.0	95.7	
44 2-Butanone (MEK)	43	5.954	5.952	0.002	94	180453	200.0	197.6	
48 Chlorobromomethane	128	6.234	6.238	-0.004	97	97630	100.0	98.2	
49 Tetrahydrofuran	42	6.258	6.257	0.001	83	155359	200.0	183.2	
50 Chloroform	83	6.374	6.372	0.002	96	379639	100.0	98.0	
51 1,1,1-Trichloroethane	97	6.544	6.542	0.002	97	306831	100.0	96.4	
52 Cyclohexane	56	6.623	6.622	0.001	88	374513	100.0	98.0	
53 Carbon tetrachloride	117	6.720	6.719	0.001	94	238253	100.0	98.0	
54 1,1-Dichloropropene	75	6.732	6.731	0.001	96	301032	100.0	97.7	
55 Isobutyl alcohol	41	6.909	6.908	0.001	93	212107	2500.0	2546.2	
56 Benzene	78	6.945	6.944	0.001	98	886979	100.0	97.5	
57 1,2-Dichloroethane	62	7.024	7.023	0.001	98	339774	100.0	98.3	
59 n-Heptane	43	7.310	7.315	-0.005	88	209022	100.0	95.1	
61 Trichloroethene	130	7.681	7.680	0.001	93	194700	100.0	99.0	
63 Methylcyclohexane	83	7.925	7.923	0.002	90	363050	100.0	98.0	
64 1,2-Dichloropropane	63	7.955	7.954	0.001	88	228950	100.0	95.5	
65 1,4-Dioxane	88	8.034	8.039	-0.005	51	43846	2000.0	1898.5	M
67 Dibromomethane	93	8.040	8.039	0.001	91	141515	100.0	97.4	
68 Dichlorobromomethane	83	8.235	8.234	0.001	99	286051	100.0	98.6	
71 cis-1,3-Dichloropropene	75	8.679	8.678	0.001	94	380296	100.0	99.1	
72 4-Methyl-2-pentanone (MIBK	43	8.831	8.830	0.001	95	506634	200.0	203.1	
73 Toluene	91	9.014	9.012	0.002	98	910104	100.0	94.3	
74 trans-1,3-Dichloropropene	75	9.257	9.256	0.001	95	343888	100.0	97.8	
75 Ethyl methacrylate	69	9.318	9.317	0.001	87	344058	100.0	97.7	
76 1,1,2-Trichloroethane	97	9.458	9.456	0.002	94	204111	100.0	97.1	
77 Tetrachloroethene	164	9.531	9.529	0.002	95	153046	100.0	96.3	
78 1,3-Dichloropropane	76	9.610	9.615	-0.005	91	388394	100.0	97.7	
79 2-Hexanone	43	9.665	9.663	0.002	94	294952	200.0	193.9	
81 Chlorodibromomethane	129	9.829	9.828	0.001	90	163091	100.0	98.6	
82 Ethylene Dibromide	107	9.945	9.943	0.002	98	192453	100.0	96.9	
83 3-Chlorobenzotrifluoride	180	10.401	10.399	0.002	93	286874	100.0	97.3	
84 Chlorobenzene	112	10.431	10.430	0.001	92	585932	100.0	96.1	
85 4-Chlorobenzotrifluoride	180	10.486	10.491	-0.005	97	272731	100.0	97.5	
86 1,1,1,2-Tetrachloroethane	131	10.522	10.527	-0.005	93	173217	100.0	97.0	
87 Ethylbenzene	106	10.535	10.533	0.002	99	326136	100.0	95.8	
88 m-Xylene & p-Xylene	106	10.662	10.661	0.001	99	416204	100.0	97.6	
89 o-Xylene	106	11.046	11.044	0.002	95	403574	100.0	97.6	
90 Styrene	104	11.064	11.063	0.002	94	665694	100.0	97.9	
91 Bromoform	173	11.246	11.251	-0.005	93	104771	100.0	99.1	
92 2-Chlorobenzotrifluoride	180	11.307	11.306	0.001	95	293892	100.0	98.8	
93 Isopropylbenzene	105	11.411	11.409	0.002	98	976791	100.0	97.2	
96 1,1,2,2-Tetrachloroethane	83	11.721	11.720	0.001	96	282941	100.0	98.1	
95 Bromobenzene	156	11.727	11.726	0.001	97	209662	100.0	96.2	
97 trans-1,4-Dichloro-2-buten	53	11.757	11.756	0.001	84	97726	100.0	97.6	
98 1,2,3-Trichloropropane	110	11.776	11.774	0.002	83	93411	100.0	97.5	
99 N-Propylbenzene	120	11.830	11.829	0.001	98	251809	100.0	95.8	
100 2-Chlorotoluene	126	11.916	11.914	0.002	94	212346	100.0	98.3	
101 3-Chlorotoluene	126	11.982	11.981	0.001	97	226403	100.0	96.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.013	12.012	0.001	94	820602	100.0	98.1	
103 4-Chlorotoluene	126	12.043	12.042	0.001	99	220038	100.0	96.6	
104 tert-Butylbenzene	119	12.329	12.328	0.001	90	637815	100.0	99.5	
106 1,2,4-Trimethylbenzene	105	12.384	12.389	-0.005	98	867967	100.0	99.1	
107 1,2-dichloro-4-(trifluorom	214	12.427	12.425	0.002	96	213219	100.0	96.7	
108 sec-Butylbenzene	105	12.554	12.553	0.001	96	963722	100.0	98.8	
109 1,3-Dichlorobenzene	146	12.670	12.669	0.001	93	408084	100.0	98.1	
110 4-Isopropyltoluene	119	12.706	12.711	-0.005	95	765296	100.0	99.2	
111 1,4-Dichlorobenzene	146	12.773	12.772	0.001	94	417041	100.0	97.0	
113 2,4-Dichloro-1-(triflourom	214	12.798	12.796	0.002	93	218417	100.0	100.1	
114 2,5-Dichlorobenzotrifluori	214	12.834	12.833	0.001	98	235142	100.0	100.0	
116 n-Butylbenzene	91	13.114	13.119	-0.005	98	773974	100.0	99.8	
117 1,2-Dichlorobenzene	146	13.126	13.125	0.001	94	407040	100.0	99.0	
118 1,2-Dibromo-3-Chloropropan	75	13.917	13.922	-0.005	72	62834	100.0	100.1	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.063	14.062	0.001	97	1059454	300.0	305.2	
121 2,3- & 3,4- Dichlorotoluen	125	14.477	14.481	-0.004	97	772795	200.0	203.0	
122 1,2,4-Trichlorobenzene	180	14.744	14.743	0.001	92	289639	100.0	100.5	
123 Hexachlorobutadiene	225	14.890	14.895	-0.005	96	94269	100.0	96.0	
124 Naphthalene	128	15.012	15.011	0.001	99	780358	100.0	102.3	
125 1,2,3-Trichlorobenzene	180	15.237	15.236	0.001	93	270622	100.0	100.1	
126 2,4,5-Trichlorotoluene	159	16.010	16.008	0.002	0	156693	100.0	91.7	
127 2,3,6-Trichlorotoluene	159	16.113	16.112	0.001	93	144312	100.0	93.1	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		200.0	194.3	
S 131 Xylenes, Total	106				0		200.0	195.2	
S 132 1,3-Dichloropropene, Total	1				0		200.0	196.9	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

voaWeemixPRI_00002	Amount Added:	4.00	Units: uL	
VOA8260VOAPRI_00114	Amount Added:	4.00	Units: uL	
voaWVA2ndRes_00001	Amount Added:	4.00	Units: uL	
voaWketPri Re_00005	Amount Added:	4.00	Units: uL	
VOA8260SURR_00034	Amount Added:	4.00	Units: uL	
VOAACROPRI_00005	Amount Added:	8.00	Units: uL	
VOA8260INT_00032	Amount Added:	2.00	Units: uL	Run Reagent

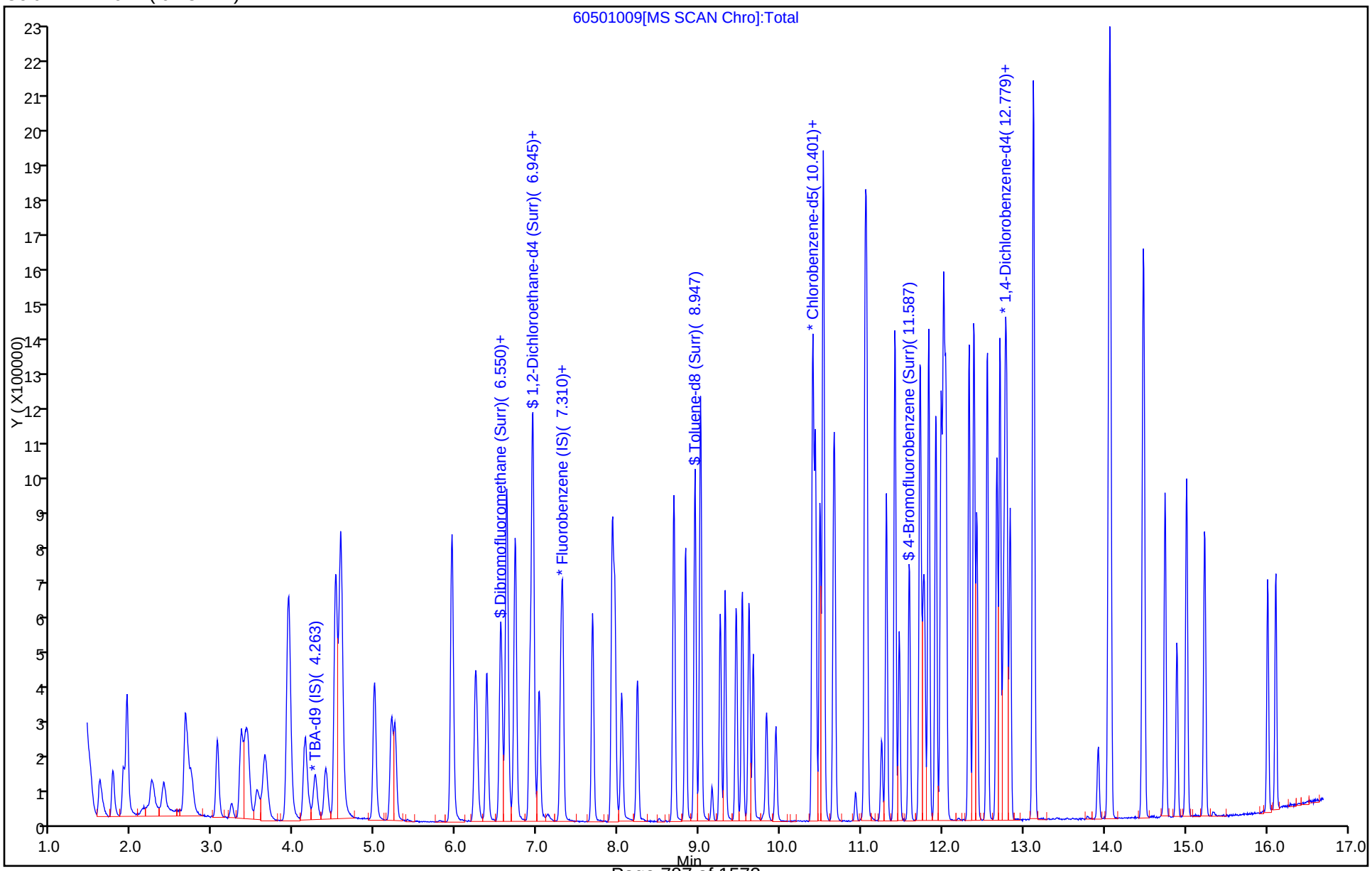
Report Date: 02-May-2015 11:01:06 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501009.D

Injection Date:	01-May-2015 15:31:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	IC VSTD20			Worklist Smp#:	9
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

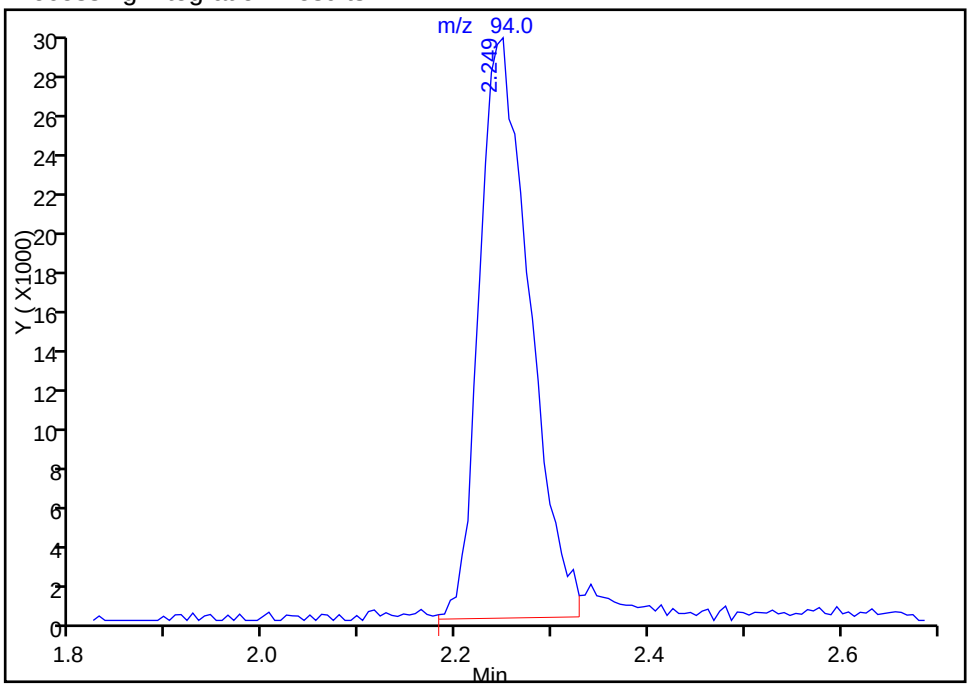
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501009.D				
Injection Date:	01-May-2015 15:31:30	Instrument ID:	CHHP6		
Lims ID:	IC VSTD20				
Client ID:					
Operator ID:	001562	ALS Bottle#:	7	Worklist Smp#:	9
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

15 Bromomethane, CAS: 74-83-9

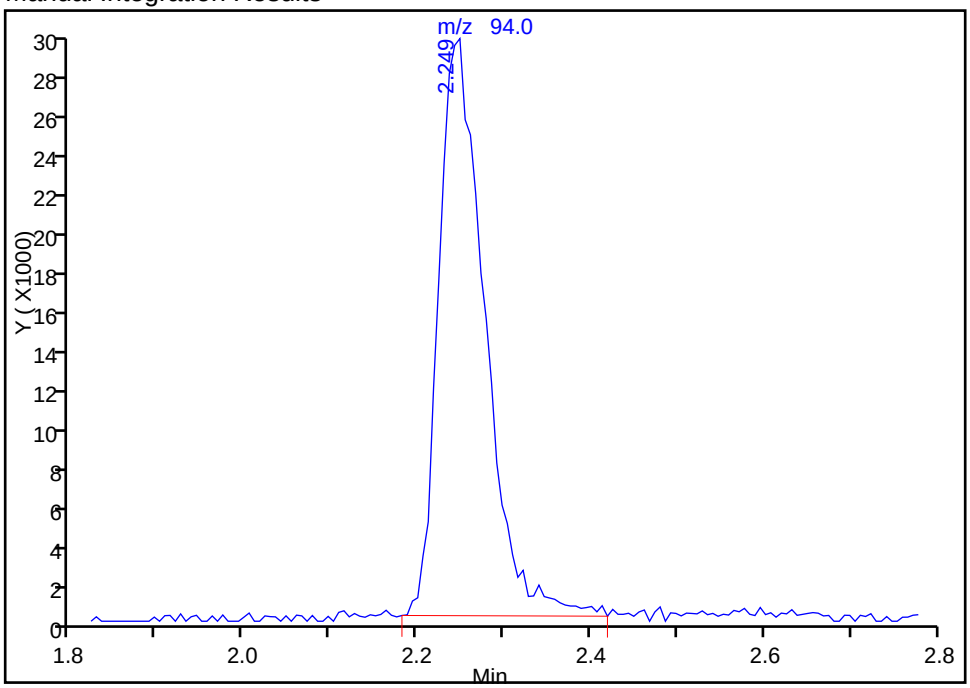
Processing Integration Results

RT: 2.25
Area: 107353
Amount: 92.473255
Amount Units: ng



Manual Integration Results

RT: 2.25
Area: 109446
Amount: 94.064168
Amount Units: ng



Reviewer: fergusond, 02-May-2015 10:49:03
Audit Action: Manually Integrated
Audit Reason: Baseline

Manual Integration/User Assign Peak Report

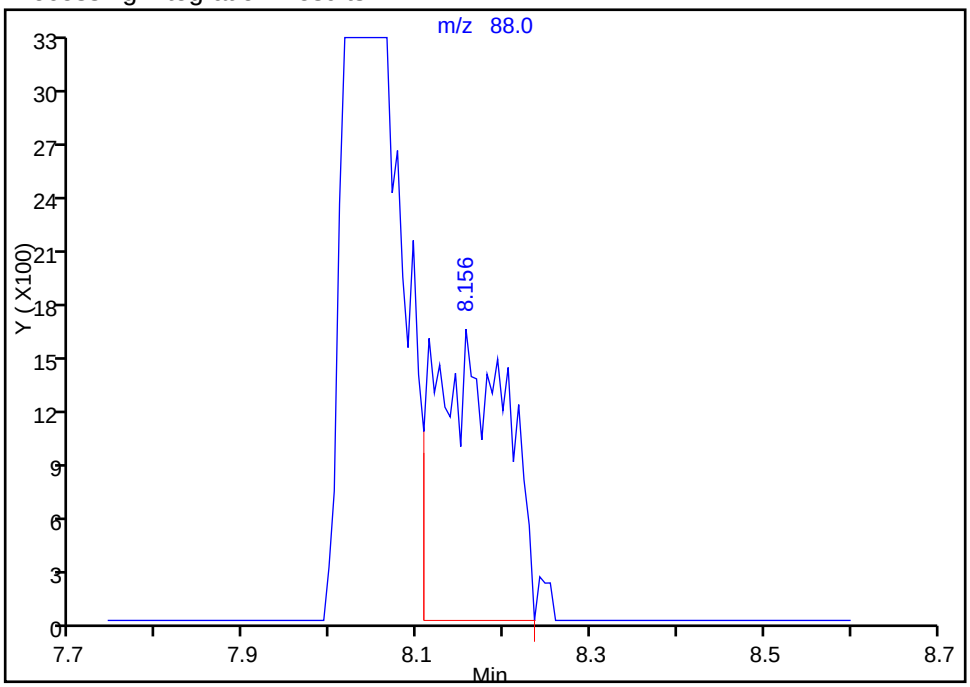
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501009.D
Injection Date: 01-May-2015 15:31:30 Instrument ID: CHHP6
Lims ID: IC VSTD20
Client ID:
Operator ID: 001562 ALS Bottle#: 7 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

65 1,4-Dioxane, CAS: 123-91-1

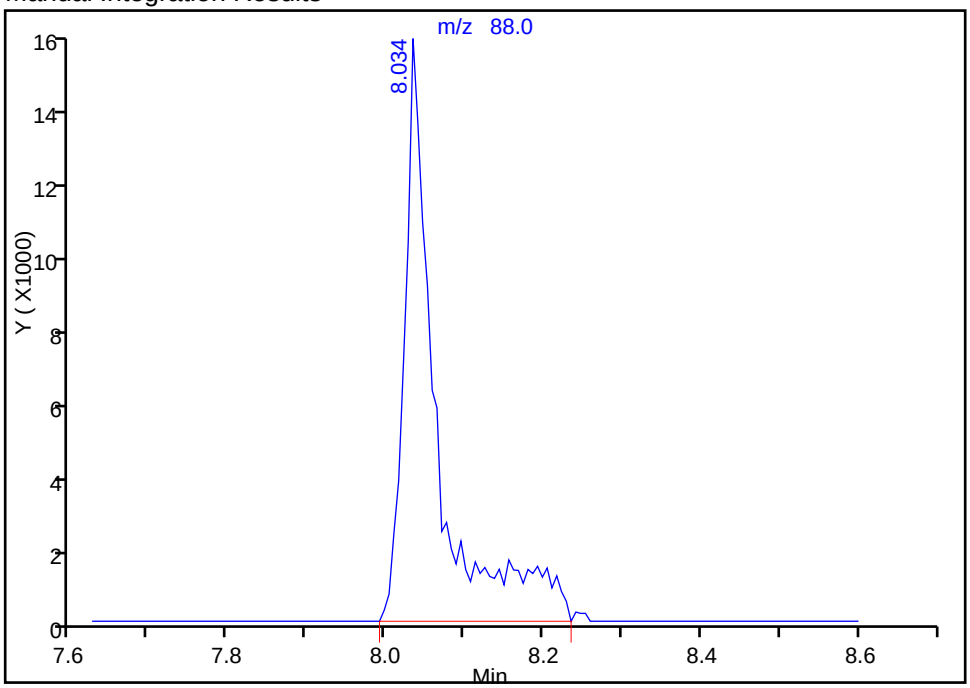
Processing Integration Results

RT: 8.16
Area: 9186
Amount: 478.7433
Amount Units: ng



Manual Integration Results

RT: 8.03
Area: 43846
Amount: 1898.5105
Amount Units: ng



Reviewer: fergusond, 02-May-2015 10:49:03
Audit Action: Manually Integrated
Audit Reason: Peak Tail

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501010.D
Lims ID: IC VSTD35
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 01-May-2015 15:56:30 ALS Bottle#: 8 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD35
Misc. Info.: 180-0006721-010
Operator ID: 001562 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub5

Method: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 02-May-2015 10:57:11 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK027

First Level Reviewer: fergusond Date: 02-May-2015 10:57:11

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.259	4.255	0.004	99	214871	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.295	7.291	0.004	98	397215	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.403	10.405	-0.002	89	90562	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.751	12.748	0.003	94	124575	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.558	6.555	0.003	92	286117	175.0	174.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.936	6.938	-0.002	74	468642	175.0	170.7	
$ 7 Toluene-d8 (Surr)	98	8.943	8.945	-0.002	94	1196797	175.0	156.2	
$ 8 4-Bromofluorobenzene (Surr	95	11.590	11.592	-0.002	80	506432	175.0	162.1	
11 Dichlorodifluoromethane	85	1.607	1.603	0.004	100	393068	175.0	162.0	
12 Chloromethane	50	1.759	1.755	0.004	99	322970	175.0	160.2	
13 Vinyl chloride	62	1.899	1.889	0.010	98	348129	175.0	162.1	
14 Butadiene	39	1.935	1.931	0.004	92	311831	175.0	152.1	
15 Bromomethane	94	2.257	2.229	0.028	92	183599	175.0	164.2	
16 Chloroethane	64	2.391	2.381	0.010	99	224025	175.0	165.6	
17 Dichlorofluoromethane	67	2.659	2.655	0.004	97	522769	175.0	160.0	
18 Trichlorofluoromethane	101	2.695	2.692	0.003	98	406408	175.0	163.7	
20 Ethyl ether	59	3.048	3.051	-0.003	89	321282	175.0	173.4	
21 Acrolein	56	3.231	3.227	0.004	99	74857	225.0	227.6	M
22 1,1-Dichloroethene	96	3.340	3.343	-0.003	98	298478	175.0	162.3	
23 1,1,2-Trichloro-1,2,2-trif	101	3.407	3.403	0.004	97	301559	175.0	162.4	
24 Acetone	43	3.432	3.440	-0.008	100	181333	350.0	344.0	
25 Iodomethane	142	3.541	3.543	-0.002	99	395139	175.0	168.0	
26 Carbon disulfide	76	3.638	3.641	-0.003	100	874906	175.0	162.4	
29 3-Chloro-1-propene	76	3.924	3.914	0.010	89	217864	175.0	168.8	
30 Methyl acetate	43	3.937	3.939	-0.003	96	1531708	875.0	880.1	
31 Methylene Chloride	84	4.131	4.133	-0.002	91	379527	175.0	170.0	
32 2-Methyl-2-propanol	59	4.387	4.389	-0.002	99	437766	1750.0	1870.2	
33 Acrylonitrile	53	4.514	4.511	0.003	98	1611348	1750.0	1814.1	
34 trans-1,2-Dichloroethene	96	4.569	4.565	0.004	97	341011	175.0	166.4	
35 Methyl tert-butyl ether	73	4.581	4.584	-0.003	95	1295877	175.0	176.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.989	4.991	-0.002	91	449492	175.0	163.5	
37 1,1-Dichloroethane	63	5.202	5.198	0.004	97	650535	175.0	168.8	
38 Vinyl acetate	43	5.244	5.247	-0.003	97	761767	175.0	164.4	
42 2,2-Dichloropropane	77	5.944	5.946	-0.002	64	393550	175.0	164.9	
43 cis-1,2-Dichloroethene	96	5.944	5.946	-0.002	83	387653	175.0	166.4	
44 2-Butanone (MEK)	43	5.956	5.952	0.004	97	312233	350.0	355.8	
48 Chlorobromomethane	128	6.236	6.238	-0.002	97	163837	175.0	171.4	
49 Tetrahydrofuran	42	6.248	6.257	-0.009	84	277320	350.0	340.3	
50 Chloroform	83	6.376	6.372	0.004	96	631187	175.0	169.6	
51 1,1,1-Trichloroethane	97	6.546	6.542	0.004	98	514270	175.0	168.1	
52 Cyclohexane	56	6.625	6.622	0.003	93	599552	175.0	163.3	
53 Carbon tetrachloride	117	6.717	6.719	-0.002	96	387561	175.0	166.0	
54 1,1-Dichloropropene	75	6.729	6.731	-0.002	96	488097	175.0	164.9	
55 Isobutyl alcohol	41	6.911	6.908	0.003	92	348172	4375.0	4349.3	
56 Benzene	78	6.948	6.944	0.004	98	1442452	175.0	165.1	
57 1,2-Dichloroethane	62	7.021	7.023	-0.002	98	589729	175.0	177.6	
59 n-Heptane	43	7.313	7.315	-0.002	88	335663	175.0	158.9	
61 Trichloroethene	130	7.684	7.680	0.004	93	317378	175.0	167.9	
63 Methylcyclohexane	83	7.927	7.923	0.004	90	583932	175.0	164.0	
64 1,2-Dichloropropane	63	7.958	7.954	0.004	94	386326	175.0	219.8	
65 1,4-Dioxane	88	8.037	8.039	-0.002	36	75662	3500.0	3687.2	
67 Dibromomethane	93	8.043	8.039	0.004	90	243858	175.0	174.7	
68 Dichlorobromomethane	83	8.231	8.234	-0.003	99	493846	175.0	177.1	
71 cis-1,3-Dichloropropene	75	8.682	8.678	0.004	94	649830	175.0	176.1	
72 4-Methyl-2-pentanone (MIBK	43	8.828	8.830	-0.002	94	852834	350.0	351.4	
73 Toluene	91	9.016	9.012	0.004	98	1469166	175.0	156.4	
74 trans-1,3-Dichloropropene	75	9.260	9.256	0.004	95	588746	175.0	172.2	
75 Ethyl methacrylate	69	9.320	9.317	0.003	87	607621	175.0	177.4	
76 1,1,2-Trichloroethane	97	9.454	9.456	-0.002	93	347762	175.0	170.1	
77 Tetrachloroethene	164	9.533	9.529	0.004	95	247215	175.0	160.0	
78 1,3-Dichloropropane	76	9.612	9.615	-0.003	91	657365	175.0	170.0	
79 2-Hexanone	43	9.661	9.663	-0.002	94	518554	350.0	350.4	
81 Chlorodibromomethane	129	9.831	9.828	0.003	88	288883	175.0	179.5	
82 Ethylene Dibromide	107	9.947	9.943	0.004	98	335705	175.0	173.7	
83 3-Chlorobenzotrifluoride	180	10.397	10.399	-0.002	91	463604	175.0	161.6	
84 Chlorobenzene	112	10.434	10.430	0.004	92	956397	175.0	161.3	
85 4-Chlorobenzotrifluoride	180	10.488	10.491	-0.003	95	438815	175.0	161.2	
86 1,1,1,2-Tetrachloroethane	131	10.525	10.527	-0.002	93	295523	175.0	170.0	
87 Ethylbenzene	106	10.531	10.533	-0.002	99	548629	175.0	165.6	
88 m-Xylene & p-Xylene	106	10.665	10.661	0.004	98	679172	175.0	163.7	
89 o-Xylene	106	11.042	11.044	-0.002	95	658013	175.0	163.5	
90 Styrene	104	11.066	11.063	0.004	93	1097806	175.0	165.9	
91 Bromoform	173	11.249	11.251	-0.002	91	188498	175.0	183.2	
92 2-Chlorobenzotrifluoride	180	11.310	11.306	0.004	94	466230	175.0	161.0	
93 Isopropylbenzene	105	11.413	11.409	0.004	98	1509094	175.0	154.3	
96 1,1,2,2-Tetrachloroethane	83	11.717	11.720	-0.003	97	473696	175.0	168.7	
95 Bromobenzene	156	11.729	11.726	0.003	98	351137	175.0	173.8	
97 trans-1,4-Dichloro-2-buten	53	11.754	11.756	-0.002	88	170289	175.0	183.5	
98 1,2,3-Trichloropropane	110	11.778	11.774	0.004	84	164103	175.0	184.8	
99 N-Propylbenzene	120	11.833	11.829	0.004	98	417057	175.0	171.2	
100 2-Chlorotoluene	126	11.918	11.914	0.004	93	341443	175.0	170.5	
101 3-Chlorotoluene	126	11.985	11.981	0.004	97	383186	175.0	175.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.015	12.012	0.003	95	1293117	175.0	166.8	
103 4-Chlorotoluene	126	12.040	12.042	-0.002	100	358037	175.0	169.5	
104 tert-Butylbenzene	119	12.326	12.328	-0.002	90	987056	175.0	166.1	
106 1,2,4-Trimethylbenzene	105	12.386	12.389	-0.003	99	1357258	175.0	167.2	
107 1,2-dichloro-4-(trifluorom	214	12.423	12.425	-0.002	96	343227	175.0	167.9	
108 sec-Butylbenzene	105	12.551	12.553	-0.002	96	1491702	175.0	165.0	
109 1,3-Dichlorobenzene	146	12.672	12.669	0.003	92	654979	175.0	169.8	
110 4-Isopropyltoluene	119	12.709	12.711	-0.002	94	1186196	175.0	165.9	
111 1,4-Dichlorobenzene	146	12.776	12.772	0.004	86	665067	175.0	166.9	
113 2,4-Dichloro-1-(triflourom	214	12.794	12.796	-0.002	94	324649	175.0	160.4	
114 2,5-Dichlorobenzotrifluori	214	12.837	12.833	0.004	98	387822	175.0	178.9	
116 n-Butylbenzene	91	13.116	13.119	-0.003	97	1176426	175.0	163.6	
117 1,2-Dichlorobenzene	146	13.129	13.125	0.004	89	650565	175.0	170.6	
118 1,2-Dibromo-3-Chloropropan	75	13.919	13.922	-0.003	73	109457	175.0	188.2	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.065	14.062	0.003	96	1577392	525.0	490.1	
121 2,3- & 3,4- Dichlorotoluen	125	14.479	14.481	-0.002	96	1157594	350.0	328.1	
122 1,2,4-Trichlorobenzene	180	14.747	14.743	0.004	92	437105	175.0	163.6	
123 Hexachlorobutadiene	225	14.893	14.895	-0.002	96	142741	175.0	156.8	
124 Naphthalene	128	15.008	15.011	-0.003	99	1186321	175.0	167.8	
125 1,2,3-Trichlorobenzene	180	15.234	15.236	-0.002	92	402043	175.0	160.4	
126 2,4,5-Trichlorotoluene	159	16.012	16.008	0.004	0	238660	175.0	150.6	
127 2,3,6-Trichlorotoluene	159	16.110	16.112	-0.002	92	215650	175.0	150.0	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		350.0	332.8	
S 131 Xylenes, Total	106				0		350.0	327.3	
S 132 1,3-Dichloropropene, Total	1				0		350.0	348.3	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOAACROPRI_00005	Amount Added:	9.00	Units: uL	
voaWeemixPRI_00002	Amount Added:	7.00	Units: uL	
VOA8260VOAPRI_00114	Amount Added:	7.00	Units: uL	
voaWVA2ndRes_00001	Amount Added:	7.00	Units: uL	
voaWketPri Re_00005	Amount Added:	7.00	Units: uL	
VOA8260SURR_00034	Amount Added:	7.00	Units: uL	
VOA8260INT_00032	Amount Added:	2.00	Units: uL	Run Reagent

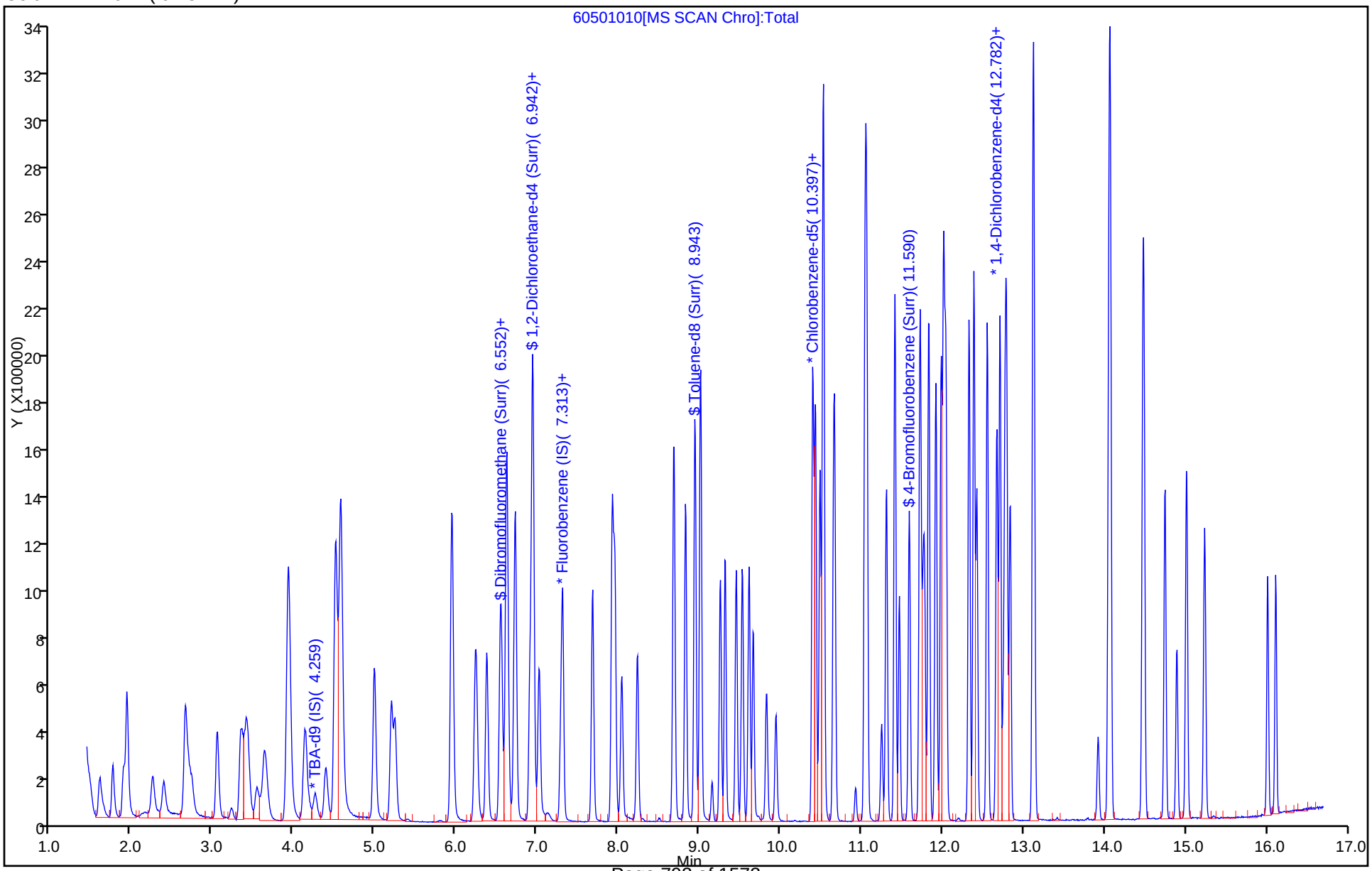
Report Date: 02-May-2015 10:57:12 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501010.D

Injection Date:	01-May-2015 15:56:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	IC VSTD35			Worklist Smp#:	10
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

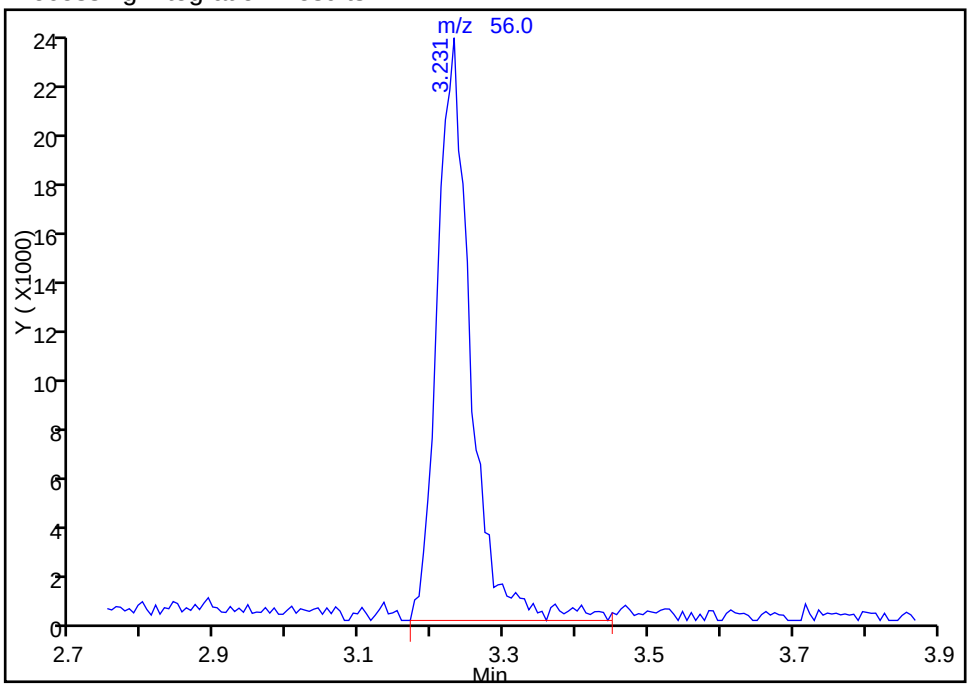
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501010.D				
Injection Date:	01-May-2015 15:56:30	Instrument ID:	CHHP6		
Lims ID:	IC VSTD35				
Client ID:					
Operator ID:	001562	ALS Bottle#:	8	Worklist Smp#:	10
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

21 Acrolein, CAS: 107-02-8

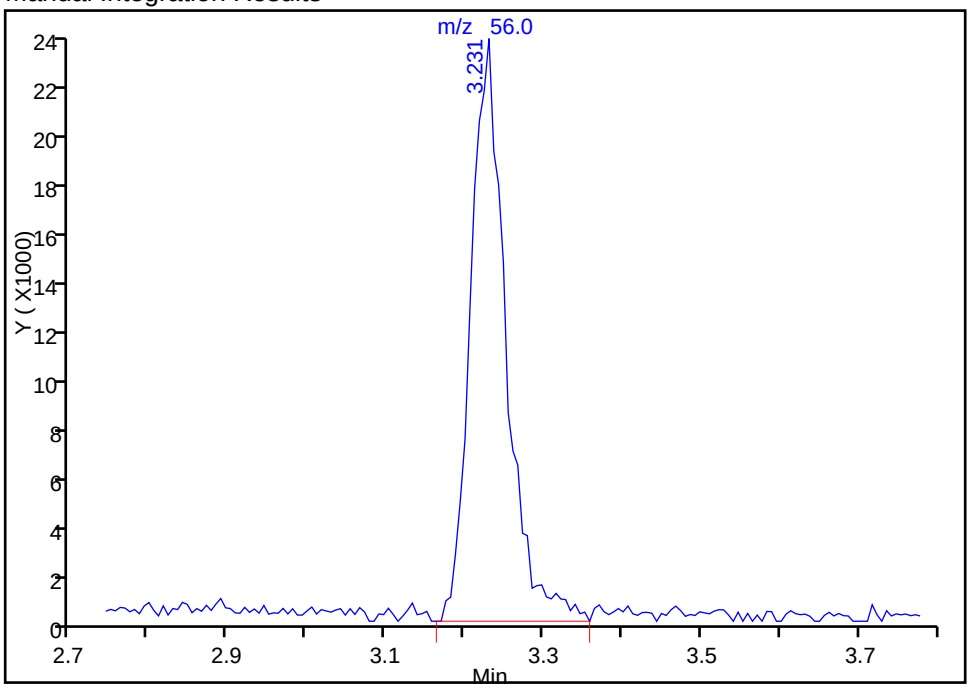
Processing Integration Results

RT: 3.23
Area: 76920
Amount: 233.0790
Amount Units: ng



Manual Integration Results

RT: 3.23
Area: 74857
Amount: 227.6183
Amount Units: ng



Reviewer: fergusond, 02-May-2015 10:57:11
Audit Action: Manually Integrated
Audit Reason: Peak Tail

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501011.D
Lims ID: IC VSTD40
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 01-May-2015 16:20:30 ALS Bottle#: 9 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD40
Misc. Info.: 180-0006721-011
Operator ID: 001562 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub5

Method: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 02-May-2015 11:00:33 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK027

First Level Reviewer: fergusond Date: 02-May-2015 11:00:33

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.268	4.255	0.013	100	194509	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.292	7.291	0.001	98	413723	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.400	10.405	-0.005	89	97915	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.749	12.748	0.001	95	126587	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.556	6.555	0.001	92	328982	200.0	192.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.933	6.938	-0.005	80	537741	200.0	188.0	
$ 7 Toluene-d8 (Surr)	98	8.947	8.945	0.001	94	1399177	200.0	168.9	
$ 8 4-Bromofluorobenzene (Surr	95	11.587	11.592	-0.005	80	584398	200.0	173.0	
11 Dichlorodifluoromethane	85	1.598	1.603	-0.005	100	499728	200.0	197.8	
12 Chloromethane	50	1.756	1.755	0.001	99	398212	200.0	189.6	
13 Vinyl chloride	62	1.896	1.889	0.007	99	444140	200.0	198.6	
14 Butadiene	39	1.932	1.931	0.001	91	404201	200.0	189.3	
15 Bromomethane	94	2.243	2.229	0.014	92	230594	200.0	198.0	
16 Chloroethane	64	2.382	2.381	0.001	99	281244	200.0	199.6	
17 Dichlorofluoromethane	67	2.650	2.655	-0.005	98	664016	200.0	195.1	
18 Trichlorofluoromethane	101	2.693	2.692	0.001	98	500291	200.0	193.5	
20 Ethyl ether	59	3.052	3.051	0.001	89	341678	200.0	177.1	
21 Acrolein	56	3.222	3.227	-0.005	98	79297	250.0	231.5	
22 1,1-Dichloroethene	96	3.344	3.343	0.001	99	368258	200.0	192.2	
23 1,1,2-Trichloro-1,2,2-trif	101	3.404	3.403	0.001	97	375445	200.0	194.1	
24 Acetone	43	3.435	3.440	-0.005	100	187221	400.0	341.0	
25 Iodomethane	142	3.544	3.543	0.001	100	480425	200.0	196.1	
26 Carbon disulfide	76	3.642	3.641	0.001	100	1101219	200.0	196.2	
29 3-Chloro-1-propene	76	3.915	3.914	0.001	89	263380	200.0	195.9	
30 Methyl acetate	43	3.940	3.939	0.001	96	1680076	1000.0	926.8	
31 Methylene Chloride	84	4.134	4.133	0.001	91	440482	200.0	189.4	
32 2-Methyl-2-propanol	59	4.396	4.389	0.007	99	423693	2000.0	1999.6	
33 Acrylonitrile	53	4.512	4.511	0.001	98	1701239	2000.0	1838.8	
34 trans-1,2-Dichloroethene	96	4.566	4.565	0.001	97	413336	200.0	193.6	
35 Methyl tert-butyl ether	73	4.585	4.584	0.001	96	1477234	200.0	192.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.992	4.991	0.001	92	563934	200.0	196.9	
37 1,1-Dichloroethane	63	5.199	5.198	0.001	96	777143	200.0	193.6	
38 Vinyl acetate	43	5.248	5.247	0.001	97	890652	200.0	184.6	
42 2,2-Dichloropropane	77	5.947	5.946	0.001	65	480936	200.0	193.5	
43 cis-1,2-Dichloroethene	96	5.947	5.946	0.001	83	460452	200.0	189.7	
44 2-Butanone (MEK)	43	5.953	5.952	0.001	99	327104	400.0	357.9	
48 Chlorobromomethane	128	6.233	6.238	-0.005	97	182772	200.0	183.6	
49 Tetrahydrofuran	42	6.252	6.257	-0.005	85	303387	400.0	357.4	
50 Chloroform	83	6.379	6.372	0.007	96	744366	200.0	192.1	
51 1,1,1-Trichloroethane	97	6.544	6.542	0.002	98	632812	200.0	198.6	
52 Cyclohexane	56	6.623	6.622	0.001	92	746051	200.0	195.1	
53 Carbon tetrachloride	117	6.720	6.719	0.001	96	488872	200.0	201.0	
54 1,1-Dichloropropene	75	6.732	6.731	0.001	96	610679	200.0	198.1	
55 Isobutyl alcohol	41	6.909	6.908	0.001	93	339375	5000.0	4070.3	
56 Benzene	78	6.945	6.944	0.001	98	1687761	200.0	185.4	
57 1,2-Dichloroethane	62	7.024	7.023	0.001	98	669830	200.0	193.7	
59 n-Heptane	43	7.310	7.315	-0.005	88	427101	200.0	194.1	
61 Trichloroethene	130	7.681	7.680	0.001	93	380219	200.0	193.1	
63 Methylcyclohexane	83	7.924	7.923	0.001	90	731561	200.0	197.3	
64 1,2-Dichloropropane	63	7.955	7.954	0.001	87	455627	200.0	215.4	
65 1,4-Dioxane	88	8.040	8.039	0.001	75	85036	4000.0	3678.7	M
67 Dibromomethane	93	8.040	8.039	0.001	91	278635	200.0	191.7	
68 Dichlorobromomethane	83	8.235	8.234	0.001	99	577215	200.0	198.8	
71 cis-1,3-Dichloropropene	75	8.679	8.678	0.001	94	755309	200.0	196.5	
72 4-Methyl-2-pentanone (MIBK	43	8.831	8.830	0.001	93	957320	400.0	364.8	
73 Toluene	91	9.013	9.012	0.001	97	1712971	200.0	168.7	
74 trans-1,3-Dichloropropene	75	9.257	9.256	0.001	95	675791	200.0	182.8	
75 Ethyl methacrylate	69	9.318	9.317	0.001	87	677036	200.0	182.8	
76 1,1,2-Trichloroethane	97	9.458	9.456	0.002	94	396004	200.0	179.2	
77 Tetrachloroethene	164	9.531	9.529	0.002	95	303279	200.0	181.5	
78 1,3-Dichloropropane	76	9.616	9.615	0.001	91	744014	200.0	177.9	
79 2-Hexanone	43	9.664	9.663	0.001	94	581725	400.0	363.6	
81 Chlorodibromomethane	129	9.829	9.828	0.001	90	331360	200.0	190.4	
82 Ethylene Dibromide	107	9.944	9.943	0.001	98	376974	200.0	180.4	
83 3-Chlorobenzotrifluoride	180	10.400	10.399	0.001	91	577854	200.0	186.3	
84 Chlorobenzene	112	10.431	10.430	0.001	91	1106916	200.0	172.7	
85 4-Chlorobenzotrifluoride	180	10.486	10.491	-0.005	96	550514	200.0	187.0	
86 1,1,1,2-Tetrachloroethane	131	10.528	10.527	0.001	93	348221	200.0	185.3	
87 Ethylbenzene	106	10.534	10.533	0.001	98	649357	200.0	181.3	
88 m-Xylene & p-Xylene	106	10.662	10.661	0.001	98	799744	200.0	178.3	
89 o-Xylene	106	11.045	11.044	0.001	96	771182	200.0	177.3	
90 Styrene	104	11.064	11.063	0.002	93	1254290	200.0	175.3	
91 Bromoform	173	11.246	11.251	-0.005	91	212157	200.0	190.7	
92 2-Chlorobenzotrifluoride	180	11.307	11.306	0.001	93	573355	200.0	183.1	
93 Isopropylbenzene	105	11.410	11.409	0.001	98	1796814	200.0	169.9	
96 1,1,2,2-Tetrachloroethane	83	11.721	11.720	0.001	97	530388	200.0	174.8	
95 Bromobenzene	156	11.727	11.726	0.001	98	402872	200.0	196.2	
97 trans-1,4-Dichloro-2-buten	53	11.757	11.756	0.001	89	197280	200.0	209.2	
98 1,2,3-Trichloropropane	110	11.775	11.774	0.001	85	182497	200.0	202.2	
99 N-Propylbenzene	120	11.830	11.829	0.001	98	495397	200.0	200.1	
100 2-Chlorotoluene	126	11.915	11.914	0.001	93	401659	200.0	197.4	
101 3-Chlorotoluene	126	11.982	11.981	0.001	97	450187	200.0	203.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.013	12.012	0.001	94	1522884	200.0	193.3	
103 4-Chlorotoluene	126	12.037	12.042	-0.005	100	420291	200.0	195.8	
104 tert-Butylbenzene	119	12.329	12.328	0.001	90	1188495	200.0	196.9	
106 1,2,4-Trimethylbenzene	105	12.390	12.389	0.001	99	1567584	200.0	190.0	
107 1,2-dichloro-4-(trifluorom	214	12.426	12.425	0.001	96	422746	200.0	203.5	
108 sec-Butylbenzene	105	12.554	12.553	0.001	96	1764994	200.0	192.1	
109 1,3-Dichlorobenzene	146	12.670	12.669	0.001	92	760032	200.0	193.9	
110 4-Isopropyltoluene	119	12.706	12.711	-0.005	94	1403979	200.0	193.3	
111 1,4-Dichlorobenzene	146	12.773	12.772	0.001	94	773327	200.0	190.9	
113 2,4-Dichloro-1-(triflourom	214	12.797	12.796	0.001	96	421311	200.0	204.9	
114 2,5-Dichlorobenzotrifluori	214	12.834	12.833	0.001	98	441248	200.0	199.2	
116 n-Butylbenzene	91	13.114	13.119	-0.005	96	1394081	200.0	190.8	
117 1,2-Dichlorobenzene	146	13.126	13.125	0.001	94	730064	200.0	188.4	
118 1,2-Dibromo-3-Chloropropan	75	13.917	13.922	-0.005	72	114309	200.0	193.4	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.063	14.062	0.001	95	1760189	600.0	538.2	
121 2,3- & 3,4- Dichlorotoluen	125	14.482	14.481	0.001	97	1257444	400.0	350.7	
122 1,2,4-Trichlorobenzene	180	14.744	14.743	0.001	92	458809	200.0	169.0	
123 Hexachlorobutadiene	225	14.890	14.895	-0.005	96	160877	200.0	173.9	
124 Naphthalene	128	15.012	15.011	0.001	99	1205925	200.0	167.8	
125 1,2,3-Trichlorobenzene	180	15.231	15.236	-0.005	92	411642	200.0	161.6	
126 2,4,5-Trichlorotoluene	159	16.009	16.008	0.001	0	303439	200.0	188.5	
127 2,3,6-Trichlorotoluene	159	16.113	16.112	0.001	91	270492	200.0	185.2	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		400.0	383.4	
S 131 Xylenes, Total	106				0		400.0	355.6	
S 132 1,3-Dichloropropene, Total	1				0		400.0	379.4	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOAACROPRI_00005	Amount Added:	10.00	Units: uL	
voaWeemixPRI_00002	Amount Added:	8.00	Units: uL	
VOA8260VOAPRI_00114	Amount Added:	8.00	Units: uL	
voaWVA2ndRes_00001	Amount Added:	8.00	Units: uL	
voaWketPri Re_00005	Amount Added:	8.00	Units: uL	
VOA8260SURR_00034	Amount Added:	8.00	Units: uL	
VOA8260INT_00032	Amount Added:	2.00	Units: uL	Run Reagent

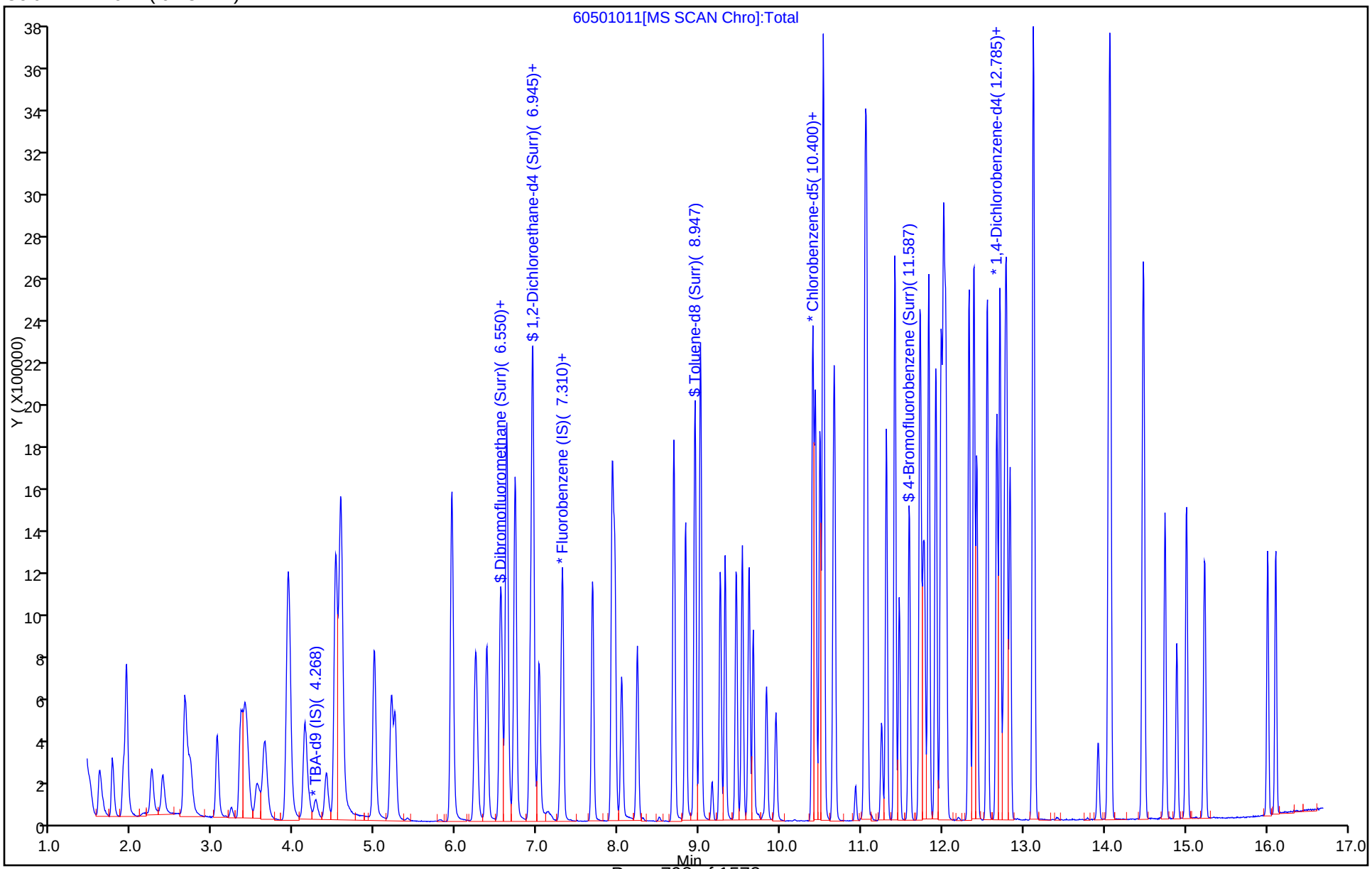
Report Date: 02-May-2015 11:00:33 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501011.D

Injection Date:	01-May-2015 16:20:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	IC VSTD40			Worklist Smp#:	11
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

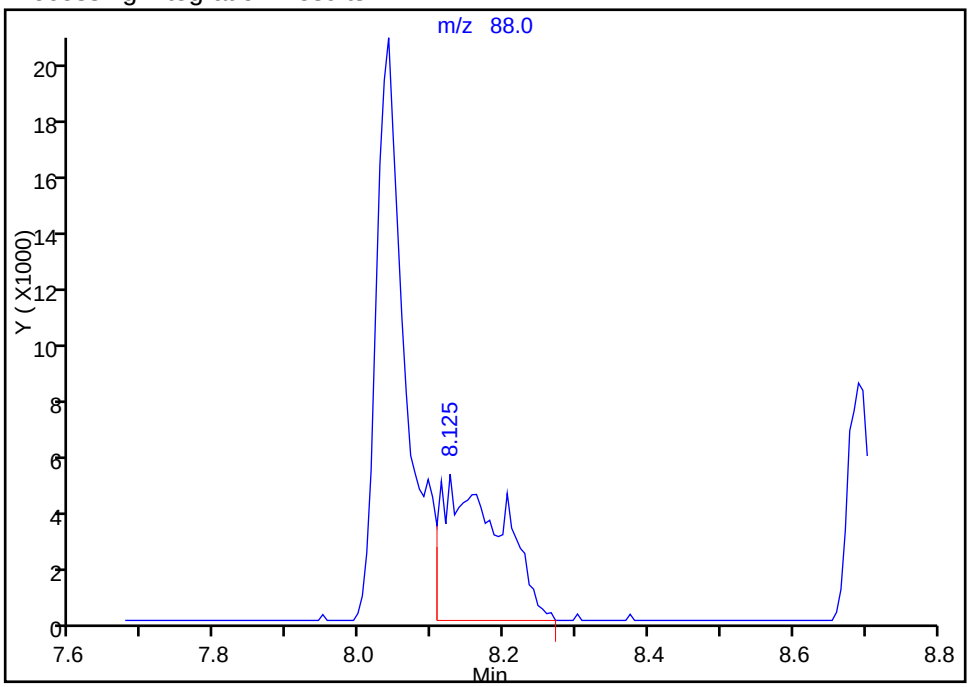
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501011.D
Injection Date: 01-May-2015 16:20:30 Instrument ID: CHHP6
Lims ID: IC VSTD40
Client ID:
Operator ID: 001562 ALS Bottle#: 9 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

65 1,4-Dioxane, CAS: 123-91-1

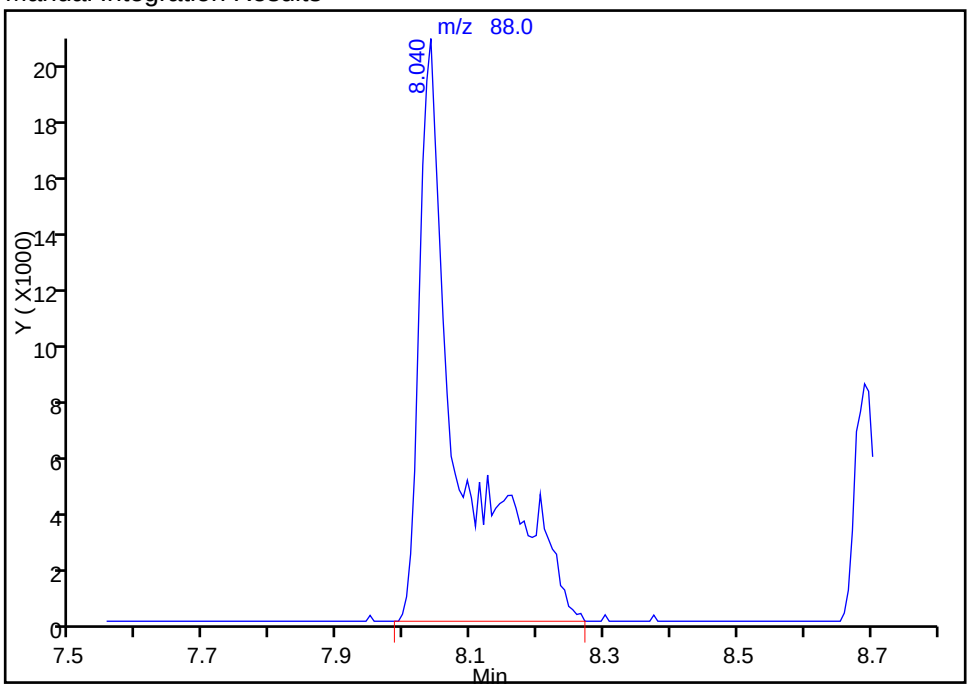
Processing Integration Results

RT: 8.13
Area: 29275
Amount: 1369.7024
Amount Units: ng



Manual Integration Results

RT: 8.04
Area: 85036
Amount: 3678.6979
Amount Units: ng



Reviewer: fergusond, 02-May-2015 11:00:33
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D
Lims ID: IC VSTD50
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 01-May-2015 16:46:30 ALS Bottle#: 10 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD50
Misc. Info.: 180-0006721-012
Operator ID: 001562 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub5

Method: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 02-May-2015 11:05:36 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK027

First Level Reviewer: fergusond Date: 02-May-2015 11:05:36

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.266	4.255	0.011	100	237620	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.290	7.291	-0.001	98	405351	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.405	-0.007	89	97849	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.753	12.748	0.005	92	126816	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.560	6.555	0.005	91	407664	250.0	243.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.937	6.938	-0.001	80	677859	250.0	241.9	
$ 7 Toluene-d8 (Surr)	98	8.944	8.945	-0.001	94	1696172	250.0	204.9	
$ 8 4-Bromofluorobenzene (Surr	95	11.591	11.592	-0.001	80	724215	250.0	214.6	
11 Dichlorodifluoromethane	85	1.602	1.603	-0.001	99	575476	250.0	232.4	
12 Chloromethane	50	1.760	1.755	0.005	99	478453	250.0	232.5	
13 Vinyl chloride	62	1.900	1.889	0.011	97	517720	250.0	236.3	
14 Butadiene	39	1.936	1.931	0.005	90	464004	250.0	221.8	
15 Bromomethane	94	2.253	2.229	0.024	92	272991	250.0	239.3	
16 Chloroethane	64	2.386	2.381	0.005	99	315384	250.0	228.4	
17 Dichlorofluoromethane	67	2.654	2.655	-0.001	97	753551	250.0	226.0	
18 Trichlorofluoromethane	101	2.691	2.692	-0.001	98	577522	250.0	228.0	
20 Ethyl ether	59	3.050	3.051	-0.001	90	451701	250.0	239.0	
21 Acrolein	56	3.226	3.227	-0.001	98	92403	275.0	275.3	
22 1,1-Dichloroethene	96	3.348	3.343	0.005	98	444270	250.0	236.7	
23 1,1,2-Trichloro-1,2,2-trif	101	3.409	3.403	0.005	97	444261	250.0	234.4	
24 Acetone	43	3.439	3.440	-0.001	100	285567	500.0	530.8	
25 Iodomethane	142	3.567	3.543	0.024	99	569324	250.0	237.2	
26 Carbon disulfide	76	3.640	3.641	-0.001	100	1262586	250.0	229.6	
29 3-Chloro-1-propene	76	3.913	3.914	-0.001	89	320994	250.0	243.7	
30 Methyl acetate	43	3.938	3.939	-0.001	96	2131842	1250.0	1200.3	
31 Methylene Chloride	84	4.139	4.133	0.006	91	538163	250.0	236.2	
32 2-Methyl-2-propanol	59	4.394	4.389	0.005	98	561100	2500.0	2167.6	
33 Acrylonitrile	53	4.516	4.511	0.005	98	2190199	2500.0	2416.2	
34 trans-1,2-Dichloroethene	96	4.564	4.565	-0.001	97	489846	250.0	234.2	
35 Methyl tert-butyl ether	73	4.583	4.584	-0.001	96	1827456	250.0	243.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	4.990	4.991	-0.001	91	655934	250.0	233.8	
37 1,1-Dichloroethane	63	5.197	5.198	-0.001	97	932123	250.0	237.0	
38 Vinyl acetate	43	5.246	5.247	-0.001	97	1164902	250.0	246.4	
42 2,2-Dichloropropane	77	5.945	5.946	-0.001	63	543470	250.0	223.2	
43 cis-1,2-Dichloroethene	96	5.945	5.946	-0.001	84	552410	250.0	232.3	
44 2-Butanone (MEK)	43	5.957	5.952	0.005	98	473847	500.0	529.1	
48 Chlorobromomethane	128	6.231	6.238	-0.007	97	230583	250.0	236.4	
49 Tetrahydrofuran	42	6.256	6.257	-0.001	84	397850	500.0	478.4	
50 Chloroform	83	6.377	6.372	0.005	96	898092	250.0	236.5	
51 1,1,1-Trichloroethane	97	6.541	6.542	-0.001	97	747775	250.0	239.5	
52 Cyclohexane	56	6.621	6.622	-0.001	89	856768	250.0	228.7	
53 Carbon tetrachloride	117	6.718	6.719	-0.001	96	583377	250.0	244.8	
54 1,1-Dichloropropene	75	6.730	6.731	-0.001	96	723072	250.0	239.4	
55 Isobutyl alcohol	41	6.907	6.908	-0.002	93	518160	6250.0	6342.9	
56 Benzene	78	6.949	6.944	0.005	98	1993212	250.0	223.5	
57 1,2-Dichloroethane	62	7.022	7.023	-0.001	98	832399	250.0	245.7	
59 n-Heptane	43	7.314	7.315	-0.001	88	485433	250.0	225.2	
61 Trichloroethene	130	7.679	7.680	-0.001	93	450242	250.0	233.4	
63 Methylcyclohexane	83	7.929	7.923	0.006	90	837825	250.0	230.6	
64 1,2-Dichloropropane	63	7.959	7.954	0.005	94	550561	250.0	234.2	
65 1,4-Dioxane	88	8.038	8.039	-0.001	37	113034	5000.0	4990.9	
67 Dibromomethane	93	8.044	8.039	0.005	91	347141	250.0	243.7	
68 Dichlorobromomethane	83	8.233	8.234	-0.001	98	713291	250.0	250.7	
71 cis-1,3-Dichloropropene	75	8.683	8.678	0.005	94	924184	250.0	245.5	
72 4-Methyl-2-pentanone (MIBK	43	8.829	8.830	-0.001	92	1201067	500.0	458.0	
73 Toluene	91	9.017	9.012	0.005	97	2013806	250.0	198.5	
74 trans-1,3-Dichloropropene	75	9.261	9.256	0.005	95	840048	250.0	227.4	
75 Ethyl methacrylate	69	9.316	9.317	-0.001	88	853762	250.0	230.7	
76 1,1,2-Trichloroethane	97	9.455	9.456	-0.001	94	497273	250.0	225.2	
77 Tetrachloroethene	164	9.528	9.529	-0.001	92	356494	250.0	213.5	
78 1,3-Dichloropropane	76	9.614	9.615	-0.001	92	923637	250.0	221.0	
79 2-Hexanone	43	9.662	9.663	-0.001	93	778828	500.0	487.1	
81 Chlorodibromomethane	129	9.833	9.828	0.005	90	417451	250.0	240.1	
82 Ethylene Dibromide	107	9.942	9.943	-0.001	99	466009	250.0	223.2	
83 3-Chlorobenzotrifluoride	180	10.398	10.399	-0.001	92	640982	250.0	206.8	
84 Chlorobenzene	112	10.435	10.430	0.005	90	1320047	250.0	206.1	
85 4-Chlorobenzotrifluoride	180	10.490	10.491	-0.001	96	609472	250.0	207.2	
86 1,1,1,2-Tetrachloroethane	131	10.526	10.527	-0.001	93	423407	250.0	225.5	
87 Ethylbenzene	106	10.532	10.533	-0.001	98	772048	250.0	215.7	
88 m-Xylene & p-Xylene	106	10.666	10.661	0.005	97	967652	250.0	215.9	
89 o-Xylene	106	11.043	11.044	-0.001	96	916218	250.0	210.7	
90 Styrene	104	11.068	11.063	0.006	93	1497570	250.0	209.5	
91 Bromoform	173	11.250	11.251	-0.001	92	275852	250.0	248.1	
92 2-Chlorobenzotrifluoride	180	11.311	11.306	0.005	93	652016	250.0	208.4	
93 Isopropylbenzene	105	11.414	11.409	0.005	99	2087440	250.0	197.6	
96 1,1,2,2-Tetrachloroethane	83	11.719	11.720	-0.001	97	668303	250.0	220.3	
95 Bromobenzene	156	11.731	11.726	0.005	98	493553	250.0	239.9	
97 trans-1,4-Dichloro-2-buten	53	11.755	11.756	-0.001	87	243093	250.0	257.3	
98 1,2,3-Trichloropropane	110	11.779	11.774	0.005	83	228328	250.0	252.5	
99 N-Propylbenzene	120	11.834	11.829	0.005	97	589561	250.0	237.7	
100 2-Chlorotoluene	126	11.919	11.914	0.005	93	483577	250.0	237.2	
101 3-Chlorotoluene	126	11.980	11.981	-0.001	96	509493	250.0	229.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.017	12.012	0.005	95	1775313	250.0	225.0	
103 4-Chlorotoluene	126	12.041	12.042	-0.001	100	518735	250.0	241.3	
104 tert-Butylbenzene	119	12.327	12.328	-0.001	90	1388596	250.0	229.6	
106 1,2,4-Trimethylbenzene	105	12.388	12.389	-0.001	99	1844484	250.0	223.2	
107 1,2-dichloro-4-(trifluorom	214	12.424	12.425	-0.001	95	471815	250.0	226.7	
108 sec-Butylbenzene	105	12.552	12.553	-0.001	97	2027020	250.0	220.2	
109 1,3-Dichlorobenzene	146	12.674	12.669	0.005	92	911485	250.0	232.2	
110 4-Isopropyltoluene	119	12.710	12.711	-0.001	94	1622356	250.0	222.9	
111 1,4-Dichlorobenzene	146	12.777	12.772	0.005	92	935299	250.0	230.5	
113 2,4-Dichloro-1-(triflourom	214	12.795	12.796	-0.001	93	446968	250.0	217.0	
114 2,5-Dichlorobenzotrifluori	214	12.838	12.833	0.005	97	516380	250.0	229.2	
116 n-Butylbenzene	91	13.118	13.119	-0.001	96	1618275	250.0	221.1	
117 1,2-Dichlorobenzene	146	13.130	13.125	0.005	94	885916	250.0	228.2	
118 1,2-Dibromo-3-Chloropropan	75	13.921	13.922	-0.001	92	153064	250.0	258.5	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.067	14.062	0.005	95	2000436	750.0	610.5	
121 2,3- & 3,4- Dichlorotoluen	125	14.480	14.481	-0.001	96	1491443	500.0	415.2	
122 1,2,4-Trichlorobenzene	180	14.748	14.743	0.005	92	593825	250.0	218.4	
123 Hexachlorobutadiene	225	14.894	14.895	-0.001	96	193594	250.0	208.9	
124 Naphthalene	128	15.010	15.011	-0.001	99	1599080	250.0	222.1	
125 1,2,3-Trichlorobenzene	180	15.235	15.236	-0.001	92	564994	250.0	221.5	
126 2,4,5-Trichlorotoluene	159	16.013	16.008	0.005	0	398998	250.0	247.4	
127 2,3,6-Trichlorotoluene	159	16.111	16.112	-0.001	91	367031	250.0	250.8	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		500.0	466.5	
S 131 Xylenes, Total	106				0		500.0	426.6	
S 132 1,3-Dichloropropene, Total	1				0		500.0	472.8	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

voaWeemixPRI_00002	Amount Added:	10.00	Units: uL	
VOA8260VOAPRI_00114	Amount Added:	10.00	Units: uL	
voaWVA2ndRes_00001	Amount Added:	10.00	Units: uL	
voaWketPri Re_00005	Amount Added:	10.00	Units: uL	
VOA8260SURR_00034	Amount Added:	10.00	Units: uL	
VOAACROPRI_00005	Amount Added:	11.00	Units: uL	
VOA8260INT_00032	Amount Added:	2.00	Units: uL	Run Reagent

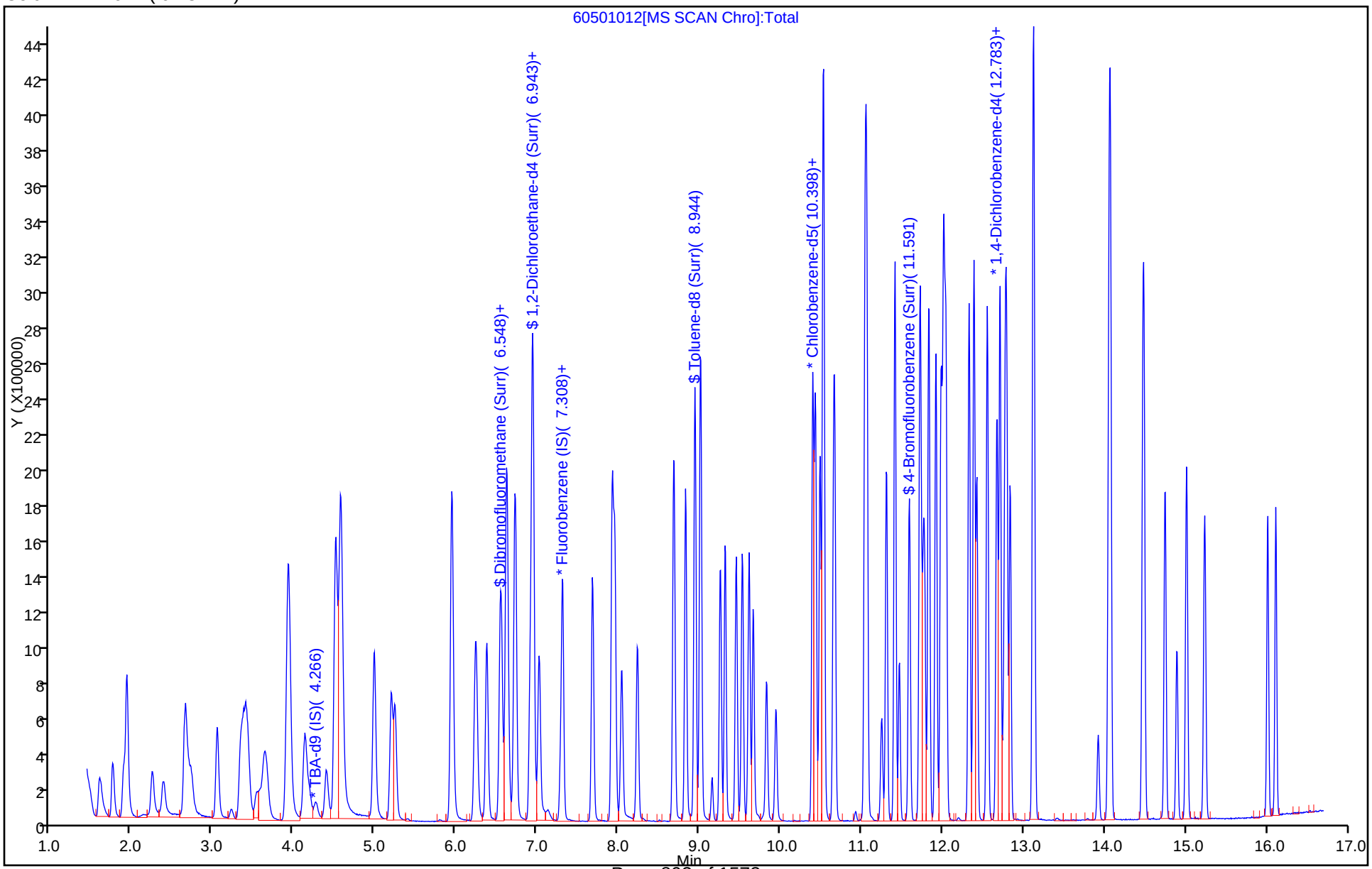
Report Date: 02-May-2015 11:05:37 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Injection Date:	01-May-2015 16:46:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	IC VSTD50			Worklist Smp#:	12
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1 Analy Batch No.: 136928

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2015 10:57 Calibration End Date: 03/30/2015 14:36 Calibration ID: 22965

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-136928/3	7033003.D
Level 2	IC 180-136928/4	7033004.D
Level 3	ICIS 180-136928/5	7033005.D
Level 4	IC 180-136928/6	7033006.D
Level 5	IC 180-136928/7	7033007.D
Level 6	IC 180-136928/8	7033008.D
Level 7	IC 180-136928/9	7033009.D
Level 8	IC 180-136928/10	7033010.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	0.4049 0.3360	0.3761 0.3806	0.3617 0.3747	0.3587	0.3730	Ave		0.3707			0.1000	5.3		20.0			
Chloromethane	0.4308 0.3754	0.4379 0.3945	0.4020 0.4112	0.3800	0.3991	Ave		0.4039			0.1000	5.5		20.0			
1,3-Butadiene	0.4251 0.2932	0.3417 0.3152	0.3460 0.3224	0.3068	0.3068	Ave		0.3321			0.0100	12.5		20.0			
Vinyl chloride	0.3430 0.2838	0.3404 0.3210	0.3159 0.3182	0.2980	0.2958	Ave		0.3145			0.1000	6.7		20.0			
Bromomethane	0.2266 0.2452	0.2793 0.2522	0.2713 0.2662	0.2427	0.2439	Ave		0.2534			0.0500	6.9		20.0			
Chloroethane	0.2749 0.2395	0.2785 0.2519	0.2559 0.2542	0.2356	0.2394	Ave		0.2537			0.0500	6.3		20.0			
Dichlorofluoromethane	0.7624 0.6398	0.7284 0.6488	0.6941 0.6491	0.6381	0.6400	Ave		0.6751			0.0100	7.1		20.0			
Trichlorofluoromethane	0.7558 0.6595	0.7530 0.7005	0.7468 0.7001	0.6815	0.6845	Ave		0.7102			0.1000	5.2		20.0			
Ethyl ether	0.1832 0.2255	0.2405 0.2425	0.2306 0.2326	0.2160	0.2318	Ave		0.2253			0.0100	8.4		20.0			
Acrolein	0.0140 0.0164	0.0160 0.0160	0.0152 0.0149	0.0165	0.0154	Ave		0.0156			0.0100	5.4		20.0			
1,1-Dichloroethene	0.2532 0.2638	0.2820 0.2718	0.2758 0.2787	0.2533	0.2696	Ave		0.2685			0.1000	4.1		20.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.3623 0.2819	0.3410 0.3053	0.3208 0.3072	0.2935	0.2861	Ave		0.3122			0.1000	8.9		20.0			
Iodomethane	0.6392 0.5330	0.5866 0.5561	0.5852 0.5561	0.4994	0.5379	Ave		0.5617			0.0100	7.5		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1 Analy Batch No.: 136928

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2015 10:57 Calibration End Date: 03/30/2015 14:36 Calibration ID: 22965

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	0.8938 0.7034	0.8609 0.9569	0.7989 0.7561	0.7339	0.7484	Ave		0.8065			0.1000	11.0		20.0			
Acetone	0.0935 0.0524	0.0700 0.0605	0.0664 0.0503	0.0662	0.0561	Lin2	3.9852	0.0533			0.0500				0.9900		0.9900
Allyl chloride	0.2214 0.1874	0.2078 0.1919	0.2013 0.2089	0.1739	0.1919	Ave		0.1981			0.0100	7.5		20.0			
Methylene Chloride	0.3799 0.2640	0.3035 0.2714	0.2901 0.2769	0.2560	0.2639	Ave		0.2882			0.1000	13.9		20.0			
Methyl acetate	0.1722 0.1194	0.1395 0.1300	0.1248 0.1160	0.1357	0.1284	Ave		0.1332			0.1000	13.2		20.0			
trans-1,2-Dichloroethene	0.4144 0.3019	0.3607 0.3130	0.3396 0.3157	0.3071	0.3131	Ave		0.3332			0.1000	11.4		20.0			
tert-Butyl alcohol	0.0387 0.0932	0.1220 +++++	0.0794 +++++	0.0809	0.0812	Qua	17.849	0.0649	0.0000036		0.0100				0.9920		0.9900
Acrylonitrile	0.0594 0.0496	0.0592 0.0518	0.0519 0.0462	0.0554	0.0529	Ave		0.0533			0.0100	8.5		20.0			
Methyl tert-butyl ether	0.7899 0.6103	0.7134 0.6206	0.6523 0.5906	0.6451	0.6306	Ave		0.6566			0.1000	9.9		20.0			
Hexane	0.4307 0.2822	0.3669 0.3594	0.3490 0.3339	0.3327	0.3327	Ave		0.3484			0.0100	12.0		20.0			
Vinyl acetate	0.3325 0.2396	0.2619 0.2566	0.2643 0.2523	0.2426	0.2520	Ave		0.2627			0.0100	11.2		20.0			
1,1-Dichloroethane	0.5036 0.4591	0.5274 0.4830	0.5023 0.4831	0.4692	0.4788	Ave		0.4883			0.2000	4.5		20.0			
2,2-Dichloropropane	0.5029 0.3592	0.4513 0.3672	0.4370 0.3719	0.3889	0.3853	Ave		0.4080			0.0100	12.4		20.0			
cis-1,2-Dichloroethene	0.3895 0.3036	0.3445 0.3133	0.3428 0.3139	0.3115	0.3259	Ave		0.3306			0.1000	8.5		20.0			
2-Butanone (MEK)	0.0916 0.0823	0.0945 0.0951	0.0865 0.0835	0.0972	0.0865	Ave		0.0896			0.0500	6.4		20.0			
Bromochloromethane	0.2408 0.1735	0.1985 0.1795	0.1868 0.1771	0.1814	0.1858	Ave		0.1904			0.0100	11.4		20.0			
Chloroform	0.6919 0.4962	0.6021 0.5075	0.5638 0.4970	0.5223	0.5185	Ave		0.5499			0.2000	12.4		20.0			
1,1,1-Trichloroethane	0.6470 0.4338	0.5649 0.4453	0.5204 0.4470	0.4662	0.4702	Ave		0.4994			0.1000	14.8		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1 Analy Batch No.: 136928

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2015 10:57 Calibration End Date: 03/30/2015 14:36 Calibration ID: 22965

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								
Tetrahydrofuran	0.0583 0.0434	0.0523 0.0473	0.0512 0.0465	0.0465	0.0468	Ave		0.0490			0.0100	9.5		20.0			
Cyclohexane	0.4837 0.3016	0.3789 0.3248	0.3560 0.3179	0.3259	0.3297	Ave		0.3523			0.1000	16.5		20.0			
Carbon tetrachloride	0.6825 0.4374	0.5598 0.4499	0.5182 0.4533	0.4633	0.4653	Ave		0.5037			0.1000	16.5		20.0			
1,1-Dichloropropene	0.4749 0.3118	0.4121 0.3254	0.3632 0.3234	0.3425	0.3315	Ave		0.3606			0.0100	15.5		20.0			
Benzene	1.2865 0.8459	1.1208 0.8565	1.0418 0.8374	0.9472	0.9380	Ave		0.9843			0.5000	16.0		20.0			
1,2-Dichloroethane	0.4449 0.2913	0.3598 0.3041	0.3316 0.2882	0.3189	0.3208	Ave		0.3325			0.1000	15.3		20.0			
Isobutyl alcohol	0.0058 0.0078	0.0090 0.0084	0.0087 0.0079	0.0084	0.0083	Ave		0.0080		*	0.0100	12.1		20.0			
n-Heptane	0.3667 0.2726	0.3198 0.3008	0.3140 0.2819	0.2975	0.2874	Ave		0.3051			0.0100	9.7		20.0			
Trichloroethene	0.5030 0.3592	0.4242 0.3643	0.4070 0.3634	0.3655	0.3701	Ave		0.3946			0.2000	12.6		20.0			
Methylcyclohexane	0.6516 0.4077	0.5613 0.4391	0.4963 0.4290	0.4483	0.4477	Ave		0.4851			0.1000	17.0		20.0			
1,2-Dichloropropane	0.2769 0.2046	0.2408 0.2102	0.2226 0.2067	0.2149	0.2169	Ave		0.2242			0.1000	10.8		20.0			
Dibromomethane	0.2155 0.1533	0.1721 0.1630	0.1605 0.1556	0.1580	0.1578	Ave		0.1670			0.0100	12.2		20.0			
1,4-Dioxane	0.0011 0.0017	0.0017 0.0016	0.0016 0.0015	0.0016	0.0017	Ave		0.0016		*	0.0100	14.0		20.0			
Bromodichloromethane	0.5011 0.3791	0.4345 0.3935	0.4389 0.3715	0.4015	0.4055	Ave		0.4157			0.2000	10.1		20.0			
cis-1,3-Dichloropropene	0.5064 0.3991	0.4647 0.4120	0.4361 0.3956	0.4220	0.4141	Ave		0.4312			0.2000	8.7		20.0			
4-Methyl-2-pentanone (MIBK)	0.6767 0.5042	0.6920 0.5327	0.5982 0.4777	0.6068	0.5871	Ave		0.5844			0.1000	13.1		20.0			
Toluene	5.1899 2.5462	4.3323 +++++	3.7458 +++++	3.2001	3.0884	Qua	59.817	3.6113	-0.001653		0.4000				0.9980		0.9900
trans-1,3-Dichloropropene	1.5711 1.0794	1.3970 1.1590	1.3200 1.0988	1.2284	1.2043	Ave		1.2572			0.1000	13.2		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1 Analy Batch No.: 136928

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2015 10:57 Calibration End Date: 03/30/2015 14:36 Calibration ID: 22965

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								
Ethyl methacrylate	0.9335 0.7520	0.9291 0.8068	0.8555 0.7438	0.8484	0.8213	Ave		0.8363			0.0100	8.5		20.0			
1,1,2-Trichloroethane	0.8855 0.6162	0.8540 0.6499	0.7237 0.6235	0.7000	0.6895	Ave		0.7178			0.1000	14.1		20.0			
Tetrachloroethene	1.3748 0.7298	1.1588 +++++	1.0063 +++++	0.8271	0.8403	Qua	18.605	0.9071	-0.000294		0.2000				0.9960		0.9900
1,3-Dichloropropane	1.4391 0.8728	1.2584 0.9209	1.0879 0.8529	1.0537	1.0026	Ave		1.0610			0.0100	19.0		20.0			
2-Hexanone	0.3670 0.3420	0.4257 0.3868	0.3763 0.3473	0.4008	0.3699	Ave		0.3770			0.1000	7.3		20.0			
Dibromochloromethane	1.6221 1.0342	1.4835 1.0818	1.2614 1.0448	1.1836	1.1607	Ave		1.2340			0.1000	17.3		20.0			
1,2-Dibromoethane (EDB)	1.0152 0.7073	0.9211 0.7388	0.8185 0.7100	0.8157	0.7788	Ave		0.8132			0.1000	13.2		20.0			
Chlorobenzene	3.3646 1.9926	2.9913 2.0244	2.7538 +++++	2.3750	2.3439	Ave		2.5494			0.5000	20.0		20.0			
1,1,1,2-Tetrachloroethane	1.5889 0.9290	1.4050 +++++	1.2815 +++++	1.0970	1.0940	Ave		1.2326			0.0100	19.5		20.0			
Ethylbenzene	1.8336 +++++	1.5625 +++++	1.4260 +++++	1.2323	1.1882	Ave		1.4485			0.1000	18.1		20.0			
m-Xylene & p-Xylene	2.4750 +++++	2.1389 +++++	1.8971 +++++	1.6377	1.6157	Ave		1.9529			0.1000	18.5		20.0			
o-Xylene	2.5079 +++++	2.1474 +++++	1.9091 +++++	1.6305	1.6116	Ave		1.9613			0.3000	19.2		20.0			
Styrene	3.8120 1.9480	3.3063 +++++	2.9124 +++++	2.4325	2.2974	Qua	50.819	2.6911	-0.001179		0.3000				0.9960		0.9900
Bromoform	0.7243 0.6451	0.7592 0.6862	0.7446 0.6361	0.7002	0.6981	Ave		0.6992			0.1000	6.2		20.0			
Isopropylbenzene	7.1951 3.1900	5.9426 +++++	5.0312 +++++	4.2116	4.0042	Qua	92.518	4.8193	-0.002533		0.1000				0.9970		0.9900
1,1,2,2-Tetrachloroethane	0.9848 0.6054	0.9132 0.6322	0.8169 0.5648	0.7841	0.7248	Ave		0.7533			0.3000	19.9		20.0			
Bromobenzene	1.1165 0.7135	0.9786 0.7488	0.9296 0.7475	0.8209	0.8013	Ave		0.8571			0.0100	16.3		20.0			
1,2,3-Trichloropropane	0.2417 0.1693	0.1958 0.1858	0.1909 0.1738	0.1938	0.1843	Ave		0.1919			0.0100	11.5		20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1 Analy Batch No.: 136928

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2015 10:57 Calibration End Date: 03/30/2015 14:36 Calibration ID: 22965

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								
trans-1,4-Dichloro-2-butene	0.1531 0.1100	0.1141 0.1244	0.1095 0.1185	0.1163	0.1158	Ave		0.1202			0.0100	11.7		20.0			
N-Propylbenzene	1.4292 0.8832	1.1494 0.9326	1.1314 0.9537	0.9720	0.9646	Ave		1.0520			0.0100	17.0		20.0			
2-Chlorotoluene	1.2281 0.7964	1.0898 0.8646	1.0225 0.8617	0.8871	0.8904	Ave		0.9551			0.0100	15.2		20.0			
1,3,5-Trimethylbenzene	4.1186 1.8195	3.0572 1.9013	2.7687 +++++	2.3152	2.2282	Qua	67.889	2.3446	-0.000742		0.0100				0.9930		0.9900
4-Chlorotoluene	1.2432 0.7686	1.0657 0.8062	0.9133 0.8390	0.8423	0.8441	Ave		0.9153			0.0100	17.5		20.0			
tert-Butylbenzene	4.2827 +++++	3.4124 +++++	3.0690 +++++	2.5961	2.8531	Lin2	30.327	2.8130			0.0100				0.9920		0.9900
1,2,4-Trimethylbenzene	4.0219 1.9151	3.0757 +++++	2.8098 +++++	2.3617	2.3037	Qua	42.580	2.6673	-0.001167		0.0100				0.9980		0.9900
sec-Butylbenzene	5.2909 2.4720	4.0963 2.5660	3.6564 +++++	3.1061	2.9949	Qua	84.993	3.1560	-0.000971		0.0100				0.9940		0.9900
1,3-Dichlorobenzene	2.4747 +++++	1.9570 +++++	1.7890 +++++	1.5759	1.5484	Lin2	17.686	1.6184			0.6000				0.9930		0.9900
4-Isopropyltoluene	4.9789 2.1016	3.7099 +++++	3.2078 +++++	2.7147	2.6092	Qua	59.165	3.0703	-0.001511		0.0100				0.9980		0.9900
1,4-Dichlorobenzene	2.1272 1.3020	1.8048 1.3637	1.6770 1.3380	1.5472	1.5324	Ave		1.5865			0.5000	17.6		20.0			
n-Butylbenzene	4.0854 1.7178	3.0325 +++++	2.6889 +++++	2.2607	2.1557	Qua	45.927	2.5887	-0.001344		0.0100				0.9980		0.9900
1,2-Dichlorobenzene	2.0434 +++++	1.6187 +++++	1.4639 +++++	1.3402	1.3053	Ave		1.5543			0.4000	19.3		20.0			
1,2-Dibromo-3-Chloropropane	0.0507 0.0782	0.0680 0.0870	0.0819 0.0820	0.0731	0.0825	Lin2	-0.637	0.0814			0.0500				0.9960		0.9900
1,2,4-Trichlorobenzene	0.7025 0.4194	0.3528 0.5475	0.4356 0.5373	0.4533	0.4943	Ave		0.4928			0.2000	21.5	*	20.0			
Hexachlorobutadiene	0.4740 0.2409	0.2353 0.3139	0.2616 0.3189	0.2513	0.2667	Ave		0.2953			0.0100	26.6	*	20.0			
Naphthalene	1.5147 0.6355	0.5116 0.8497	0.7105 0.7291	0.7661	0.7400	Ave		0.8071			0.0100	37.5	*	20.0			
1,2,3-Trichlorobenzene	0.7098 0.2525	0.1737 0.3849	0.2343 0.3451	0.3041	0.2934	Ave		0.3372			0.0100	48.7	*	20.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1 Analy Batch No.: 136928

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2015 10:57 Calibration End Date: 03/30/2015 14:36 Calibration ID: 22965

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)	0.3940 0.2872	0.3394 0.3076	0.3277 0.2870	0.3013	0.3080	Ave		0.3190				11.1		20.0			
1,2-Dichloroethane-d4 (Surr)	0.3741 0.2827	0.3162 0.2966	0.2978 0.2767	0.2969	0.2923	Ave		0.3042				10.0		20.0			
Toluene-d8 (Surr)	+++++ 2.4399	3.9879 2.5256	3.5025 2.4058	2.9863	2.9170	Ave		2.9664				20.0		20.0			
4-Bromofluorobenzene (Surr)	2.1145 1.1414	1.5844 1.1868	1.5023 1.1481	1.2914	1.2834	Lin2	18.461	1.2346							0.9900		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1 Analy Batch No.: 136928

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2015 10:57 Calibration End Date: 03/30/2015 14:36 Calibration ID: 22965

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-136928/3	7033003.D
Level 2	IC 180-136928/4	7033004.D
Level 3	ICIS 180-136928/5	7033005.D
Level 4	IC 180-136928/6	7033006.D
Level 5	IC 180-136928/7	7033007.D
Level 6	IC 180-136928/8	7033008.D
Level 7	IC 180-136928/9	7033009.D
Level 8	IC 180-136928/10	7033010.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	41448 1251238	202683 1578981	396029 1958336	547112	769843	20.0 700	100 800	200 1000	300	400
Chloromethane	FB	Ave	44098 1397995	236017 1636714	440108 2148873	579635	823816	20.0 700	100 800	200 1000	300	400
1,3-Butadiene	FB	Ave	43516 1091852	184180 1307567	378863 1684970	467958	633176	20.0 700	100 800	200 1000	300	400
Vinyl chloride	FB	Ave	35111 1056944	183450 1331694	345858 1662883	454519	610532	20.0 700	100 800	200 1000	300	400
Bromomethane	FB	Ave	23195 913392	150507 1046463	297025 1390949	370267	503455	20.0 700	100 800	200 1000	300	400
Chloroethane	FB	Ave	28139 891876	150067 1044851	280211 1328639	359315	494064	20.0 700	100 800	200 1000	300	400
Dichlorofluoromethane	FB	Ave	78053 2383040	392557 2691604	759945 3391987	973235	1320934	20.0 700	100 800	200 1000	300	400
Trichlorofluoromethane	FB	Ave	77379 2456359	405833 2906130	817631 3658414	1039442	1412799	20.0 700	100 800	200 1000	300	400
Ethyl ether	FB	Ave	18758 839764	129633 1005937	252518 1215677	329495	478344	20.0 700	100 800	200 1000	300	400
Acrolein	FB	Ave	28748 78643	43044 83224	49804 85538	58776	63644	400 900	500 1000	600 1100	700	800
1,1-Dichloroethene	FB	Ave	25924 982672	151987 1127478	301988 1456322	386363	556448	20.0 700	100 800	200 1000	300	400
1,1,2-Trichloro-1,2,2-trifluoroethane	FB	Ave	37088 1049950	183780 1266754	351192 1605157	447607	590436	20.0 700	100 800	200 1000	300	400
Iodomethane	FB	Ave	65439 1985287	316113 2306954	640777 2906153	761762	1110172	20.0 700	100 800	200 1000	300	400
Carbon disulfide	FB	Ave	91497 2619768	463969 3969960	874756 3951355	1119377	1544647	20.0 700	100 800	200 1000	300	400
Acetone	FB	Lin2	47874 390281	75446 501900	145367 526230	201909	231424	100 1400	200 1600	400 2000	600	800

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1 Analy Batch No.: 136928

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2015 10:57 Calibration End Date: 03/30/2015 14:36 Calibration ID: 22965

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	22664 698091	111987 796185	220406 1091756	265180	396144	20.0 700	100 800	200 1000	300	400
Methylene Chloride	FB	Ave	38895 983292	163557 1126005	317590 1446969	390467	544613	20.0 700	100 800	200 1000	300	400
Methyl acetate	FB	Ave	88164 2224238	375826 2696602	683140 3030290	1035067	1324779	100 3500	500 4000	1000 5000	1500	2000
trans-1,2-Dichloroethene	FB	Ave	42422 1124535	194386 1298488	371778 1650008	468410	646149	20.0 700	100 800	200 1000	300	400
tert-Butyl alcohol	TBA	Qua	567 53007	9778 +++++	12318 +++++	18904	25255	200 7000	1000 +++++	2000 +++++	3000	4000
Acrylonitrile	FB	Ave	60806 1848860	318922 2150290	568053 2412565	845412	1091986	200 7000	1000 8000	2000 10000	3000	4000
Methyl tert-butyl ether	FB	Ave	80870 2272845	384502 2574759	714150 3086291	984040	1301482	20.0 700	100 800	200 1000	300	400
Hexane	FB	Ave	44092 1051129	197721 1491013	382145 1744973	507536	686716	20.0 700	100 800	200 1000	300	400
Vinyl acetate	FB	Ave	34041 892468	141126 1064694	289383 1318507	370011	520045	20.0 700	100 800	200 1000	300	400
1,1-Dichloroethane	FB	Ave	51559 1709875	284258 2003605	550009 2524474	715666	988166	20.0 700	100 800	200 1000	300	400
2,2-Dichloropropane	FB	Ave	51484 1337687	243195 1523531	478480 1943271	593228	795291	20.0 700	100 800	200 1000	300	400
cis-1,2-Dichloroethene	FB	Ave	39878 1130925	185651 1299902	375290 1640293	475209	672672	20.0 700	100 800	200 1000	300	400
2-Butanone (MEK)	FB	Ave	46886 613084	101832 789394	189308 872275	296627	357127	100 1400	200 1600	400 2000	600	800
Bromochloromethane	FB	Ave	24652 646182	106979 744761	204558 925671	276754	383470	20.0 700	100 800	200 1000	300	400
Chloroform	FB	Ave	70828 1847979	324491 2105517	617343 2597161	796703	1070128	20.0 700	100 800	200 1000	300	400
1,1,1-Trichloroethane	FB	Ave	66238 1615549	304449 1847241	569802 2336141	711168	970491	20.0 700	100 800	200 1000	300	400
Tetrahydrofuran	FB	Ave	11945 323514	56328 392456	112031 486083	141960	193358	40.0 1400	200 1600	400 2000	600	800
Cyclohexane	FB	Ave	49523 1123391	204193 1347518	389741 1661352	497062	680423	20.0 700	100 800	200 1000	300	400
Carbon tetrachloride	FB	Ave	69874 1629157	301680 1866632	567374 2368924	706744	960424	20.0 700	100 800	200 1000	300	400
1,1-Dichloropropene	FB	Ave	48614 1161217	222122 1350014	397710 1689887	522409	684260	20.0 700	100 800	200 1000	300	400
Benzene	FB	Ave	131703 3150535	604063 3553209	1140696 4375955	1444796	1936130	20.0 700	100 800	200 1000	300	400

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1 Analy Batch No.: 136928

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2015 10:57 Calibration End Date: 03/30/2015 14:36 Calibration ID: 22965

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
1,2-Dichloroethane	FB	Ave	45545 1085110	193915 1261454	363062 1506238	486348	662167	20.0 700	100 800	200 1000	300	400
Isobutyl alcohol	FB	Ave	14915 725140	120699 875607	238248 1032146	318675	426103	500 17500	2500 20000	5000 25000	7500	10000
n-Heptane	FB	Ave	37541 1015361	172370 1247753	343792 1473278	453730	593146	20.0 700	100 800	200 1000	300	400
Trichloroethene	FB	Ave	51491 1337763	228617 1511187	445574 1899175	557536	763898	20.0 700	100 800	200 1000	300	400
Methylcyclohexane	FB	Ave	66709 1518386	302516 1821723	543409 2242100	683732	924161	20.0 700	100 800	200 1000	300	400
1,2-Dichloropropane	FB	Ave	28343 761874	129781 872134	243750 1079980	327752	447696	20.0 700	100 800	200 1000	300	400
Dibromomethane	FB	Ave	22063 570980	92763 676332	175702 813226	240979	325671	20.0 700	100 800	200 1000	300	400
1,4-Dioxane	FB	Ave	2158 129768	18551 130621	36036 160108	49259	68277	400 14000	2000 16000	4000 20000	6000	8000
Bromodichloromethane	FB	Ave	51297 1412009	234170 1632472	480549 1941561	612413	837049	20.0 700	100 800	200 1000	300	400
cis-1,3-Dichloropropene	FB	Ave	51839 1486494	250427 1709267	477454 2067222	643615	854790	20.0 700	100 800	200 1000	300	400
4-Methyl-2-pentanone (MIBK)	CBZ	Ave	92825 1221845	198312 1421595	367652 1593755	558709	733664	100 1400	200 1600	400 2000	600	800
Toluene	CBZ	Qua	142380 3084889	620797 +++++	1151125 +++++	1473364	1929599	20.0 700	100 +++++	200 +++++	300	400
trans-1,3-Dichloropropene	CBZ	Ave	43102 1307789	200178 1546548	405643 1832921	565545	752421	20.0 700	100 800	200 1000	300	400
Ethyl methacrylate	CBZ	Ave	25609 911071	133131 1076607	262894 1240685	390626	513149	20.0 700	100 800	200 1000	300	400
1,1,2-Trichloroethane	CBZ	Ave	24292 746577	122370 867173	222398 1040134	322268	430806	20.0 700	100 800	200 1000	300	400
Tetrachloroethene	CBZ	Qua	37717 884171	166044 +++++	309255 +++++	380796	524990	20.0 700	100 +++++	200 +++++	300	400
1,3-Dichloropropane	CBZ	Ave	39480 1057404	180327 1228755	334311 1422739	485148	626433	20.0 700	100 800	200 1000	300	400
2-Hexanone	CBZ	Ave	50336 828690	121993 1032279	231264 1158826	369022	462161	100 1400	200 1600	400 2000	600	800
Dibromochloromethane	CBZ	Ave	44500 1253031	212583 1443562	387652 1742790	544921	725170	20.0 700	100 800	200 1000	300	400
1,2-Dibromoethane (EDB)	CBZ	Ave	27850 856980	131988 985791	251542 1184293	375561	486579	20.0 700	100 800	200 1000	300	400
Chlorobenzene	CBZ	Ave	92306 2414200	428641 2701248	846268 +++++	1093489	1464442	20.0 700	100 800	200 +++++	300	400

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1 Analy Batch No.: 136928

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2015 10:57 Calibration End Date: 03/30/2015 14:36 Calibration ID: 22965

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
1,1,1,2-Tetrachloroethane	CBZ	Ave	43591 1125563	201326 +++++	393829 +++++	505049	683517	20.0 700	100 +++++	200 +++++	300	400
Ethylbenzene	CBZ	Ave	50304 +++++	223898 +++++	438222 +++++	567348	742350	20.0 +++++	100 +++++	200 +++++	300	400
m-Xylene & p-Xylene	CBZ	Ave	67901 +++++	306490 +++++	582999 +++++	753992	1009451	20.0 +++++	100 +++++	200 +++++	300	400
o-Xylene	CBZ	Ave	68803 +++++	307714 +++++	586685 +++++	750708	1006935	20.0 +++++	100 +++++	200 +++++	300	400
Styrene	CBZ	Qua	104580 2360095	473776 +++++	895002 +++++	1119936	1435413	20.0 700	100 +++++	200 +++++	300	400
Bromoform	CBZ	Ave	19871 781610	108786 915646	228827 1061162	322387	436139	20.0 700	100 800	200 1000	300	400
Isopropylbenzene	CBZ	Qua	197392 3864822	851551 +++++	1546157 +++++	1939042	2501798	20.0 700	100 +++++	200 +++++	300	400
1,1,2,2-Tetrachloroethane	CBZ	Ave	27018 733504	130862 843599	251042 942162	360995	452814	20.0 700	100 800	200 1000	300	400
Bromobenzene	DCB	Ave	45193 1224216	217052 1357100	423173 1650286	548599	719427	20.0 700	100 800	200 1000	300	400
1,2,3-Trichloropropane	DCB	Ave	9783 290435	43419 336681	86903 383754	129479	165438	20.0 700	100 800	200 1000	300	400
trans-1,4-Dichloro-2-butene	DCB	Ave	6196 188752	25315 225524	49829 261594	77709	103928	20.0 700	100 800	200 1000	300	400
N-Propylbenzene	DCB	Ave	57850 1515443	254930 1690335	515043 2105507	649531	866084	20.0 700	100 800	200 1000	300	400
2-Chlorotoluene	DCB	Ave	49710 1366522	241717 1567014	465485 1902501	592801	799439	20.0 700	100 800	200 1000	300	400
1,3,5-Trimethylbenzene	DCB	Qua	166706 3121962	678088 3446156	1260442 +++++	1547120	2000575	20.0 700	100 800	200 +++++	300	400
4-Chlorotoluene	DCB	Ave	50322 1318727	236378 1461135	415760 1852378	562904	757841	20.0 700	100 800	200 1000	300	400
tert-Butylbenzene	DCB	Lin2	173349 +++++	756877 +++++	1397136 +++++	1734851	2561684	20.0 +++++	100 +++++	200 +++++	300	400
1,2,4-Trimethylbenzene	DCB	Qua	162794 3286002	682185 +++++	1279121 +++++	1578246	2068364	20.0 700	100 +++++	200 +++++	300	400
sec-Butylbenzene	DCB	Qua	214158 4241460	908560 4650844	1664550 +++++	2075658	2688983	20.0 700	100 800	200 +++++	300	400
1,3-Dichlorobenzene	DCB	Lin2	100166 +++++	434056 +++++	814415 +++++	1053105	1390255	20.0 +++++	100 +++++	200 +++++	300	400
4-Isopropyltoluene	DCB	Qua	201528 3605948	822865 +++++	1460316 +++++	1814126	2342656	20.0 700	100 +++++	200 +++++	300	400
1,4-Dichlorobenzene	DCB	Ave	86104 2234049	400302 2471728	763456 2953963	1033910	1375837	20.0 700	100 800	200 1000	300	400

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1 Analy Batch No.: 136928

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2015 10:57 Calibration End Date: 03/30/2015 14:36 Calibration ID: 22965

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
n-Butylbenzene	DCB	Qua	165362 2947372	672615 +++++	1224106 +++++	1510703	1935500	20.0 700	100 +++++	200 +++++	300	400
1,2-Dichlorobenzene	DCB	Ave	82710 +++++	359029 +++++	666444 +++++	895594	1172011	20.0 +++++	100 +++++	200 +++++	300	400
1,2-Dibromo-3-Chloropropane	DCB	Lin2	2051 134161	15088 157690	37304 181072	48853	74075	20.0 700	100 800	200 1000	300	400
1,2,4-Trichlorobenzene	DCB	Ave	28435 719677	78248 992400	198283 1186297	302905	443796	20.0 700	100 800	200 1000	300	400
Hexachlorobutadiene	DCB	Ave	19184 413354	52188 568860	119072 704150	167959	239421	20.0 700	100 800	200 1000	300	400
Naphthalene	DCB	Ave	61310 1090423	113468 1540124	323445 1609562	511933	664374	20.0 700	100 800	200 1000	300	400
1,2,3-Trichlorobenzene	DCB	Ave	28729 433251	38530 697645	106664 761958	203191	263400	20.0 700	100 800	200 1000	300	400
Dibromofluoromethane (Surr)	FB	Ave	40332 1069500	182892 1276297	358794 1499933	459650	635809	20.0 700	100 800	200 1000	300	400
1,2-Dichloroethane-d4 (Surr)	FB	Ave	38294 1052781	170431 1230322	326104 1446117	452870	603243	20.0 700	100 800	200 1000	300	400
Toluene-d8 (Surr)	CBZ	Ave	+++++ 2956031	571452 3370087	1076372 4013224	1374921	1822472	+++++ 700	100 800	200 1000	300	400
4-Bromofluorobenzene (Surr)	CBZ	Lin2	58011 1382927	227038 1583659	461682 1915172	594575	801850	20.0 700	100 800	200 1000	300	400

Curve Type Legend

Ave = Average ISTD
Lin2 = Linear 1/conc^2 ISTD
Qua = Quadratic ISTD

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1 Analy Batch No.: 136928

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2015 10:57 Calibration End Date: 03/30/2015 14:36 Calibration ID: 22965

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-136928/3	7033003.D
Level 2	IC 180-136928/4	7033004.D
Level 3	ICIS 180-136928/5	7033005.D
Level 4	IC 180-136928/6	7033006.D
Level 5	IC 180-136928/7	7033007.D
Level 6	IC 180-136928/8	7033008.D
Level 7	IC 180-136928/9	7033009.D
Level 8	IC 180-136928/10	7033010.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3	LVL 4	LVL 5	LVL 6
Acetone	0.6 8.7	-6.1 -9.3	5.8	11.6	-4.2	-7.1	40 40	40 40	40	40	40	40
tert-Butyl alcohol	-178.6 * +++++	48.3 +++++	-2.0	-0.9	-2.7	0.4	70	70	70	70	70	70
Toluene	-38.8 +++++	8.8 +++++	5.7	-4.3	-0.5	0.5	70	70	70	70	70	70
Tetrachloroethene	-50.8 +++++	11.2 +++++	8.3	-7.3	0.6	0.3	70	70	70	70	70	70
Styrene	-52.6 +++++	9.2 +++++	9.2	-3.7	-2.8	0.9	70	70	70	70	70	70
Isopropylbenzene	-46.4 +++++	10.5 +++++	6.8	-4.7	-1.2	0.9	70	70	70	70	70	70
1,3,5-Trimethylbenzene	-69.1 5.8	4.9 +++++	11.5	-1.7	0.6	-7.6	70 70	70	70	70	70	70
tert-Butylbenzene	-1.7 +++++	10.5 +++++	3.7	-11.3	-1.3	+++++	30	30	30	30	30	
1,2,4-Trimethylbenzene	-28.6 +++++	4.1 +++++	7.5	-4.9	-0.2	0.4	70	70	70	70	70	70
sec-Butylbenzene	-66.9 5.1	6.3 +++++	9.8	-1.6	0.6	-6.8	70 70	70	70	70	70	70
1,3-Dichlorobenzene	-1.7 +++++	10.0 +++++	5.1	-6.3	-7.1	+++++	30	30	30	30	30	
4-Isopropyltoluene	-33.8 +++++	7.2 +++++	5.9	-4.6	-0.2	0.5	70	70	70	70	70	70
n-Butylbenzene	-30.4 +++++	5.1 +++++	6.9	-4.3	-0.7	0.6	70	70	70	70	70	70
1,2-Dibromo-3-Chloropropane	1.4 7.9	-8.6 1.6	4.6	-7.5	3.4	-2.8	30 30	30 30	30	30	30	30

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1 Analy Batch No.: 136928

SDG No.:

Instrument ID: CHHP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/30/2015 10:57 Calibration End Date: 03/30/2015 14:36 Calibration ID: 22965

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3	LVL 4	LVL 5	LVL 6
4-Bromofluorobenzene (Surr)	-3.5 -5.7	13.4 -8.5	14.2	-0.4	0.2	-9.7	30 30	30 30	30	30	30	30

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 30-Mar-2015 10:57:30 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 180-0006234-003
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_LL_CHHP7*sub1

Method: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 31-Mar-2015 08:54:14 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

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

First Level Reviewer: journetp Date: 30-Mar-2015 11:35:43

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	5.012	5.024	-0.012	82	293090	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.403	7.396	0.007	99	1023741	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.469	10.462	0.007	84	274343	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.787	12.792	-0.006	93	404767	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.679	6.678	0.001	84	40332	20.0	24.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.044	7.037	0.007	66	38294	20.0	24.6	
$ 7 Toluene-d8 (Surr)	98		9.033				ND	ND	
$ 8 4-Bromofluorobenzene (Surr	95	11.631	11.636	-0.005	92	58011	20.0	19.3	
11 Dichlorodifluoromethane	85	1.934	1.939	-0.005	1	41448	20.0	21.8	M
12 Chloromethane	50	2.086	2.018	0.068	22	44098	20.0	21.3	M
14 Butadiene	39	2.183	2.176	0.007	65	43516	20.0	25.6	
13 Vinyl chloride	62	2.171	2.225	-0.054	27	35111	20.0	21.8	M
15 Bromomethane	94	2.499	2.499	0.000	10	23195	20.0	17.9	M
16 Chloroethane	64	2.615	2.639	-0.024	65	28139	20.0	21.7	
17 Dichlorofluoromethane	67	2.919	2.882	0.037	69	78053	20.0	22.6	
18 Trichlorofluoromethane	101	2.956	2.913	0.043	75	77379	20.0	21.3	
20 Ethyl ether	59	3.357	3.314	0.043	64	18758	20.0	16.3	
22 1,1-Dichloroethene	96	3.461	3.460	0.001	1	25924	20.0	18.9	M
21 Acrolein	56	3.485	3.497	-0.012	72	28748	400.0	361.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.637	3.563	0.074	1	37088	20.0	23.2	M
25 Iodomethane	142	3.710	3.716	-0.006	92	65439	20.0	22.8	
26 Carbon disulfide	76	3.771	3.764	0.007	79	91497	20.0	22.2	
24 Acetone	43	3.874	3.855	0.019	65	47874	100.0	100.6	M
28 3-Chloro-1-propene	76	4.063	4.087	-0.024	54	22664	20.0	22.4	M
31 Methylene Chloride	84	4.318	4.294	0.024	55	38895	20.0	26.4	M
30 Methyl acetate	43	4.355	4.324	0.031	68	88164	100.0	129.3	M
34 trans-1,2-Dichloroethene	96	4.714	4.725	-0.011	55	42422	20.0	24.9	
32 2-Methyl-2-propanol	59	4.708	4.744	-0.036	1	567	200.0	-157.2	
33 Acrylonitrile	53	4.872	4.829	0.043	64	60806	200.0	222.9	M
35 Methyl tert-butyl ether	73	4.896	4.890	0.006	62	80870	20.0	24.1	M

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.115	5.090	0.025	81	44092	20.0	24.7	M
38 Vinyl acetate	43	5.115	5.115	0.000	76	34041	20.0	25.3	M
37 1,1-Dichloroethane	63	5.328	5.334	-0.006	62	51559	20.0	20.6	M
44 2,2-Dichloropropane	77	6.083	6.076	0.007	84	51484	20.0	24.7	M
45 cis-1,2-Dichloroethene	96	6.101	6.094	0.007	76	39878	20.0	23.6	
46 2-Butanone (MEK)	43	6.222	6.216	0.006	74	46886	100.0	102.2	
49 Chlorobromomethane	128	6.375	6.380	-0.005	74	24652	20.0	25.3	
52 Chloroform	83	6.502	6.496	0.006	92	70828	20.0	25.2	M
53 1,1,1-Trichloroethane	97	6.667	6.660	0.007	94	66238	20.0	25.9	M
51 Tetrahydrofuran	42	6.727	6.709	0.018	46	11945	40.0	47.6	M
54 Cyclohexane	56	6.715	6.709	0.006	86	49523	20.0	27.5	M
56 Carbon tetrachloride	117	6.849	6.849	0.000	95	69874	20.0	27.1	
55 1,1-Dichloropropene	75	6.855	6.855	0.000	50	48614	20.0	26.3	M
58 Benzene	78	7.098	7.086	0.012	95	131703	20.0	26.1	
59 1,2-Dichloroethane	62	7.129	7.122	0.007	84	45545	20.0	26.8	M
62 n-Heptane	43	7.390	7.390	0.000	40	37541	20.0	24.0	M
57 Isobutyl alcohol	41	7.208	7.396	-0.188	56	14915	500.0	362.9	M
64 Trichloroethene	130	7.798	7.785	0.013	88	51491	20.0	25.5	M
66 Methylcyclohexane	83	7.981	7.980	0.001	86	66709	20.0	26.9	
67 1,2-Dichloropropane	63	8.029	8.029	0.000	82	28343	20.0	24.7	
68 Dibromomethane	93	8.151	8.144	0.007	90	22063	20.0	25.8	M
70 1,4-Dioxane	88	8.206	8.205	0.001	2	2158	400.0	269.0	M
71 Dichlorobromomethane	83	8.321	8.315	0.006	96	51297	20.0	24.1	
74 cis-1,3-Dichloropropene	75	8.771	8.771	0.000	89	51839	20.0	23.5	
75 4-Methyl-2-pentanone (MIBK	43	8.948	8.947	0.001	97	92825	100.0	115.8	
76 Toluene	91	9.100	9.099	0.001	97	142380	20.0	12.2	
77 trans-1,3-Dichloropropene	75	9.325	9.325	0.000	95	43102	20.0	25.0	
78 Ethyl methacrylate	69	9.428	9.428	0.000	92	25609	20.0	22.3	
79 1,1,2-Trichloroethane	97	9.514	9.513	0.001	91	24292	20.0	24.7	
80 Tetrachloroethene	164	9.647	9.641	0.006	91	37717	20.0	9.83	
81 1,3-Dichloropropane	76	9.666	9.671	-0.005	92	39480	20.0	27.1	
82 2-Hexanone	43	9.769	9.769	0.000	95	50336	100.0	97.3	
84 Chlorodibromomethane	129	9.897	9.896	0.001	85	44500	20.0	26.3	
85 Ethylene Dibromide	107	10.012	10.006	0.006	95	27850	20.0	25.0	
87 Chlorobenzene	112	10.499	10.499	0.000	97	92306	20.0	26.4	
89 1,1,1,2-Tetrachloroethane	131	10.572	10.578	-0.006	89	43591	20.0	25.8	
90 Ethylbenzene	106	10.603	10.602	0.001	98	50304	20.0	25.3	
91 m-Xylene & p-Xylene	106	10.718	10.718	0.000	98	67901	20.0	25.3	
92 o-Xylene	106	11.114	11.113	0.001	95	68803	20.0	25.6	
93 Styrene	104	11.126	11.125	0.001	94	104580	20.0	9.49	
94 Bromoform	173	11.314	11.314	0.000	92	19871	20.0	20.7	
97 Isopropylbenzene	105	11.479	11.478	0.001	96	197392	20.0	10.7	
99 1,1,2,2-Tetrachloroethane	83	11.777	11.776	0.001	59	27018	20.0	26.1	
100 Bromobenzene	156	11.789	11.788	0.001	90	45193	20.0	26.1	
101 1,2,3-Trichloropropane	110	11.813	11.819	-0.006	55	9783	20.0	25.2	
102 trans-1,4-Dichloro-2-buten	53	11.837	11.831	0.006	47	6196	20.0	25.5	
103 N-Propylbenzene	120	11.892	11.892	0.000	97	57850	20.0	27.2	
104 2-Chlorotoluene	126	11.983	11.977	0.006	97	49710	20.0	25.7	
106 1,3,5-Trimethylbenzene	105	12.063	12.062	0.001	95	166706	20.0	6.19	
107 4-Chlorotoluene	126	12.087	12.086	0.001	95	50322	20.0	27.2	
108 tert-Butylbenzene	119	12.391	12.391	0.000	91	173349	20.0	19.7	
110 1,2,4-Trimethylbenzene	105	12.440	12.439	0.001	95	162794	20.0	14.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
112 sec-Butylbenzene	105	12.610	12.610	0.000	94	214158	20.0	6.61	
113 1,3-Dichlorobenzene	146	12.726	12.725	0.001	96	100166	20.0	19.7	
114 4-Isopropyltoluene	119	12.750	12.756	-0.006	96	201528	20.0	13.2	
115 1,4-Dichlorobenzene	146	12.817	12.816	0.001	94	86104	20.0	26.8	
120 n-Butylbenzene	91	13.164	13.163	0.001	96	165362	20.0	13.9	
121 1,2-Dichlorobenzene	146	13.188	13.188	0.000	97	82710	20.0	26.3	
122 1,2-Dibromo-3-Chloropropan	75	13.955	13.972	-0.017	52	2051	20.0	20.3	
126 1,2,4-Trichlorobenzene	180	14.818	14.806	0.012	91	28435	20.0	28.5	
127 Hexachlorobutadiene	225	14.964	14.970	-0.006	84	19184	20.0	32.1	
128 Naphthalene	128	15.056	15.055	0.001	96	61310	20.0	37.5	
129 1,2,3-Trichlorobenzene	180	15.311	15.305	0.006	93	28729	20.0	42.1	
S 134 1,2-Dichloroethene, Total	96				0		40.0	48.4	
S 133 Xylenes, Total	106				0		40.0	50.9	
S 135 1,3-Dichloropropene, Total	1				0		40.0	48.5	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

Reagents:

VOA8260SURR_00017	Amount Added:	0.80	Units: uL
VOAVAPRI_00005	Amount Added:	0.80	Units: uL
VOAACRPRI_00003	Amount Added:	16.00	Units: uL
VOA8260INT_00030	Amount Added:	8.00	Units: uL
VOA8260VOAPRI_00108	Amount Added:	0.80	Units: uL
voaWKet2 Rest_00002	Amount Added:	3.20	Units: uL

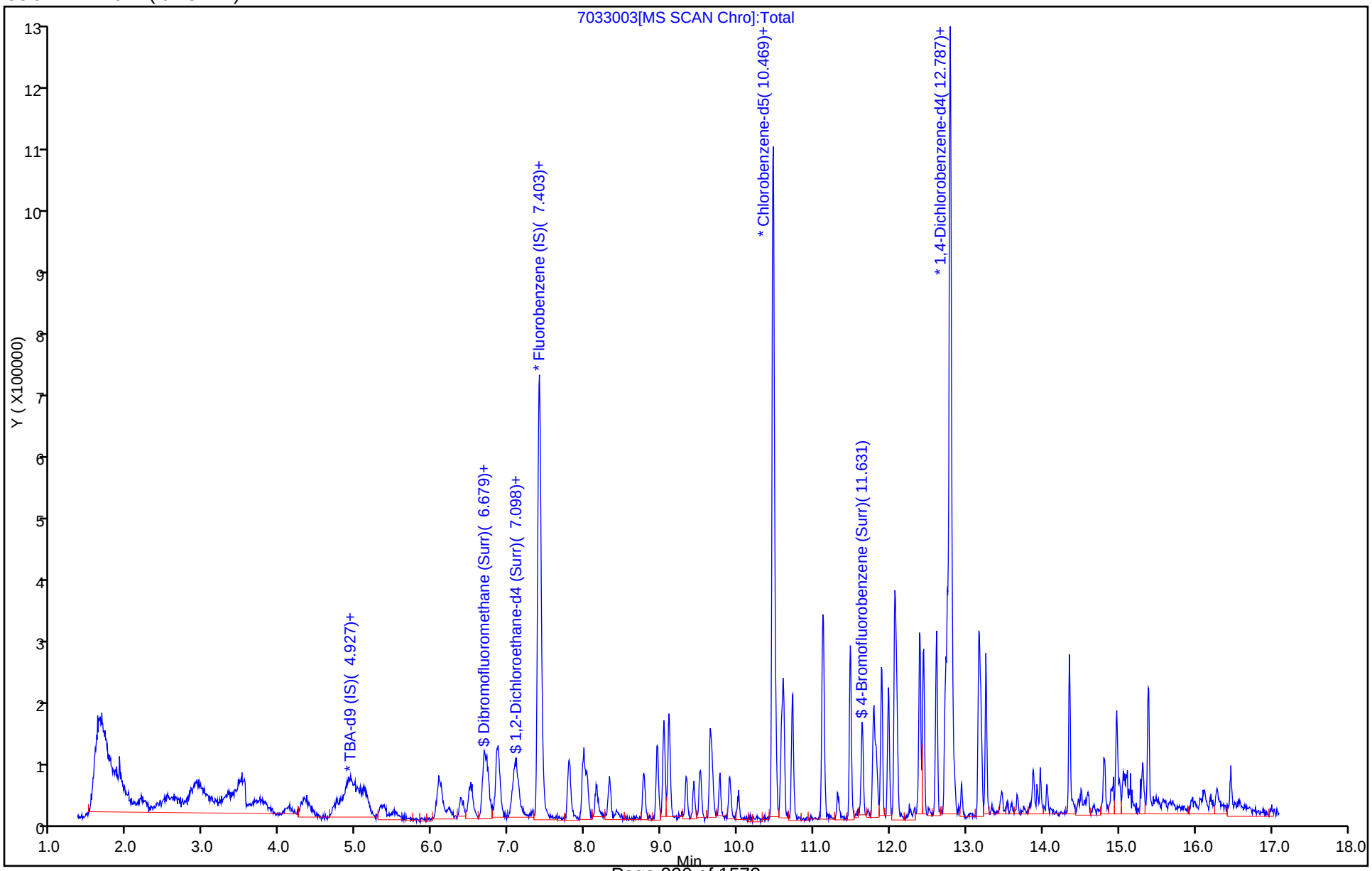
Report Date: 31-Mar-2015 08:54:15 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D

Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	ic			Worklist Smp#:	3
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

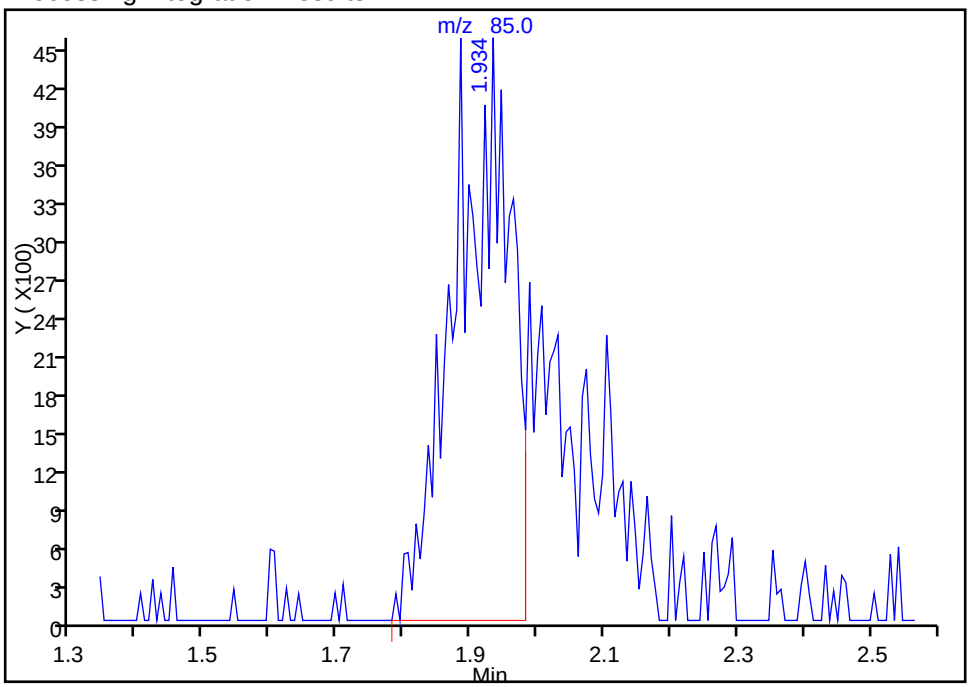
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

11 Dichlorodifluoromethane, CAS: 75-71-8

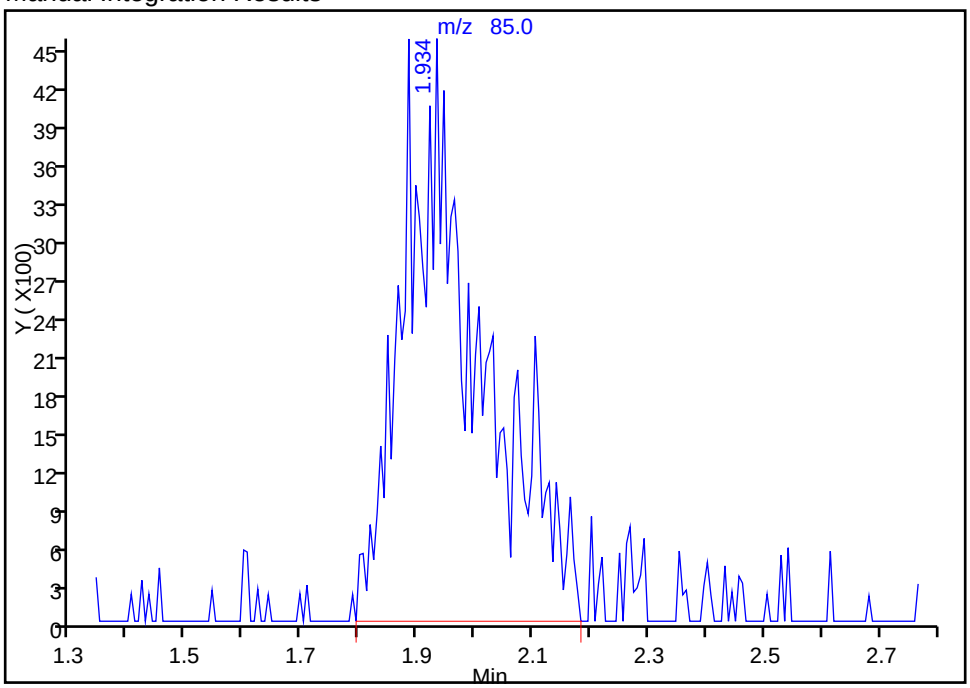
Processing Integration Results

RT: 1.93
Area: 26133
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 1.93
Area: 41448
Amount: 21.843208
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

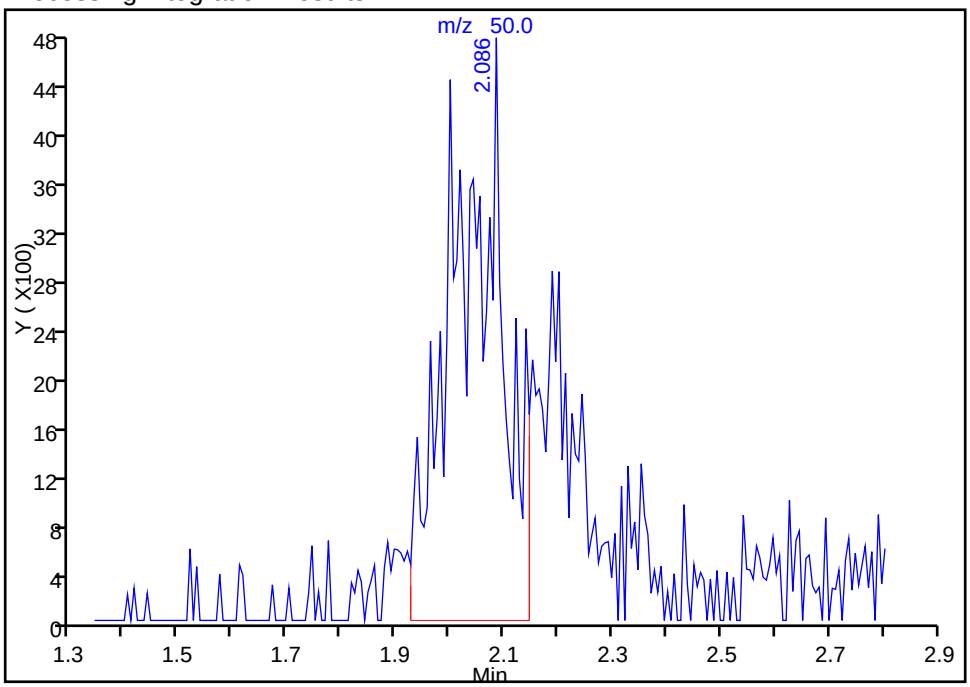
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

12 Chloromethane, CAS: 74-87-3

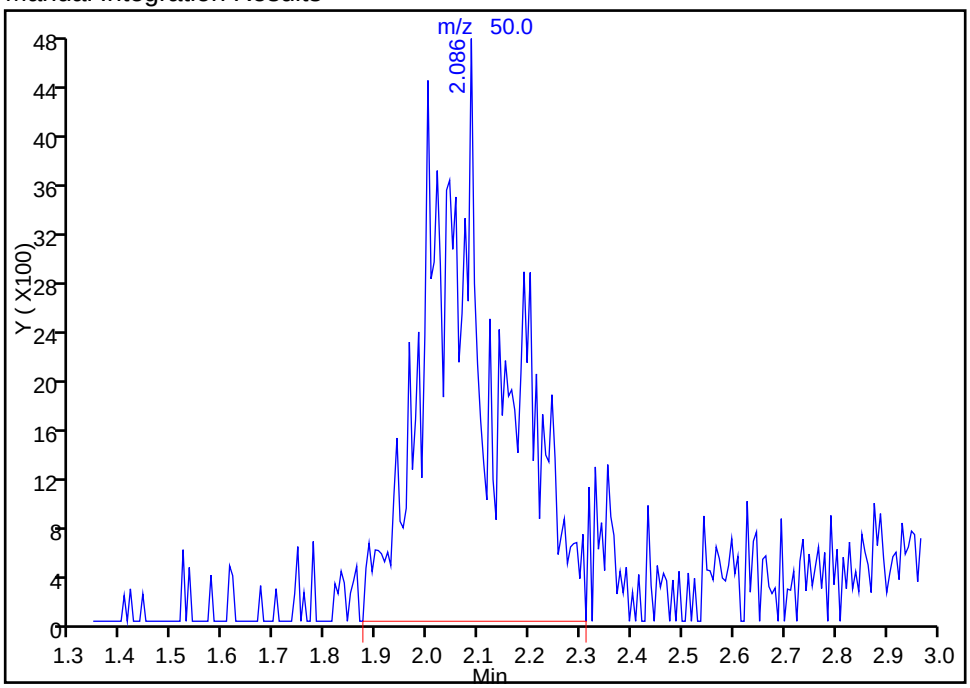
Processing Integration Results

RT: 2.09
Area: 29503
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 2.09
Area: 44098
Amount: 21.331829
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

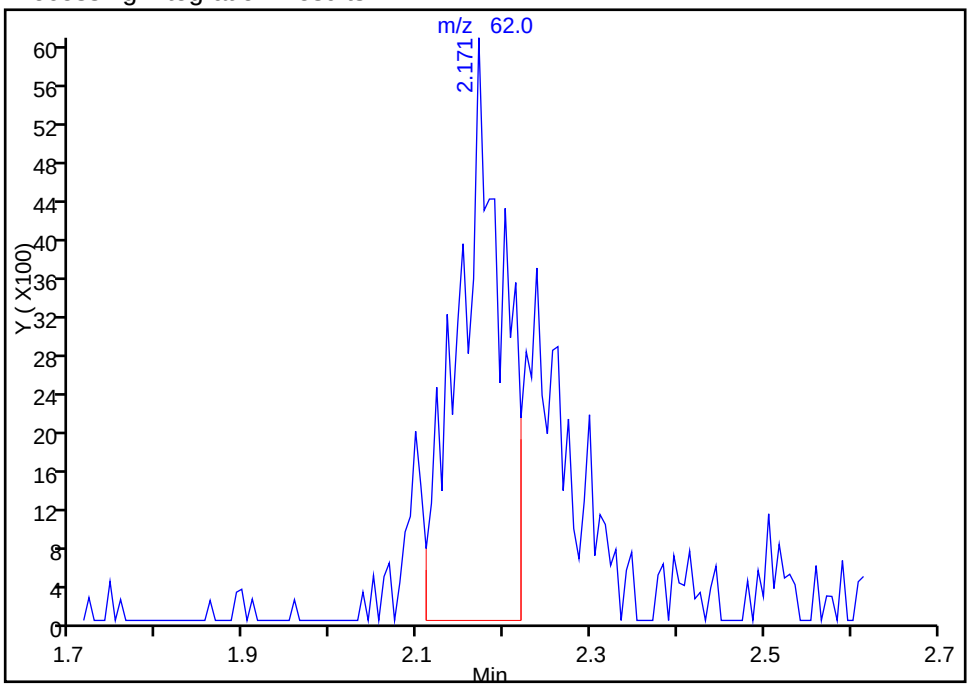
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

13 Vinyl chloride, CAS: 75-01-4

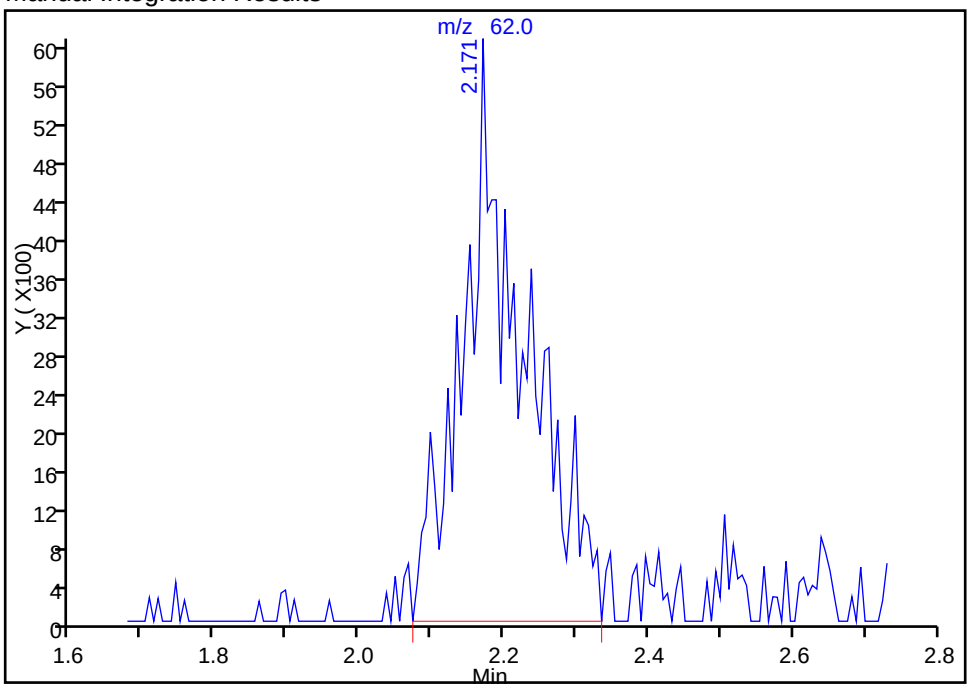
Processing Integration Results

RT: 2.17
Area: 21509
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 2.17
Area: 35111
Amount: 21.810178
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

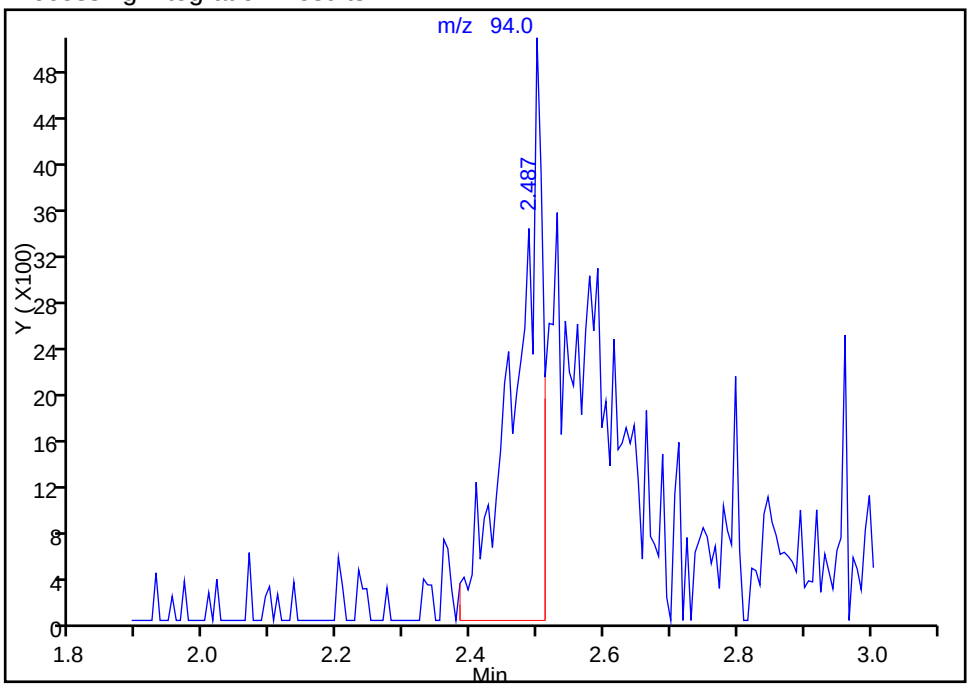
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

15 Bromomethane, CAS: 74-83-9

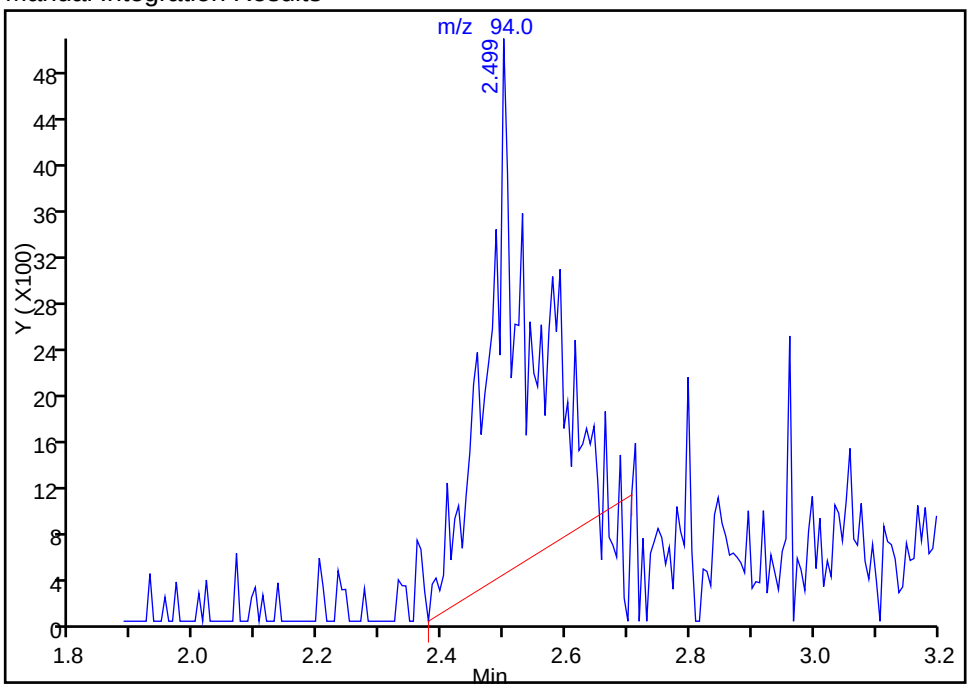
Processing Integration Results

RT: 2.49
Area: 13755
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 2.50
Area: 23195
Amount: 17.880294
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

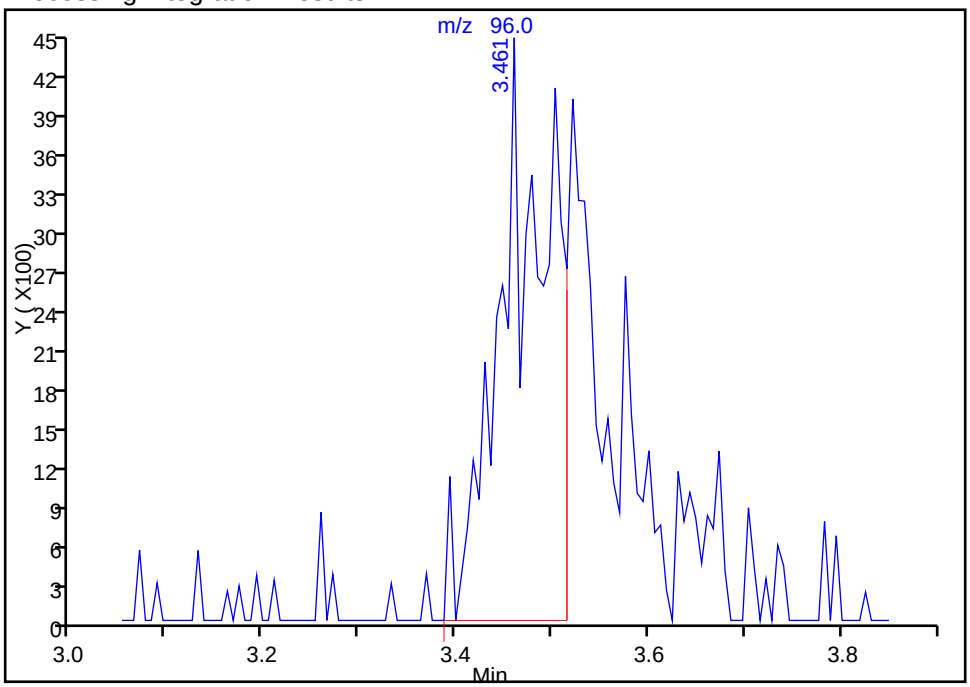
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D
Injection Date: 30-Mar-2015 10:57:30 Instrument ID: CHHP7
Lims ID: ic
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

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

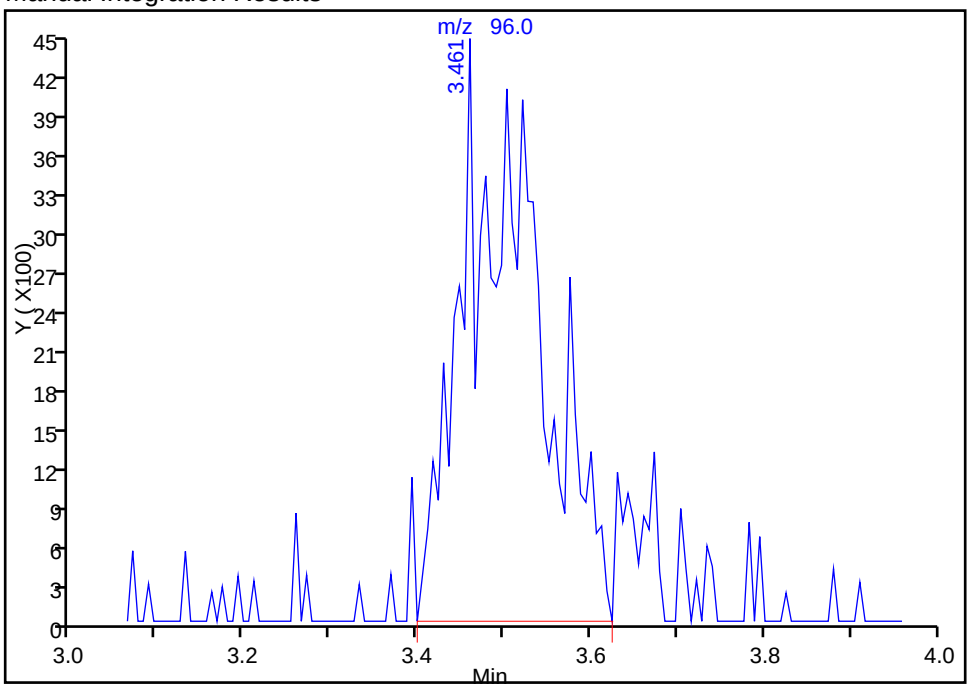
Processing Integration Results

RT: 3.46
Area: 16183
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 3.46
Area: 25924
Amount: 18.860231
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

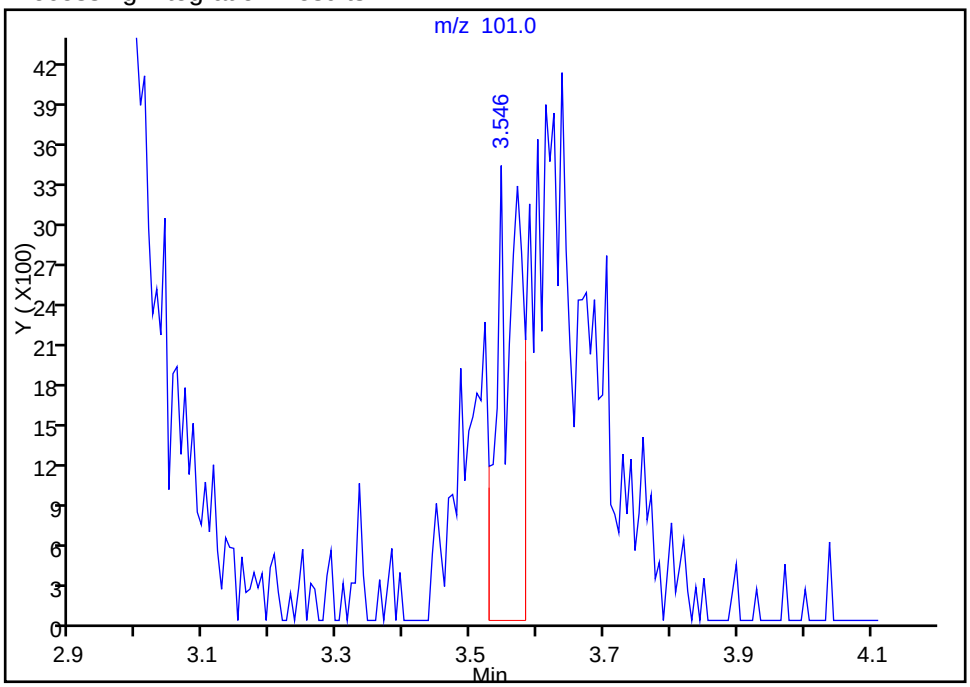
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D
Injection Date: 30-Mar-2015 10:57:30 Instrument ID: CHHP7
Lims ID: ic
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

23 1,1,2-Trichloro-1,2,2-trifluoroethane, CAS: 76-13-1

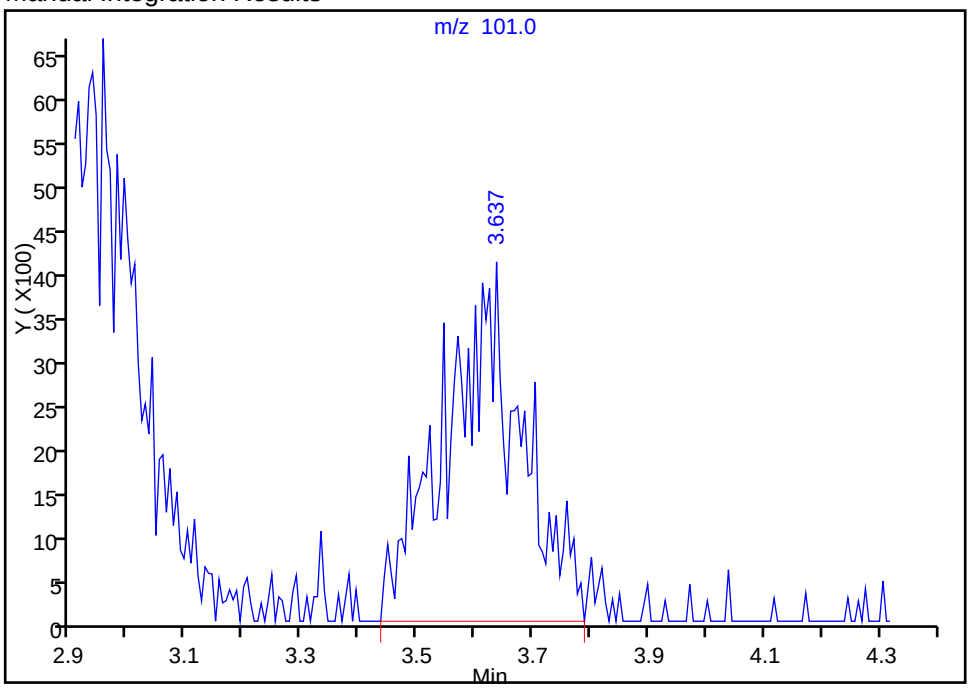
Processing Integration Results

RT: 3.55
Area: 7866
Amount: 0
Amount Units: ng



Manual Integration Results

RT: 3.64
Area: 37088
Amount: 23.204719
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

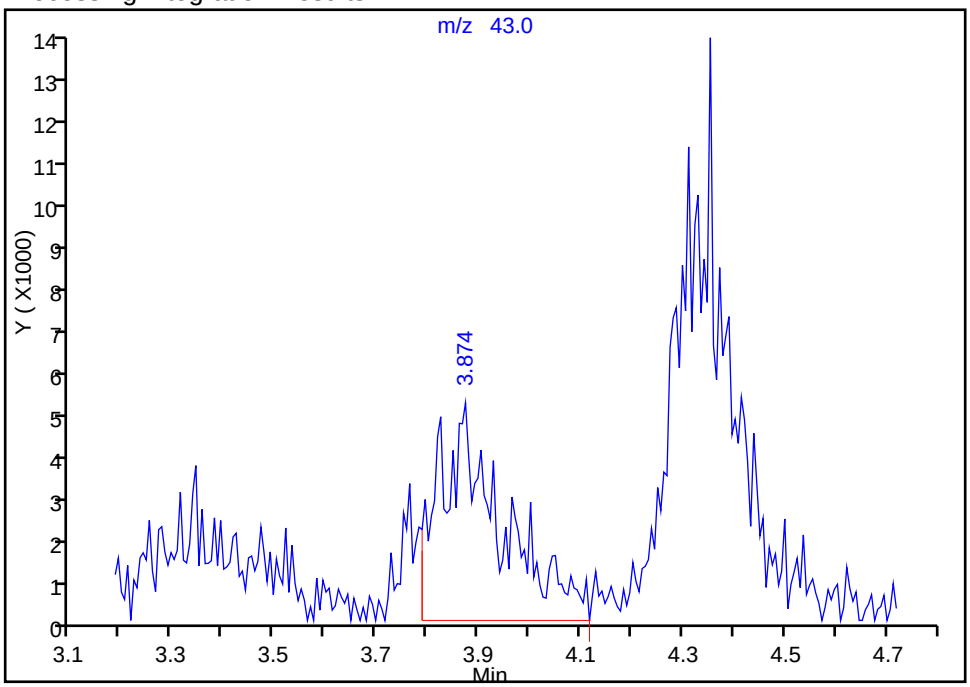
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

24 Acetone, CAS: 67-64-1

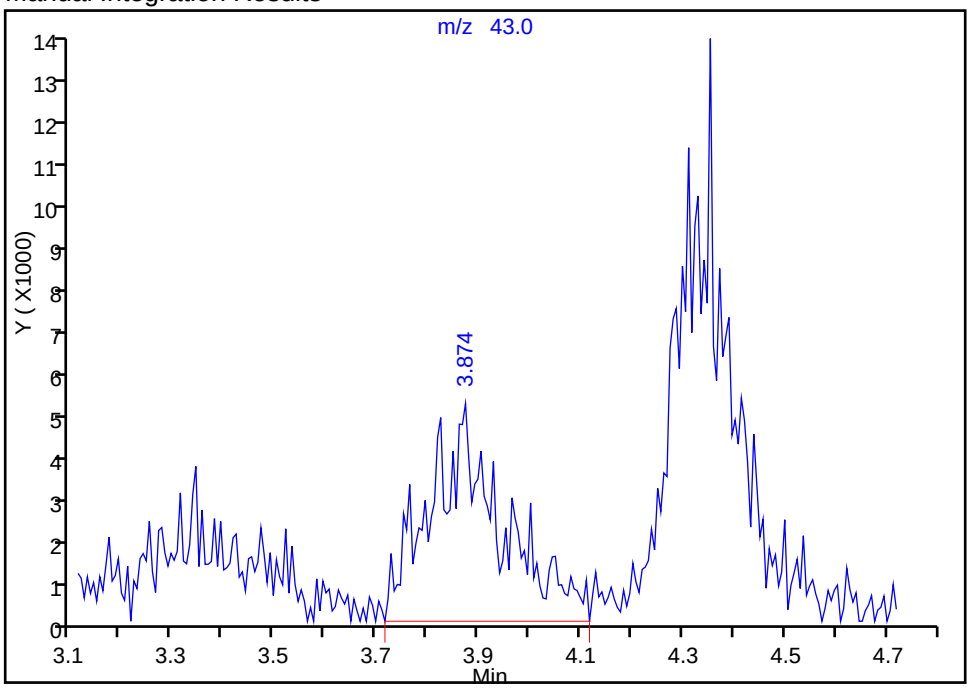
Processing Integration Results

RT: 3.87
Area: 41567
Amount: 100.0000
Amount Units: ng



Manual Integration Results

RT: 3.87
Area: 47874
Amount: 100.6346
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

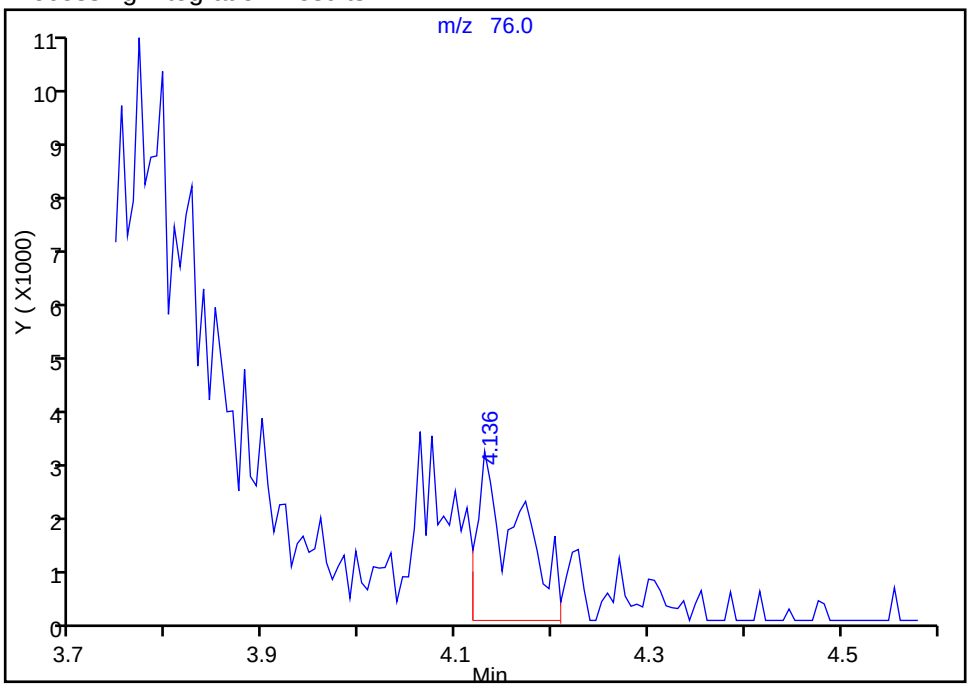
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D
Injection Date: 30-Mar-2015 10:57:30 Instrument ID: CHHP7
Lims ID: ic
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

28 3-Chloro-1-propene, CAS: 107-05-1

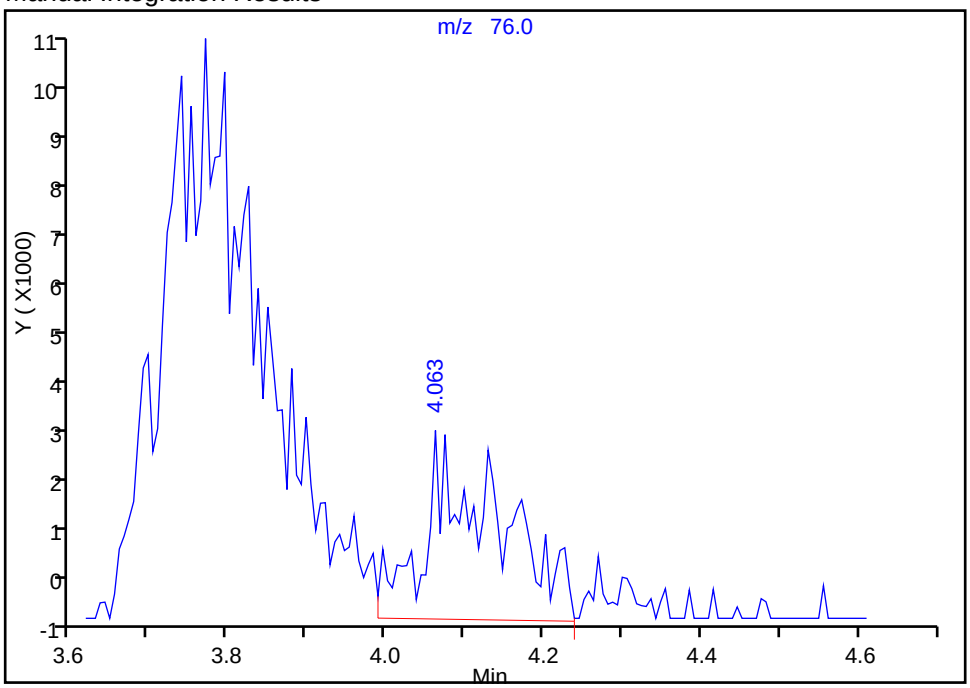
Processing Integration Results

RT: 4.14
Area: 9385
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 4.06
Area: 22664
Amount: 22.354527
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

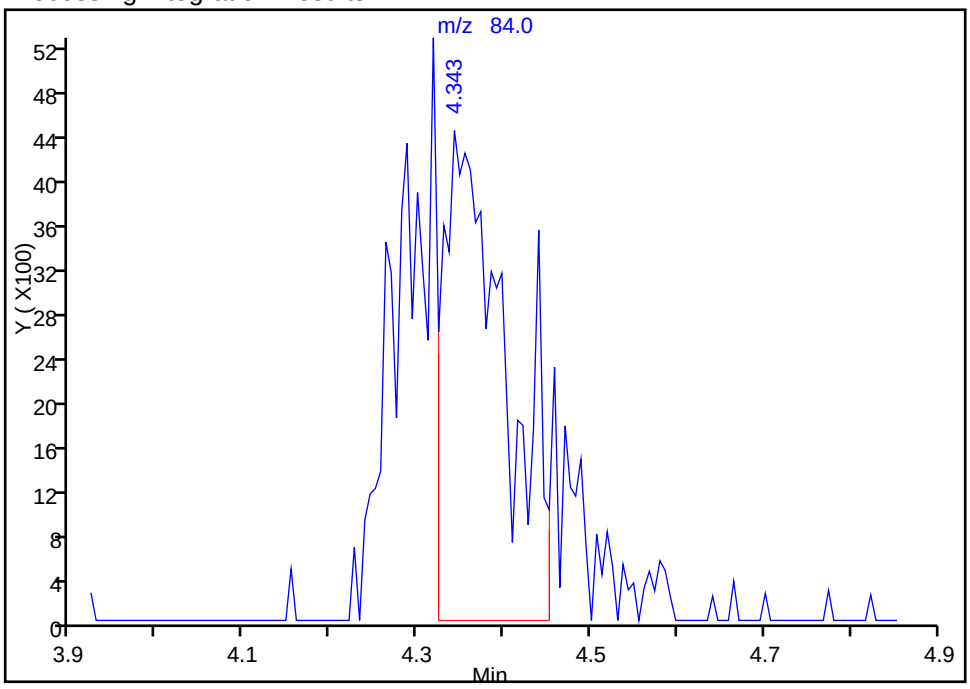
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

31 Methylene Chloride, CAS: 75-09-2

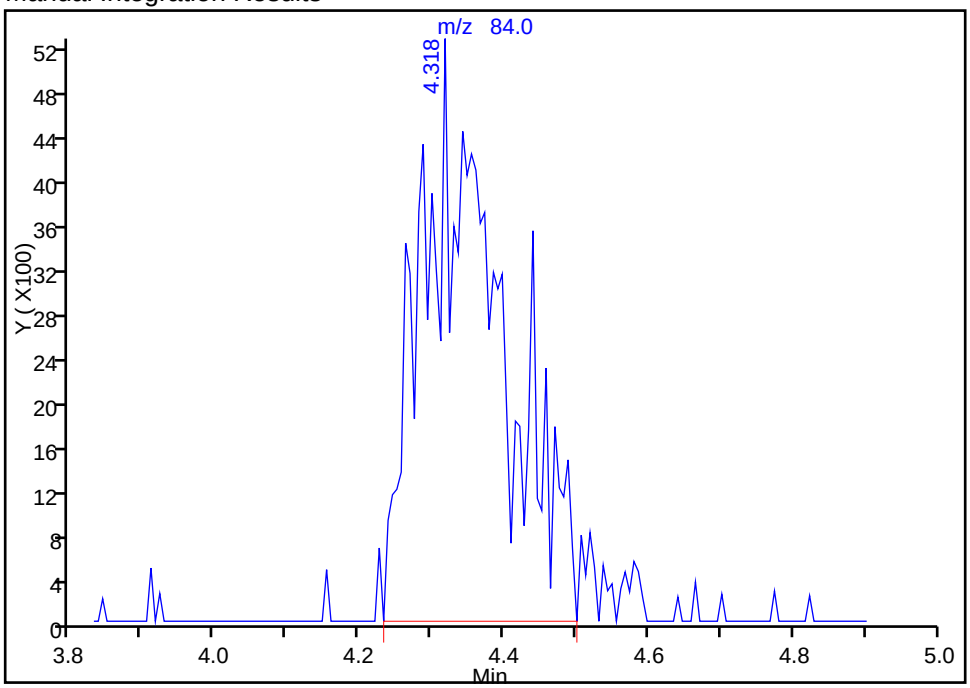
Processing Integration Results

RT: 4.34
Area: 21726
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 4.32
Area: 38895
Amount: 26.365167
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

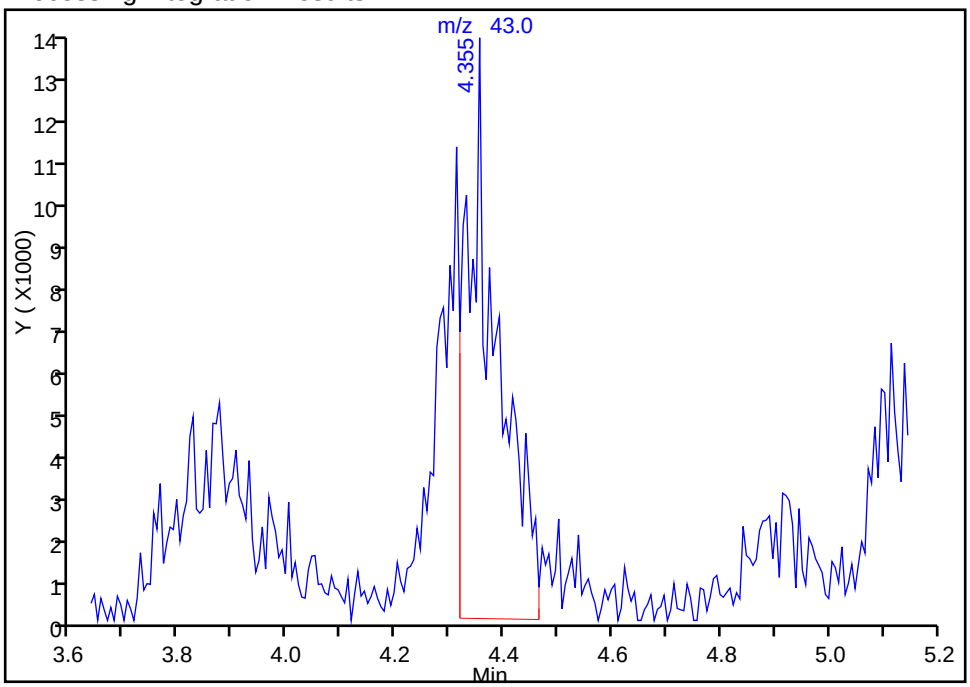
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D
Injection Date: 30-Mar-2015 10:57:30 Instrument ID: CHHP7
Lims ID: ic
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

30 Methyl acetate, CAS: 79-20-9

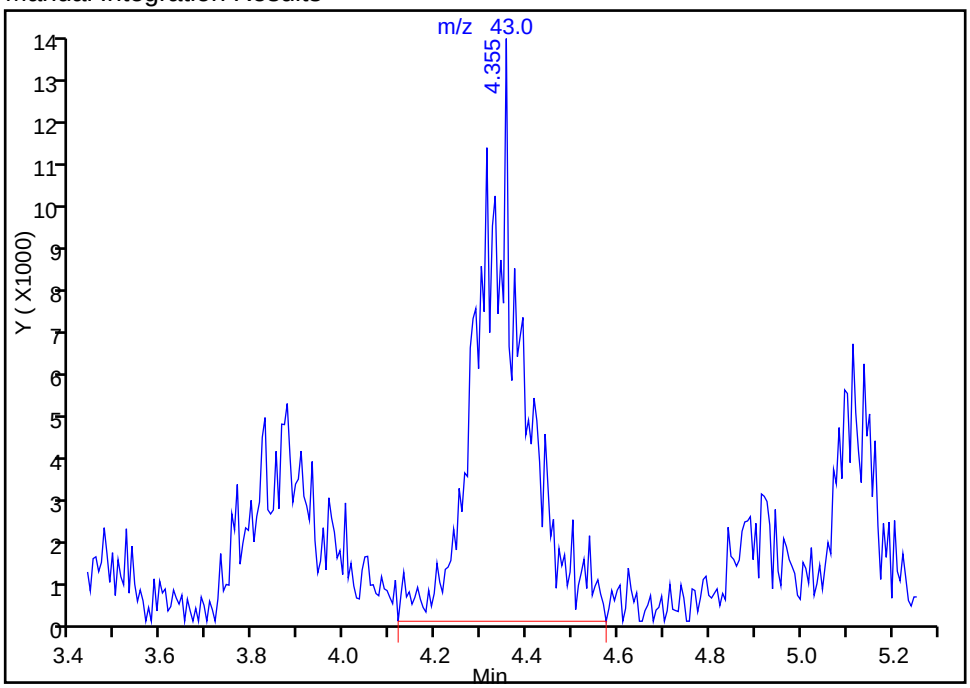
Processing Integration Results

RT: 4.35
Area: 51204
Amount: 100.0000
Amount Units: ng



Manual Integration Results

RT: 4.35
Area: 88164
Amount: 129.2601
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

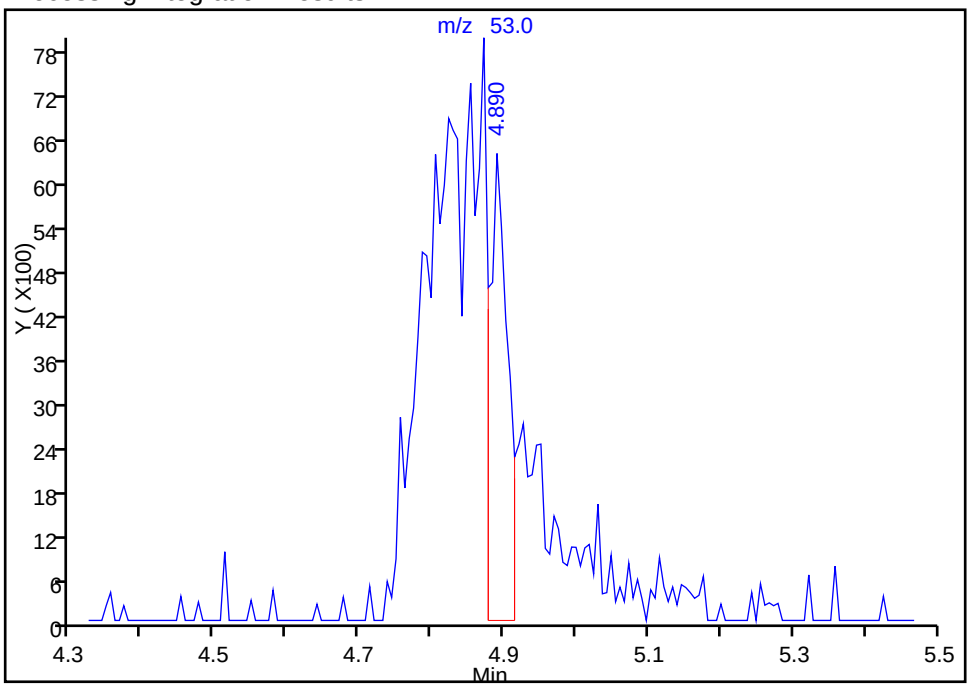
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

33 Acrylonitrile, CAS: 107-13-1

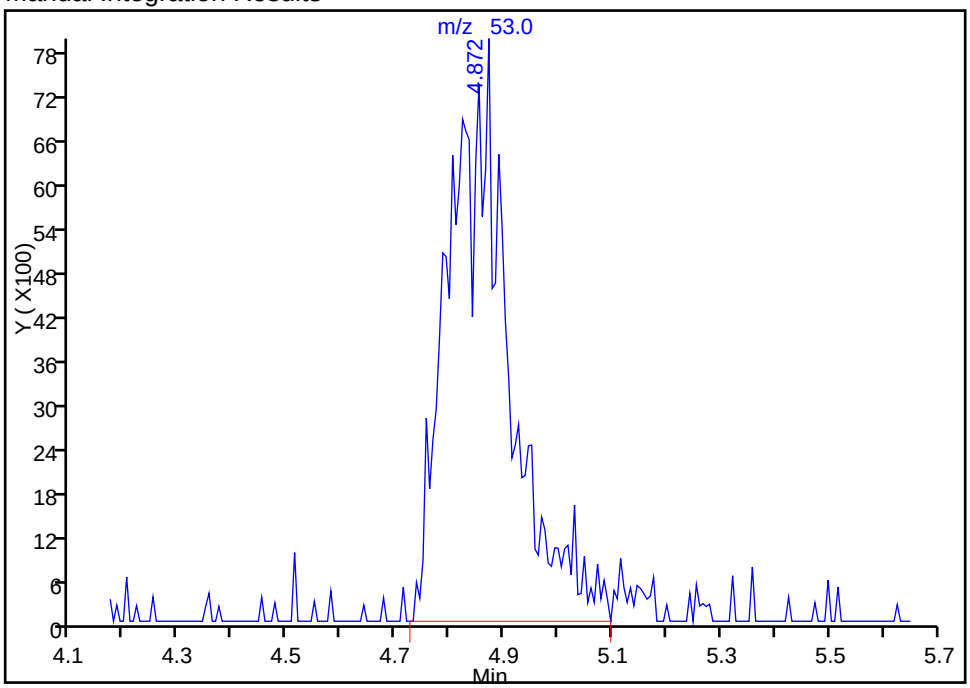
Processing Integration Results

RT: 4.89
Area: 11115
Amount: 0
Amount Units: ng



Manual Integration Results

RT: 4.87
Area: 60806
Amount: 222.8607
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

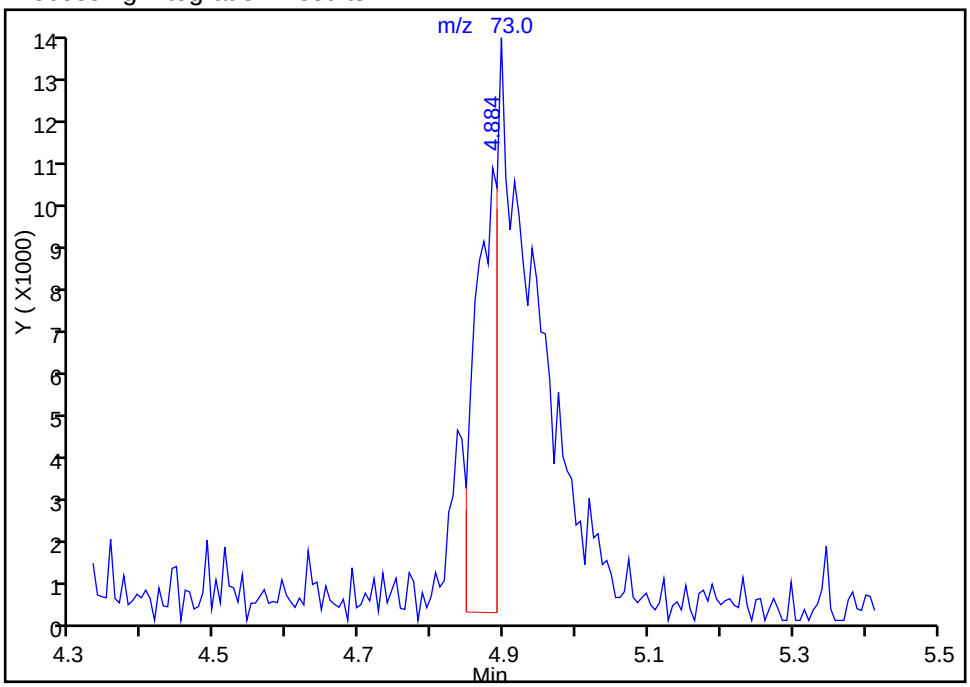
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

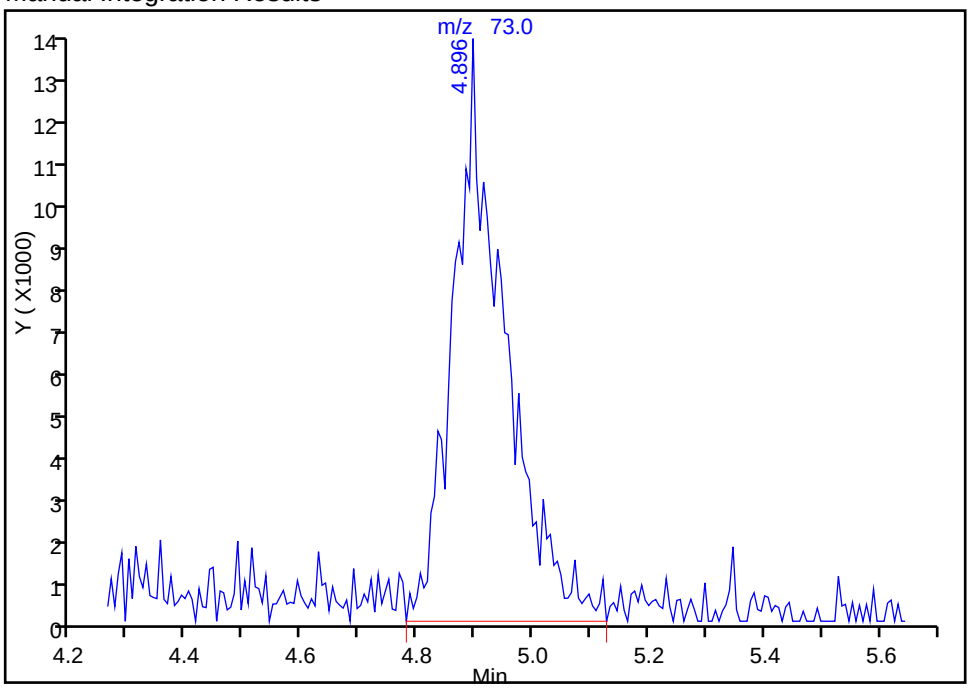
Processing Integration Results

RT: 4.88
Area: 21512
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 4.90
Area: 80870
Amount: 24.061609
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

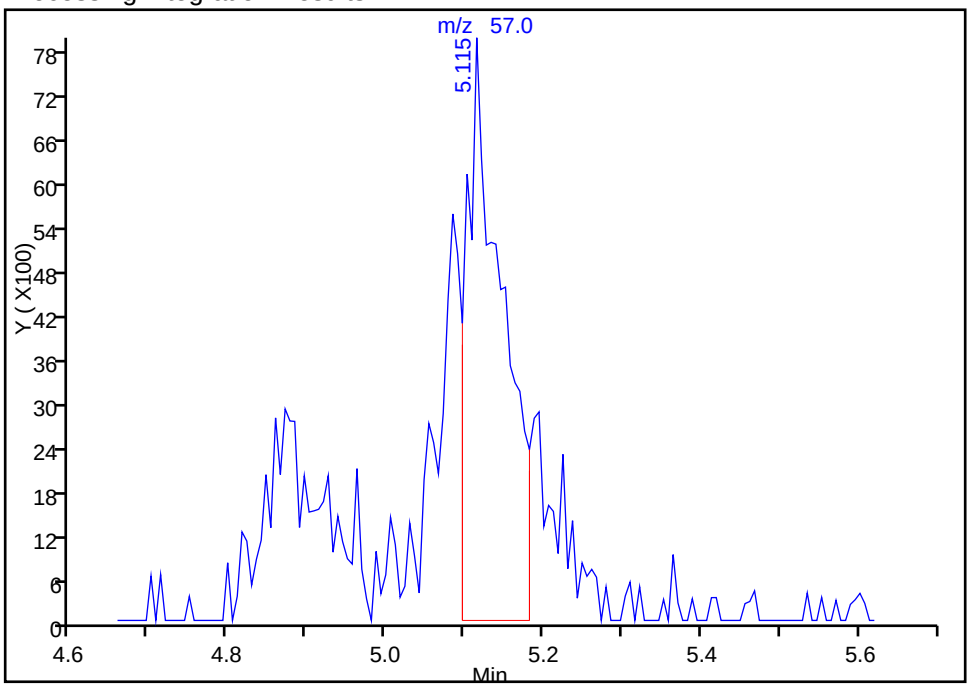
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

36 Hexane, CAS: 110-54-3

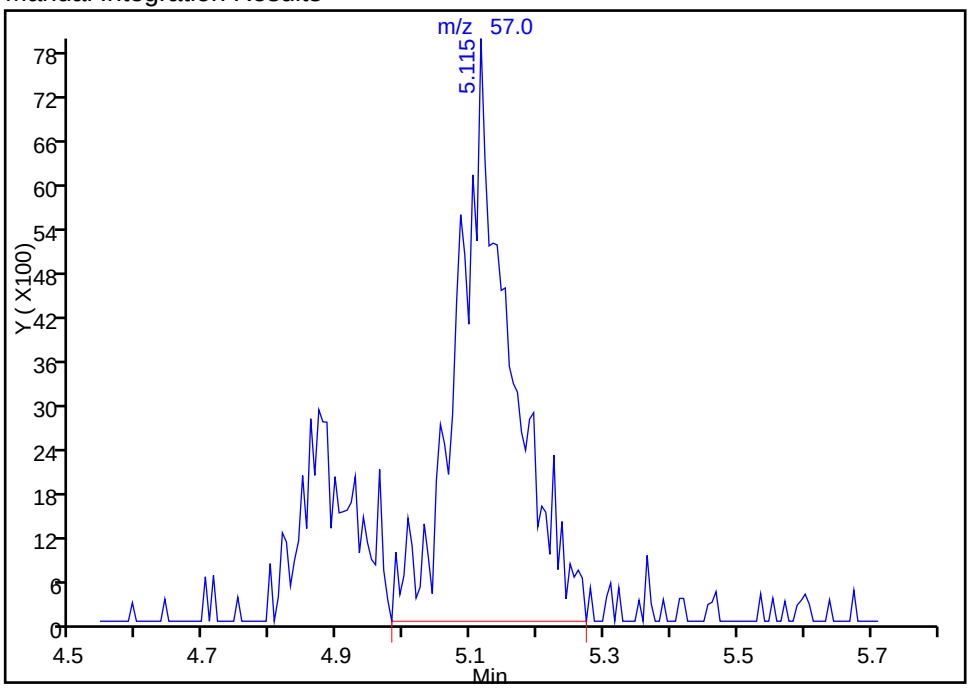
Processing Integration Results

RT: 5.12
Area: 24973
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 5.12
Area: 44092
Amount: 24.720726
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

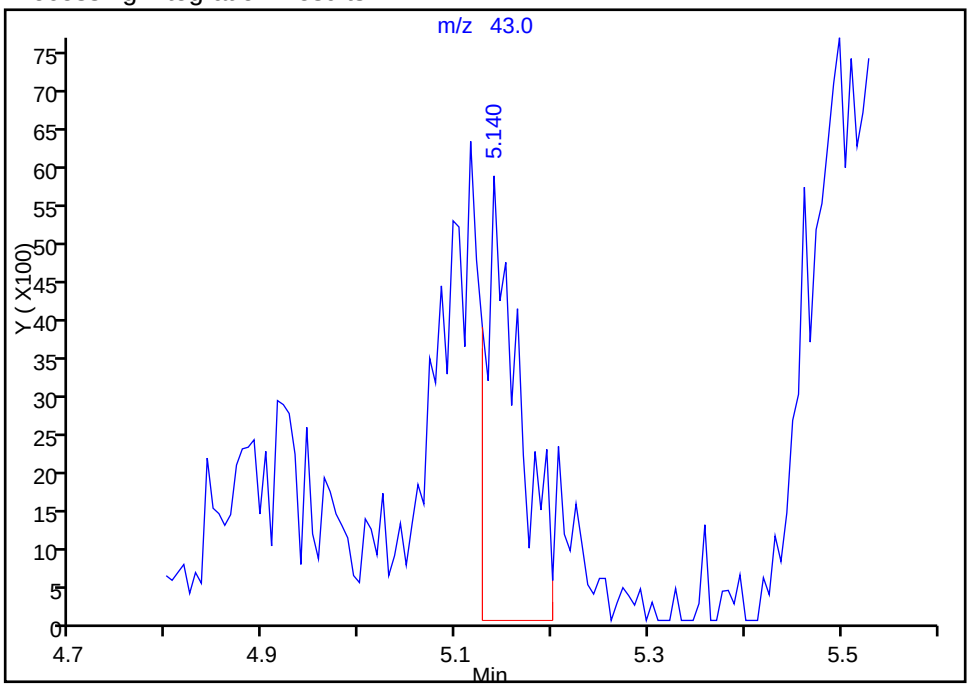
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D
Injection Date: 30-Mar-2015 10:57:30 Instrument ID: CHHP7
Lims ID: ic
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

38 Vinyl acetate, CAS: 108-05-4

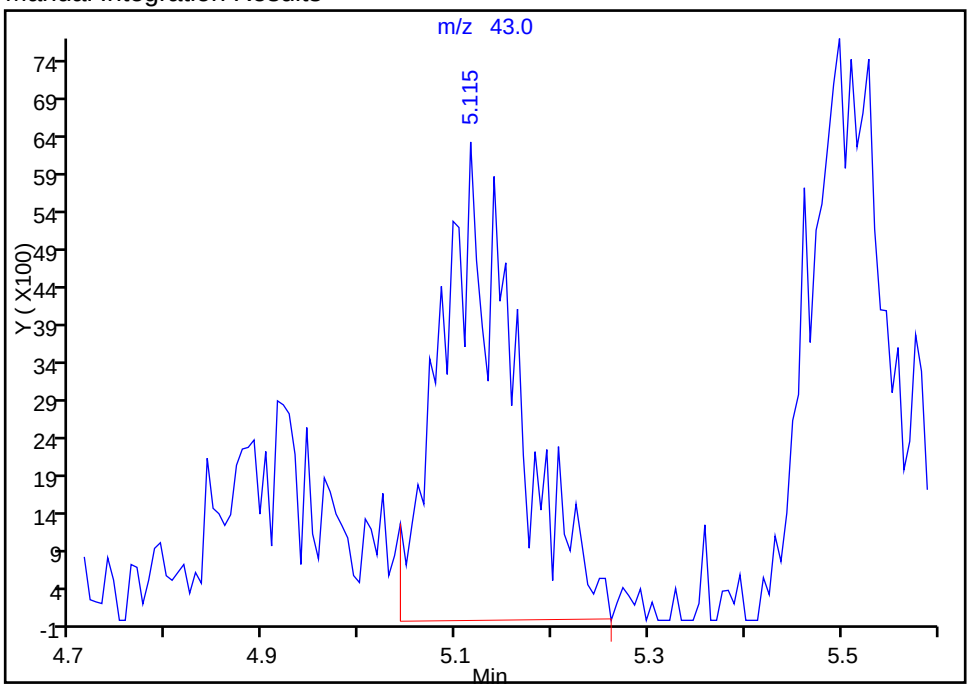
Processing Integration Results

RT: 5.14
Area: 14037
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 5.12
Area: 34041
Amount: 25.312957
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

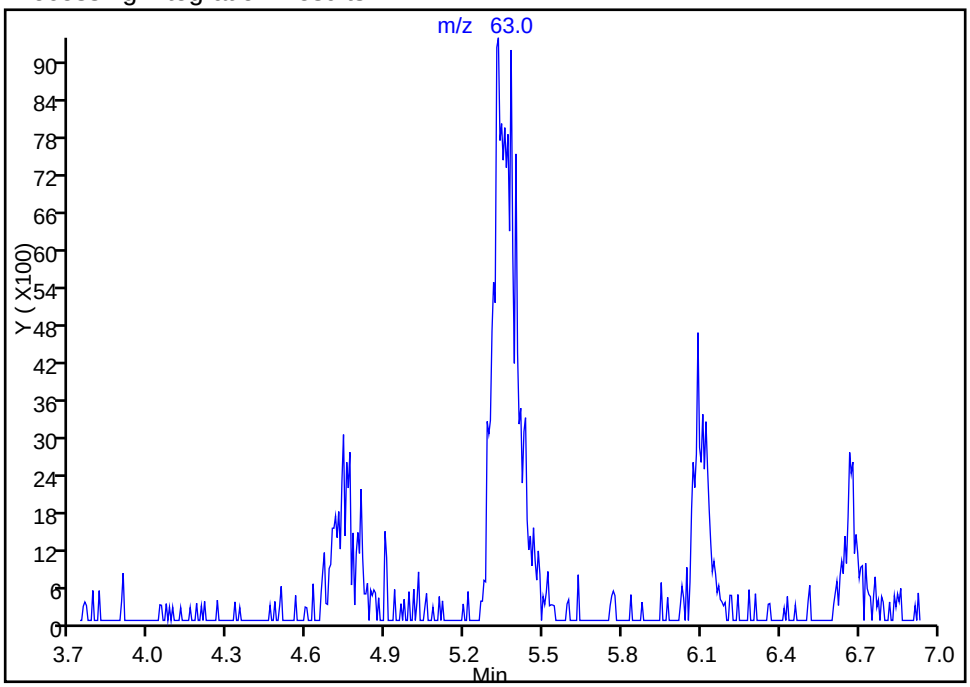
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

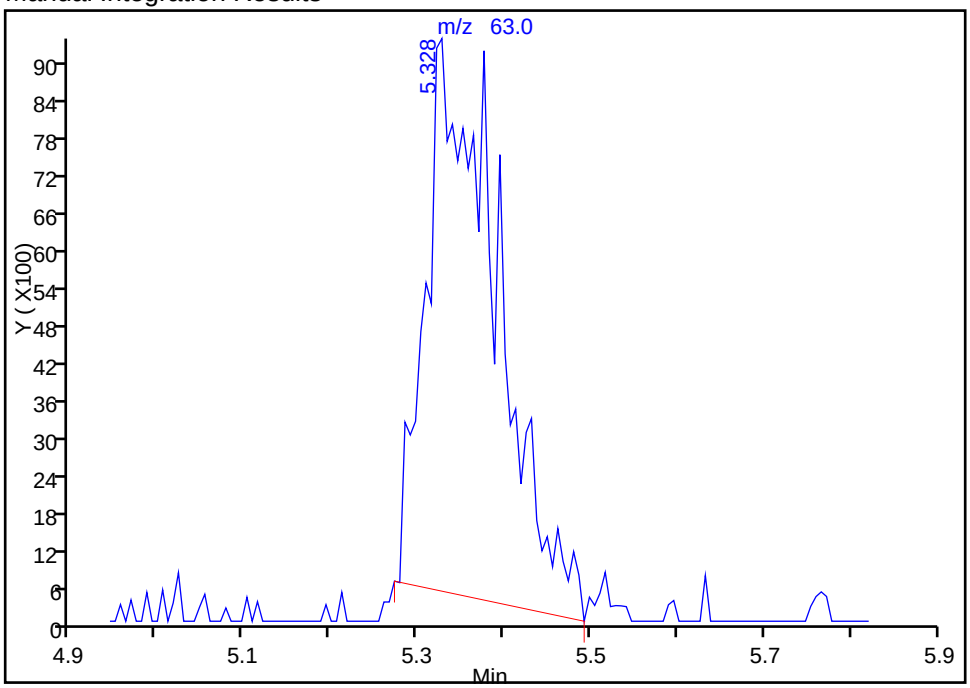
Processing Integration Results

Not Detected
Expected RT: 5.33



Manual Integration Results

RT: 5.33
Area: 51559
Amount: 20.627467
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

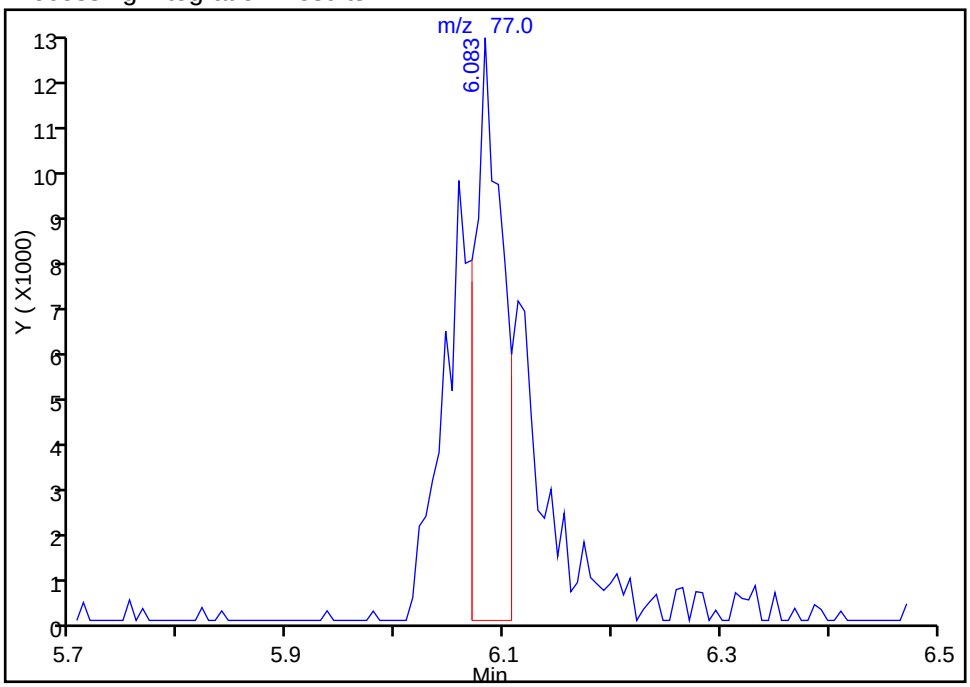
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

44 2,2-Dichloropropane, CAS: 594-20-7

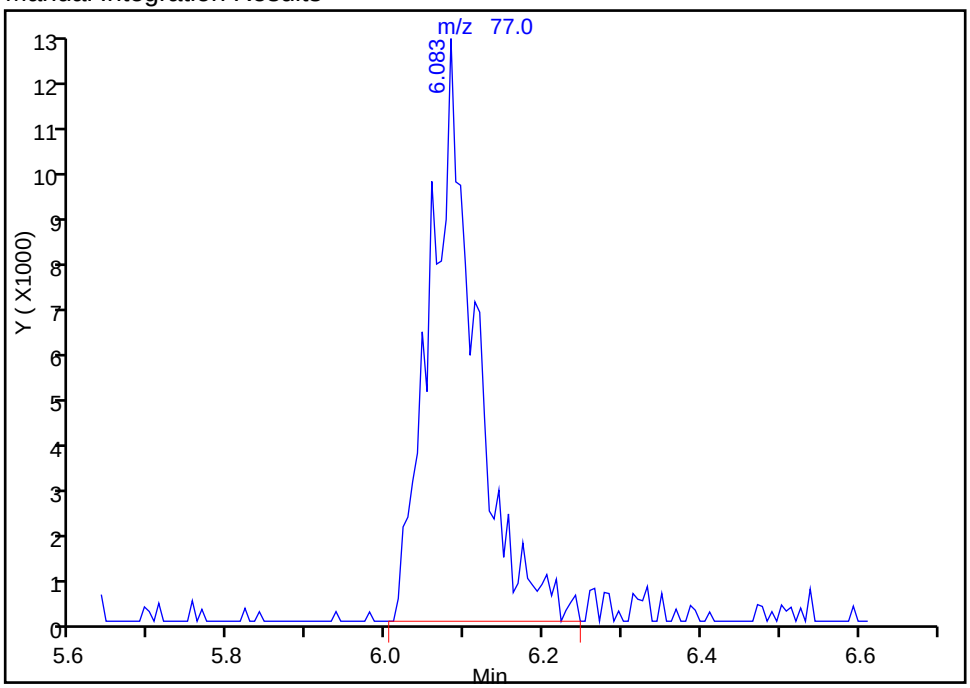
Processing Integration Results

RT: 6.08
Area: 22544
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 6.08
Area: 51484
Amount: 24.654531
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

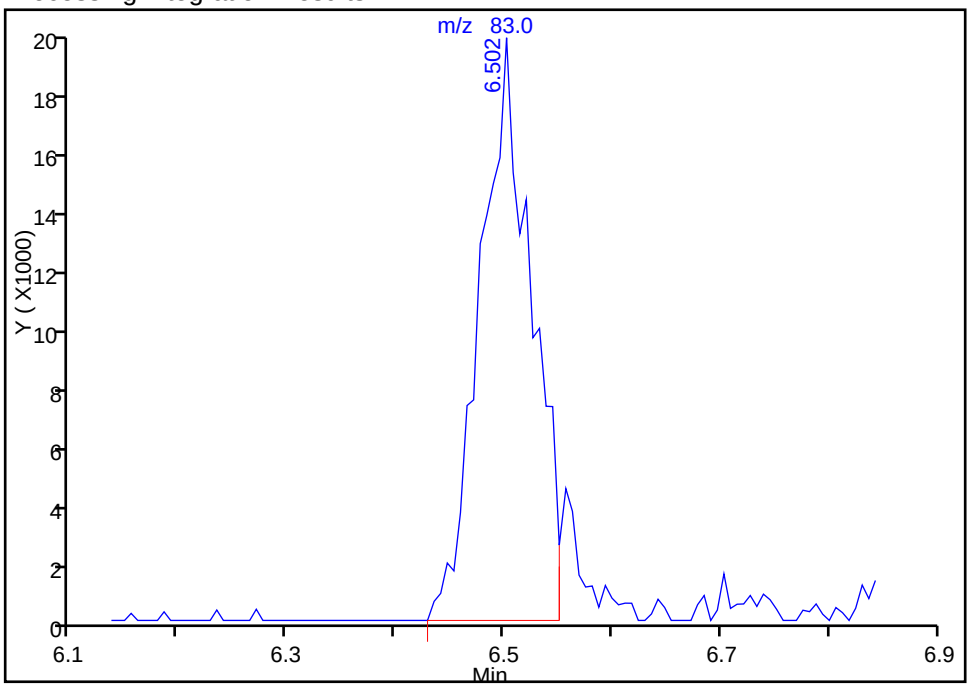
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

52 Chloroform, CAS: 67-66-3

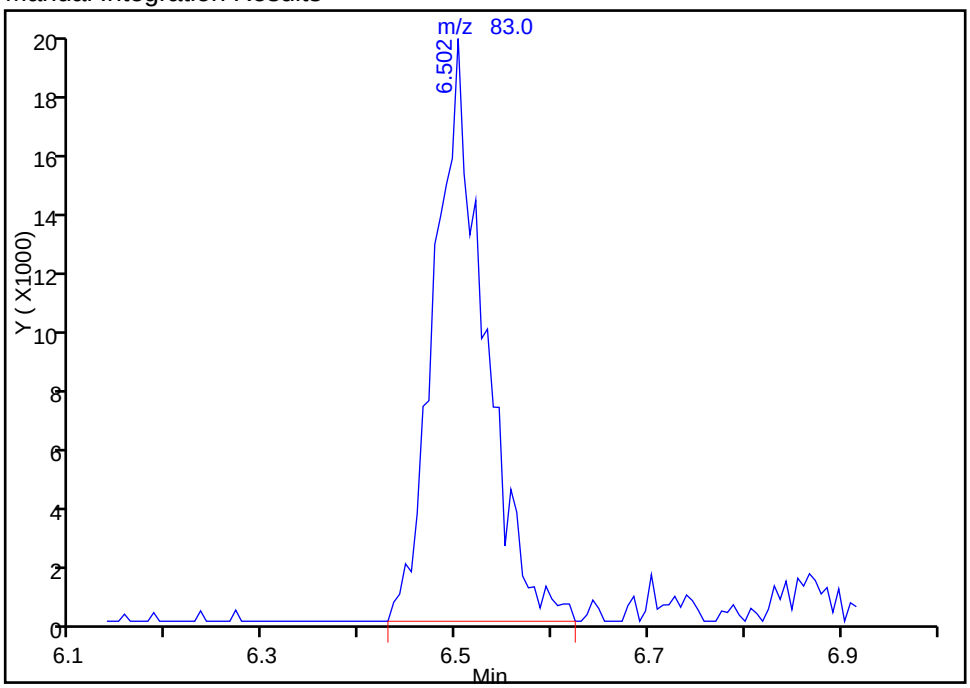
Processing Integration Results

RT: 6.50
Area: 65001
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 6.50
Area: 70828
Amount: 25.162519
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

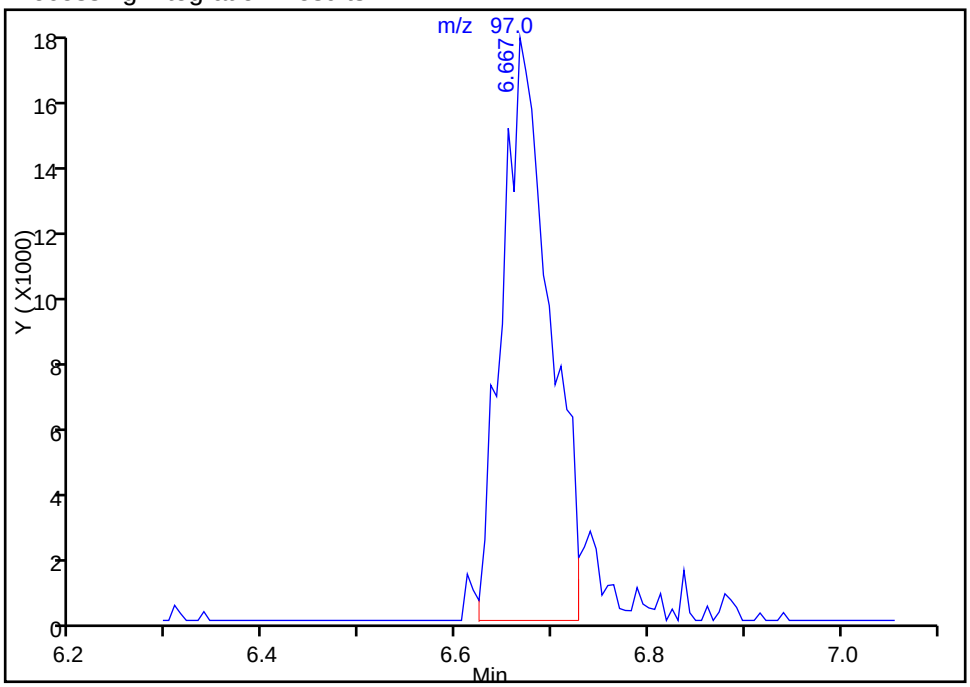
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

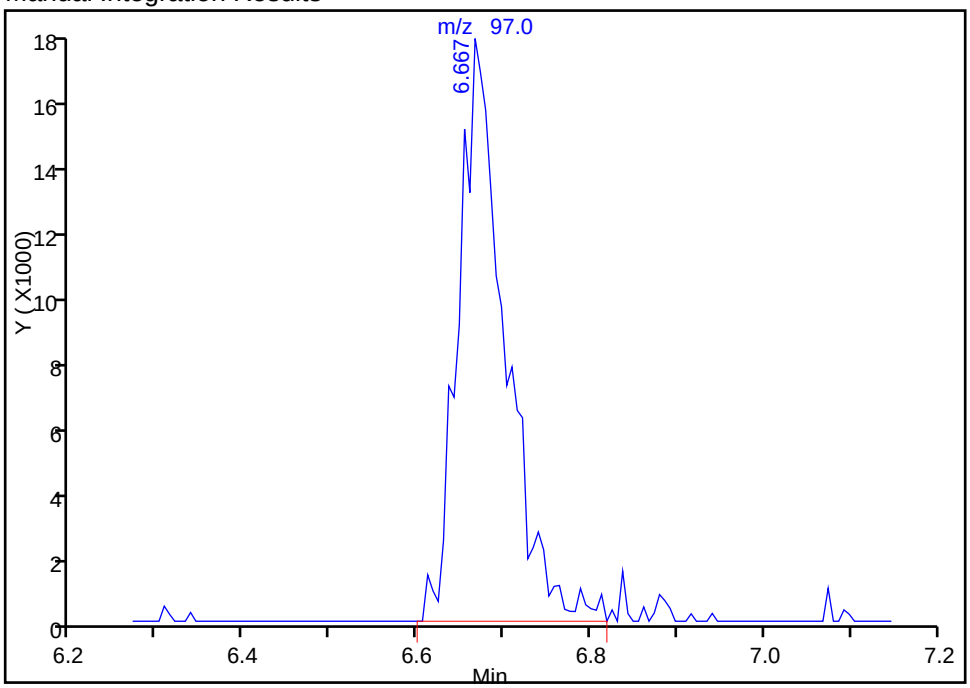
Processing Integration Results

RT: 6.67
Area: 60310
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 6.67
Area: 66238
Amount: 25.914032
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

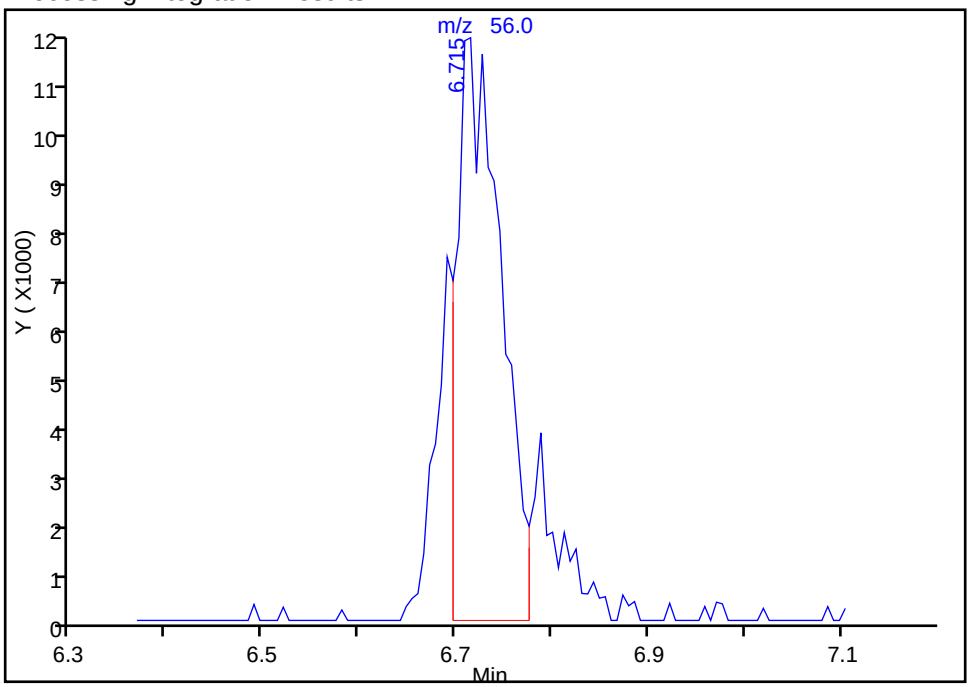
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

54 Cyclohexane, CAS: 110-82-7

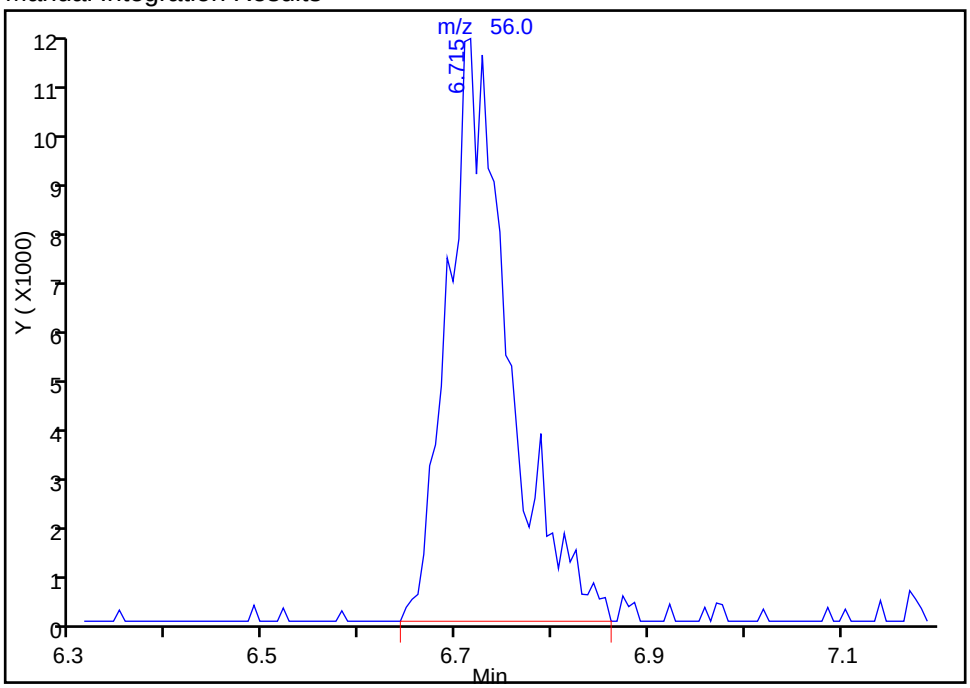
Processing Integration Results

RT: 6.72
Area: 35785
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 6.72
Area: 49523
Amount: 27.461349
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

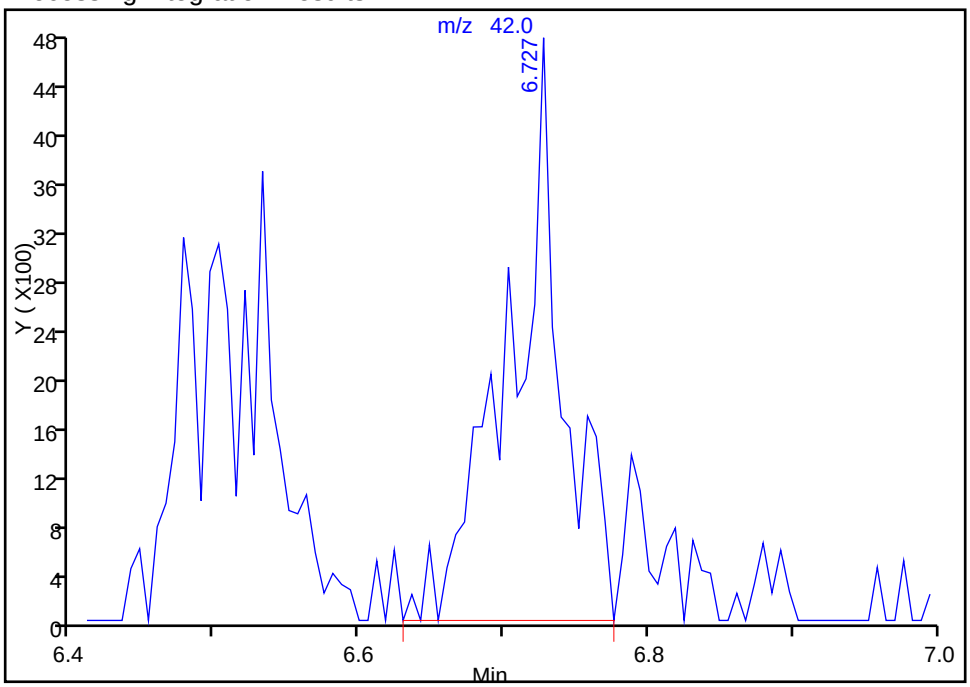
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

51 Tetrahydrofuran, CAS: 109-99-9

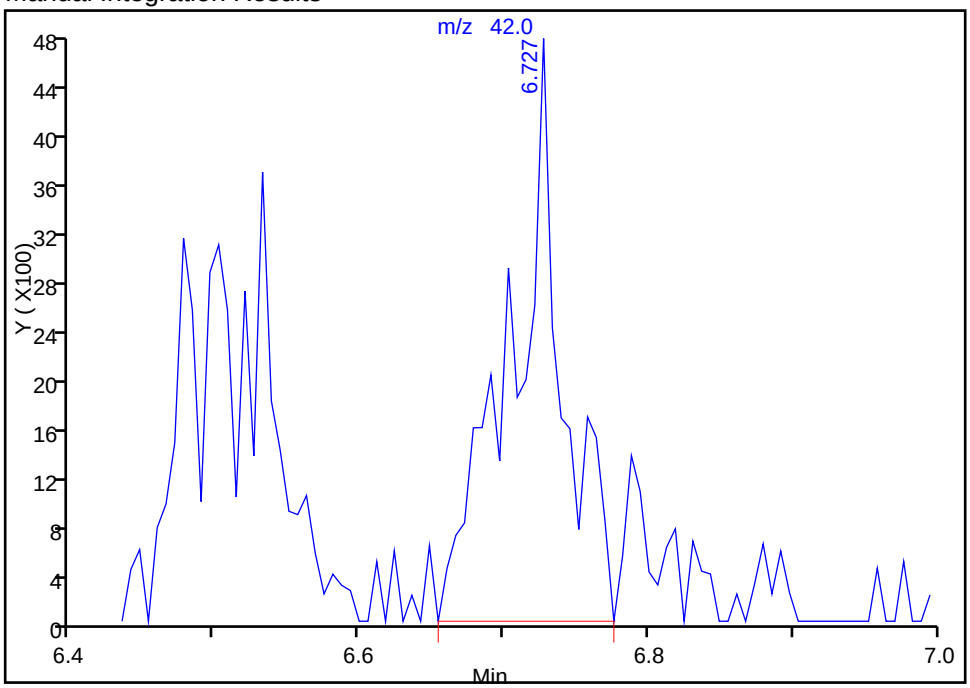
Processing Integration Results

RT: 6.73
Area: 12247
Amount: 40.000000
Amount Units: ng



Manual Integration Results

RT: 6.73
Area: 11945
Amount: 47.579118
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

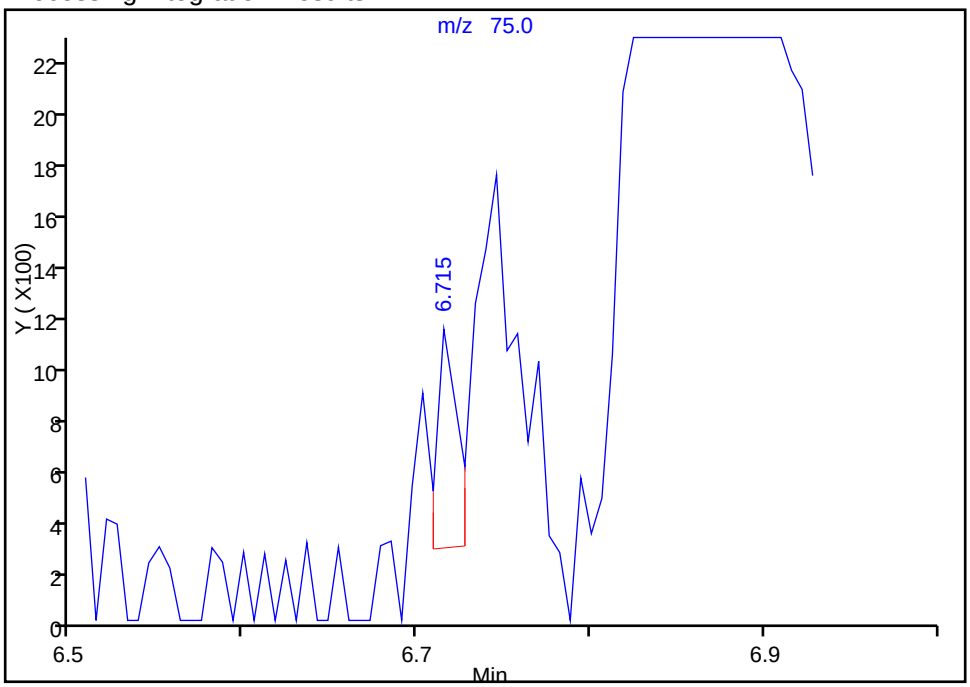
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

55 1,1-Dichloropropene, CAS: 563-58-6

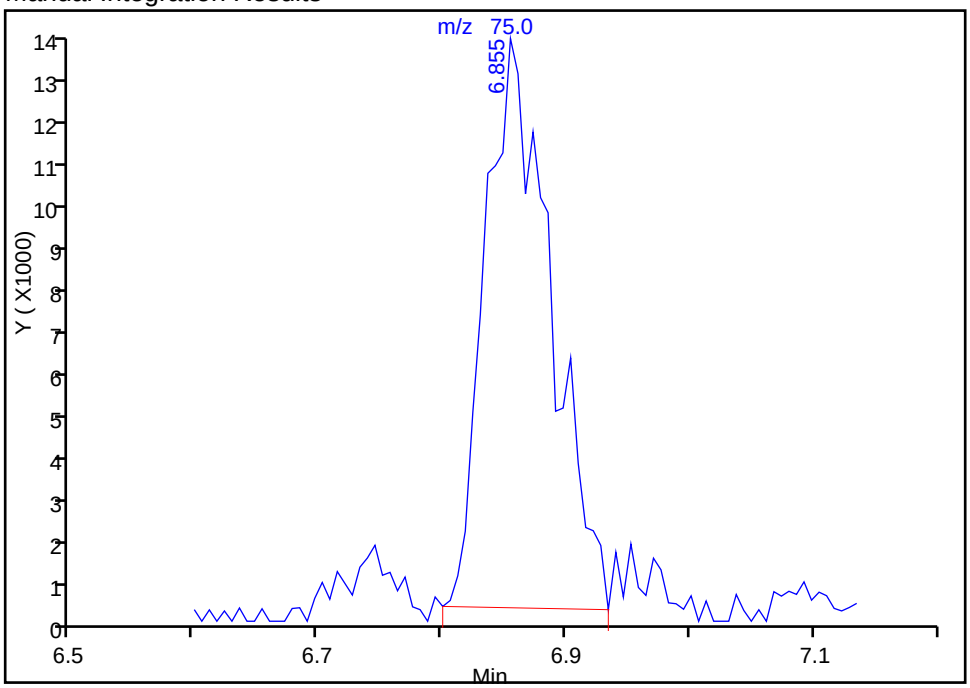
Processing Integration Results

RT: 6.72
Area: 727
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 6.86
Area: 48614
Amount: 26.337182
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

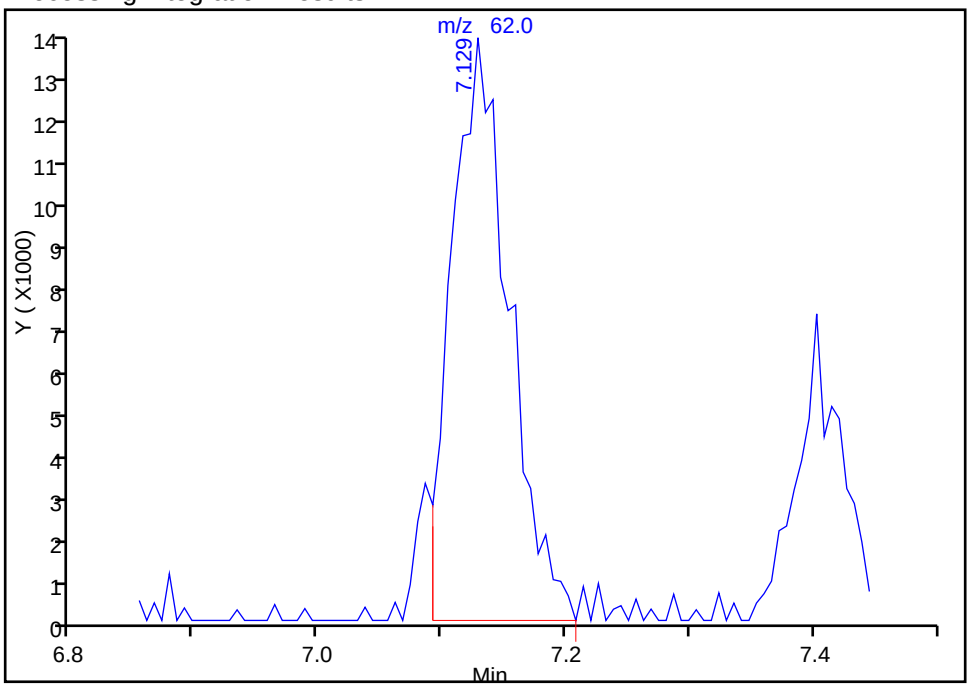
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

59 1,2-Dichloroethane, CAS: 107-06-2

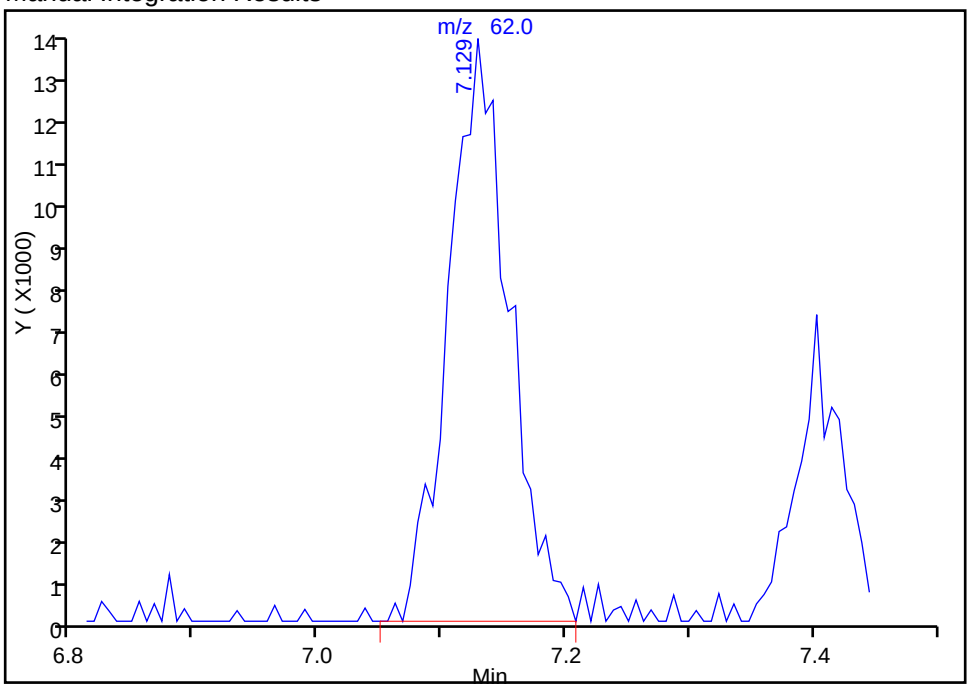
Processing Integration Results

RT: 7.13
Area: 43117
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 7.13
Area: 45545
Amount: 26.764103
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

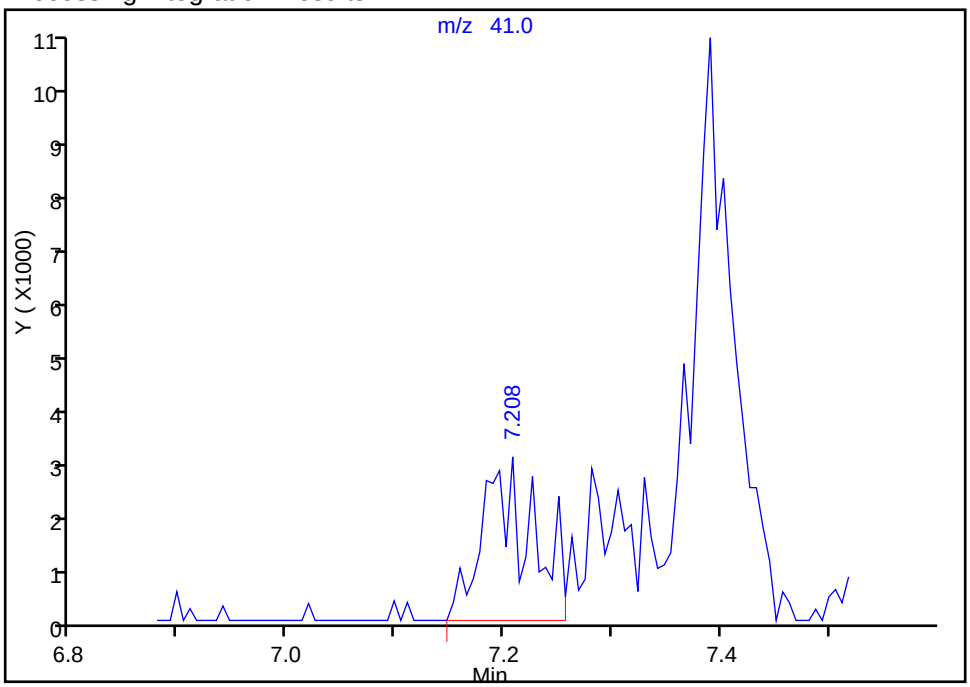
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D
Injection Date: 30-Mar-2015 10:57:30 Instrument ID: CHHP7
Lims ID: ic
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

57 Isobutyl alcohol, CAS: 78-83-1

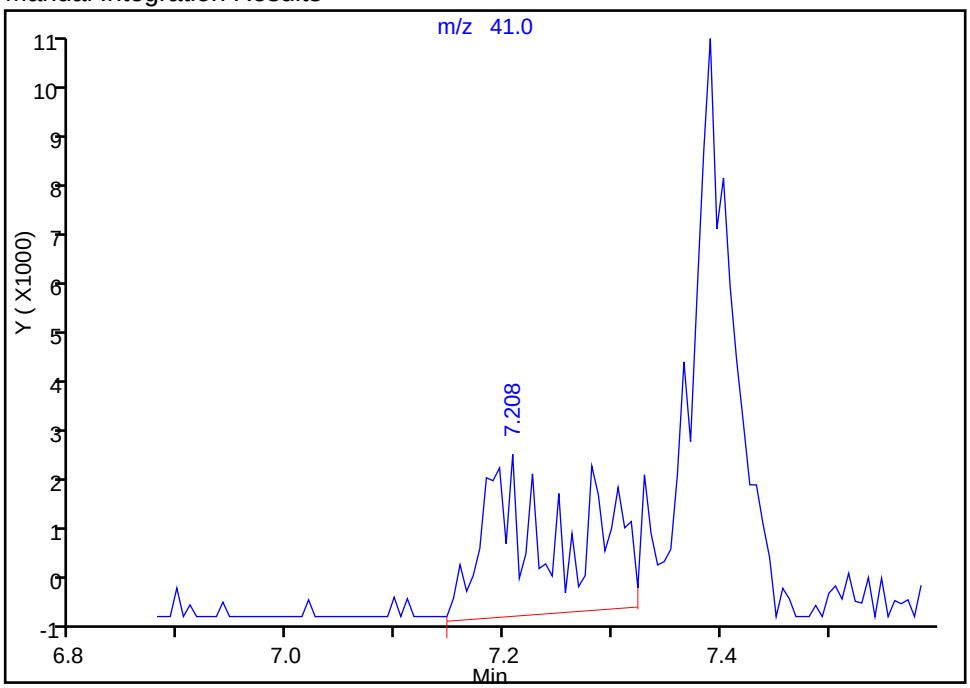
Processing Integration Results

RT: 7.21
Area: 9274
Amount: 500.0000
Amount Units: ng



Manual Integration Results

RT: 7.21
Area: 14915
Amount: 362.8929
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

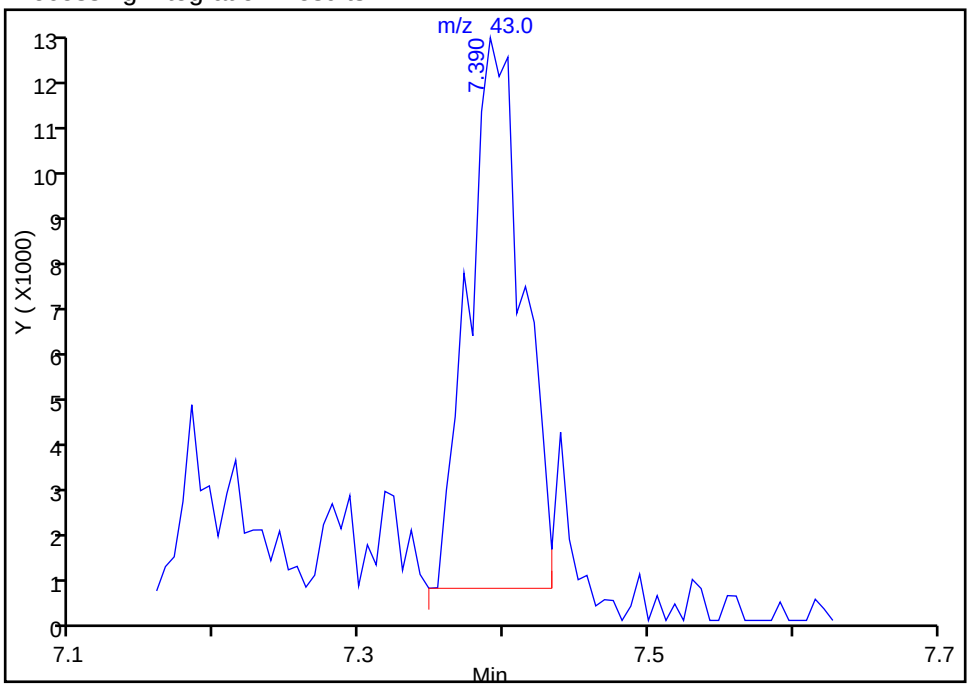
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

62 n-Heptane, CAS: 142-82-5

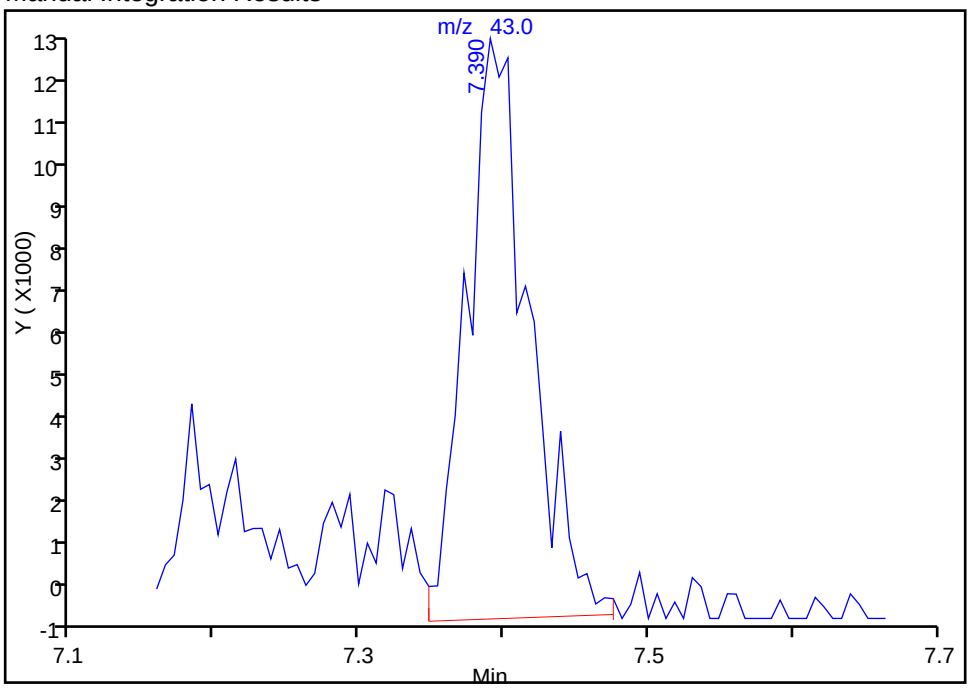
Processing Integration Results

RT: 7.39
Area: 30699
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 7.39
Area: 37541
Amount: 24.039397
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

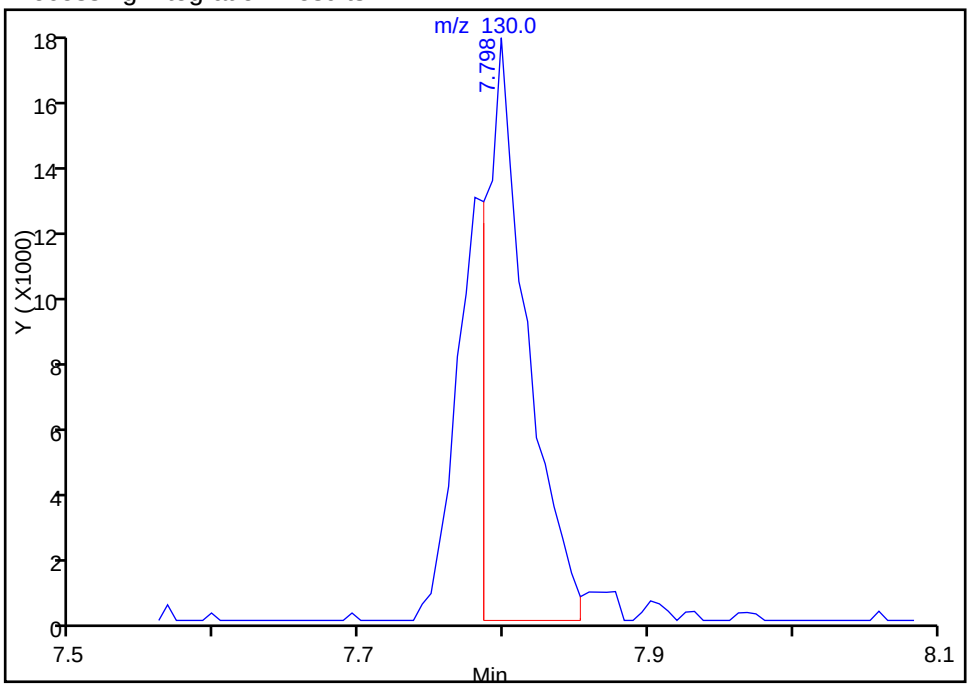
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

64 Trichloroethene, CAS: 79-01-6

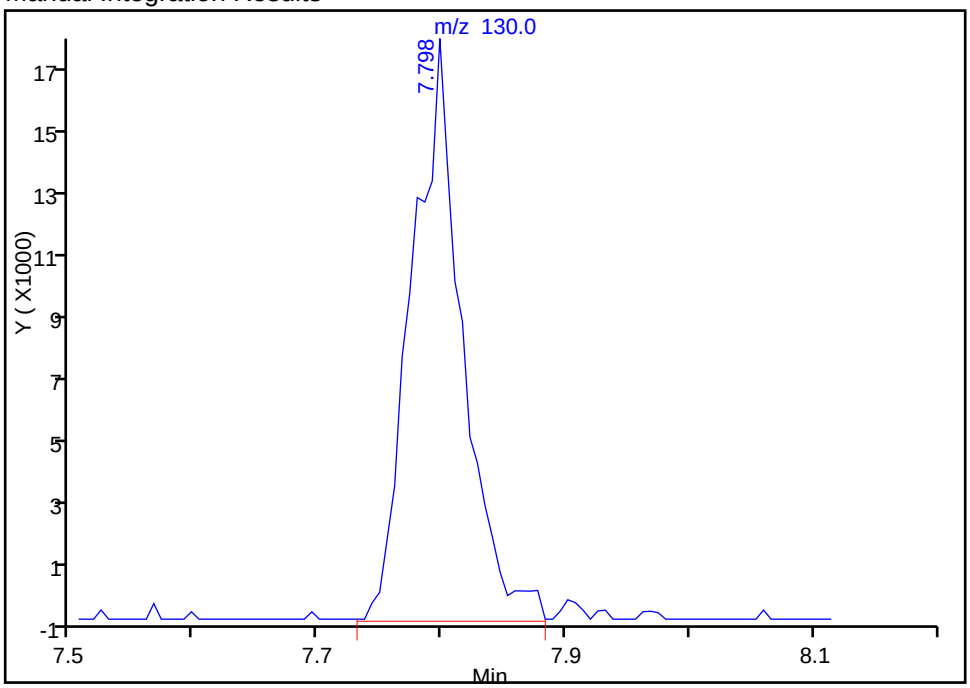
Processing Integration Results

RT: 7.80
Area: 35318
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 7.80
Area: 51491
Amount: 25.494006
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

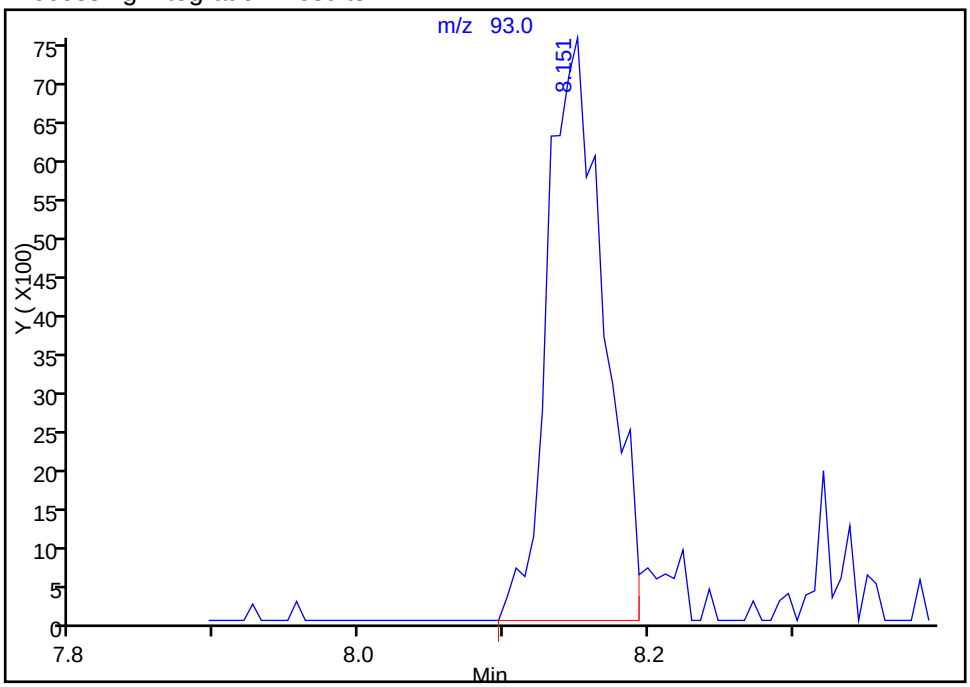
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

68 Dibromomethane, CAS: 74-95-3

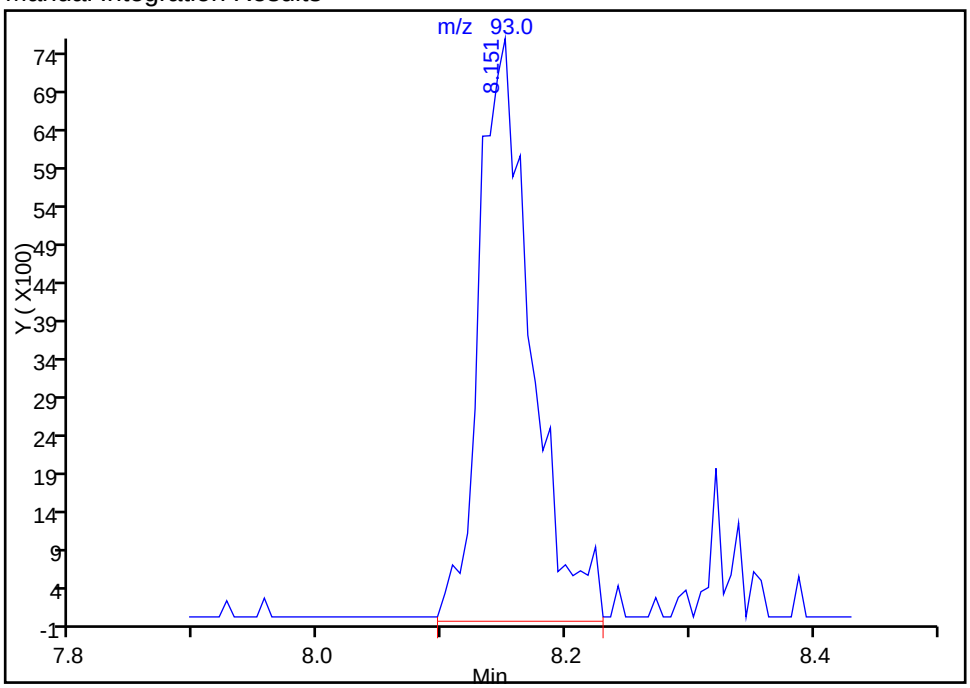
Processing Integration Results

RT: 8.15
Area: 20404
Amount: 20.000000
Amount Units: ng



Manual Integration Results

RT: 8.15
Area: 22063
Amount: 25.813221
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

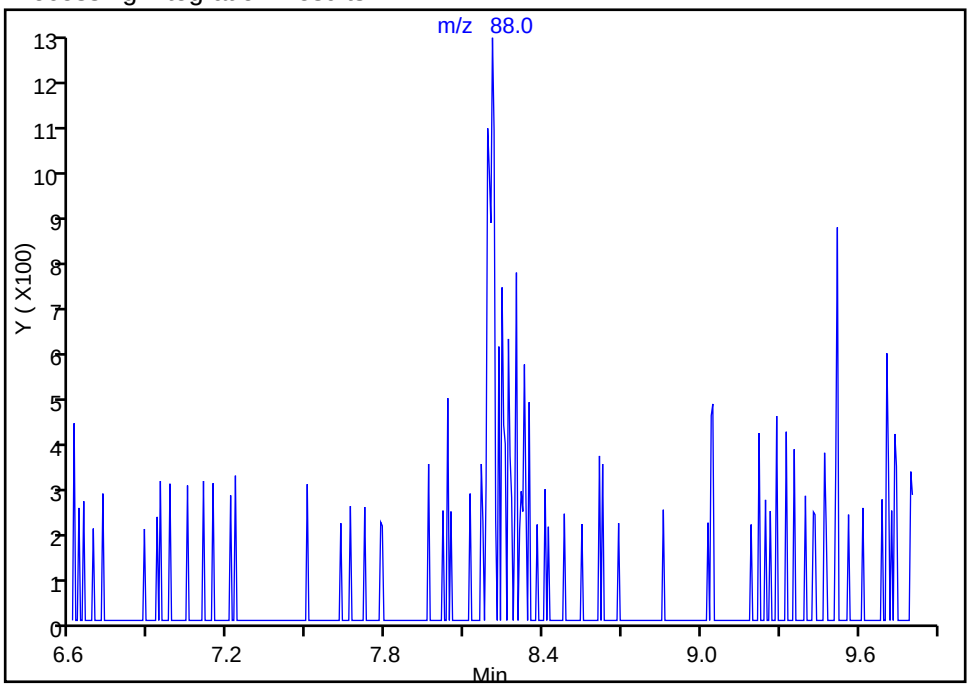
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033003.D				
Injection Date:	30-Mar-2015 10:57:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

70 1,4-Dioxane, CAS: 123-91-1

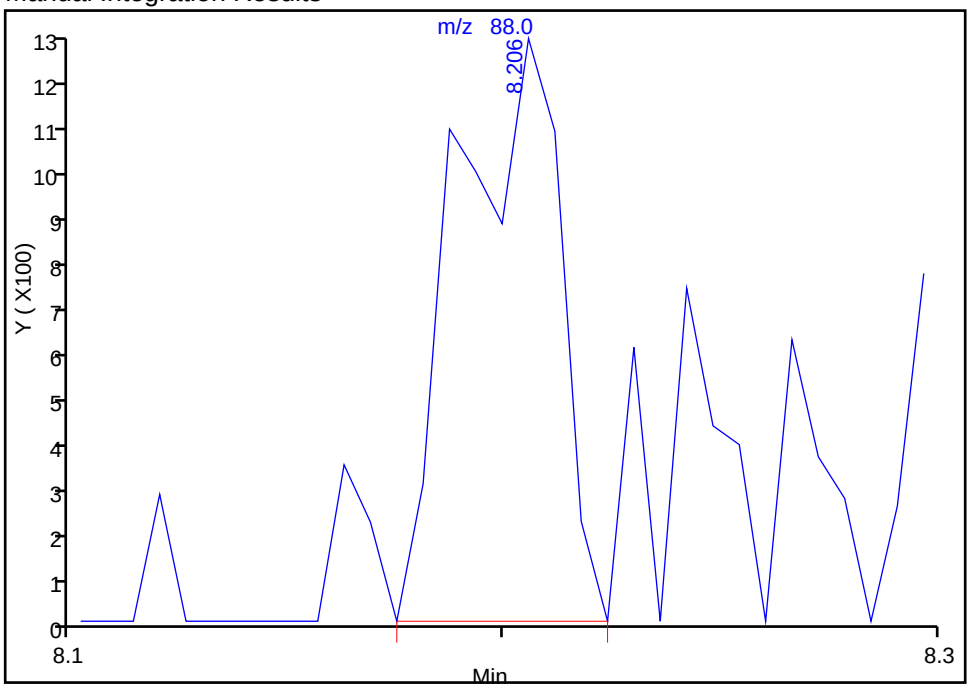
Not Detected
Expected RT: 8.21

Processing Integration Results



Manual Integration Results

RT: 8.21
Area: 2158
Amount: 269.0070
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 11:35:43
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033004.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 30-Mar-2015 11:28:30 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 180-0006234-004
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_LL_CHHP7*sub1

Method: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 31-Mar-2015 08:54:17 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

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

First Level Reviewer: journetp Date: 30-Mar-2015 12:11:13

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	5.061	5.024	0.037	92	320581	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.403	7.396	0.007	99	1077871	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.469	10.462	0.007	84	286591	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.787	12.792	-0.005	93	443603	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.685	6.678	0.007	79	182892	100.0	106.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.038	7.037	0.001	93	170431	100.0	104.0	
$ 7 Toluene-d8 (Surr)	98	9.034	9.033	0.001	93	571452	100.0	134.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.637	11.636	0.001	92	227038	100.0	113.4	
11 Dichlorodifluoromethane	85	1.928	1.939	-0.011	61	202683	100.0	101.5	
12 Chloromethane	50	2.013	2.018	-0.005	86	236017	100.0	108.4	
14 Butadiene	39	2.202	2.176	0.026	90	184180	100.0	102.9	M
13 Vinyl chloride	62	2.202	2.225	-0.023	83	183450	100.0	108.2	
15 Bromomethane	94	2.542	2.499	0.043	86	150507	100.0	110.2	
16 Chloroethane	64	2.628	2.639	-0.011	72	150067	100.0	109.7	
17 Dichlorofluoromethane	67	2.871	2.882	-0.011	93	392557	100.0	107.9	
18 Trichlorofluoromethane	101	2.944	2.913	0.031	90	405833	100.0	106.0	
20 Ethyl ether	59	3.309	3.314	-0.005	80	129633	100.0	106.7	
22 1,1-Dichloroethene	96	3.485	3.460	0.025	93	151987	100.0	105.0	
21 Acrolein	56	3.552	3.497	0.055	44	43044	500.0	513.4	
23 1,1,2-Trichloro-1,2,2-trif	101	3.571	3.563	0.008	90	183780	100.0	109.2	
25 Iodomethane	142	3.704	3.716	-0.012	95	316113	100.0	104.4	
26 Carbon disulfide	76	3.753	3.764	-0.011	96	463969	100.0	106.7	M
24 Acetone	43	3.869	3.855	0.014	27	75446	200.0	187.7	M
28 3-Chloro-1-propene	76	4.106	4.087	0.019	1	111987	100.0	104.9	M
31 Methylene Chloride	84	4.301	4.294	0.007	75	163557	100.0	105.3	
30 Methyl acetate	43	4.331	4.324	0.007	99	375826	500.0	523.3	
34 trans-1,2-Dichloroethene	96	4.726	4.725	0.001	94	194386	100.0	108.3	
32 2-Methyl-2-propanol	59	4.732	4.744	-0.012	33	9778	1000.0	1483.1	M
33 Acrylonitrile	53	4.824	4.829	-0.005	50	318922	1000.0	1110.2	M
35 Methyl tert-butyl ether	73	4.909	4.890	0.019	94	384502	100.0	108.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.110	5.090	0.020	93	197721	100.0	105.3	
38 Vinyl acetate	43	5.104	5.115	-0.011	87	141126	100.0	99.7	
37 1,1-Dichloroethane	63	5.335	5.334	0.001	96	284258	100.0	108.0	
44 2,2-Dichloropropane	77	6.083	6.076	0.007	81	243195	100.0	110.6	
45 cis-1,2-Dichloroethene	96	6.095	6.094	0.001	80	185651	100.0	104.2	
46 2-Butanone (MEK)	43	6.229	6.216	0.013	98	101832	200.0	210.8	
49 Chlorobromomethane	128	6.363	6.380	-0.017	82	106979	100.0	104.2	
52 Chloroform	83	6.509	6.496	0.013	1	324491	100.0	109.5	M
53 1,1,1-Trichloroethane	97	6.679	6.660	0.019	95	304449	100.0	113.1	
51 Tetrahydrofuran	42	6.697	6.709	-0.012	45	56328	200.0	213.1	
54 Cyclohexane	56	6.704	6.709	-0.005	72	204193	100.0	107.5	
56 Carbon tetrachloride	117	6.850	6.849	0.001	95	301680	100.0	111.1	
55 1,1-Dichloropropene	75	6.850	6.855	-0.005	88	222122	100.0	114.3	
58 Benzene	78	7.087	7.086	0.001	95	604063	100.0	113.9	
59 1,2-Dichloroethane	62	7.123	7.122	0.001	96	193915	100.0	108.2	
62 n-Heptane	43	7.391	7.390	0.001	84	172370	100.0	104.8	
57 Isobutyl alcohol	41	7.397	7.396	0.001	79	120699	2500.0	2789.2	
64 Trichloroethene	130	7.786	7.785	0.001	93	228617	100.0	107.5	
66 Methylcyclohexane	83	7.981	7.980	0.001	84	302516	100.0	115.7	
67 1,2-Dichloropropane	63	8.024	8.029	-0.005	81	129781	100.0	107.4	
68 Dibromomethane	93	8.145	8.144	0.001	93	92763	100.0	103.1	
70 1,4-Dioxane	88	8.206	8.205	0.001	41	18551	2000.0	2196.4	M
71 Dichlorobromomethane	83	8.322	8.315	0.007	98	234170	100.0	104.5	
74 cis-1,3-Dichloropropene	75	8.766	8.771	-0.005	94	250427	100.0	107.8	
75 4-Methyl-2-pentanone (MIBK	43	8.948	8.947	0.001	96	198312	200.0	236.8	
76 Toluene	91	9.100	9.099	0.001	99	620797	100.0	108.8	
77 trans-1,3-Dichloropropene	75	9.326	9.325	0.001	94	200178	100.0	111.1	
78 Ethyl methacrylate	69	9.429	9.428	0.001	87	133131	100.0	111.1	
79 1,1,2-Trichloroethane	97	9.514	9.513	0.001	89	122370	100.0	119.0	
80 Tetrachloroethene	164	9.642	9.641	0.001	91	166044	100.0	111.2	
81 1,3-Dichloropropane	76	9.672	9.671	0.001	91	180327	100.0	118.6	
82 2-Hexanone	43	9.770	9.769	0.001	96	121993	200.0	225.8	
84 Chlorodibromomethane	129	9.903	9.896	0.007	86	212583	100.0	120.2	
85 Ethylene Dibromide	107	10.007	10.006	0.001	98	131988	100.0	113.3	
87 Chlorobenzene	112	10.500	10.499	0.001	95	428641	100.0	117.3	
89 1,1,1,2-Tetrachloroethane	131	10.579	10.578	0.001	93	201326	100.0	114.0	
90 Ethylbenzene	106	10.609	10.602	0.007	98	223898	100.0	107.9	
91 m-Xylene & p-Xylene	106	10.725	10.718	0.007	98	306490	100.0	109.5	
92 o-Xylene	106	11.114	11.113	0.001	96	307714	100.0	109.5	
93 Styrene	104	11.126	11.125	0.001	92	473776	100.0	109.2	
94 Bromoform	173	11.315	11.314	0.001	94	108786	100.0	108.6	
97 Isopropylbenzene	105	11.479	11.478	0.001	95	851551	100.0	110.5	
99 1,1,2,2-Tetrachloroethane	83	11.777	11.776	0.001	96	130862	100.0	121.2	
100 Bromobenzene	156	11.789	11.788	0.001	86	217052	100.0	114.2	
101 1,2,3-Trichloropropane	110	11.826	11.819	0.007	85	43419	100.0	102.0	
102 trans-1,4-Dichloro-2-buten	53	11.832	11.831	0.001	68	25315	100.0	95.0	
103 N-Propylbenzene	120	11.893	11.892	0.001	97	254930	100.0	109.3	
104 2-Chlorotoluene	126	11.978	11.977	0.001	96	241717	100.0	114.1	
106 1,3,5-Trimethylbenzene	105	12.063	12.062	0.001	97	678088	100.0	104.9	
107 4-Chlorotoluene	126	12.087	12.086	0.001	96	236378	100.0	116.4	
108 tert-Butylbenzene	119	12.392	12.391	0.001	91	756877	100.0	110.5	
110 1,2,4-Trimethylbenzene	105	12.440	12.439	0.001	96	682185	100.0	104.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
112 sec-Butylbenzene	105	12.611	12.610	0.001	94	908560	100.0	106.3	
113 1,3-Dichlorobenzene	146	12.726	12.725	0.001	97	434056	100.0	110.0	
114 4-Isopropyltoluene	119	12.750	12.756	-0.006	96	822865	100.0	107.2	
115 1,4-Dichlorobenzene	146	12.817	12.816	0.001	95	400302	100.0	113.8	
120 n-Butylbenzene	91	13.164	13.163	0.001	96	672615	100.0	105.1	
121 1,2-Dichlorobenzene	146	13.189	13.188	0.000	96	359029	100.0	104.1	
122 1,2-Dibromo-3-Chloropropan	75	13.973	13.972	0.001	78	15088	100.0	91.4	
126 1,2,4-Trichlorobenzene	180	14.807	14.806	0.001	95	78248	100.0	71.6	
127 Hexachlorobutadiene	225	14.971	14.970	0.001	82	52188	100.0	79.7	
128 Naphthalene	128	15.056	15.055	0.001	95	113468	100.0	63.4	
129 1,2,3-Trichlorobenzene	180	15.306	15.305	0.001	95	38530	100.0	51.5	
S 134 1,2-Dichloroethene, Total	96				0		200.0	212.4	
S 133 Xylenes, Total	106				0		200.0	219.0	
S 135 1,3-Dichloropropene, Total	1				0		200.0	218.9	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

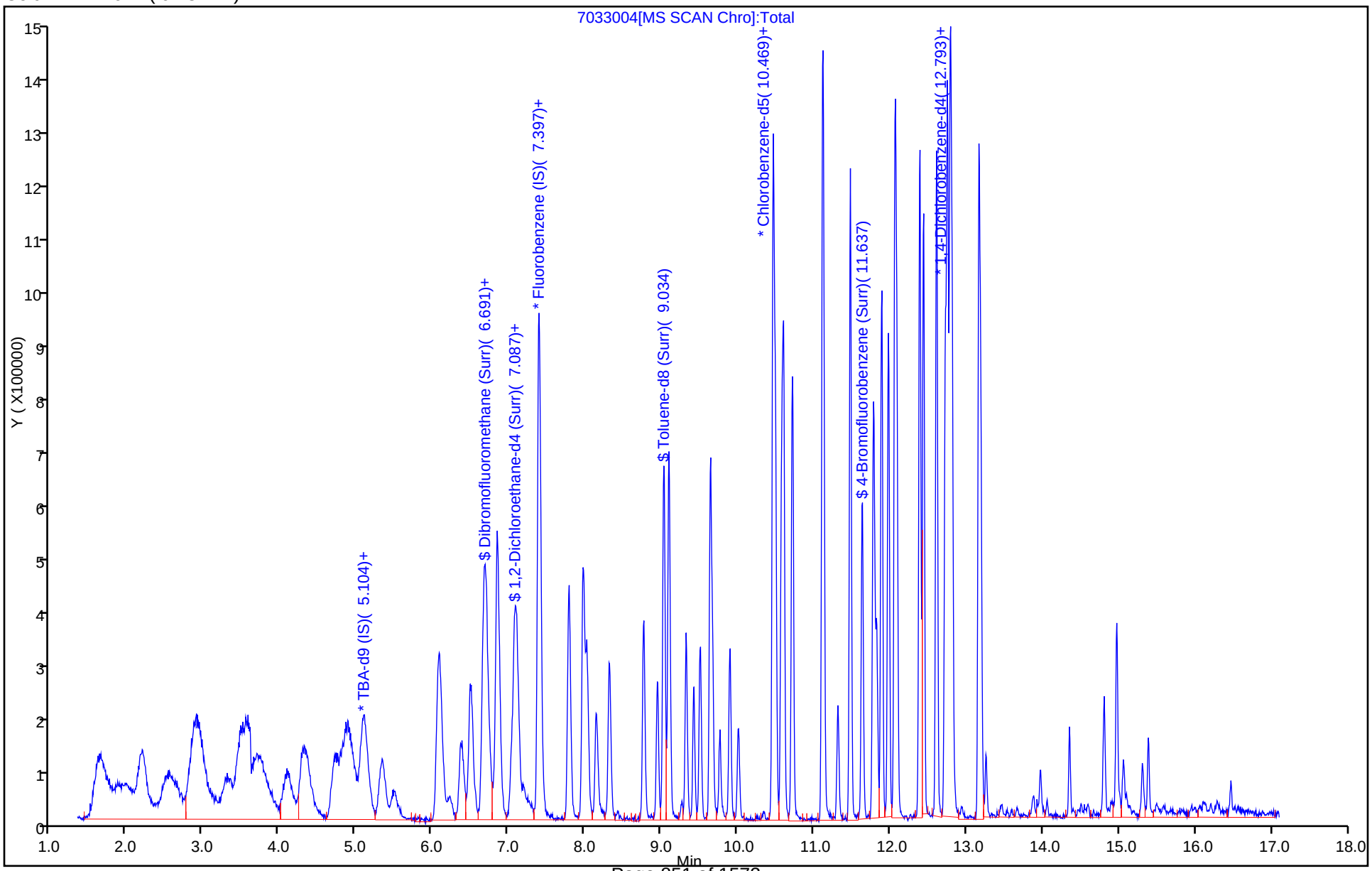
VOA8260SURR_00017	Amount Added:	4.00	Units: uL
VOA8260INT_00030	Amount Added:	8.00	Units: uL
VOAVAPRI_00005	Amount Added:	4.00	Units: uL
VOAACRPRI_00003	Amount Added:	20.00	Units: uL
VOA8260VOAPRI_00108	Amount Added:	4.00	Units: uL
voaWKet2 Rest_00002	Amount Added:	4.00	Units: uL

Report Date: 31-Mar-2015 08:54:18 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033004.D				
Injection Date:	30-Mar-2015 11:28:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	ic			Worklist Smp#:	4
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

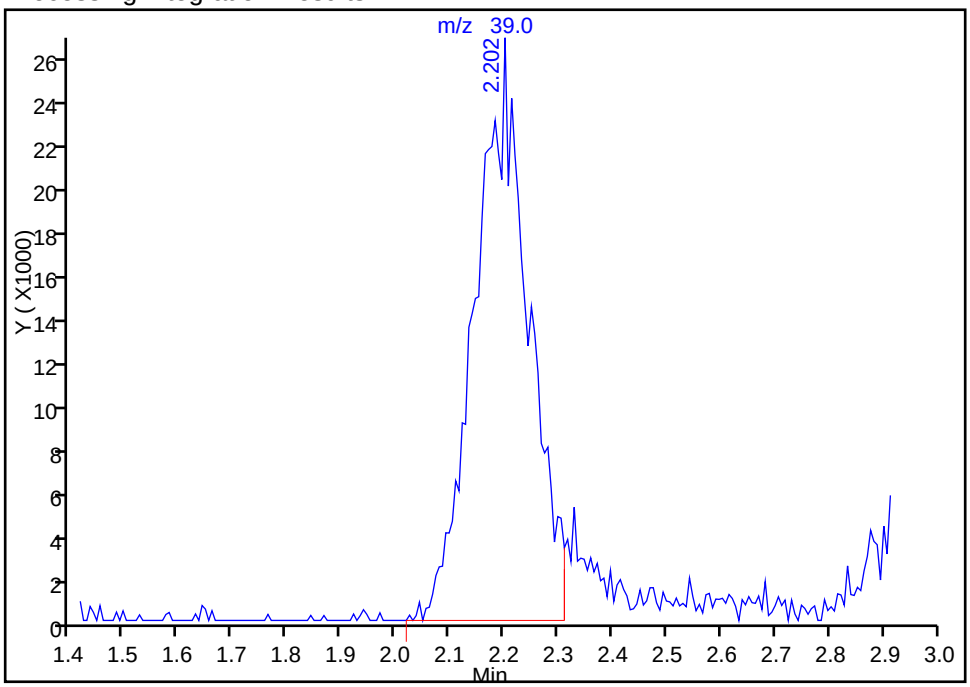
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033004.D				
Injection Date:	30-Mar-2015 11:28:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	4
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

14 Butadiene, CAS: 106-99-0

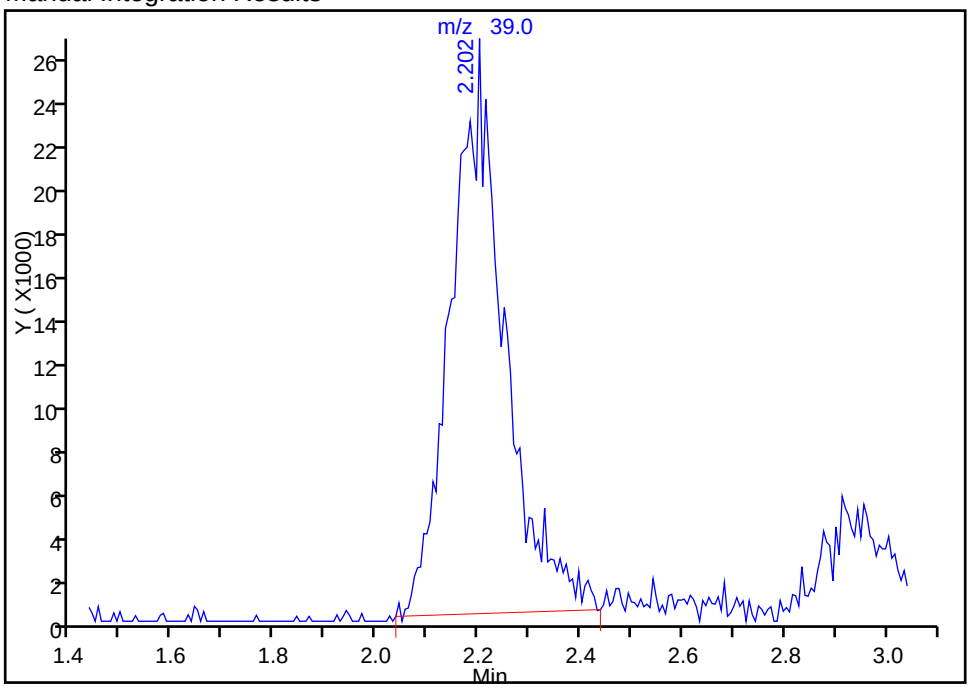
Processing Integration Results

RT: 2.20
Area: 177223
Amount: 87.235904
Amount Units: ng



Manual Integration Results

RT: 2.20
Area: 184180
Amount: 102.8902
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 12:11:13
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

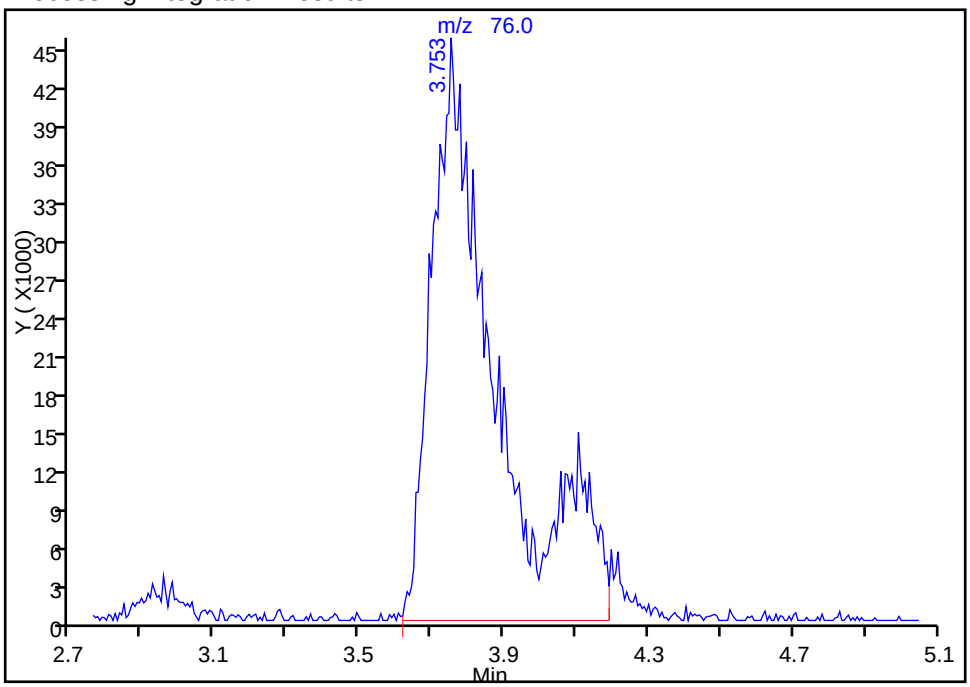
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033004.D				
Injection Date:	30-Mar-2015 11:28:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	4
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

26 Carbon disulfide, CAS: 75-15-0

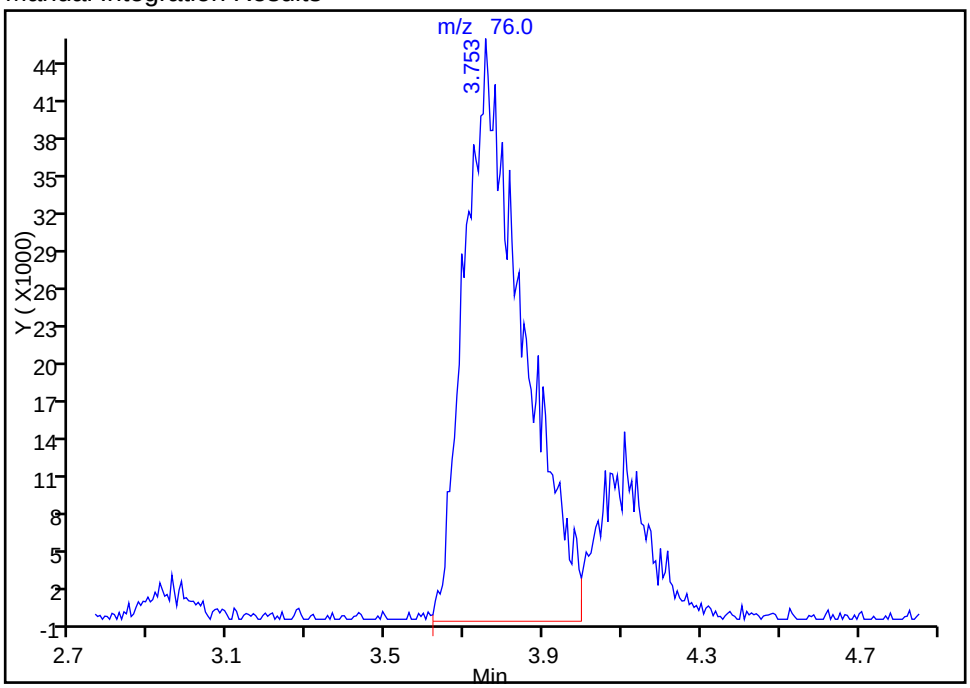
Processing Integration Results

RT: 3.75
Area: 555041
Amount: 107.0768
Amount Units: ng



Manual Integration Results

RT: 3.75
Area: 463969
Amount: 106.7401
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 12:11:13
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

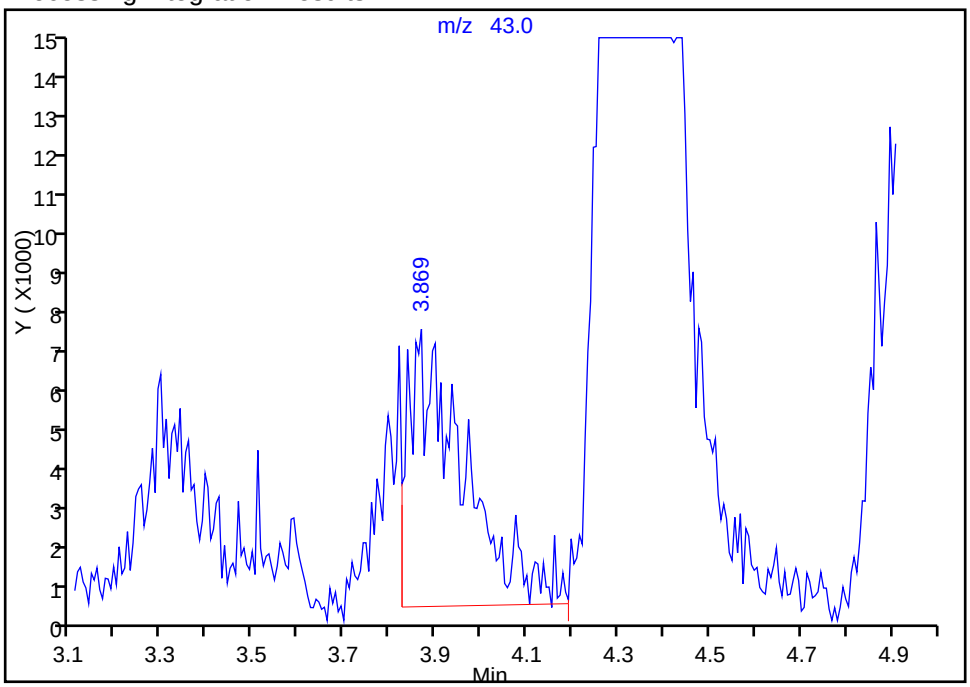
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033004.D				
Injection Date:	30-Mar-2015 11:28:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	4
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

24 Acetone, CAS: 67-64-1

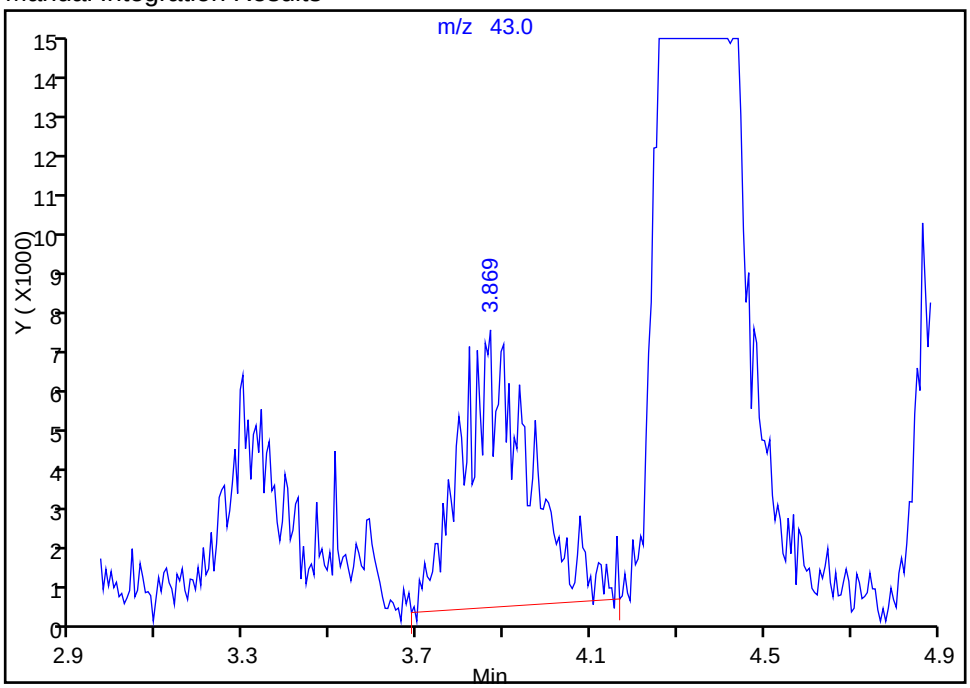
Processing Integration Results

RT: 3.87
Area: 59143
Amount: 147.9003
Amount Units: ng



Manual Integration Results

RT: 3.87
Area: 75446
Amount: 187.7476
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 12:11:13
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

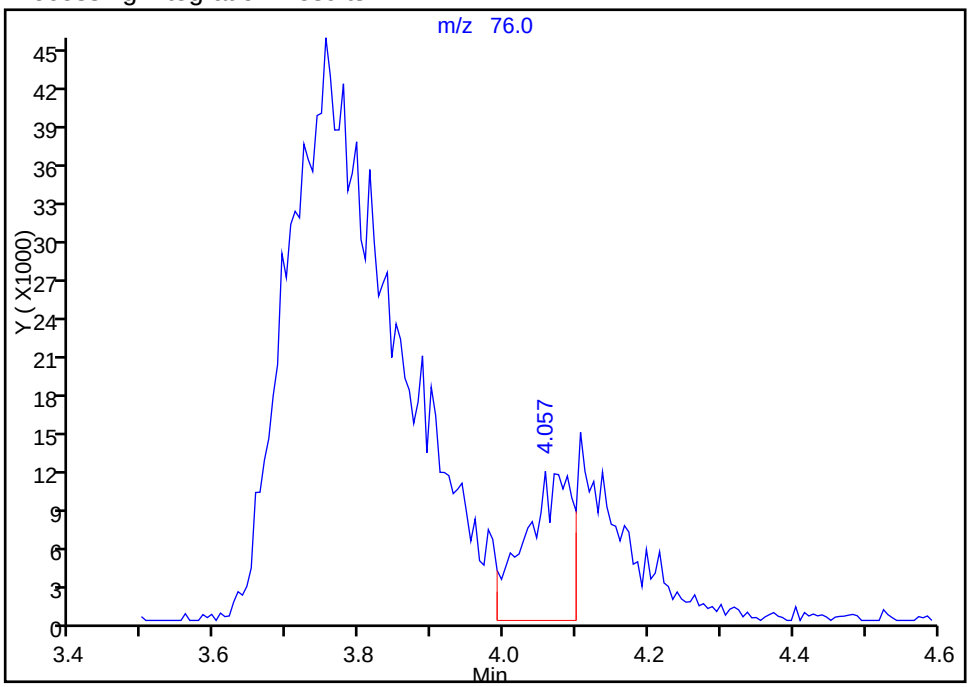
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033004.D
Injection Date: 30-Mar-2015 11:28:30 Instrument ID: CHHP7
Lims ID: ic
Client ID:
Operator ID: 034635 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

28 3-Chloro-1-propene, CAS: 107-05-1

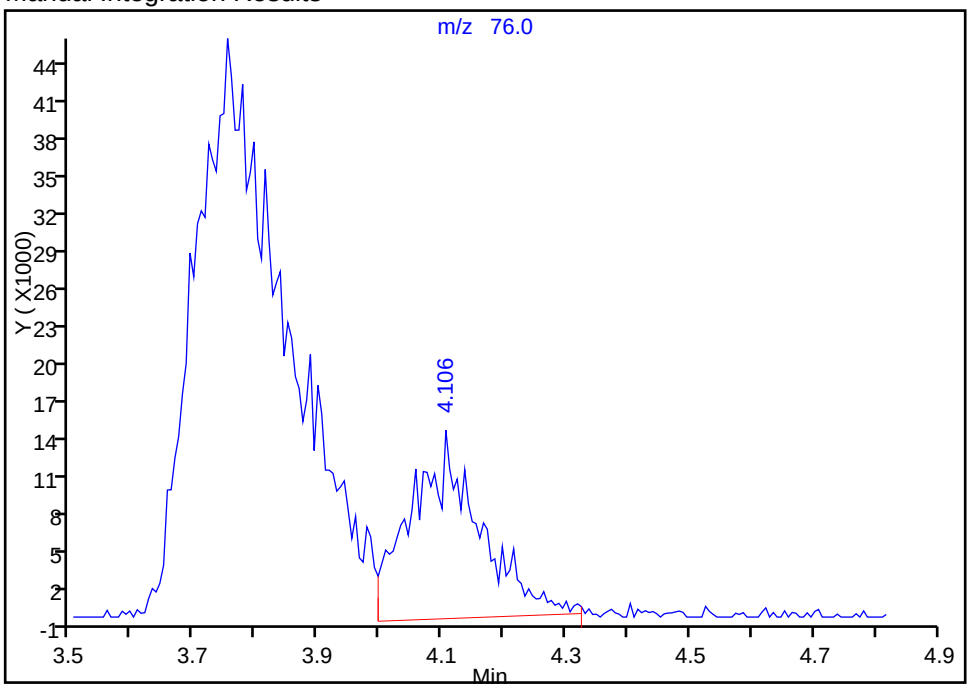
Processing Integration Results

RT: 4.06
Area: 52473
Amount: 61.091566
Amount Units: ng



Manual Integration Results

RT: 4.11
Area: 111987
Amount: 104.9107
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 12:11:13
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

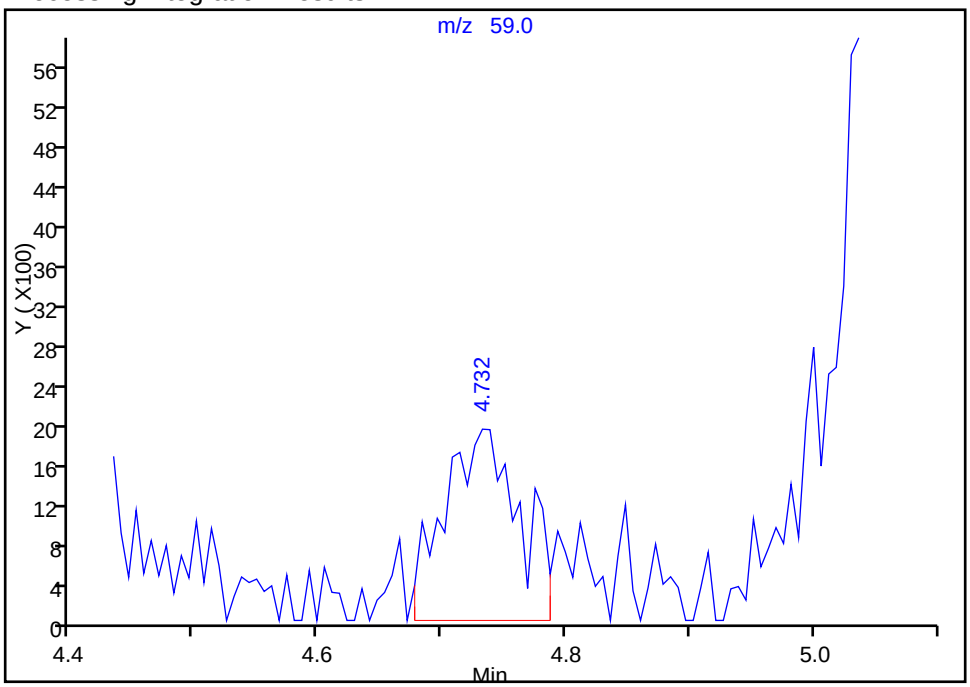
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033004.D				
Injection Date:	30-Mar-2015 11:28:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	4
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

32 2-Methyl-2-propanol, CAS: 75-65-0

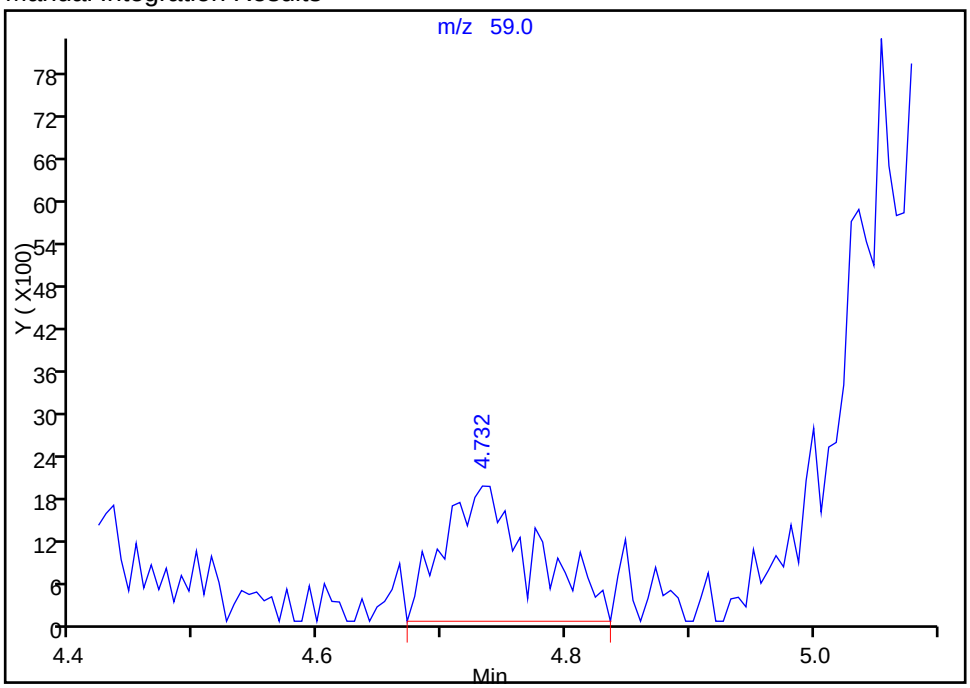
Processing Integration Results

RT: 4.73
Area: 8182
Amount: 1000.0000
Amount Units: ng



Manual Integration Results

RT: 4.73
Area: 9778
Amount: 1483.0651
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 12:11:13
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

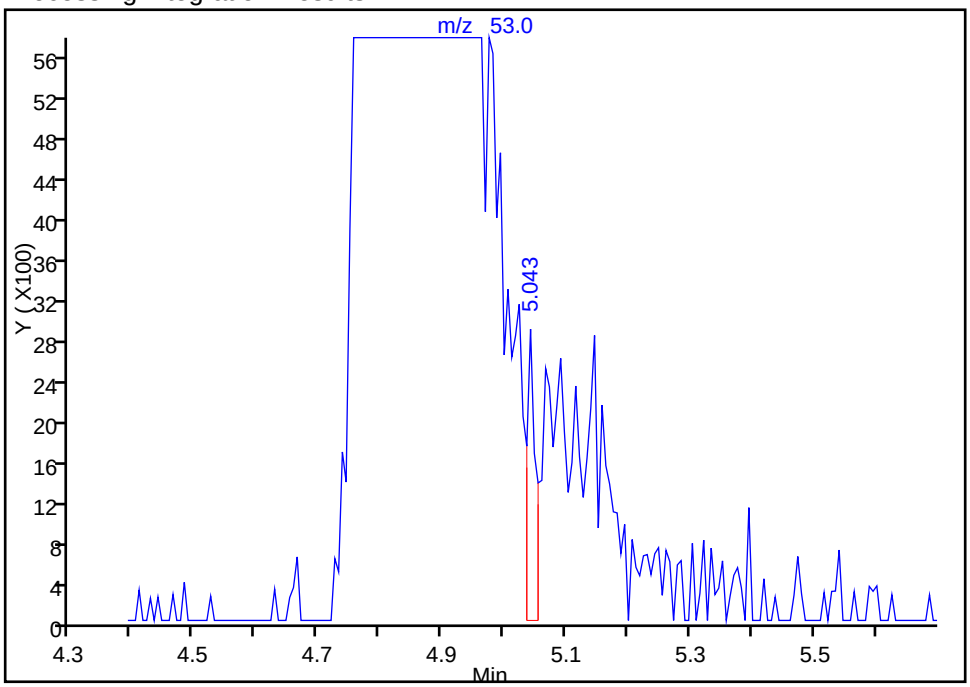
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033004.D				
Injection Date:	30-Mar-2015 11:28:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	4
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

33 Acrylonitrile, CAS: 107-13-1

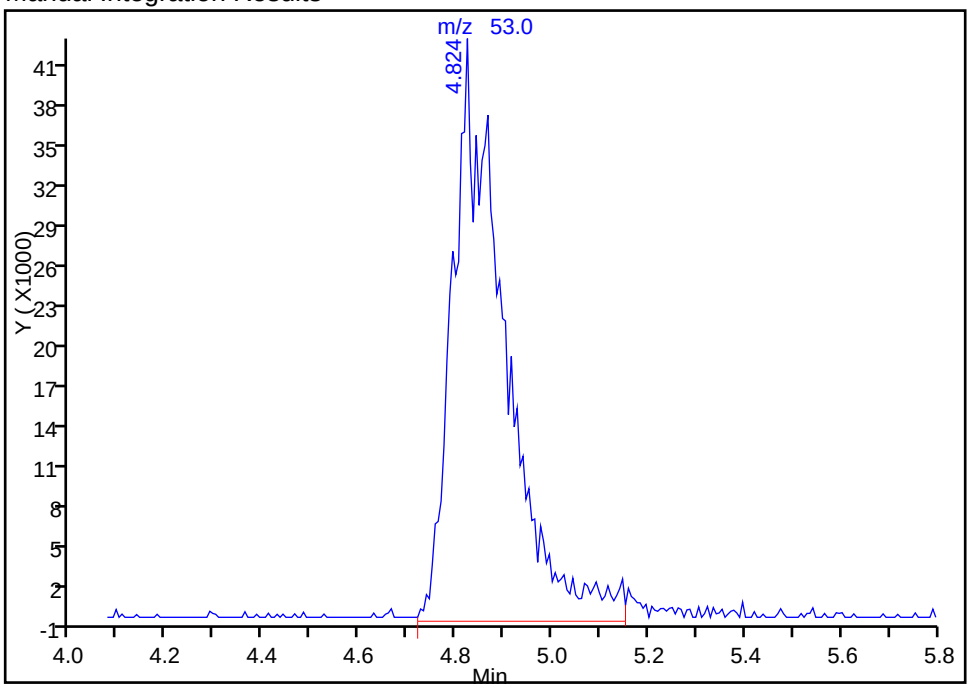
Processing Integration Results

RT: 5.04
Area: 2761
Amount: 17.103044
Amount Units: ng



Manual Integration Results

RT: 4.82
Area: 318922
Amount: 1110.1834
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 12:11:13
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

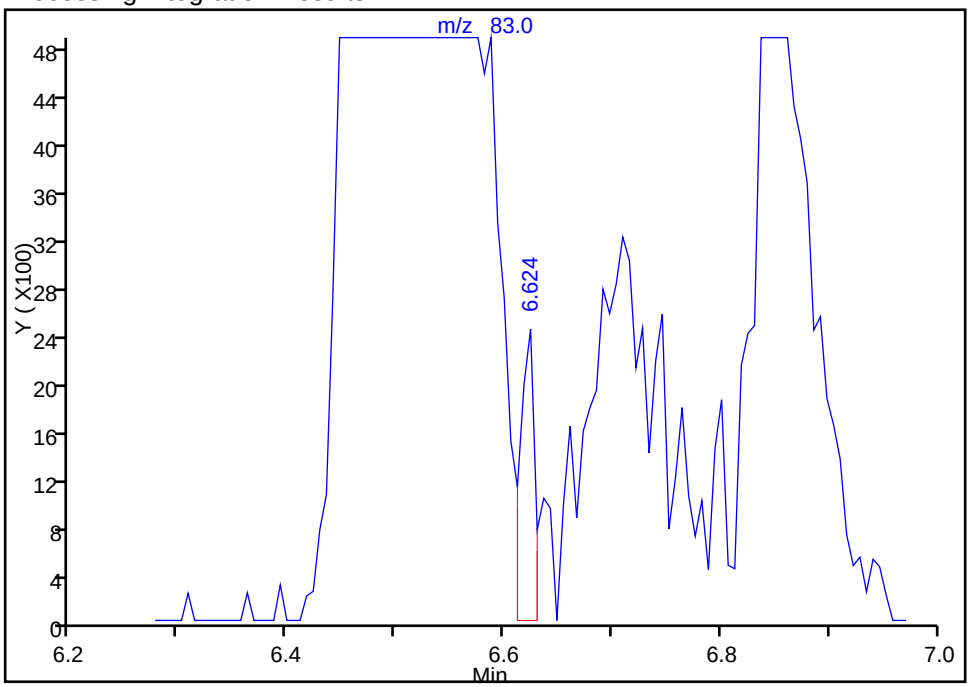
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033004.D
Injection Date: 30-Mar-2015 11:28:30 Instrument ID: CHHP7
Lims ID: ic
Client ID:
Operator ID: 034635 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

52 Chloroform, CAS: 67-66-3

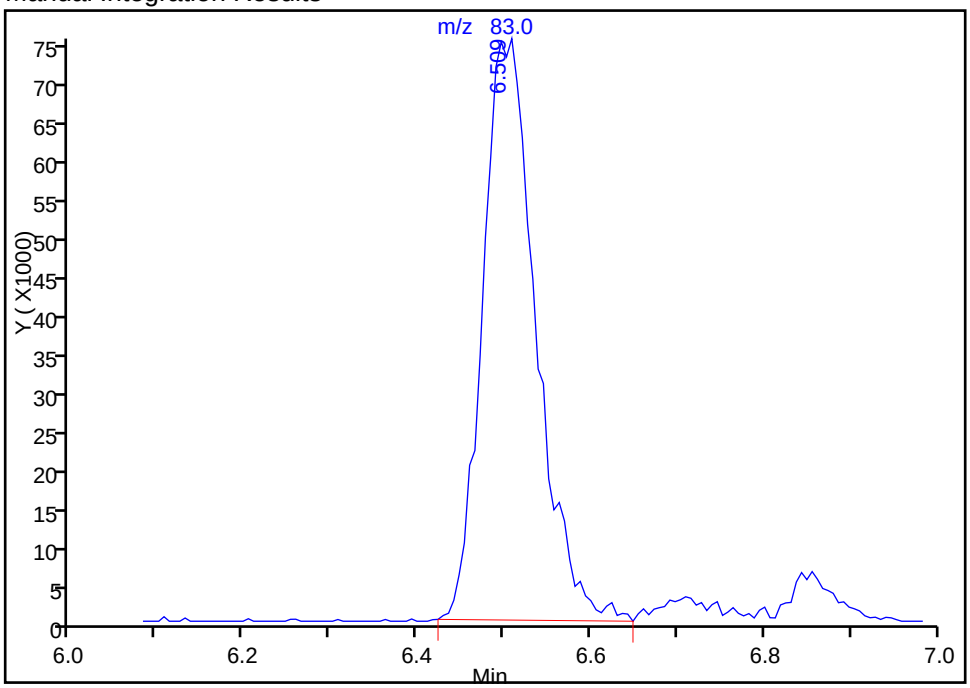
Processing Integration Results

RT: 6.62
Area: 2278
Amount: 1.214470
Amount Units: ng



Manual Integration Results

RT: 6.51
Area: 324491
Amount: 109.4902
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 12:11:13
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

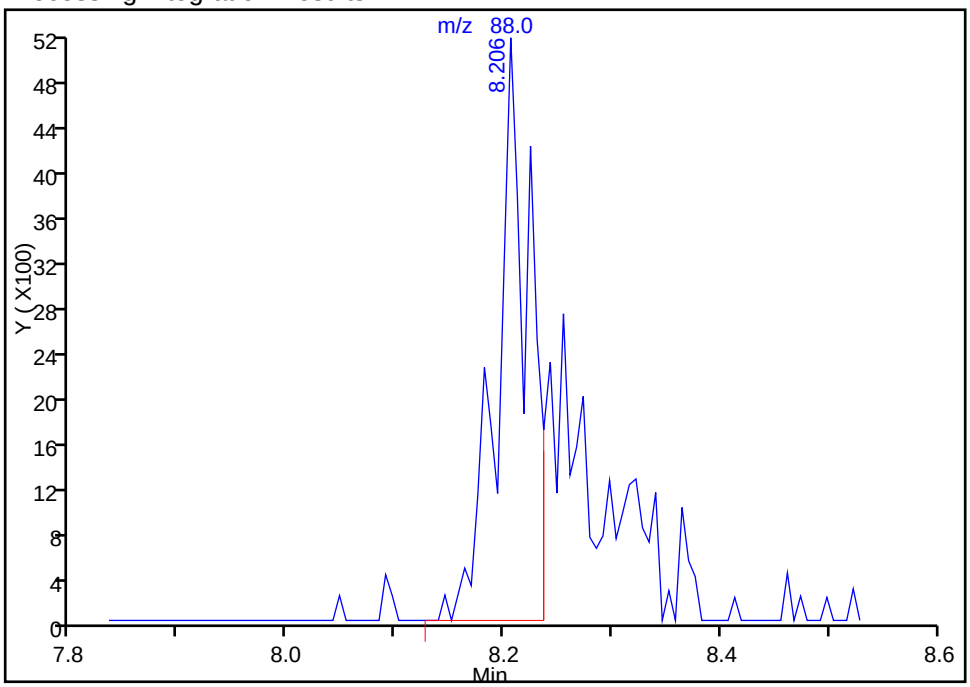
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033004.D				
Injection Date:	30-Mar-2015 11:28:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	4	Worklist Smp#:	4
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

70 1,4-Dioxane, CAS: 123-91-1

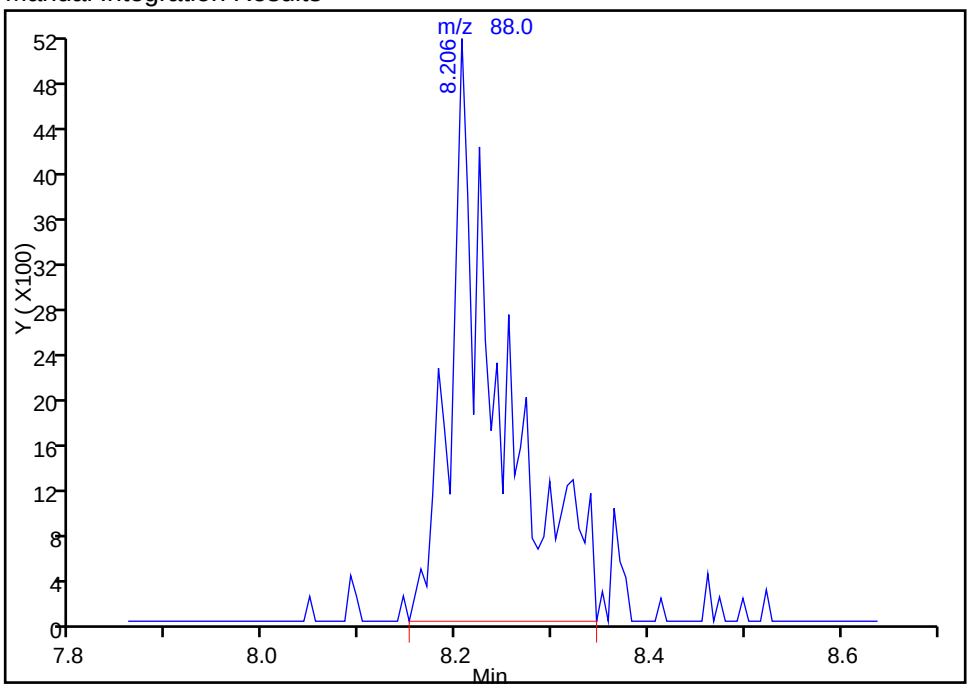
Processing Integration Results

RT: 8.21
Area: 10899
Amount: 1958.5330
Amount Units: ng



Manual Integration Results

RT: 8.21
Area: 18551
Amount: 2196.3559
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 12:11:13
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033005.D
Lims ID: icis
Client ID:
Sample Type: ICIS Calib Level: 3
Inject. Date: 30-Mar-2015 11:55:30 ALS Bottle#: 5 Worklist Smp#: 5
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ICIS
Misc. Info.: 180-0006234-005
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_LL_CHHP7*sub1

Method: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 31-Mar-2015 08:54:19 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

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

First Level Reviewer: journetp Date: 30-Mar-2015 12:42:49

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	5.024	5.024	0.000	92	310282	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.396	7.396	0.000	95	1094895	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.462	10.462	0.000	86	307311	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.792	12.792	0.000	93	455243	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.678	6.678	0.000	85	358794	200.0	205.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.037	7.037	0.000	68	326104	200.0	195.8	
$ 7 Toluene-d8 (Surr)	98	9.033	9.033	0.000	91	1076372	200.0	236.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.636	11.636	0.000	90	461682	200.0	228.4	
11 Dichlorodifluoromethane	85	1.939	1.939	0.000	58	396029	200.0	195.1	
12 Chloromethane	50	2.018	2.018	0.000	96	440108	200.0	199.1	
14 Butadiene	39	2.176	2.176	0.000	95	378863	200.0	208.4	
13 Vinyl chloride	62	2.225	2.225	0.000	96	345858	200.0	200.9	
15 Bromomethane	94	2.499	2.499	0.000	93	297025	200.0	214.1	
16 Chloroethane	64	2.639	2.639	0.000	58	280211	200.0	201.7	
17 Dichlorofluoromethane	67	2.882	2.882	0.000	95	759945	200.0	205.6	
18 Trichlorofluoromethane	101	2.913	2.913	0.000	85	817631	200.0	210.3	
20 Ethyl ether	59	3.314	3.314	0.000	85	252518	200.0	204.7	
22 1,1-Dichloroethene	96	3.460	3.460	0.000	95	301988	200.0	205.4	
21 Acrolein	56	3.497	3.497	0.000	29	49804	600.0	584.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.563	3.563	0.000	90	351192	200.0	205.4	
25 Iodomethane	142	3.716	3.716	0.000	87	640777	200.0	208.4	
26 Carbon disulfide	76	3.764	3.764	0.000	99	874756	200.0	198.1	M
24 Acetone	43	3.855	3.855	0.000	30	145367	400.0	423.1	
28 3-Chloro-1-propene	76	4.087	4.087	0.000	83	220406	200.0	203.3	
31 Methylene Chloride	84	4.294	4.294	0.000	79	317590	200.0	201.3	
30 Methyl acetate	43	4.324	4.324	0.000	98	683140	1000.0	936.5	
34 trans-1,2-Dichloroethene	96	4.725	4.725	0.000	93	371778	200.0	203.8	
32 2-Methyl-2-propanol	59	4.744	4.744	0.000	34	12318	2000.0	1959.0	
33 Acrylonitrile	53	4.829	4.829	0.000	99	568053	2000.0	1946.7	
35 Methyl tert-butyl ether	73	4.890	4.890	0.000	93	714150	200.0	198.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.090	5.090	0.000	94	382145	200.0	200.3	
38 Vinyl acetate	43	5.115	5.115	0.000	91	289383	200.0	201.2	
37 1,1-Dichloroethane	63	5.334	5.334	0.000	96	550009	200.0	205.7	
44 2,2-Dichloropropane	77	6.076	6.076	0.000	89	478480	200.0	214.2	
45 cis-1,2-Dichloroethene	96	6.094	6.094	0.000	77	375290	200.0	207.3	
46 2-Butanone (MEK)	43	6.216	6.216	0.000	99	189308	400.0	385.7	
49 Chlorobromomethane	128	6.380	6.380	0.000	83	204558	200.0	196.2	
52 Chloroform	83	6.496	6.496	0.000	93	617343	200.0	205.1	
53 1,1,1-Trichloroethane	97	6.660	6.660	0.000	97	569802	200.0	208.4	
51 Tetrahydrofuran	42	6.709	6.709	0.000	44	112031	400.0	417.2	
54 Cyclohexane	56	6.709	6.709	0.000	77	389741	200.0	202.1	
56 Carbon tetrachloride	117	6.849	6.849	0.000	94	567374	200.0	205.7	
55 1,1-Dichloropropene	75	6.855	6.855	0.000	89	397710	200.0	201.5	
58 Benzene	78	7.086	7.086	0.000	95	1140696	200.0	211.7	
59 1,2-Dichloroethane	62	7.122	7.122	0.000	97	363062	200.0	199.5	
62 n-Heptane	43	7.390	7.390	0.000	63	343792	200.0	205.8	
57 Isobutyl alcohol	41	7.396	7.396	0.000	50	238248	5000.0	5420.0	
64 Trichloroethene	130	7.785	7.785	0.000	91	445574	200.0	206.3	
66 Methylcyclohexane	83	7.980	7.980	0.000	87	543409	200.0	204.6	
67 1,2-Dichloropropane	63	8.029	8.029	0.000	82	243750	200.0	198.6	
68 Dibromomethane	93	8.144	8.144	0.000	95	175702	200.0	192.2	
70 1,4-Dioxane	88	8.205	8.205	0.000	88	36036	4000.0	4200.2	M
71 Dichlorobromomethane	83	8.315	8.315	0.000	97	480549	200.0	211.2	
74 cis-1,3-Dichloropropene	75	8.771	8.771	0.000	91	477454	200.0	202.2	
75 4-Methyl-2-pentanone (MIBK	43	8.947	8.947	0.000	97	367652	400.0	409.4	
76 Toluene	91	9.099	9.099	0.000	98	1151125	200.0	211.3	
77 trans-1,3-Dichloropropene	75	9.325	9.325	0.000	94	405643	200.0	210.0	
78 Ethyl methacrylate	69	9.428	9.428	0.000	87	262894	200.0	204.6	
79 1,1,2-Trichloroethane	97	9.513	9.513	0.000	92	222398	200.0	201.6	
80 Tetrachloroethene	164	9.641	9.641	0.000	94	309255	200.0	216.5	
81 1,3-Dichloropropane	76	9.671	9.671	0.000	90	334311	200.0	205.1	
82 2-Hexanone	43	9.769	9.769	0.000	97	231264	400.0	399.3	
84 Chlorodibromomethane	129	9.896	9.896	0.000	89	387652	200.0	204.4	
85 Ethylene Dibromide	107	10.006	10.006	0.000	98	251542	200.0	201.3	
87 Chlorobenzene	112	10.499	10.499	0.000	94	846268	200.0	216.0	
89 1,1,1,2-Tetrachloroethane	131	10.578	10.578	0.000	93	393829	200.0	207.9	
90 Ethylbenzene	106	10.602	10.602	0.000	98	438222	200.0	196.9	
91 m-Xylene & p-Xylene	106	10.718	10.718	0.000	97	582999	200.0	194.3	
92 o-Xylene	106	11.113	11.113	0.000	95	586685	200.0	194.7	
93 Styrene	104	11.125	11.125	0.000	93	895002	200.0	218.5	
94 Bromoform	173	11.314	11.314	0.000	94	228827	200.0	213.0	
97 Isopropylbenzene	105	11.478	11.478	0.000	95	1546157	200.0	213.6	
99 1,1,2,2-Tetrachloroethane	83	11.776	11.776	0.000	98	251042	200.0	216.9	
100 Bromobenzene	156	11.788	11.788	0.000	86	423173	200.0	216.9	
101 1,2,3-Trichloropropane	110	11.819	11.819	0.000	83	86903	200.0	199.0	
102 trans-1,4-Dichloro-2-buten	53	11.831	11.831	0.000	70	49829	200.0	182.1	
103 N-Propylbenzene	120	11.892	11.892	0.000	96	515043	200.0	215.1	
104 2-Chlorotoluene	126	11.977	11.977	0.000	95	465485	200.0	214.1	
106 1,3,5-Trimethylbenzene	105	12.062	12.062	0.000	97	1260442	200.0	223.0	
107 4-Chlorotoluene	126	12.086	12.086	0.000	96	415760	200.0	199.6	
108 tert-Butylbenzene	119	12.391	12.391	0.000	91	1397136	200.0	207.4	
110 1,2,4-Trimethylbenzene	105	12.439	12.439	0.000	96	1279121	200.0	214.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
112 sec-Butylbenzene	105	12.610	12.610	0.000	94	1664550	200.0	219.6	
113 1,3-Dichlorobenzene	146	12.725	12.725	0.000	97	814415	200.0	210.1	
114 4-Isopropyltoluene	119	12.756	12.756	0.000	95	1460316	200.0	211.8	
115 1,4-Dichlorobenzene	146	12.816	12.816	0.000	94	763456	200.0	211.4	
120 n-Butylbenzene	91	13.163	13.163	0.000	95	1224106	200.0	213.7	
121 1,2-Dichlorobenzene	146	13.188	13.188	0.000	97	666444	200.0	188.4	
122 1,2-Dibromo-3-Chloropropan	75	13.972	13.972	0.000	88	37304	200.0	209.2	
126 1,2,4-Trichlorobenzene	180	14.806	14.806	0.000	95	198283	200.0	176.8	
127 Hexachlorobutadiene	225	14.970	14.970	0.000	88	119072	200.0	177.1	
128 Naphthalene	128	15.055	15.055	0.000	96	323445	200.0	176.1	
129 1,2,3-Trichlorobenzene	180	15.305	15.305	0.000	93	106664	200.0	139.0	
S 134 1,2-Dichloroethene, Total	96				0		400.0	411.2	
S 133 Xylenes, Total	106				0		400.0	389.0	
S 135 1,3-Dichloropropene, Total	1				0		400.0	412.2	

QC Flag Legend

Review Flags

M - Manually Integrated

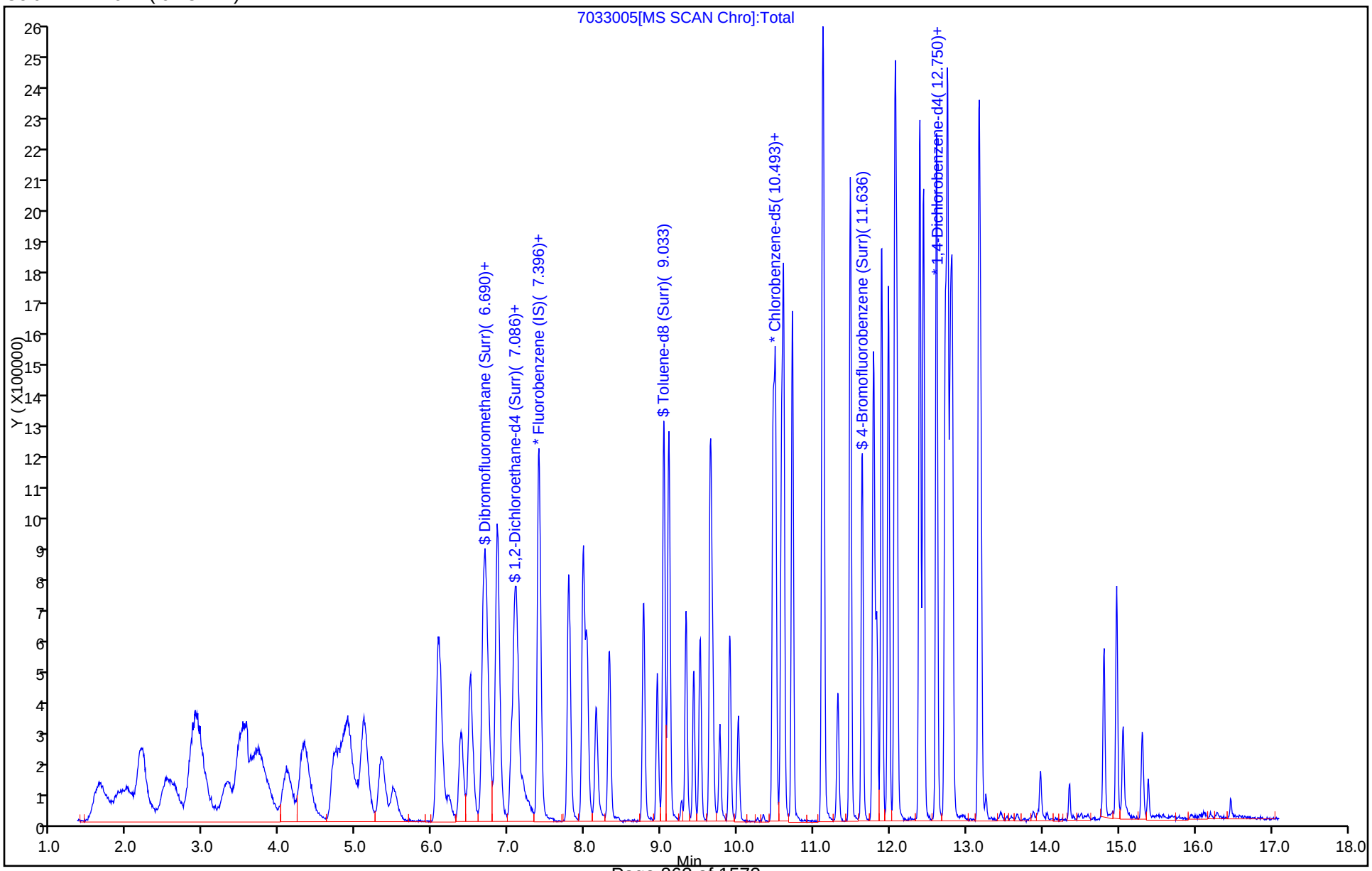
Reagents:

VOA8260SURR_00017	Amount Added:	8.00	Units: uL
VOA8260INT_00030	Amount Added:	8.00	Units: uL
VOAVAPRI_00005	Amount Added:	8.00	Units: uL
VOAACRPRI_00003	Amount Added:	24.00	Units: uL
VOA8260VOAPRI_00108	Amount Added:	8.00	Units: uL
voaWKet2 Rest_00002	Amount Added:	8.00	Units: uL

Report Date: 31-Mar-2015 08:54:21 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033005.D				
Injection Date:	30-Mar-2015 11:55:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	icis			Worklist Smp#:	5
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column: DB-624 (0.18 mm)					



Manual Integration/User Assign Peak Report

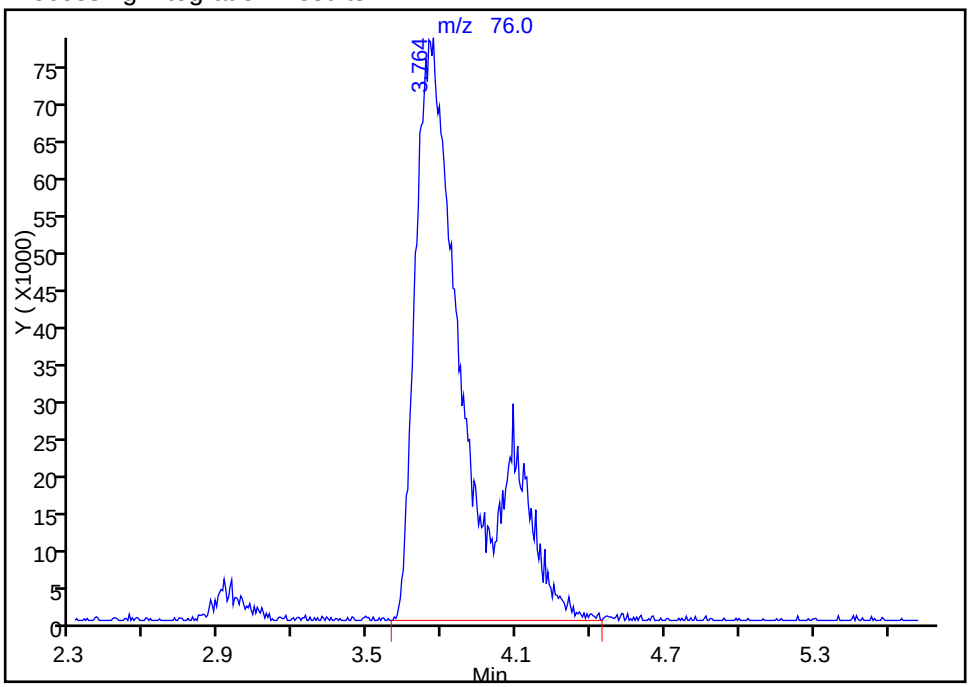
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033005.D
Injection Date: 30-Mar-2015 11:55:30 Instrument ID: CHHP7
Lims ID: icis
Client ID:
Operator ID: 034635 ALS Bottle#: 5 Worklist Smp#: 5
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

26 Carbon disulfide, CAS: 75-15-0

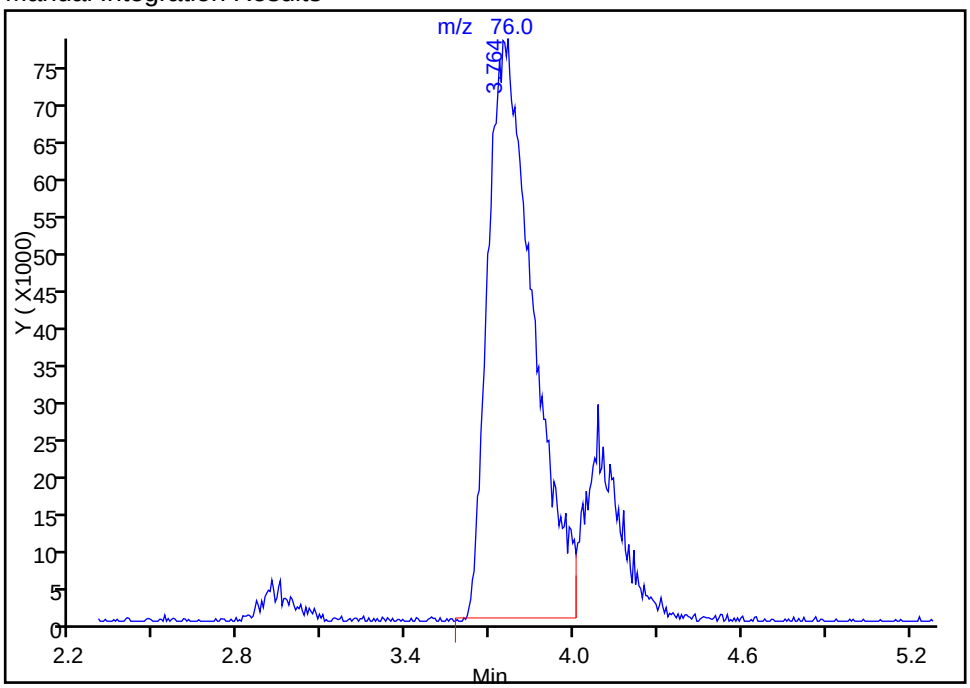
Processing Integration Results

RT: 3.76
Area: 1107648
Amount: 219.4227
Amount Units: ng



Manual Integration Results

RT: 3.76
Area: 874756
Amount: 198.1162
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 12:42:49
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

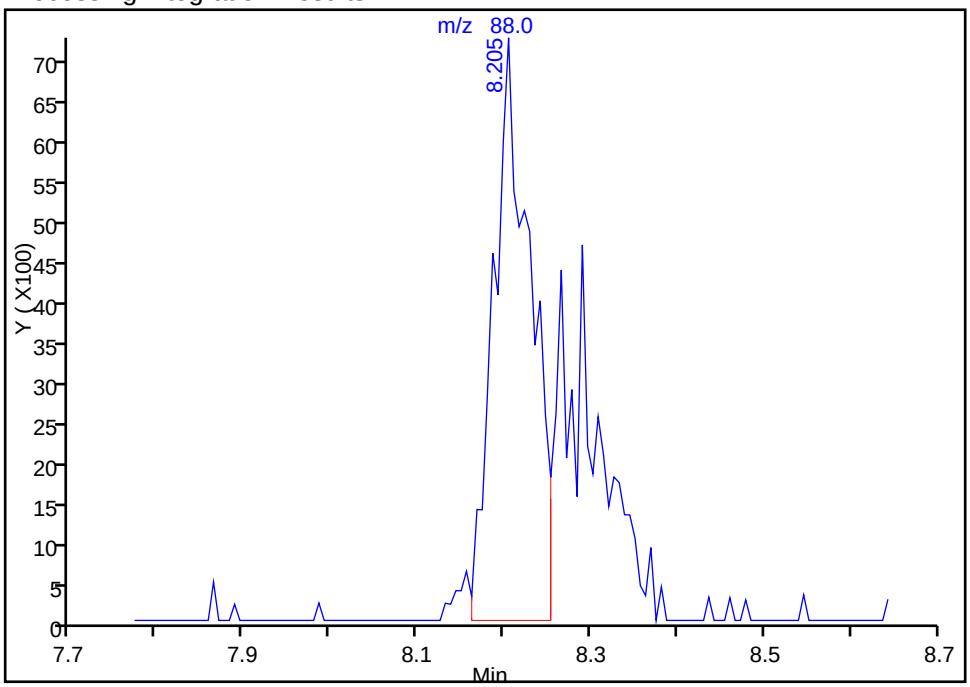
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033005.D				
Injection Date:	30-Mar-2015 11:55:30	Instrument ID:	CHHP7		
Lims ID:	icis				
Client ID:					
Operator ID:	034635	ALS Bottle#:	5	Worklist Smp#:	5
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

70 1,4-Dioxane, CAS: 123-91-1

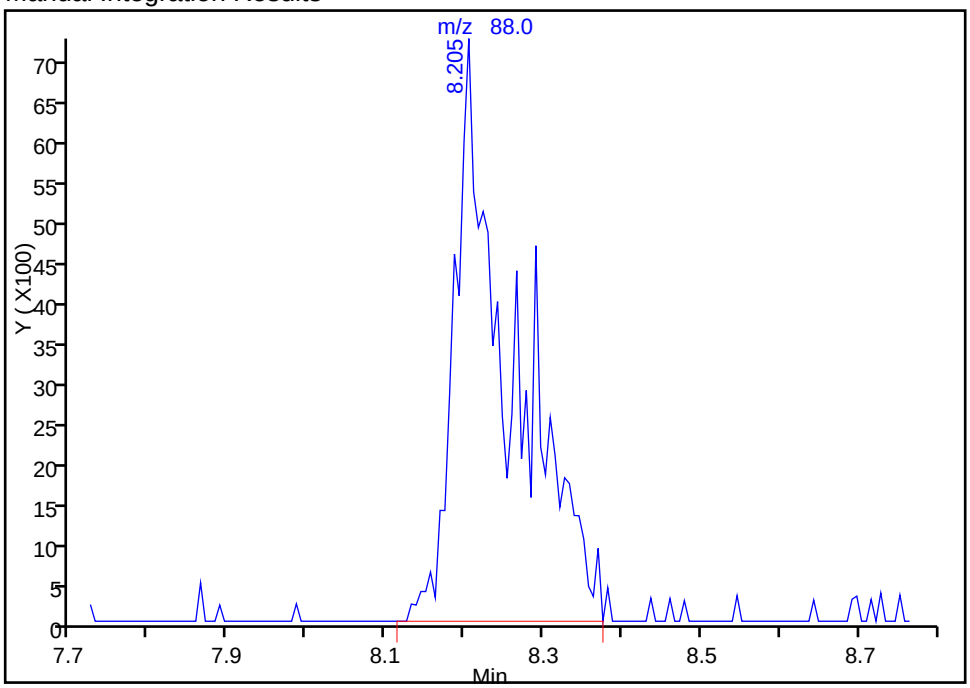
Processing Integration Results

RT: 8.21
Area: 21873
Amount: 2688.0682
Amount Units: ng



Manual Integration Results

RT: 8.21
Area: 36036
Amount: 4200.1644
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 15:32:59
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033006.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 30-Mar-2015 12:23:30 ALS Bottle#: 6 Worklist Smp#: 6
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 180-0006234-006
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_LL_CHHP7*sub1

Method: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 31-Mar-2015 09:13:23 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

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

First Level Reviewer: journetp Date: 31-Mar-2015 09:13:23

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	5.051	5.051	0.000	88	311643	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.399	7.399	0.000	93	1016877	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.471	10.471	0.000	82	306938	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.789	12.789	0.000	94	445506	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.675	6.675	0.000	91	459650	300.0	283.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.040	7.040	0.000	70	452870	300.0	292.8	
$ 7 Toluene-d8 (Surr)	98	9.036	9.036	0.000	92	1374921	300.0	302.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.633	11.633	0.000	91	594575	300.0	298.8	
11 Dichlorodifluoromethane	85	1.888	1.888	0.000	91	547112	300.0	290.3	
12 Chloromethane	50	2.015	2.015	0.000	87	579635	300.0	282.3	
14 Butadiene	39	2.174	2.174	0.000	96	467958	300.0	277.1	
13 Vinyl chloride	62	2.204	2.204	0.000	79	454519	300.0	284.2	
15 Bromomethane	94	2.496	2.496	0.000	95	370267	300.0	287.4	
16 Chloroethane	64	2.612	2.612	0.000	98	359315	300.0	278.5	
17 Dichlorofluoromethane	67	2.873	2.873	0.000	94	973235	300.0	283.5	
18 Trichlorofluoromethane	101	2.904	2.904	0.000	90	1039442	300.0	287.9	
20 Ethyl ether	59	3.299	3.299	0.000	96	329495	300.0	287.6	
21 Acrolein	56	3.445	3.445	0.000	27	58776	700.0	743.1	
22 1,1-Dichloroethene	96	3.457	3.457	0.000	85	386363	300.0	283.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.579	3.579	0.000	93	447607	300.0	281.9	
25 Iodomethane	142	3.676	3.676	0.000	97	761762	300.0	266.7	
26 Carbon disulfide	76	3.731	3.731	0.000	98	1119377	300.0	273.0	M
24 Acetone	43	3.877	3.877	0.000	71	201909	600.0	669.8	
28 3-Chloro-1-propene	76	4.072	4.072	0.000	85	265180	300.0	263.3	
31 Methylene Chloride	84	4.309	4.309	0.000	66	390467	300.0	266.5	
30 Methyl acetate	43	4.321	4.321	0.000	97	1035067	1500.0	1527.8	
34 trans-1,2-Dichloroethene	96	4.698	4.698	0.000	93	468410	300.0	276.5	
32 2-Methyl-2-propanol	59	4.698	4.698	0.000	32	18904	3000.0	2972.9	
33 Acrylonitrile	53	4.844	4.844	0.000	98	845412	3000.0	3119.4	
35 Methyl tert-butyl ether	73	4.905	4.905	0.000	95	984040	300.0	294.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.100	5.100	0.000	92	507536	300.0	286.5	
38 Vinyl acetate	43	5.100	5.100	0.000	64	370011	300.0	277.0	
37 1,1-Dichloroethane	63	5.337	5.337	0.000	97	715666	300.0	288.3	
44 2,2-Dichloropropane	77	6.073	6.073	0.000	88	593228	300.0	286.0	
45 cis-1,2-Dichloroethene	96	6.091	6.091	0.000	77	475209	300.0	282.7	
46 2-Butanone (MEK)	43	6.225	6.225	0.000	100	296627	600.0	650.8	
49 Chlorobromomethane	128	6.377	6.377	0.000	82	276754	300.0	285.8	
52 Chloroform	83	6.493	6.493	0.000	93	796703	300.0	284.9	
53 1,1,1-Trichloroethane	97	6.669	6.669	0.000	97	711168	300.0	280.1	
51 Tetrahydrofuran	42	6.700	6.700	0.000	52	141960	600.0	569.3	
54 Cyclohexane	56	6.712	6.712	0.000	88	497062	300.0	277.5	
56 Carbon tetrachloride	117	6.846	6.846	0.000	95	706744	300.0	275.9	
55 1,1-Dichloropropene	75	6.852	6.852	0.000	88	522409	300.0	284.9	
58 Benzene	78	7.083	7.083	0.000	95	1444796	300.0	288.7	
59 1,2-Dichloroethane	62	7.126	7.126	0.000	95	486348	300.0	287.7	
62 n-Heptane	43	7.387	7.387	0.000	75	453730	300.0	292.5	
57 Isobutyl alcohol	41	7.393	7.393	0.000	60	318675	7500.0	7805.9	
64 Trichloroethene	130	7.789	7.789	0.000	91	557536	300.0	277.9	
66 Methylcyclohexane	83	7.977	7.977	0.000	87	683732	300.0	277.2	
67 1,2-Dichloropropane	63	8.026	8.026	0.000	79	327752	300.0	287.5	
68 Dibromomethane	93	8.141	8.141	0.000	92	240979	300.0	283.8	
70 1,4-Dioxane	88	8.214	8.214	0.000	78	49259	6000.0	6181.9	
71 Dichlorobromomethane	83	8.318	8.318	0.000	97	612413	300.0	289.7	
74 cis-1,3-Dichloropropene	75	8.768	8.768	0.000	92	643615	300.0	293.5	
75 4-Methyl-2-pentanone (MIBK	43	8.951	8.951	0.000	96	558709	600.0	622.9	
76 Toluene	91	9.103	9.103	0.000	97	1473364	300.0	287.0	
77 trans-1,3-Dichloropropene	75	9.322	9.322	0.000	95	565545	300.0	293.1	
78 Ethyl methacrylate	69	9.425	9.425	0.000	86	390626	300.0	304.4	
79 1,1,2-Trichloroethane	97	9.510	9.510	0.000	91	322268	300.0	292.6	
80 Tetrachloroethene	164	9.644	9.644	0.000	92	380796	300.0	278.1	
81 1,3-Dichloropropane	76	9.674	9.674	0.000	90	485148	300.0	297.9	
82 2-Hexanone	43	9.766	9.766	0.000	97	369022	600.0	637.9	
84 Chlorodibromomethane	129	9.900	9.900	0.000	89	544921	300.0	287.7	
85 Ethylene Dibromide	107	10.009	10.009	0.000	98	375561	300.0	300.9	
87 Chlorobenzene	112	10.496	10.496	0.000	94	1093489	300.0	279.5	
89 1,1,1,2-Tetrachloroethane	131	10.581	10.581	0.000	93	505049	300.0	267.0	
90 Ethylbenzene	106	10.605	10.605	0.000	97	567348	300.0	255.2	
91 m-Xylene & p-Xylene	106	10.721	10.721	0.000	97	753992	300.0	251.6	
92 o-Xylene	106	11.116	11.116	0.000	94	750708	300.0	249.4	
93 Styrene	104	11.128	11.128	0.000	92	1119936	300.0	288.8	
94 Bromoform	173	11.311	11.311	0.000	93	322387	300.0	300.4	
97 Isopropylbenzene	105	11.481	11.481	0.000	95	1939042	300.0	285.9	
99 1,1,2,2-Tetrachloroethane	83	11.773	11.773	0.000	98	360995	300.0	312.3	
100 Bromobenzene	156	11.785	11.785	0.000	86	548599	300.0	287.4	
101 1,2,3-Trichloropropane	110	11.822	11.822	0.000	86	129479	300.0	302.9	
102 trans-1,4-Dichloro-2-buten	53	11.834	11.834	0.000	72	77709	300.0	290.2	
103 N-Propylbenzene	120	11.889	11.889	0.000	96	649531	300.0	277.2	
104 2-Chlorotoluene	126	11.980	11.980	0.000	95	592801	300.0	278.6	
106 1,3,5-Trimethylbenzene	105	12.065	12.065	0.000	97	1547120	300.0	294.8	
107 4-Chlorotoluene	126	12.090	12.090	0.000	95	562904	300.0	276.1	
108 tert-Butylbenzene	119	12.388	12.388	0.000	91	1734851	300.0	266.1	
110 1,2,4-Trimethylbenzene	105	12.442	12.442	0.000	95	1578246	300.0	285.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
112 sec-Butylbenzene	105	12.613	12.613	0.000	94	2075658	300.0	295.1	
113 1,3-Dichlorobenzene	146	12.722	12.722	0.000	97	1053105	300.0	281.2	
114 4-Isopropyltoluene	119	12.753	12.753	0.000	94	1814126	300.0	286.3	
115 1,4-Dichlorobenzene	146	12.814	12.814	0.000	93	1033910	300.0	292.6	
120 n-Butylbenzene	91	13.160	13.160	0.000	94	1510703	300.0	287.0	
121 1,2-Dichlorobenzene	146	13.191	13.191	0.000	98	895594	300.0	258.7	
122 1,2-Dibromo-3-Chloropropan	75	13.969	13.969	0.000	89	48853	300.0	277.4	
126 1,2,4-Trichlorobenzene	180	14.803	14.803	0.000	96	302905	300.0	275.9	
127 Hexachlorobutadiene	225	14.973	14.973	0.000	88	167959	300.0	255.3	
128 Naphthalene	128	15.052	15.052	0.000	97	511933	300.0	284.7	
129 1,2,3-Trichlorobenzene	180	15.308	15.308	0.000	94	203191	300.0	270.5	
S 134 1,2-Dichloroethene, Total	96				0		600.0	559.2	
S 133 Xylenes, Total	106				0		600.0	501.0	
S 135 1,3-Dichloropropene, Total	1				0		600.0	586.6	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260SURR_00017	Amount Added:	12.00	Units: uL
VOA8260INT_00030	Amount Added:	8.00	Units: uL
VOAVAPRI_00005	Amount Added:	12.00	Units: uL
VOAACRPRI_00003	Amount Added:	28.00	Units: uL
VOA8260VOAPRI_00108	Amount Added:	12.00	Units: uL
voaWKet2 Rest_00002	Amount Added:	12.00	Units: uL

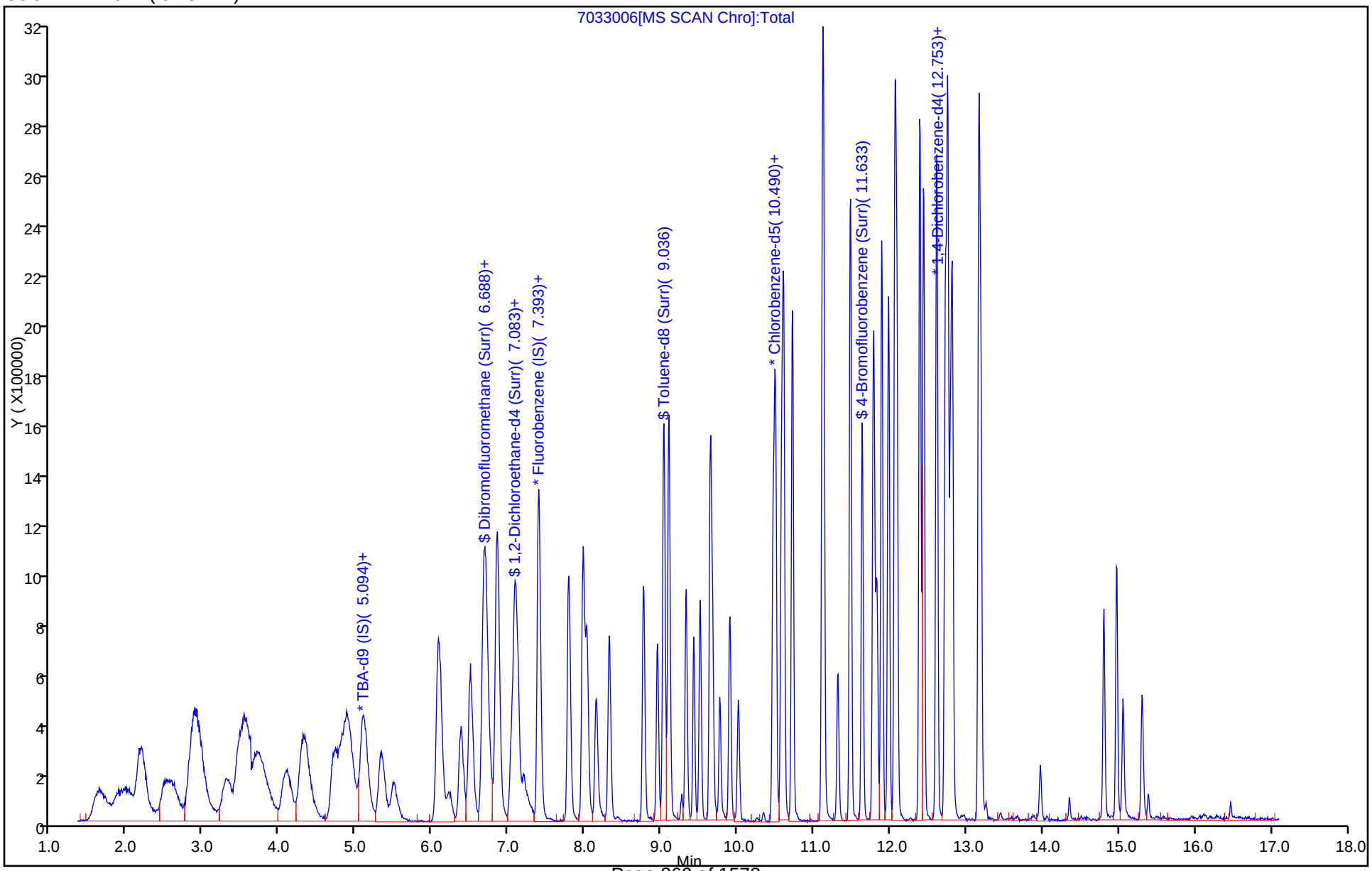
Report Date: 31-Mar-2015 09:13:24 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033006.D

Injection Date:	30-Mar-2015 12:23:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	ic			Worklist Smp#:	6
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

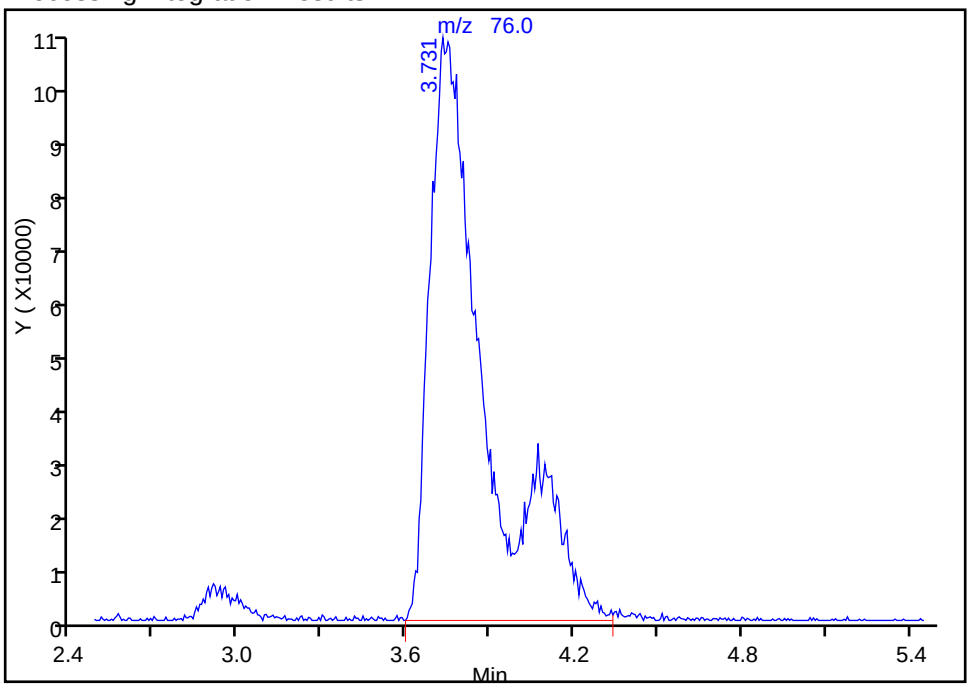
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033006.D				
Injection Date:	30-Mar-2015 12:23:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	6	Worklist Smp#:	6
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

26 Carbon disulfide, CAS: 75-15-0

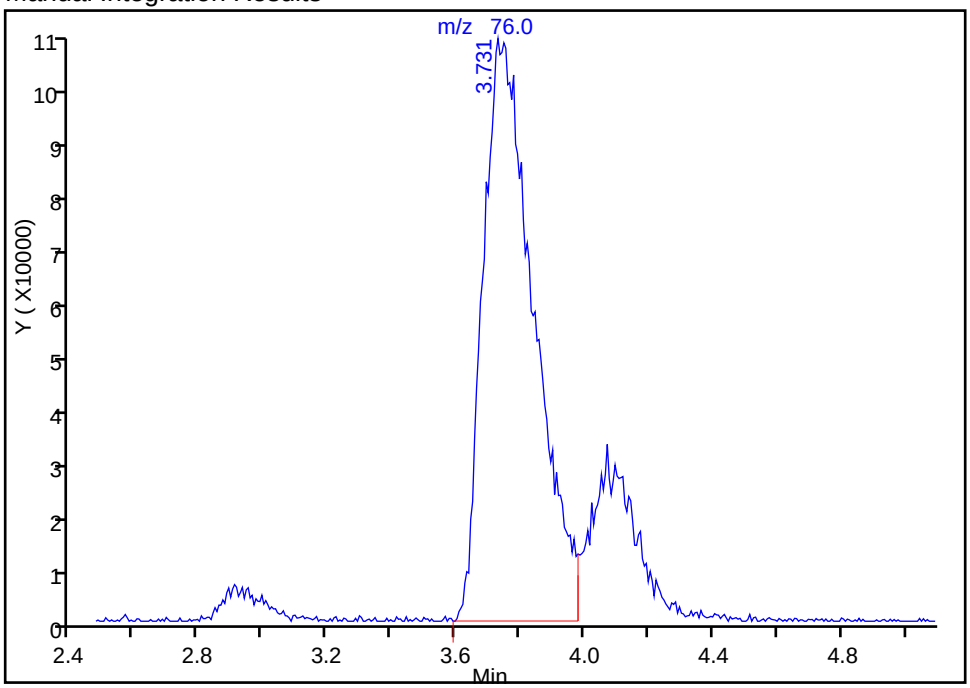
Processing Integration Results

RT: 3.73
Area: 1395013
Amount: 316.4464
Amount Units: ng



Manual Integration Results

RT: 3.73
Area: 1119377
Amount: 272.9691
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 13:12:54
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033007.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 30-Mar-2015 13:05:30 ALS Bottle#: 7 Worklist Smp#: 7
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 180-0006234-007
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_LL_CHHP7*sub1

Method: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 31-Mar-2015 08:54:23 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

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

First Level Reviewer: journetp Date: 30-Mar-2015 13:53:19

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	5.045	5.051	-0.006	90	310851	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.405	7.399	0.006	92	1032012	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.471	10.471	0.000	84	312393	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.795	12.789	0.006	93	448930	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.687	6.675	0.012	89	635809	400.0	386.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.046	7.040	0.006	70	603243	400.0	384.4	
$ 7 Toluene-d8 (Surr)	98	9.036	9.036	0.000	92	1822472	400.0	393.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.633	11.633	0.000	91	801850	400.0	400.9	
11 Dichlorodifluoromethane	85	1.918	1.888	0.030	88	769843	400.0	402.5	
12 Chloromethane	50	2.052	2.015	0.037	87	823816	400.0	395.3	
14 Butadiene	39	2.210	2.174	0.036	95	633176	400.0	369.4	
13 Vinyl chloride	62	2.204	2.204	0.000	97	610532	400.0	376.2	
15 Bromomethane	94	2.545	2.496	0.049	93	503455	400.0	385.0	
16 Chloroethane	64	2.666	2.612	0.054	49	494064	400.0	377.4	
17 Dichlorofluoromethane	67	2.904	2.873	0.031	96	1320934	400.0	379.2	
18 Trichlorofluoromethane	101	2.934	2.904	0.030	87	1412799	400.0	385.5	
20 Ethyl ether	59	3.305	3.299	0.006	90	478344	400.0	411.4	
22 1,1-Dichloroethene	96	3.481	3.457	0.024	97	556448	400.0	401.6	
21 Acrolein	56	3.488	3.445	0.043	45	63644	800.0	792.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.585	3.579	0.006	88	590436	400.0	366.5	
25 Iodomethane	142	3.670	3.676	-0.006	98	1110172	400.0	383.0	
26 Carbon disulfide	76	3.755	3.731	0.024	99	1544647	400.0	371.2	M
24 Acetone	43	3.865	3.877	-0.012	26	231424	800.0	766.1	
28 3-Chloro-1-propene	76	4.090	4.072	0.018	87	396144	400.0	387.6	
31 Methylene Chloride	84	4.309	4.309	0.000	76	544613	400.0	366.2	
30 Methyl acetate	43	4.327	4.321	0.006	97	1324779	2000.0	1926.7	
34 trans-1,2-Dichloroethene	96	4.710	4.698	0.012	90	646149	400.0	375.8	
32 2-Methyl-2-propanol	59	4.735	4.698	0.037	31	25255	4000.0	3891.2	M
33 Acrylonitrile	53	4.832	4.844	-0.012	99	1091986	4000.0	3970.2	
35 Methyl tert-butyl ether	73	4.899	4.905	-0.006	96	1301482	400.0	384.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.118	5.100	0.018	96	686716	400.0	381.9	
38 Vinyl acetate	43	5.112	5.100	0.012	70	520045	400.0	383.6	
37 1,1-Dichloroethane	63	5.337	5.337	0.000	96	988166	400.0	392.2	
44 2,2-Dichloropropane	77	6.079	6.073	0.006	87	795291	400.0	377.8	
45 cis-1,2-Dichloroethene	96	6.097	6.091	0.006	77	672672	400.0	394.3	
46 2-Butanone (MEK)	43	6.219	6.225	-0.006	100	357127	800.0	772.0	
49 Chlorobromomethane	128	6.383	6.377	0.006	80	383470	400.0	390.2	
52 Chloroform	83	6.499	6.493	0.006	93	1070128	400.0	377.1	
53 1,1,1-Trichloroethane	97	6.675	6.669	0.006	96	970491	400.0	376.6	
51 Tetrahydrofuran	42	6.712	6.700	0.012	51	193358	800.0	764.0	
54 Cyclohexane	56	6.718	6.712	0.006	78	680423	400.0	374.3	
56 Carbon tetrachloride	117	6.858	6.846	0.012	94	960424	400.0	369.5	
55 1,1-Dichloropropene	75	6.858	6.852	0.006	88	684260	400.0	367.7	
58 Benzene	78	7.089	7.083	0.006	95	1936130	400.0	381.2	
59 1,2-Dichloroethane	62	7.132	7.126	0.006	97	662167	400.0	386.0	
62 n-Heptane	43	7.399	7.387	0.012	84	593146	400.0	376.8	
57 Isobutyl alcohol	41	7.393	7.393	0.000	74	426103	10000	10284	
64 Trichloroethene	130	7.795	7.789	0.006	91	763898	400.0	375.2	
66 Methylcyclohexane	83	7.983	7.977	0.006	86	924161	400.0	369.2	
67 1,2-Dichloropropane	63	8.026	8.026	0.000	81	447696	400.0	387.0	
68 Dibromomethane	93	8.154	8.141	0.013	94	325671	400.0	378.0	
70 1,4-Dioxane	88	8.208	8.214	-0.006	85	68277	8000.0	8442.9	
71 Dichlorobromomethane	83	8.324	8.318	0.006	97	837049	400.0	390.2	
74 cis-1,3-Dichloropropene	75	8.774	8.768	0.006	91	854790	400.0	384.1	
75 4-Methyl-2-pentanone (MIBK	43	8.951	8.951	0.000	95	733664	800.0	803.7	
76 Toluene	91	9.103	9.103	0.000	96	1929599	400.0	398.0	
77 trans-1,3-Dichloropropene	75	9.328	9.322	0.006	94	752421	400.0	383.2	
78 Ethyl methacrylate	69	9.425	9.425	0.000	86	513149	400.0	392.8	
79 1,1,2-Trichloroethane	97	9.510	9.510	0.000	91	430806	400.0	384.3	
80 Tetrachloroethene	164	9.644	9.644	0.000	92	524990	400.0	402.5	
81 1,3-Dichloropropane	76	9.674	9.674	0.000	91	626433	400.0	378.0	
82 2-Hexanone	43	9.772	9.766	0.006	96	462161	800.0	784.9	
84 Chlorodibromomethane	129	9.900	9.900	0.000	88	725170	400.0	376.2	
85 Ethylene Dibromide	107	10.009	10.009	0.000	98	486579	400.0	383.1	
87 Chlorobenzene	112	10.502	10.496	0.006	93	1464442	400.0	367.8	
89 1,1,1,2-Tetrachloroethane	131	10.581	10.581	0.000	92	683517	400.0	355.0	
90 Ethylbenzene	106	10.605	10.605	0.000	97	742350	400.0	328.1	
91 m-Xylene & p-Xylene	106	10.721	10.721	0.000	95	1009451	400.0	330.9	
92 o-Xylene	106	11.116	11.116	0.000	94	1006935	400.0	328.7	
93 Styrene	104	11.134	11.128	0.006	93	1435413	400.0	388.9	
94 Bromoform	173	11.317	11.311	0.006	95	436139	400.0	399.3	
97 Isopropylbenzene	105	11.481	11.481	0.000	96	2501798	400.0	395.2	
99 1,1,2,2-Tetrachloroethane	83	11.779	11.773	0.006	97	452814	400.0	384.9	
100 Bromobenzene	156	11.785	11.785	0.000	86	719427	400.0	374.0	
101 1,2,3-Trichloropropane	110	11.822	11.822	0.000	87	165438	400.0	384.1	
102 trans-1,4-Dichloro-2-buten	53	11.834	11.834	0.000	80	103928	400.0	385.2	
103 N-Propylbenzene	120	11.895	11.889	0.006	95	866084	400.0	366.8	
104 2-Chlorotoluene	126	11.980	11.980	0.000	96	799439	400.0	372.9	
106 1,3,5-Trimethylbenzene	105	12.065	12.065	0.000	97	2000575	400.0	402.4	
107 4-Chlorotoluene	126	12.090	12.090	0.000	94	757841	400.0	368.9	
108 tert-Butylbenzene	119	12.394	12.388	0.006	91	2561684	400.0	394.9	
110 1,2,4-Trimethylbenzene	105	12.442	12.442	0.000	95	2068364	400.0	399.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
112 sec-Butylbenzene	105	12.613	12.613	0.000	94	2688983	400.0	402.5	
113 1,3-Dichlorobenzene	146	12.728	12.722	0.006	96	1390255	400.0	371.8	
114 4-Isopropyltoluene	119	12.759	12.753	0.006	94	2342656	400.0	399.0	
115 1,4-Dichlorobenzene	146	12.820	12.814	0.006	92	1375837	400.0	386.3	
120 n-Butylbenzene	91	13.166	13.160	0.006	94	1935500	400.0	397.3	
121 1,2-Dichlorobenzene	146	13.191	13.191	0.000	97	1172011	400.0	335.9	
122 1,2-Dibromo-3-Chloropropan	75	13.969	13.969	0.000	88	74075	400.0	413.4	
126 1,2,4-Trichlorobenzene	180	14.803	14.803	0.000	95	443796	400.0	401.2	M
127 Hexachlorobutadiene	225	14.973	14.973	0.000	88	239421	400.0	361.2	
128 Naphthalene	128	15.058	15.052	0.006	96	664374	400.0	366.7	
129 1,2,3-Trichlorobenzene	180	15.308	15.308	0.000	95	263400	400.0	348.0	
S 134 1,2-Dichloroethene, Total	96				0		800.0	770.1	
S 133 Xylenes, Total	106				0		800.0	659.6	
S 135 1,3-Dichloropropene, Total	1				0		800.0	767.3	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

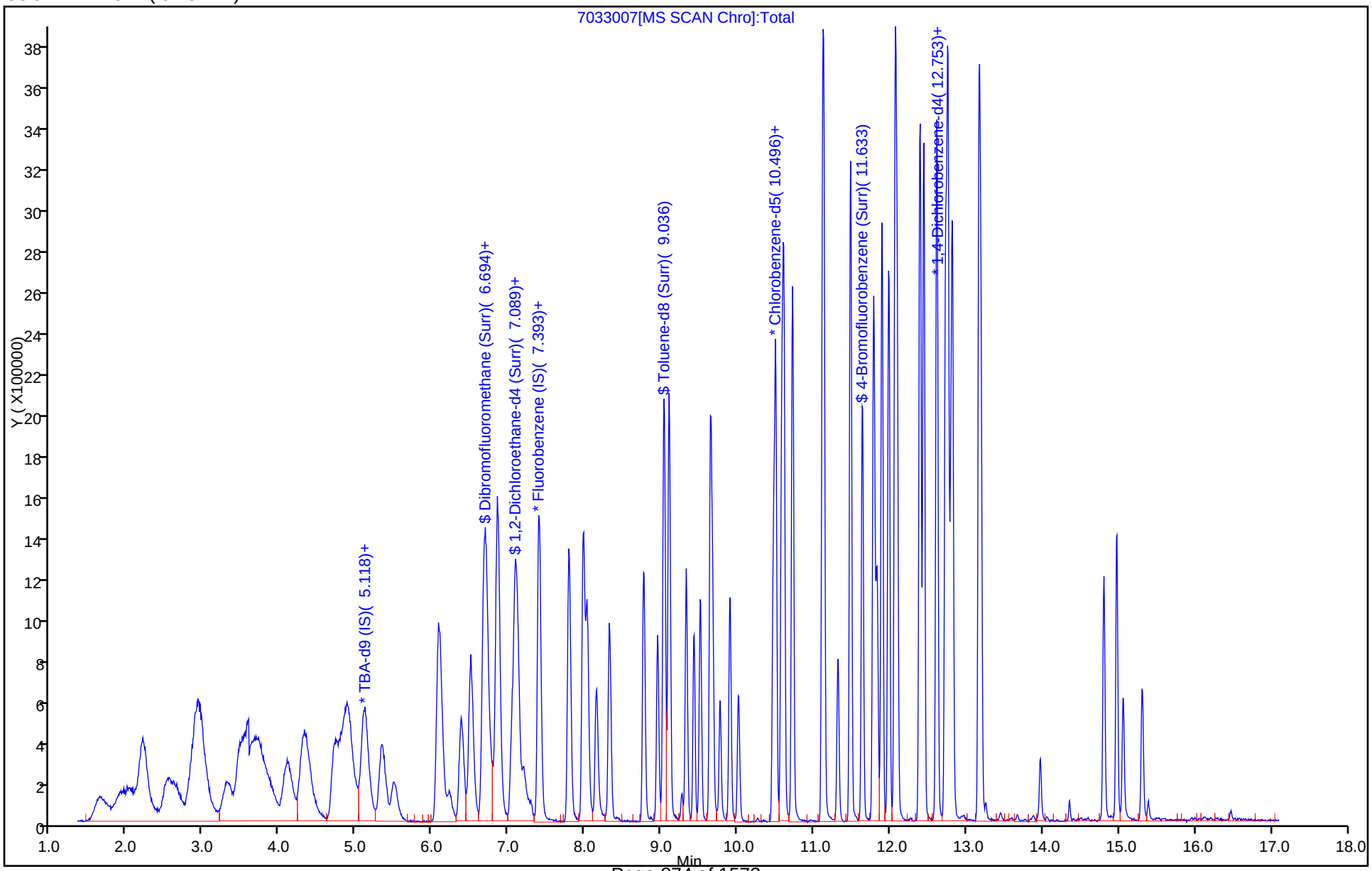
VOA8260SURR_00017	Amount Added:	16.00	Units: uL
VOA8260INT_00030	Amount Added:	8.00	Units: uL
VOAVAPRI_00005	Amount Added:	16.00	Units: uL
VOAACRPRI_00003	Amount Added:	32.00	Units: uL
VOA8260VOAPRI_00108	Amount Added:	16.00	Units: uL
voaWKet2 Rest_00002	Amount Added:	16.00	Units: uL

Report Date: 31-Mar-2015 08:54:24 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033007.D				
Injection Date:	30-Mar-2015 13:05:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	ic			Worklist Smp#:	7
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

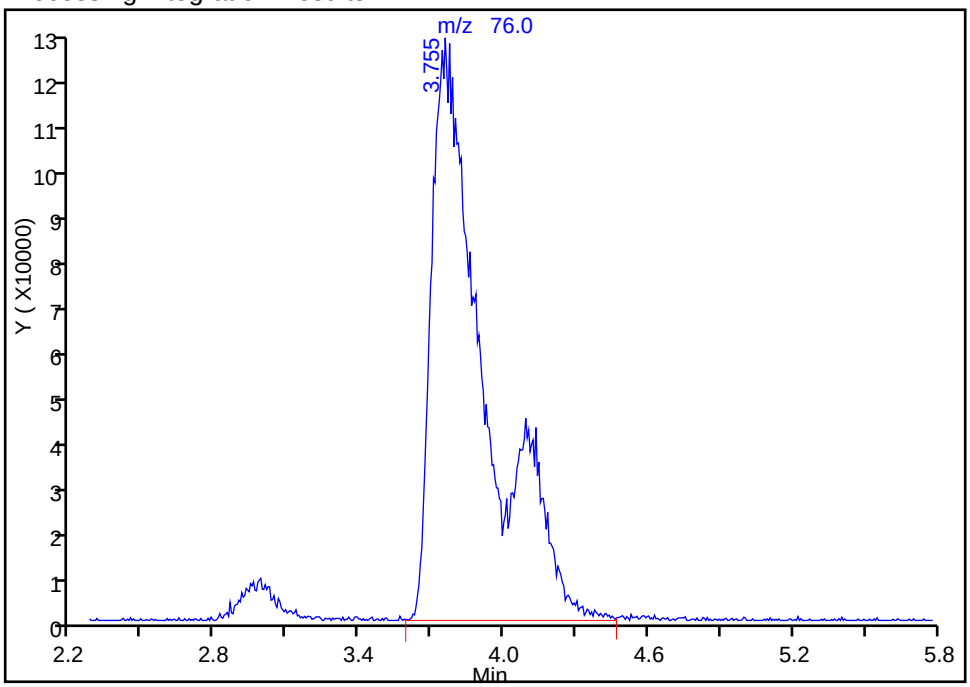
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033007.D
Injection Date: 30-Mar-2015 13:05:30 Instrument ID: CHHP7
Lims ID: ic
Client ID:
Operator ID: 034635 ALS Bottle#: 7 Worklist Smp#: 7
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

26 Carbon disulfide, CAS: 75-15-0

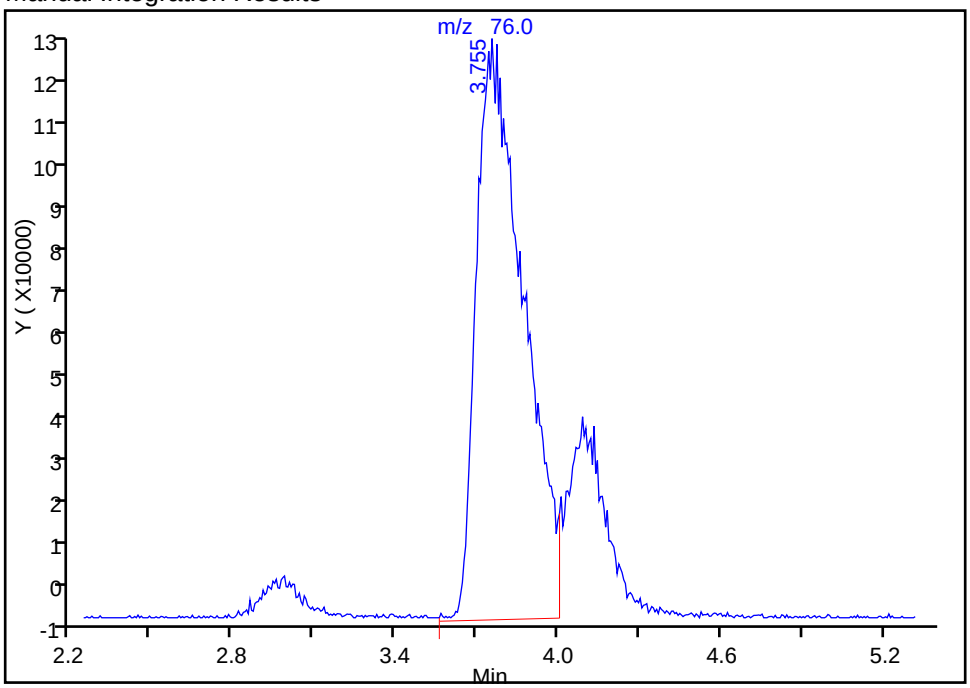
Processing Integration Results

RT: 3.76
Area: 1952405
Amount: 446.8874
Amount Units: ng



Manual Integration Results

RT: 3.76
Area: 1544647
Amount: 371.1505
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 13:53:19
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

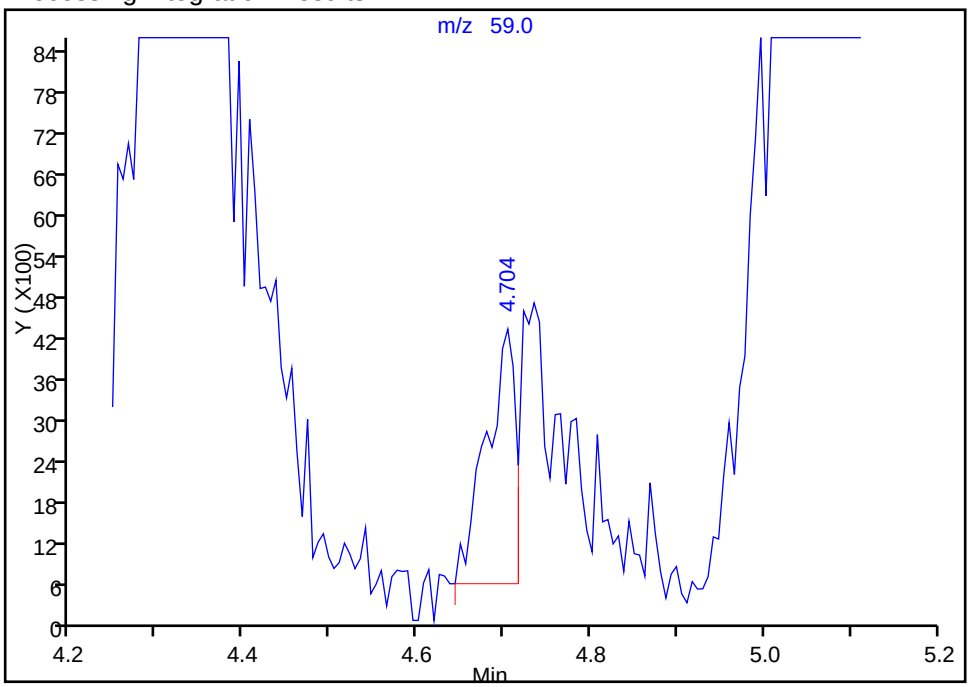
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033007.D				
Injection Date:	30-Mar-2015 13:05:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	7	Worklist Smp#:	7
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

32 2-Methyl-2-propanol, CAS: 75-65-0

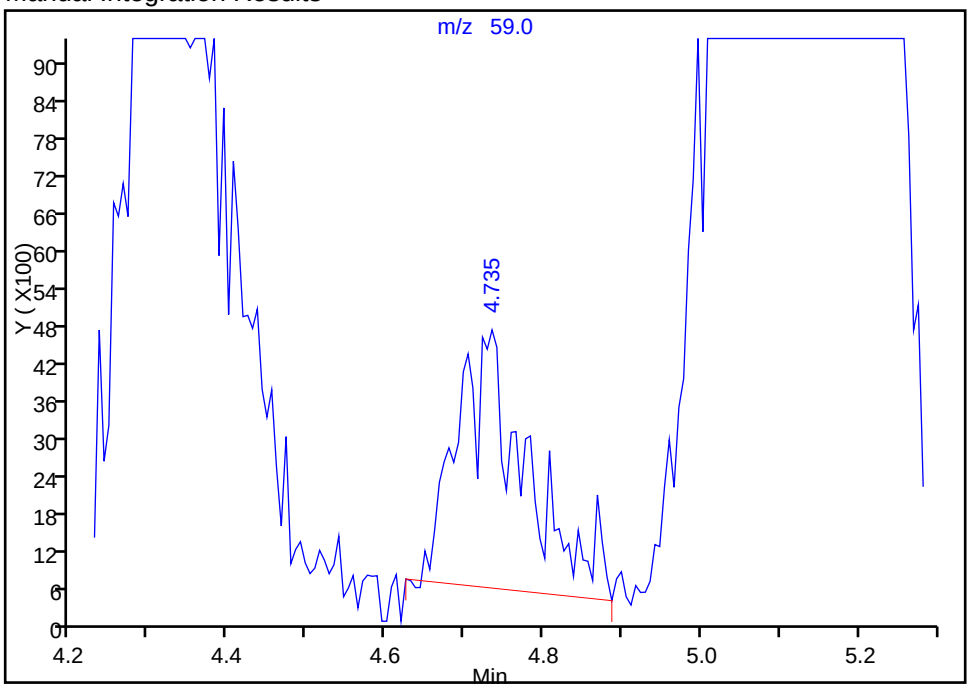
Processing Integration Results

RT: 4.70
Area: 8865
Amount: 1468.1351
Amount Units: ng



Manual Integration Results

RT: 4.73
Area: 25255
Amount: 3891.2177
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 16:20:01
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

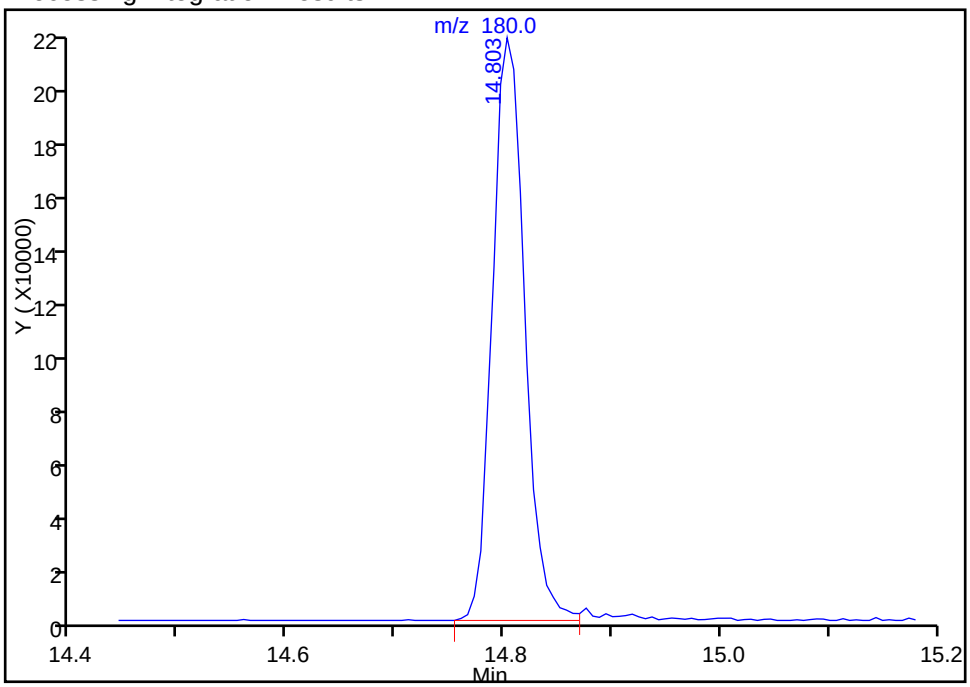
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033007.D				
Injection Date:	30-Mar-2015 13:05:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	7	Worklist Smp#:	7
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

126 1,2,4-Trichlorobenzene, CAS: 120-82-1

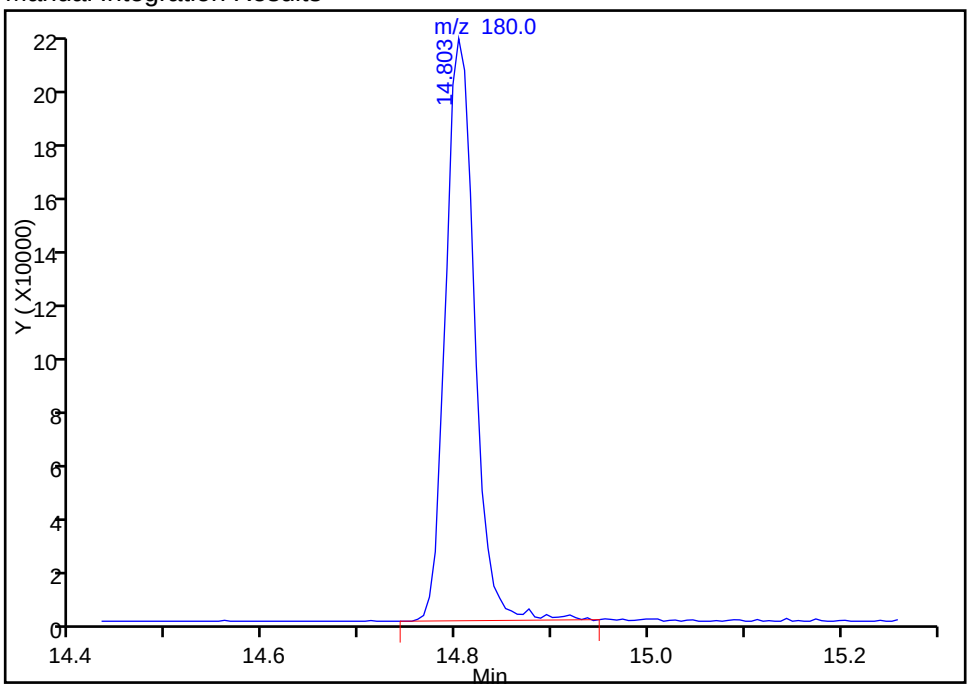
Processing Integration Results

RT: 14.80
Area: 439985
Amount: 424.0170
Amount Units: ng



Manual Integration Results

RT: 14.80
Area: 443796
Amount: 401.1709
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 16:20:01
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033008.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 30-Mar-2015 13:32:30 ALS Bottle#: 8 Worklist Smp#: 8
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 180-0006234-008
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_LL_CHHP7*sub1

Method: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 31-Mar-2015 09:17:36 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

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

First Level Reviewer: journetp Date: 30-Mar-2015 14:17:17

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	5.045	5.051	-0.006	90	325061	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.399	7.399	0.000	94	1064126	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.471	10.471	0.000	82	346158	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.795	12.789	0.006	93	490230	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.675	6.675	0.000	89	1069500	700.0	630.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.046	7.040	0.006	96	1052781	700.0	650.5	
$ 7 Toluene-d8 (Surr)	98	9.036	9.036	0.000	92	2956031	700.0	575.7	
$ 8 4-Bromofluorobenzene (Surr	95	11.639	11.633	0.006	91	1382927	700.0	632.2	
11 Dichlorodifluoromethane	85	1.900	1.888	0.012	95	1251238	700.0	634.4	
12 Chloromethane	50	2.046	2.015	0.031	89	1397995	700.0	650.6	
14 Butadiene	39	2.204	2.174	0.030	95	1091852	700.0	617.8	
13 Vinyl chloride	62	2.222	2.204	0.018	90	1056944	700.0	631.6	
15 Bromomethane	94	2.508	2.496	0.012	95	913392	700.0	677.4	
16 Chloroethane	64	2.642	2.612	0.030	92	891876	700.0	660.7	
17 Dichlorofluoromethane	67	2.897	2.873	0.024	93	2383040	700.0	663.5	
18 Trichlorofluoromethane	101	2.958	2.904	0.054	94	2456359	700.0	650.0	
20 Ethyl ether	59	3.293	3.299	-0.006	88	839764	700.0	700.4	
21 Acrolein	56	3.463	3.445	0.018	29	78643	900.0	950.1	
22 1,1-Dichloroethene	96	3.487	3.457	0.030	93	982672	700.0	687.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.603	3.579	0.024	93	1049950	700.0	632.0	
25 Iodomethane	142	3.676	3.676	0.000	98	1985287	700.0	664.3	
26 Carbon disulfide	76	3.731	3.731	0.000	98	2619768	700.0	610.5	M
24 Acetone	43	3.846	3.877	-0.031	30	390281	1400.0	1300.6	
28 3-Chloro-1-propene	76	4.096	4.072	0.024	86	698091	700.0	662.4	
31 Methylene Chloride	84	4.315	4.309	0.006	83	983292	700.0	641.2	
30 Methyl acetate	43	4.321	4.321	0.000	96	2224238	3500.0	3137.3	
34 trans-1,2-Dichloroethene	96	4.716	4.698	0.018	94	1124535	700.0	634.4	
32 2-Methyl-2-propanol	59	4.735	4.698	0.037	1	53007	7000.0	7028.6	M
33 Acrylonitrile	53	4.832	4.844	-0.012	97	1848860	7000.0	6519.1	
35 Methyl tert-butyl ether	73	4.905	4.905	0.000	95	2272845	700.0	650.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.106	5.100	0.006	93	1051129	700.0	567.0	
38 Vinyl acetate	43	5.106	5.100	0.006	65	892468	700.0	638.5	
37 1,1-Dichloroethane	63	5.337	5.337	0.000	96	1709875	700.0	658.1	
44 2,2-Dichloropropane	77	6.073	6.073	0.000	92	1337687	700.0	616.3	
45 cis-1,2-Dichloroethene	96	6.091	6.091	0.000	82	1130925	700.0	642.9	
46 2-Butanone (MEK)	43	6.225	6.225	0.000	100	613084	1400.0	1285.4	
49 Chlorobromomethane	128	6.383	6.377	0.006	84	646182	700.0	637.7	
52 Chloroform	83	6.499	6.493	0.006	93	1847979	700.0	631.6	
53 1,1,1-Trichloroethane	97	6.675	6.669	0.006	97	1615549	700.0	608.1	
51 Tetrahydrofuran	42	6.712	6.700	0.012	55	323514	1400.0	1239.7	
54 Cyclohexane	56	6.712	6.712	0.000	88	1123391	700.0	599.3	
56 Carbon tetrachloride	117	6.846	6.846	0.000	94	1629157	700.0	607.9	
55 1,1-Dichloropropene	75	6.852	6.852	0.000	89	1161217	700.0	605.2	
58 Benzene	78	7.089	7.083	0.006	96	3150535	700.0	601.6	
59 1,2-Dichloroethane	62	7.131	7.126	0.005	87	1085110	700.0	613.5	
62 n-Heptane	43	7.393	7.387	0.006	92	1015361	700.0	625.5	
57 Isobutyl alcohol	41	7.393	7.393	0.000	86	725140	17500	16974	
64 Trichloroethene	130	7.795	7.789	0.006	92	1337763	700.0	637.2	
66 Methylcyclohexane	83	7.977	7.977	0.000	85	1518386	700.0	588.2	
67 1,2-Dichloropropane	63	8.026	8.026	0.000	80	761874	700.0	638.7	
68 Dibromomethane	93	8.147	8.141	0.006	94	570980	700.0	642.7	
70 1,4-Dioxane	88	8.214	8.214	0.000	86	129768	14000	15562	
71 Dichlorobromomethane	83	8.324	8.318	0.006	96	1412009	700.0	638.4	
74 cis-1,3-Dichloropropene	75	8.768	8.768	0.000	91	1486494	700.0	647.9	
75 4-Methyl-2-pentanone (MIBK	43	8.957	8.951	0.006	95	1221845	1400.0	1207.9	
76 Toluene	91	9.109	9.103	0.006	95	3084889	700.0	703.5	
77 trans-1,3-Dichloropropene	75	9.328	9.322	0.006	94	1307789	700.0	601.0	
78 Ethyl methacrylate	69	9.431	9.425	0.006	88	911071	700.0	629.4	
79 1,1,2-Trichloroethane	97	9.510	9.510	0.000	92	746577	700.0	601.0	
80 Tetrachloroethene	164	9.650	9.644	0.006	92	884171	700.0	702.4	
81 1,3-Dichloropropane	76	9.674	9.674	0.000	91	1057404	700.0	575.8	
82 2-Hexanone	43	9.772	9.766	0.006	97	828690	1400.0	1270.2	
84 Chlorodibromomethane	129	9.899	9.900	-0.001	88	1253031	700.0	586.7	
85 Ethylene Dibromide	107	10.015	10.009	0.006	98	856980	700.0	608.9	
87 Chlorobenzene	112	10.502	10.496	0.006	91	2414200	700.0	547.1	
89 1,1,1,2-Tetrachloroethane	131	10.581	10.581	0.000	92	1125563	700.0	527.6	
90 Ethylbenzene	106	10.611	10.605	0.006	96	1229831	700.0	490.5	
91 m-Xylene & p-Xylene	106	10.727	10.721	0.006	93	1715038	700.0	507.4	
92 o-Xylene	106	11.122	11.116	0.006	92	1683040	700.0	495.8	
93 Styrene	104	11.134	11.128	0.006	90	2360095	700.0	706.5	
94 Bromoform	173	11.317	11.311	0.006	93	781610	700.0	645.8	
97 Isopropylbenzene	105	11.481	11.481	0.000	95	3864822	700.0	706.3	
99 1,1,2,2-Tetrachloroethane	83	11.779	11.773	0.006	95	733504	700.0	562.6	
100 Bromobenzene	156	11.791	11.785	0.006	85	1224216	700.0	582.7	
101 1,2,3-Trichloropropane	110	11.828	11.822	0.006	86	290435	700.0	617.4	
102 trans-1,4-Dichloro-2-buten	53	11.840	11.834	0.006	78	188752	700.0	640.6	
103 N-Propylbenzene	120	11.901	11.889	0.012	93	1515443	700.0	587.7	
104 2-Chlorotoluene	126	11.986	11.980	0.006	92	1366522	700.0	583.7	
106 1,3,5-Trimethylbenzene	105	12.071	12.065	0.006	96	3121962	700.0	646.6	
107 4-Chlorotoluene	126	12.096	12.090	0.006	91	1318727	700.0	587.8	
108 tert-Butylbenzene	119	12.394	12.388	0.006	91	3583483	700.0	508.9	
110 1,2,4-Trimethylbenzene	105	12.448	12.442	0.006	94	3286002	700.0	702.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
112 sec-Butylbenzene	105	12.619	12.613	0.006	94	4241460	700.0	652.2	
113 1,3-Dichlorobenzene	146	12.734	12.722	0.012	94	2242920	700.0	554.5	
114 4-Isopropyltoluene	119	12.759	12.753	0.006	92	3605948	700.0	703.5	
115 1,4-Dichlorobenzene	146	12.820	12.814	0.006	90	2234049	700.0	574.5	
120 n-Butylbenzene	91	13.172	13.160	0.012	93	2947372	700.0	704.4	
121 1,2-Dichlorobenzene	146	13.191	13.191	0.000	95	1883558	700.0	494.4	
122 1,2-Dibromo-3-Chloropropan	75	13.969	13.969	0.000	91	134161	700.0	680.5	
126 1,2,4-Trichlorobenzene	180	14.803	14.803	0.000	96	719677	700.0	595.7	
127 Hexachlorobutadiene	225	14.973	14.973	0.000	90	413354	700.0	571.0	
128 Naphthalene	128	15.052	15.052	0.000	97	1090423	700.0	551.2	
129 1,2,3-Trichlorobenzene	180	15.308	15.308	0.000	95	433251	700.0	524.2	
S 134 1,2-Dichloroethene, Total	96				0		1400.0	1277.2	
S 133 Xylenes, Total	106				0		1400.0	1003.2	
S 135 1,3-Dichloropropene, Total	1				0		1400.0	1248.9	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260SURR_00017	Amount Added:	28.00	Units: uL
VOA8260INT_00030	Amount Added:	8.00	Units: uL
VOAVAPRI_00005	Amount Added:	28.00	Units: uL
VOAACRPRI_00003	Amount Added:	36.00	Units: uL
VOA8260VOAPRI_00108	Amount Added:	28.00	Units: uL
voaWKet2 Rest_00002	Amount Added:	28.00	Units: uL

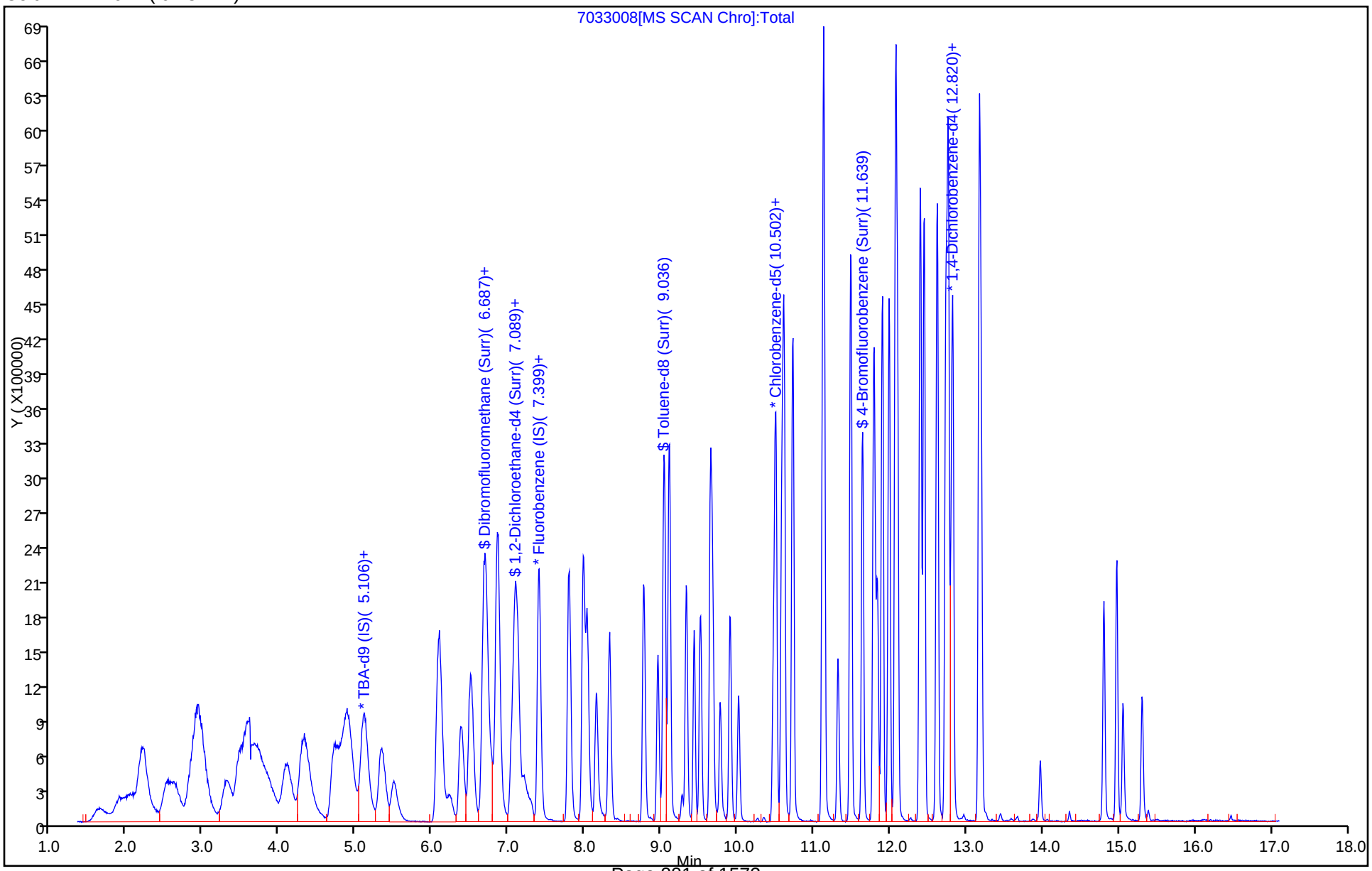
Report Date: 31-Mar-2015 09:17:37 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033008.D

Injection Date:	30-Mar-2015 13:32:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	ic			Worklist Smp#:	8
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

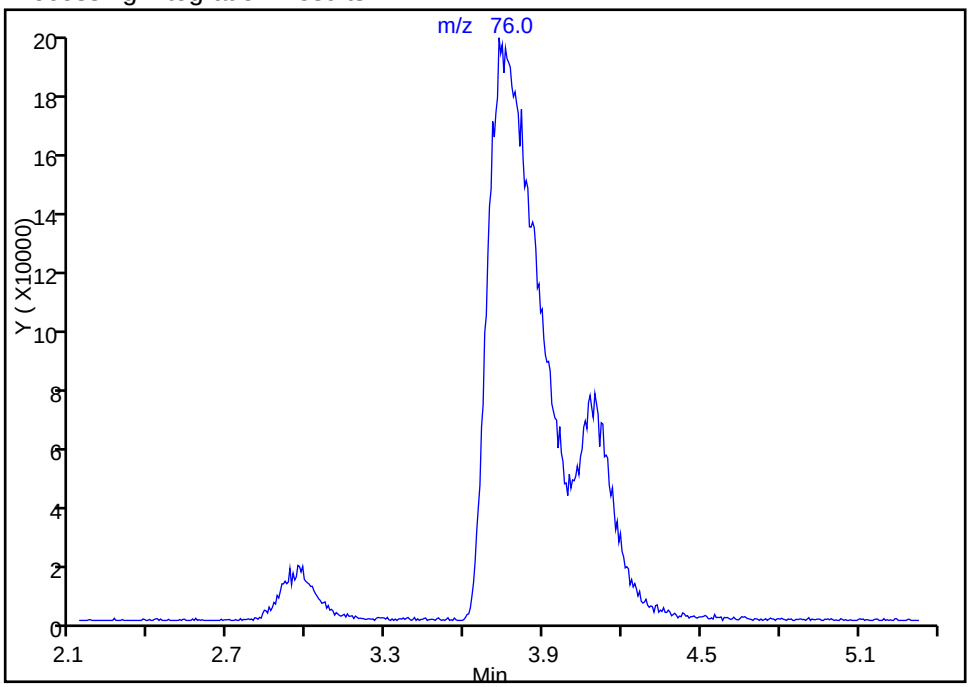
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033008.D				
Injection Date:	30-Mar-2015 13:32:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	8	Worklist Smp#:	8
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

26 Carbon disulfide, CAS: 75-15-0

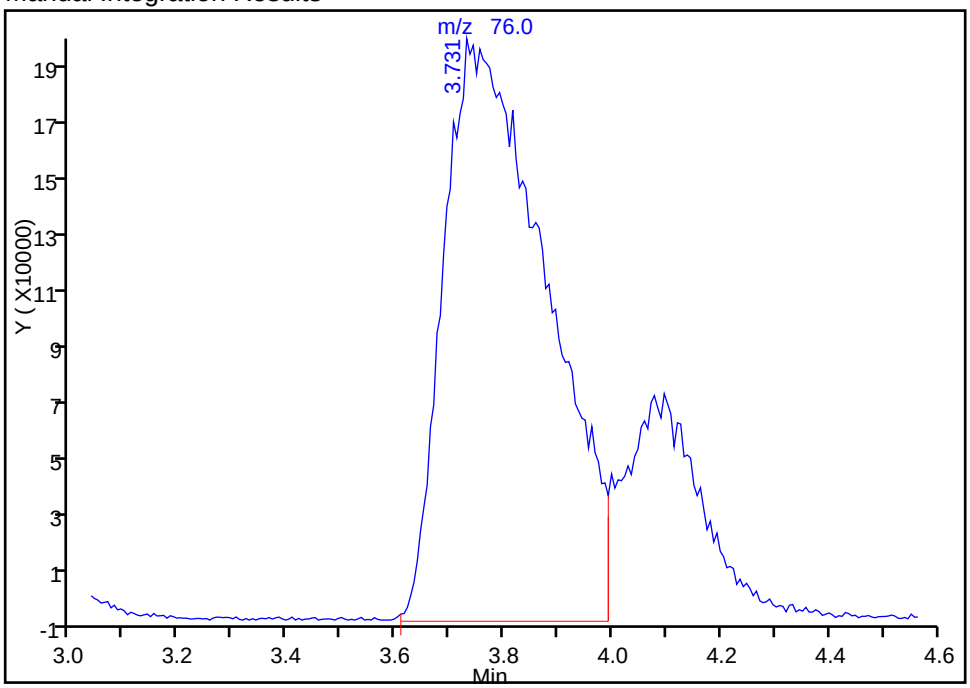
Not Detected
Expected RT: 3.73

Processing Integration Results



Manual Integration Results

RT: 3.73
Area: 2619768
Amount: 610.4854
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 14:17:17
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

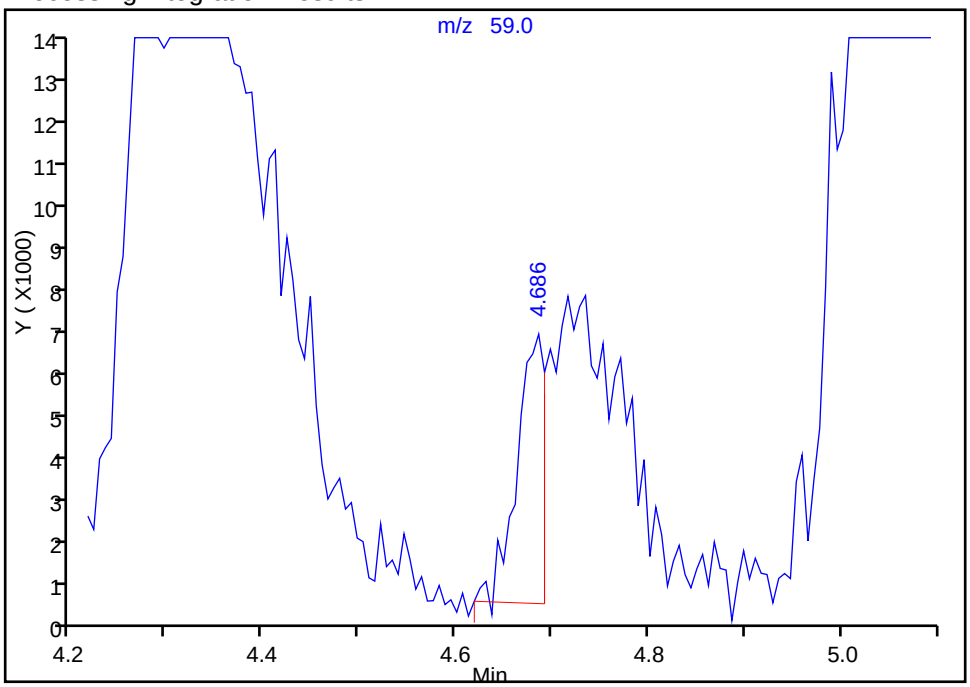
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033008.D
Injection Date: 30-Mar-2015 13:32:30 Instrument ID: CHHP7
Lims ID: ic
Client ID:
Operator ID: 034635 ALS Bottle#: 8 Worklist Smp#: 8
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

32 2-Methyl-2-propanol, CAS: 75-65-0

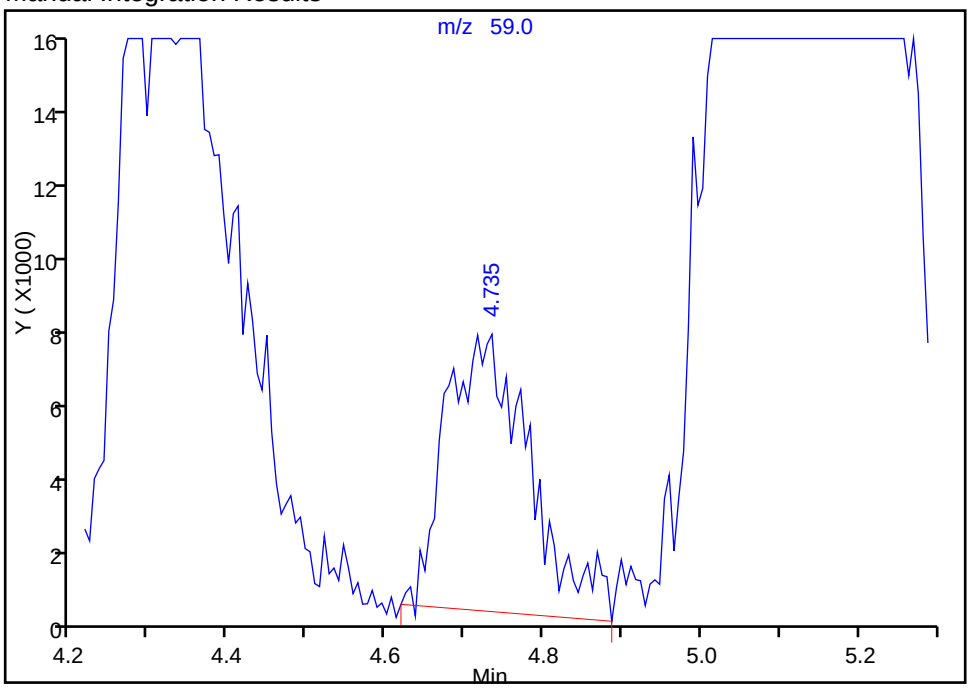
Processing Integration Results

RT: 4.69
Area: 12354
Amount: 2062.6313
Amount Units: ng



Manual Integration Results

RT: 4.73
Area: 53007
Amount: 7028.5816
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 14:17:17
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033009.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 30-Mar-2015 14:05:30 ALS Bottle#: 9 Worklist Smp#: 9
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 180-0006234-009
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_LL_CHHP7*sub1

Method: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 31-Mar-2015 08:54:27 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

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

First Level Reviewer: journetp Date: 30-Mar-2015 15:31:29

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	5.057	5.051	0.006	39	296956	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.405	7.399	0.006	97	1037142	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.471	10.471	0.000	82	333592	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.795	12.789	0.006	93	453121	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.681	6.675	0.006	90	1276297	800.0	771.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.046	7.040	0.006	96	1230322	800.0	780.0	
$ 7 Toluene-d8 (Surr)	98	9.042	9.036	0.006	92	3370087	800.0	681.1	
$ 8 4-Bromofluorobenzene (Surr	95	11.639	11.633	0.006	91	1583659	800.0	754.1	
11 Dichlorodifluoromethane	85	1.906	1.888	0.018	85	1578981	800.0	821.4	
12 Chloromethane	50	2.070	2.015	0.055	87	1636714	800.0	781.5	
14 Butadiene	39	2.192	2.174	0.018	97	1307567	800.0	759.1	
13 Vinyl chloride	62	2.216	2.204	0.012	67	1331694	800.0	816.5	
15 Bromomethane	94	2.520	2.496	0.024	94	1046463	800.0	796.3	
16 Chloroethane	64	2.630	2.612	0.018	80	1044851	800.0	794.1	
17 Dichlorofluoromethane	67	2.904	2.873	0.031	93	2691604	800.0	768.9	
18 Trichlorofluoromethane	101	2.940	2.904	0.036	90	2906130	800.0	789.1	
20 Ethyl ether	59	3.299	3.299	0.000	91	1005937	800.0	860.8	
21 Acrolein	56	3.475	3.445	0.030	27	83224	1000.0	1031.6	
22 1,1-Dichloroethene	96	3.530	3.457	0.073	96	1127478	800.0	809.7	
23 1,1,2-Trichloro-1,2,2-trif	101	3.585	3.579	0.006	93	1266754	800.0	782.3	
25 Iodomethane	142	3.688	3.676	0.012	99	2306954	800.0	792.0	
26 Carbon disulfide	76	3.780	3.731	0.049	100	3969960	800.0	949.2	
24 Acetone	43	3.907	3.877	0.030	40	501900	1600.0	1739.9	
28 3-Chloro-1-propene	76	4.078	4.072	0.006	83	796185	800.0	775.2	
31 Methylene Chloride	84	4.315	4.309	0.006	70	1126005	800.0	753.4	
30 Methyl acetate	43	4.333	4.321	0.012	97	2696602	4000.0	3902.5	
34 trans-1,2-Dichloroethene	96	4.723	4.698	0.025	89	1298488	800.0	751.5	
32 2-Methyl-2-propanol	59	4.723	4.698	0.025	32	42028	8000.0	6265.5	
33 Acrylonitrile	53	4.832	4.844	-0.012	99	2150290	8000.0	7779.2	
35 Methyl tert-butyl ether	73	4.905	4.905	0.000	94	2574759	800.0	756.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.106	5.100	0.006	93	1491013	800.0	825.2	
38 Vinyl acetate	43	5.106	5.100	0.006	98	1064694	800.0	781.5	
37 1,1-Dichloroethane	63	5.337	5.337	0.000	97	2003605	800.0	791.2	
44 2,2-Dichloropropane	77	6.073	6.073	0.000	88	1523531	800.0	720.2	
45 cis-1,2-Dichloroethene	96	6.091	6.091	0.000	77	1299902	800.0	758.1	
46 2-Butanone (MEK)	43	6.225	6.225	0.000	99	789394	1600.0	1698.1	
49 Chlorobromomethane	128	6.377	6.377	0.000	81	744761	800.0	754.1	
52 Chloroform	83	6.505	6.493	0.012	93	2105517	800.0	738.3	
53 1,1,1-Trichloroethane	97	6.669	6.669	0.000	96	1847241	800.0	713.4	
51 Tetrahydrofuran	42	6.511	6.700	-0.189	92	392456	1600.0	1543.0	
54 Cyclohexane	56	6.718	6.712	0.006	88	1347518	800.0	737.6	
56 Carbon tetrachloride	117	6.852	6.846	0.006	95	1866632	800.0	714.6	
55 1,1-Dichloropropene	75	6.858	6.852	0.006	88	1350014	800.0	721.9	
58 Benzene	78	7.095	7.083	0.012	97	3553209	800.0	696.1	
59 1,2-Dichloroethane	62	7.132	7.126	0.006	94	1261454	800.0	731.7	
62 n-Heptane	43	7.393	7.387	0.006	87	1247753	800.0	788.7	
57 Isobutyl alcohol	41	7.393	7.393	0.000	84	875607	20000	21029	
64 Trichloroethene	130	7.789	7.789	0.000	91	1511187	800.0	738.5	
66 Methylcyclohexane	83	7.977	7.977	0.000	86	1821723	800.0	724.1	
67 1,2-Dichloropropane	63	8.032	8.026	0.006	79	872134	800.0	750.2	
68 Dibromomethane	93	8.148	8.141	0.007	93	676332	800.0	781.1	
70 1,4-Dioxane	88	8.208	8.214	-0.006	84	130621	16000	16072	
71 Dichlorobromomethane	83	8.324	8.318	0.006	97	1632472	800.0	757.3	
74 cis-1,3-Dichloropropene	75	8.774	8.768	0.006	87	1709267	800.0	764.3	
75 4-Methyl-2-pentanone (MIBK	43	8.957	8.951	0.006	94	1421595	1600.0	1458.4	
76 Toluene	91	9.109	9.103	0.006	94	3491462	800.0	NQ	
77 trans-1,3-Dichloropropene	75	9.334	9.322	0.012	94	1546548	800.0	737.5	
78 Ethyl methacrylate	69	9.431	9.425	0.006	87	1076607	800.0	771.8	
79 1,1,2-Trichloroethane	97	9.516	9.510	0.006	93	867173	800.0	724.3	
80 Tetrachloroethene	164	9.644	9.644	0.000	92	1011053	800.0	924.4	
81 1,3-Dichloropropane	76	9.681	9.674	0.007	92	1228755	800.0	694.3	
82 2-Hexanone	43	9.772	9.766	0.006	95	1032279	1600.0	1641.8	
84 Chlorodibromomethane	129	9.900	9.900	0.000	91	1443562	800.0	701.3	
85 Ethylene Dibromide	107	10.015	10.009	0.006	98	985791	800.0	726.8	
87 Chlorobenzene	112	10.502	10.496	0.006	91	2701248	800.0	635.2	
89 1,1,1,2-Tetrachloroethane	131	10.581	10.581	0.000	92	1258389	800.0	612.1	
90 Ethylbenzene	106	10.611	10.605	0.006	95	1391048	800.0	575.8	
91 m-Xylene & p-Xylene	106	10.727	10.721	0.006	93	1961344	800.0	602.1	
92 o-Xylene	106	11.122	11.116	0.006	93	1933648	800.0	591.1	
93 Styrene	104	11.134	11.128	0.006	93	2670138	800.0	NQ	
94 Bromoform	173	11.317	11.311	0.006	93	915646	800.0	785.1	
97 Isopropylbenzene	105	11.487	11.481	0.006	95	4316426	800.0	NQ	
99 1,1,2,2-Tetrachloroethane	83	11.779	11.773	0.006	97	843599	800.0	671.4	
100 Bromobenzene	156	11.798	11.785	0.013	85	1357100	800.0	698.9	
101 1,2,3-Trichloropropane	110	11.828	11.822	0.006	86	336681	800.0	774.4	
102 trans-1,4-Dichloro-2-buten	53	11.840	11.834	0.006	79	225524	800.0	828.1	
103 N-Propylbenzene	120	11.901	11.889	0.012	94	1690335	800.0	709.2	
104 2-Chlorotoluene	126	11.992	11.980	0.012	91	1567014	800.0	724.2	
106 1,3,5-Trimethylbenzene	105	12.071	12.065	0.006	95	3446156	800.0	846.6	
107 4-Chlorotoluene	126	12.096	12.090	0.006	91	1461135	800.0	704.6	
108 tert-Butylbenzene	119	12.400	12.388	0.012	91	3999628	800.0	616.8	
110 1,2,4-Trimethylbenzene	105	12.449	12.442	0.007	93	3545216	800.0	1107.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
112 sec-Butylbenzene	105	12.619	12.613	0.006	94	4650844	800.0	841.1	
113 1,3-Dichlorobenzene	146	12.734	12.722	0.012	93	2457052	800.0	659.2	
114 4-Isopropyltoluene	119	12.765	12.753	0.012	91	3946644	800.0	NQ	
115 1,4-Dichlorobenzene	146	12.826	12.814	0.012	93	2471728	800.0	687.6	
120 n-Butylbenzene	91	13.172	13.160	0.012	91	3283929	800.0	NQ	
121 1,2-Dichlorobenzene	146	13.191	13.191	0.000	94	2089815	800.0	593.5	
122 1,2-Dibromo-3-Chloropropan	75	13.963	13.969	-0.006	90	157690	800.0	863.2	
126 1,2,4-Trichlorobenzene	180	14.803	14.803	0.000	96	992400	800.0	888.8	
127 Hexachlorobutadiene	225	14.973	14.973	0.000	91	568860	800.0	850.2	
128 Naphthalene	128	15.052	15.052	0.000	97	1540124	800.0	842.2	
129 1,2,3-Trichlorobenzene	180	15.302	15.308	-0.006	96	697645	800.0	913.1	
S 134 1,2-Dichloroethene, Total	96				0		1600.0	1509.7	
S 133 Xylenes, Total	106				0		1600.0	1193.2	
S 135 1,3-Dichloropropene, Total	1				0		1600.0	1501.8	

QC Flag Legend

Processing Flags

NQ - Not Quantifiable

Reagents:

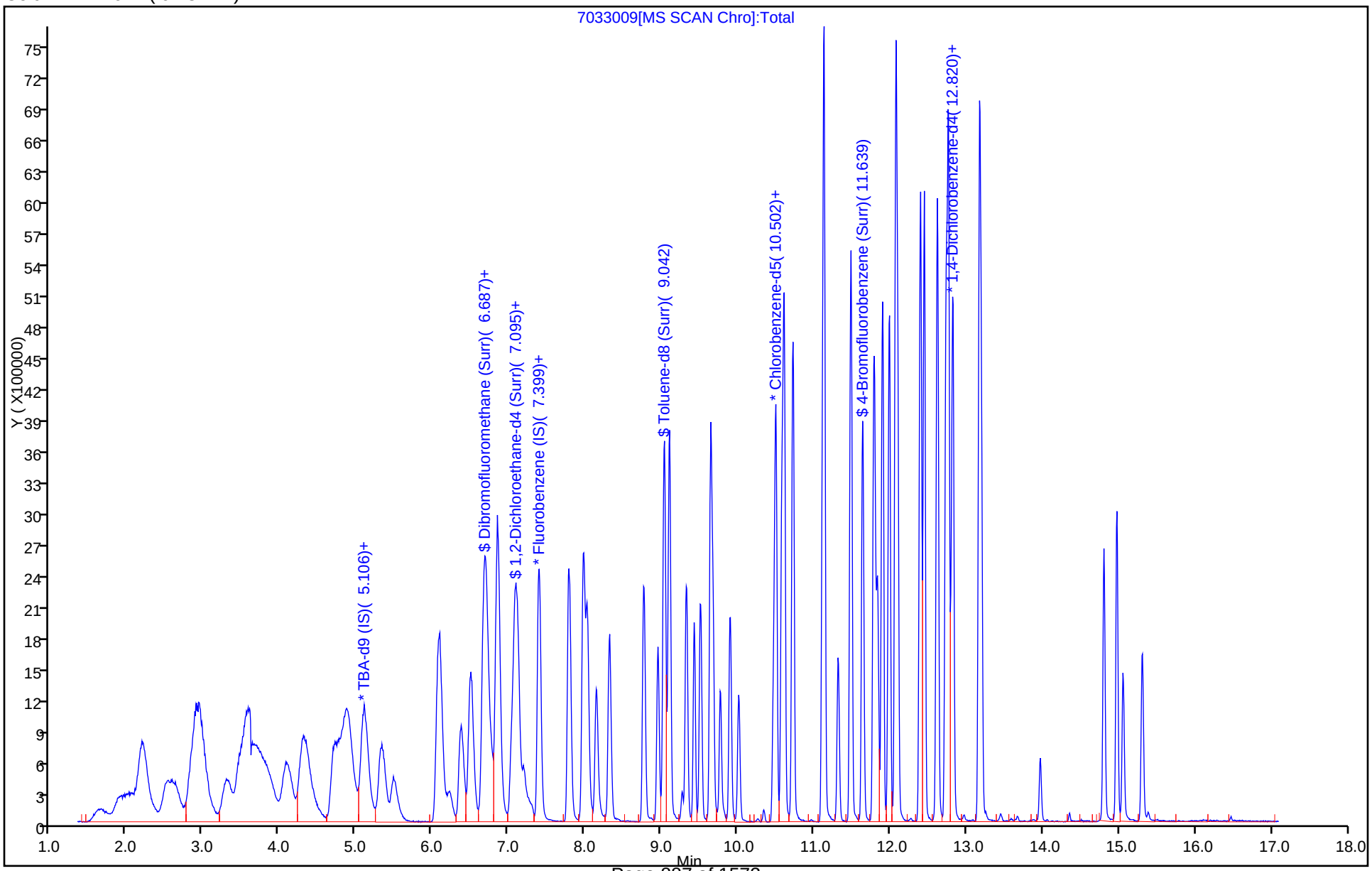
VOA8260SURR_00017	Amount Added:	32.00	Units: uL
VOA8260INT_00030	Amount Added:	8.00	Units: uL
VOAVAPRI_00005	Amount Added:	32.00	Units: uL
VOAACRPRI_00003	Amount Added:	40.00	Units: uL
VOA8260VOAPRI_00108	Amount Added:	32.00	Units: uL
voaWKet2 Rest_00002	Amount Added:	32.00	Units: uL

Report Date: 31-Mar-2015 08:54:28 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033009.D				
Injection Date:	30-Mar-2015 14:05:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	ic			Worklist Smp#:	9
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D
Lims ID: ic
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 30-Mar-2015 14:36:30 ALS Bottle#: 10 Worklist Smp#: 10
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: IC
Misc. Info.: 180-0006234-010
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_LL_CHHP7*sub1

Method: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 31-Mar-2015 08:54:29 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

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

First Level Reviewer: journetp Date: 30-Mar-2015 15:30:19

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	5.098	5.051	0.047	29	262357	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.410	7.399	0.011	78	1045154	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.476	10.471	0.005	82	333626	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.800	12.789	0.011	92	441544	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.686	6.675	0.011	92	1499933	1000.0	899.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.051	7.040	0.011	67	1446117	1000.0	909.8	
$ 7 Toluene-d8 (Surr)	98	9.040	9.036	0.004	92	4013224	1000.0	811.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.644	11.633	0.011	92	1915172	1000.0	915.0	
11 Dichlorodifluoromethane	85	1.904	1.888	0.016	97	1958336	1000.0	1010.9	
12 Chloromethane	50	2.075	2.015	0.060	64	2148873	1000.0	1018.2	
14 Butadiene	39	2.202	2.174	0.028	96	1684970	1000.0	970.8	
13 Vinyl chloride	62	2.239	2.204	0.035	98	1662883	1000.0	1011.8	
15 Bromomethane	94	2.537	2.496	0.041	96	1390949	1000.0	1050.3	
16 Chloroethane	64	2.610	2.612	-0.002	96	1328639	1000.0	1002.1	
17 Dichlorofluoromethane	67	2.890	2.873	0.017	96	3391987	1000.0	961.5	
18 Trichlorofluoromethane	101	2.963	2.904	0.059	92	3658414	1000.0	985.7	
20 Ethyl ether	59	3.310	3.299	0.011	90	1215677	1000.0	1032.3	
21 Acrolein	56	3.480	3.445	0.035	28	85538	1100.0	1052.1	
22 1,1-Dichloroethene	96	3.553	3.457	0.096	91	1456322	1000.0	1037.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.571	3.579	-0.008	94	1605157	1000.0	983.7	
25 Iodomethane	142	3.681	3.676	0.005	90	2906153	1000.0	990.1	
26 Carbon disulfide	76	3.754	3.731	0.023	100	3951355	1000.0	937.5	M
24 Acetone	43	3.875	3.877	-0.002	16	526230	2000.0	1813.3	
28 3-Chloro-1-propene	76	4.082	4.072	0.010	84	1091756	1000.0	1054.8	M
31 Methylene Chloride	84	4.313	4.309	0.004	80	1446969	1000.0	960.7	
30 Methyl acetate	43	4.326	4.321	0.005	99	3030290	5000.0	4351.8	
34 trans-1,2-Dichloroethene	96	4.727	4.698	0.029	96	1650008	1000.0	947.7	
32 2-Methyl-2-propanol	59	4.709	4.698	0.011	32	87352	10000	12101	
33 Acrylonitrile	53	4.843	4.844	-0.001	95	2412565	10000	8661.2	M
35 Methyl tert-butyl ether	73	4.928	4.905	0.023	96	3086291	1000.0	899.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.098	5.100	-0.002	94	1744973	1000.0	958.3	
38 Vinyl acetate	43	5.092	5.100	-0.008	62	1318507	1000.0	960.4	
37 1,1-Dichloroethane	63	5.335	5.337	-0.002	95	2524474	1000.0	989.3	
44 2,2-Dichloropropane	77	6.078	6.073	0.005	89	1943271	1000.0	911.5	
45 cis-1,2-Dichloroethene	96	6.096	6.091	0.005	77	1640293	1000.0	949.3	
46 2-Butanone (MEK)	43	6.242	6.225	0.017	99	872275	2000.0	1862.0	
49 Chlorobromomethane	128	6.382	6.377	0.005	81	925671	1000.0	930.1	
52 Chloroform	83	6.497	6.493	0.004	93	2597161	1000.0	903.8	
53 1,1,1-Trichloroethane	97	6.668	6.669	-0.001	97	2336141	1000.0	895.2	
51 Tetrahydrofuran	42	6.722	6.700	0.022	50	486083	2000.0	1896.5	
54 Cyclohexane	56	6.716	6.712	0.004	90	1661352	1000.0	902.4	
56 Carbon tetrachloride	117	6.856	6.846	0.010	93	2368924	1000.0	899.9	
55 1,1-Dichloropropene	75	6.856	6.852	0.004	88	1689887	1000.0	896.8	
58 Benzene	78	7.094	7.083	0.011	96	4375955	1000.0	850.8	
59 1,2-Dichloroethane	62	7.136	7.126	0.010	97	1506238	1000.0	867.0	
62 n-Heptane	43	7.392	7.387	0.005	84	1473278	1000.0	924.1	
57 Isobutyl alcohol	41	7.392	7.393	-0.001	83	1032146	25000	24598	
64 Trichloroethene	130	7.793	7.789	0.004	90	1899175	1000.0	921.0	
66 Methylcyclohexane	83	7.982	7.977	0.005	85	2242100	1000.0	884.4	
67 1,2-Dichloropropane	63	8.036	8.026	0.010	80	1079980	1000.0	921.8	
68 Dibromomethane	93	8.152	8.141	0.011	93	813226	1000.0	932.0	
70 1,4-Dioxane	88	8.207	8.214	-0.007	82	160108	20000	19549	
71 Dichlorobromomethane	83	8.322	8.318	0.004	96	1941561	1000.0	893.7	
74 cis-1,3-Dichloropropene	75	8.773	8.768	0.005	90	2067222	1000.0	917.3	
75 4-Methyl-2-pentanone (MIBK	43	8.961	8.951	0.010	95	1593755	2000.0	1634.8	
76 Toluene	91	9.107	9.103	0.004	93	4117813	1000.0	NQ	
77 trans-1,3-Dichloropropene	75	9.332	9.322	0.010	94	1832921	1000.0	874.0	
78 Ethyl methacrylate	69	9.436	9.425	0.011	87	1240685	1000.0	889.4	
79 1,1,2-Trichloroethane	97	9.515	9.510	0.005	91	1040134	1000.0	868.7	
80 Tetrachloroethene	164	9.649	9.644	0.005	91	1252526	1000.0	NQ	
81 1,3-Dichloropropane	76	9.679	9.674	0.005	91	1422739	1000.0	803.8	
82 2-Hexanone	43	9.782	9.766	0.016	95	1158826	2000.0	1842.9	
84 Chlorodibromomethane	129	9.904	9.900	0.004	88	1742790	1000.0	846.6	
85 Ethylene Dibromide	107	10.014	10.009	0.005	98	1184293	1000.0	873.1	
87 Chlorobenzene	112	10.506	10.496	0.010	95	3258104	1000.0	766.1	
89 1,1,1,2-Tetrachloroethane	131	10.585	10.581	0.004	92	1561007	1000.0	759.2	
90 Ethylbenzene	106	10.616	10.605	0.011	94	1756448	1000.0	726.9	
91 m-Xylene & p-Xylene	106	10.731	10.721	0.010	91	2370008	1000.0	727.5	
92 o-Xylene	106	11.127	11.116	0.011	89	2438224	1000.0	745.2	
93 Styrene	104	11.139	11.128	0.011	88	3231479	1000.0	NQ	
94 Bromoform	173	11.322	11.311	0.011	93	1061162	1000.0	909.8	
97 Isopropylbenzene	105	11.492	11.481	0.011	95	5133808	1000.0	NQ	
99 1,1,2,2-Tetrachloroethane	83	11.784	11.773	0.011	97	942162	1000.0	749.8	
100 Bromobenzene	156	11.796	11.785	0.011	84	1650286	1000.0	872.2	
101 1,2,3-Trichloropropane	110	11.833	11.822	0.011	86	383754	1000.0	905.8	
102 trans-1,4-Dichloro-2-buten	53	11.845	11.834	0.011	87	261594	1000.0	985.7	
103 N-Propylbenzene	120	11.906	11.889	0.017	91	2105507	1000.0	906.6	
104 2-Chlorotoluene	126	11.991	11.980	0.011	93	1902501	1000.0	902.3	
106 1,3,5-Trimethylbenzene	105	12.076	12.065	0.011	94	4183147	1000.0	1394.8	
107 4-Chlorotoluene	126	12.100	12.090	0.010	92	1852378	1000.0	916.7	
108 tert-Butylbenzene	119	12.404	12.388	0.016	91	4730707	1000.0	751.0	
110 1,2,4-Trimethylbenzene	105	12.453	12.442	0.011	92	4215502	1000.0	NQ	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
112 sec-Butylbenzene	105	12.623	12.613	0.010	93	5554035	1000.0	1253.2	
113 1,3-Dichlorobenzene	146	12.739	12.722	0.017	93	2939423	1000.0	811.7	
114 4-Isopropyltoluene	119	12.769	12.753	0.016	90	4751587	1000.0	NQ	
115 1,4-Dichlorobenzene	146	12.824	12.814	0.010	92	2953963	1000.0	843.4	
120 n-Butylbenzene	91	13.171	13.160	0.011	88	3968525	1000.0	NQ	
121 1,2-Dichlorobenzene	146	13.195	13.191	0.004	93	2520618	1000.0	734.6	
122 1,2-Dibromo-3-Chloropropan	75	13.968	13.969	-0.001	90	181072	1000.0	1015.8	
126 1,2,4-Trichlorobenzene	180	14.801	14.803	-0.002	96	1186297	1000.0	1090.3	
127 Hexachlorobutadiene	225	14.978	14.973	0.005	89	704150	1000.0	1080.0	
128 Naphthalene	128	15.057	15.052	0.005	97	1609562	1000.0	903.3	
129 1,2,3-Trichlorobenzene	180	15.306	15.308	-0.002	95	761958	1000.0	1023.5	
S 134 1,2-Dichloroethene, Total	96				0		2000.0	1897.0	
S 133 Xylenes, Total	106				0		2000.0	1472.8	
S 135 1,3-Dichloropropene, Total	1				0		2000.0	1791.3	

QC Flag Legend

Processing Flags

NQ - Not Quantifiable

Review Flags

M - Manually Integrated

Reagents:

VOA8260SURR_00017	Amount Added:	40.00	Units: uL
VOA8260INT_00030	Amount Added:	8.00	Units: uL
VOAVAPRI_00005	Amount Added:	40.00	Units: uL
VOAACRPRI_00003	Amount Added:	44.00	Units: uL
VOA8260VOAPRI_00108	Amount Added:	40.00	Units: uL
voaWKet2 Rest_00002	Amount Added:	40.00	Units: uL

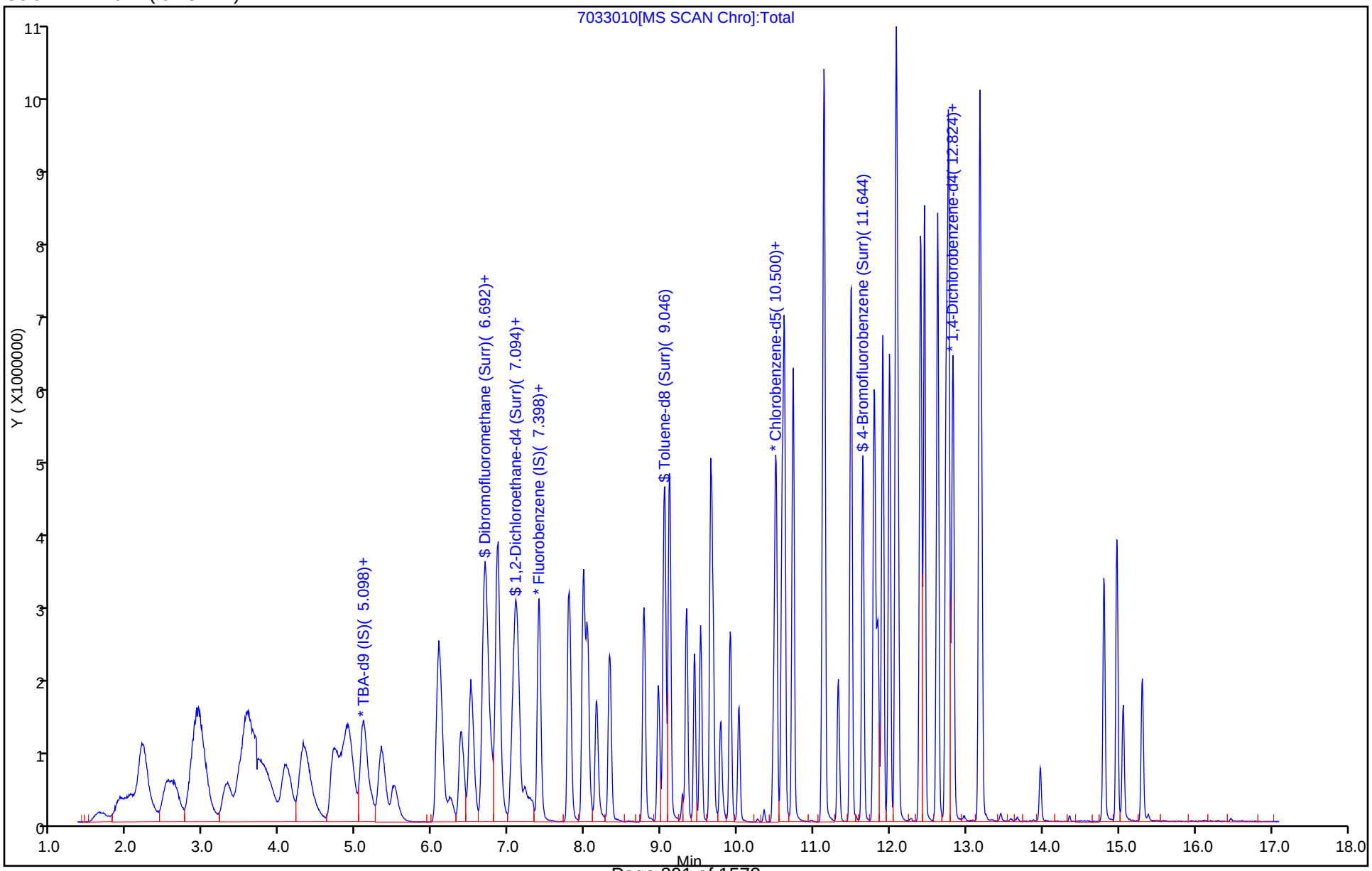
Report Date: 31-Mar-2015 08:54:29 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Injection Date:	30-Mar-2015 14:36:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	ic			Worklist Smp#:	10
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

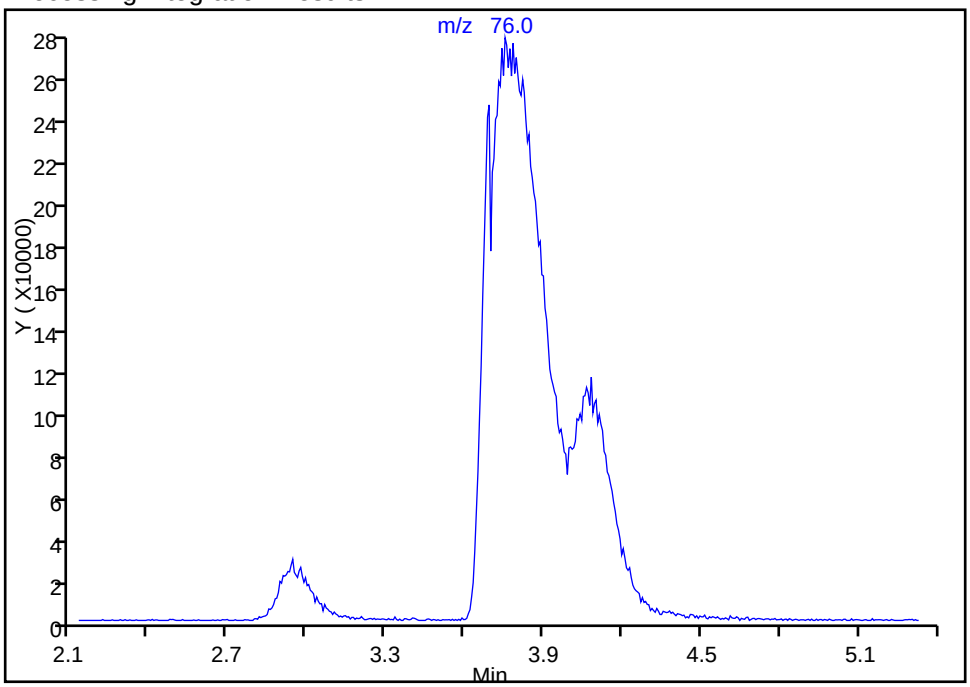
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D				
Injection Date:	30-Mar-2015 14:36:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	10	Worklist Smp#:	10
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

26 Carbon disulfide, CAS: 75-15-0

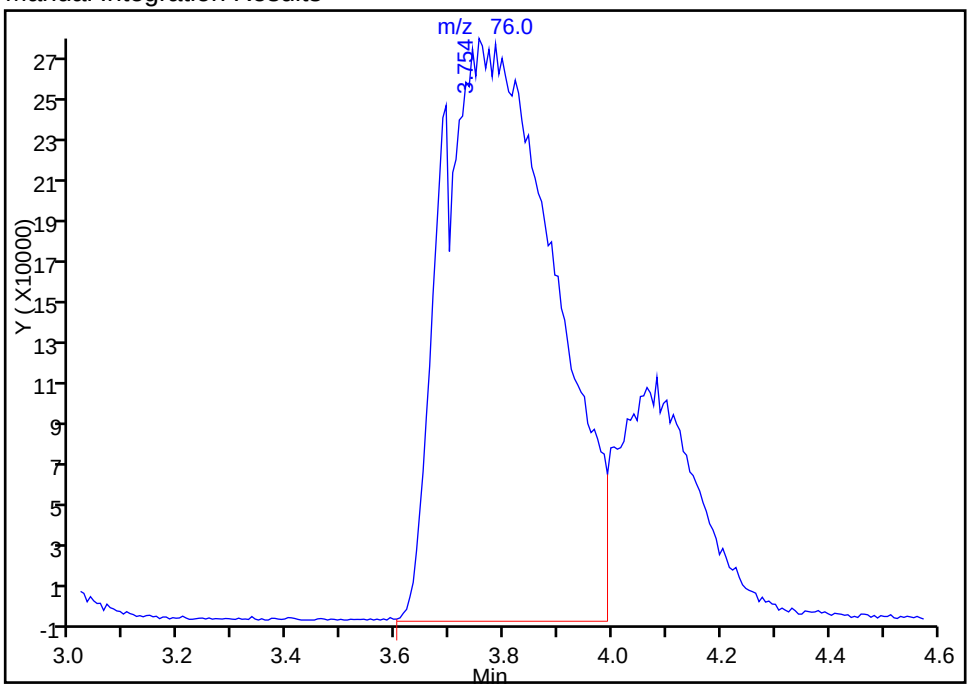
Not Detected
Expected RT: 3.73

Processing Integration Results



Manual Integration Results

RT: 3.75
Area: 3951355
Amount: 937.5001
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 15:30:19
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

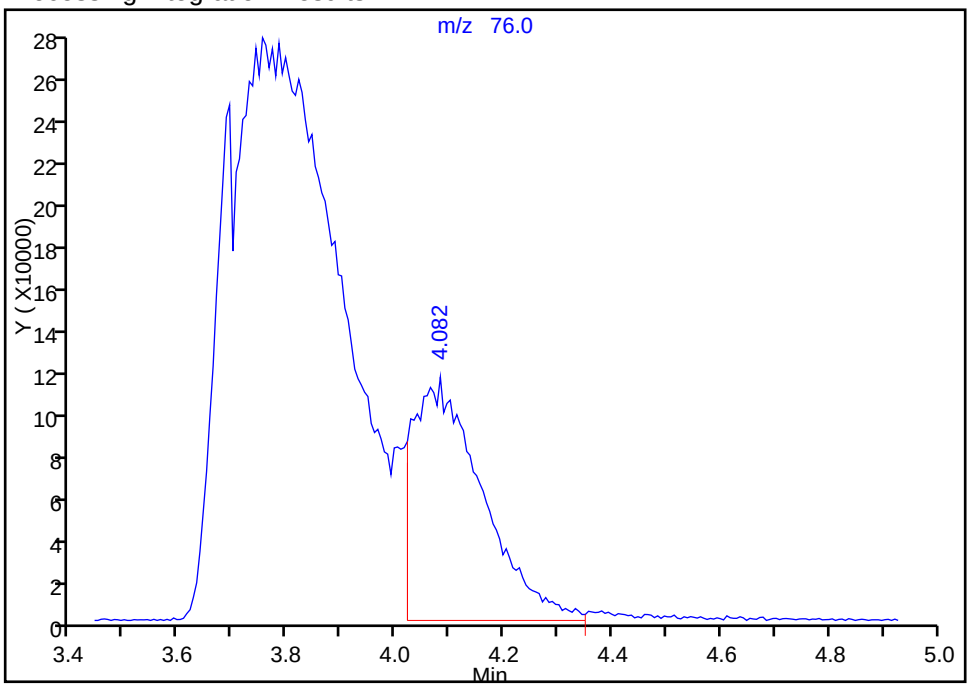
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D				
Injection Date:	30-Mar-2015 14:36:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	10	Worklist Smp#:	10
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

28 3-Chloro-1-propene, CAS: 107-05-1

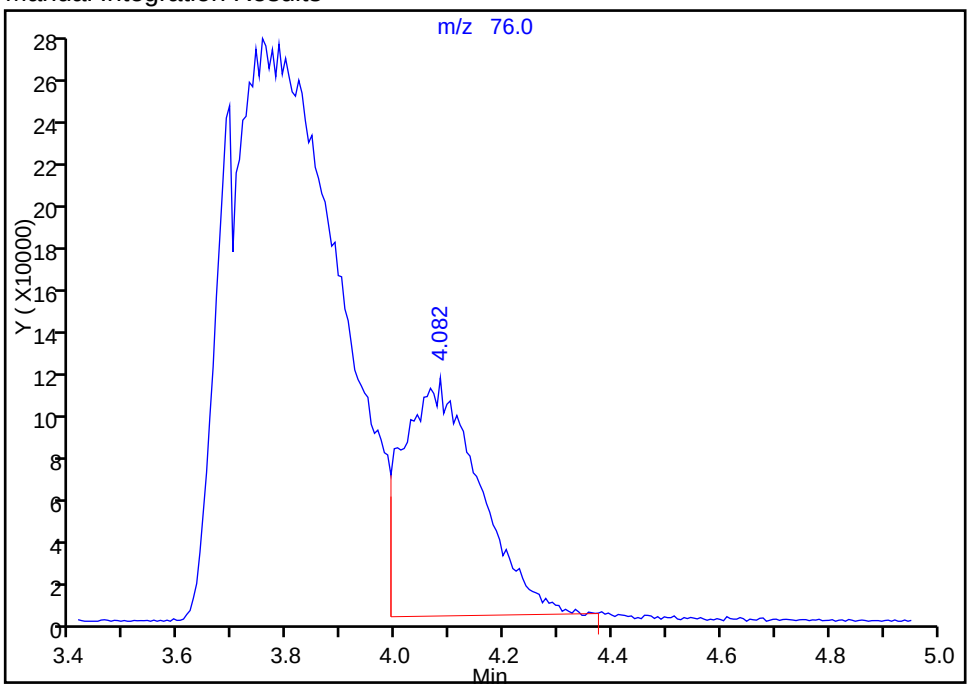
Processing Integration Results

RT: 4.08
Area: 1009836
Amount: 985.3886
Amount Units: ng



Manual Integration Results

RT: 4.08
Area: 1091756
Amount: 1054.7859
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 15:30:19
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

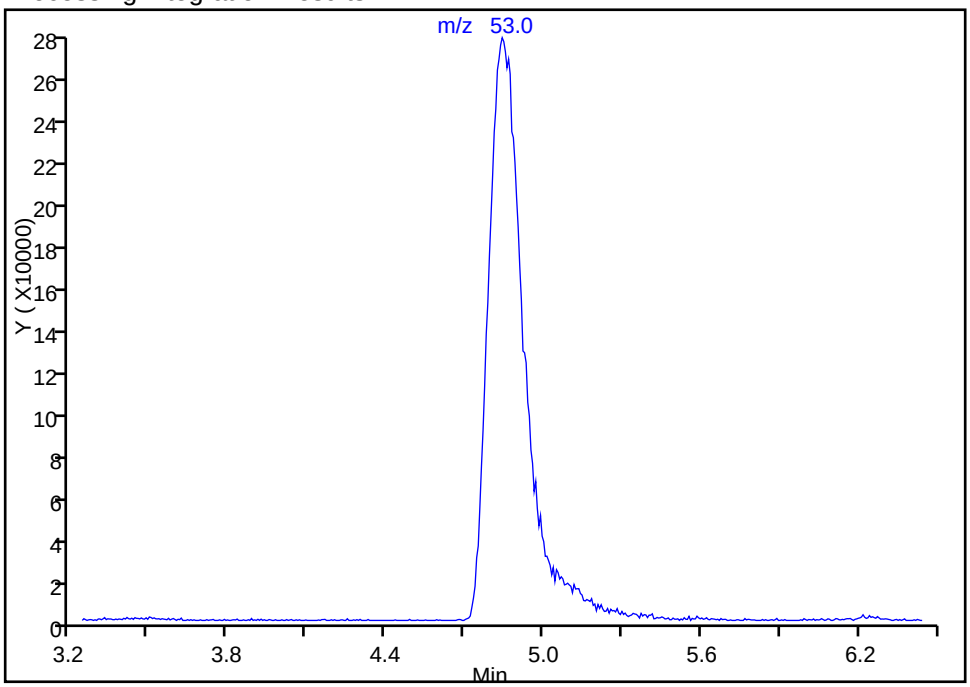
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D				
Injection Date:	30-Mar-2015 14:36:30	Instrument ID:	CHHP7		
Lims ID:	ic				
Client ID:					
Operator ID:	034635	ALS Bottle#:	10	Worklist Smp#:	10
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

33 Acrylonitrile, CAS: 107-13-1

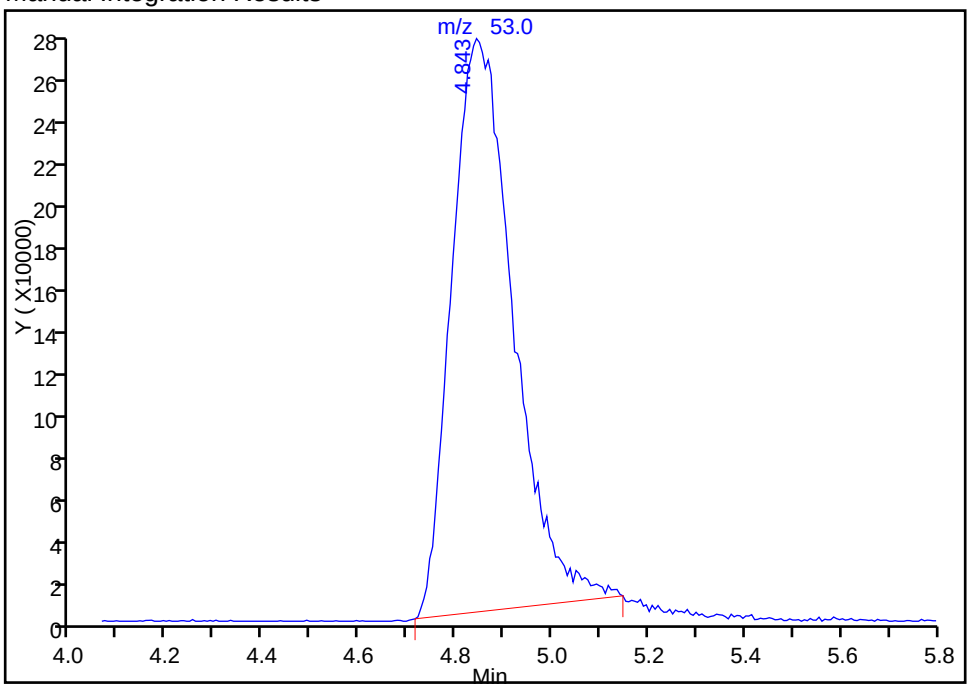
Not Detected
Expected RT: 4.84

Processing Integration Results



Manual Integration Results

RT: 4.84
Area: 2412565
Amount: 8661.1546
Amount Units: ng



Reviewer: journetp, 30-Mar-2015 15:30:19
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Lab Sample ID: CCVIS 180-143337/2 Calibration Date: 05/31/2015 08:32

Instrument ID: CHHP6 Calib Start Date: 05/01/2015 13:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/01/2015 16:46

Lab File ID: 60530002.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3054	0.2630	0.1000	8.61	10.0	-13.9	20.0
Chloromethane	Ave	0.2538	0.2521	0.1000	9.93	10.0	-0.7	20.0
Vinyl chloride	Ave	0.2703	0.2893	0.1000	10.7	10.0	7.1	20.0
Bromomethane	Ave	0.1407	0.1457	0.0500	10.4	10.0	3.5	20.0
Chloroethane	Ave	0.1703	0.1921	0.0500	11.3	10.0	12.8	20.0
Dichlorofluoromethane	Ave	0.4113	0.5008	0.0100	12.2	10.0	21.8*	20.0
Trichlorofluoromethane	Ave	0.3125	0.3866	0.1000	12.4	10.0	23.7*	20.0
Ethyl ether	Ave	0.2332	0.2440	0.0100	10.5	10.0	4.6	20.0
Acrolein	Ave	0.0414	0.0353	0.0100	25.6	30.0	-14.8	20.0
1,1-Dichloroethene	Ave	0.2315	0.2382	0.1000	10.3	10.0	2.9	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.2338	0.2646	0.1000	11.3	10.0	13.2	20.0
Acetone	Ave	0.0664	0.0783	0.0500	23.6	20.0	18.0	20.0
Iodomethane	Ave	0.2960	0.3651	0.0100	12.3	10.0	23.3*	20.0
Carbon disulfide	Ave	0.6782	0.6570	0.1000	9.69	10.0	-3.1	20.0
Allyl chloride	Ave	0.1625	0.1333	0.0100	8.21	10.0	-17.9	20.0
Methyl acetate	Ave	0.2191	0.1772	0.1000	40.4	50.0	-19.1	20.0
Methylene Chloride	Ave	0.2810	0.2987	0.1000	10.6	10.0	6.3	20.0
tert-Butyl alcohol	Ave	1.089	1.169	0.0100	107	100	7.3	20.0
Acrylonitrile	Ave	0.1118	0.0954	0.0100	85.3	100	-14.7	20.0
trans-1,2-Dichloroethene	Ave	0.2580	0.2783	0.1000	10.8	10.0	7.9	20.0
Methyl tert-butyl ether	Ave	0.9263	0.6757	0.1000	7.29	10.0	-27.1*	20.0
Hexane	Ave	0.3461	0.3477	0.0100	10.0	10.0	0.5	20.0
1,1-Dichloroethane	Ave	0.4851	0.4745	0.2000	9.78	10.0	-2.2	20.0
Vinyl acetate	Ave	0.5832	0.4743	0.0100	8.13	10.0	-18.7	20.0
2-Butanone (MEK)	Ave	0.1105	0.1106	0.0500	20.0	20.0	0.0	20.0
cis-1,2-Dichloroethene	Ave	0.2933	0.2826	0.1000	9.63	10.0	-3.7	20.0
2,2-Dichloropropane	Ave	0.3004	0.2436	0.0100	8.11	10.0	-18.9	20.0
Bromochloromethane	Ave	0.1203	0.1339	0.0100	11.1	10.0	11.3	20.0
Tetrahydrofuran	Ave	0.1026	0.0692	0.0100	13.5	20.0	-32.5*	20.0
Chloroform	Ave	0.4684	0.4992	0.2000	10.7	10.0	6.6	20.0
1,1,1-Trichloroethane	Ave	0.3851	0.3655	0.1000	9.49	10.0	-5.1	20.0
Cyclohexane	Ave	0.4620	0.4445	0.1000	9.62	10.0	-3.8	20.0
Carbon tetrachloride	Ave	0.2940	0.2925	0.1000	9.95	10.0	-0.5	20.0
1,1-Dichloropropene	Ave	0.3726	0.3962	0.0100	10.6	10.0	6.3	20.0
Isobutyl alcohol	Ave	0.0101	0.0068*	0.0100	167	250	-33.0*	20.0
Benzene	Ave	1.100	1.158	0.5000	10.5	10.0	5.3	20.0
1,2-Dichloroethane	Ave	0.4179	0.4164	0.1000	9.96	10.0	-0.4	20.0
n-Heptane	Ave	0.2659	0.2870	0.0100	10.8	10.0	7.9	20.0
Trichloroethene	Ave	0.2379	0.2791	0.2000	11.7	10.0	17.3	20.0
Methylcyclohexane	Ave	0.4482	0.4288	0.1000	9.57	10.0	-4.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Lab Sample ID: CCVIS 180-143337/2 Calibration Date: 05/31/2015 08:32

Instrument ID: CHHP6 Calib Start Date: 05/01/2015 13:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/01/2015 16:46

Lab File ID: 60530002.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloropropane	Ave	0.2900	0.2673	0.1000	9.22	10.0	-7.8	20.0
1,4-Dioxane	Ave	0.0028	0.0023*	0.0100	167	200	-16.7	20.0
Dibromomethane	Ave	0.1757	0.1617	0.0100	9.20	10.0	-8.0	20.0
Bromodichloromethane	Ave	0.3510	0.3085	0.2000	8.79	10.0	-12.1	20.0
cis-1,3-Dichloropropene	Ave	0.4644	0.3320	0.2000	7.15	10.0	-28.5*	20.0
4-Methyl-2-pentanone (MIBK)	Ave	1.340	0.8013	0.1000	12.0	20.0	-40.2*	20.0
Toluene	Ave	5.185	4.943	0.4000	9.53	10.0	-4.7	20.0
trans-1,3-Dichloropropene	Ave	1.888	1.209	0.1000	6.40	10.0	-36.0*	20.0
Ethyl methacrylate	Ave	1.891	1.176	0.0100	6.22	10.0	-37.8*	20.0
1,1,2-Trichloroethane	Ave	1.129	1.000	0.1000	8.86	10.0	-11.4	20.0
Tetrachloroethene	Ave	0.8533	0.9925	0.2000	11.6	10.0	16.3	20.0
1,3-Dichloropropane	Ave	2.135	1.852	0.0100	8.67	10.0	-13.3	20.0
2-Hexanone	Ave	0.8171	0.5548	0.1000	13.6	20.0	-32.1*	20.0
Dibromochloromethane	Ave	0.8885	0.7795	0.1000	8.77	10.0	-12.3	20.0
1,2-Dibromoethane (EDB)	Ave	1.067	0.9044	0.1000	8.48	10.0	-15.2	20.0
3-Chlorobenzotrifluoride	Ave	1.584	2.106	0.0100	13.3	10.0	33.0*	20.0
Chlorobenzene	Ave	3.274	3.349	0.5000	10.2	10.0	2.3	20.0
4-Chlorobenzotrifluoride	Ave	1.503	2.069	0.0100	13.8	10.0	37.7*	20.0
1,1,1,2-Tetrachloroethane	Ave	0.9596	0.9860	0.0100	10.3	10.0	2.7	20.0
Ethylbenzene	Ave	1.829	1.786	0.1000	9.76	10.0	-2.4	20.0
m-Xylene & p-Xylene	Ave	2.290	2.156	0.1000	9.41	10.0	-5.9	20.0
o-Xylene	Ave	2.222	2.050	0.3000	9.23	10.0	-7.7	20.0
Styrene	Ave	3.653	3.450	0.3000	9.44	10.0	-5.6	20.0
Bromoform	Ave	0.5680	0.4383	0.1000	7.72	10.0	-22.8*	20.0
2-Chlorobenzotrifluoride	Ave	1.599	2.075	0.0100	13.0	10.0	29.8*	20.0
Isopropylbenzene	Ave	5.399	5.214	0.1000	9.66	10.0	-3.4	20.0
1,1,2,2-Tetrachloroethane	Ave	1.550	1.297	0.3000	8.37	10.0	-16.3	20.0
Bromobenzene	Ave	0.8110	0.7758	0.0100	9.57	10.0	-4.3	20.0
trans-1,4-Dichloro-2-butene	Ave	0.3725	0.2127	0.0100	5.71	10.0	-42.9*	20.0
1,2,3-Trichloropropane	Ave	0.3565	0.2746	0.0100	7.70	10.0	-23.0*	20.0
N-Propylbenzene	Ave	0.9779	0.8886	0.0100	9.09	10.0	-9.1	20.0
2-Chlorotoluene	Ave	0.8038	0.7838	0.0100	9.75	10.0	-2.5	20.0
3-Chlorotoluene	Ave	0.8753	1.099	0.0100	12.6	10.0	25.6*	20.0
1,3,5-Trimethylbenzene	Ave	3.111	2.711	0.0100	8.71	10.0	-12.9	20.0
4-Chlorotoluene	Ave	0.8477	0.8673	0.0100	10.2	10.0	2.3	20.0
tert-Butylbenzene	Ave	2.385	2.071	0.0100	8.68	10.0	-13.2	20.0
1,2,4-Trimethylbenzene	Ave	3.258	2.728	0.0100	8.37	10.0	-16.3	20.0
3,4-Dichlorobenzotrifluoride	Ave	0.8205	0.9350	0.0100	11.4	10.0	14.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Lab Sample ID: CCVIS 180-143337/2 Calibration Date: 05/31/2015 08:32

Instrument ID: CHHP6 Calib Start Date: 05/01/2015 13:53

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 05/01/2015 16:46

Lab File ID: 60530002.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
sec-Butylbenzene	Ave	3.630	3.094	0.0100	8.53	10.0	-14.7	20.0
1,3-Dichlorobenzene	Ave	1.548	1.557	0.6000	10.1	10.0	0.6	20.0
4-Isopropyltoluene	Ave	2.869	2.637	0.0100	9.19	10.0	-8.1	20.0
1,4-Dichlorobenzene	Ave	1.600	1.633	0.5000	10.2	10.0	2.1	20.0
2,4-Dichlorobenzotrifluoride	Ave	0.8122	0.9317	0.0100	11.5	10.0	14.7	20.0
2,5-Dichlorobenzotrifluoride	Ave	0.8885	1.028	0.0100	11.6	10.0	15.7	20.0
n-Butylbenzene	Ave	2.886	2.278	0.0100	7.89	10.0	-21.1*	20.0
1,2-Dichlorobenzene	Ave	1.531	1.535	0.4000	10.0	10.0	0.3	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.2335	0.1074	0.0500	4.60	10.0	-54.0*	20.0
2,4- & 2,5- & 2,6-Dichlorotoluene	Ave	1.292	1.472	0.0100	34.2	30.0	13.9	20.0
2,3- & 3,4-Dichlorotoluene	Ave	1.416	1.612	0.0100	22.8	20.0	13.8	20.0
1,2,4-Trichlorobenzene	Ave	1.072	0.9874	0.2000	9.21	10.0	-7.9	20.0
Hexachlorobutadiene	Ave	0.3654	0.3862	0.0100	10.6	10.0	5.7	20.0
Naphthalene	Ave	2.838	2.008	0.0100	7.07	10.0	-29.3*	20.0
1,2,3-Trichlorobenzene	Ave	1.006	0.8682	0.0100	8.63	10.0	-13.7	20.0
2,4,5-Trichlorotoluene	Ave	0.6359	0.6080	0.0100	9.56	10.0	-4.4	20.0
2,3,6-Trichlorotoluene	Ave	0.5770	0.5821	0.0100	10.1	10.0	0.9	20.0
Dibromofluoromethane (Surr)	Ave	0.2069	0.2217		10.7	10.0	7.2	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3457	0.3305		9.56	10.0	-4.4	20.0
Toluene-d8 (Surr)	Ave	4.231	3.849		9.10	10.0	-9.0	20.0
4-Bromofluorobenzene (Surr)	Ave	1.725	1.577		9.14	10.0	-8.6	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530002.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 31-May-2015 08:32:30 ALS Bottle#: 2 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0007190-002
Operator ID: 034635 Instrument ID: CHHP6
Sublist: chrom-MSVOA_LL_CHHP6*sub5

Method: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 31-May-2015 16:21:03 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK001

First Level Reviewer: journetp Date: 31-May-2015 09:04:20

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.236	4.236	0.000	92	108892	1000.0	1000.0	s
* 2 Fluorobenzene (IS)	96	7.284	7.284	0.000	98	433210	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.393	10.393	0.000	88	102074	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.747	12.747	0.000	93	172515	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.554	6.554	0.000	66	96052	50.0	53.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.925	6.925	0.000	72	143190	50.0	47.8	
$ 7 Toluene-d8 (Surr)	98	8.939	8.939	0.000	93	392840	50.0	45.5	
$ 8 4-Bromofluorobenzene (Surr	95	11.579	11.579	0.000	84	160970	50.0	45.7	
11 Dichlorodifluoromethane	85	1.596	1.596	0.000	99	113946	50.0	43.1	
12 Chloromethane	50	1.760	1.760	0.000	99	109211	50.0	49.7	
13 Vinyl chloride	62	1.882	1.882	0.000	97	125333	50.0	53.5	
14 Butadiene	39	1.931	1.931	0.000	95	135808	50.0	60.8	
15 Bromomethane	94	2.229	2.229	0.000	93	63122	50.0	51.8	
16 Chloroethane	64	2.375	2.375	0.000	99	83235	50.0	56.4	
17 Dichlorofluoromethane	67	2.642	2.642	0.000	98	216949	50.0	60.9	
18 Trichlorofluoromethane	101	2.673	2.673	0.000	97	167477	50.0	61.9	
20 Ethyl ether	59	3.044	3.044	0.000	91	105685	50.0	52.3	
21 Acrolein	56	3.208	3.208	0.000	98	45828	150.0	127.8	
22 1,1-Dichloroethene	96	3.336	3.336	0.000	98	103198	50.0	51.4	
23 1,1,2-Trichloro-1,2,2-trif	101	3.385	3.385	0.000	94	114617	50.0	56.6	
24 Acetone	43	3.421	3.421	0.000	99	67839	100.0	118.0	
25 Iodomethane	142	3.531	3.531	0.000	99	158164	50.0	61.7	
26 Carbon disulfide	76	3.628	3.628	0.000	99	284607	50.0	48.4	
29 3-Chloro-1-propene	76	3.914	3.914	0.000	90	57764	50.0	41.0	
30 Methyl acetate	43	3.926	3.926	0.000	98	383889	250.0	202.2	
31 Methylene Chloride	84	4.115	4.115	0.000	92	129418	50.0	53.2	
32 2-Methyl-2-propanol	59	4.370	4.370	0.000	89	63655	500.0	536.6	
33 Acrylonitrile	53	4.498	4.498	0.000	99	413312	500.0	426.6	
34 trans-1,2-Dichloroethene	96	4.553	4.553	0.000	88	120560	50.0	53.9	
35 Methyl tert-butyl ether	73	4.565	4.565	0.000	96	292720	50.0	36.5	

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	93	150638	50.0	50.2	
37 1,1-Dichloroethane	63	5.198	5.198	0.000	97	205539	50.0	48.9	
38 Vinyl acetate	43	5.240	5.240	0.000	98	205468	50.0	40.7	
43 cis-1,2-Dichloroethene	96	5.940	5.940	0.000	84	122422	50.0	48.2	
44 2-Butanone (MEK)	43	5.940	5.940	0.000	89	95787	100.0	100.1	
42 2,2-Dichloropropane	77	5.946	5.946	0.000	70	105511	50.0	40.5	
48 Chlorobromomethane	128	6.226	6.226	0.000	98	57995	50.0	55.6	
49 Tetrahydrofuran	42	6.238	6.238	0.000	77	59961	100.0	67.5	
50 Chloroform	83	6.366	6.366	0.000	96	216274	50.0	53.3	
51 1,1,1-Trichloroethane	97	6.536	6.536	0.000	96	158325	50.0	47.5	
52 Cyclohexane	56	6.615	6.615	0.000	90	192555	50.0	48.1	
53 Carbon tetrachloride	117	6.712	6.712	0.000	95	126704	50.0	49.7	
54 1,1-Dichloropropene	75	6.724	6.724	0.000	95	171622	50.0	53.2	
55 Isobutyl alcohol	41	6.907	6.907	0.000	89	73100	1250.0	837.3	
56 Benzene	78	6.943	6.943	0.000	97	501755	50.0	52.6	
57 1,2-Dichloroethane	62	7.016	7.016	0.000	98	180385	50.0	49.8	
59 n-Heptane	43	7.308	7.308	0.000	88	124315	50.0	54.0	
61 Trichloroethene	130	7.673	7.673	0.000	97	120915	50.0	58.7	
63 Methylcyclohexane	83	7.923	7.923	0.000	90	185741	50.0	47.8	
64 1,2-Dichloropropane	63	7.947	7.947	0.000	93	115816	50.0	46.1	
65 1,4-Dioxane	88	8.020	8.020	0.000	41	20160	1000.0	832.9	
67 Dibromomethane	93	8.038	8.038	0.000	96	70053	50.0	46.0	
68 Dichlorobromomethane	83	8.227	8.227	0.000	98	133664	50.0	44.0	
71 cis-1,3-Dichloropropene	75	8.677	8.677	0.000	94	143812	50.0	35.7	
72 4-Methyl-2-pentanone (MIBK	43	8.823	8.823	0.000	95	163589	100.0	59.8	
73 Toluene	91	9.012	9.012	0.000	98	504520	50.0	47.7	
74 trans-1,3-Dichloropropene	75	9.255	9.255	0.000	96	123399	50.0	32.0	
75 Ethyl methacrylate	69	9.310	9.310	0.000	88	120061	50.0	31.1	
76 1,1,2-Trichloroethane	97	9.450	9.450	0.000	94	102041	50.0	44.3	
77 Tetrachloroethene	164	9.523	9.523	0.000	96	101309	50.0	58.2	
78 1,3-Dichloropropane	76	9.608	9.608	0.000	94	189053	50.0	43.4	
79 2-Hexanone	43	9.657	9.657	0.000	97	113268	100.0	67.9	
81 Chlorodibromomethane	129	9.821	9.821	0.000	90	79571	50.0	43.9	
82 Ethylene Dibromide	107	9.937	9.937	0.000	100	92318	50.0	42.4	
83 3-Chlorobenzotrifluoride	180	10.393	10.393	0.000	92	214947	50.0	66.5	
84 Chlorobenzene	112	10.423	10.423	0.000	94	341894	50.0	51.2	
85 4-Chlorobenzotrifluoride	180	10.484	10.484	0.000	97	211207	50.0	68.8	
86 1,1,1,2-Tetrachloroethane	131	10.521	10.521	0.000	89	100640	50.0	51.4	
87 Ethylbenzene	106	10.527	10.527	0.000	99	182312	50.0	48.8	
88 m-Xylene & p-Xylene	106	10.654	10.654	0.000	100	220060	50.0	47.1	
89 o-Xylene	106	11.044	11.044	0.000	97	209238	50.0	46.1	
90 Styrene	104	11.062	11.062	0.000	94	352108	50.0	47.2	
91 Bromoform	173	11.244	11.244	0.000	93	44741	50.0	38.6	
92 2-Chlorobenzotrifluoride	180	11.299	11.299	0.000	95	211772	50.0	64.9	
93 Isopropylbenzene	105	11.409	11.409	0.000	97	532216	50.0	48.3	
96 1,1,2,2-Tetrachloroethane	83	11.713	11.713	0.000	81	132402	50.0	41.8	
95 Bromobenzene	156	11.719	11.719	0.000	96	133833	50.0	47.8	
97 trans-1,4-Dichloro-2-buten	53	11.749	11.749	0.000	82	36685	50.0	28.5	
98 1,2,3-Trichloropropane	110	11.774	11.774	0.000	82	47365	50.0	38.5	
99 N-Propylbenzene	120	11.822	11.822	0.000	98	153303	50.0	45.4	
100 2-Chlorotoluene	126	11.914	11.914	0.000	95	135208	50.0	48.8	
101 3-Chlorotoluene	126	11.981	11.981	0.000	96	189602	50.0	62.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
102 1,3,5-Trimethylbenzene	105	12.011	12.011	0.000	93	467674	50.0	43.6	
103 4-Chlorotoluene	126	12.035	12.035	0.000	98	149627	50.0	51.2	
104 tert-Butylbenzene	119	12.321	12.321	0.000	93	357258	50.0	43.4	
106 1,2,4-Trimethylbenzene	105	12.382	12.382	0.000	99	470589	50.0	41.9	
107 1,2-dichloro-4-(trifluorom	214	12.419	12.419	0.000	96	161297	50.0	57.0	
108 sec-Butylbenzene	105	12.546	12.546	0.000	95	533802	50.0	42.6	
109 1,3-Dichlorobenzene	146	12.668	12.668	0.000	96	268558	50.0	50.3	
110 4-Isopropyltoluene	119	12.705	12.705	0.000	96	454985	50.0	46.0	
111 1,4-Dichlorobenzene	146	12.771	12.771	0.000	92	281710	50.0	51.0	
113 2,4-Dichloro-1-(triflourom	214	12.790	12.790	0.000	95	160725	50.0	57.4	
114 2,5-Dichlorobenzotrifluori	214	12.832	12.832	0.000	98	177329	50.0	57.8	
116 n-Butylbenzene	91	13.112	13.112	0.000	98	392953	50.0	39.5	
117 1,2-Dichlorobenzene	146	13.124	13.124	0.000	93	264839	50.0	50.2	
118 1,2-Dibromo-3-Chloropropan	75	13.915	13.921	-0.006	74	18532	50.0	23.0	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.061	14.061	0.000	99	761713	150.0	170.9	
121 2,3- & 3,4- Dichlorotoluen	125	14.475	14.475	0.000	99	556036	100.0	113.8	
122 1,2,4-Trichlorobenzene	180	14.736	14.736	0.000	93	170340	50.0	46.0	
123 Hexachlorobutadiene	225	14.882	14.882	0.000	97	66618	50.0	52.8	
124 Naphthalene	128	15.004	15.004	0.000	98	346395	50.0	35.4	
125 1,2,3-Trichlorobenzene	180	15.229	15.229	0.000	92	149775	50.0	43.2	
126 2,4,5-Trichlorotoluene	159	16.008	16.008	0.000	0	104893	50.0	47.8	
127 2,3,6-Trichlorotoluene	159	16.105	16.105	0.000	93	100413	50.0	50.4	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		100.0	102.1	
S 131 Xylenes, Total	106				0		100.0	93.2	
S 132 1,3-Dichloropropene, Total	1				0		100.0	67.8	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

s - Failed ISTD Recovery Test

Reagents:

VOA8260VOAPRI_00121	Amount Added:	2.00	Units: uL		
voaWketPri Re_00005	Amount Added:	2.00	Units: uL		
voaWEEmix1st_00001	Amount Added:	2.00	Units: uL		
VOAACROPRI_00005	Amount Added:	6.00	Units: uL		
voaWVA1st Res_00001	Amount Added:	2.00	Units: uL		
VOA8260INT_00033	Amount Added:	2.00	Units: uL	Run Reagent	
VOA8260SURR_00035	Amount Added:	2.00	Units: uL	Run Reagent	

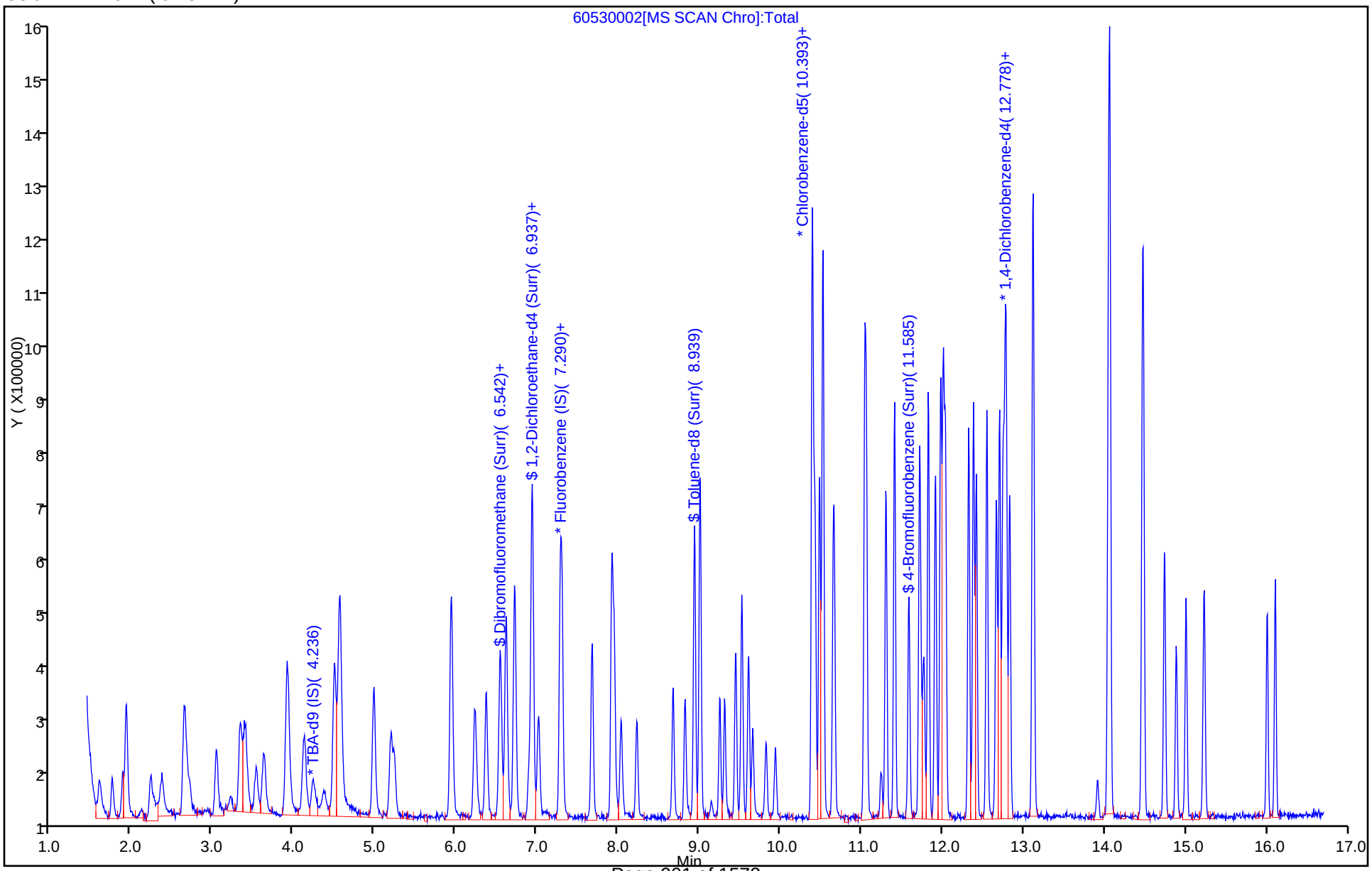
Report Date: 31-May-2015 16:21:04 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530002.D

Injection Date:	31-May-2015 08:32:30	Instrument ID:	CHHP6	Operator ID:	034635
Lims ID:	CCVIS			Worklist Smp#:	2
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Lab Sample ID: CCVIS 180-143153/3 Calibration Date: 05/29/2015 08:40

Instrument ID: CHHP7 Calib Start Date: 03/30/2015 10:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/30/2015 14:36

Lab File ID: 7052902.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	0.3707	0.3847	0.1000	10.4	10.0	3.8	20.0
Chloromethane	Ave	0.4039	0.4879	0.1000	12.1	10.0	20.8*	20.0
Vinyl chloride	Ave	0.3145	0.3341	0.1000	10.6	10.0	6.2	20.0
Bromomethane	Ave	0.2534	0.1808	0.0500	7.13	10.0	-28.7*	20.0
Chloroethane	Ave	0.2537	0.1275	0.0500	5.03	10.0	-49.7*	20.0
Trichlorofluoromethane	Ave	0.7102	0.5450	0.1000	7.67	10.0	-23.3*	20.0
Dichlorofluoromethane	Ave	0.6751	0.4856	0.0100	7.19	10.0	-28.1*	20.0
Ethyl ether	Ave	0.2253	0.1907	0.0100	8.46	10.0	-15.4	20.0
Acrolein	Ave	0.0156	0.0136	0.0100	26.2	120	-12.7	20.0
1,1-Dichloroethene	Ave	0.2685	0.3009	0.1000	11.2	10.0	12.1	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.3122	0.3523	0.1000	11.3	10.0	12.8	20.0
Acetone	Lin2		0.0612	0.0500	19.2	20.0	-3.9	20.0
Iodomethane	Ave	0.5617	0.5847	0.0100	10.4	10.0	4.1	20.0
Carbon disulfide	Ave	0.8065	0.8844	0.1000	11.0	10.0	9.7	20.0
Allyl chloride	Ave	0.1981	0.2174	0.0100	11.0	10.0	9.7	20.0
Methyl acetate	Ave	0.1332	0.1261	0.1000	47.3	50.0	-5.3	20.0
Methylene Chloride	Ave	0.2882	0.3282	0.1000	11.4	10.0	13.9	20.0
Acrylonitrile	Ave	0.0533	0.0558	0.0100	105	100	4.6	20.0
tert-Butyl alcohol	Qua		1.147	0.0100	884	100	783.9*	20.0
trans-1,2-Dichloroethene	Ave	0.3332	0.3259	0.1000	9.78	10.0	-2.2	20.0
Methyl tert-butyl ether	Ave	0.6566	0.7187	0.1000	10.9	10.0	9.5	20.0
Hexane	Ave	0.3484	0.3581	0.0100	10.3	10.0	2.8	20.0
Vinyl acetate	Ave	0.2627	0.2404	0.0100	9.15	40.0	-8.5	20.0
1,1-Dichloroethane	Ave	0.4883	0.5461	0.2000	11.2	10.0	11.8	20.0
2,2-Dichloropropane	Ave	0.4080	0.5415	0.0100	13.3	10.0	32.7*	20.0
cis-1,2-Dichloroethene	Ave	0.3306	0.3572	0.1000	10.8	10.0	8.0	20.0
2-Butanone (MEK)	Ave	0.0896	0.0706	0.0500	15.8	20.0	-21.2*	20.0
Bromochloromethane	Ave	0.1904	0.1922	0.0100	10.1	10.0	0.9	20.0
Chloroform	Ave	0.5499	0.5880	0.2000	10.7	10.0	6.9	20.0
1,1,1-Trichloroethane	Ave	0.4994	0.5761	0.1000	11.5	10.0	15.4	20.0
Tetrahydrofuran	Ave	0.0490	0.0594	0.0100	24.2	20.0	21.2*	20.0
Cyclohexane	Ave	0.3523	0.4569	0.1000	13.0	10.0	29.7*	20.0
1,1-Dichloropropene	Ave	0.3606	0.3718	0.0100	10.3	10.0	3.1	20.0
Carbon tetrachloride	Ave	0.5037	0.5611	0.1000	11.1	10.0	11.4	20.0
Benzene	Ave	0.9843	1.025	0.5000	10.4	10.0	4.1	20.0
1,2-Dichloroethane	Ave	0.3325	0.3427	0.1000	10.3	10.0	3.1	20.0
Isobutyl alcohol	Ave	0.0080	0.0092*	0.0100	286	250	14.4	20.0
n-Heptane	Ave	0.3051	0.3276	0.0100	10.7	10.0	7.4	20.0
Trichloroethene	Ave	0.3946	0.3770	0.2000	9.56	10.0	-4.4	20.0
Methylcyclohexane	Ave	0.4851	0.5783	0.1000	11.9	10.0	19.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Lab Sample ID: CCVIS 180-143153/3 Calibration Date: 05/29/2015 08:40

Instrument ID: CHHP7 Calib Start Date: 03/30/2015 10:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/30/2015 14:36

Lab File ID: 7052902.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	0.2242	0.2317	0.1000	10.3	10.0	3.3	20.0
Dibromomethane	Ave	0.1670	0.1671	0.0100	10.0	10.0	0.0	20.0
1,4-Dioxane	Ave	0.0016	0.0016*	0.0100	199	200	-0.5	20.0
Bromodichloromethane	Ave	0.4157	0.4364	0.2000	10.5	10.0	5.0	20.0
cis-1,3-Dichloropropene	Ave	0.4312	0.4498	0.2000	10.4	10.0	4.3	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5844	0.5662	0.1000	19.4	20.0	-3.1	20.0
Toluene	Qua		3.587	0.4000	10.0	10.0	0.2	20.0
trans-1,3-Dichloropropene	Ave	1.257	1.188	0.1000	9.45	10.0	-5.5	20.0
Ethyl methacrylate	Ave	0.8363	0.7889	0.0100	9.43	10.0	-5.7	20.0
1,1,2-Trichloroethane	Ave	0.7178	0.6824	0.1000	9.51	10.0	-4.9	20.0
Tetrachloroethene	Qua		0.9098	0.2000	9.60	10.0	-4.0	20.0
1,3-Dichloropropane	Ave	1.061	1.007	0.0100	9.49	10.0	-5.1	20.0
2-Hexanone	Ave	0.3770	0.3527	0.1000	18.7	20.0	-6.4	20.0
Dibromochloromethane	Ave	1.234	1.113	0.1000	9.02	10.0	-9.8	20.0
1,2-Dibromoethane (EDB)	Ave	0.8132	0.7609	0.1000	9.36	10.0	-6.4	20.0
Chlorobenzene	Ave	2.549	2.520	0.5000	9.89	10.0	-1.1	20.0
1,1,1,2-Tetrachloroethane	Ave	1.233	1.214	0.0100	9.85	10.0	-1.5	20.0
Ethylbenzene	Ave	1.449	1.374	0.1000	9.49	10.0	-5.1	20.0
m-Xylene & p-Xylene	Ave	1.953	1.816	0.1000	9.30	10.0	-7.0	20.0
o-Xylene	Ave	1.961	1.908	0.3000	9.73	10.0	-2.7	20.0
Styrene	Qua		2.699	0.3000	9.95	10.0	-0.5	20.0
Bromoform	Ave	0.6992	0.6101	0.1000	8.72	10.0	-12.8	20.0
Isopropylbenzene	Qua		4.686	0.1000	9.77	10.0	-2.3	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7533	0.7054	0.3000	9.36	10.0	-6.4	20.0
Bromobenzene	Ave	0.8571	1.097	0.0100	12.8	10.0	28.0*	20.0
1,2,3-Trichloropropane	Ave	0.1919	0.2091	0.0100	10.9	10.0	9.0	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1202	0.1295	0.0100	10.8	10.0	7.7	20.0
N-Propylbenzene	Ave	1.052	1.341	0.0100	12.7	10.0	27.4*	20.0
2-Chlorotoluene	Ave	0.9551	1.152	0.0100	12.1	10.0	20.7*	20.0
1,3,5-Trimethylbenzene	Qua		3.383	0.0100	14.3	10.0	42.7*	20.0
4-Chlorotoluene	Ave	0.9153	1.074	0.0100	11.7	10.0	17.4	20.0
tert-Butylbenzene	Lin2	3.243	3.399	0.0100	11.5	10.0	15.4	20.0
1,2,4-Trimethylbenzene	Qua		3.217	0.0100	12.7	10.0	26.7*	20.0
sec-Butylbenzene	Qua		4.288	0.0100	13.3	10.0	33.3*	20.0
1,3-Dichlorobenzene	Lin2	1.869	1.829	0.6000	10.8	10.0	7.6	20.0
4-Isopropyltoluene	Qua		3.551	0.0100	12.0	10.0	20.3*	20.0
1,4-Dichlorobenzene	Ave	1.587	1.642	0.5000	10.4	10.0	3.5	20.0
n-Butylbenzene	Qua		2.893	0.0100	11.7	10.0	17.1	20.0
1,2-Dichlorobenzene	Ave	1.554	1.417	0.4000	9.12	10.0	-8.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Lab Sample ID: CCVIS 180-143153/3 Calibration Date: 05/29/2015 08:40

Instrument ID: CHHP7 Calib Start Date: 03/30/2015 10:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/30/2015 14:36

Lab File ID: 7052902.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-Dibromo-3-Chloropropane	Lin2		0.0748	0.0500	9.58	10.0	-4.2	20.0
1,2,4-Trichlorobenzene	Ave	0.4928	0.4922	0.2000	9.99	10.0	-0.1	20.0
Hexachlorobutadiene	Ave	0.2953	0.3150	0.0100	10.7	10.0	6.7	20.0
Naphthalene	Ave	0.8071	0.7993	0.0100	9.90	10.0	-1.0	20.0
1,2,3-Trichlorobenzene	Ave	0.3372	0.2701	0.0100	8.01	10.0	-19.9	20.0
Dibromofluoromethane (Surr)	Ave	0.3190	0.2961		9.28	10.0	-7.2	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3042	0.2986		9.82	10.0	-1.8	20.0
Toluene-d8 (Surr)	Ave	2.966	2.935		9.89	10.0	-1.1	20.0
4-Bromofluorobenzene (Surr)	Lin2		1.277		9.60	10.0	-4.0	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052902.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 29-May-2015 08:40:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0007169-002
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_LL_CHHP7*sub1

Method: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 29-May-2015 18:32:22 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK015

First Level Reviewer: journetp Date: 29-May-2015 09:26:12

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.658	4.658	0.000	92	351157	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.408	7.408	0.000	98	1185927	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.468	10.468	0.000	84	366494	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.785	12.785	0.000	96	400978	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.684	6.684	0.000	91	351161	200.0	185.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.037	7.037	0.000	94	354122	200.0	196.3	
$ 7 Toluene-d8 (Surr)	98	9.038	9.038	0.000	92	1075577	200.0	197.9	
$ 8 4-Bromofluorobenzene (Surr	95	11.630	11.630	0.000	90	468172	200.0	192.0	
11 Dichlorodifluoromethane	85	1.926	1.926	0.000	62	456225	200.0	207.6	
12 Chloromethane	50	2.048	2.048	0.000	86	578665	200.0	241.6	
14 Butadiene	39	2.200	2.200	0.000	95	457720	200.0	232.4	
13 Vinyl chloride	62	2.212	2.212	0.000	73	396215	200.0	212.5	
15 Bromomethane	94	2.517	2.517	0.000	78	214426	200.0	142.7	
16 Chloroethane	64	2.590	2.590	0.000	34	151256	200.0	100.5	M
18 Trichlorofluoromethane	101	2.900	2.900	0.000	78	646282	200.0	153.5	
17 Dichlorofluoromethane	67	2.912	2.912	0.000	92	575875	200.0	143.9	
20 Ethyl ether	59	3.332	3.332	0.000	83	226198	200.0	169.3	
21 Acrolein	56	3.508	3.508	0.000	24	48342	600.0	524.0	
22 1,1-Dichloroethene	96	3.563	3.563	0.000	94	356883	200.0	224.1	
23 1,1,2-Trichloro-1,2,2-trif	101	3.721	3.721	0.000	79	417749	200.0	225.6	
24 Acetone	43	3.764	3.764	0.000	34	145241	400.0	384.5	
25 Iodomethane	142	3.788	3.788	0.000	99	693415	200.0	208.2	
26 Carbon disulfide	76	3.861	3.861	0.000	99	1048835	200.0	219.3	M
28 3-Chloro-1-propene	76	4.177	4.177	0.000	90	257789	200.0	219.5	
30 Methyl acetate	43	4.293	4.293	0.000	99	747965	1000.0	946.6	
31 Methylene Chloride	84	4.384	4.384	0.000	96	389235	200.0	227.8	
33 Acrylonitrile	53	4.773	4.773	0.000	97	661151	2000.0	2091.8	
34 trans-1,2-Dichloroethene	96	4.780	4.780	0.000	87	386488	200.0	195.6	
32 2-Methyl-2-propanol	59	4.780	4.780	0.000	54	201367	2000.0	17679	E
35 Methyl tert-butyl ether	73	4.853	4.853	0.000	98	852271	200.0	218.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.169	5.169	0.000	95	424689	200.0	205.5	
38 Vinyl acetate	43	5.181	5.181	0.000	64	285118	200.0	183.0	
37 1,1-Dichloroethane	63	5.351	5.351	0.000	96	647672	200.0	223.7	
44 2,2-Dichloropropane	77	6.088	6.088	0.000	92	642197	200.0	265.5	
45 cis-1,2-Dichloroethene	96	6.094	6.094	0.000	82	423650	200.0	216.1	
46 2-Butanone (MEK)	43	6.167	6.167	0.000	97	167536	400.0	315.2	M
49 Chlorobromomethane	128	6.386	6.386	0.000	82	227940	200.0	201.9	
52 Chloroform	83	6.495	6.495	0.000	93	697332	200.0	213.9	
53 1,1,1-Trichloroethane	97	6.678	6.678	0.000	96	683173	200.0	230.7	
51 Tetrahydrofuran	42	6.738	6.738	0.000	47	140959	400.0	484.7	
54 Cyclohexane	56	6.745	6.745	0.000	90	541823	200.0	259.4	
55 1,1-Dichloropropene	75	6.866	6.866	0.000	84	440925	200.0	206.2	
56 Carbon tetrachloride	117	6.872	6.872	0.000	97	665456	200.0	222.8	
58 Benzene	78	7.097	7.097	0.000	97	1214983	200.0	208.2	
59 1,2-Dichloroethane	62	7.128	7.128	0.000	97	406426	200.0	206.2	
57 Isobutyl alcohol	41	7.414	7.414	0.000	78	272425	5000.0	5721.8	
62 n-Heptane	43	7.414	7.414	0.000	77	388497	200.0	214.8	
64 Trichloroethene	130	7.791	7.791	0.000	93	447128	200.0	191.1	
66 Methylcyclohexane	83	7.986	7.986	0.000	89	685874	200.0	238.4	
67 1,2-Dichloropropane	63	8.022	8.022	0.000	90	274777	200.0	206.7	
68 Dibromomethane	93	8.144	8.144	0.000	95	198193	200.0	200.2	
70 1,4-Dioxane	88	8.180	8.180	0.000	86	37001	4000.0	3981.6	
71 Dichlorobromomethane	83	8.314	8.314	0.000	98	517502	200.0	209.9	
74 cis-1,3-Dichloropropene	75	8.770	8.770	0.000	93	533439	200.0	208.6	
75 4-Methyl-2-pentanone (MIBK	43	8.935	8.935	0.000	96	415010	400.0	387.5	
76 Toluene	91	9.105	9.105	0.000	98	1314662	200.0	200.5	
77 trans-1,3-Dichloropropene	75	9.324	9.324	0.000	96	435541	200.0	189.0	
78 Ethyl methacrylate	69	9.421	9.421	0.000	89	289110	200.0	188.7	
79 1,1,2-Trichloroethane	97	9.506	9.506	0.000	93	250097	200.0	190.1	
80 Tetrachloroethene	164	9.646	9.646	0.000	93	333450	200.0	192.0	
81 1,3-Dichloropropane	76	9.677	9.677	0.000	93	369191	200.0	189.9	
82 2-Hexanone	43	9.762	9.762	0.000	96	258507	400.0	374.2	
84 Chlorodibromomethane	129	9.896	9.896	0.000	89	408086	200.0	180.5	
85 Ethylene Dibromide	107	10.011	10.011	0.000	97	278863	200.0	187.1	
87 Chlorobenzene	112	10.498	10.498	0.000	93	923723	200.0	197.7	
89 1,1,1,2-Tetrachloroethane	131	10.577	10.577	0.000	93	444790	200.0	196.9	
90 Ethylbenzene	106	10.601	10.601	0.000	98	503540	200.0	189.7	
91 m-Xylene & p-Xylene	106	10.717	10.717	0.000	98	665524	200.0	186.0	
92 o-Xylene	106	11.112	11.112	0.000	96	699190	200.0	194.5	
93 Styrene	104	11.125	11.125	0.000	93	989011	200.0	199.0	
94 Bromoform	173	11.313	11.313	0.000	94	223583	200.0	174.5	
97 Isopropylbenzene	105	11.477	11.477	0.000	96	1717560	200.0	195.3	
99 1,1,2,2-Tetrachloroethane	83	11.769	11.769	0.000	97	258513	200.0	187.3	
100 Bromobenzene	156	11.788	11.788	0.000	89	439751	200.0	255.9	
101 1,2,3-Trichloropropane	110	11.818	11.818	0.000	82	83837	200.0	217.9	
102 trans-1,4-Dichloro-2-buten	53	11.830	11.830	0.000	59	51907	200.0	215.4	
103 N-Propylbenzene	120	11.891	11.891	0.000	97	537535	200.0	254.9	
104 2-Chlorotoluene	126	11.976	11.976	0.000	97	462083	200.0	241.3	
106 1,3,5-Trimethylbenzene	105	12.061	12.061	0.000	97	1356332	200.0	285.4	
107 4-Chlorotoluene	126	12.086	12.086	0.000	97	430796	200.0	234.8	
108 tert-Butylbenzene	119	12.384	12.384	0.000	92	1362961	200.0	230.9	
110 1,2,4-Trimethylbenzene	105	12.433	12.433	0.000	96	1289762	200.0	253.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
112 sec-Butylbenzene	105	12.603	12.603	0.000	95	1719193	200.0	266.6	
113 1,3-Dichlorobenzene	146	12.725	12.725	0.000	97	733524	200.0	215.1	
114 4-Isopropyltoluene	119	12.749	12.749	0.000	95	1423834	200.0	240.5	
115 1,4-Dichlorobenzene	146	12.810	12.810	0.000	93	658595	200.0	207.1	
120 n-Butylbenzene	91	13.157	13.157	0.000	96	1160110	200.0	234.3	
121 1,2-Dichlorobenzene	146	13.181	13.181	0.000	96	568355	200.0	182.4	
122 1,2-Dibromo-3-Chloropropan	75	13.966	13.972	-0.006	89	29979	200.0	191.6	
126 1,2,4-Trichlorobenzene	180	14.799	14.799	0.000	96	197377	200.0	199.8	
127 Hexachlorobutadiene	225	14.969	14.969	0.000	96	126293	200.0	213.3	
128 Naphthalene	128	15.055	15.055	0.000	97	320499	200.0	198.1	
129 1,2,3-Trichlorobenzene	180	15.304	15.304	0.000	96	108291	200.0	160.2	
S 133 Xylenes, Total	106				0		400.0	380.5	
S 134 1,2-Dichloroethene, Total	96				0		400.0	411.7	
S 135 1,3-Dichloropropene, Total	1				0		400.0	397.7	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Review Flags

M - Manually Integrated

Reagents:

voaWketPri Re_00005	Amount Added:	8.00	Units: uL	
VOA8260VOAPRI_00121	Amount Added:	8.00	Units: uL	
voaWVA1st Res_00001	Amount Added:	8.00	Units: uL	
VOAACROPRI_00005	Amount Added:	24.00	Units: uL	
VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

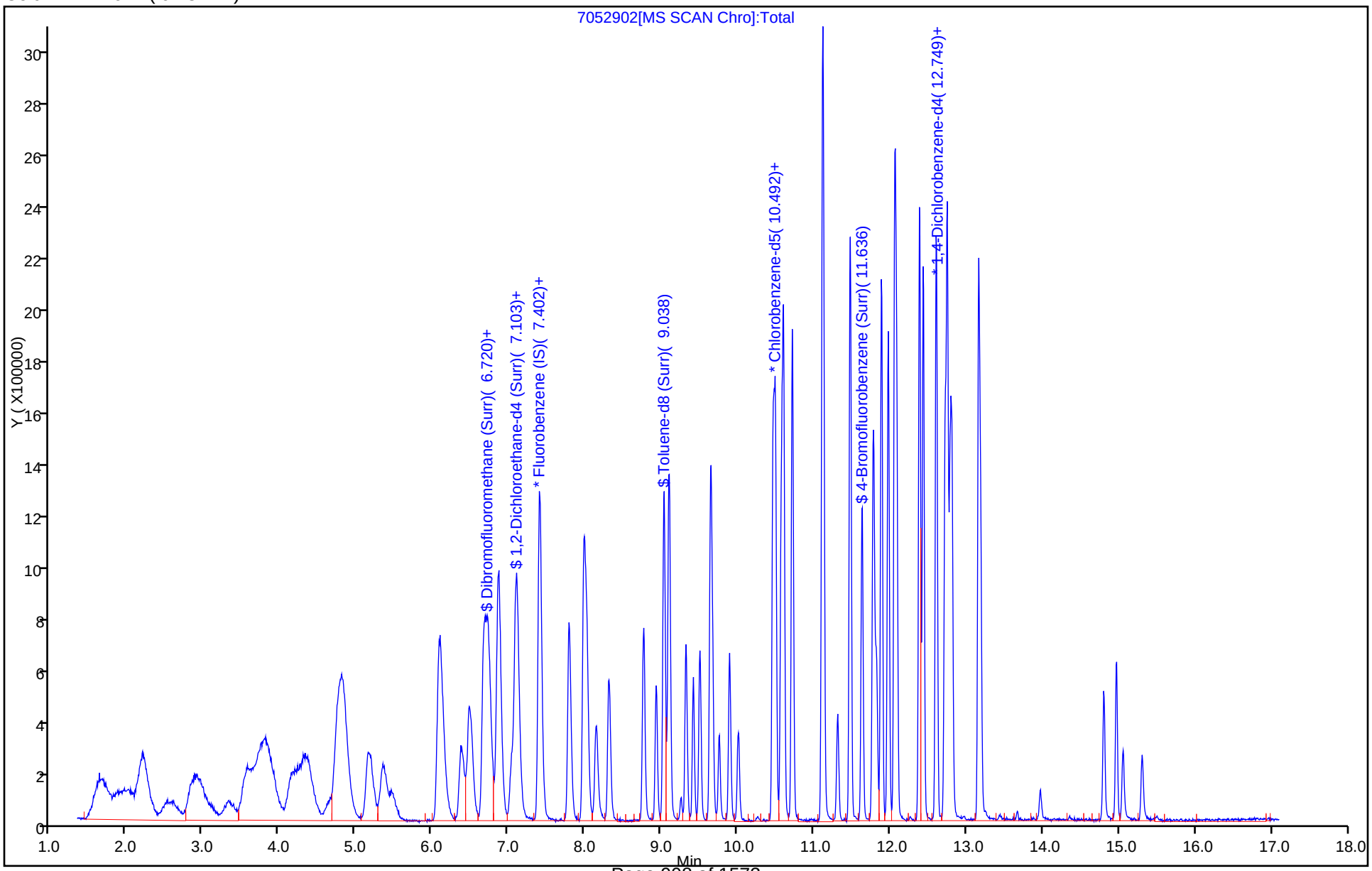
Report Date: 29-May-2015 18:32:23 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052902.D

Injection Date:	29-May-2015 08:40:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	CCVIS			Worklist Smp#:	3
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

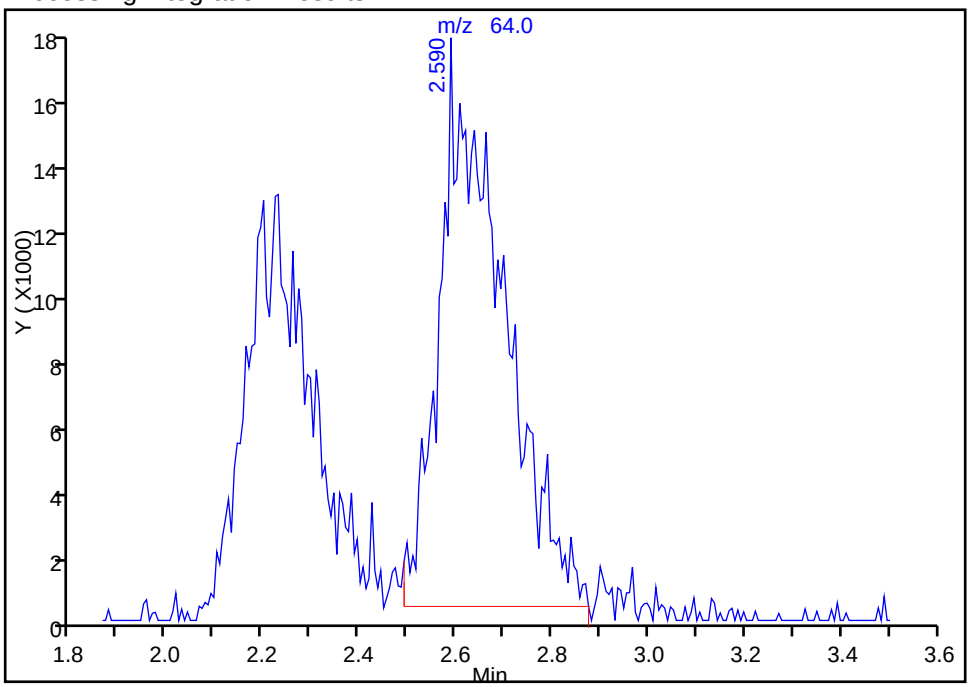
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052902.D
Injection Date: 29-May-2015 08:40:30 Instrument ID: CHHP7
Lims ID: CCVIS
Client ID:
Operator ID: 034635 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

16 Chloroethane, CAS: 75-00-3

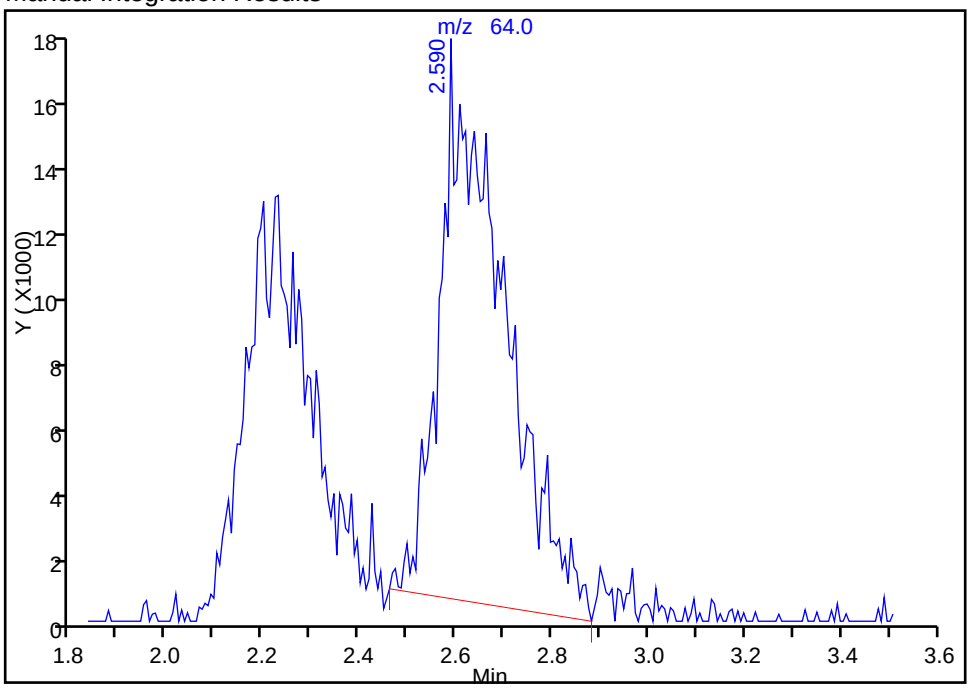
Processing Integration Results

RT: 2.59
Area: 151673
Amount: 100.8157
Amount Units: ng



Manual Integration Results

RT: 2.59
Area: 151256
Amount: 100.5385
Amount Units: ng



Reviewer: journetp, 29-May-2015 09:26:12
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

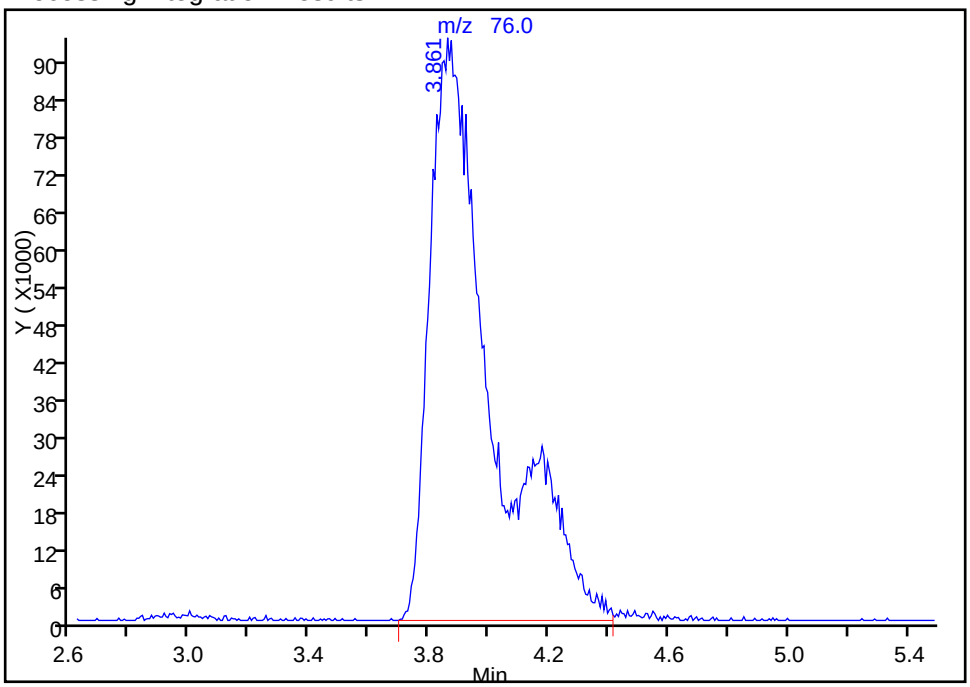
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052902.D				
Injection Date:	29-May-2015 08:40:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	2	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

26 Carbon disulfide, CAS: 75-15-0

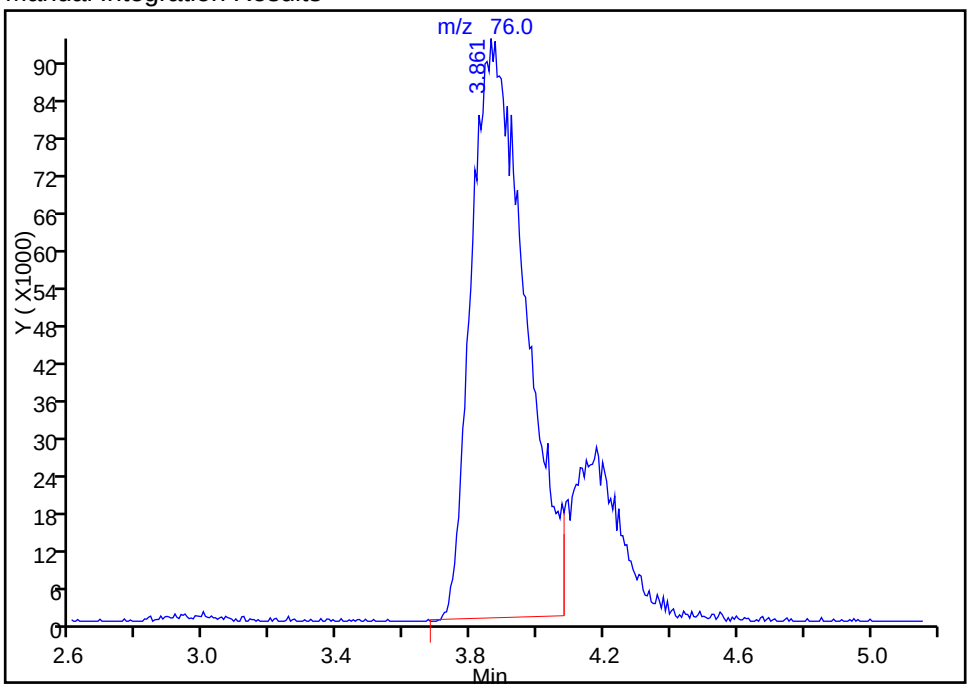
Processing Integration Results

RT: 3.86
Area: 1339992
Amount: 280.1882
Amount Units: ng



Manual Integration Results

RT: 3.86
Area: 1048835
Amount: 219.3081
Amount Units: ng



Reviewer: journetp, 29-May-2015 09:26:12
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

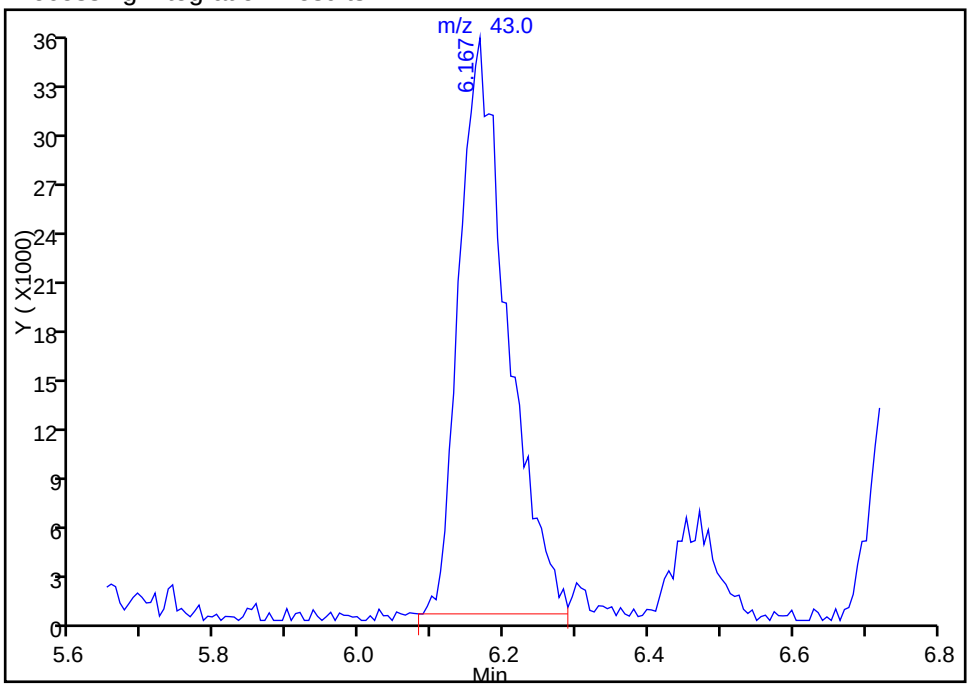
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052902.D				
Injection Date:	29-May-2015 08:40:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	2	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

46 2-Butanone (MEK), CAS: 78-93-3

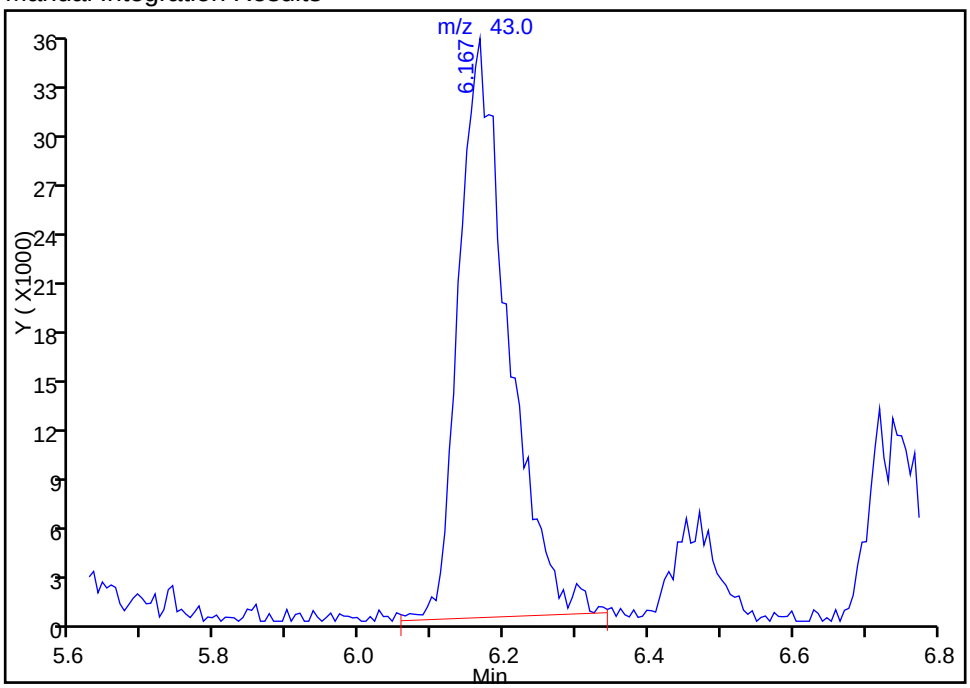
Processing Integration Results

RT: 6.17
Area: 162622
Amount: 305.9259
Amount Units: ng



Manual Integration Results

RT: 6.17
Area: 167536
Amount: 315.1702
Amount Units: ng



Reviewer: journetp, 29-May-2015 09:26:12
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Lab Sample ID: CCVIS 180-143339/3 Calibration Date: 05/31/2015 11:59

Instrument ID: CHHP7 Calib Start Date: 03/30/2015 10:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/30/2015 14:36

Lab File ID: 7053103.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	0.3707	0.2746	0.1000	7.41	10.0	-25.9*	20.0
Chloromethane	Ave	0.4039	0.3074	0.1000	7.61	10.0	-23.9*	20.0
Vinyl chloride	Ave	0.3145	0.2263	0.1000	7.20	10.0	-28.0*	20.0
Bromomethane	Ave	0.2534	0.1797	0.0500	7.09	10.0	-29.1*	20.0
Chloroethane	Ave	0.2537	0.1505	0.0500	5.93	10.0	-40.7*	20.0
Trichlorofluoromethane	Ave	0.7102	0.5423	0.1000	7.64	10.0	-23.6*	20.0
Dichlorofluoromethane	Ave	0.6751	0.4519	0.0100	6.69	10.0	-33.1*	20.0
Ethyl ether	Ave	0.2253	0.1653	0.0100	7.34	10.0	-26.6*	20.0
Acrolein	Ave	0.0156	0.0179	0.0100	34.6	120	15.3	20.0
1,1-Dichloroethene	Ave	0.2685	0.2904	0.1000	10.8	10.0	8.1	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.3122	0.2919	0.1000	9.35	10.0	-6.5	20.0
Acetone	Lin2		0.0565	0.0500	17.4	20.0	-12.8	20.0
Iodomethane	Ave	0.5617	0.5806	0.0100	10.3	10.0	3.4	20.0
Carbon disulfide	Ave	0.8065	0.8734	0.1000	10.8	10.0	8.3	20.0
Allyl chloride	Ave	0.1981	0.1951	0.0100	9.85	10.0	-1.5	20.0
Methyl acetate	Ave	0.1332	0.1182	0.1000	44.3	50.0	-11.3	20.0
Methylene Chloride	Ave	0.2882	0.3117	0.1000	10.8	10.0	8.2	20.0
Acrylonitrile	Ave	0.0533	0.0512	0.0100	96.1	100	-3.9	20.0
trans-1,2-Dichloroethene	Ave	0.3332	0.3300	0.1000	9.90	10.0	-1.0	20.0
tert-Butyl alcohol	Qua		1.250	0.0100	937	100	836.5*	20.0
Methyl tert-butyl ether	Ave	0.6566	0.7082	0.1000	10.8	10.0	7.9	20.0
Vinyl acetate	Ave	0.2627	0.2206	0.0100	8.40	40.0	-16.0	20.0
Hexane	Ave	0.3484	0.3294	0.0100	9.45	10.0	-5.5	20.0
1,1-Dichloroethane	Ave	0.4883	0.5419	0.2000	11.1	10.0	11.0	20.0
2,2-Dichloropropane	Ave	0.4080	0.5315	0.0100	13.0	10.0	30.3*	20.0
cis-1,2-Dichloroethene	Ave	0.3306	0.3481	0.1000	10.5	10.0	5.3	20.0
2-Butanone (MEK)	Ave	0.0896	0.0669	0.0500	14.9	20.0	-25.4*	20.0
Bromochloromethane	Ave	0.1904	0.1831	0.0100	9.61	10.0	-3.9	20.0
Chloroform	Ave	0.5499	0.5911	0.2000	10.7	10.0	7.5	20.0
1,1,1-Trichloroethane	Ave	0.4994	0.5745	0.1000	11.5	10.0	15.1	20.0
Cyclohexane	Ave	0.3523	0.3650	0.1000	10.4	10.0	3.6	20.0
Tetrahydrofuran	Ave	0.0490	0.0608	0.0100	24.8	20.0	24.0*	20.0
Carbon tetrachloride	Ave	0.5037	0.5563	0.1000	11.0	10.0	10.4	20.0
1,1-Dichloropropene	Ave	0.3606	0.3743	0.0100	10.4	10.0	3.8	20.0
Benzene	Ave	0.9843	1.033	0.5000	10.5	10.0	5.0	20.0
1,2-Dichloroethane	Ave	0.3325	0.3304	0.1000	9.94	10.0	-0.6	20.0
Isobutyl alcohol	Ave	0.0080	0.0002*	0.0100	5.78	250	-97.7*	20.0
n-Heptane	Ave	0.3051	0.3363	0.0100	11.0	10.0	10.2	20.0
Trichloroethene	Ave	0.3946	0.3829	0.2000	9.71	10.0	-2.9	20.0
Methylcyclohexane	Ave	0.4851	0.5487	0.1000	11.3	10.0	13.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Lab Sample ID: CCVIS 180-143339/3 Calibration Date: 05/31/2015 11:59

Instrument ID: CHHP7 Calib Start Date: 03/30/2015 10:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/30/2015 14:36

Lab File ID: 7053103.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	0.2242	0.2426	0.1000	10.8	10.0	8.2	20.0
Dibromomethane	Ave	0.1670	0.1618	0.0100	9.69	10.0	-3.1	20.0
1,4-Dioxane	Ave	0.0016	0.0013*	0.0100	166	200	-17.1	20.0
Bromodichloromethane	Ave	0.4157	0.4361	0.2000	10.5	10.0	4.9	20.0
cis-1,3-Dichloropropene	Ave	0.4312	0.4608	0.2000	10.7	10.0	6.9	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5844	0.5044	0.1000	17.3	20.0	-13.7	20.0
Toluene	Qua		3.678	0.4000	10.3	10.0	3.3	20.0
trans-1,3-Dichloropropene	Ave	1.257	1.215	0.1000	9.67	10.0	-3.3	20.0
Ethyl methacrylate	Ave	0.8363	0.7998	0.0100	9.56	10.0	-4.4	20.0
1,1,2-Trichloroethane	Ave	0.7178	0.6732	0.1000	9.38	10.0	-6.2	20.0
Tetrachloroethene	Qua		0.9769	0.2000	10.5	10.0	4.5	20.0
1,3-Dichloropropane	Ave	1.061	1.024	0.0100	9.65	10.0	-3.5	20.0
2-Hexanone	Ave	0.3770	0.3193	0.1000	16.9	20.0	-15.3	20.0
Dibromochloromethane	Ave	1.234	1.152	0.1000	9.33	10.0	-6.7	20.0
1,2-Dibromoethane (EDB)	Ave	0.8132	0.7650	0.1000	9.41	10.0	-5.9	20.0
Chlorobenzene	Ave	2.549	2.647	0.5000	10.4	10.0	3.8	20.0
1,1,1,2-Tetrachloroethane	Ave	1.233	1.248	0.0100	10.1	10.0	1.3	20.0
Ethylbenzene	Ave	1.449	1.405	0.1000	9.70	10.0	-3.0	20.0
m-Xylene & p-Xylene	Ave	1.953	1.918	0.1000	9.82	10.0	-1.8	20.0
o-Xylene	Ave	1.961	1.922	0.3000	9.80	10.0	-2.0	20.0
Styrene	Qua		2.757	0.3000	10.2	10.0	2.2	20.0
Bromoform	Ave	0.6992	0.6344	0.1000	9.07	10.0	-9.3	20.0
Isopropylbenzene	Qua		4.746	0.1000	9.92	10.0	-0.8	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7533	0.7117	0.3000	9.45	10.0	-5.5	20.0
Bromobenzene	Ave	0.8571	1.096	0.0100	12.8	10.0	27.9*	20.0
1,2,3-Trichloropropane	Ave	0.1919	0.2022	0.0100	10.5	10.0	5.4	20.0
trans-1,4-Dichloro-2-buten e	Ave	0.1202	0.1278	0.0100	10.6	10.0	6.3	20.0
N-Propylbenzene	Ave	1.052	1.334	0.0100	12.7	10.0	26.8*	20.0
2-Chlorotoluene	Ave	0.9551	1.162	0.0100	12.2	10.0	21.7*	20.0
1,3,5-Trimethylbenzene	Qua		3.445	0.0100	14.6	10.0	45.9*	20.0
4-Chlorotoluene	Ave	0.9153	1.106	0.0100	12.1	10.0	20.8*	20.0
tert-Butylbenzene	Lin2	3.243	3.454	0.0100	11.7	10.0	17.4	20.0
1,2,4-Trimethylbenzene	Qua		3.267	0.0100	12.9	10.0	29.1*	20.0
sec-Butylbenzene	Qua		4.307	0.0100	13.4	10.0	34.1*	20.0
1,3-Dichlorobenzene	Lin2	1.869	1.876	0.6000	11.0	10.0	10.5	20.0
4-Isopropyltoluene	Qua		3.592	0.0100	12.2	10.0	22.0*	20.0
1,4-Dichlorobenzene	Ave	1.587	1.691	0.5000	10.7	10.0	6.6	20.0
n-Butylbenzene	Qua		3.022	0.0100	12.4	10.0	23.8*	20.0
1,2-Dichlorobenzene	Ave	1.554	1.434	0.4000	9.23	10.0	-7.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Lab Sample ID: CCVIS 180-143339/3 Calibration Date: 05/31/2015 11:59

Instrument ID: CHHP7 Calib Start Date: 03/30/2015 10:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/30/2015 14:36

Lab File ID: 7053103.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-Dibromo-3-Chloropropane	Lin2		0.0974	0.0500	12.4	10.0	23.7*	20.0
1,2,4-Trichlorobenzene	Ave	0.4928	0.8800	0.2000	17.9	10.0	78.6*	20.0
Hexachlorobutadiene	Ave	0.2953	0.4724	0.0100	16.0	10.0	60.0*	20.0
Naphthalene	Ave	0.8071	1.655	0.0100	20.5	10.0	105.1*	20.0
1,2,3-Trichlorobenzene	Ave	0.3372	0.6620	0.0100	19.6	10.0	96.3*	20.0
Dibromofluoromethane (Surr)	Ave	0.3190	0.2962		9.28	10.0	-7.2	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3042	0.2921		9.60	10.0	-4.0	20.0
Toluene-d8 (Surr)	Ave	2.966	3.189		10.7	10.0	7.5	20.0
4-Bromofluorobenzene (Surr)	Lin2		1.355		10.2	10.0	2.3	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150531-7191.b\7053103.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 31-May-2015 11:59:30 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0007191-002
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_LL_CHHP7*sub1

Method: \\PITCHROM\ChromData\CHHP7\20150531-7191.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 09:14:45 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

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

First Level Reviewer: journetp Date: 31-May-2015 12:34:36

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.678	4.678	0.000	98	321370	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.404	7.404	0.000	94	1173798	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.470	10.470	0.000	86	355175	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.787	12.787	0.000	95	393545	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.680	6.680	0.000	67	347617	200.0	185.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.039	7.039	0.000	94	342890	200.0	192.1	
$ 7 Toluene-d8 (Surr)	98	9.034	9.034	0.000	92	1132571	200.0	215.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.632	11.632	0.000	88	481408	200.0	204.6	
11 Dichlorodifluoromethane	85	1.910	1.910	0.000	51	322344	200.0	148.2	
12 Chloromethane	50	2.038	2.038	0.000	85	360773	200.0	152.2	M
14 Butadiene	39	2.184	2.184	0.000	96	299507	200.0	153.6	
13 Vinyl chloride	62	2.214	2.214	0.000	55	265624	200.0	143.9	M
15 Bromomethane	94	2.500	2.500	0.000	89	210977	200.0	141.8	M
16 Chloroethane	64	2.646	2.646	0.000	56	176640	200.0	118.6	M
18 Trichlorofluoromethane	101	2.877	2.877	0.000	83	636524	200.0	152.7	
17 Dichlorofluoromethane	67	2.902	2.902	0.000	79	530386	200.0	133.9	M
20 Ethyl ether	59	3.346	3.346	0.000	85	194047	200.0	146.7	
21 Acrolein	56	3.486	3.486	0.000	81	63154	600.0	691.7	
22 1,1-Dichloroethene	96	3.583	3.583	0.000	96	340813	200.0	216.3	
23 1,1,2-Trichloro-1,2,2-trif	101	3.753	3.753	0.000	72	342616	200.0	187.0	
24 Acetone	43	3.753	3.753	0.000	38	132589	400.0	348.8	
25 Iodomethane	142	3.802	3.802	0.000	94	681528	200.0	206.7	
26 Carbon disulfide	76	3.863	3.863	0.000	99	1025228	200.0	216.6	M
28 3-Chloro-1-propene	76	4.179	4.179	0.000	87	229023	200.0	197.0	
30 Methyl acetate	43	4.295	4.295	0.000	94	693608	1000.0	886.9	
31 Methylene Chloride	84	4.362	4.362	0.000	89	365925	200.0	216.3	
33 Acrylonitrile	53	4.769	4.769	0.000	98	601320	2000.0	1922.2	
34 trans-1,2-Dichloroethene	96	4.775	4.775	0.000	97	387365	200.0	198.1	
32 2-Methyl-2-propanol	59	4.794	4.794	0.000	54	200890	2000.0	18731	E
35 Methyl tert-butyl ether	73	4.836	4.836	0.000	94	831283	200.0	215.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
38 Vinyl acetate	43	5.165	5.165	0.000	74	258984	200.0	168.0	
36 Hexane	57	5.171	5.171	0.000	93	386697	200.0	189.1	
37 1,1-Dichloroethane	63	5.353	5.353	0.000	97	636078	200.0	221.9	
44 2,2-Dichloropropane	77	6.096	6.096	0.000	86	623863	200.0	260.6	
45 cis-1,2-Dichloroethene	96	6.108	6.108	0.000	82	408570	200.0	210.5	
46 2-Butanone (MEK)	43	6.163	6.163	0.000	96	157019	400.0	298.4	M
49 Chlorobromomethane	128	6.388	6.388	0.000	84	214903	200.0	192.3	
52 Chloroform	83	6.497	6.497	0.000	92	693808	200.0	215.0	
53 1,1,1-Trichloroethane	97	6.680	6.680	0.000	97	674363	200.0	230.1	
54 Cyclohexane	56	6.728	6.728	0.000	91	428413	200.0	207.2	
51 Tetrahydrofuran	42	6.734	6.734	0.000	63	142817	400.0	496.1	
56 Carbon tetrachloride	117	6.868	6.868	0.000	95	653006	200.0	220.9	
55 1,1-Dichloropropene	75	6.874	6.874	0.000	85	439338	200.0	207.6	
58 Benzene	78	7.093	7.093	0.000	96	1213066	200.0	210.0	
59 1,2-Dichloroethane	62	7.130	7.130	0.000	63	387776	200.0	198.7	
57 Isobutyl alcohol	41	7.276	7.276	0.000	52	5450	5000.0	115.7	
62 n-Heptane	43	7.404	7.404	0.000	64	394777	200.0	220.5	
64 Trichloroethene	130	7.793	7.793	0.000	94	449498	200.0	194.1	
66 Methylcyclohexane	83	7.988	7.988	0.000	90	644108	200.0	226.2	
67 1,2-Dichloropropane	63	8.024	8.024	0.000	75	284730	200.0	216.4	
68 Dibromomethane	93	8.146	8.146	0.000	93	189901	200.0	193.8	
70 1,4-Dioxane	88	8.182	8.182	0.000	89	30486	4000.0	3314.4	
71 Dichlorobromomethane	83	8.316	8.316	0.000	98	511932	200.0	209.8	
74 cis-1,3-Dichloropropene	75	8.766	8.766	0.000	92	540938	200.0	213.7	
75 4-Methyl-2-pentanone (MIBK	43	8.931	8.931	0.000	97	358272	400.0	345.2	
76 Toluene	91	9.101	9.101	0.000	97	1306298	200.0	206.7	
77 trans-1,3-Dichloropropene	75	9.326	9.326	0.000	96	431667	200.0	193.3	
78 Ethyl methacrylate	69	9.423	9.423	0.000	88	284062	200.0	191.3	
79 1,1,2-Trichloroethane	97	9.502	9.502	0.000	92	239090	200.0	187.6	
80 Tetrachloroethene	164	9.648	9.648	0.000	94	346980	200.0	209.0	
81 1,3-Dichloropropane	76	9.673	9.673	0.000	94	363808	200.0	193.1	
82 2-Hexanone	43	9.758	9.758	0.000	97	226843	400.0	338.9	
84 Chlorodibromomethane	129	9.898	9.898	0.000	89	409071	200.0	186.7	
85 Ethylene Dibromide	107	10.007	10.007	0.000	96	271720	200.0	188.2	
87 Chlorobenzene	112	10.494	10.494	0.000	94	940081	200.0	207.6	
89 1,1,1,2-Tetrachloroethane	131	10.573	10.573	0.000	93	443308	200.0	202.5	
90 Ethylbenzene	106	10.603	10.603	0.000	98	499070	200.0	194.0	
91 m-Xylene & p-Xylene	106	10.719	10.719	0.000	99	681132	200.0	196.4	
92 o-Xylene	106	11.108	11.108	0.000	95	682584	200.0	196.0	
93 Styrene	104	11.127	11.127	0.000	90	979375	200.0	204.3	
94 Bromoform	173	11.315	11.315	0.000	95	225319	200.0	181.5	
97 Isopropylbenzene	105	11.479	11.479	0.000	96	1685521	200.0	198.4	
99 1,1,2,2-Tetrachloroethane	83	11.765	11.765	0.000	97	252788	200.0	189.0	
100 Bromobenzene	156	11.784	11.784	0.000	90	431319	200.0	255.7	
101 1,2,3-Trichloropropane	110	11.814	11.814	0.000	85	79588	200.0	210.8	
102 trans-1,4-Dichloro-2-buten	53	11.832	11.832	0.000	73	50295	200.0	212.6	
103 N-Propylbenzene	120	11.887	11.887	0.000	97	525072	200.0	253.7	
104 2-Chlorotoluene	126	11.978	11.978	0.000	97	457432	200.0	243.4	
106 1,3,5-Trimethylbenzene	105	12.057	12.057	0.000	96	1355761	200.0	291.9	
107 4-Chlorotoluene	126	12.088	12.088	0.000	96	435126	200.0	241.6	
108 tert-Butylbenzene	119	12.386	12.386	0.000	92	1359374	200.0	234.8	
110 1,2,4-Trimethylbenzene	105	12.435	12.435	0.000	94	1285555	200.0	258.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
112 sec-Butylbenzene	105	12.605	12.605	0.000	95	1694913	200.0	268.1	
113 1,3-Dichlorobenzene	146	12.720	12.720	0.000	97	738338	200.0	220.9	
114 4-Isopropyltoluene	119	12.751	12.751	0.000	95	1413732	200.0	244.1	
115 1,4-Dichlorobenzene	146	12.812	12.812	0.000	92	665373	200.0	213.1	
120 n-Butylbenzene	91	13.159	13.159	0.000	96	1189380	200.0	247.6	
121 1,2-Dichlorobenzene	146	13.183	13.183	0.000	96	564360	200.0	184.5	
122 1,2-Dibromo-3-Chloropropan	75	13.968	13.968	0.000	87	38342	200.0	247.3	
126 1,2,4-Trichlorobenzene	180	14.801	14.801	0.000	95	346330	200.0	357.1	
127 Hexachlorobutadiene	225	14.965	14.965	0.000	96	185912	200.0	319.9	
128 Naphthalene	128	15.050	15.050	0.000	97	651336	200.0	410.1	
129 1,2,3-Trichlorobenzene	180	15.300	15.300	0.000	94	260510	200.0	392.6	
S 134 1,2-Dichloroethene, Total	96				0		400.0	408.6	
S 133 Xylenes, Total	106				0		400.0	392.4	
S 135 1,3-Dichloropropene, Total	1				0		400.0	407.1	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Review Flags

M - Manually Integrated

Reagents:

voaWketPri Re_00005	Amount Added:	8.00	Units: uL	
VOA8260VOAPRI_00121	Amount Added:	8.00	Units: uL	
voaWVA1st Res_00001	Amount Added:	8.00	Units: uL	
VOAACROPRI_00005	Amount Added:	24.00	Units: uL	
VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

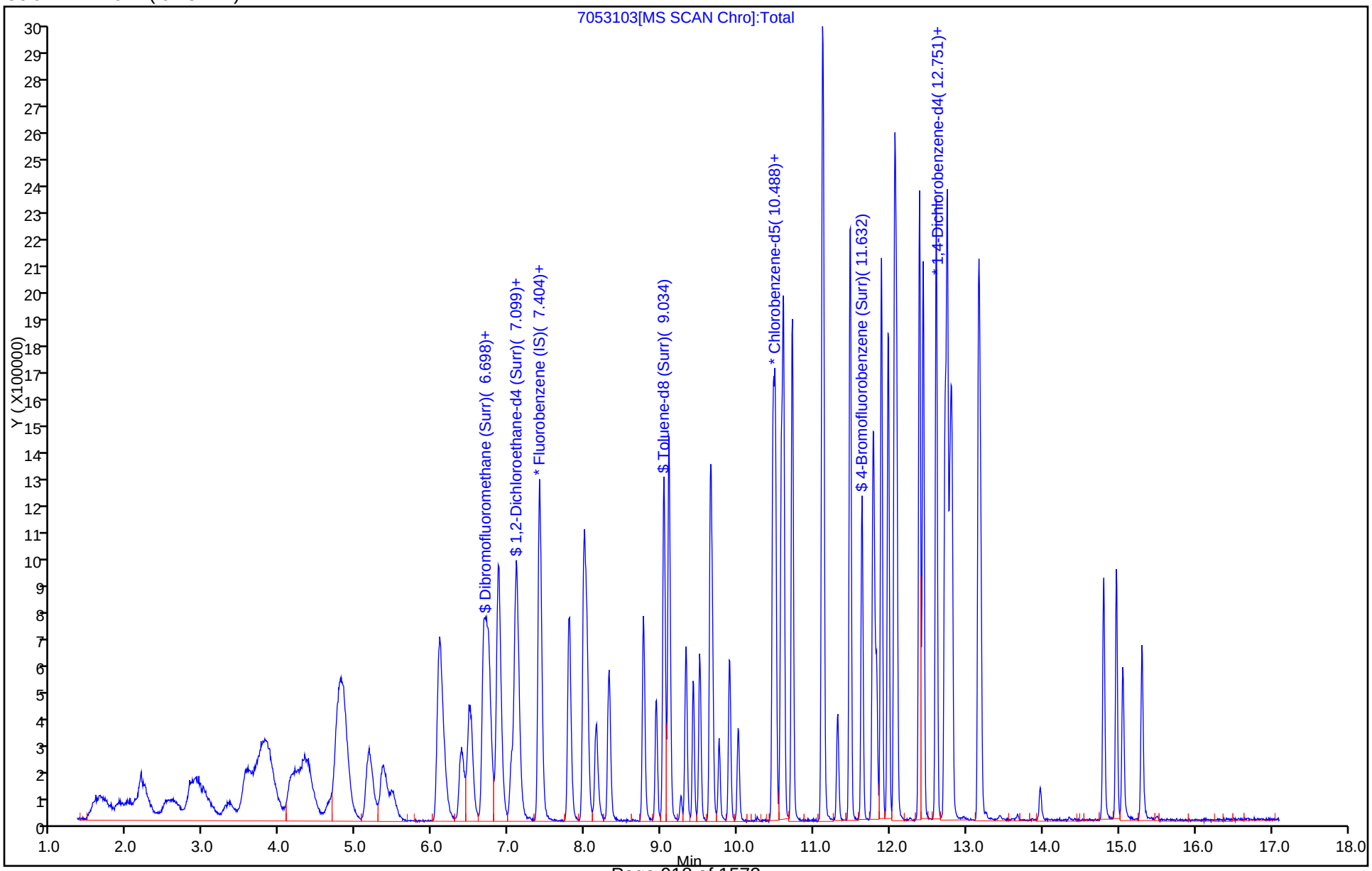
Report Date: 01-Jun-2015 09:14:45 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150531-7191.b\7053103.D

Injection Date:	31-May-2015 11:59:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	CCVIS			Worklist Smp#:	3
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



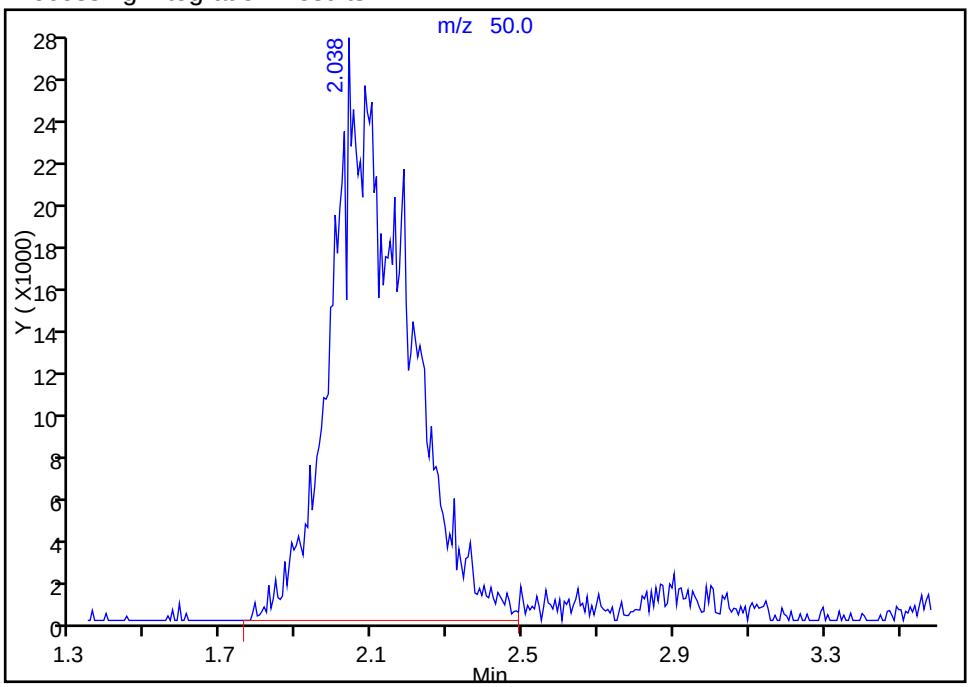
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150531-7191.b\7053103.D				
Injection Date:	31-May-2015 11:59:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

12 Chloromethane, CAS: 74-87-3

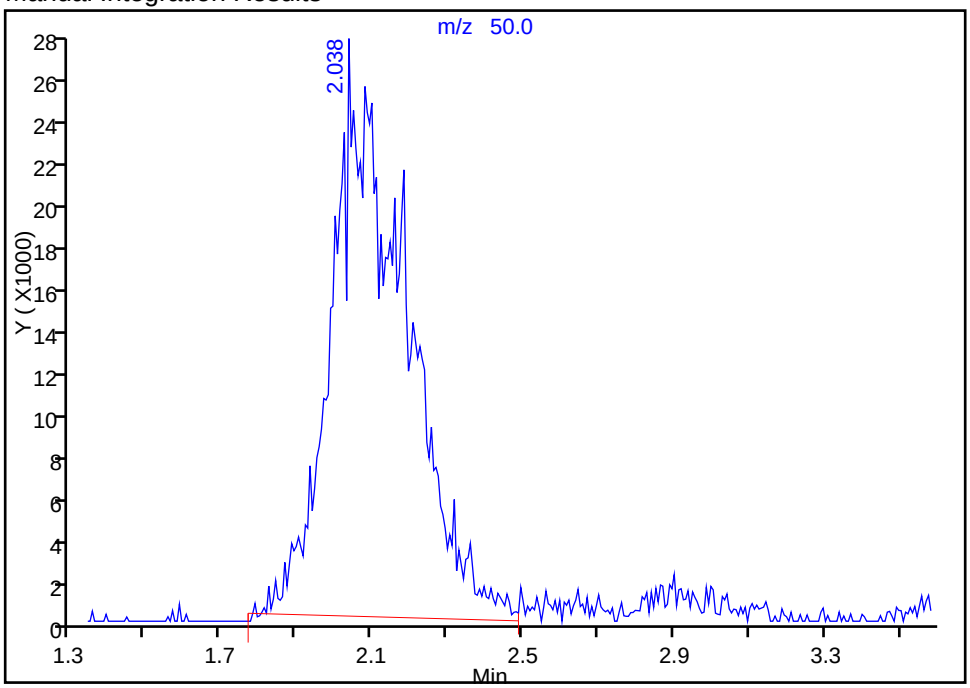
Processing Integration Results

RT: 2.04
Area: 369352
Amount: 155.8283
Amount Units: ng



Manual Integration Results

RT: 2.04
Area: 360773
Amount: 152.2089
Amount Units: ng



Reviewer: journetp, 31-May-2015 12:34:36
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

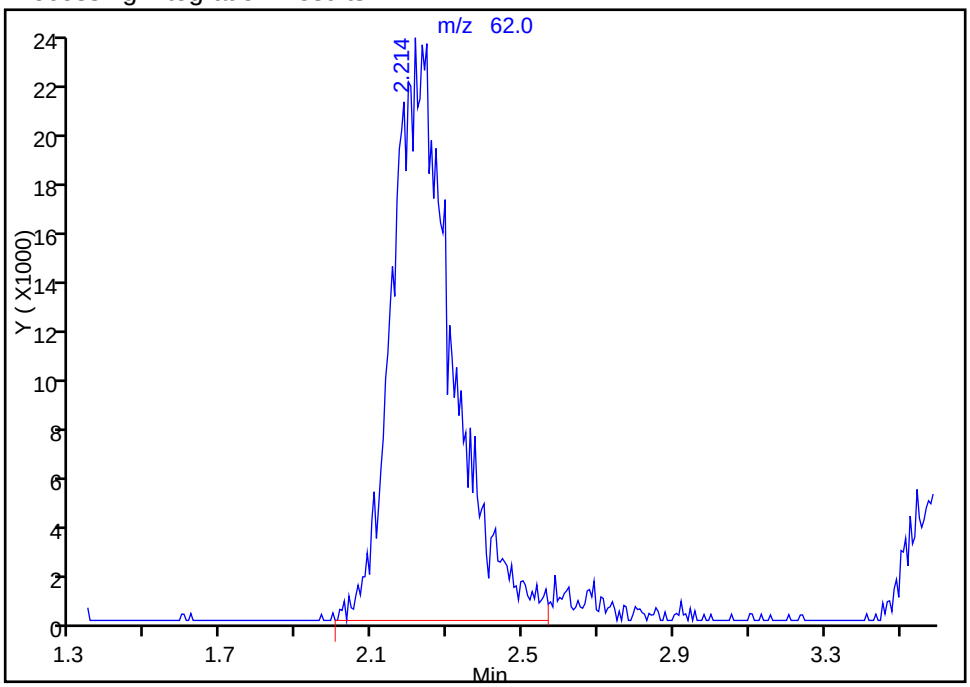
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150531-7191.b\7053103.D
Injection Date: 31-May-2015 11:59:30 Instrument ID: CHHP7
Lims ID: CCVIS
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

13 Vinyl chloride, CAS: 75-01-4

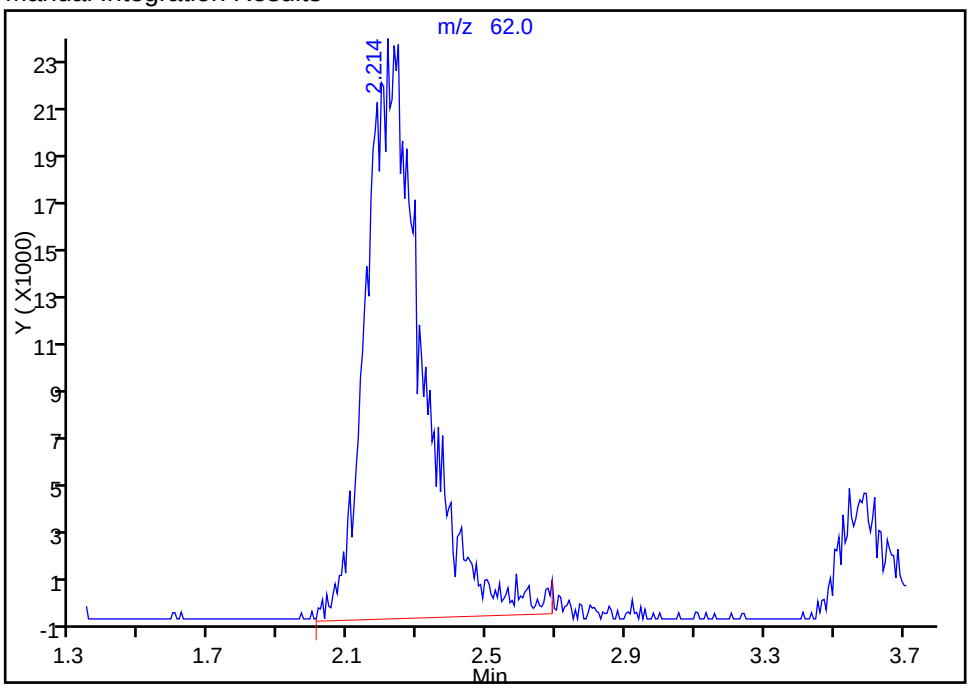
Processing Integration Results

RT: 2.21
Area: 261344
Amount: 141.5876
Amount Units: ng



Manual Integration Results

RT: 2.21
Area: 265624
Amount: 143.9064
Amount Units: ng



Reviewer: journetp, 31-May-2015 12:36:31
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

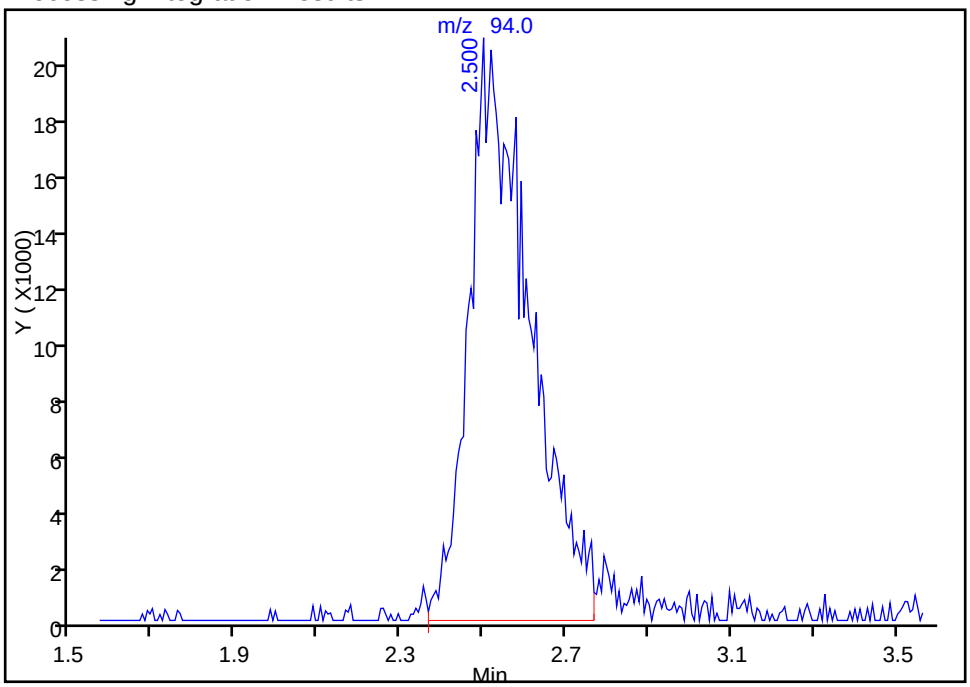
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150531-7191.b\7053103.D				
Injection Date:	31-May-2015 11:59:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

15 Bromomethane, CAS: 74-83-9

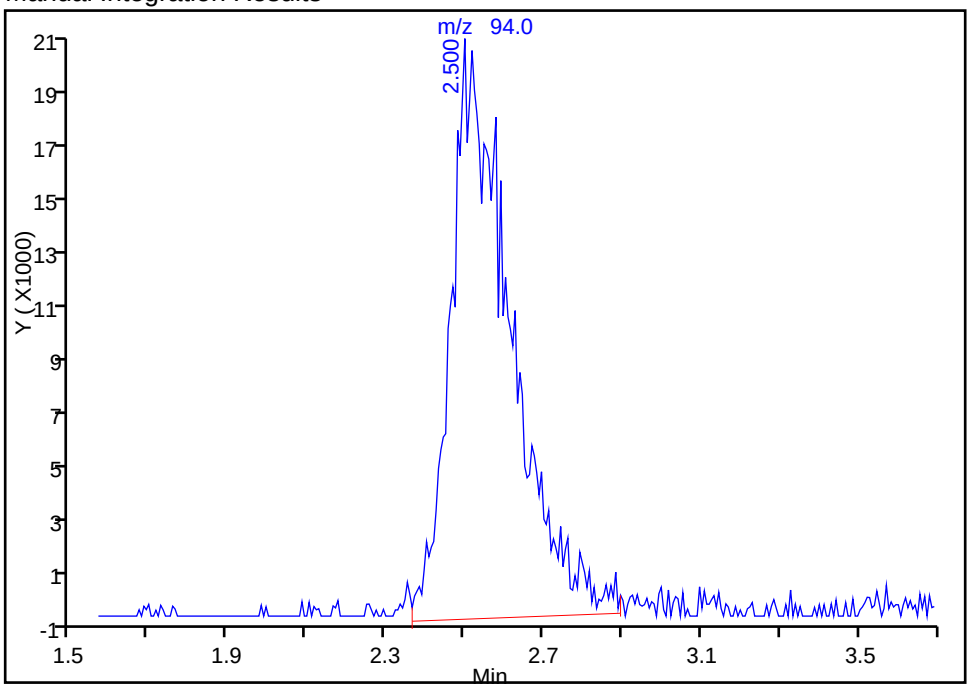
Processing Integration Results

RT: 2.50
Area: 202074
Amount: 135.8587
Amount Units: ng



Manual Integration Results

RT: 2.50
Area: 210977
Amount: 141.8444
Amount Units: ng



Reviewer: journetp, 31-May-2015 12:36:31
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

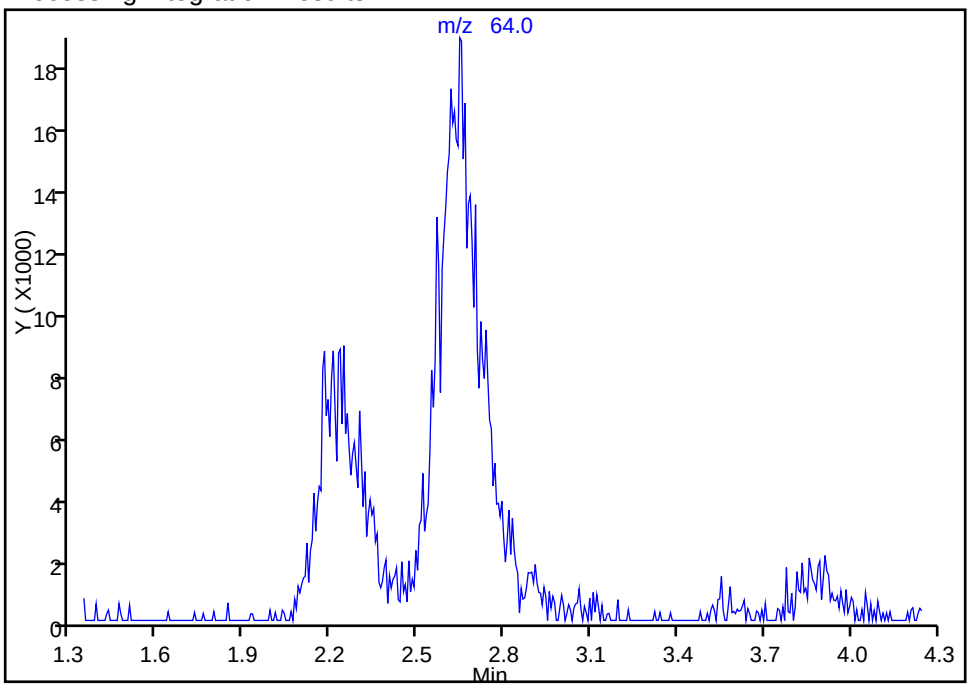
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150531-7191.b\7053103.D				
Injection Date:	31-May-2015 11:59:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

16 Chloroethane, CAS: 75-00-3

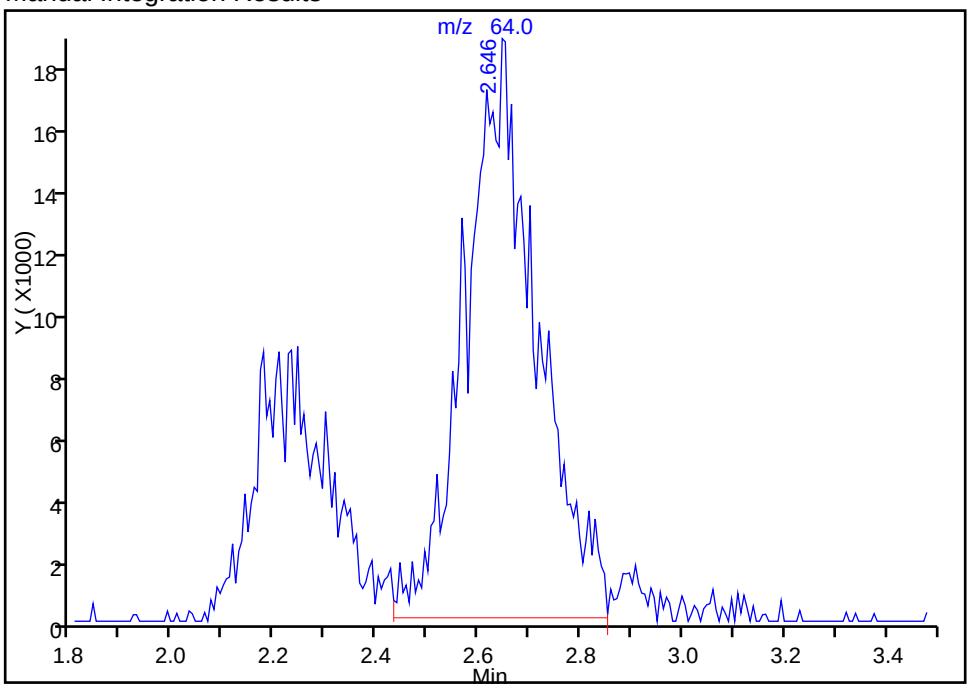
Not Detected
Expected RT: 2.65

Processing Integration Results



Manual Integration Results

RT: 2.65
Area: 176640
Amount: 118.6242
Amount Units: ng



Reviewer: journetp, 31-May-2015 12:36:31
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

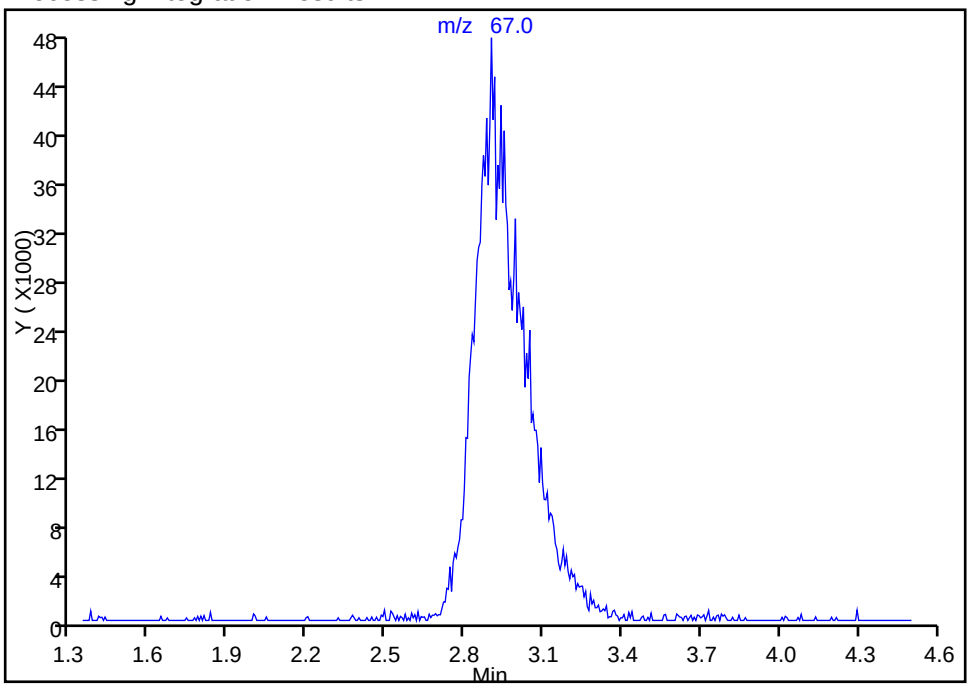
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150531-7191.b\7053103.D				
Injection Date:	31-May-2015 11:59:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

17 Dichlorofluoromethane, CAS: 75-43-4

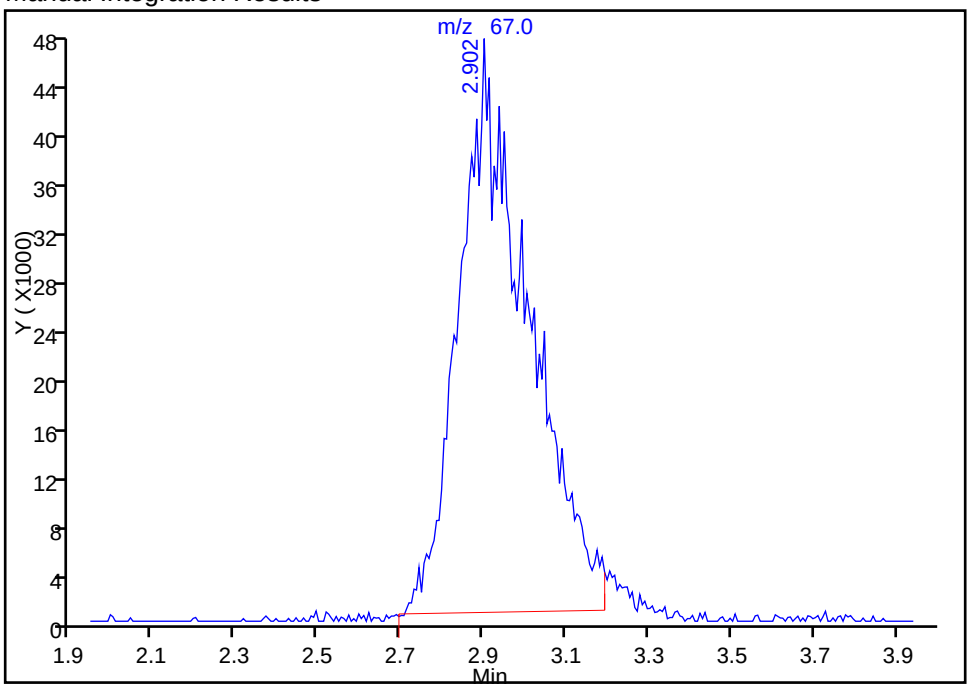
Not Detected
Expected RT: 2.90

Processing Integration Results



Manual Integration Results

RT: 2.90
Area: 530386
Amount: 133.8663
Amount Units: ng



Reviewer: journetp, 31-May-2015 12:36:31
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

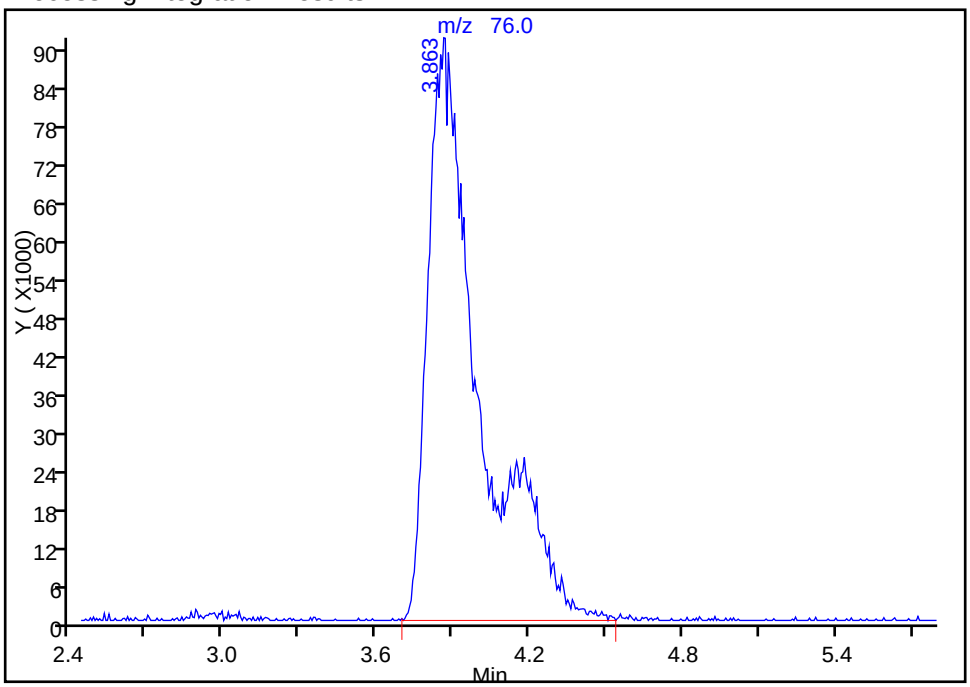
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150531-7191.b\7053103.D				
Injection Date:	31-May-2015 11:59:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

26 Carbon disulfide, CAS: 75-15-0

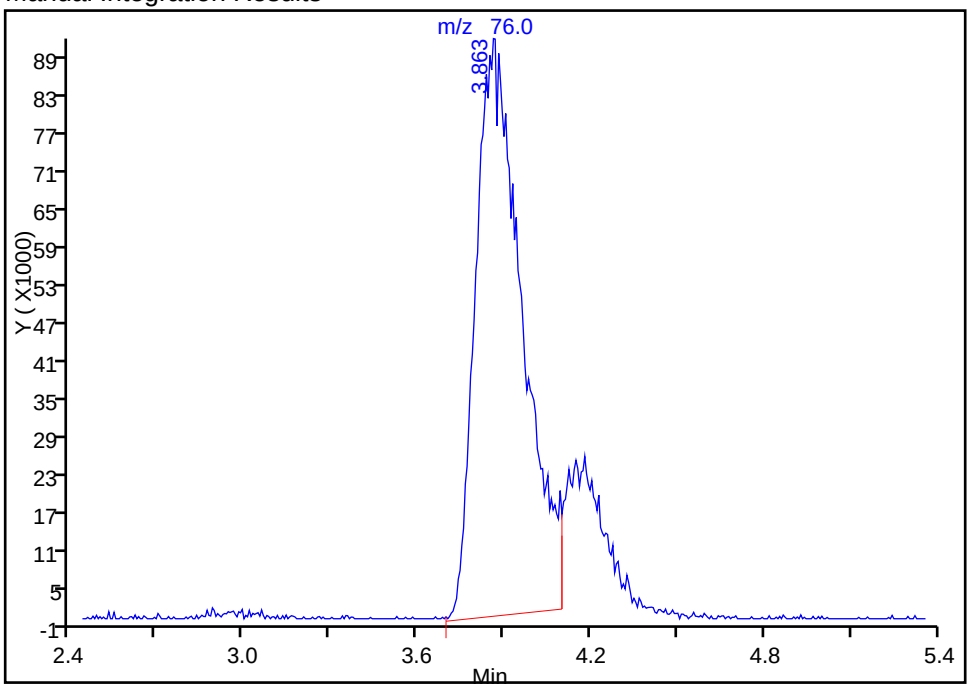
Processing Integration Results

RT: 3.86
Area: 1280833
Amount: 270.5856
Amount Units: ng



Manual Integration Results

RT: 3.86
Area: 1025228
Amount: 216.5871
Amount Units: ng



Reviewer: journetp, 31-May-2015 12:36:31
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

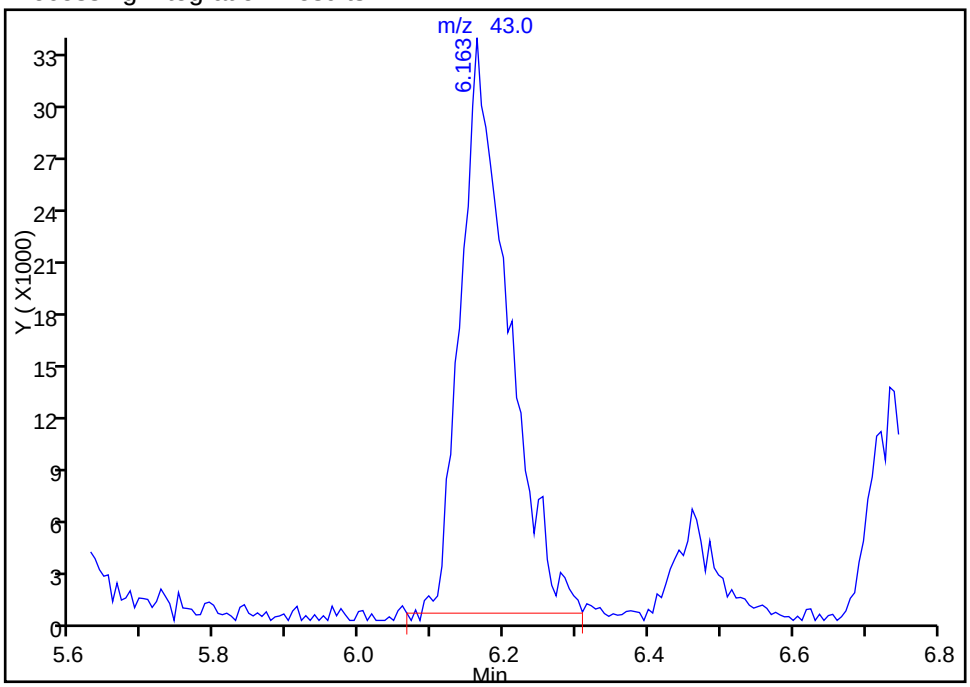
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150531-7191.b\7053103.D				
Injection Date:	31-May-2015 11:59:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

46 2-Butanone (MEK), CAS: 78-93-3

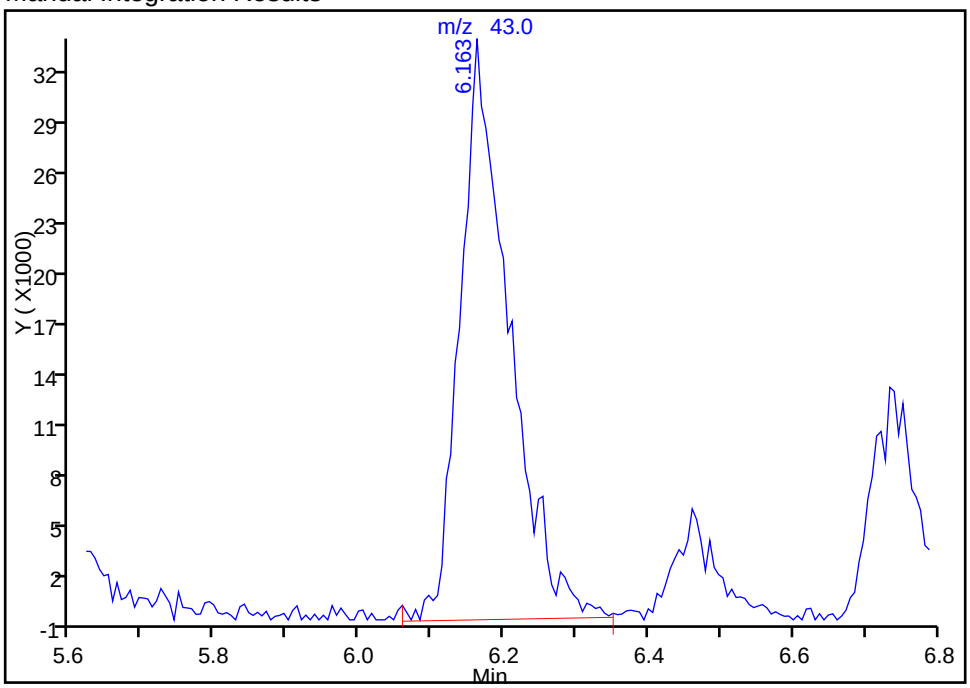
Processing Integration Results

RT: 6.16
Area: 149576
Amount: 284.2913
Amount Units: ng



Manual Integration Results

RT: 6.16
Area: 157019
Amount: 298.4378
Amount Units: ng



Reviewer: journetp, 31-May-2015 12:36:31
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Lab Sample ID: CCVIS 180-143422/3 Calibration Date: 06/01/2015 10:16

Instrument ID: CHHP7 Calib Start Date: 03/30/2015 10:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/30/2015 14:36

Lab File ID: 7060103.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	0.3707	0.1624	0.1000	4.38	10.0	-56.2*	20.0
Chloromethane	Ave	0.4039	0.2247	0.1000	5.56	10.0	-44.4*	20.0
Vinyl chloride	Ave	0.3145	0.2384	0.1000	7.58	10.0	-24.2*	20.0
Bromomethane	Ave	0.2534	0.1976	0.0500	7.80	10.0	-22.0*	20.0
Chloroethane	Ave	0.2537	0.2053	0.0500	8.09	10.0	-19.1	20.0
Trichlorofluoromethane	Ave	0.7102	0.7185	0.1000	10.1	10.0	1.2	20.0
Dichlorofluoromethane	Ave	0.6751	0.7140	0.0100	10.6	10.0	5.8	20.0
Ethyl ether	Ave	0.2253	0.1905	0.0100	8.46	10.0	-15.4	20.0
1,1-Dichloroethene	Ave	0.2685	0.2451	0.1000	9.13	10.0	-8.7	20.0
1,1,2-Trichloro-1,2,2-trif luoroethane	Ave	0.3122	0.2621	0.1000	8.39	10.0	-16.1	20.0
Iodomethane	Ave	0.5617	0.5392	0.0100	9.60	10.0	-4.0	20.0
Acetone	Lin2		0.0847	0.0500	28.0	20.0	40.1*	20.0
Carbon disulfide	Ave	0.8065	0.8736	0.1000	10.8	10.0	8.3	20.0
Allyl chloride	Ave	0.1981	0.1926	0.0100	9.72	10.0	-2.8	20.0
Methyl acetate	Ave	0.1332	0.1400	0.1000	52.5	50.0	5.1	20.0
Methylene Chloride	Ave	0.2882	0.3099	0.1000	10.8	10.0	7.5	20.0
trans-1,2-Dichloroethene	Ave	0.3332	0.3040	0.1000	9.12	10.0	-8.8	20.0
tert-Butyl alcohol	Qua		1.123	0.0100	872	100	771.7*	20.0
Acrylonitrile	Ave	0.0533	0.0600	0.0100	113	100	12.6	20.0
Methyl tert-butyl ether	Ave	0.6566	0.7770	0.1000	11.8	10.0	18.3	20.0
Hexane	Ave	0.3484	0.1891	0.0100	5.43	10.0	-45.7*	20.0
Vinyl acetate	Ave	0.2627	0.1816	0.0100	6.91	10.0	-30.9*	20.0
1,1-Dichloroethane	Ave	0.4883	0.5446	0.2000	11.2	10.0	11.5	20.0
2,2-Dichloropropane	Ave	0.4080	0.4625	0.0100	11.3	10.0	13.4	20.0
cis-1,2-Dichloroethene	Ave	0.3306	0.3508	0.1000	10.6	10.0	6.1	20.0
2-Butanone (MEK)	Ave	0.0896	0.0877	0.0500	19.6	20.0	-2.2	20.0
Bromochloromethane	Ave	0.1904	0.1975	0.0100	10.4	10.0	3.7	20.0
Chloroform	Ave	0.5499	0.5962	0.2000	10.8	10.0	8.4	20.0
1,1,1-Trichloroethane	Ave	0.4994	0.5609	0.1000	11.2	10.0	12.3	20.0
Cyclohexane	Ave	0.3523	0.3448	0.1000	9.79	10.0	-2.1	20.0
Tetrahydrofuran	Ave	0.0490	0.0457	0.0100	18.6	20.0	-6.8	20.0
Carbon tetrachloride	Ave	0.5037	0.5027	0.1000	9.98	10.0	-0.2	20.0
1,1-Dichloropropene	Ave	0.3606	0.3280	0.0100	9.10	10.0	-9.0	20.0
Benzene	Ave	0.9843	0.9681	0.5000	9.84	10.0	-1.6	20.0
Isobutyl alcohol	Ave	0.0080	0.0051*	0.0100	158	250	-36.9*	20.0
1,2-Dichloroethane	Ave	0.3325	0.3710	0.1000	11.2	10.0	11.6	20.0
n-Heptane	Ave	0.3051	0.2535	0.0100	8.31	10.0	-16.9	20.0
Trichloroethene	Ave	0.3946	0.3664	0.2000	9.28	10.0	-7.2	20.0
Methylcyclohexane	Ave	0.4851	0.4407	0.1000	9.08	10.0	-9.2	20.0
1,2-Dichloropropane	Ave	0.2242	0.2350	0.1000	10.5	10.0	4.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Lab Sample ID: CCVIS 180-143422/3 Calibration Date: 06/01/2015 10:16

Instrument ID: CHHP7 Calib Start Date: 03/30/2015 10:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/30/2015 14:36

Lab File ID: 7060103.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
Dibromomethane	Ave	0.1670	0.1787	0.0100	10.7	10.0	7.0	20.0
1,4-Dioxane	Ave	0.0016	0.0014*	0.0100	178	200	-10.8	20.0
Bromodichloromethane	Ave	0.4157	0.4735	0.2000	11.4	10.0	13.9	20.0
cis-1,3-Dichloropropene	Ave	0.4312	0.4459	0.2000	10.3	10.0	3.4	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5844	0.6157	0.1000	21.1	20.0	5.3	20.0
Toluene	Qua		3.235	0.4000	8.85	10.0	-11.5	20.0
trans-1,3-Dichloropropene	Ave	1.257	1.291	0.1000	10.3	10.0	2.7	20.0
Ethyl methacrylate	Ave	0.8363	0.9750	0.0100	11.7	10.0	16.6	20.0
1,1,2-Trichloroethane	Ave	0.7178	0.7852	0.1000	10.9	10.0	9.4	20.0
Tetrachloroethene	Qua		0.8688	0.2000	9.09	10.0	-9.1	20.0
1,3-Dichloropropane	Ave	1.061	1.171	0.0100	11.0	10.0	10.3	20.0
2-Hexanone	Ave	0.3770	0.4448	0.1000	23.6	20.0	18.0	20.0
Dibromochloromethane	Ave	1.234	1.284	0.1000	10.4	10.0	4.0	20.0
1,2-Dibromoethane (EDB)	Ave	0.8132	0.8663	0.1000	10.7	10.0	6.5	20.0
Chlorobenzene	Ave	2.549	2.633	0.5000	10.3	10.0	3.3	20.0
1,1,1,2-Tetrachloroethane	Ave	1.233	1.229	0.0100	9.97	10.0	-0.3	20.0
Ethylbenzene	Ave	1.449	1.329	0.1000	9.18	10.0	-8.2	20.0
m-Xylene & p-Xylene	Ave	1.953	1.792	0.1000	9.18	10.0	-8.2	20.0
o-Xylene	Ave	1.961	1.893	0.3000	9.65	10.0	-3.5	20.0
Styrene	Qua		2.774	0.3000	10.3	10.0	2.9	20.0
Bromoform	Ave	0.6992	0.7123	0.1000	10.2	10.0	1.9	20.0
Isopropylbenzene	Qua		4.497	0.1000	9.28	10.0	-7.2	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7533	0.8073	0.3000	10.7	10.0	7.2	20.0
Bromobenzene	Ave	0.8571	1.128	0.0100	13.2	10.0	31.6*	20.0
1,2,3-Trichloropropane	Ave	0.1919	0.2331	0.0100	12.1	10.0	21.5*	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1202	0.1348	0.0100	11.2	10.0	12.1	20.0
N-Propylbenzene	Ave	1.052	1.206	0.0100	11.5	10.0	14.6	20.0
2-Chlorotoluene	Ave	0.9551	1.113	0.0100	11.7	10.0	16.5	20.0
1,3,5-Trimethylbenzene	Qua		3.192	0.0100	13.3	10.0	32.8*	20.0
4-Chlorotoluene	Ave	0.9153	1.059	0.0100	11.6	10.0	15.6	20.0
tert-Butylbenzene	Lin2	3.243	3.075	0.0100	10.4	10.0	3.9	20.0
1,2,4-Trimethylbenzene	Qua		3.129	0.0100	12.2	10.0	22.5*	20.0
sec-Butylbenzene	Qua		3.923	0.0100	12.0	10.0	19.6	20.0
1,3-Dichlorobenzene	Lin2	1.869	1.766	0.6000	10.4	10.0	3.7	20.0
4-Isopropyltoluene	Qua		3.239	0.0100	10.7	10.0	7.2	20.0
1,4-Dichlorobenzene	Ave	1.587	1.645	0.5000	10.4	10.0	3.7	20.0
n-Butylbenzene	Qua		2.572	0.0100	10.1	10.0	1.1	20.0
1,2-Dichlorobenzene	Ave	1.554	1.451	0.4000	9.34	10.0	-6.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Lab Sample ID: CCVIS 180-143422/3 Calibration Date: 06/01/2015 10:16

Instrument ID: CHHP7 Calib Start Date: 03/30/2015 10:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/30/2015 14:36

Lab File ID: 7060103.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-Dibromo-3-Chloropropane	Lin2		0.0890	0.0500	11.3	10.0	13.2	20.0
1,2,4-Trichlorobenzene	Ave	0.4928	0.4506	0.2000	9.14	10.0	-8.6	20.0
Hexachlorobutadiene	Ave	0.2953	0.2103	0.0100	7.12	10.0	-28.8*	20.0
Naphthalene	Ave	0.8071	0.7838	0.0100	9.71	10.0	-2.9	20.0
1,2,3-Trichlorobenzene	Ave	0.3372	0.3897	0.0100	11.6	10.0	15.5	20.0
Dibromofluoromethane (Surr)	Ave	0.3190	0.3279		10.3	10.0	2.8	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3042	0.3215		10.6	10.0	5.7	20.0
Toluene-d8 (Surr)	Ave	2.966	2.856		9.63	10.0	-3.7	20.0
4-Bromofluorobenzene (Surr)	Lin2		1.391		10.5	10.0	5.2	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060103.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 01-Jun-2015 10:16:30 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0007198-002
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_LL_CHHP7*sub11

Method: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 16:53:05 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

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

First Level Reviewer: journetp Date: 01-Jun-2015 11:05:30

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.665	4.665	0.000	96	311382	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.403	7.403	0.000	95	906833	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.463	10.463	0.000	86	276357	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.787	12.787	0.000	94	310944	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.679	6.679	0.000	71	297306	200.0	205.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.038	7.038	0.000	63	291543	200.0	211.4	
$ 7 Toluene-d8 (Surr)	98	9.033	9.033	0.000	93	789243	200.0	192.5	
$ 8 4-Bromofluorobenzene (Surr	95	11.631	11.631	0.000	90	384332	200.0	210.3	
11 Dichlorodifluoromethane	85	1.916	1.916	0.000	27	147249	200.0	87.6	M
12 Chloromethane	50	2.049	2.049	0.000	28	203744	200.0	111.3	M
14 Butadiene	39	2.208	2.208	0.000	93	188295	200.0	125.0	M
13 Vinyl chloride	62	2.232	2.232	0.000	94	216203	200.0	151.6	M
15 Bromomethane	94	2.506	2.506	0.000	89	179169	200.0	155.9	M
16 Chloroethane	64	2.621	2.621	0.000	49	186186	200.0	161.8	
18 Trichlorofluoromethane	101	2.877	2.877	0.000	91	651552	200.0	202.3	
17 Dichlorofluoromethane	67	2.901	2.901	0.000	96	647456	200.0	211.5	
20 Ethyl ether	59	3.327	3.327	0.000	85	172789	200.0	169.1	
22 1,1-Dichloroethene	96	3.540	3.540	0.000	91	222226	200.0	182.5	M
23 1,1,2-Trichloro-1,2,2-trif	101	3.716	3.716	0.000	76	237696	200.0	167.9	
25 Iodomethane	142	3.765	3.765	0.000	98	488971	200.0	192.0	
24 Acetone	43	3.783	3.783	0.000	38	153552	400.0	560.2	
26 Carbon disulfide	76	3.868	3.868	0.000	100	792246	200.0	216.6	
28 3-Chloro-1-propene	76	4.142	4.142	0.000	72	174639	200.0	194.5	
30 Methyl acetate	43	4.306	4.306	0.000	97	634800	1000.0	1050.7	
31 Methylene Chloride	84	4.398	4.398	0.000	91	281058	200.0	215.1	
34 trans-1,2-Dichloroethene	96	4.781	4.781	0.000	96	275676	200.0	182.5	
32 2-Methyl-2-propanol	59	4.787	4.787	0.000	54	174907	2000.0	17434	E
33 Acrylonitrile	53	4.799	4.799	0.000	98	544277	2000.0	2252.0	
35 Methyl tert-butyl ether	73	4.854	4.854	0.000	98	704619	200.0	236.7	
38 Vinyl acetate	43	5.170	5.170	0.000	72	164662	200.0	138.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.164	5.164	0.000	93	171496	200.0	108.5	
37 1,1-Dichloroethane	63	5.359	5.359	0.000	97	493885	200.0	223.1	
44 2,2-Dichloropropane	77	6.095	6.095	0.000	82	419393	200.0	226.7	
45 cis-1,2-Dichloroethene	96	6.095	6.095	0.000	81	318124	200.0	212.2	
46 2-Butanone (MEK)	43	6.180	6.180	0.000	92	159006	400.0	391.2	
49 Chlorobromomethane	128	6.387	6.387	0.000	83	179115	200.0	207.4	
52 Chloroform	83	6.497	6.497	0.000	96	540667	200.0	216.8	
53 1,1,1-Trichloroethane	97	6.679	6.679	0.000	96	508612	200.0	224.6	
51 Tetrahydrofuran	42	6.740	6.740	0.000	45	82921	400.0	372.9	
54 Cyclohexane	56	6.734	6.734	0.000	90	312655	200.0	195.7	
55 1,1-Dichloropropene	75	6.868	6.868	0.000	83	297424	200.0	181.9	
56 Carbon tetrachloride	117	6.862	6.862	0.000	96	455822	200.0	199.6	
58 Benzene	78	7.099	7.099	0.000	96	877865	200.0	196.7	
59 1,2-Dichloroethane	62	7.123	7.123	0.000	97	336392	200.0	223.2	
57 Isobutyl alcohol	41	7.105	7.105	0.000	47	114820	5000.0	3153.8	
62 n-Heptane	43	7.403	7.403	0.000	57	229833	200.0	166.1	
64 Trichloroethene	130	7.798	7.798	0.000	96	332216	200.0	185.7	
66 Methylcyclohexane	83	7.993	7.993	0.000	88	399596	200.0	181.7	
67 1,2-Dichloropropane	63	8.023	8.023	0.000	91	213128	200.0	209.7	
68 Dibromomethane	93	8.139	8.139	0.000	94	162072	200.0	214.1	
70 1,4-Dioxane	88	8.194	8.194	0.000	84	25367	4000.0	3569.8	
71 Dichlorobromomethane	83	8.315	8.315	0.000	98	429346	200.0	227.8	
74 cis-1,3-Dichloropropene	75	8.772	8.772	0.000	92	404358	200.0	206.8	
75 4-Methyl-2-pentanone (MIBK	43	8.936	8.936	0.000	96	340283	400.0	421.4	
76 Toluene	91	9.100	9.100	0.000	98	894112	200.0	176.9	
77 trans-1,3-Dichloropropene	75	9.325	9.325	0.000	96	356913	200.0	205.4	
78 Ethyl methacrylate	69	9.417	9.417	0.000	88	269457	200.0	233.2	
79 1,1,2-Trichloroethane	97	9.508	9.508	0.000	92	216983	200.0	218.8	
80 Tetrachloroethene	164	9.642	9.642	0.000	92	240096	200.0	181.7	
81 1,3-Dichloropropane	76	9.672	9.672	0.000	92	323491	200.0	220.6	
82 2-Hexanone	43	9.763	9.763	0.000	97	245818	400.0	471.9	
84 Chlorodibromomethane	129	9.897	9.897	0.000	89	354797	200.0	208.1	
85 Ethylene Dibromide	107	10.007	10.007	0.000	99	239397	200.0	213.1	
87 Chlorobenzene	112	10.493	10.493	0.000	93	727573	200.0	206.5	
89 1,1,1,2-Tetrachloroethane	131	10.572	10.572	0.000	94	339562	200.0	199.4	
90 Ethylbenzene	106	10.603	10.603	0.000	98	367283	200.0	183.5	
91 m-Xylene & p-Xylene	106	10.718	10.718	0.000	98	495351	200.0	183.6	
92 o-Xylene	106	11.114	11.114	0.000	96	523249	200.0	193.1	
93 Styrene	104	11.126	11.126	0.000	93	766656	200.0	205.9	
94 Bromoform	173	11.315	11.315	0.000	94	196851	200.0	203.7	
97 Isopropylbenzene	105	11.479	11.479	0.000	96	1242892	200.0	185.5	
99 1,1,2,2-Tetrachloroethane	83	11.771	11.771	0.000	97	223088	200.0	214.3	
100 Bromobenzene	156	11.783	11.783	0.000	90	350755	200.0	263.2	
101 1,2,3-Trichloropropane	110	11.813	11.813	0.000	86	72493	200.0	243.0	
102 trans-1,4-Dichloro-2-buten	53	11.832	11.832	0.000	74	41899	200.0	224.2	
103 N-Propylbenzene	120	11.886	11.886	0.000	97	374944	200.0	229.2	
104 2-Chlorotoluene	126	11.972	11.972	0.000	97	346116	200.0	233.1	
106 1,3,5-Trimethylbenzene	105	12.057	12.057	0.000	97	992482	200.0	265.6	
107 4-Chlorotoluene	126	12.087	12.087	0.000	96	329143	200.0	231.3	
108 tert-Butylbenzene	119	12.385	12.385	0.000	92	956193	200.0	207.9	
110 1,2,4-Trimethylbenzene	105	12.434	12.434	0.000	97	972959	200.0	244.9	
112 sec-Butylbenzene	105	12.604	12.604	0.000	95	1219799	200.0	239.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
113 1,3-Dichlorobenzene	146	12.720	12.720	0.000	97	549216	200.0	207.3	
114 4-Isopropyltoluene	119	12.750	12.750	0.000	95	1007276	200.0	214.4	
115 1,4-Dichlorobenzene	146	12.811	12.811	0.000	93	511444	200.0	207.3	
120 n-Butylbenzene	91	13.158	13.158	0.000	96	799796	200.0	202.2	
121 1,2-Dichlorobenzene	146	13.188	13.188	0.000	96	451260	200.0	186.7	
122 1,2-Dibromo-3-Chloropropan	75	13.973	13.967	0.006	86	27658	200.0	226.5	
126 1,2,4-Trichlorobenzene	180	14.800	14.800	0.000	95	140101	200.0	182.8	
127 Hexachlorobutadiene	225	14.971	14.971	0.000	89	65389	200.0	142.4	
128 Naphthalene	128	15.050	15.050	0.000	96	243729	200.0	194.2	
129 1,2,3-Trichlorobenzene	180	15.305	15.305	0.000	96	121161	200.0	231.1	
S 133 Xylenes, Total	106				0		400.0	376.6	
S 134 1,2-Dichloroethene, Total	96				0		400.0	394.7	
S 135 1,3-Dichloropropene, Total	1				0		400.0	412.2	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Review Flags

M - Manually Integrated

Reagents:

voaWketPri Re_00005	Amount Added:	8.00	Units: uL		
VOA8260VOAPRI_00121	Amount Added:	8.00	Units: uL		
voaWVA1st Res_00001	Amount Added:	8.00	Units: uL		
VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent	
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent	

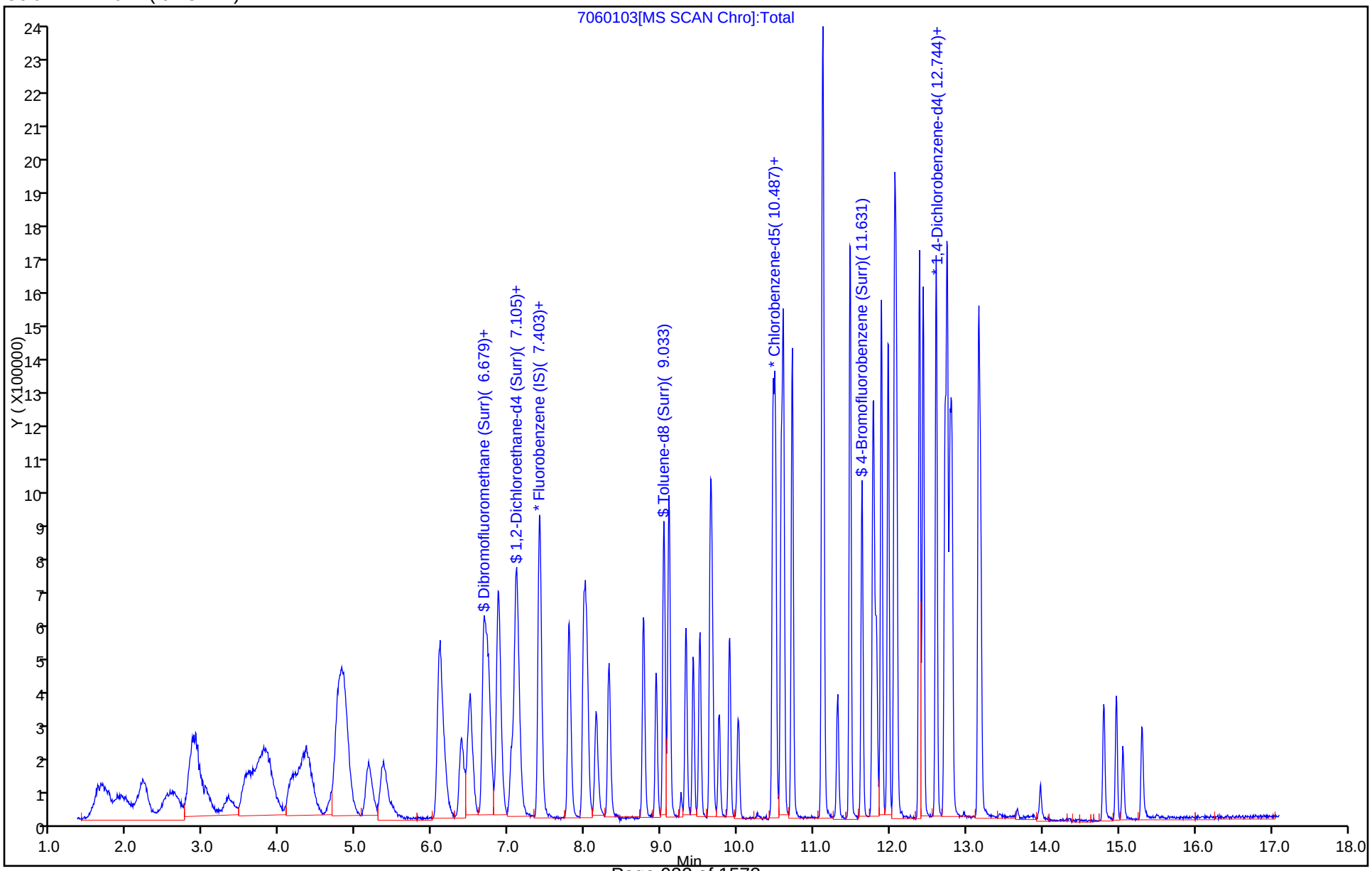
Report Date: 01-Jun-2015 16:53:06 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060103.D

Injection Date:	01-Jun-2015 10:16:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	CCVIS			Worklist Smp#:	3
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



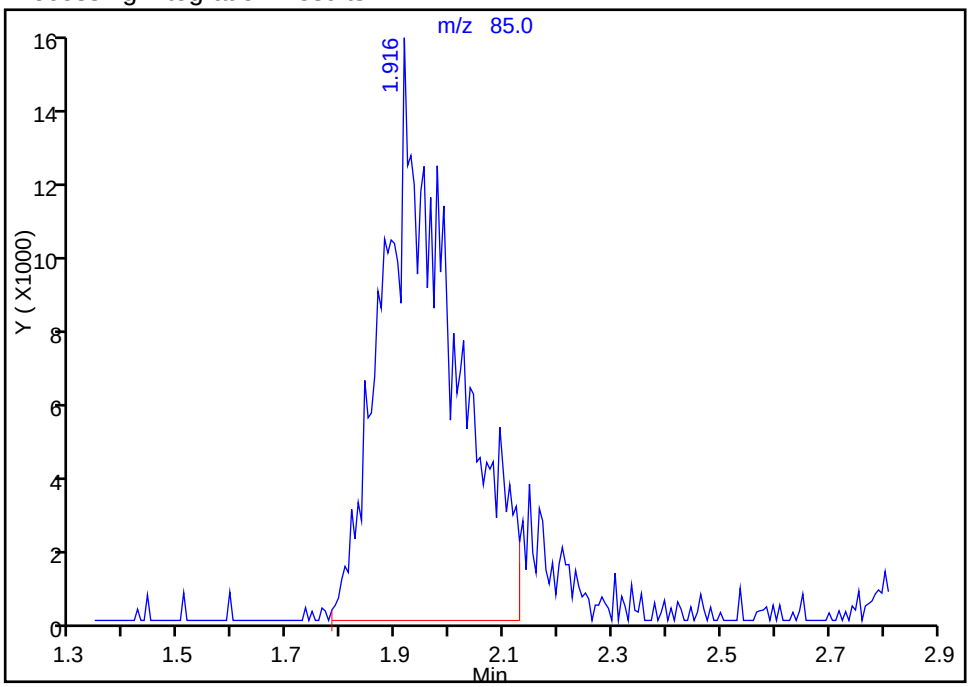
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060103.D				
Injection Date:	01-Jun-2015 10:16:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

11 Dichlorodifluoromethane, CAS: 75-71-8

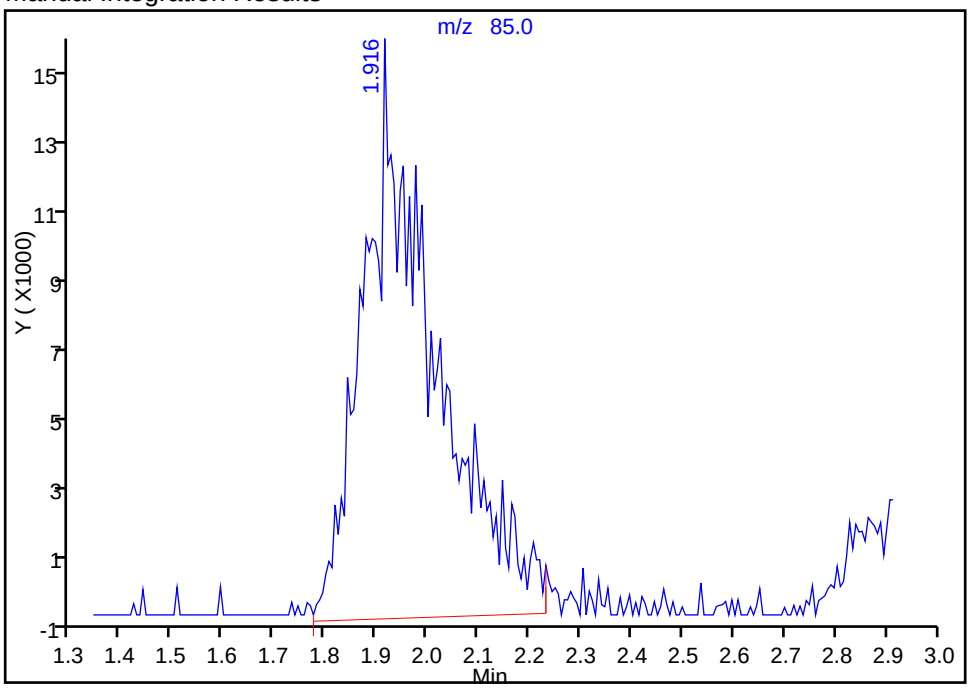
Processing Integration Results

RT: 1.92
Area: 134820
Amount: 80.210265
Amount Units: ng



Manual Integration Results

RT: 1.92
Area: 147249
Amount: 87.604816
Amount Units: ng



Reviewer: journetp, 01-Jun-2015 11:05:30
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

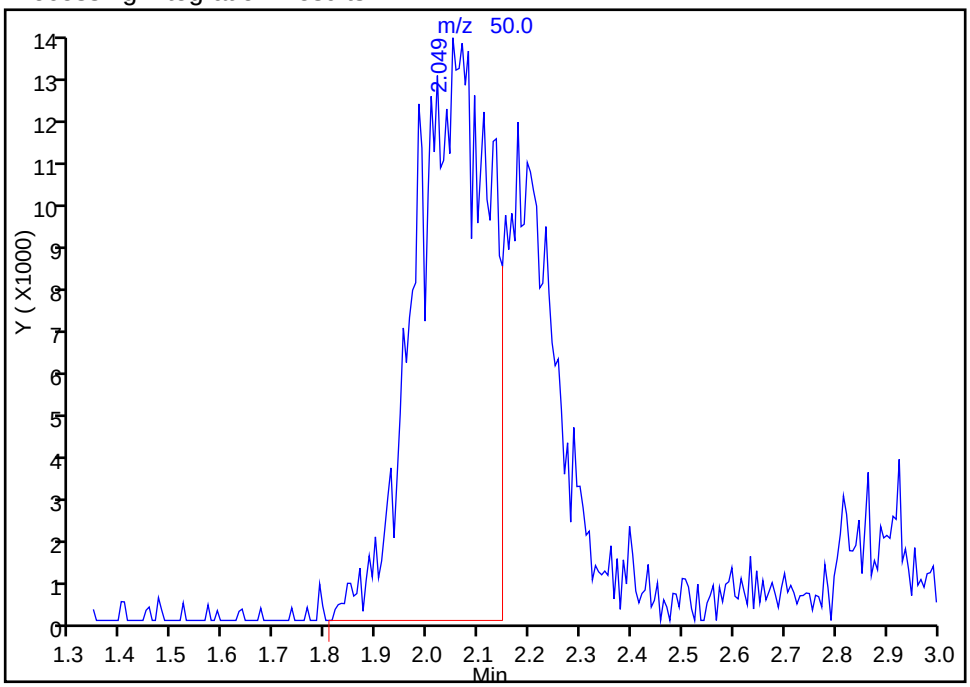
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060103.D
Injection Date: 01-Jun-2015 10:16:30 Instrument ID: CHHP7
Lims ID: CCVIS
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

12 Chloromethane, CAS: 74-87-3

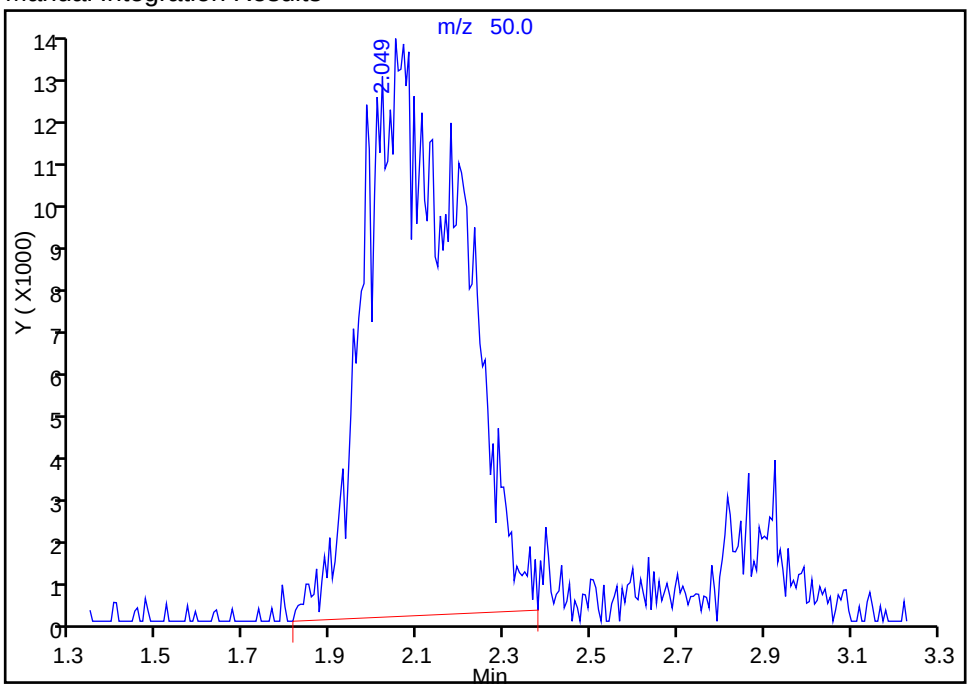
Processing Integration Results

RT: 2.05
Area: 135774
Amount: 74.146149
Amount Units: ng



Manual Integration Results

RT: 2.05
Area: 203744
Amount: 111.2646
Amount Units: ng



Reviewer: journetp, 01-Jun-2015 11:05:30
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

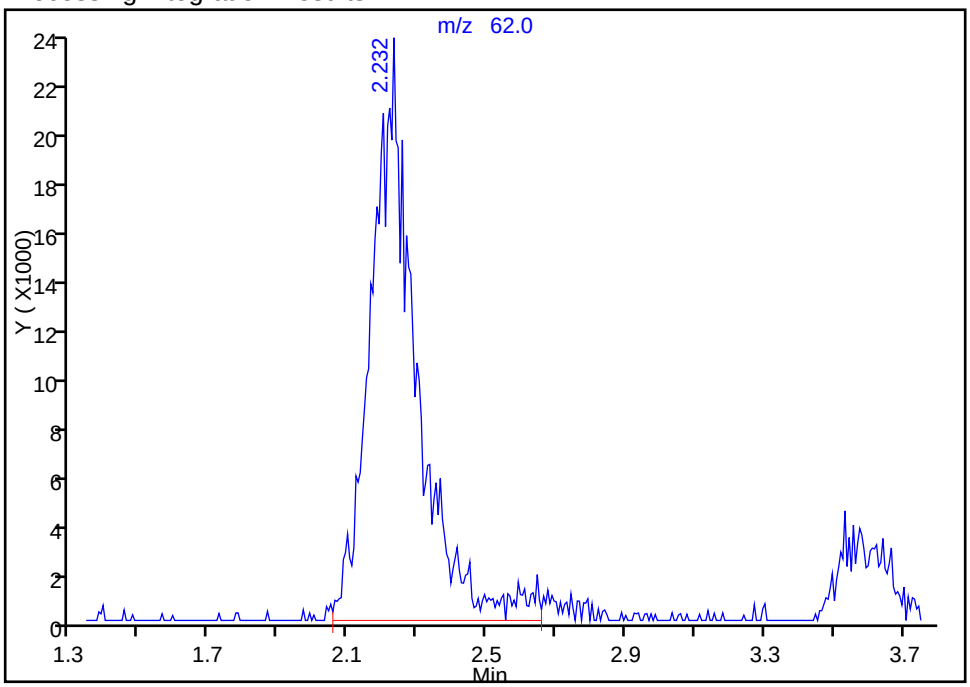
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060103.D				
Injection Date:	01-Jun-2015 10:16:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

13 Vinyl chloride, CAS: 75-01-4

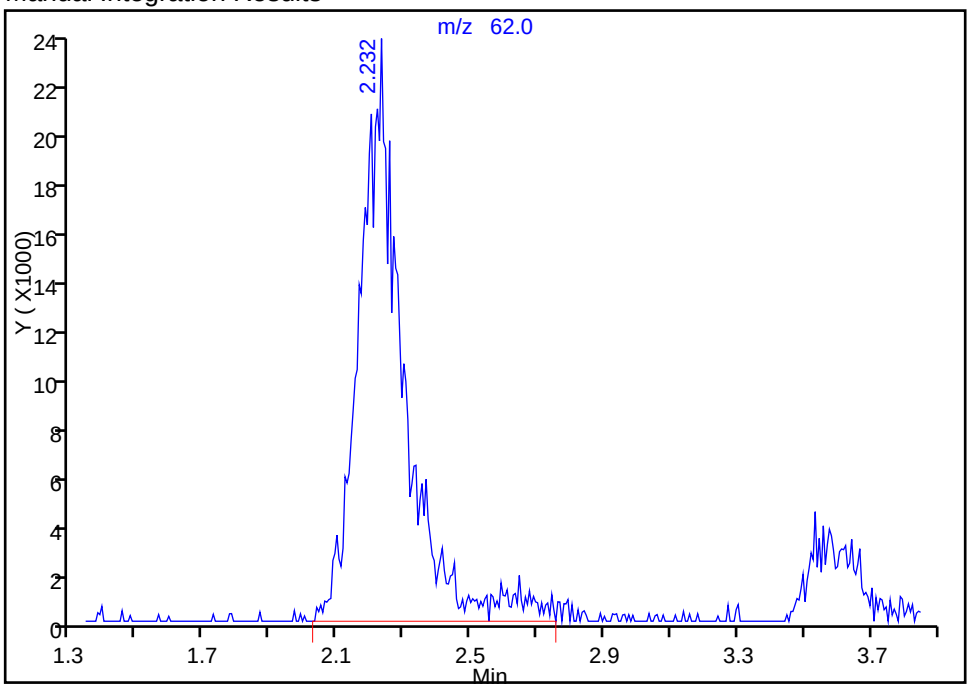
Processing Integration Results

RT: 2.23
Area: 211704
Amount: 148.4595
Amount Units: ng



Manual Integration Results

RT: 2.23
Area: 216203
Amount: 151.6144
Amount Units: ng



Reviewer: journetp, 01-Jun-2015 11:05:30
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

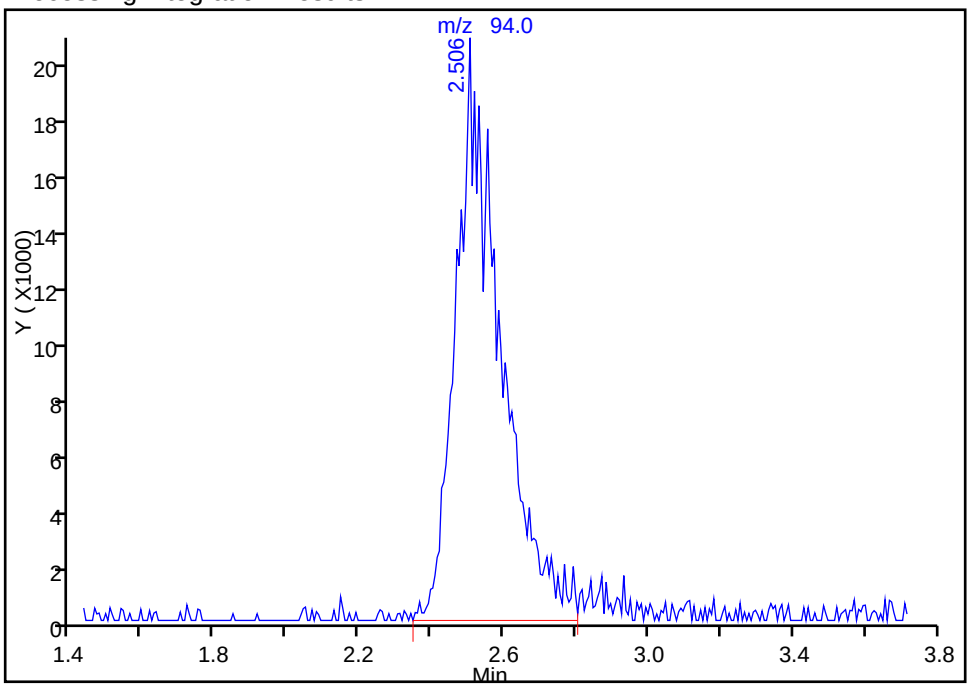
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060103.D				
Injection Date:	01-Jun-2015 10:16:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

15 Bromomethane, CAS: 74-83-9

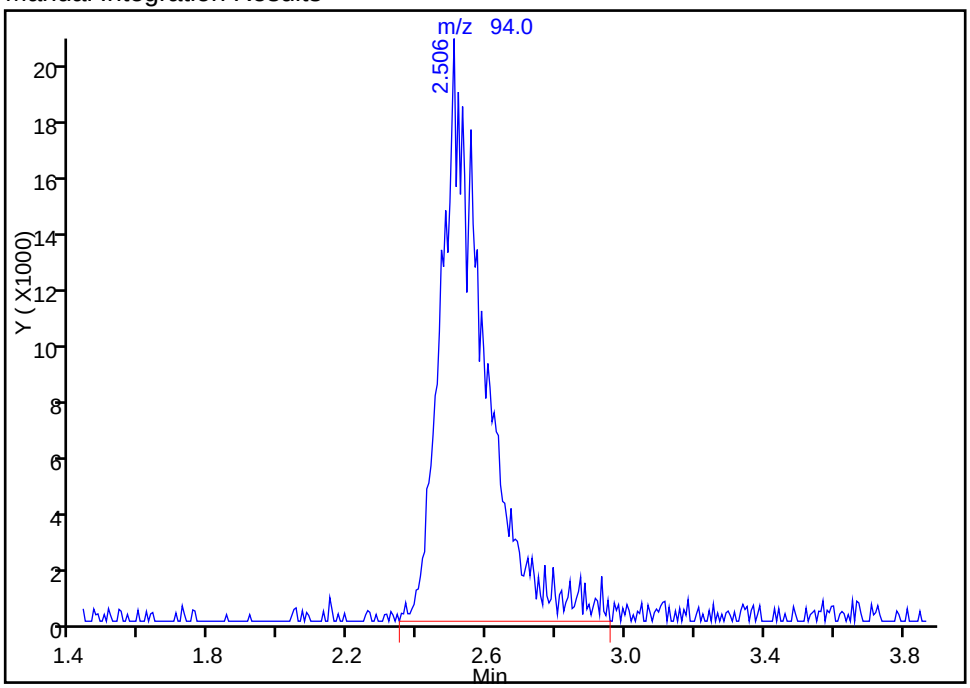
Processing Integration Results

RT: 2.51
Area: 172724
Amount: 150.3127
Amount Units: ng



Manual Integration Results

RT: 2.51
Area: 179169
Amount: 155.9215
Amount Units: ng



Reviewer: journetp, 01-Jun-2015 11:05:30
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

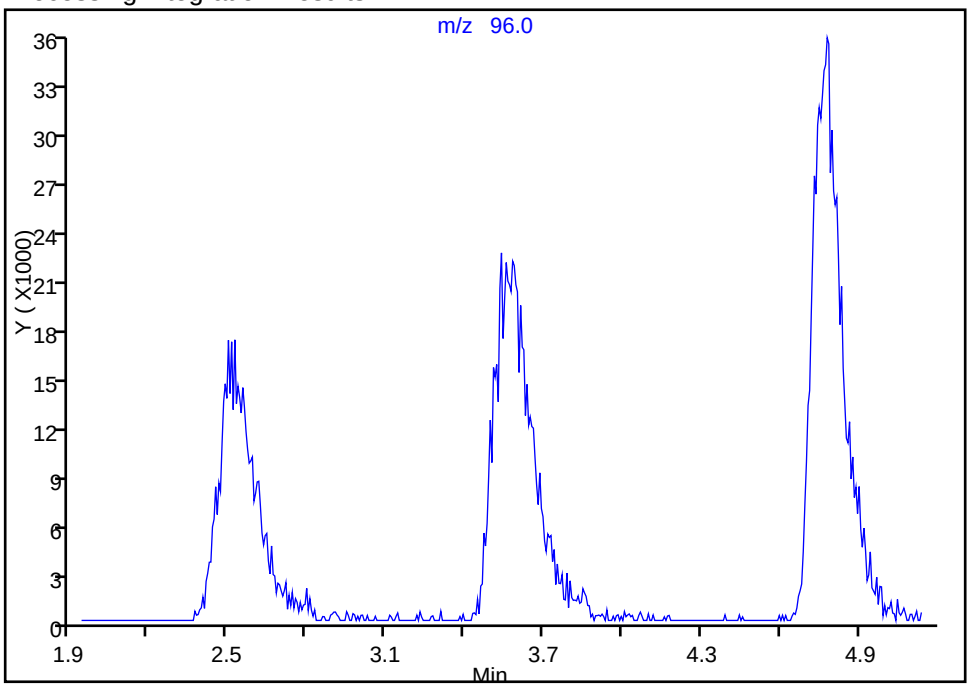
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060103.D
Injection Date: 01-Jun-2015 10:16:30 Instrument ID: CHHP7
Lims ID: CCVIS
Client ID:
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

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

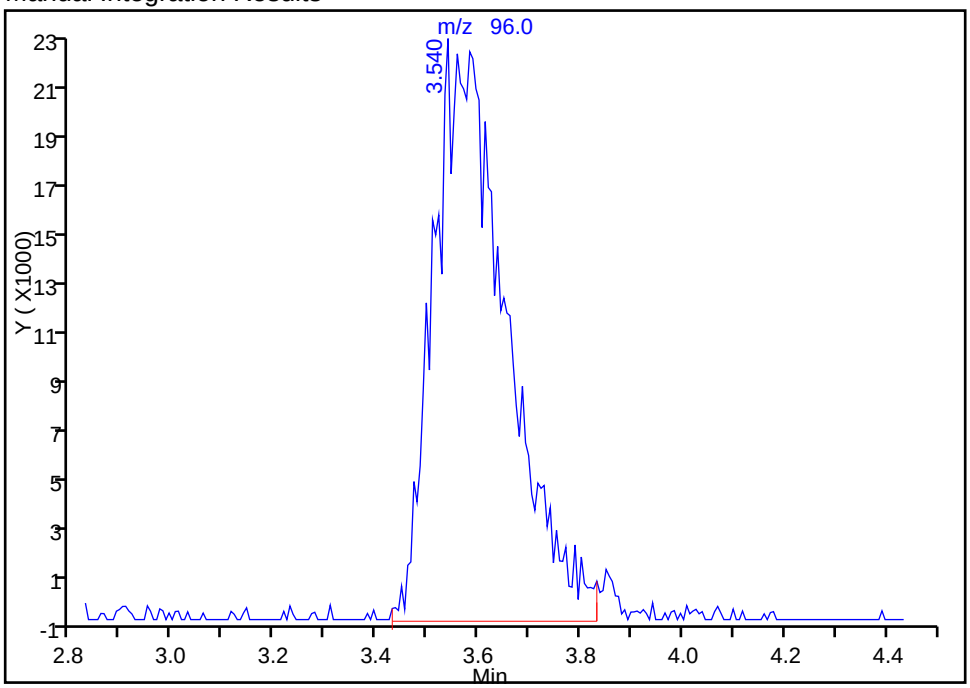
Not Detected
Expected RT: 3.54

Processing Integration Results



Manual Integration Results

RT: 3.54
Area: 222226
Amount: 182.5167
Amount Units: ng



Reviewer: journetp, 01-Jun-2015 11:05:30
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Lab Sample ID: CCVIS 180-143527/3 Calibration Date: 06/02/2015 10:22

Instrument ID: CHHP7 Calib Start Date: 03/30/2015 10:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/30/2015 14:36

Lab File ID: 7060203.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	0.3707	0.1816	0.1000	4.90	10.0	-51.0*	20.0
Chloromethane	Ave	0.4039	0.2264	0.1000	5.61	10.0	-43.9*	20.0
Vinyl chloride	Ave	0.3145	0.2054	0.1000	6.53	10.0	-34.7*	20.0
Bromomethane	Ave	0.2534	0.2399	0.0500	9.47	10.0	-5.3	20.0
Chloroethane	Ave	0.2537	0.2264	0.0500	8.92	10.0	-10.8	20.0
Dichlorofluoromethane	Ave	0.6751	0.7031	0.0100	10.4	10.0	4.2	20.0
Trichlorofluoromethane	Ave	0.7102	0.7615	0.1000	10.7	10.0	7.2	20.0
Ethyl ether	Ave	0.2253	0.2162	0.0100	9.59	10.0	-4.1	20.0
Acrolein	Ave	0.0156	0.0366	0.0100	70.5	30.0	135.0*	20.0
1,1-Dichloroethene	Ave	0.2685	0.3099	0.1000	11.5	10.0	15.4	20.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	0.3122	0.3586	0.1000	11.5	10.0	14.8	20.0
Acetone	Lin2		0.0700	0.0500	22.5	20.0	12.6	20.0
Iodomethane	Ave	0.5617	0.6579	0.0100	11.7	10.0	17.1	20.0
Carbon disulfide	Ave	0.8065	0.8976	0.1000	11.1	10.0	11.3	20.0
Allyl chloride	Ave	0.1981	0.2086	0.0100	10.5	10.0	5.3	20.0
Methyl acetate	Ave	0.1332	0.1190	0.1000	44.6	50.0	-10.7	20.0
Methylene Chloride	Ave	0.2882	0.3409	0.1000	11.8	10.0	18.3	20.0
tert-Butyl alcohol	Qua		1.127	0.0100	874	100	773.6*	20.0
Acrylonitrile	Ave	0.0533	0.0495	0.0100	92.8	100	-7.2	20.0
trans-1,2-Dichloroethene	Ave	0.3332	0.3497	0.1000	10.5	10.0	5.0	20.0
Methyl tert-butyl ether	Ave	0.6566	0.7348	0.1000	11.2	10.0	11.9	20.0
Hexane	Ave	0.3484	0.2833	0.0100	8.13	10.0	-18.7	20.0
Vinyl acetate	Ave	0.2627	0.2326	0.0100	8.85	10.0	-11.5	20.0
1,1-Dichloroethane	Ave	0.4883	0.5598	0.2000	11.5	10.0	14.6	20.0
2,2-Dichloropropane	Ave	0.4080	0.5609	0.0100	13.7	10.0	37.5*	20.0
cis-1,2-Dichloroethene	Ave	0.3306	0.3959	0.1000	12.0	10.0	19.7	20.0
2-Butanone (MEK)	Ave	0.0896	0.0759	0.0500	16.9	20.0	-15.3	20.0
Bromochloromethane	Ave	0.1904	0.2015	0.0100	10.6	10.0	5.8	20.0
Chloroform	Ave	0.5499	0.6520	0.2000	11.9	10.0	18.6	20.0
1,1,1-Trichloroethane	Ave	0.4994	0.6380	0.1000	12.8	10.0	27.8*	20.0
Cyclohexane	Ave	0.3523	0.3999	0.1000	11.4	10.0	13.5	20.0
Tetrahydrofuran	Ave	0.0490	0.0560	0.0100	22.8	20.0	14.2	20.0
Carbon tetrachloride	Ave	0.5037	0.6159	0.1000	12.2	10.0	22.3*	20.0
1,1-Dichloropropene	Ave	0.3606	0.3821	0.0100	10.6	10.0	6.0	20.0
Benzene	Ave	0.9843	1.082	0.5000	11.0	10.0	10.0	20.0
1,2-Dichloroethane	Ave	0.3325	0.3668	0.1000	11.0	10.0	10.3	20.0
Isobutyl alcohol	Ave	0.0080	0.0080*	0.0100	248	250	-0.9	20.0
n-Heptane	Ave	0.3051	0.2589	0.0100	8.49	10.0	-15.1	20.0
Trichloroethene	Ave	0.3946	0.4039	0.2000	10.2	10.0	2.4	20.0
Methylcyclohexane	Ave	0.4851	0.4700	0.1000	9.69	10.0	-3.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Lab Sample ID: CCVIS 180-143527/3 Calibration Date: 06/02/2015 10:22

Instrument ID: CHHP7 Calib Start Date: 03/30/2015 10:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/30/2015 14:36

Lab File ID: 7060203.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	0.2242	0.2427	0.1000	10.8	10.0	8.3	20.0
Dibromomethane	Ave	0.1670	0.1923	0.0100	11.5	10.0	15.1	20.0
1,4-Dioxane	Ave	0.0016	0.0014*	0.0100	177	200	-11.3	20.0
Bromodichloromethane	Ave	0.4157	0.5094	0.2000	12.3	10.0	22.5*	20.0
cis-1,3-Dichloropropene	Ave	0.4312	0.4880	0.2000	11.3	10.0	13.2	20.0
4-Methyl-2-pentanone (MIBK)	Ave	0.5844	0.4654	0.1000	15.9	20.0	-20.4*	20.0
Toluene	Qua		3.600	0.4000	10.1	10.0	0.7	20.0
trans-1,3-Dichloropropene	Ave	1.257	1.220	0.1000	9.71	10.0	-2.9	20.0
Ethyl methacrylate	Ave	0.8363	0.7736	0.0100	9.25	10.0	-7.5	20.0
1,1,2-Trichloroethane	Ave	0.7178	0.6824	0.1000	9.51	10.0	-4.9	20.0
Tetrachloroethene	Qua		0.9582	0.2000	10.2	10.0	2.1	20.0
1,3-Dichloropropane	Ave	1.061	1.030	0.0100	9.71	10.0	-2.9	20.0
2-Hexanone	Ave	0.3770	0.3403	0.1000	18.1	20.0	-9.7	20.0
Dibromochloromethane	Ave	1.234	1.223	0.1000	9.91	10.0	-0.9	20.0
1,2-Dibromoethane (EDB)	Ave	0.8132	0.7646	0.1000	9.40	10.0	-6.0	20.0
Chlorobenzene	Ave	2.549	2.704	0.5000	10.6	10.0	6.1	20.0
1,1,1,2-Tetrachloroethane	Ave	1.233	1.272	0.0100	10.3	10.0	3.2	20.0
Ethylbenzene	Ave	1.449	1.405	0.1000	9.70	10.0	-3.0	20.0
m-Xylene & p-Xylene	Ave	1.953	1.830	0.1000	9.37	10.0	-6.3	20.0
o-Xylene	Ave	1.961	1.939	0.3000	9.88	10.0	-1.2	20.0
Styrene	Qua		2.799	0.3000	10.4	10.0	4.0	20.0
Bromoform	Ave	0.6992	0.6428	0.1000	9.19	10.0	-8.1	20.0
Isopropylbenzene	Qua		4.683	0.1000	9.76	10.0	-2.4	20.0
1,1,2,2-Tetrachloroethane	Ave	0.7533	0.6166	0.3000	8.19	10.0	-18.1	20.0
Bromobenzene	Ave	0.8571	1.183	0.0100	13.8	10.0	38.1*	20.0
1,2,3-Trichloropropane	Ave	0.1919	0.2091	0.0100	10.9	10.0	9.0	20.0
trans-1,4-Dichloro-2-butene	Ave	0.1202	0.1057	0.0100	8.80	10.0	-12.0	20.0
N-Propylbenzene	Ave	1.052	1.264	0.0100	12.0	10.0	20.2*	20.0
2-Chlorotoluene	Ave	0.9551	1.258	0.0100	13.2	10.0	31.7*	20.0
1,3,5-Trimethylbenzene	Qua		3.173	0.0100	13.2	10.0	31.8*	20.0
4-Chlorotoluene	Ave	0.9153	1.100	0.0100	12.0	10.0	20.2*	20.0
tert-Butylbenzene	Lin2	3.243	3.078	0.0100	10.4	10.0	4.0	20.0
1,2,4-Trimethylbenzene	Qua		3.063	0.0100	11.9	10.0	19.3	20.0
sec-Butylbenzene	Qua		3.382	0.0100	9.98	10.0	-0.2	20.0
1,3-Dichlorobenzene	Lin2	1.869	1.692	0.6000	9.91	10.0	-0.9	20.0
4-Isopropyltoluene	Qua		3.394	0.0100	11.4	10.0	13.6	20.0
1,4-Dichlorobenzene	Ave	1.587	1.690	0.5000	10.6	10.0	6.5	20.0
n-Butylbenzene	Qua		2.865	0.0100	11.6	10.0	15.7	20.0
1,2-Dichlorobenzene	Ave	1.554	1.495	0.4000	9.62	10.0	-3.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Lab Sample ID: CCVIS 180-143527/3 Calibration Date: 06/02/2015 10:22

Instrument ID: CHHP7 Calib Start Date: 03/30/2015 10:57

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/30/2015 14:36

Lab File ID: 7060203.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-Dibromo-3-Chloropropane	Lin2		0.1011	0.0500	12.8	10.0	28.2*	20.0
1,2,4-Trichlorobenzene	Ave	0.4928	0.7429	0.2000	15.1	10.0	50.7*	20.0
Hexachlorobutadiene	Ave	0.2953	0.4873	0.0100	16.5	10.0	65.0*	20.0
Naphthalene	Ave	0.8071	1.298	0.0100	16.1	10.0	60.9*	20.0
1,2,3-Trichlorobenzene	Ave	0.3372	0.4964	0.0100	14.7	10.0	47.2*	20.0
Dibromofluoromethane (Surr)	Ave	0.3190	0.3526		11.1	10.0	10.5	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3042	0.3338		11.0	10.0	9.7	20.0
Toluene-d8 (Surr)	Ave	2.966	3.223		10.9	10.0	8.6	20.0
4-Bromofluorobenzene (Surr)	Lin2		1.460		11.1	10.0	10.7	20.0

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060203.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 02-Jun-2015 10:22:30 ALS Bottle#: 3 Worklist Smp#: 3
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: CCVIS
Misc. Info.: 180-0007217-003
Operator ID: 034635 Instrument ID: CHHP7
Sublist: chrom-MSVOA_LL_CHHP7*sub1

Method: \\PITCHROM\ChromData\CHHP7\20150602-7217.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 02-Jun-2015 15:41:08 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK014

First Level Reviewer: journetp Date: 02-Jun-2015 10:57:44

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.695	4.695	0.000	90	225816	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.402	7.402	0.000	95	888768	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.462	10.462	0.000	85	287056	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.786	12.786	0.000	93	286471	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.684	6.684	0.000	68	313391	200.0	221.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.043	7.043	0.000	92	296635	200.0	219.5	
$ 7 Toluene-d8 (Surr)	98	9.039	9.039	0.000	93	925158	200.0	217.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.630	11.630	0.000	89	418964	200.0	221.5	
11 Dichlorodifluoromethane	85	1.921	1.921	0.000	30	161367	200.0	98.0	
12 Chloromethane	50	2.030	2.030	0.000	7	201249	200.0	112.1	M
13 Vinyl chloride	62	2.231	2.231	0.000	67	182517	200.0	130.6	M
14 Butadiene	39	2.207	2.207	0.000	94	194956	200.0	132.1	
15 Bromomethane	94	2.493	2.493	0.000	85	213244	200.0	189.3	
16 Chloroethane	64	2.621	2.621	0.000	50	201184	200.0	178.4	
17 Dichlorofluoromethane	67	2.876	2.876	0.000	92	624901	200.0	208.3	
18 Trichlorofluoromethane	101	2.888	2.888	0.000	75	676788	200.0	214.4	
20 Ethyl ether	59	3.357	3.357	0.000	64	192132	200.0	191.9	
21 Acrolein	56	3.509	3.509	0.000	53	97483	600.0	1410.0	E
22 1,1-Dichloroethene	96	3.588	3.588	0.000	84	275457	200.0	230.8	
23 1,1,2-Trichloro-1,2,2-trif	101	3.691	3.691	0.000	91	318693	200.0	229.7	
24 Acetone	43	3.801	3.801	0.000	38	124444	400.0	450.3	
25 Iodomethane	142	3.801	3.801	0.000	97	584739	200.0	234.3	
26 Carbon disulfide	76	3.837	3.837	0.000	100	797790	200.0	222.6	M
28 3-Chloro-1-propene	76	4.148	4.148	0.000	65	185388	200.0	210.6	
30 Methyl acetate	43	4.294	4.294	0.000	97	528666	1000.0	892.8	
31 Methylene Chloride	84	4.373	4.373	0.000	95	302983	200.0	236.6	
33 Acrylonitrile	53	4.792	4.792	0.000	98	439535	2000.0	1855.6	
32 2-Methyl-2-propanol	59	4.786	4.786	0.000	91	127265	2000.0	17473	E
34 trans-1,2-Dichloroethene	96	4.792	4.792	0.000	98	310787	200.0	209.9	
35 Methyl tert-butyl ether	73	4.847	4.847	0.000	97	653095	200.0	223.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
36 Hexane	57	5.170	5.170	0.000	92	251803	200.0	162.6	
38 Vinyl acetate	43	5.176	5.176	0.000	71	206743	200.0	177.1	
37 1,1-Dichloroethane	63	5.358	5.358	0.000	98	497499	200.0	229.3	
44 2,2-Dichloropropane	77	6.088	6.088	0.000	82	498481	200.0	275.0	
45 cis-1,2-Dichloroethene	96	6.094	6.094	0.000	86	351872	200.0	239.5	
46 2-Butanone (MEK)	43	6.161	6.161	0.000	93	134965	400.0	338.8	
49 Chlorobromomethane	128	6.380	6.380	0.000	88	179056	200.0	211.6	
52 Chloroform	83	6.496	6.496	0.000	94	579461	200.0	237.1	
53 1,1,1-Trichloroethane	97	6.684	6.684	0.000	96	567020	200.0	255.5	
51 Tetrahydrofuran	42	6.739	6.739	0.000	32	99552	400.0	456.8	
54 Cyclohexane	56	6.739	6.739	0.000	90	355430	200.0	227.0	
56 Carbon tetrachloride	117	6.867	6.867	0.000	95	547394	200.0	244.5	
55 1,1-Dichloropropene	75	6.873	6.873	0.000	79	339605	200.0	211.9	
58 Benzene	78	7.092	7.092	0.000	96	962009	200.0	219.9	
59 1,2-Dichloroethane	62	7.122	7.122	0.000	98	325996	200.0	220.7	
62 n-Heptane	43	7.414	7.414	0.000	59	230087	200.0	169.7	
57 Isobutyl alcohol	41	7.402	7.402	0.000	50	176733	5000.0	4953.1	
64 Trichloroethene	130	7.792	7.792	0.000	95	358996	200.0	204.7	
66 Methylcyclohexane	83	7.992	7.992	0.000	88	417721	200.0	193.8	
67 1,2-Dichloropropane	63	8.029	8.029	0.000	74	215707	200.0	216.5	
68 Dibromomethane	93	8.150	8.150	0.000	95	170874	200.0	230.3	
70 1,4-Dioxane	88	8.187	8.187	0.000	87	24698	4000.0	3546.3	
71 Dichlorobromomethane	83	8.315	8.315	0.000	98	452695	200.0	245.1	
74 cis-1,3-Dichloropropene	75	8.765	8.765	0.000	93	433749	200.0	226.3	
75 4-Methyl-2-pentanone (MIBK	43	8.929	8.929	0.000	96	267195	400.0	318.5	
76 Toluene	91	9.099	9.099	0.000	97	1033272	200.0	201.3	
77 trans-1,3-Dichloropropene	75	9.325	9.325	0.000	96	350326	200.0	194.1	
78 Ethyl methacrylate	69	9.416	9.416	0.000	88	222057	200.0	185.0	
79 1,1,2-Trichloroethane	97	9.507	9.507	0.000	94	195873	200.0	190.1	
80 Tetrachloroethene	164	9.647	9.647	0.000	92	275068	200.0	204.3	
81 1,3-Dichloropropane	76	9.671	9.671	0.000	93	295638	200.0	194.1	
82 2-Hexanone	43	9.763	9.763	0.000	97	195360	400.0	361.1	
84 Chlorodibromomethane	129	9.896	9.896	0.000	90	351108	200.0	198.2	
85 Ethylene Dibromide	107	10.012	10.012	0.000	97	219482	200.0	188.1	
87 Chlorobenzene	112	10.493	10.493	0.000	94	776154	200.0	212.1	
89 1,1,1,2-Tetrachloroethane	131	10.572	10.572	0.000	92	365032	200.0	206.3	
90 Ethylbenzene	106	10.602	10.602	0.000	98	403178	200.0	193.9	
91 m-Xylene & p-Xylene	106	10.718	10.718	0.000	98	525408	200.0	187.5	
92 o-Xylene	106	11.113	11.113	0.000	94	556516	200.0	197.7	
93 Styrene	104	11.125	11.125	0.000	93	803369	200.0	208.1	
94 Bromoform	173	11.314	11.314	0.000	93	184522	200.0	183.9	
97 Isopropylbenzene	105	11.478	11.478	0.000	96	1344352	200.0	195.2	
99 1,1,2,2-Tetrachloroethane	83	11.770	11.770	0.000	97	176988	200.0	163.7	
100 Bromobenzene	156	11.782	11.782	0.000	88	338974	200.0	276.1	
101 1,2,3-Trichloropropane	110	11.819	11.819	0.000	83	59907	200.0	217.9	
102 trans-1,4-Dichloro-2-buten	53	11.825	11.825	0.000	75	30288	200.0	175.9	
103 N-Propylbenzene	120	11.886	11.886	0.000	97	362162	200.0	240.3	
104 2-Chlorotoluene	126	11.977	11.977	0.000	96	360422	200.0	263.5	
106 1,3,5-Trimethylbenzene	105	12.062	12.062	0.000	96	908911	200.0	263.7	
107 4-Chlorotoluene	126	12.086	12.086	0.000	97	315194	200.0	240.4	
108 tert-Butylbenzene	119	12.385	12.385	0.000	91	881755	200.0	208.1	
110 1,2,4-Trimethylbenzene	105	12.433	12.433	0.000	96	877486	200.0	238.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
112 sec-Butylbenzene	105	12.604	12.604	0.000	94	968854	200.0	199.7	
113 1,3-Dichlorobenzene	146	12.719	12.719	0.000	98	484753	200.0	198.2	
114 4-Isopropyltoluene	119	12.750	12.750	0.000	96	972194	200.0	227.2	
115 1,4-Dichlorobenzene	146	12.810	12.810	0.000	96	484017	200.0	213.0	
120 n-Butylbenzene	91	13.163	13.163	0.000	96	820669	200.0	231.4	
121 1,2-Dichlorobenzene	146	13.188	13.188	0.000	97	428284	200.0	192.4	
122 1,2-Dibromo-3-Chloropropan	75	13.966	13.966	0.000	84	28961	200.0	256.3	
126 1,2,4-Trichlorobenzene	180	14.800	14.800	0.000	95	212827	200.0	301.5	
127 Hexachlorobutadiene	225	14.970	14.970	0.000	92	139590	200.0	330.0	
128 Naphthalene	128	15.049	15.049	0.000	97	371949	200.0	321.7	
129 1,2,3-Trichlorobenzene	180	15.305	15.305	0.000	95	142204	200.0	294.4	
S 134 1,2-Dichloroethene, Total	96				0		400.0	449.4	
S 133 Xylenes, Total	106				0		400.0	385.1	
S 135 1,3-Dichloropropene, Total	1				0		400.0	420.5	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Review Flags

M - Manually Integrated

Reagents:

voaWketmix1Re_00001	Amount Added:	8.00	Units: uL	
VOA8260VOAPRI_00121	Amount Added:	8.00	Units: uL	
voaWVA1st Res_00001	Amount Added:	8.00	Units: uL	
VOAACRLOEINPR_00001	Amount Added:	24.00	Units: uL	
VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

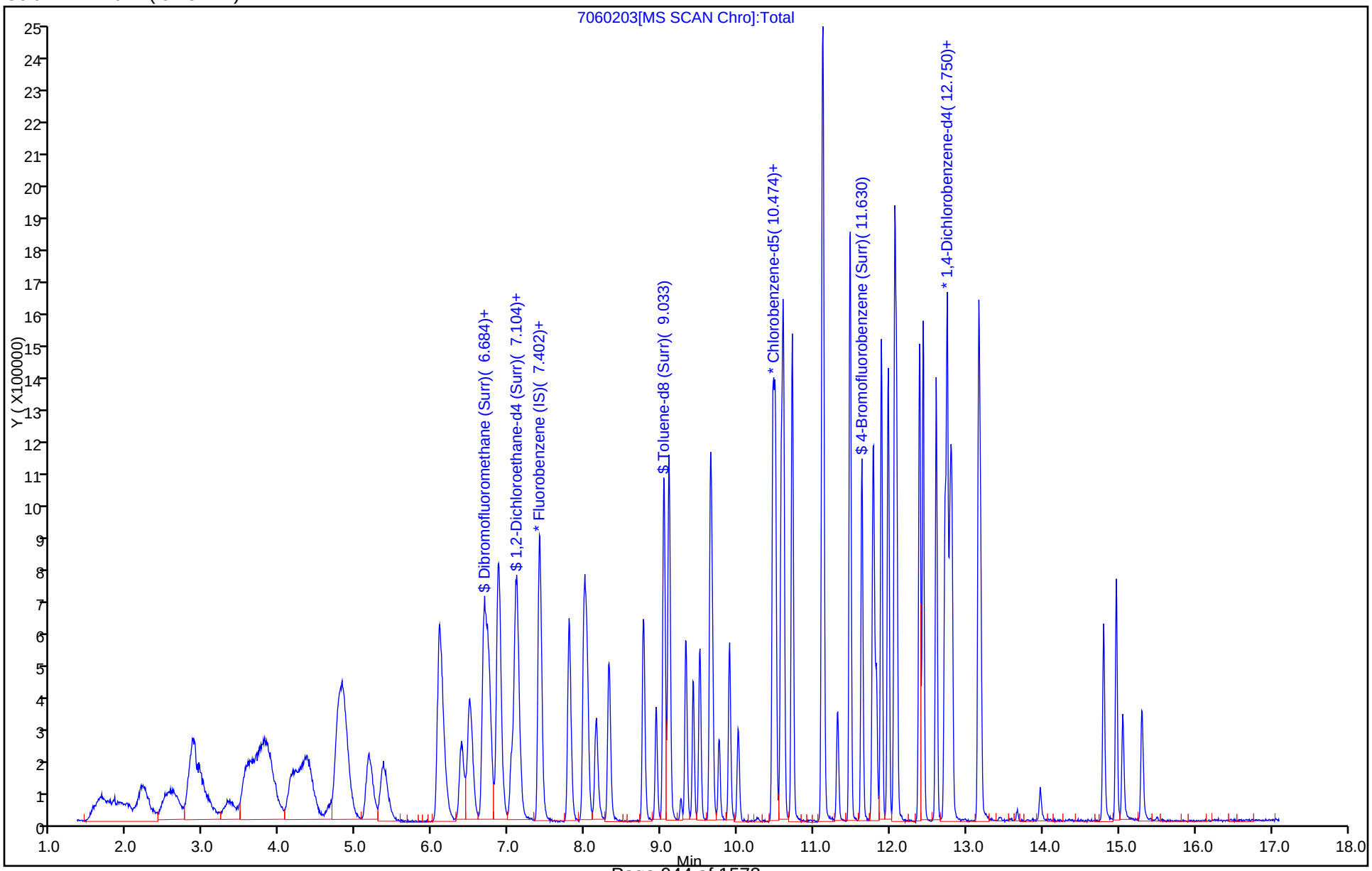
Report Date: 02-Jun-2015 15:41:08 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060203.D

Injection Date:	02-Jun-2015 10:22:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	CCVIS			Worklist Smp#:	3
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



Manual Integration/User Assign Peak Report

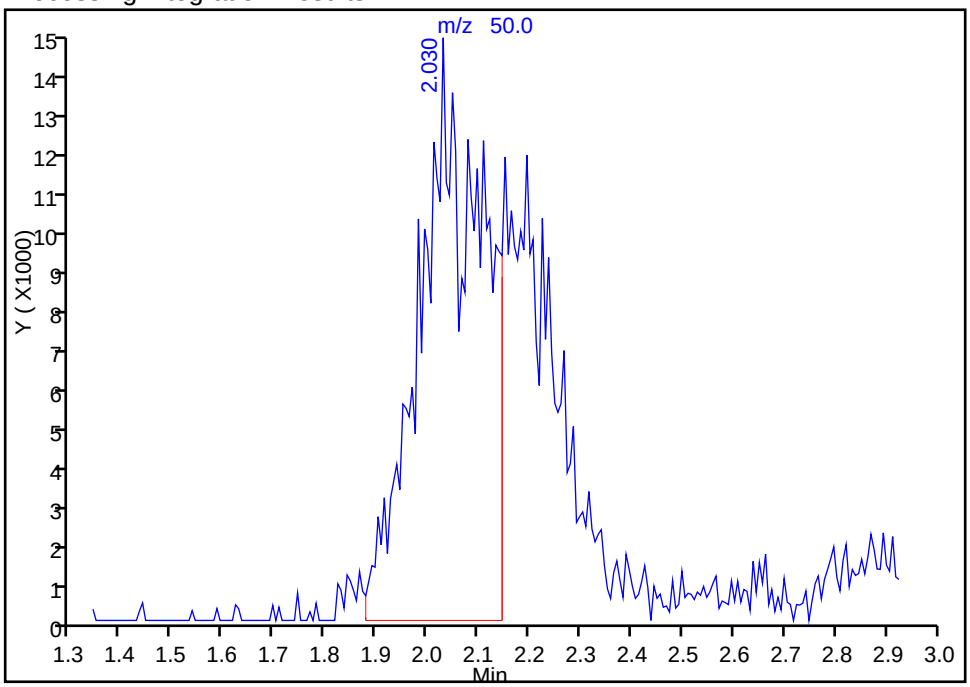
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060203.D				
Injection Date:	02-Jun-2015 10:22:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

12 Chloromethane, CAS: 74-87-3

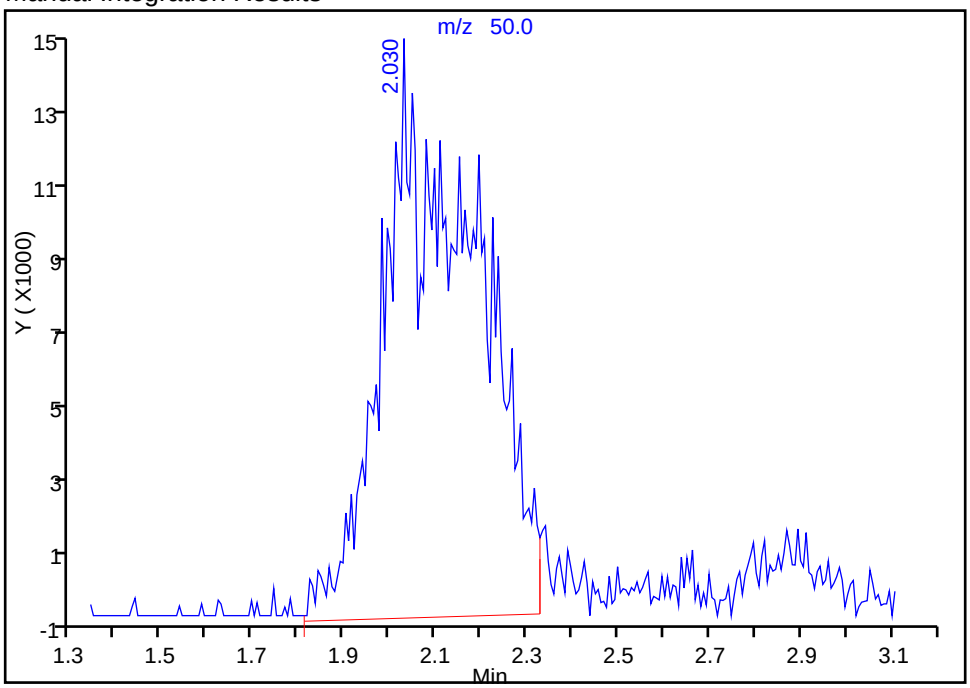
Processing Integration Results

RT: 2.03
Area: 124146
Amount: 69.174117
Amount Units: ng



Manual Integration Results

RT: 2.03
Area: 201249
Amount: 112.1359
Amount Units: ng



Reviewer: journetp, 02-Jun-2015 10:57:44
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

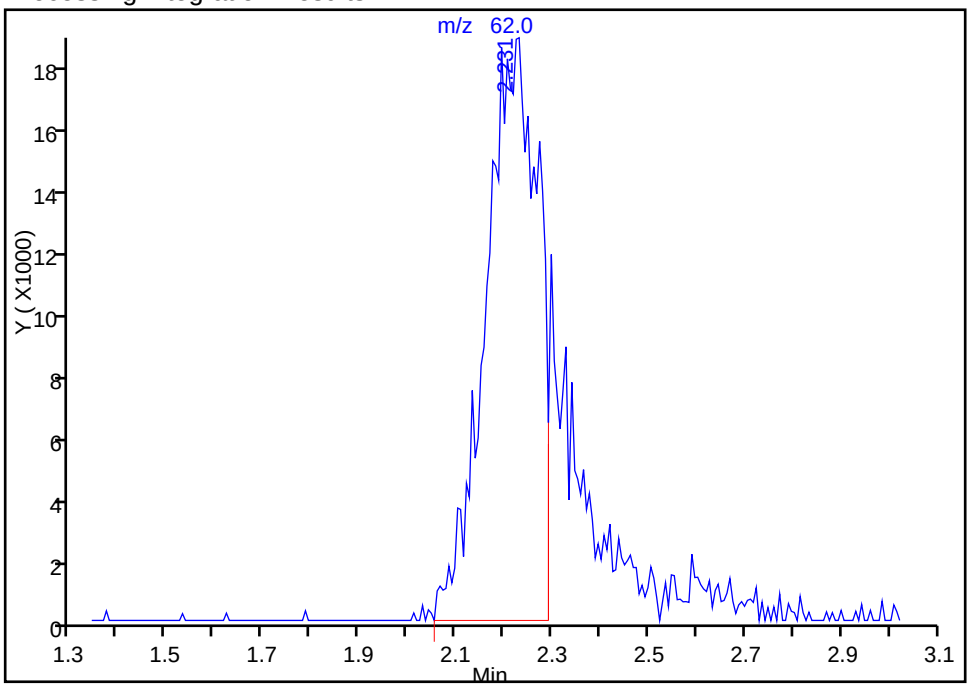
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060203.D				
Injection Date:	02-Jun-2015 10:22:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

13 Vinyl chloride, CAS: 75-01-4

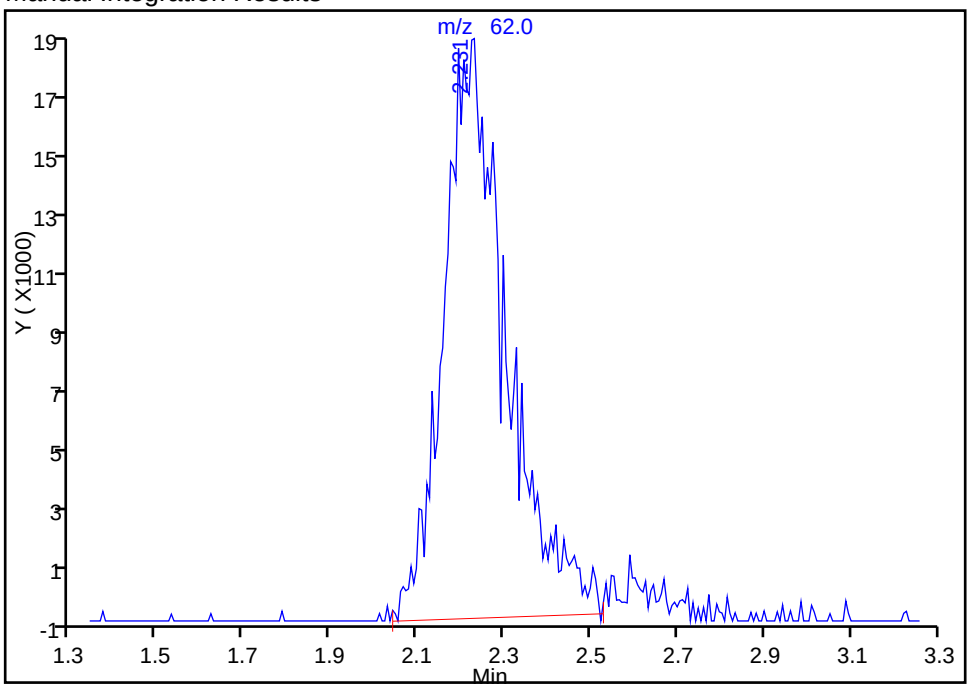
Processing Integration Results

RT: 2.23
Area: 138990
Amount: 99.449190
Amount Units: ng



Manual Integration Results

RT: 2.23
Area: 182517
Amount: 130.5933
Amount Units: ng



Reviewer: journetp, 02-Jun-2015 10:57:44
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

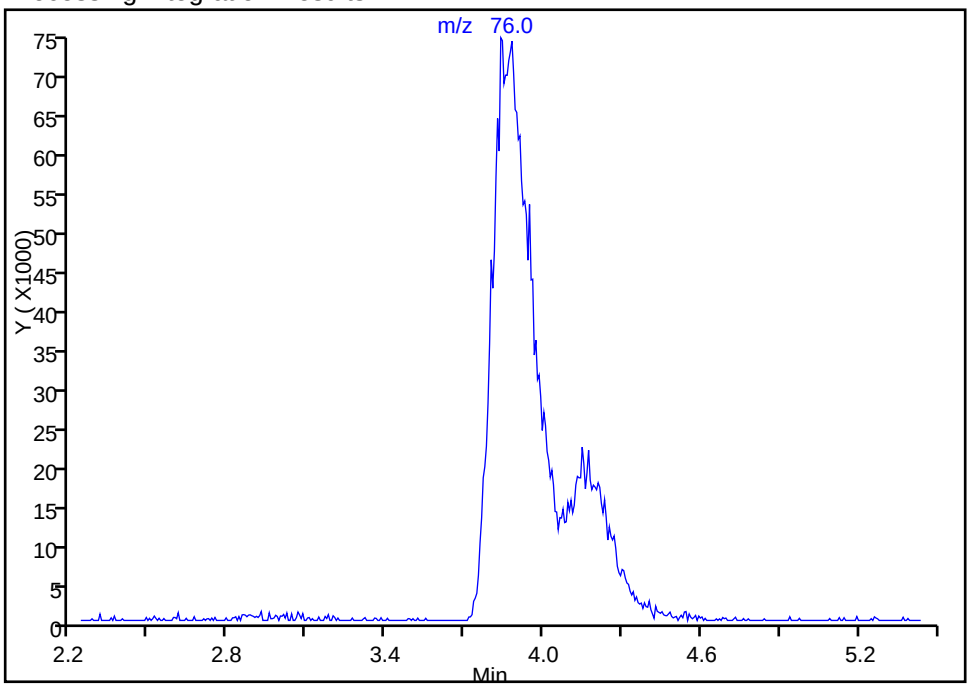
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060203.D				
Injection Date:	02-Jun-2015 10:22:30	Instrument ID:	CHHP7		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	3	Worklist Smp#:	3
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

26 Carbon disulfide, CAS: 75-15-0

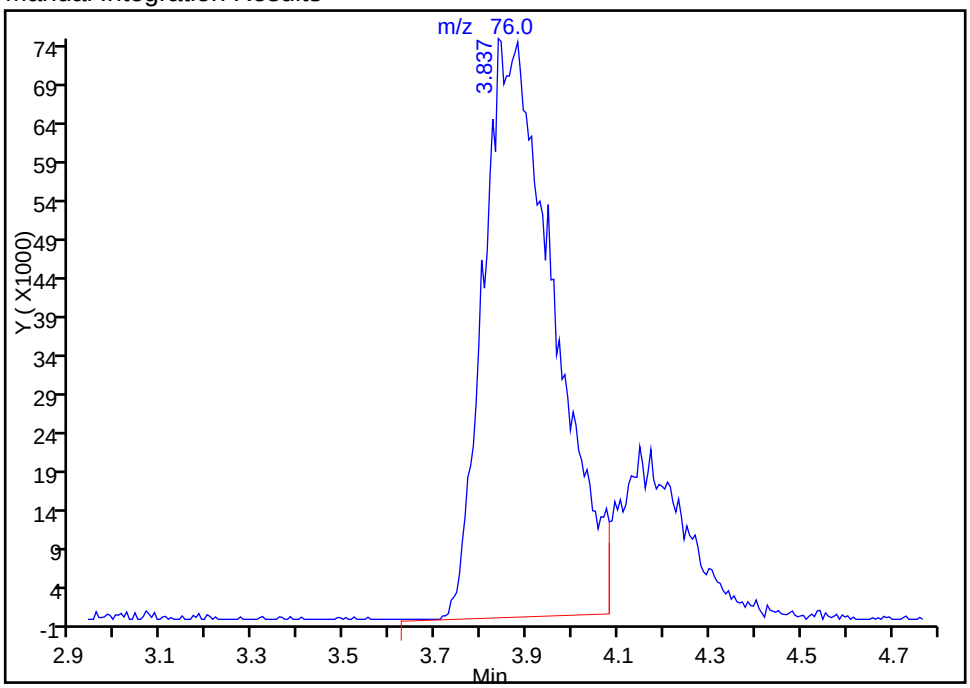
Processing Integration Results

Not Detected
Expected RT: 3.84



Manual Integration Results

RT: 3.84
Area: 797790
Amount: 222.5900
Amount Units: ng



Reviewer: journetp, 02-Jun-2015 11:30:25
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501005.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 01-May-2015 11:31:30 ALS Bottle#: 1 Worklist Smp#: 5
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: BFB
Misc. Info.: 180-0006721-005
Operator ID: 001562 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 02-May-2015 10:49:22 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK027

First Level Reviewer: fergusond Date: 01-May-2015 11:43:54

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	8.383	8.383	0.000	0	105205	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

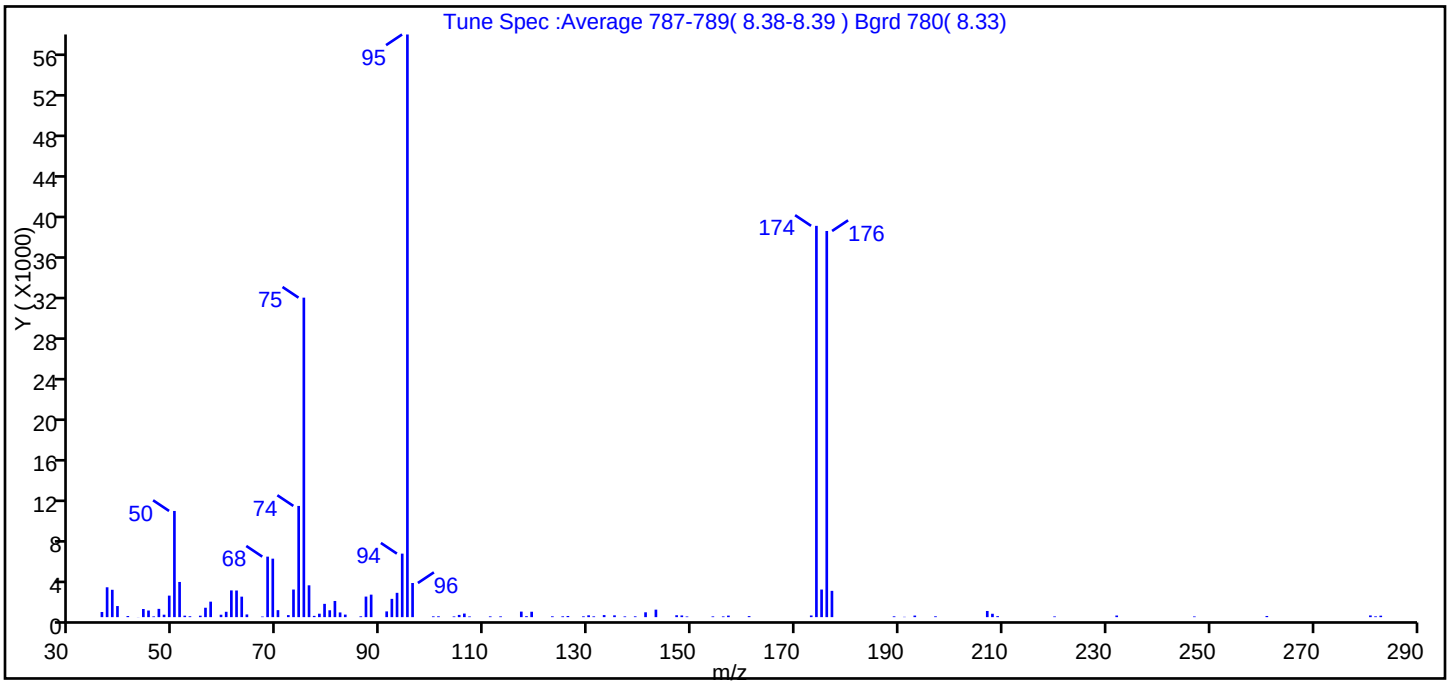
VOABFB25_00060 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501005.D				
Injection Date:	01-May-2015 11:31:30	Instrument ID:	CHHP6		
Lims ID:	BFB				
Client ID:					
Operator ID:	001562	ALS Bottle#:	1	Worklist Smp#:	5
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Tune Method:	BFB Method 8260				

$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	18.2
75	30 to 60% of m/z 95	54.8
96	5 to 9% of m/z 95	5.9
173	Less than 2% of m/z 174	0.3 (0.4)
174	50 to 120% of m/z 95	67.2
175	5 to 9% of m/z 174	4.7 (7.1)
176	Greater than 95% but less than 101% of m/z 174	66.3 (98.7)
177	5 to 9% of m/z 176	4.5 (6.8)

Data File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501005.D\MSVOA_LL_CHHP6.rslt\spectra.d
Injection Date: 01-May-2015 11:31:30
Spectrum: Tune Spec :Average 787-789(8.38-8.39) Bgrd 780(8.33)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 99

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	506	67.00	57	100.00	77	149.00	67
37.00	2928	68.00	5932	101.00	83	154.00	74
38.00	2682	69.00	5733	104.00	70	156.00	72
39.00	1088	70.00	686	105.00	218	157.00	150
41.00	109	72.00	199	106.00	351	161.00	101
43.00	11	73.00	2708	107.00	68	173.00	163
44.00	797	74.00	10903	111.00	75	174.00	38360
45.00	649	75.00	31320	113.00	75	175.00	2707
46.00	74	76.00	3120	117.00	543	176.00	37856
47.00	812	77.00	124	118.00	93	177.00	2578
48.00	240	78.00	337	119.00	530	189.00	80
49.00	2111	79.00	1303	123.00	82	191.00	31
50.00	10410	80.00	674	125.00	80	193.00	153
51.00	3450	81.00	1586	126.00	113	197.00	83
52.00	145	82.00	461	129.00	79	207.00	605
53.00	88	83.00	250	130.00	179	208.00	332
55.00	142	86.00	81	131.00	78	209.00	97
56.00	922	87.00	2015	133.00	202	220.00	70
57.00	1518	88.00	2206	135.00	177	232.00	159
59.00	237	91.00	564	137.00	73	247.00	68
60.00	526	92.00	1792	139.00	80	261.00	113
61.00	2621	93.00	2384	141.00	475	281.00	166
62.00	2611	94.00	6227	143.00	735	282.00	79
63.00	2009	95.00	57120	147.00	187	283.00	144
64.00	265	96.00	3347	148.00	166		

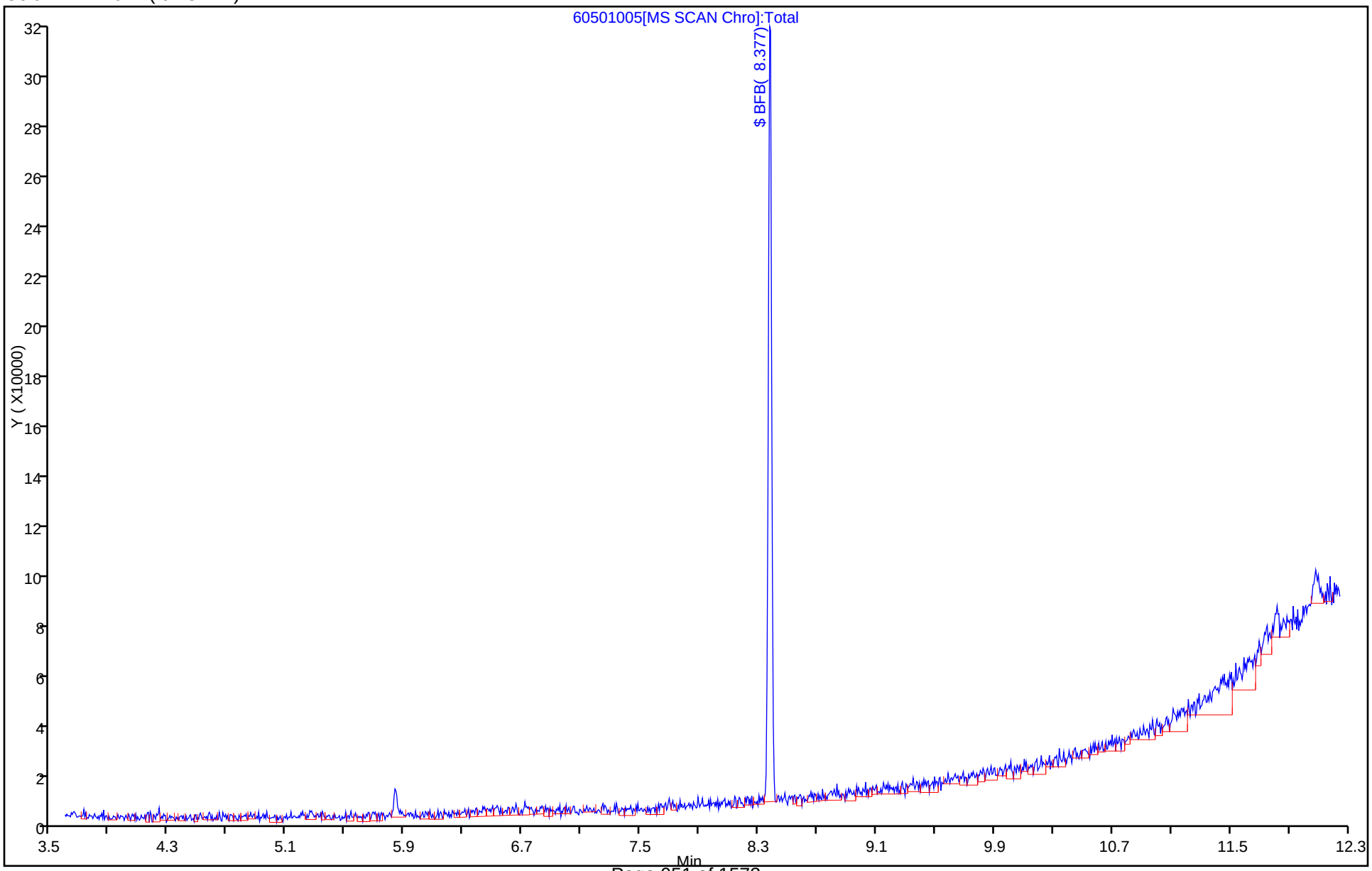
Report Date: 02-May-2015 10:49:23 Chrom Revision: 2.2 09-Apr-2015 10:05:40

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501005.D

Injection Date:	01-May-2015 11:31:30	Instrument ID:	CHHP6	Operator ID:	001562
Lims ID:	BFB			Worklist Smp#:	5
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530001.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 31-May-2015 07:53:30 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: BFB
Misc. Info.: 180-0007190-001
Operator ID: 034635 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 31-May-2015 16:21:02 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK001

First Level Reviewer: journetp Date: 31-May-2015 08:14:29

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	8.380	8.380	0.000	0	456232	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

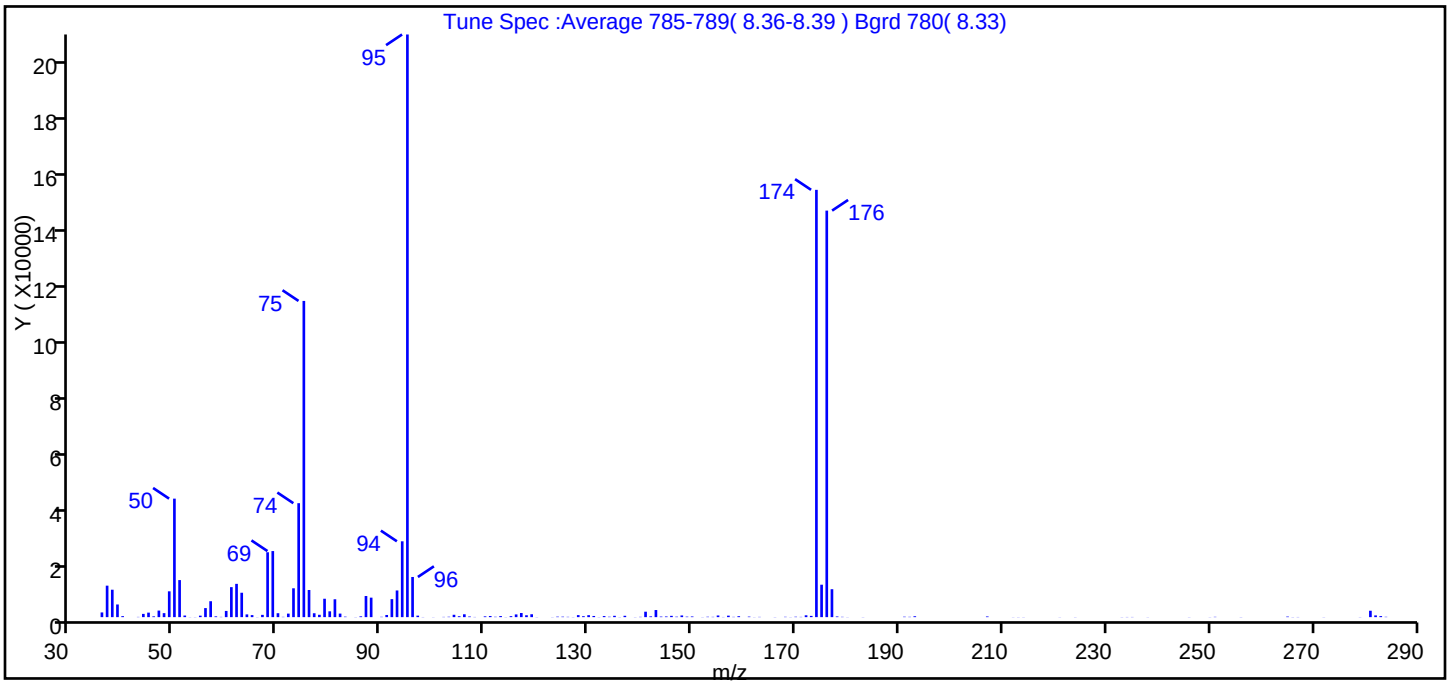
voabfb25_00062 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530001.D				
Injection Date:	31-May-2015 07:53:30	Instrument ID:	CHHP6		
Lims ID:	BFB				
Client ID:					
Operator ID:	034635	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		
Tune Method:	BFB Method 8260				

$ 10 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	20.3
75	30 to 60% of m/z 95	54.3
96	5 to 9% of m/z 95	6.9
173	Less than 2% of m/z 174	0.2 (0.3)
174	50 to 120% of m/z 95	73.3
175	5 to 9% of m/z 174	5.6 (7.6)
176	Greater than 95% but less than 101% of m/z 174	69.8 (95.1)
177	5 to 9% of m/z 176	4.8 (6.9)

Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530001.D\MSVOA_LL_CHHP6.rslt\spectra.d
Injection Date: 31-May-2015 07:53:30
Spectrum: Tune Spec :Average 785-789(8.36-8.39) Bgrd 780(8.33)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 157

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1655	78.00	829	125.00	165	171.00	87
37.00	11062	79.00	6466	126.00	108	172.00	650
38.00	9637	80.00	2049	127.00	50	173.00	441
39.00	4454	81.00	6282	128.00	711	174.00	150144
40.00	353	82.00	1248	129.00	327	175.00	11397
43.00	83	83.00	171	130.00	691	176.00	142848
44.00	1144	85.00	47	131.00	410	177.00	9816
45.00	1583	86.00	284	132.00	49	178.00	239
46.00	276	87.00	7425	133.00	378	179.00	108
47.00	2306	88.00	6852	134.00	142	180.00	41
48.00	1407	90.00	116	135.00	472	183.00	45
49.00	9074	91.00	761	136.00	49	191.00	155
50.00	41640	92.00	6324	137.00	478	192.00	112
51.00	13022	93.00	9374	139.00	47	193.00	312
52.00	565	94.00	26648	140.00	102	207.00	239
53.00	45	95.00	204736	141.00	1913	212.00	40
54.00	46	96.00	14112	142.00	274	213.00	45
55.00	517	97.00	528	143.00	2498	214.00	43
56.00	3180	98.00	53	144.00	198	221.00	40
57.00	5594	100.00	40	145.00	237	224.00	44
58.00	276	102.00	86	146.00	460	233.00	46
59.00	89	103.00	137	147.00	165	234.00	61
60.00	2183	104.00	832	148.00	594	235.00	65
61.00	10542	105.00	314	149.00	174	238.00	40
62.00	11696	106.00	1008	150.00	235	246.00	45
63.00	8575	107.00	221	152.00	47	250.00	42
64.00	966	108.00	67	153.00	140	251.00	109
65.00	714	110.00	277	154.00	100	256.00	51
66.00	42	111.00	397	155.00	584	265.00	198
67.00	802	112.00	128	156.00	58	266.00	51
68.00	22800	113.00	382	157.00	524	267.00	58
69.00	23216	114.00	46	158.00	99	272.00	43
70.00	1383	115.00	346	159.00	325	279.00	52

Report Date: 31-May-2015 16:21:03 Chrom Revision: 2.2 05-May-2015 11:39:10
Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530001.D\MSVOA_LL_CHHP6.rslt\spectra.d
Injection Date: 31-May-2015 07:53:30
Spectrum: Tune Spec :Average 785-789(8.36-8.39) Bgrd 780(8.33)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 157

m/z	Y	m/z	Y	m/z	Y	m/z	Y
71.00	101	116.00	959	161.00	191	281.00	2249
72.00	1243	117.00	1452	162.00	41	282.00	609
73.00	10138	118.00	665	163.00	89	283.00	373
74.00	40040	119.00	1021	166.00	50	284.00	117
75.00	111112	120.00	48	168.00	118		
76.00	9536	123.00	46	169.00	44		
77.00	1369	124.00	171	170.00	146		

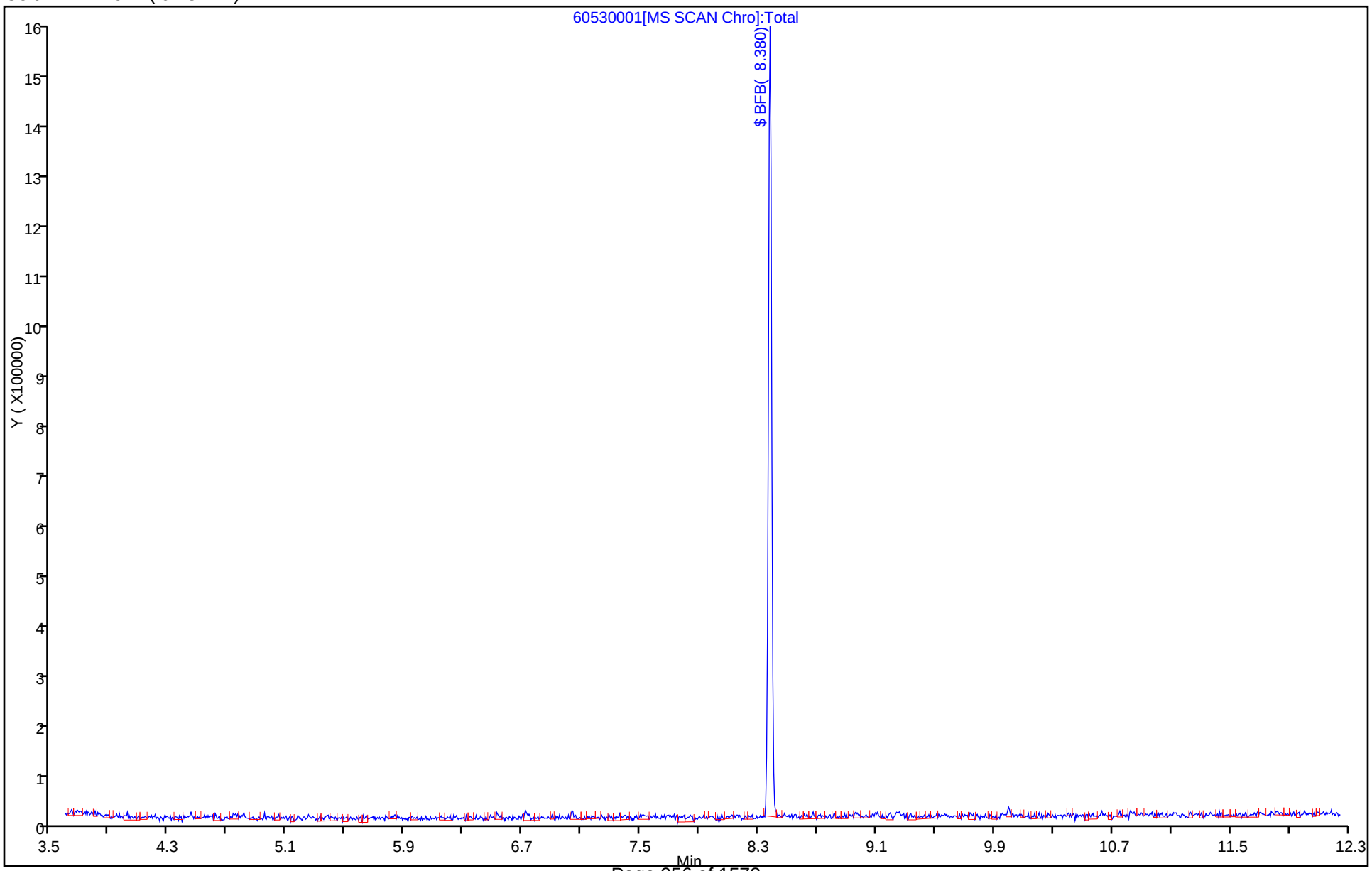
Report Date: 31-May-2015 16:21:03 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530001.D

Injection Date:	31-May-2015 07:53:30	Instrument ID:	CHHP6	Operator ID:	034635
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033001.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	30-Mar-2015 09:32:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Sample Info:	BFB				
Misc. Info.:	180-0006234-001				
Operator ID:	034635	Instrument ID:	CHHP7		
Method:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\MSVOA_LL_CHHP7.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	31-Mar-2015 08:54:12	Calib Date:	30-Mar-2015 14:36:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.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	11.637	11.637	0.000	0	289971	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

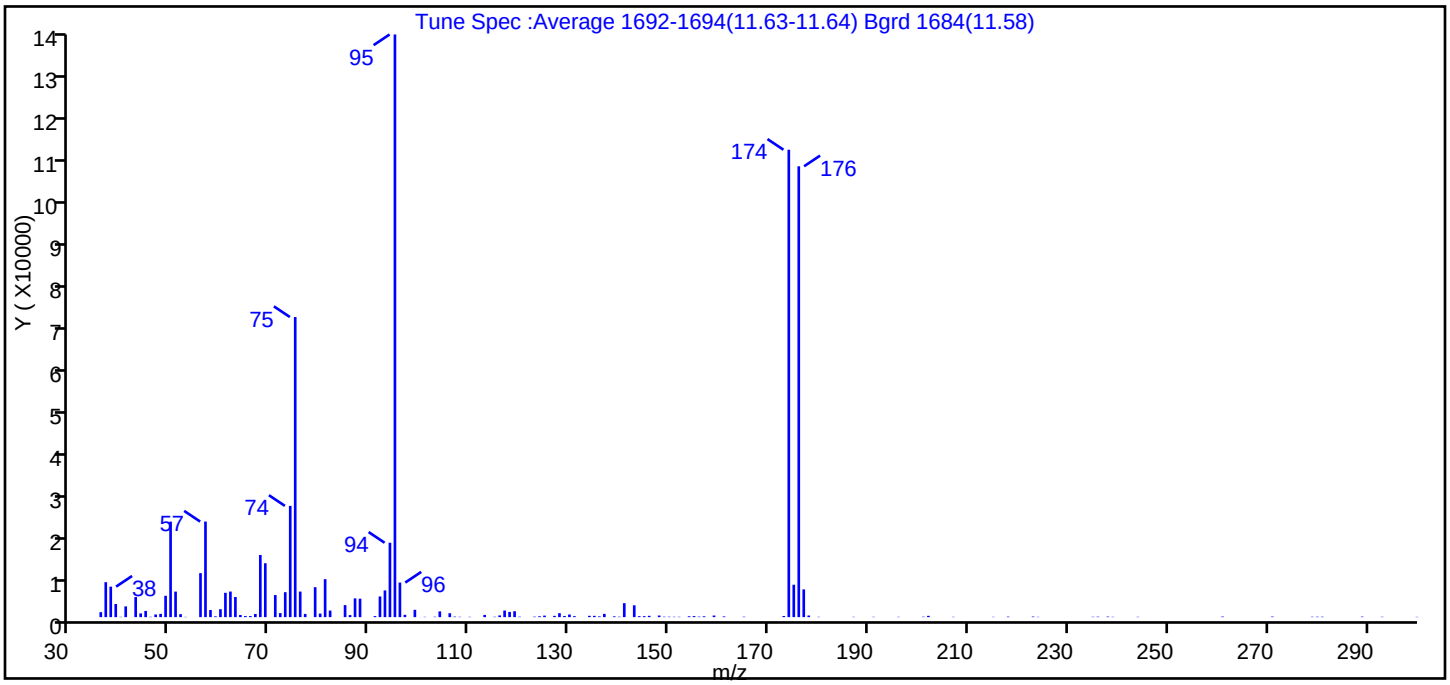
VOABFB25_00059 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033001.D				
Injection Date:	30-Mar-2015 09:32:30	Instrument ID:	CHHP7		
Lims ID:	BFB				
Client ID:					
Operator ID:	034635	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	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	16.4
75	30 to 60% of m/z 95	51.5
96	5 to 9% of m/z 95	5.9
173	Less than 2% of m/z 174	0.2 (0.3)
174	50 to 120% of m/z 95	80.2
175	5 to 9% of m/z 174	5.6 (6.9)
176	Greater than 95% but less than 101% of m/z 174	77.4 (96.5)
177	5 to 9% of m/z 176	4.8 (6.2)

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033001.D\MSVOA_LL_CHHP7.rslt\spectra.d
Injection Date: 30-Mar-2015 09:32:30
Spectrum: Tune Spec :Average 1692-1694(11.63-11.64) Bgrd 1684(11.58)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 130

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1170	73.00	5848	118.00	1221	165.00	105
37.00	8186	74.00	26056	119.00	1385	173.00	274
38.00	7142	75.00	70280	120.00	109	174.00	109456
39.00	3083	76.00	5984	123.00	114	175.00	7591
40.00	73	77.00	754	124.00	206	176.00	105584
41.00	2517	79.00	7016	125.00	361	177.00	6501
43.00	4710	80.00	834	127.00	306	178.00	384
44.00	876	81.00	8896	128.00	933	180.00	78
45.00	1453	82.00	1533	129.00	273	187.00	76
46.00	79	85.00	2824	130.00	615	191.00	77
47.00	624	86.00	480	131.00	233	196.00	76
48.00	770	87.00	4396	134.00	310	201.00	102
49.00	5005	88.00	4323	135.00	303	202.00	305
50.00	22368	91.00	251	136.00	171	207.00	75
51.00	5983	92.00	4844	137.00	763	215.00	70
52.00	702	93.00	6261	139.00	182	218.00	122
53.00	62	94.00	17424	140.00	99	223.00	137
56.00	10307	95.00	136448	141.00	3269	224.00	69
57.00	22384	96.00	8098	143.00	2771	235.00	86
58.00	1668	97.00	542	144.00	224	236.00	111
59.00	184	99.00	1717	145.00	225	238.00	129
60.00	1857	100.00	12	146.00	313	239.00	76
61.00	5703	101.00	71	148.00	379	244.00	79
62.00	5994	103.00	96	149.00	101	261.00	131
63.00	4718	104.00	1345	150.00	102	271.00	130
64.00	499	106.00	915	151.00	87	279.00	94
65.00	255	107.00	125	152.00	86	280.00	103
66.00	253	108.00	78	154.00	202	281.00	102
67.00	743	110.00	74	155.00	243	289.00	120
68.00	14557	113.00	515	156.00	115	293.00	88
69.00	12624	115.00	90	157.00	197	300.00	69
71.00	5173	116.00	405	159.00	377		
72.00	939	117.00	1555	161.00	170		

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1170	73.00	5848	118.00	1221	165.00	105
37.00	8186	74.00	26056	119.00	1385	173.00	274
38.00	7142	75.00	70280	120.00	109	174.00	109456
39.00	3083	76.00	5984	123.00	114	175.00	7591
40.00	73	77.00	754	124.00	206	176.00	105584
41.00	2517	79.00	7016	125.00	361	177.00	6501
43.00	4710	80.00	834	127.00	306	178.00	384
44.00	876	81.00	8896	128.00	933	180.00	78
45.00	1453	82.00	1533	129.00	273	187.00	76
46.00	79	85.00	2824	130.00	615	191.00	77
47.00	624	86.00	480	131.00	233	196.00	76
48.00	770	87.00	4396	134.00	310	201.00	102
49.00	5005	88.00	4323	135.00	303	202.00	305
50.00	22368	91.00	251	136.00	171	207.00	75
51.00	5983	92.00	4844	137.00	763	215.00	70
52.00	702	93.00	6261	139.00	182	218.00	122
53.00	62	94.00	17424	140.00	99	223.00	137
56.00	10307	95.00	136448	141.00	3269	224.00	69
57.00	22384	96.00	8098	143.00	2771	235.00	86
58.00	1668	97.00	542	144.00	224	236.00	111
59.00	184	99.00	1717	145.00	225	238.00	129
60.00	1857	100.00	12	146.00	313	239.00	76
61.00	5703	101.00	71	148.00	379	244.00	79
62.00	5994	103.00	96	149.00	101	261.00	131
63.00	4718	104.00	1345	150.00	102	271.00	130
64.00	499	106.00	915	151.00	87	279.00	94
65.00	255	107.00	125	152.00	86	280.00	103
66.00	253	108.00	78	154.00	202	281.00	102
67.00	743	110.00	74	155.00	243	289.00	120
68.00	14557	113.00	515	156.00	115	293.00	88
69.00	12624	115.00	90	157.00	197	300.00	69
71.00	5173	116.00	405	159.00	377		
72.00	939	117.00	1555	161.00	170		

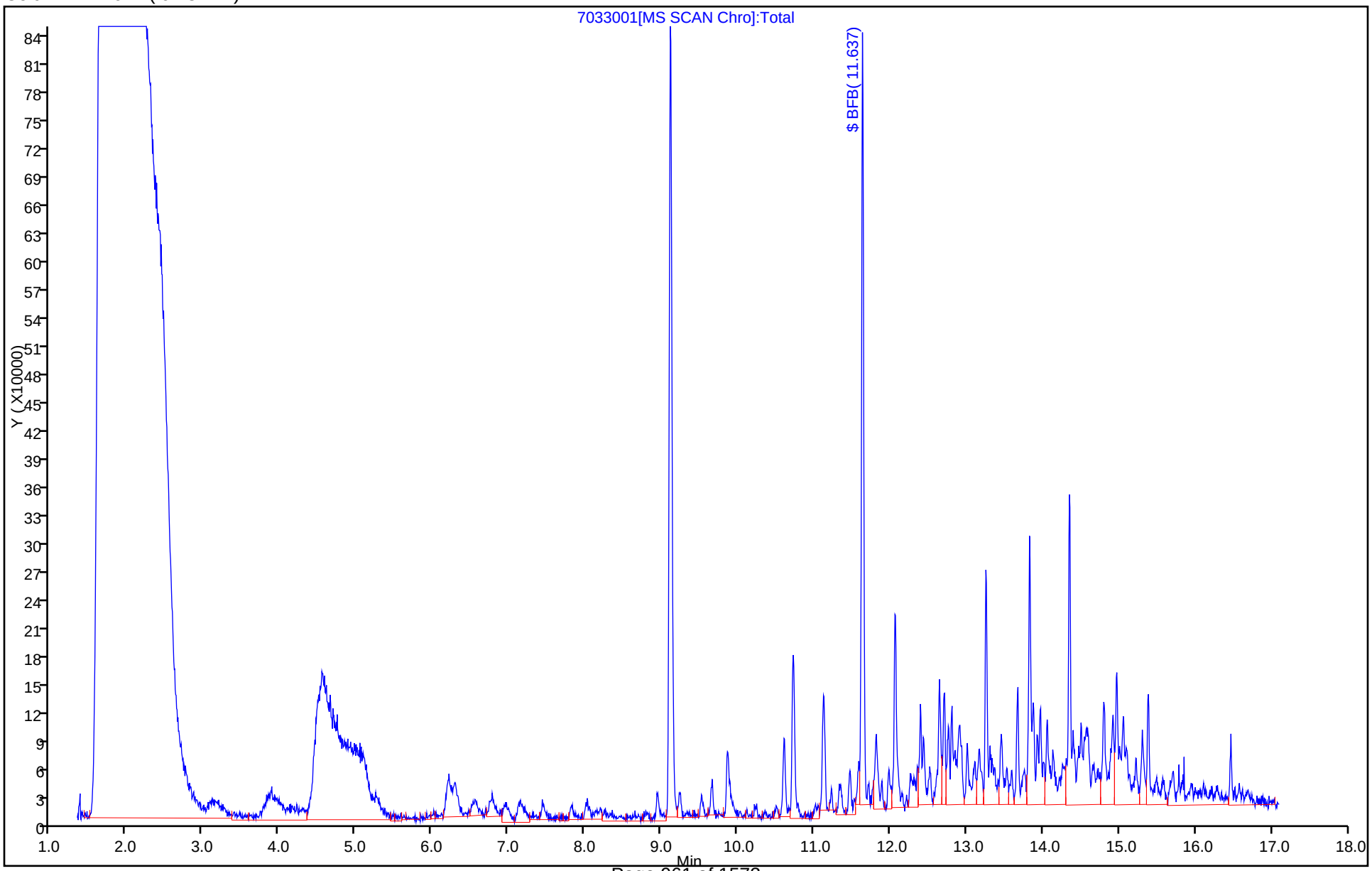
Report Date: 31-Mar-2015 08:54:13 Chrom Revision: 2.2 13-Mar-2015 11:20:44

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033001.D

Injection Date:	30-Mar-2015 09:32:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File:	\\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052901.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	29-May-2015 07:18:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Sample Info:	BFB				
Misc. Info.:	180-0007169-001				
Operator ID:	034635	Instrument ID:	CHHP7		
Method:	\\PITCHROM\ChromData\CHHP7\20150529-7169.b\MSVOA_LL_CHHP7.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	29-May-2015 18:32:21	Calib Date:	30-Mar-2015 14:36:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK015				

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	11.630	11.630	0.000	0	495432	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

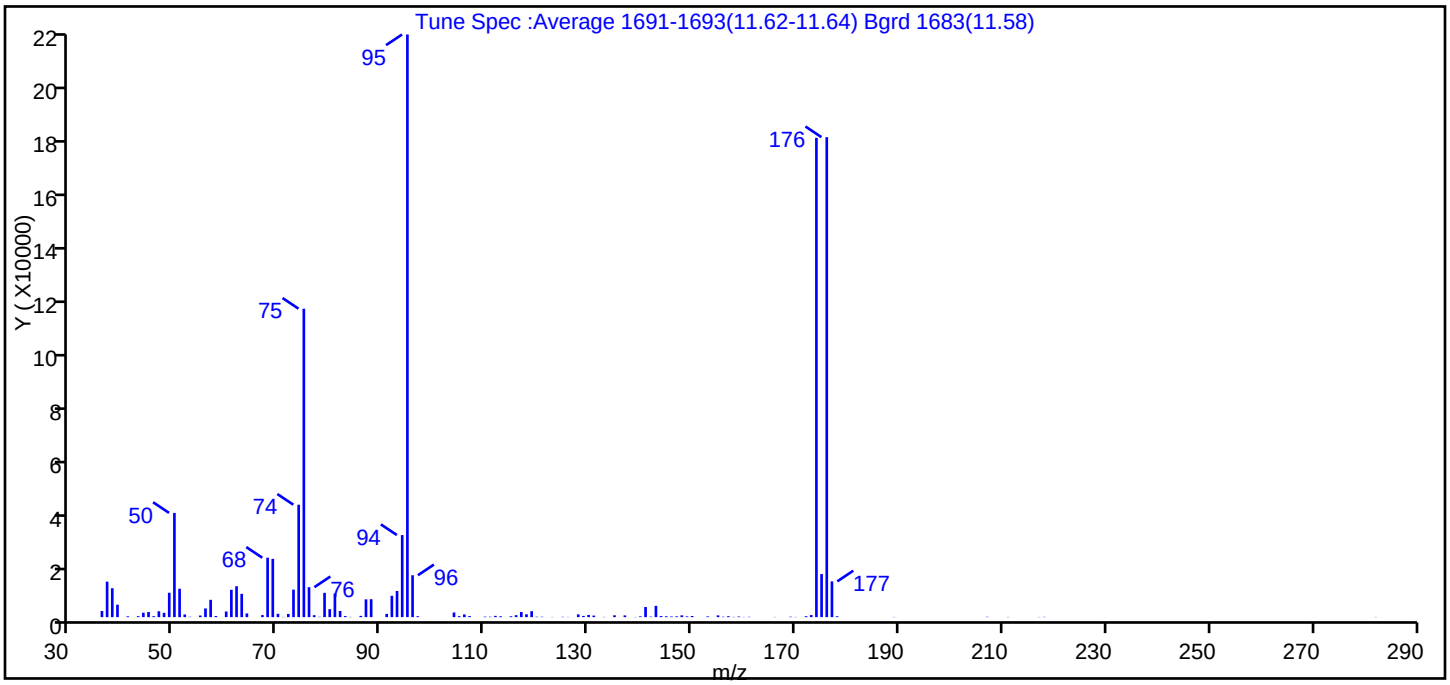
voabfb25_00062 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052901.D				
Injection Date:	29-May-2015 07:18:30	Instrument ID:	CHHP7		
Lims ID:	BFB				
Client ID:					
Operator ID:	034635	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	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	17.9
75	30 to 60% of m/z 95	52.9
96	5 to 9% of m/z 95	7.2
173	Less than 2% of m/z 174	0.4 (0.4)
174	50 to 120% of m/z 95	82.3
175	5 to 9% of m/z 174	7.4 (9.0)
176	Greater than 95% but less than 101% of m/z 174	82.4 (100.1)
177	5 to 9% of m/z 176	6.1 (7.5)

Data File: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052901.D\MSVOA_LL_CHHP7.rslt\spectra.d
Injection Date: 29-May-2015 07:18:30
Spectrum: Tune Spec :Average 1691-1693(11.62-11.64) Bgrd 1683(11.58)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 114

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2250	71.00	80	111.00	158	148.00	663
37.00	13030	72.00	1169	112.00	472	149.00	272
38.00	10612	73.00	10110	113.00	322	150.00	423
39.00	4566	74.00	41288	115.00	317	153.00	268
41.00	305	75.00	113264	116.00	720	155.00	649
43.00	348	76.00	11002	117.00	1881	156.00	155
44.00	1626	77.00	716	118.00	1056	157.00	350
45.00	1880	78.00	116	119.00	2183	158.00	95
46.00	350	79.00	8931	120.00	155	159.00	226
47.00	2163	80.00	2942	121.00	145	160.00	70
48.00	1588	81.00	8681	123.00	69	161.00	125
49.00	8950	82.00	2254	125.00	117	166.00	74
50.00	38272	83.00	389	126.00	74	169.00	168
51.00	10435	84.00	84	128.00	1021	170.00	77
52.00	983	86.00	475	129.00	441	172.00	344
53.00	140	87.00	6535	130.00	808	173.00	762
55.00	585	88.00	6591	131.00	574	174.00	176000
56.00	3196	91.00	1192	133.00	84	175.00	15820
57.00	6363	92.00	7831	135.00	676	176.00	176256
58.00	403	93.00	9608	137.00	641	177.00	13133
60.00	2084	94.00	30144	139.00	74	178.00	310
61.00	10048	95.00	213952	140.00	283	189.00	76
62.00	11359	96.00	15384	141.00	3715	207.00	129
63.00	8555	97.00	334	142.00	184	211.00	80
64.00	1370	104.00	1707	143.00	4148	217.00	73
67.00	751	105.00	353	144.00	399	218.00	102
68.00	21816	106.00	990	145.00	320	282.00	67
69.00	21408	107.00	382	146.00	235		
70.00	1230	110.00	196	147.00	289		

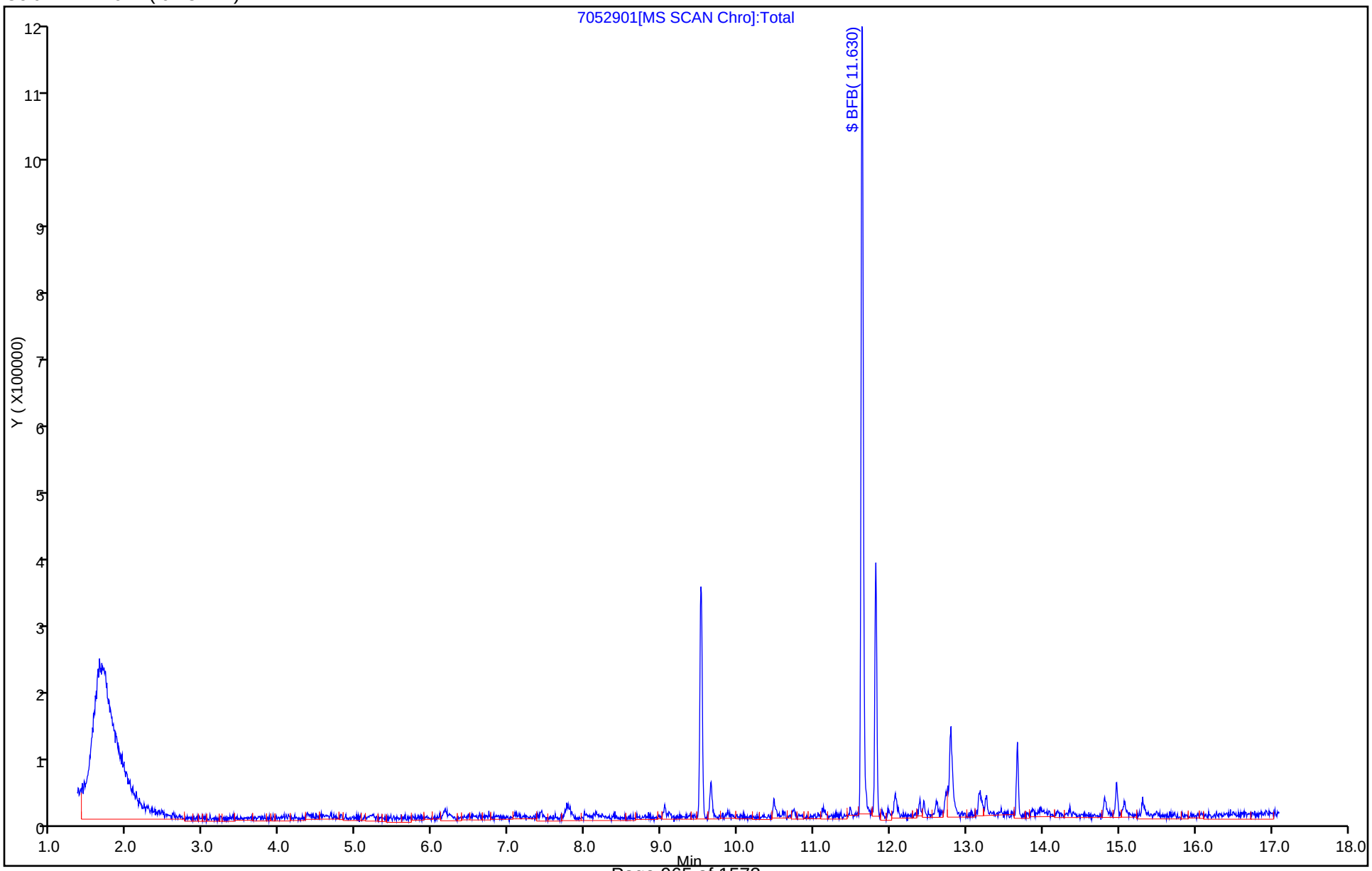
Report Date: 29-May-2015 18:32:22 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052901.D

Injection Date:	29-May-2015 07:18:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File:	\\PITCHROM\ChromData\CHHP7\20150531-7191.b\7053101.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	31-May-2015 08:36:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Sample Info:	BFB				
Misc. Info.:	180-0007191-001				
Operator ID:	034635	Instrument ID:	CHHP7		
Method:	\\PITCHROM\ChromData\CHHP7\20150531-7191.b\MSVOA_LL_CHHP7.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	01-Jun-2015 09:14:44	Calib Date:	30-Mar-2015 14:36:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.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	11.637	11.637	0.000	0	405449	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

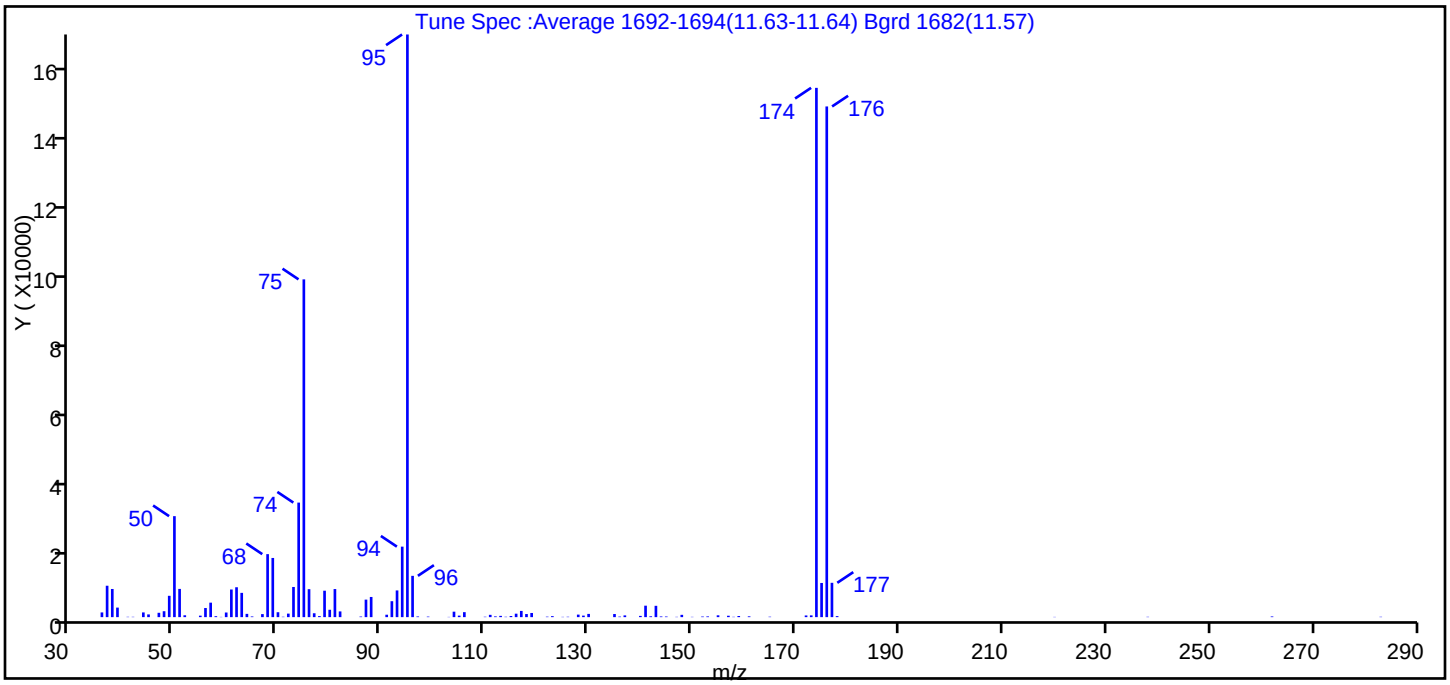
voabfb25_00062 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150531-7191.b\7053101.D
Injection Date: 31-May-2015 08:36:30 Instrument ID: CHHP7
Lims ID: BFB
Client ID:
Operator ID: 034635 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP7 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	17.3
75	30 to 60% of m/z 95	58.0
96	5 to 9% of m/z 95	7.1
173	Less than 2% of m/z 174	0.3 (0.3)
174	50 to 120% of m/z 95	90.8
175	5 to 9% of m/z 174	5.9 (6.5)
176	Greater than 95% but less than 101% of m/z 174	87.6 (96.5)
177	5 to 9% of m/z 176	5.9 (6.7)

Data File: \\PITCHROM\ChromData\CHHP7\20150531-7191.b\7053101.D\MSVOA_LL_CHHP7.rslt\spectra.d
Injection Date: 31-May-2015 08:36:30
Spectrum: Tune Spec :Average 1692-1694(11.63-11.64) Bgrd 1682(11.57)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 104

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1362	68.00	18208	103.00	67	142.00	247
37.00	9075	69.00	17104	104.00	1580	143.00	3272
38.00	8137	70.00	1420	105.00	440	144.00	200
39.00	2758	71.00	113	106.00	1441	145.00	181
41.00	96	72.00	1020	110.00	116	147.00	87
42.00	93	73.00	8719	111.00	667	148.00	668
44.00	1364	74.00	33104	112.00	219	150.00	83
45.00	789	75.00	97616	113.00	370	152.00	174
47.00	1257	76.00	8083	114.00	109	153.00	209
48.00	1713	77.00	1124	115.00	331	155.00	527
49.00	6166	78.00	301	116.00	998	157.00	406
50.00	29184	79.00	7638	117.00	1799	158.00	93
51.00	8157	80.00	2132	118.00	898	159.00	328
52.00	538	81.00	8116	119.00	1204	161.00	230
55.00	426	82.00	1654	122.00	140	165.00	124
56.00	2636	86.00	176	123.00	286	172.00	486
57.00	4186	87.00	5063	125.00	81	173.00	508
58.00	274	88.00	5830	126.00	112	174.00	152960
59.00	68	91.00	701	128.00	732	175.00	9877
60.00	1340	92.00	4607	129.00	441	176.00	147584
61.00	7989	93.00	7718	130.00	937	177.00	9923
62.00	8639	94.00	20376	135.00	901	178.00	295
63.00	7017	95.00	168384	136.00	154	220.00	68
64.00	945	96.00	11935	137.00	504	238.00	96
65.00	197	97.00	195	140.00	359	262.00	198
67.00	877	99.00	155	141.00	3312	283.00	104

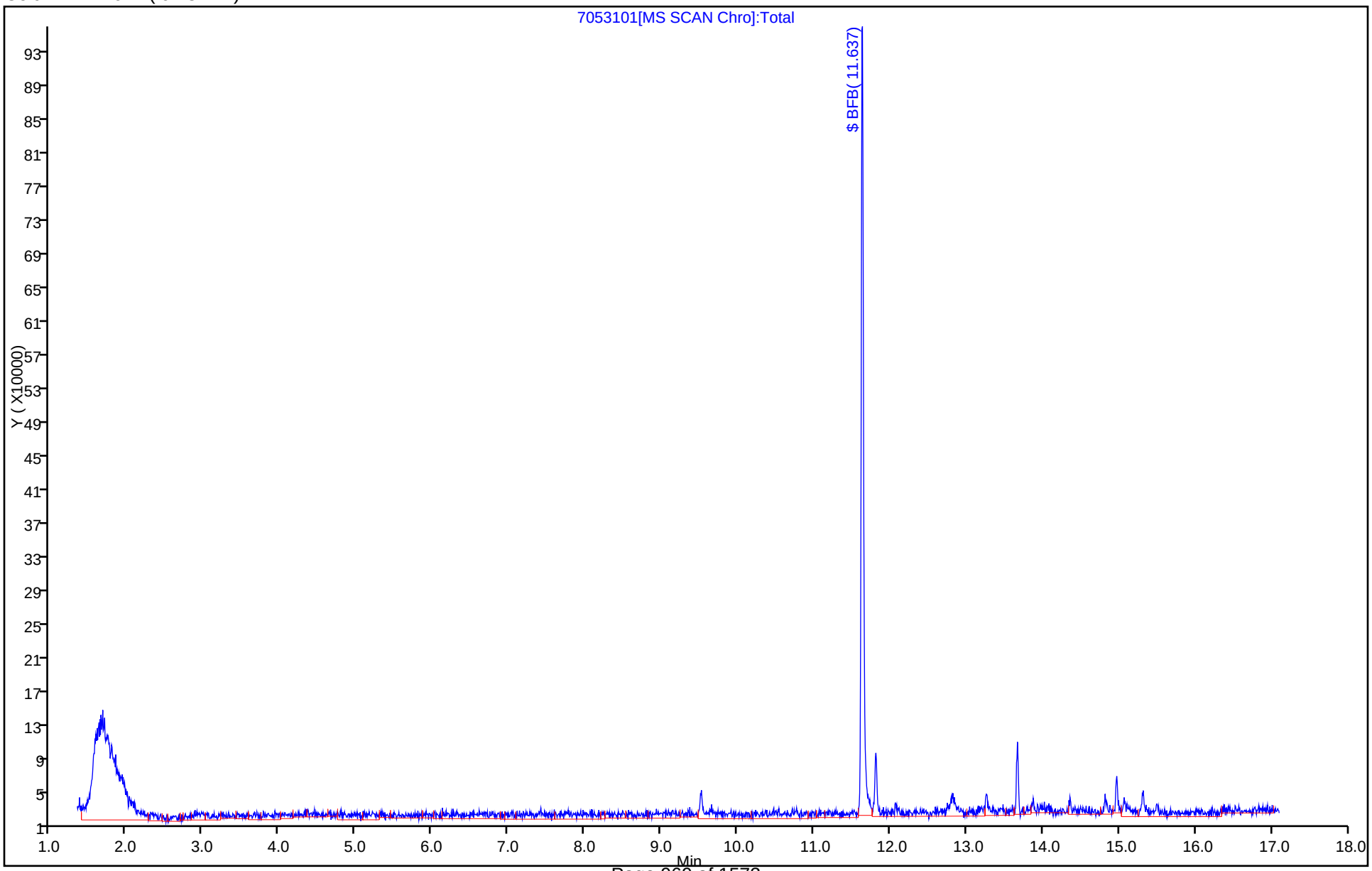
Report Date: 01-Jun-2015 09:14:44 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150531-7191.b\7053101.D

Injection Date:	31-May-2015 08:36:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File:	\\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060101.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	01-Jun-2015 08:05:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	5.0 mL	Dil. Factor:	1.0000		
Sample Info:	BFB				
Misc. Info.:	180-0007198-001				
Operator ID:	034635	Instrument ID:	CHHP7		
Method:	\\PITCHROM\ChromData\CHHP7\20150601-7205.b\MSVOA_LL_CHHP7.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	01-Jun-2015 16:53:05	Calib Date:	30-Mar-2015 14:36:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.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	11.634	11.634	0.000	0	618613	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

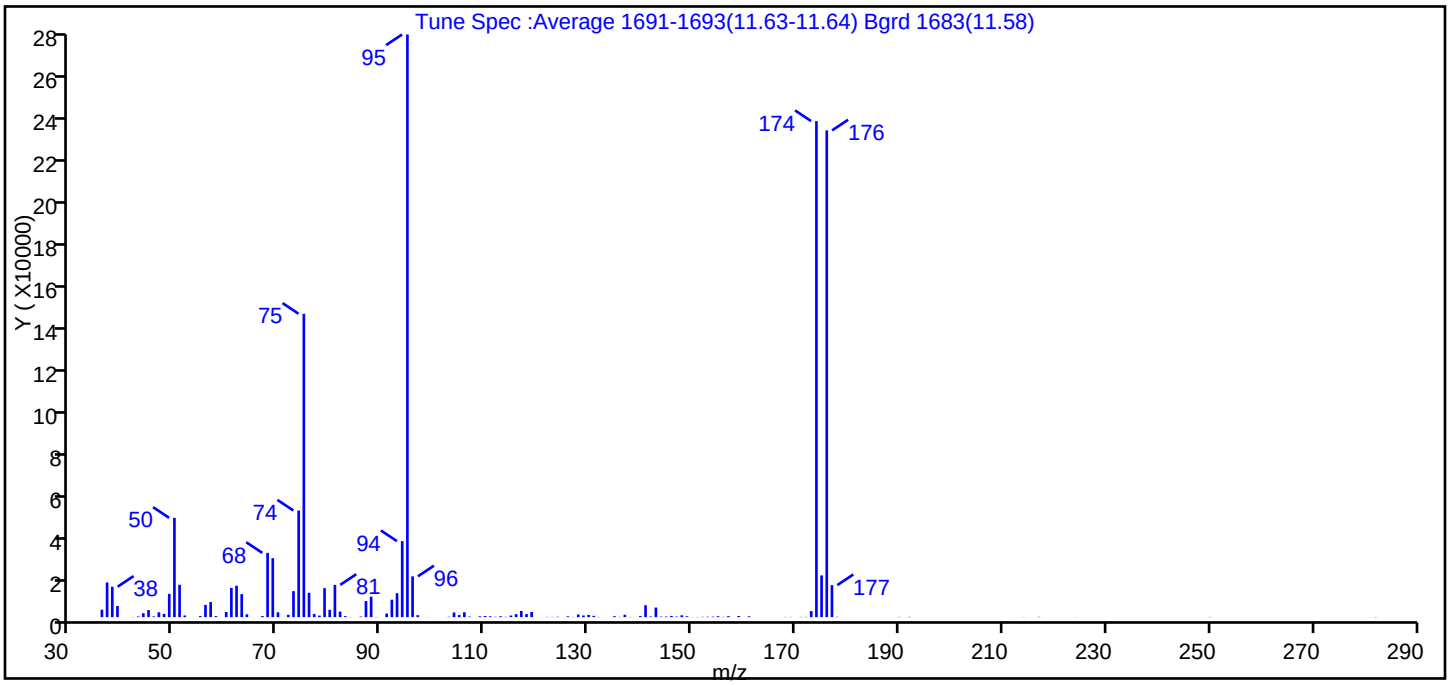
voabfb25_00062 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060101.D
Injection Date: 01-Jun-2015 08:05:30 Instrument ID: CHHP7
Lims ID: BFB
Client ID:
Operator ID: 034635 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP7 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	17.0
75	30 to 60% of m/z 95	52.1
96	5 to 9% of m/z 95	7.0
173	Less than 2% of m/z 174	1.0 (1.2)
174	50 to 120% of m/z 95	85.1
175	5 to 9% of m/z 174	7.2 (8.4)
176	Greater than 95% but less than 101% of m/z 174	83.5 (98.1)
177	5 to 9% of m/z 176	5.5 (6.6)

Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060101.D\MSVOA_LL_CHHP7.rslt\spectra.d
Injection Date: 01-Jun-2015 08:05:30
Spectrum: Tune Spec :Average 1691-1693(11.63-11.64) Bgrd 1683(11.58)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 121

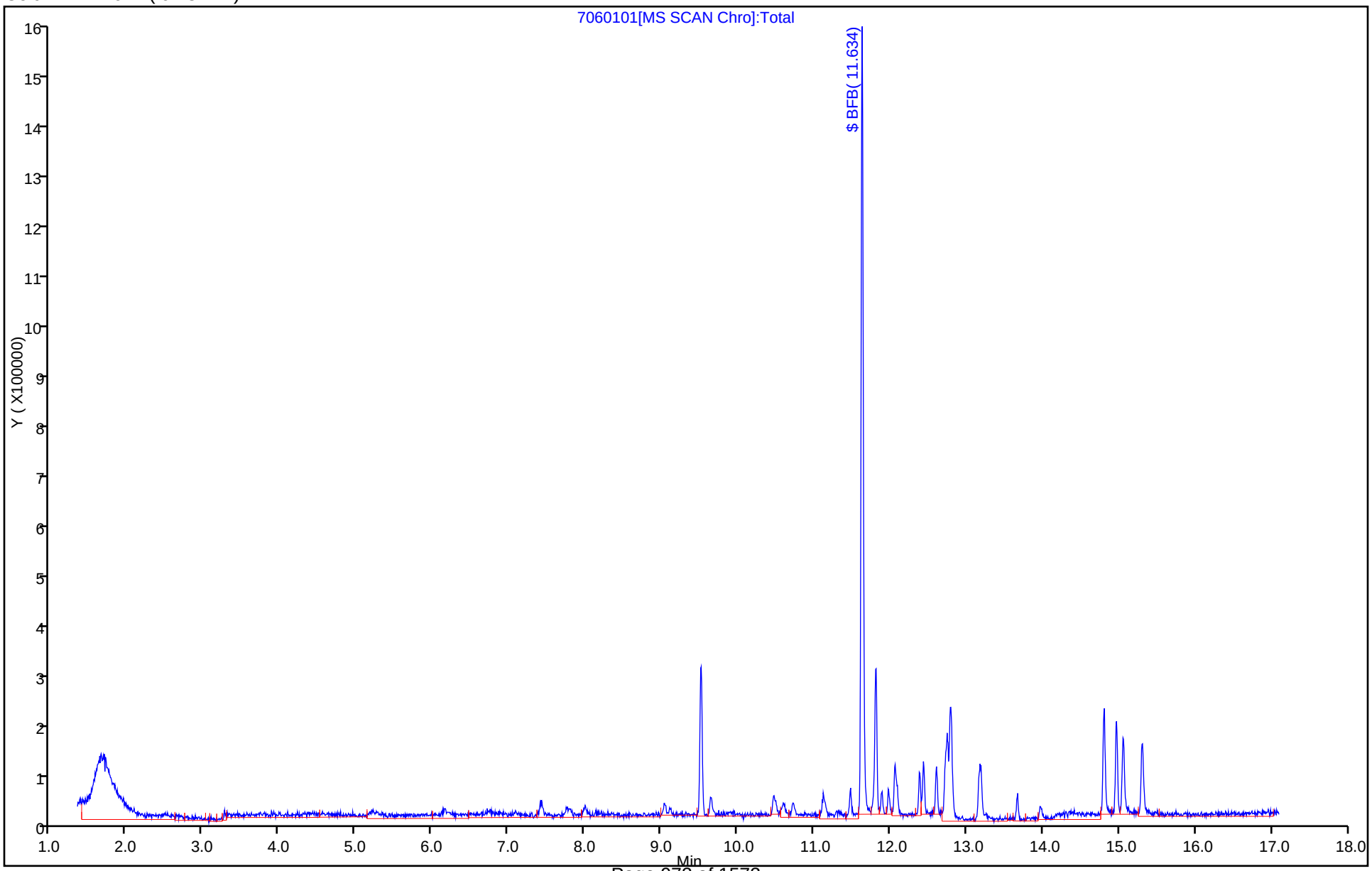
m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	3462	75.00	141696	113.00	428	150.00	64
37.00	16199	76.00	11381	114.00	147	151.00	82
38.00	14205	77.00	1501	115.00	751	152.00	141
39.00	5195	78.00	728	116.00	1389	153.00	198
42.00	83	79.00	13521	117.00	2896	154.00	232
43.00	322	80.00	3407	118.00	1419	155.00	449
44.00	1829	81.00	15075	119.00	2432	156.00	125
45.00	3318	82.00	2605	122.00	113	157.00	471
46.00	342	83.00	462	123.00	100	159.00	532
47.00	2264	84.00	83	124.00	192	161.00	387
48.00	1523	86.00	257	126.00	381	168.00	105
49.00	10856	87.00	7503	127.00	83	169.00	92
50.00	46376	88.00	9574	128.00	1251	171.00	130
51.00	15113	89.00	95	129.00	773	172.00	130
52.00	761	91.00	1684	130.00	1036	173.00	2830
55.00	482	92.00	8129	131.00	624	174.00	231680
56.00	5733	93.00	11185	132.00	94	175.00	19480
57.00	7036	94.00	35512	135.00	444	176.00	227328
58.00	486	95.00	272128	136.00	113	177.00	14951
60.00	2412	96.00	19048	137.00	1090	178.00	142
61.00	13653	97.00	920	138.00	89	190.00	122
62.00	14683	99.00	67	140.00	506	192.00	138
63.00	10743	103.00	176	141.00	5564	214.00	77
64.00	1307	104.00	2164	142.00	294	217.00	152
67.00	507	105.00	962	143.00	4476	224.00	68
68.00	30008	106.00	2294	144.00	245	250.00	112
69.00	27528	107.00	285	145.00	277	281.00	74
70.00	2248	109.00	387	146.00	576	282.00	103
72.00	1067	110.00	542	147.00	237		
73.00	12162	111.00	392	148.00	852		
74.00	49800	112.00	154	149.00	400		

Report Date: 01-Jun-2015 16:53:05 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060101.D				
Injection Date:	01-Jun-2015 08:05:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060201.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 02-Jun-2015 08:07:30 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Sample Info: BFB
Misc. Info.: 180-0007217-001
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150602-7217.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 02-Jun-2015 15:41:06 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK014

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
$ 10 BFB	95	11.632	11.632	0.000	0	935595	NR	NR	

QC Flag Legend

Processing Flags
NR - Missing Quant Standard

Reagents:

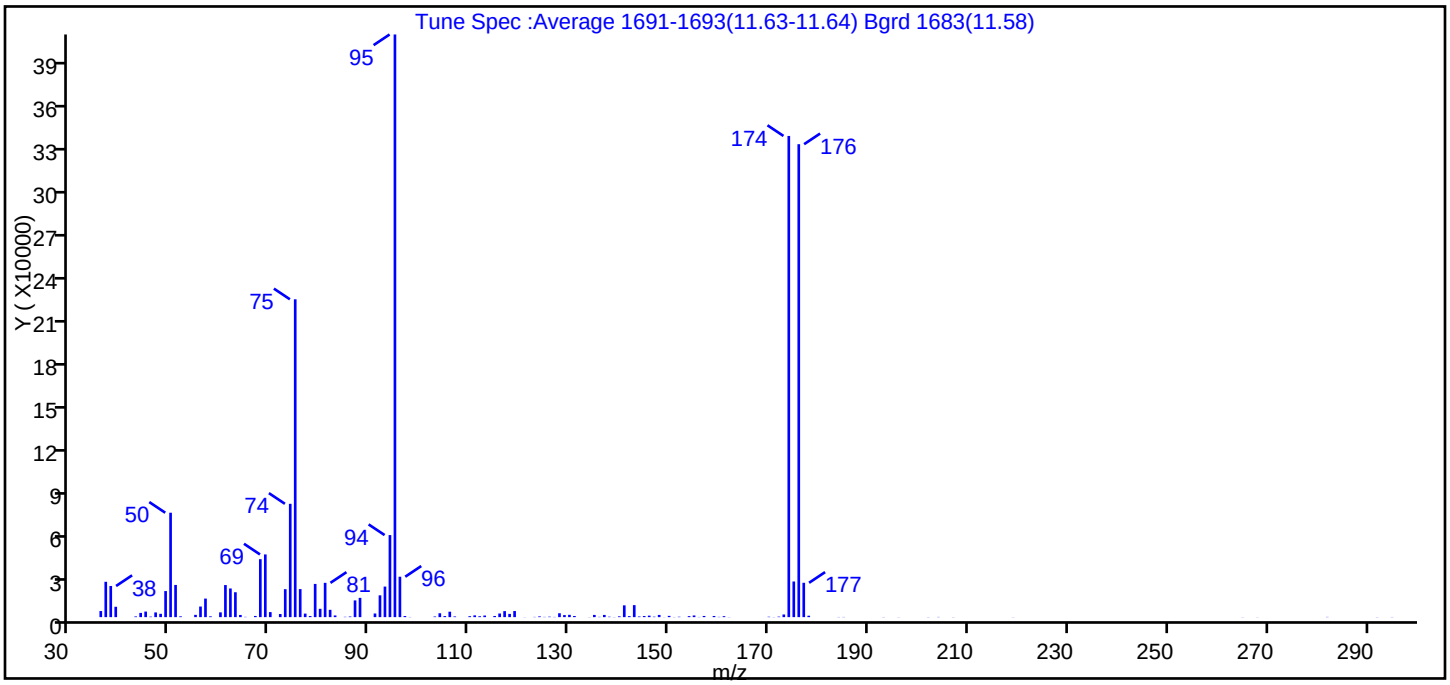
voabfb25_00062 Amount Added: 1.00 Units: uL

MS Tune Report

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060201.D
Injection Date: 02-Jun-2015 08:07:30 Instrument ID: CHHP7
Lims ID: BFB
Client ID:
Operator ID: 034635 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 5.0 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP7 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	17.9
75	30 to 60% of m/z 95	54.6
96	5 to 9% of m/z 95	6.9
173	Less than 2% of m/z 174	0.5 (0.6)
174	50 to 120% of m/z 95	82.6
175	5 to 9% of m/z 174	6.1 (7.4)
176	Greater than 95% but less than 101% of m/z 174	81.2 (98.3)
177	5 to 9% of m/z 176	5.9 (7.3)

Data File: \\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060201.D\MSVOA_LL_CHHP7.rslt\spectra.d
Injection Date: 02-Jun-2015 08:07:30
Spectrum: Tune Spec :Average 1691-1693(11.63-11.64) Bgrd 1683(11.58)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 125

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	4210	76.00	19360	118.00	2233	155.00	1152
37.00	24392	77.00	2435	119.00	4215	156.00	129
38.00	21496	78.00	751	121.00	74	157.00	811
39.00	7160	79.00	22920	123.00	162	159.00	797
43.00	490	80.00	5752	124.00	518	160.00	184
44.00	2920	81.00	23672	125.00	166	161.00	648
45.00	3844	82.00	5053	126.00	325	162.00	100
46.00	343	83.00	1169	127.00	147	170.00	281
47.00	3250	85.00	223	128.00	2693	171.00	100
48.00	2310	86.00	427	129.00	1424	172.00	354
49.00	17992	87.00	11547	130.00	1597	173.00	1832
50.00	72056	88.00	13307	131.00	792	174.00	332032
51.00	22224	91.00	2514	134.00	97	175.00	24600
52.00	541	92.00	15051	135.00	1529	176.00	326336
55.00	1583	93.00	21096	136.00	195	177.00	23704
56.00	7318	94.00	56632	137.00	1525	178.00	985
57.00	12813	95.00	402048	138.00	304	184.00	124
58.00	545	96.00	27896	139.00	96	185.00	132
60.00	3294	97.00	764	140.00	549	193.00	105
61.00	22144	98.00	122	141.00	8135	196.00	81
62.00	19784	103.00	442	142.00	687	202.00	104
63.00	17184	104.00	2685	143.00	8297	204.00	148
64.00	1514	105.00	737	144.00	443	207.00	90
65.00	190	106.00	3756	145.00	753	219.00	83
67.00	819	107.00	474	146.00	1047	265.00	82
68.00	40000	110.00	652	147.00	320	268.00	73
69.00	43272	111.00	1224	148.00	1532	282.00	158
70.00	3485	112.00	621	149.00	68	292.00	100
72.00	2152	113.00	1107	150.00	878	295.00	115
73.00	19296	115.00	805	151.00	110		
74.00	78208	116.00	2520	152.00	288		
75.00	219328	117.00	4158	154.00	680		

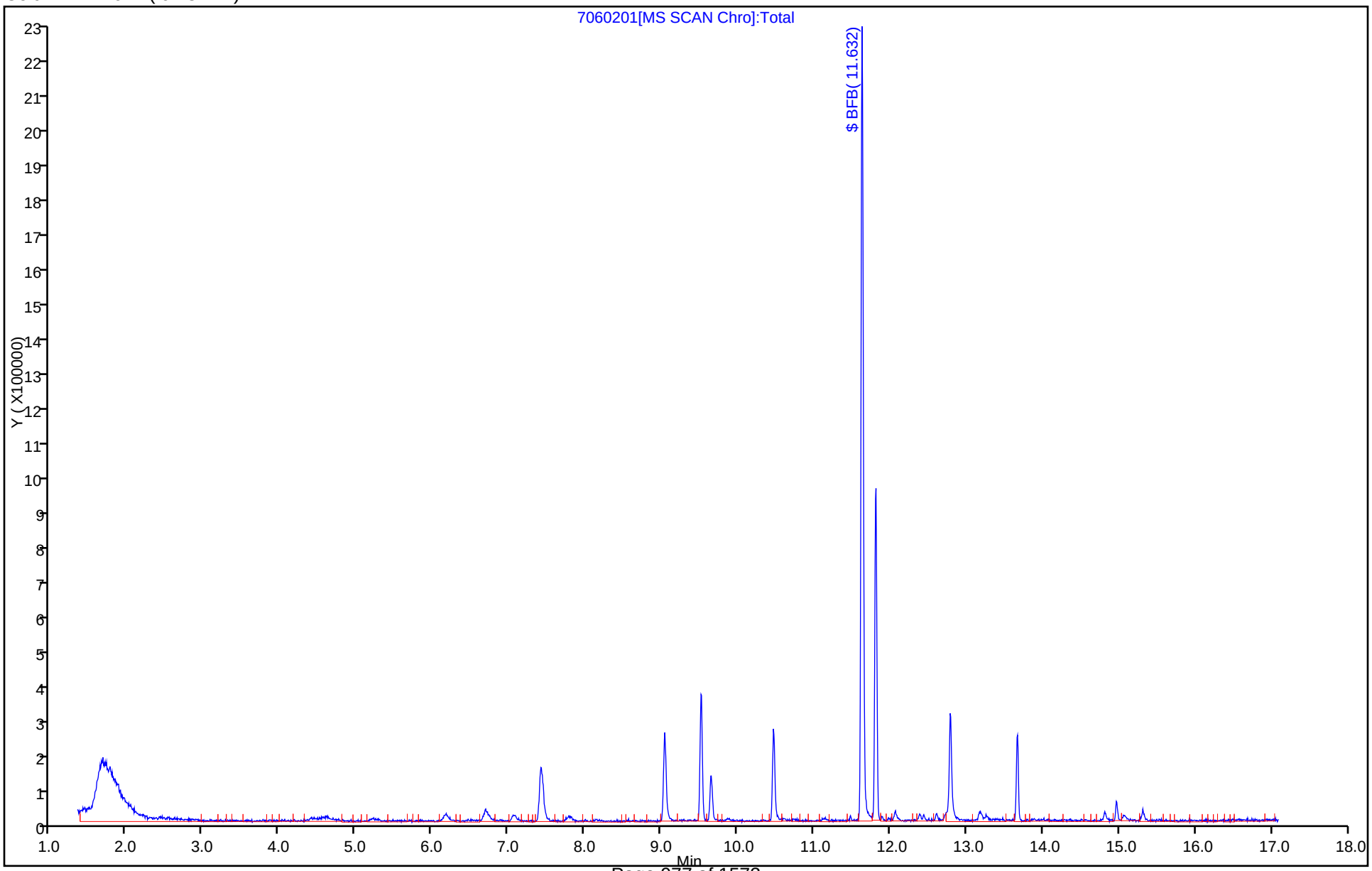
Report Date: 02-Jun-2015 15:41:07 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060201.D

Injection Date:	02-Jun-2015 08:07:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	5.0 mL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVOA_LL_CHHP7	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.: 180-44321-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-143153/7

Matrix: Water Lab File ID: 7052906.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 20(mL) Date Analyzed: 05/29/2015 11:33

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143153 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	0.156	J	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.: 180-44321-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-143153/7

Matrix: Water Lab File ID: 7052906.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 20(mL) Date Analyzed: 05/29/2015 11:33

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143153 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)	95		64-135
2037-26-5	Toluene-d8 (Surr)	111		71-118
460-00-4	4-Bromofluorobenzene (Surr)	100		70-118
1868-53-7	Dibromofluoromethane (Surr)	100		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052906.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 29-May-2015 11:33:30 ALS Bottle#: 3 Worklist Smp#: 7
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: mb
Misc. Info.: 180-0007169-007
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 29-May-2015 18:32:22 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK015

First Level Reviewer: journetp Date: 29-May-2015 13:12:19

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.591	4.658	-0.067	94	483478	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.414	7.408	0.006	98	1778610	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.468	10.468	0.000	86	469989	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.785	12.785	0.000	95	511058	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.678	6.684	-0.006	92	567648	200.0	200.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.049	7.037	0.012	93	514061	200.0	190.0	
$ 7 Toluene-d8 (Surr)	98	9.038	9.038	0.000	93	1543715	200.0	221.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.636	11.630	0.006	90	625818	200.0	200.8	
11 Dichlorodifluoromethane	85		1.926					ND	
12 Chloromethane	50		2.048					ND	
14 Butadiene	39		2.200					ND	
13 Vinyl chloride	62		2.212					ND	
15 Bromomethane	94		2.517					ND	
16 Chloroethane	64		2.590					ND	
18 Trichlorofluoromethane	101		2.900					ND	
17 Dichlorofluoromethane	67		2.912					ND	
20 Ethyl ether	59		3.332					ND	
19 Ethanol	45		3.333					ND	
21 Acrolein	56		3.508					ND	
22 1,1-Dichloroethene	96		3.563					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.721					ND	
24 Acetone	43		3.764					ND	
25 Iodomethane	142		3.788					ND	
27 Isopropyl alcohol	45	3.800	3.838	-0.038	1	304			NC
26 Carbon disulfide	76		3.861					ND	
28 3-Chloro-1-propene	76		4.177					ND	
29 Acetonitrile	40	4.165	4.179	-0.014	1	22383			NC
30 Methyl acetate	43	4.269	4.293	-0.024	31	1155		0.9747	
31 Methylene Chloride	84	4.415	4.384	0.031	55	8008		3.12	
33 Acrylonitrile	53		4.773					ND	
34 trans-1,2-Dichloroethene	96		4.780					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
32 2-Methyl-2-propanol	59		4.780					ND	
35 Methyl tert-butyl ether	73		4.853					ND	
36 Hexane	57		5.169					ND	
38 Vinyl acetate	43	5.102	5.181	-0.079	1	410		0.1755	
37 1,1-Dichloroethane	63		5.351					ND	
41 Isopropyl ether	45		5.432					ND	
40 Isopropyl ether TIC	45		5.450					ND	
39 2-Chloro-1,3-butadiene	53		5.484					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
44 2,2-Dichloropropane	77		6.088					ND	
45 cis-1,2-Dichloroethene	96		6.094					ND	
42 Tert-butyl ethyl ether	59		6.095					ND	
46 2-Butanone (MEK)	43		6.167					ND	
48 Ethyl acetate	43	6.179	6.174	0.005	1	263		NC	
50 Methacrylonitrile	41		6.375					ND	
49 Chlorobromomethane	128		6.386					ND	
47 Propionitrile	54		6.430					ND	
52 Chloroform	83		6.495					ND	
53 1,1,1-Trichloroethane	97		6.678					ND	
51 Tetrahydrofuran	42		6.738					ND	
54 Cyclohexane	56		6.745					ND	
55 1,1-Dichloropropene	75		6.866					ND	
56 Carbon tetrachloride	117		6.872					ND	
58 Benzene	78		7.097					ND	
59 1,2-Dichloroethane	62		7.128					ND	
60 Tert-amyl methyl ether (TI	73		7.201					ND	
57 Isobutyl alcohol	41	7.414	7.414	0.000	30	416		5.83	
62 n-Heptane	43	7.408	7.414	-0.006	1	206		0.0759	
61 Tert-amyl methyl ether	73	7.408	7.415	-0.007	37	26426		NC	
64 Trichloroethene	130		7.791					ND	
66 Methylcyclohexane	83		7.986					ND	
65 Ethyl acrylate	55		7.987					ND	
69 Methyl methacrylate	69		7.993					ND	
67 1,2-Dichloropropane	63		8.022					ND	
63 n-Butanol	56	8.132	8.127	0.005	22	276		NC	
68 Dibromomethane	93		8.144					ND	
70 1,4-Dioxane	88		8.180					ND	
71 Dichlorobromomethane	83		8.314					ND	
72 2-Nitropropane	41		8.486					ND	
73 2-Chloroethyl vinyl ether	63		8.766					ND	
74 cis-1,3-Dichloropropene	75		8.770					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.935					ND	
76 Toluene	91		9.105					ND	
77 trans-1,3-Dichloropropene	75		9.324					ND	
78 Ethyl methacrylate	69		9.421					ND	
79 1,1,2-Trichloroethane	97		9.506					ND	
80 Tetrachloroethene	164		9.646					ND	
81 1,3-Dichloropropane	76		9.677					ND	
83 n-Butyl acetate	43	9.859	9.757	0.102	1	228		NC	
82 2-Hexanone	43		9.762					ND	
84 Chlorodibromomethane	129		9.896					ND	
85 Ethylene Dibromide	107		10.011					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
87 Chlorobenzene	112		10.498					ND	
86 3-Chlorobenzotrifluoride	180		10.516					ND	
88 4-Chlorobenzotrifluoride	180		10.571					ND	
89 1,1,1,2-Tetrachloroethane	131		10.577					ND	
90 Ethylbenzene	106		10.601					ND	
91 m-Xylene & p-Xylene	106		10.717					ND	
92 o-Xylene	106		11.112					ND	
93 Styrene	104		11.125					ND	
94 Bromoform	173		11.313					ND	
96 2-Chlorobenzotrifluoride	180		11.417					ND	
97 Isopropylbenzene	105	11.478	11.477	0.001	1	582		-19.0	
95 Cyclohexanol	57		11.503					ND	
99 1,1,2,2-Tetrachloroethane	83		11.769					ND	
100 Bromobenzene	156		11.788					ND	
101 1,2,3-Trichloropropane	110	11.636	11.818	-0.182	55	1249		2.55	
102 trans-1,4-Dichloro-2-buten	53		11.830					ND	
98 Cyclohexanone	55		11.880					ND	
103 N-Propylbenzene	120		11.891					ND	
104 2-Chlorotoluene	126	11.964	11.976	-0.012	1	75		0.0307	
106 1,3,5-Trimethylbenzene	105	12.062	12.061	0.001	1	632		-28.6	
105 3-Chlorotoluene	126	12.098	12.081	0.017	1	360		NC	
107 4-Chlorotoluene	126	12.098	12.086	0.012	1	360		0.1539	
108 tert-Butylbenzene	119	12.384	12.384	0.000	1	1969		-10.5	
109 Pentachloroethane	167		12.404					ND	
110 1,2,4-Trimethylbenzene	105	12.451	12.433	0.018	1	1806		-15.6	
111 1,2-dichloro-4-(trifluorom	214		12.548					ND	
112 sec-Butylbenzene	105	12.603	12.603	0.000	1	2941		-26.4	
117 1,2,3-Trimethylbenzene	105	12.493	12.604	-0.111	1	692		NC	
113 1,3-Dichlorobenzene	146	12.719	12.725	-0.006	1	2118		-10.4	
114 4-Isopropyltoluene	119	12.761	12.749	0.012	1	3485		-18.7	
115 1,4-Dichlorobenzene	146	12.804	12.810	-0.006	34	1441		0.3554	
116 2,4-Dichloro-1-(triflourom	214		12.907					ND	
118 2,5-Dichlorobenzotrifluori	214		12.950					ND	
120 n-Butylbenzene	91	13.187	13.157	0.031	50	3258		-17.1	
119 Benzyl chloride	91		13.158					ND	
121 1,2-Dichlorobenzene	146	13.181	13.181	0.000	1	381		0.0959	
122 1,2-Dibromo-3-Chloropropan	75		13.972					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.166					ND	
124 1,3,5-Trichlorobenzene	180		14.229					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.580					ND	
126 1,2,4-Trichlorobenzene	180	14.805	14.799	0.006	91	19682		15.6	
127 Hexachlorobutadiene	225	14.963	14.969	-0.006	93	17962		23.8	
128 Naphthalene	128	15.061	15.055	0.006	96	54058		26.2	
129 1,2,3-Trichlorobenzene	180	15.316	15.304	0.012	96	37371		43.4	
130 2,3,6-Trichlorotoluene	159		16.107					ND	
131 2,4,5-Trichlorotoluene	159		16.198					ND	
132 2-Methylnaphthalene	142		16.516					ND	
153 1,2 Epoxybutane TIC	1		0.000					ND	
151 Isooctane	57		0.000					ND	
146 2,5-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
147 2,4-Dichlorotoluene	1		0.000					ND	
150 2,6-Dichlorotoluene	1		0.000					ND	
149 3,4-Dichlorotoluene	1		0.000					ND	
S 133 Xylenes, Total	106		1.000					ND	
S 134 1,2-Dichloroethene, Total	96		1.000					ND	
S 135 1,3-Dichloropropene, Total	1		0.000					ND	
T 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	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

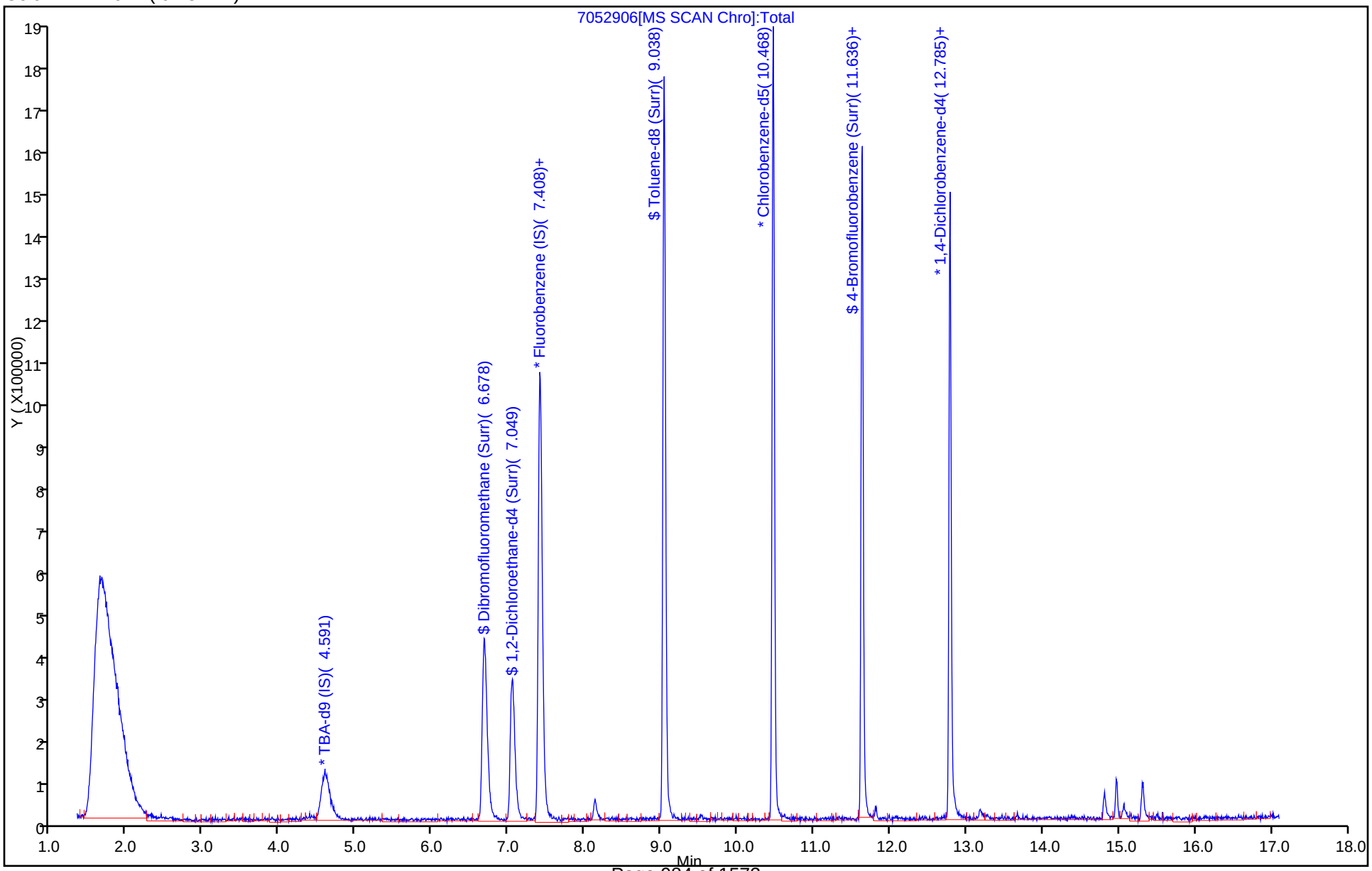
Report Date: 29-May-2015 18:32:24 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052906.D

Injection Date:	29-May-2015 11:33:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	mb			Worklist Smp#:	7
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	3
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052906.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 29-May-2015 11:33:30 ALS Bottle#: 3 Worklist Smp#: 7
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: mb
Misc. Info.: 180-0007169-007
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 29-May-2015 18:32:22 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK015

First Level Reviewer: journetp Date: 29-May-2015 13:12:19

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	200.0	200.1	100.04
$ 6 1,2-Dichloroethane-d4 (Surr)	200.0	190.0	95.02
$ 7 Toluene-d8 (Surr)	200.0	221.4	110.72
$ 8 4-Bromofluorobenzene (Surr)	200.0	200.8	100.38

Report Date: 29-May-2015 18:32:25 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052906.D

Injection Date: 29-May-2015 11:33:30 Instrument ID: CHHP7

Lims ID: mb

Client ID:

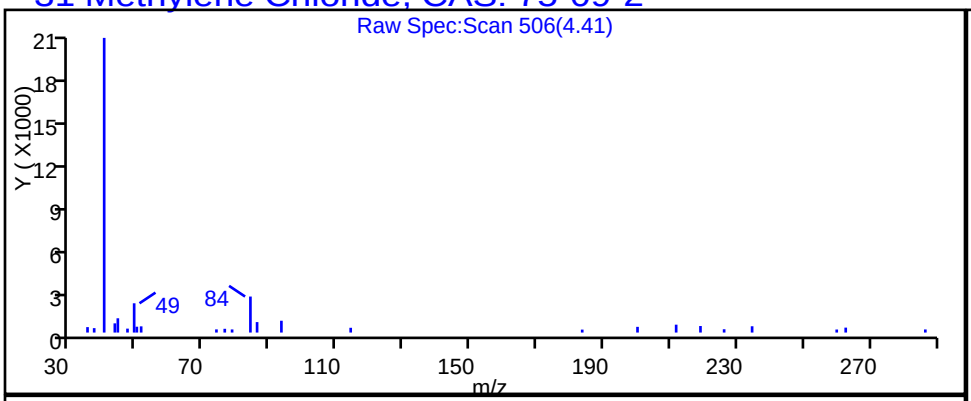
Operator ID: 034635 ALS Bottle#: 3 Worklist Smp#: 7

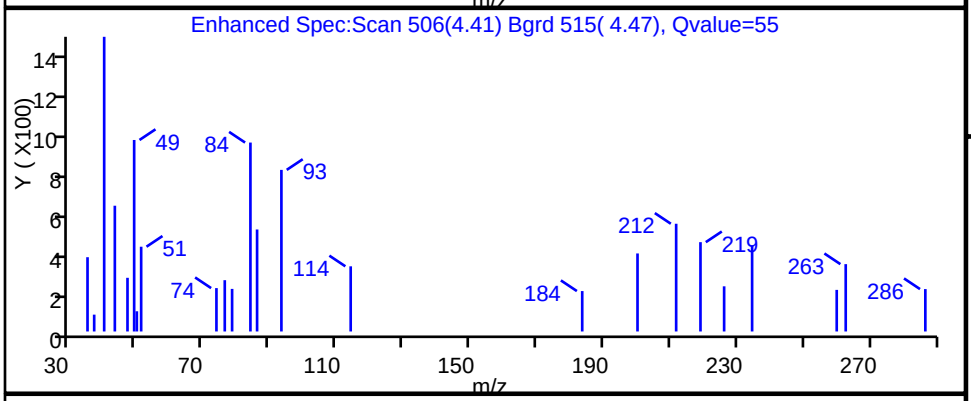
Purge Vol: 20.000 mL Dil. Factor: 1.0000

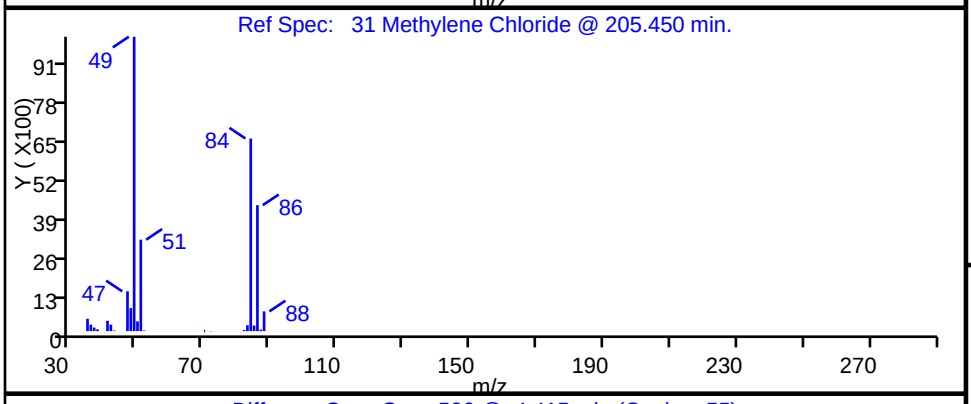
Method: MSVOA_LL_CHHP7 Limit Group: VOA 8260C ICAL

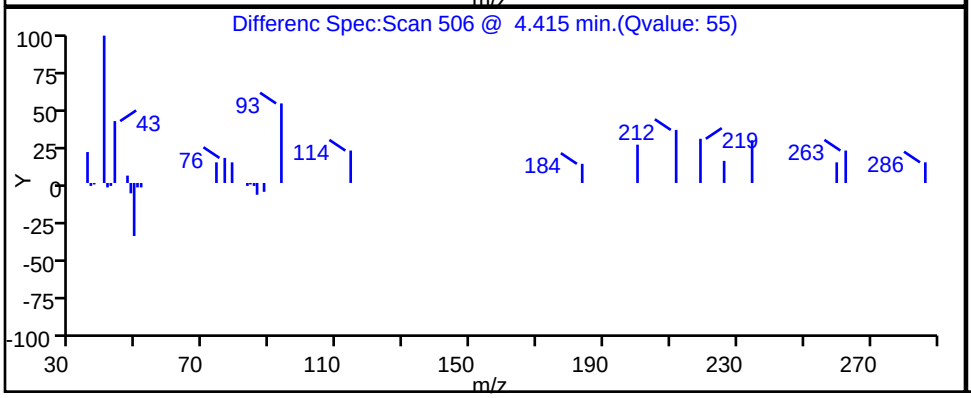
Column: DB-624 (0.18 mm) Detector MS SCAN

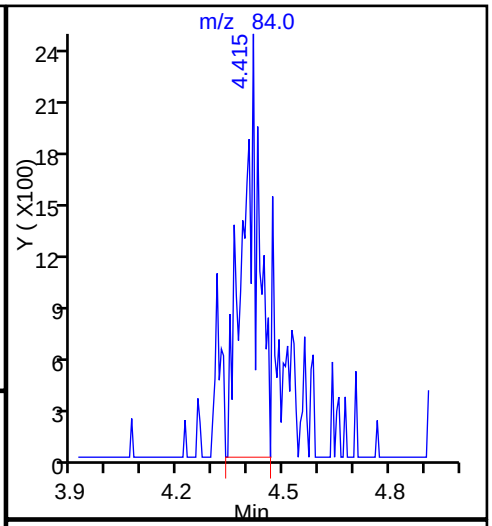
31 Methylene Chloride, CAS: 75-09-2

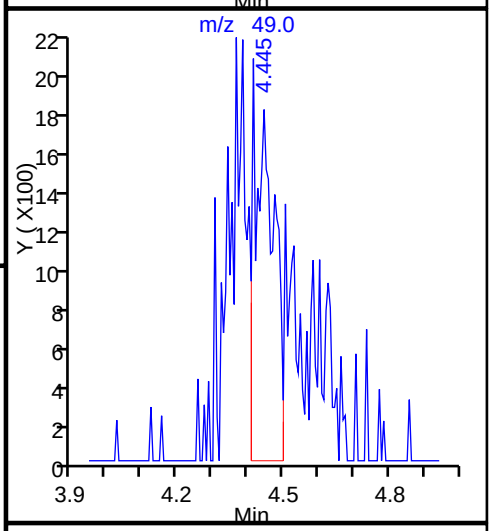


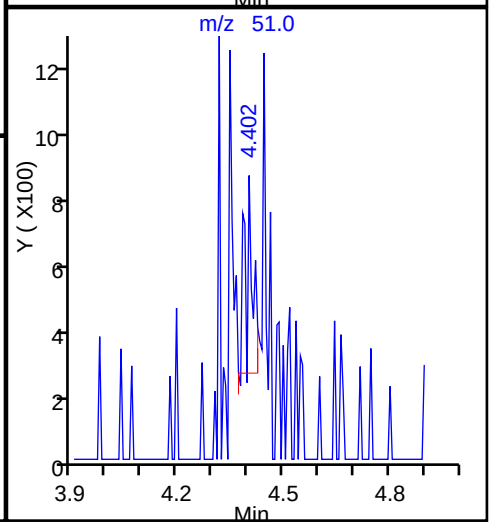












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-143337/4

Matrix: Water Lab File ID: 60530004.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/31/2015 09:47

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143337 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	0.405	J	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.: 180-44321-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-143337/4

Matrix: Water Lab File ID: 60530004.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/31/2015 09:47

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143337 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)	107		64-135
2037-26-5	Toluene-d8 (Surr)	100		71-118
460-00-4	4-Bromofluorobenzene (Surr)	90		70-118
1868-53-7	Dibromofluoromethane (Surr)	115		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530004.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 31-May-2015 09:47:30 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: mb
Misc. Info.: 180-0007190-004
Operator ID: 034635 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 31-May-2015 16:21:03 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK001

First Level Reviewer: journetp Date: 31-May-2015 10:30:07

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.219	4.236	-0.017	87	168817	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.285	7.284	0.001	98	526903	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.400	10.393	0.007	89	117991	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.742	12.747	-0.005	97	175710	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.555	6.554	0.001	93	124899	50.0	57.3	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.932	6.925	0.007	71	194886	50.0	53.5	
$ 7 Toluene-d8 (Surr)	98	8.940	8.939	0.001	94	501212	50.0	50.2	
$ 8 4-Bromofluorobenzene (Surr	95	11.586	11.579	0.007	85	183896	50.0	45.2	
11 Dichlorodifluoromethane	85		1.596					ND	
12 Chloromethane	50		1.760					ND	
13 Vinyl chloride	62		1.882					ND	
14 Butadiene	39		1.931					ND	
15 Bromomethane	94		2.229					ND	
16 Chloroethane	64		2.375					ND	
17 Dichlorofluoromethane	67		2.642					ND	
18 Trichlorofluoromethane	101		2.673					ND	
19 Ethanol	45		2.928					ND	
20 Ethyl ether	59		3.044					ND	
21 Acrolein	56		3.208					ND	
22 1,1-Dichloroethene	96		3.336					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.385					ND	
24 Acetone	43		3.421					ND	
25 Iodomethane	142		3.531					ND	
26 Carbon disulfide	76		3.628					ND	
27 Isopropyl alcohol	45		3.677					ND	
28 Acetonitrile	40		3.859					ND	
29 3-Chloro-1-propene	76		3.914					ND	
30 Methyl acetate	43		3.926					ND	
31 Methylene Chloride	84	4.134	4.115	0.019	43	6001		2.03	
32 2-Methyl-2-propanol	59		4.370					ND	
33 Acrylonitrile	53		4.498					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		4.553					ND	
35 Methyl tert-butyl ether	73		4.565					ND	
36 Hexane	57		4.991					ND	
37 1,1-Dichloroethane	63		5.198					ND	
38 Vinyl acetate	43		5.240					ND	
39 2-Chloro-1,3-butadiene	53		5.295					ND	
40 Isopropyl ether	45		5.295					ND	
41 Tert-butyl ethyl ether	59		5.769					ND	
43 cis-1,2-Dichloroethene	96		5.940					ND	
44 2-Butanone (MEK)	43		5.940					ND	
42 2,2-Dichloropropane	77		5.946					ND	
45 Propionitrile	54		6.013					ND	
46 Ethyl acetate	43		6.025					ND	
47 Methacrylonitrile	41		6.195					ND	
48 Chlorobromomethane	128		6.226					ND	
49 Tetrahydrofuran	42		6.238					ND	
50 Chloroform	83		6.366					ND	
51 1,1,1-Trichloroethane	97		6.536					ND	
52 Cyclohexane	56		6.615					ND	
53 Carbon tetrachloride	117		6.712					ND	
54 1,1-Dichloropropene	75		6.724					ND	
55 Isobutyl alcohol	41		6.907					ND	
56 Benzene	78		6.943					ND	
57 1,2-Dichloroethane	62		7.016					ND	
148 Isooctane	57		7.102					ND	
58 Tert-amyl methyl ether	73		7.120					ND	
59 n-Heptane	43		7.308					ND	
60 n-Butanol	56		7.607					ND	
61 Trichloroethene	130		7.673					ND	
62 Ethyl acrylate	55		7.795					ND	
63 Methylcyclohexane	83		7.923					ND	
64 1,2-Dichloropropane	63		7.947					ND	
65 1,4-Dioxane	88		8.020					ND	
66 Methyl methacrylate	69		8.026					ND	
67 Dibromomethane	93		8.038					ND	
68 Dichlorobromomethane	83		8.227					ND	
69 2-Nitropropane	41		8.446					ND	
70 2-Chloroethyl vinyl ether	63		8.525					ND	
71 cis-1,3-Dichloropropene	75		8.677					ND	
72 4-Methyl-2-pentanone (MIBK	43		8.823					ND	
73 Toluene	91		9.012					ND	
74 trans-1,3-Dichloropropene	75		9.255					ND	
75 Ethyl methacrylate	69		9.310					ND	
76 1,1,2-Trichloroethane	97		9.450					ND	
77 Tetrachloroethene	164		9.523					ND	
78 1,3-Dichloropropane	76		9.608					ND	
79 2-Hexanone	43		9.657					ND	
80 n-Butyl acetate	43		9.785					ND	
81 Chlorodibromomethane	129		9.821					ND	
82 Ethylene Dibromide	107		9.937					ND	
83 3-Chlorobenzotrifluoride	180		10.393					ND	
84 Chlorobenzene	112		10.423					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
85 4-Chlorobenzotrifluoride	180		10.484					ND	
86 1,1,1,2-Tetrachloroethane	131		10.521					ND	
87 Ethylbenzene	106		10.527					ND	
88 m-Xylene & p-Xylene	106		10.654					ND	
89 o-Xylene	106		11.044					ND	
90 Styrene	104		11.062					ND	
91 Bromoform	173		11.244					ND	
129 Cyclohexanol	57		11.289					ND	
92 2-Chlorobenzotrifluoride	180		11.299					ND	
93 Isopropylbenzene	105		11.409					ND	
94 Cyclohexanone	55		11.494					ND	
96 1,1,2,2-Tetrachloroethane	83		11.713					ND	
95 Bromobenzene	156		11.719					ND	
97 trans-1,4-Dichloro-2-buten	53		11.749					ND	
98 1,2,3-Trichloropropane	110		11.774					ND	
99 N-Propylbenzene	120		11.822					ND	
100 2-Chlorotoluene	126		11.914					ND	
101 3-Chlorotoluene	126		11.981					ND	
102 1,3,5-Trimethylbenzene	105		12.011					ND	
103 4-Chlorotoluene	126		12.035					ND	
104 tert-Butylbenzene	119		12.321					ND	
105 Pentachloroethane	167		12.352					ND	
106 1,2,4-Trimethylbenzene	105		12.382					ND	
107 1,2-dichloro-4-(trifluorom	214		12.419					ND	
108 sec-Butylbenzene	105		12.546					ND	
109 1,3-Dichlorobenzene	146		12.668					ND	
110 4-Isopropyltoluene	119		12.705					ND	
111 1,4-Dichlorobenzene	146		12.771					ND	
113 2,4-Dichloro-1-(triflourom	214		12.790					ND	
112 1,2,3-Trimethylbenzene	105		12.796					ND	
114 2,5-Dichlorobenzotrifluori	214		12.832					ND	
115 Benzyl chloride	91		12.881					ND	
116 n-Butylbenzene	91		13.112					ND	
117 1,2-Dichlorobenzene	146		13.124					ND	
118 1,2-Dibromo-3-Chloropropan	75		13.921					ND	
119 2,4- & 2,5- & 2,6- Dichlor	125		14.061					ND	
120 1,3,5-Trichlorobenzene	180		14.104					ND	
121 2,3- & 3,4- Dichlorotoluen	125		14.475					ND	
122 1,2,4-Trichlorobenzene	180		14.736					ND	
123 Hexachlorobutadiene	225		14.882					ND	
124 Naphthalene	128		15.004					ND	
125 1,2,3-Trichlorobenzene	180		15.229					ND	
126 2,4,5-Trichlorotoluene	159		16.008					ND	
127 2,3,6-Trichlorotoluene	159		16.105					ND	
128 2-Methylnaphthalene	142		16.148					ND	
143 2,5-Dichlorotoluene	1		0.000					ND	
150 Tert-butyl ethyl ether (TI	1		0.000					ND	
147 2,6-Dichlorotoluene	1		0.000					ND	
149 Isopropyl ether TIC	1		0.000					ND	
144 2,4-Dichlorotoluene	1		0.000					ND	
145 2,3-Dichlorotoluene	1		0.000					ND	
151 Tert-amyl methyl ether (TI	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
152 Formaldehyde TIC	1		0.000					ND	
146 3,4-Dichlorotoluene	1		0.000					ND	
153 1,2 Epoxybutane TIC	1		0.000					ND	
S 130 1,2-Dichloroethene, Total	96		1.000					ND	
S 131 Xylenes, Total	106		1.000					ND	
S 132 1,3-Dichloropropene, Total	1		0.000					ND	
T 133 Tetrahydrofuran TIC	42		0.000					ND	
T 134 Methyl n-amyl ketone TIC	43		0.000					ND	
T 135 Mesityl oxide TIC	83		0.000					ND	

Reagents:

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

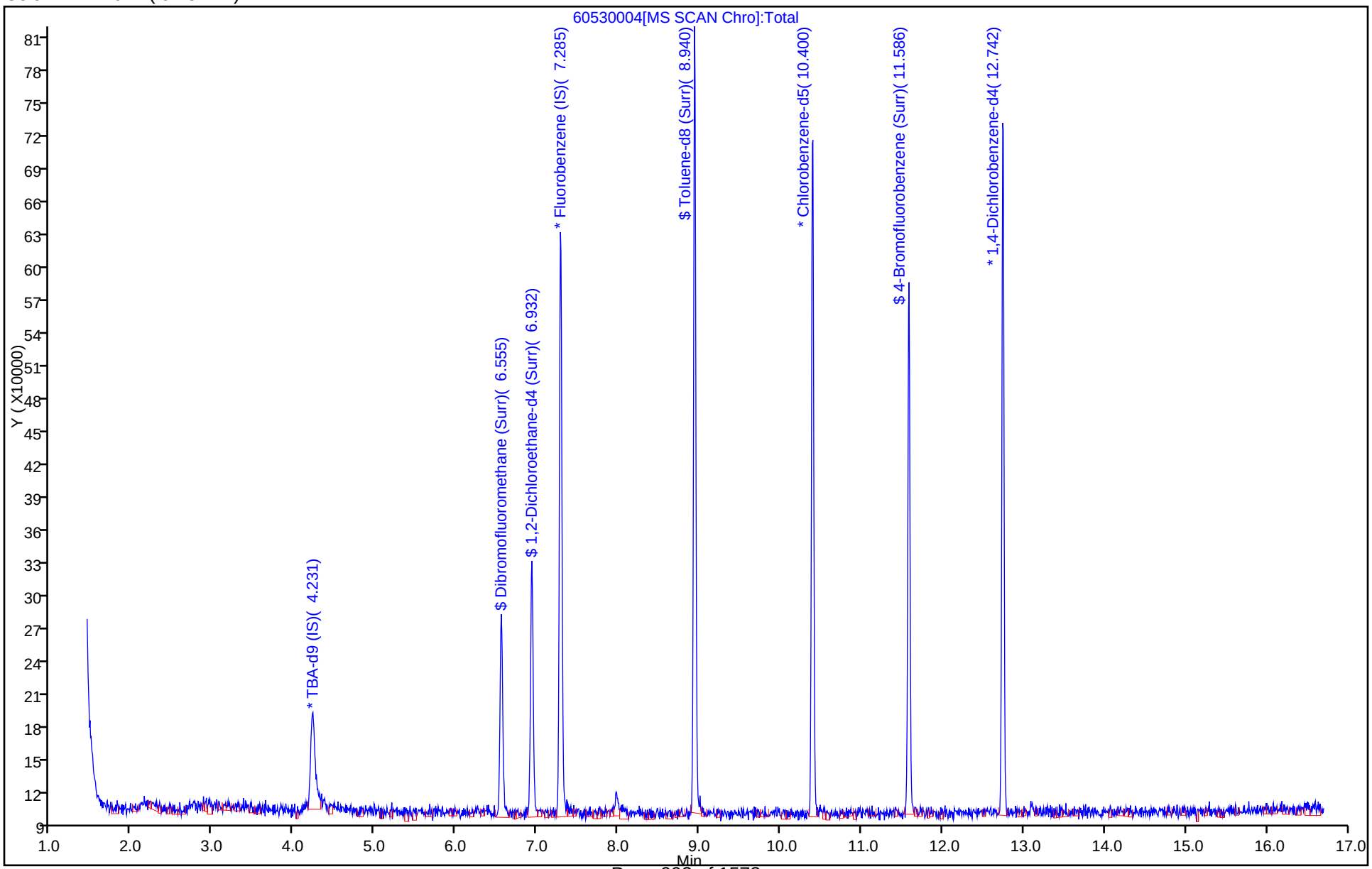
Report Date: 31-May-2015 16:21:05 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530004.D

Injection Date:	31-May-2015 09:47:30	Instrument ID:	CHHP6	Operator ID:	034635
Lims ID:	mb			Worklist Smp#:	4
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530004.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 31-May-2015 09:47:30 ALS Bottle#: 4 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: mb
Misc. Info.: 180-0007190-004
Operator ID: 034635 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 31-May-2015 16:21:03 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK001

First Level Reviewer: journetp Date: 31-May-2015 10:30:07

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	57.3	114.58
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	53.5	107.01
$ 7 Toluene-d8 (Surr)	50.0	50.2	100.41
$ 8 4-Bromofluorobenzene (Surr)	50.0	45.2	90.38

Report Date: 31-May-2015 16:21:05 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530004.D

Injection Date: 31-May-2015 09:47:30 Instrument ID: CHHP6

Lims ID: mb

Client ID:

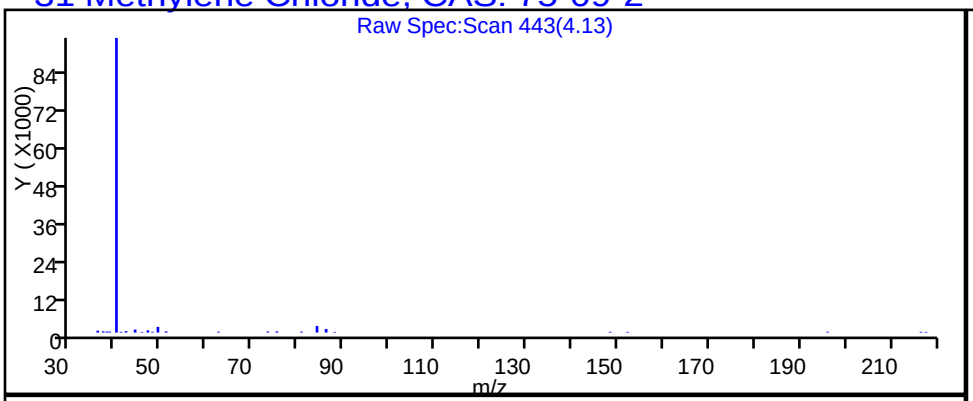
Operator ID: 034635 ALS Bottle#: 4 Worklist Smp#: 4

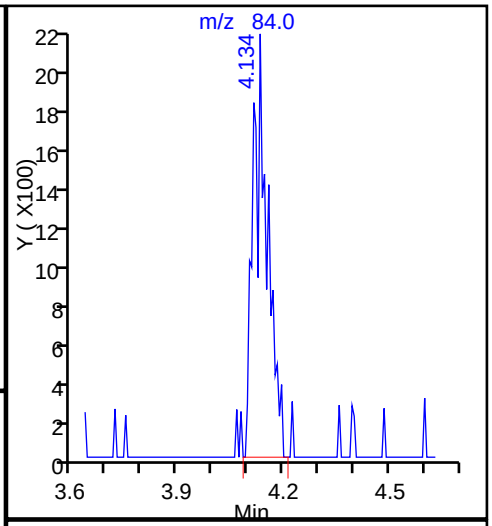
Purge Vol: 5.000 mL Dil. Factor: 1.0000

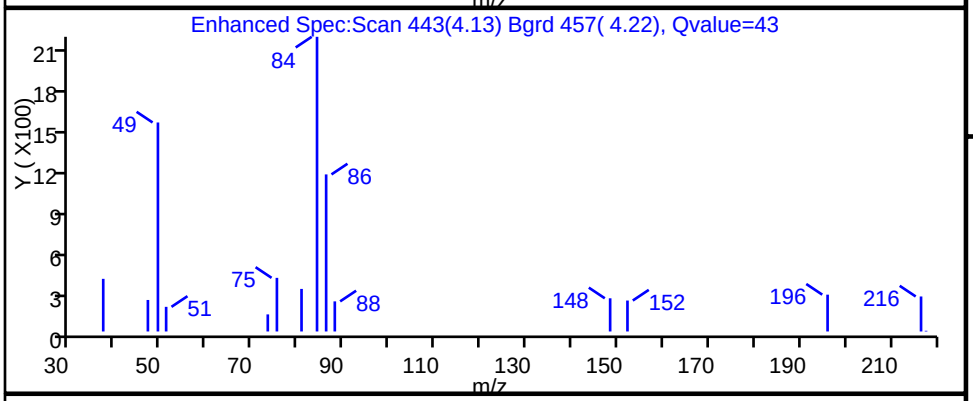
Method: MSVOA_LL_CHHP6 Limit Group: VOA 8260C ICAL

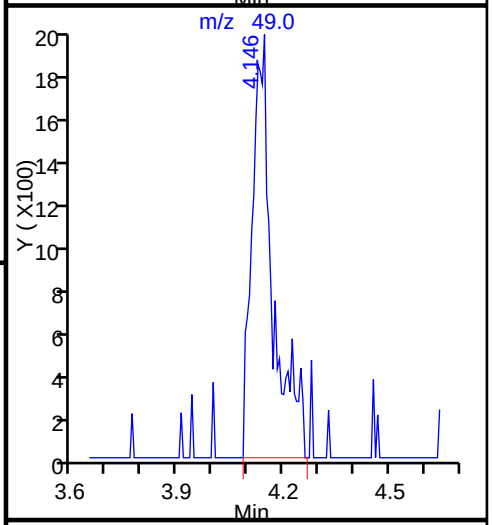
Column: DB-624 (0.18 mm) Detector MS SCAN

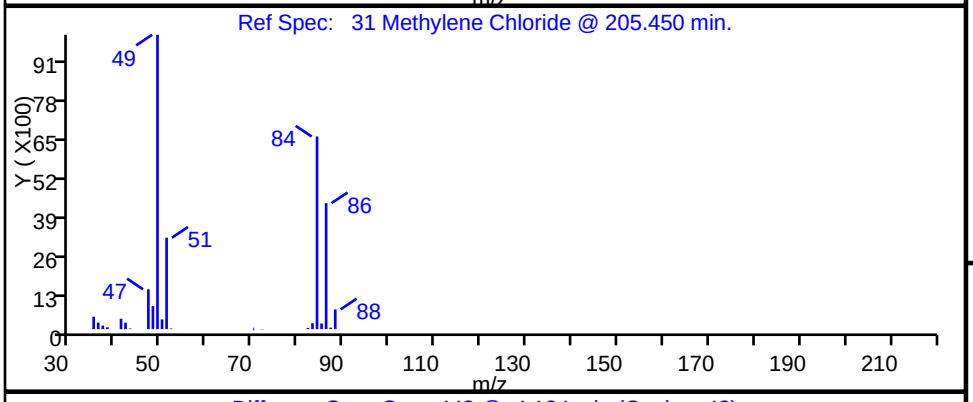
31 Methylene Chloride, CAS: 75-09-2

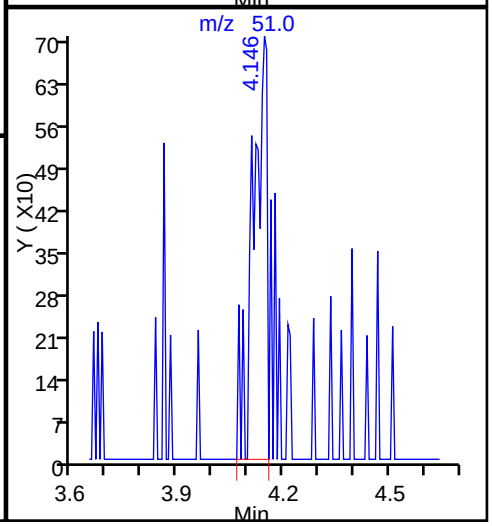


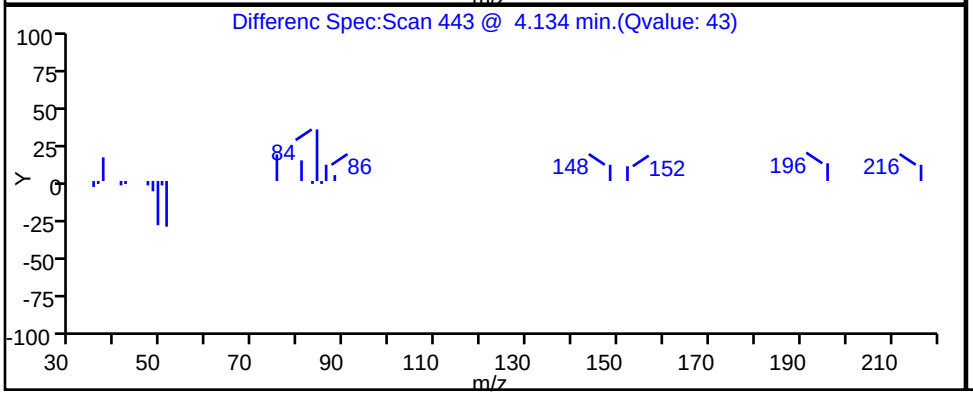












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-143339/7

Matrix: Water Lab File ID: 7053107.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 20(mL) Date Analyzed: 05/31/2015 14:05

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.: 143339 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.: 180-44321-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-143339/7

Matrix: Water Lab File ID: 7053107.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 20(mL) Date Analyzed: 05/31/2015 14:05

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.: 143339 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		64-135
2037-26-5	Toluene-d8 (Surr)	114		71-118
460-00-4	4-Bromofluorobenzene (Surr)	101		70-118
1868-53-7	Dibromofluoromethane (Surr)	106		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150531-7191.b\7053107.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 31-May-2015 14:05:30 ALS Bottle#: 7 Worklist Smp#: 7
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: mb
Misc. Info.: 180-0007169-007
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150531-7191.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 09:14:45 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

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

First Level Reviewer: journetp Date: 01-Jun-2015 09:01:20

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.582	4.678	-0.096	95	383779	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.417	7.404	0.013	98	1541773	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.471	10.470	0.001	87	401657	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.789	12.787	0.002	96	448562	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.687	6.680	0.007	92	522164	200.0	212.3	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.046	7.039	0.007	94	474717	200.0	202.5	
$ 7 Toluene-d8 (Surr)	98	9.035	9.034	0.001	93	1354266	200.0	227.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.633	11.632	0.001	90	537742	200.0	201.9	
11 Dichlorodifluoromethane	85		1.910					ND	
12 Chloromethane	50		2.038					ND	
14 Butadiene	39		2.184					ND	
13 Vinyl chloride	62		2.214					ND	
15 Bromomethane	94		2.500					ND	
16 Chloroethane	64		2.646					ND	
18 Trichlorofluoromethane	101		2.877					ND	
17 Dichlorofluoromethane	67		2.902					ND	
20 Ethyl ether	59		3.346					ND	
19 Ethanol	45		3.358					ND	
21 Acrolein	56		3.486					ND	
22 1,1-Dichloroethene	96		3.583					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.753					ND	
24 Acetone	43		3.753					ND	
25 Iodomethane	142		3.802					ND	
27 Isopropyl alcohol	45		3.832					ND	
26 Carbon disulfide	76		3.863					ND	
29 Acetonitrile	40		4.179					ND	
28 3-Chloro-1-propene	76		4.179					ND	
30 Methyl acetate	43		4.295					ND	
31 Methylene Chloride	84		4.362					ND	
33 Acrylonitrile	53		4.769					ND	
34 trans-1,2-Dichloroethene	96		4.775					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
32 2-Methyl-2-propanol	59		4.794					ND	
35 Methyl tert-butyl ether	73		4.836					ND	
38 Vinyl acetate	43		5.165					ND	
36 Hexane	57		5.171					ND	
37 1,1-Dichloroethane	63		5.353					ND	
41 Isopropyl ether	45		5.426					ND	
40 Isopropyl ether TIC	45		5.444					ND	
39 2-Chloro-1,3-butadiene	53		5.484					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
42 Tert-butyl ethyl ether	59		6.095					ND	
44 2,2-Dichloropropane	77		6.096					ND	
45 cis-1,2-Dichloroethene	96		6.108					ND	
46 2-Butanone (MEK)	43		6.163					ND	
48 Ethyl acetate	43		6.168					ND	
50 Methacrylonitrile	41		6.375					ND	
49 Chlorobromomethane	128		6.388					ND	
47 Propionitrile	54		6.430					ND	
52 Chloroform	83		6.497					ND	
53 1,1,1-Trichloroethane	97		6.680					ND	
54 Cyclohexane	56		6.728					ND	
51 Tetrahydrofuran	42		6.734					ND	
56 Carbon tetrachloride	117		6.868					ND	
55 1,1-Dichloropropene	75		6.874					ND	
58 Benzene	78		7.093					ND	
59 1,2-Dichloroethane	62		7.130					ND	
60 Tert-amyl methyl ether (TI	73		7.201					ND	
57 Isobutyl alcohol	41		7.276					ND	
61 Tert-amyl methyl ether	73		7.403					ND	
62 n-Heptane	43		7.404					ND	
64 Trichloroethene	130		7.793					ND	
66 Methylcyclohexane	83		7.988					ND	
69 Methyl methacrylate	69		7.993					ND	
65 Ethyl acrylate	55		7.993					ND	
67 1,2-Dichloropropane	63		8.024					ND	
63 n-Butanol	56		8.103					ND	
68 Dibromomethane	93		8.146					ND	
70 1,4-Dioxane	88		8.182					ND	
71 Dichlorobromomethane	83		8.316					ND	
72 2-Nitropropane	41		8.450					ND	
73 2-Chloroethyl vinyl ether	63		8.760					ND	
74 cis-1,3-Dichloropropene	75		8.766					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.931					ND	
76 Toluene	91		9.101					ND	
77 trans-1,3-Dichloropropene	75		9.326					ND	
78 Ethyl methacrylate	69		9.423					ND	
79 1,1,2-Trichloroethane	97		9.502					ND	
80 Tetrachloroethene	164		9.648					ND	
81 1,3-Dichloropropane	76		9.673					ND	
83 n-Butyl acetate	43		9.757					ND	
82 2-Hexanone	43		9.758					ND	
84 Chlorodibromomethane	129		9.898					ND	
85 Ethylene Dibromide	107		10.007					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
87 Chlorobenzene	112		10.494					ND	
86 3-Chlorobenzotrifluoride	180		10.516					ND	
88 4-Chlorobenzotrifluoride	180		10.571					ND	
89 1,1,1,2-Tetrachloroethane	131		10.573					ND	
90 Ethylbenzene	106		10.603					ND	
91 m-Xylene & p-Xylene	106		10.719					ND	
92 o-Xylene	106		11.108					ND	
93 Styrene	104		11.127					ND	
94 Bromoform	173		11.315					ND	
96 2-Chlorobenzotrifluoride	180		11.417					ND	
95 Cyclohexanol	57		11.479					ND	
97 Isopropylbenzene	105		11.479					ND	
99 1,1,2,2-Tetrachloroethane	83		11.765					ND	
100 Bromobenzene	156		11.784					ND	
101 1,2,3-Trichloropropane	110		11.814					ND	
102 trans-1,4-Dichloro-2-buten	53		11.832					ND	
103 N-Propylbenzene	120		11.887					ND	
98 Cyclohexanone	55		11.893					ND	
104 2-Chlorotoluene	126		11.978					ND	
106 1,3,5-Trimethylbenzene	105		12.057					ND	
105 3-Chlorotoluene	126		12.087					ND	
107 4-Chlorotoluene	126		12.088					ND	
108 tert-Butylbenzene	119		12.386					ND	
109 Pentachloroethane	167		12.404					ND	
110 1,2,4-Trimethylbenzene	105		12.435					ND	
111 1,2-dichloro-4-(trifluorom	214		12.548					ND	
117 1,2,3-Trimethylbenzene	105		12.605					ND	
112 sec-Butylbenzene	105		12.605					ND	
113 1,3-Dichlorobenzene	146		12.720					ND	
114 4-Isopropyltoluene	119		12.751					ND	
115 1,4-Dichlorobenzene	146		12.812					ND	
116 2,4-Dichloro-1-(triflourom	214		12.907					ND	
118 2,5-Dichlorobenzotrifluori	214		12.950					ND	
119 Benzyl chloride	91		13.158					ND	
120 n-Butylbenzene	91		13.159					ND	
121 1,2-Dichlorobenzene	146		13.183					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.968					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.166					ND	
124 1,3,5-Trichlorobenzene	180		14.229					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.580					ND	
126 1,2,4-Trichlorobenzene	180		14.801					ND	
127 Hexachlorobutadiene	225		14.965					ND	
128 Naphthalene	128		15.050					ND	
129 1,2,3-Trichlorobenzene	180		15.300					ND	
130 2,3,6-Trichlorotoluene	159		16.107					ND	
131 2,4,5-Trichlorotoluene	159		16.198					ND	
132 2-Methylnaphthalene	142		16.541					ND	
146 2,5-Dichlorotoluene	1		0.000					ND	
148 2,3-Dichlorotoluene	1		0.000					ND	
152 Formaldehyde TIC	1		0.000					ND	
150 2,6-Dichlorotoluene	1		0.000					ND	
149 3,4-Dichlorotoluene	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
153 1,2 Epoxybutane TIC	1		0.000					ND	
151 Isooctane	57		0.000					ND	
147 2,4-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 138 Methyl n-amyl ketone TIC	43		0.000					ND	
T 137 Tetrahydrofuran TIC	42		0.000					ND	
T 136 Mesityl oxide TIC	83		0.000					ND	

Reagents:

VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

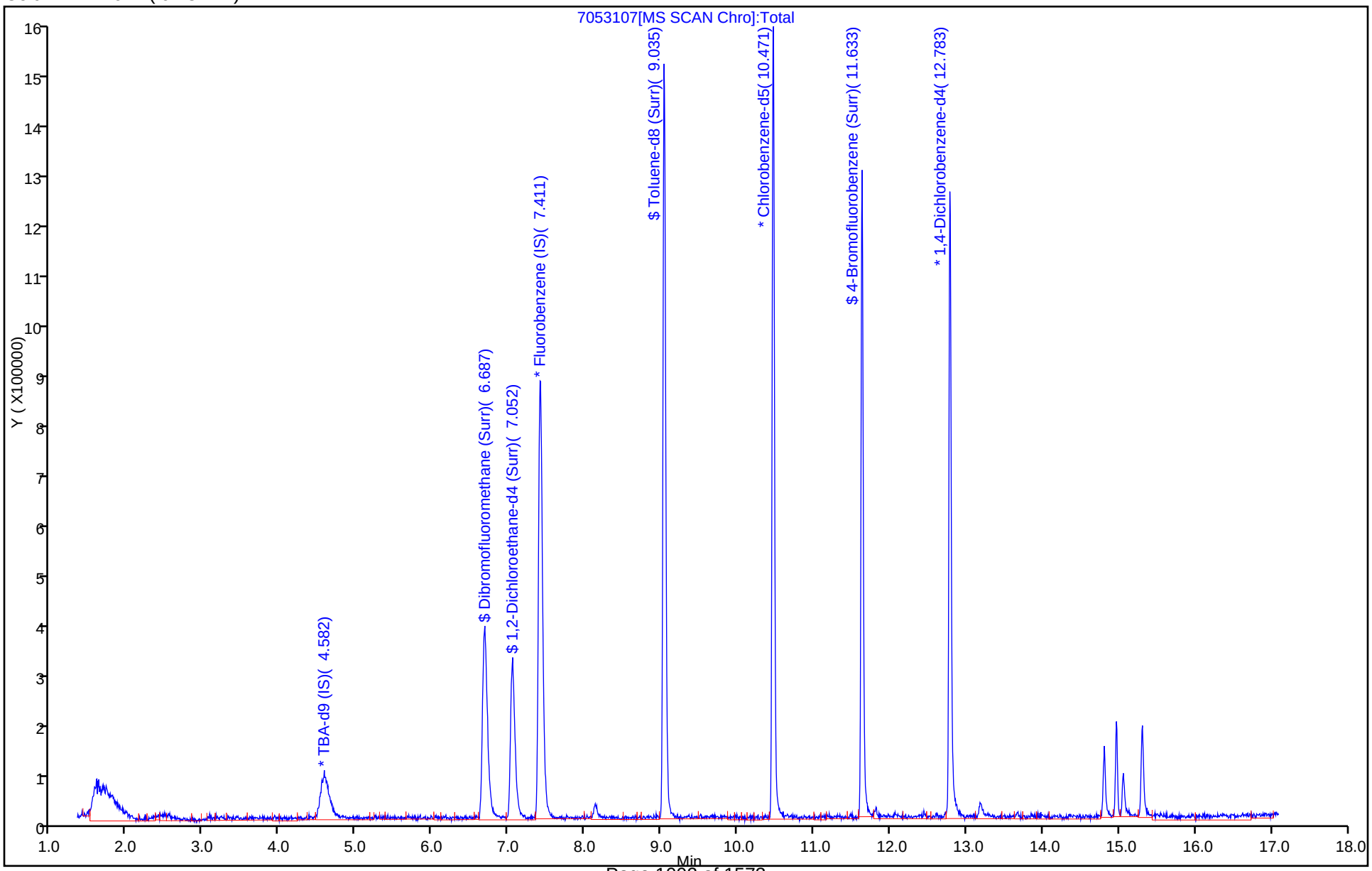
Report Date: 01-Jun-2015 09:14:46 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150531-7191.b\7053107.D

Injection Date:	31-May-2015 14:05:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	mb			Worklist Smp#:	7
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\PITCHROM\ChromData\CHHP7\20150531-7191.b\7053107.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 31-May-2015 14:05:30 ALS Bottle#: 7 Worklist Smp#: 7
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: mb
Misc. Info.: 180-0007169-007
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150531-7191.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 09:14:45 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

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

First Level Reviewer: journetp Date: 01-Jun-2015 09:01:20

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	200.0	212.3	106.16
$ 6 1,2-Dichloroethane-d4 (Surr)	200.0	202.5	101.23
$ 7 Toluene-d8 (Surr)	200.0	227.3	113.66
$ 8 4-Bromofluorobenzene (Surr)	200.0	201.9	100.96

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-143422/6

Matrix: Water Lab File ID: 7060106.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 20(mL) Date Analyzed: 06/01/2015 12:21

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143422 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.: 180-44321-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-143422/6

Matrix: Water Lab File ID: 7060106.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 20(mL) Date Analyzed: 06/01/2015 12:21

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143422 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)	95		64-135
2037-26-5	Toluene-d8 (Surr)	110		71-118
460-00-4	4-Bromofluorobenzene (Surr)	94		70-118
1868-53-7	Dibromofluoromethane (Surr)	101		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060106.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 01-Jun-2015 12:21:30 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: MB
Misc. Info.: 180-0007205-006
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 16:53:05 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

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

First Level Reviewer: journetp Date: 01-Jun-2015 12:53:24

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.598	4.665	-0.067	90	362692	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.408	7.403	0.005	99	1370560	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.468	10.463	0.005	86	358269	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.786	12.787	-0.001	96	371489	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.678	6.679	-0.001	92	442654	200.0	202.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.049	7.038	0.011	92	395052	200.0	189.5	
$ 7 Toluene-d8 (Surr)	98	9.039	9.033	0.006	93	1166821	200.0	219.6	
$ 8 4-Bromofluorobenzene (Surr	95	11.630	11.631	-0.001	90	450106	200.0	188.6	
11 Dichlorodifluoromethane	85		1.916					ND	
12 Chloromethane	50		2.049					ND	
14 Butadiene	39		2.208					ND	
13 Vinyl chloride	62		2.232					ND	
15 Bromomethane	94		2.506					ND	
16 Chloroethane	64		2.621					ND	
18 Trichlorofluoromethane	101		2.877					ND	
17 Dichlorofluoromethane	67		2.901					ND	
19 Ethanol	45		3.388					ND	
20 Ethyl ether	59		3.327					ND	
21 Acrolein	56		3.516					ND	
22 1,1-Dichloroethene	96		3.540					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.716					ND	
27 Isopropyl alcohol	45		3.784					ND	
25 Iodomethane	142		3.765					ND	
24 Acetone	43		3.783					ND	
26 Carbon disulfide	76		3.868					ND	
28 3-Chloro-1-propene	76		4.142					ND	
29 Acetonitrile	40		4.210					ND	
30 Methyl acetate	43		4.306					ND	
31 Methylene Chloride	84		4.398					ND	
34 trans-1,2-Dichloroethene	96		4.781					ND	
32 2-Methyl-2-propanol	59		4.787					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
33 Acrylonitrile	53		4.799					ND	
35 Methyl tert-butyl ether	73		4.854					ND	
38 Vinyl acetate	43		5.170					ND	
36 Hexane	57		5.164					ND	
37 1,1-Dichloroethane	63		5.359					ND	
41 Isopropyl ether	45		5.426					ND	
40 Isopropyl ether TIC	45		5.444					ND	
39 2-Chloro-1,3-butadiene	53		5.484					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
44 2,2-Dichloropropane	77		6.095					ND	
42 Tert-butyl ethyl ether	59		6.095					ND	
45 cis-1,2-Dichloroethene	96		6.095					ND	
48 Ethyl acetate	43		6.175					ND	
46 2-Butanone (MEK)	43		6.180					ND	
50 Methacrylonitrile	41		6.375					ND	
49 Chlorobromomethane	128		6.387					ND	
47 Propionitrile	54		6.430					ND	
52 Chloroform	83		6.497					ND	
53 1,1,1-Trichloroethane	97		6.679					ND	
51 Tetrahydrofuran	42		6.740					ND	
54 Cyclohexane	56		6.734					ND	
55 1,1-Dichloropropene	75		6.868					ND	
56 Carbon tetrachloride	117		6.862					ND	
58 Benzene	78		7.099					ND	
59 1,2-Dichloroethane	62		7.123					ND	
60 Tert-amyl methyl ether (TI	73		7.227					ND	
57 Isobutyl alcohol	41		7.105					ND	
61 Tert-amyl methyl ether	73	7.402	7.404	-0.002	37	5762			NC
62 n-Heptane	43		7.403					ND	
64 Trichloroethene	130		7.798					ND	
66 Methylcyclohexane	83		7.993					ND	
65 Ethyl acrylate	55		7.994					ND	
69 Methyl methacrylate	69		7.994					ND	
63 n-Butanol	56		8.103					ND	
67 1,2-Dichloropropane	63		8.023					ND	
68 Dibromomethane	93		8.139					ND	
70 1,4-Dioxane	88		8.194					ND	
71 Dichlorobromomethane	83		8.315					ND	
72 2-Nitropropane	41		8.492					ND	
73 2-Chloroethyl vinyl ether	63	8.868	8.766	0.102	1	285			NC
74 cis-1,3-Dichloropropene	75		8.772					ND	
75 4-Methyl-2-pentanone (MIBK	43		8.936					ND	
76 Toluene	91		9.100					ND	
77 trans-1,3-Dichloropropene	75		9.325					ND	
78 Ethyl methacrylate	69		9.417					ND	
79 1,1,2-Trichloroethane	97		9.508					ND	
80 Tetrachloroethene	164		9.642					ND	
81 1,3-Dichloropropane	76		9.672					ND	
83 n-Butyl acetate	43		9.758					ND	
82 2-Hexanone	43		9.763					ND	
84 Chlorodibromomethane	129		9.897					ND	
85 Ethylene Dibromide	107		10.007					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
87 Chlorobenzene	112		10.493					ND	
86 3-Chlorobenzotrifluoride	180		10.516					ND	
88 4-Chlorobenzotrifluoride	180		10.571					ND	
89 1,1,1,2-Tetrachloroethane	131		10.572					ND	
90 Ethylbenzene	106		10.603					ND	
91 m-Xylene & p-Xylene	106		10.718					ND	
92 o-Xylene	106		11.114					ND	
93 Styrene	104		11.126					ND	
94 Bromoform	173		11.315					ND	
96 2-Chlorobenzotrifluoride	180		11.417					ND	
95 Cyclohexanol	57	11.521	11.473	0.048	0	214			NC
97 Isopropylbenzene	105		11.479					ND	
99 1,1,2,2-Tetrachloroethane	83		11.771					ND	
100 Bromobenzene	156		11.783					ND	
101 1,2,3-Trichloropropane	110		11.813					ND	
102 trans-1,4-Dichloro-2-buten	53		11.832					ND	
103 N-Propylbenzene	120		11.886					ND	
98 Cyclohexanone	55	11.959	11.905	0.054	1	389			NC
104 2-Chlorotoluene	126		11.972					ND	
106 1,3,5-Trimethylbenzene	105		12.057					ND	
105 3-Chlorotoluene	126	11.989	12.082	-0.093	1	212			NC
107 4-Chlorotoluene	126		12.087					ND	
108 tert-Butylbenzene	119		12.385					ND	
109 Pentachloroethane	167		12.404					ND	
110 1,2,4-Trimethylbenzene	105		12.434					ND	
111 1,2-dichloro-4-(trifluorom	214		12.548					ND	
112 sec-Butylbenzene	105		12.604					ND	
117 1,2,3-Trimethylbenzene	105	12.749	12.605	0.144	1	224			NC
113 1,3-Dichlorobenzene	146		12.720					ND	
114 4-Isopropyltoluene	119		12.750					ND	
115 1,4-Dichlorobenzene	146		12.811					ND	
116 2,4-Dichloro-1-(triflourom	214		12.907					ND	
118 2,5-Dichlorobenzotrifluori	214		12.950					ND	
119 Benzyl chloride	91		13.158					ND	
120 n-Butylbenzene	91		13.158					ND	
121 1,2-Dichlorobenzene	146		13.188					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.967					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.166					ND	
124 1,3,5-Trichlorobenzene	180		14.229					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.580					ND	
126 1,2,4-Trichlorobenzene	180		14.800					ND	
127 Hexachlorobutadiene	225		14.971					ND	
128 Naphthalene	128		15.050					ND	
129 1,2,3-Trichlorobenzene	180		15.305					ND	
130 2,3,6-Trichlorotoluene	159		16.107					ND	
131 2,4,5-Trichlorotoluene	159		16.198					ND	
132 2-Methylnaphthalene	142		16.541					ND	
146 2,5-Dichlorotoluene	1		0.000					ND	
151 Isooctane	57		0.000					ND	
152 Formaldehyde TIC	1		0.000					ND	
148 2,3-Dichlorotoluene	1		0.000					ND	
149 3,4-Dichlorotoluene	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
153 1,2 Epoxybutane TIC	1		0.000					ND	
150 2,6-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		1.000					ND	
S 135 1,3-Dichloropropene, Total	1		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	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

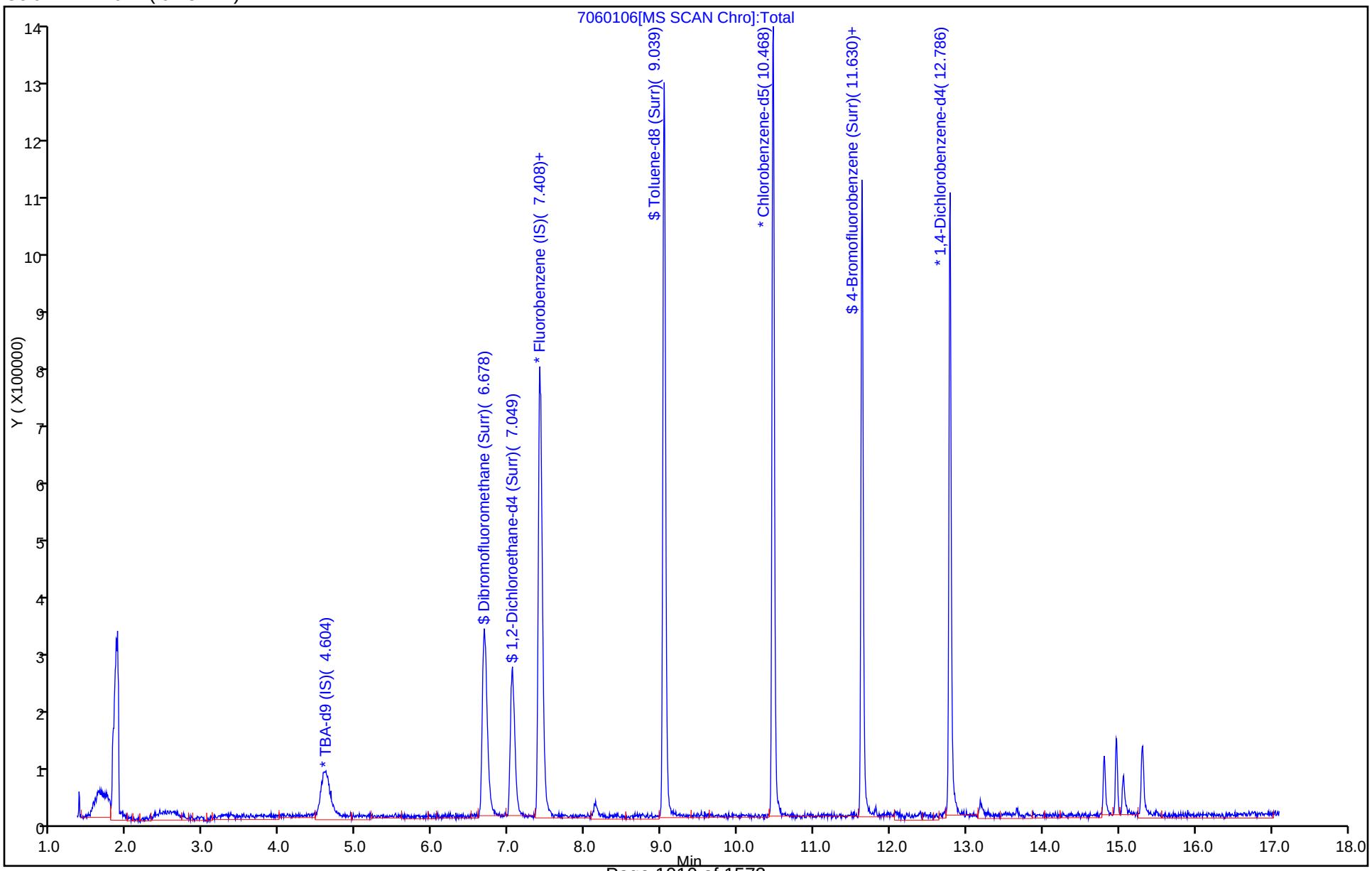
Report Date: 01-Jun-2015 16:53:08 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060106.D

Injection Date:	01-Jun-2015 12:21:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	mb			Worklist Smp#:	6
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060106.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 01-Jun-2015 12:21:30 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: MB
Misc. Info.: 180-0007205-006
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 16:53:05 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

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

First Level Reviewer: journetp Date: 01-Jun-2015 12:53:24

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	200.0	202.5	101.24
$ 6 1,2-Dichloroethane-d4 (Surr)	200.0	189.5	94.77
$ 7 Toluene-d8 (Surr)	200.0	219.6	109.79
$ 8 4-Bromofluorobenzene (Surr)	200.0	188.6	94.28

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-143527/7

Matrix: Water Lab File ID: 7060207.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 20(mL) Date Analyzed: 06/02/2015 13:18

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.: 143527 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.: 180-44321-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-143527/7

Matrix: Water Lab File ID: 7060207.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 20(mL) Date Analyzed: 06/02/2015 13:18

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.: 143527 Units: ug/L

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

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	94		64-135
2037-26-5	Toluene-d8 (Surr)	109		71-118
460-00-4	4-Bromofluorobenzene (Surr)	103		70-118
1868-53-7	Dibromofluoromethane (Surr)	106		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060207.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 02-Jun-2015 13:18:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: mb
Misc. Info.: 180-0007217-007
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150602-7217.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 02-Jun-2015 15:41:08 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK014

First Level Reviewer: journetp Date: 02-Jun-2015 13:52:21

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.574	4.695	-0.121	97	309665	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.409	7.402	0.007	99	1402793	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.469	10.462	0.007	86	372700	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.781	12.786	-0.005	95	404518	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.685	6.684	0.001	90	474848	200.0	212.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.044	7.043	0.001	92	403015	200.0	188.9	
$ 7 Toluene-d8 (Surr)	98	9.040	9.039	0.001	93	1206766	200.0	218.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.631	11.630	0.001	90	509964	200.0	206.7	
11 Dichlorodifluoromethane	85		1.921					ND	
12 Chloromethane	50		2.030					ND	
13 Vinyl chloride	62		2.231					ND	
14 Butadiene	39		2.207					ND	
15 Bromomethane	94		2.493					ND	
16 Chloroethane	64		2.621					ND	
17 Dichlorofluoromethane	67		2.876					ND	
18 Trichlorofluoromethane	101		2.888					ND	
19 Ethanol	45		3.363					ND	
20 Ethyl ether	59		3.357					ND	
21 Acrolein	56		3.509					ND	
22 1,1-Dichloroethene	96		3.588					ND	
23 1,1,2-Trichloro-1,2,2-trif	101		3.691					ND	
24 Acetone	43		3.801					ND	
27 Isopropyl alcohol	45		3.789					ND	
25 Iodomethane	142		3.801					ND	
26 Carbon disulfide	76		3.837					ND	
28 3-Chloro-1-propene	76		4.148					ND	
29 Acetonitrile	40		4.233					ND	
30 Methyl acetate	43		4.294					ND	
31 Methylene Chloride	84		4.373					ND	
33 Acrylonitrile	53		4.792					ND	
32 2-Methyl-2-propanol	59		4.786					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		4.792					ND	
35 Methyl tert-butyl ether	73		4.847					ND	
36 Hexane	57		5.170					ND	
38 Vinyl acetate	43		5.176					ND	
41 Isopropyl ether	45		5.310					ND	
37 1,1-Dichloroethane	63		5.358					ND	
40 Isopropyl ether TIC	45		5.444					ND	
39 2-Chloro-1,3-butadiene	53		5.484					ND	
43 Tert-butyl ethyl ether (TI	59		5.961					ND	
42 Tert-butyl ethyl ether	59		6.095					ND	
44 2,2-Dichloropropane	77		6.088					ND	
45 cis-1,2-Dichloroethene	96		6.094					ND	
46 2-Butanone (MEK)	43		6.161					ND	
48 Ethyl acetate	43		6.168					ND	
50 Methacrylonitrile	41		6.375					ND	
49 Chlorobromomethane	128		6.380					ND	
47 Propionitrile	54		6.430					ND	
52 Chloroform	83		6.496					ND	
53 1,1,1-Trichloroethane	97		6.684					ND	
51 Tetrahydrofuran	42		6.739					ND	
54 Cyclohexane	56		6.739					ND	
56 Carbon tetrachloride	117		6.867					ND	
55 1,1-Dichloropropene	75		6.873					ND	
58 Benzene	78		7.092					ND	
59 1,2-Dichloroethane	62		7.122					ND	
60 Tert-amyl methyl ether (TI	73		7.227					ND	
61 Tert-amyl methyl ether	73	7.409	7.415	-0.006	37	22350			NC
62 n-Heptane	43		7.414					ND	
57 Isobutyl alcohol	41		7.402					ND	
64 Trichloroethene	130		7.792					ND	
66 Methylcyclohexane	83		7.992					ND	
65 Ethyl acrylate	55		7.999					ND	
67 1,2-Dichloropropane	63		8.029					ND	
63 n-Butanol	56	7.963	8.096	-0.133	1	199			NC
69 Methyl methacrylate	69		8.145					ND	
68 Dibromomethane	93		8.150					ND	
70 1,4-Dioxane	88		8.187					ND	
71 Dichlorobromomethane	83		8.315					ND	
72 2-Nitropropane	41	8.620	8.504	0.116	1	85			NC
74 cis-1,3-Dichloropropene	75		8.765					ND	
73 2-Chloroethyl vinyl ether	63	8.602	8.777	-0.175	1	74			NC
75 4-Methyl-2-pentanone (MIBK	43		8.929					ND	
76 Toluene	91		9.099					ND	
77 trans-1,3-Dichloropropene	75		9.325					ND	
78 Ethyl methacrylate	69		9.416					ND	
79 1,1,2-Trichloroethane	97		9.507					ND	
80 Tetrachloroethene	164		9.647					ND	
81 1,3-Dichloropropane	76		9.671					ND	
83 n-Butyl acetate	43		9.757					ND	
82 2-Hexanone	43		9.763					ND	
84 Chlorodibromomethane	129		9.896					ND	
85 Ethylene Dibromide	107		10.012					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
87 Chlorobenzene	112		10.493					ND	
86 3-Chlorobenzotrifluoride	180		10.516					ND	
88 4-Chlorobenzotrifluoride	180		10.571					ND	
89 1,1,1,2-Tetrachloroethane	131		10.572					ND	
90 Ethylbenzene	106		10.602					ND	
91 m-Xylene & p-Xylene	106		10.718					ND	
92 o-Xylene	106		11.113					ND	
93 Styrene	104		11.125					ND	
94 Bromoform	173		11.314					ND	
96 2-Chlorobenzotrifluoride	180		11.417					ND	
95 Cyclohexanol	57		11.466					ND	
97 Isopropylbenzene	105		11.478					ND	
99 1,1,2,2-Tetrachloroethane	83		11.770					ND	
100 Bromobenzene	156		11.782					ND	
101 1,2,3-Trichloropropane	110		11.819					ND	
102 trans-1,4-Dichloro-2-buten	53		11.825					ND	
103 N-Propylbenzene	120		11.886					ND	
98 Cyclohexanone	55	11.905	11.916	-0.011	1	226			NC
104 2-Chlorotoluene	126		11.977					ND	
106 1,3,5-Trimethylbenzene	105		12.062					ND	
105 3-Chlorotoluene	126	11.996	12.087	-0.091	1	140			NC
107 4-Chlorotoluene	126		12.086					ND	
108 tert-Butylbenzene	119		12.385					ND	
109 Pentachloroethane	167		12.409					ND	
110 1,2,4-Trimethylbenzene	105		12.433					ND	
111 1,2-dichloro-4-(trifluorom	214		12.548					ND	
112 sec-Butylbenzene	105		12.604					ND	
117 1,2,3-Trimethylbenzene	105	12.446	12.604	-0.158	1	1953			NC
113 1,3-Dichlorobenzene	146		12.719					ND	
114 4-Isopropyltoluene	119		12.750					ND	
115 1,4-Dichlorobenzene	146		12.810					ND	
116 2,4-Dichloro-1-(triflourom	214		12.907					ND	
118 2,5-Dichlorobenzotrifluori	214		12.950					ND	
120 n-Butylbenzene	91		13.163					ND	
119 Benzyl chloride	91		13.163					ND	
121 1,2-Dichlorobenzene	146		13.188					ND	
122 1,2-Dibromo-3-Chloropropan	75		13.966					ND	
123 2,4- & 2,5- & 2,6- Dichlor	125		14.166					ND	
124 1,3,5-Trichlorobenzene	180		14.229					ND	
125 2,3- & 3,4- Dichlorotoluen	125		14.580					ND	
126 1,2,4-Trichlorobenzene	180		14.800					ND	
127 Hexachlorobutadiene	225		14.970					ND	
128 Naphthalene	128		15.049					ND	
129 1,2,3-Trichlorobenzene	180		15.305					ND	
130 2,3,6-Trichlorotoluene	159		16.107					ND	
131 2,4,5-Trichlorotoluene	159		16.198					ND	
132 2-Methylnaphthalene	142	16.589	16.541	0.048	1	178			NC
147 2,4-Dichlorotoluene	1		0.000					ND	
150 2,6-Dichlorotoluene	1		0.000					ND	
153 1,2 Epoxybutane TIC	1		0.000					ND	
151 Isooctane	57		0.000					ND	
146 2,5-Dichlorotoluene	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
149 3,4-Dichlorotoluene	1		0.000					ND	
148 2,3-Dichlorotoluene	1		0.000					ND	
152 Formaldehyde TIC	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 138 Methyl n-amyl ketone TIC	43		0.000					ND	
T 137 Tetrahydrofuran TIC	42		0.000					ND	
T 136 Mesityl oxide TIC	83		0.000					ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

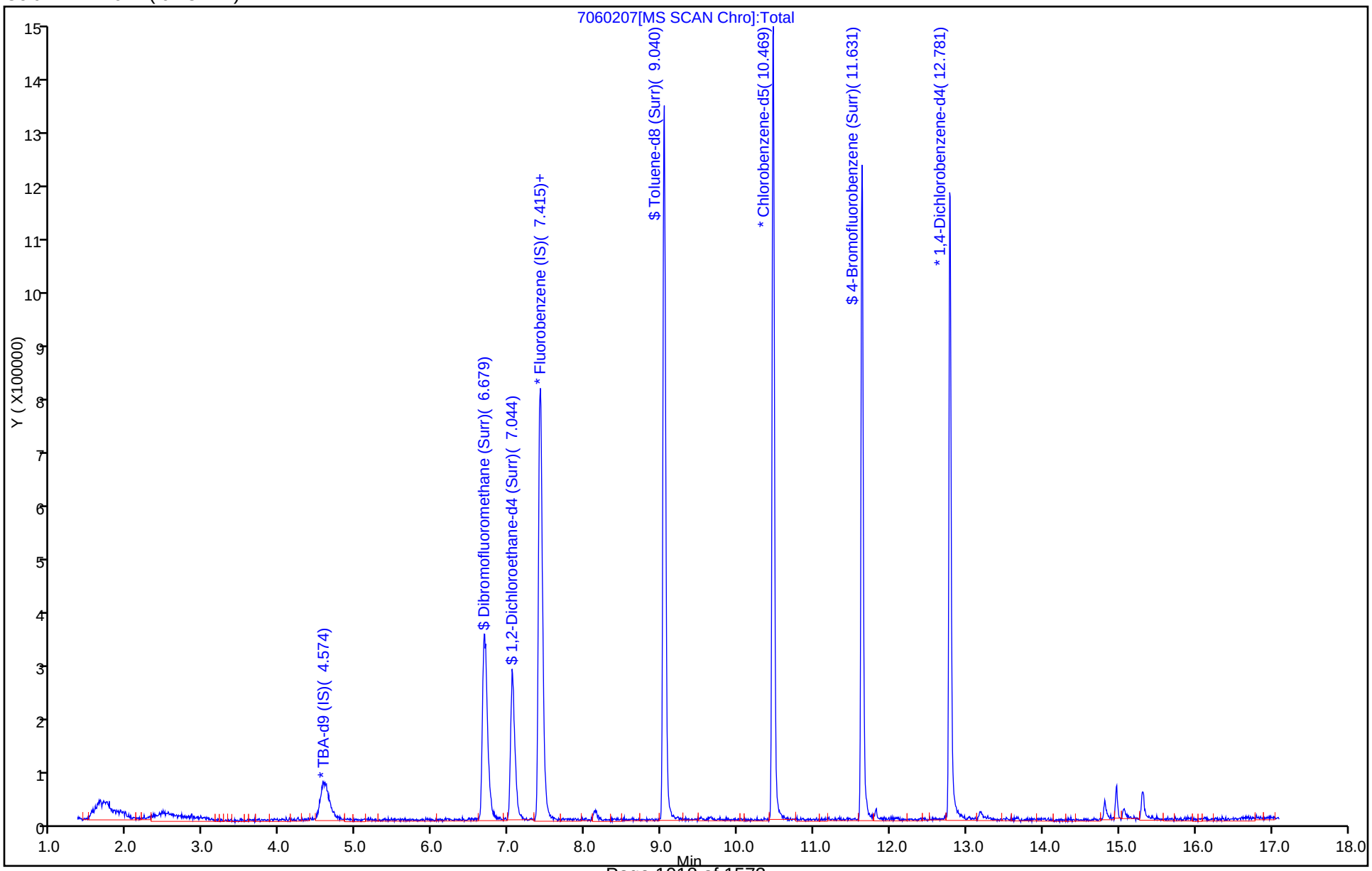
VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

Report Date: 02-Jun-2015 15:41:11 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060207.D				
Injection Date:	02-Jun-2015 13:18:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	mb			Worklist Smp#:	7
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060207.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 02-Jun-2015 13:18:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: mb
Misc. Info.: 180-0007217-007
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150602-7217.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 02-Jun-2015 15:41:08 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK014

First Level Reviewer: journetp Date: 02-Jun-2015 13:52:21

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	200.0	212.2	106.10
$ 6 1,2-Dichloroethane-d4 (Surr)	200.0	188.9	94.46
$ 7 Toluene-d8 (Surr)	200.0	218.3	109.15
$ 8 4-Bromofluorobenzene (Surr)	200.0	206.7	103.35

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-143153/13

Matrix: Water Lab File ID: 7052912.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 20(mL) Date Analyzed: 05/29/2015 14:18

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143153 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	7.48		1.0	0.28
75-01-4	Vinyl chloride	5.91		1.0	0.23
74-83-9	Bromomethane	6.58		1.0	0.31
75-00-3	Chloroethane	4.70		1.0	0.21
75-35-4	1,1-Dichloroethene	8.72		1.0	0.30
67-64-1	Acetone	15.9		5.0	2.5
75-15-0	Carbon disulfide	8.71		1.0	0.21
75-09-2	Methylene Chloride	11.8		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	9.03		1.0	0.17
1634-04-4	Methyl tert-butyl ether	12.4		1.0	0.18
75-34-3	1,1-Dichloroethane	11.0		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	11.2		1.0	0.24
74-97-5	Bromochloromethane	11.0		1.0	0.18
78-93-3	2-Butanone (MEK)	15.3		5.0	0.55
67-66-3	Chloroform	10.9		1.0	0.17
71-55-6	1,1,1-Trichloroethane	9.92		1.0	0.29
56-23-5	Carbon tetrachloride	9.04		1.0	0.14
71-43-2	Benzene	10.3		1.0	0.11
107-06-2	1,2-Dichloroethane	11.6		1.0	0.21
79-01-6	Trichloroethene	8.66		1.0	0.14
78-87-5	1,2-Dichloropropane	11.5		1.0	0.095
75-27-4	Bromodichloromethane	11.2		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	11.0		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	18.0		5.0	0.53
108-88-3	Toluene	9.39		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	10.5		1.0	0.15
79-00-5	1,1,2-Trichloroethane	11.0		1.0	0.20
127-18-4	Tetrachloroethene	8.13		1.0	0.15
591-78-6	2-Hexanone	17.6		5.0	0.16
124-48-1	Dibromochloromethane	10.2		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	10.7		1.0	0.18
108-90-7	Chlorobenzene	10.3		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	10.4		1.0	0.28
100-41-4	Ethylbenzene	8.98		1.0	0.23
1330-20-7	Xylenes, Total	18.6		3.0	0.49
100-42-5	Styrene	10.5		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-143153/13

Matrix: Water Lab File ID: 7052912.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 20(mL) Date Analyzed: 05/29/2015 14:18

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143153 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	9.74		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	10.9		1.0	0.20
107-13-1	Acrylonitrile	102		20	0.55
123-91-1	1,4-Dioxane	227		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)	102		71-118
460-00-4	4-Bromofluorobenzene (Surr)	104		70-118
1868-53-7	Dibromofluoromethane (Surr)	101		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052912.D
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 29-May-2015 14:18:30 ALS Bottle#: 9 Worklist Smp#: 13
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: LCS
Misc. Info.: 180-0007169-013
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 31-May-2015 10:15:40 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK011

First Level Reviewer: journetp Date: 29-May-2015 16:58:36

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.653	4.658	-0.005	95	342961	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.403	7.408	-0.005	95	1062345	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.463	10.468	-0.005	85	325424	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.787	12.785	0.002	94	381844	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.673	6.684	-0.011	84	343147	200.0	202.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.044	7.037	0.007	93	361958	200.0	224.0	
$ 7 Toluene-d8 (Surr)	98	9.033	9.038	-0.005	92	981874	200.0	203.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.631	11.630	0.001	89	448928	200.0	208.5	
11 Dichlorodifluoromethane	85	1.952	1.926	0.026	26	238711	200.0	121.2	
12 Chloromethane	50	2.025	2.048	-0.023	69	320949	200.0	149.6	M
14 Butadiene	39	2.195	2.200	-0.005	95	208472	200.0	118.2	
13 Vinyl chloride	62	2.220	2.212	0.008	87	197520	200.0	118.2	
15 Bromomethane	94	2.530	2.517	0.013	80	177176	200.0	131.6	
16 Chloroethane	64	2.627	2.590	0.037	46	126691	200.0	94.0	
18 Trichlorofluoromethane	101	2.865	2.900	-0.036	83	407265	200.0	108.0	
17 Dichlorofluoromethane	67	2.889	2.912	-0.023	94	427037	200.0	119.1	
20 Ethyl ether	59	3.351	3.332	0.019	88	235930	200.0	197.1	
21 Acrolein	56	3.522	3.508	0.014	52	44526	600.0	538.8	
22 1,1-Dichloroethene	96	3.558	3.563	-0.005	93	248871	200.0	174.5	
23 1,1,2-Trichloro-1,2,2-trif	101	3.716	3.721	-0.005	89	258619	200.0	155.9	
24 Acetone	43	3.789	3.764	0.025	27	111340	400.0	318.3	
25 Iodomethane	142	3.795	3.788	0.007	97	585820	200.0	196.3	
26 Carbon disulfide	76	3.868	3.861	0.007	100	746308	200.0	174.2	M
28 3-Chloro-1-propene	76	4.185	4.177	0.008	86	209463	200.0	199.1	M
30 Methyl acetate	43	4.282	4.293	-0.011	97	821128	1000.0	1160.1	
31 Methylene Chloride	84	4.379	4.384	-0.005	96	361535	200.0	236.2	
33 Acrylonitrile	53	4.775	4.773	0.002	98	578076	2000.0	2041.7	
34 trans-1,2-Dichloroethene	96	4.756	4.780	-0.024	86	319535	200.0	180.6	
32 2-Methyl-2-propanol	59	4.769	4.780	-0.011	87	196011	2000.0	17639	E
35 Methyl tert-butyl ether	73	4.860	4.853	0.007	97	861655	200.0	247.1	
36 Hexane	57	5.176	5.169	0.007	95	277237	200.0	149.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
38 Vinyl acetate	43	5.164	5.181	-0.017	95	189572	200.0	135.8	
37 1,1-Dichloroethane	63	5.359	5.351	0.008	96	569000	200.0	219.4	
44 2,2-Dichloropropane	77	6.101	6.088	0.013	75	443007	200.0	204.4	
45 cis-1,2-Dichloroethene	96	6.101	6.094	0.007	79	394166	200.0	224.4	
46 2-Butanone (MEK)	43	6.168	6.167	0.001	86	145312	400.0	305.2	
49 Chlorobromomethane	128	6.375	6.386	-0.011	93	222834	200.0	220.3	
52 Chloroform	83	6.496	6.495	0.001	93	637574	200.0	218.3	
53 1,1,1-Trichloroethane	97	6.679	6.678	0.001	97	526507	200.0	198.5	
51 Tetrahydrofuran	42	6.746	6.738	0.008	47	93101	400.0	357.4	
54 Cyclohexane	56	6.740	6.745	-0.005	93	359539	200.0	192.1	
55 1,1-Dichloropropene	75	6.861	6.866	-0.005	86	336587	200.0	175.7	
56 Carbon tetrachloride	117	6.861	6.872	-0.011	96	483651	200.0	180.8	
58 Benzene	78	7.093	7.097	-0.004	97	1073846	200.0	205.4	
59 1,2-Dichloroethane	62	7.123	7.128	-0.005	68	409404	200.0	231.8	
57 Isobutyl alcohol	41	7.409	7.414	-0.005	49	184522	5000.0	4326.4	
62 n-Heptane	43	7.403	7.414	-0.011	57	275319	200.0	169.9	
64 Trichloroethene	130	7.792	7.791	0.001	94	362816	200.0	173.1	
66 Methylcyclohexane	83	7.993	7.986	0.007	90	440293	200.0	170.9	
67 1,2-Dichloropropane	63	8.029	8.022	0.007	86	273862	200.0	230.0	
68 Dibromomethane	93	8.145	8.144	0.001	95	199301	200.0	224.7	
70 1,4-Dioxane	88	8.200	8.180	0.020	67	37830	4000.0	4544.4	
71 Dichlorobromomethane	83	8.315	8.314	0.001	98	494780	200.0	224.1	
74 cis-1,3-Dichloropropene	75	8.765	8.770	-0.005	93	504014	200.0	220.0	
75 4-Methyl-2-pentanone (MIBK	43	8.930	8.935	-0.005	94	342283	400.0	359.9	
76 Toluene	91	9.106	9.105	0.001	98	1106159	200.0	187.8	
77 trans-1,3-Dichloropropene	75	9.319	9.324	-0.005	96	430025	200.0	210.2	
78 Ethyl methacrylate	69	9.416	9.421	-0.005	89	294454	200.0	216.4	
79 1,1,2-Trichloroethane	97	9.508	9.506	0.002	93	257648	200.0	220.6	
80 Tetrachloroethene	164	9.648	9.646	0.002	95	257735	200.0	162.7	
81 1,3-Dichloropropane	76	9.672	9.677	-0.005	92	396511	200.0	229.7	
82 2-Hexanone	43	9.757	9.762	-0.005	97	216274	400.0	352.6	
84 Chlorodibromomethane	129	9.897	9.896	0.001	89	409993	200.0	204.2	
85 Ethylene Dibromide	107	10.013	10.011	0.002	99	284380	200.0	214.9	
87 Chlorobenzene	112	10.493	10.498	-0.005	94	856001	200.0	206.4	
89 1,1,1,2-Tetrachloroethane	131	10.572	10.577	-0.005	93	415719	200.0	207.3	
90 Ethylbenzene	106	10.603	10.601	0.002	98	423190	200.0	179.6	
91 m-Xylene & p-Xylene	106	10.718	10.717	0.001	98	573306	200.0	180.4	
92 o-Xylene	106	11.114	11.112	0.002	95	609831	200.0	191.1	
93 Styrene	104	11.126	11.125	0.001	94	917826	200.0	210.1	
94 Bromoform	173	11.314	11.313	0.001	95	221540	200.0	194.7	
97 Isopropylbenzene	105	11.479	11.477	0.002	96	1403469	200.0	176.1	
99 1,1,2,2-Tetrachloroethane	83	11.771	11.769	0.002	98	267625	200.0	218.3	
100 Bromobenzene	156	11.783	11.788	-0.005	89	416160	200.0	254.3	
101 1,2,3-Trichloropropane	110	11.819	11.818	0.001	85	87034	200.0	237.6	
102 trans-1,4-Dichloro-2-buten	53	11.832	11.830	0.002	83	53813	200.0	234.5	
103 N-Propylbenzene	120	11.886	11.891	-0.005	97	420770	200.0	209.5	
104 2-Chlorotoluene	126	11.978	11.976	0.002	97	403585	200.0	221.3	
106 1,3,5-Trimethylbenzene	105	12.063	12.061	0.002	96	1181945	200.0	255.8	
107 4-Chlorotoluene	126	12.081	12.086	-0.005	96	394107	200.0	225.5	
108 tert-Butylbenzene	119	12.385	12.384	0.001	92	1124703	200.0	198.6	
110 1,2,4-Trimethylbenzene	105	12.434	12.433	0.001	95	1157707	200.0	235.7	
112 sec-Butylbenzene	105	12.604	12.603	0.001	95	1339670	200.0	208.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
113 1,3-Dichlorobenzene	146	12.720	12.725	-0.005	96	663519	200.0	203.8	
114 4-Isopropyltoluene	119	12.750	12.749	0.001	96	1158802	200.0	197.6	
115 1,4-Dichlorobenzene	146	12.811	12.810	0.001	94	634634	200.0	209.5	
120 n-Butylbenzene	91	13.158	13.157	0.002	96	898990	200.0	181.2	
121 1,2-Dichlorobenzene	146	13.182	13.181	0.001	96	553141	200.0	186.4	
122 1,2-Dibromo-3-Chloropropan	75	13.973	13.972	0.001	89	36641	200.0	243.7	
126 1,2,4-Trichlorobenzene	180	14.800	14.799	0.001	95	291250	200.0	309.5	
127 Hexachlorobutadiene	225	14.965	14.969	-0.004	94	133486	200.0	236.8	
128 Naphthalene	128	15.050	15.055	-0.005	97	533174	200.0	346.0	
129 1,2,3-Trichlorobenzene	180	15.299	15.304	-0.005	95	193150	200.0	300.0	
S 133 Xylenes, Total	106				0		400.0	371.5	
S 134 1,2-Dichloroethene, Total	96				0		400.0	405.0	
S 135 1,3-Dichloropropene, Total	1				0		400.0	430.2	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Review Flags

M - Manually Integrated

Reagents:

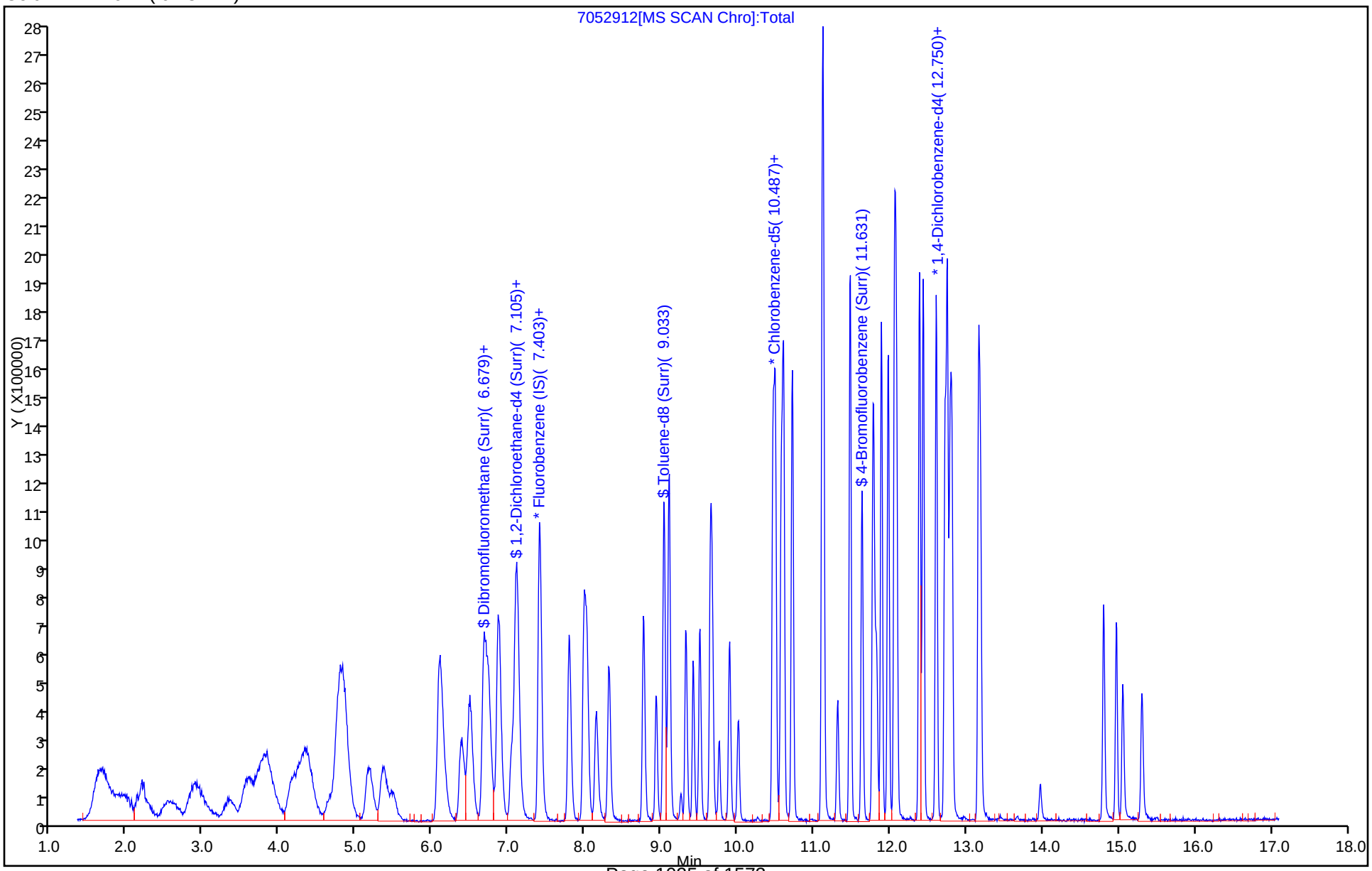
voaWacro2 Res_00003	Amount Added:	24.00	Units: uL	
voaWketPri Re_00005	Amount Added:	8.00	Units: uL	
VOA8260VOA2ND_00124	Amount Added:	8.00	Units: uL	
voaWVA1st Res_00001	Amount Added:	8.00	Units: uL	
VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

Report Date: 31-May-2015 11:22:23 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052912.D				
Injection Date:	29-May-2015 14:18:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	lcs			Worklist Smp#:	13
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052912.D
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 29-May-2015 14:18:30 ALS Bottle#: 9 Worklist Smp#: 13
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: LCS
Misc. Info.: 180-0007169-013
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 31-May-2015 10:15:40 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK011

First Level Reviewer: journetp Date: 29-May-2015 16:58:36

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	200.0	202.5	101.25
$ 6 1,2-Dichloroethane-d4 (Surr)	200.0	224.0	112.02
$ 7 Toluene-d8 (Surr)	200.0	203.4	101.71
$ 8 4-Bromofluorobenzene (Surr)	200.0	208.5	104.26

Manual Integration/User Assign Peak Report

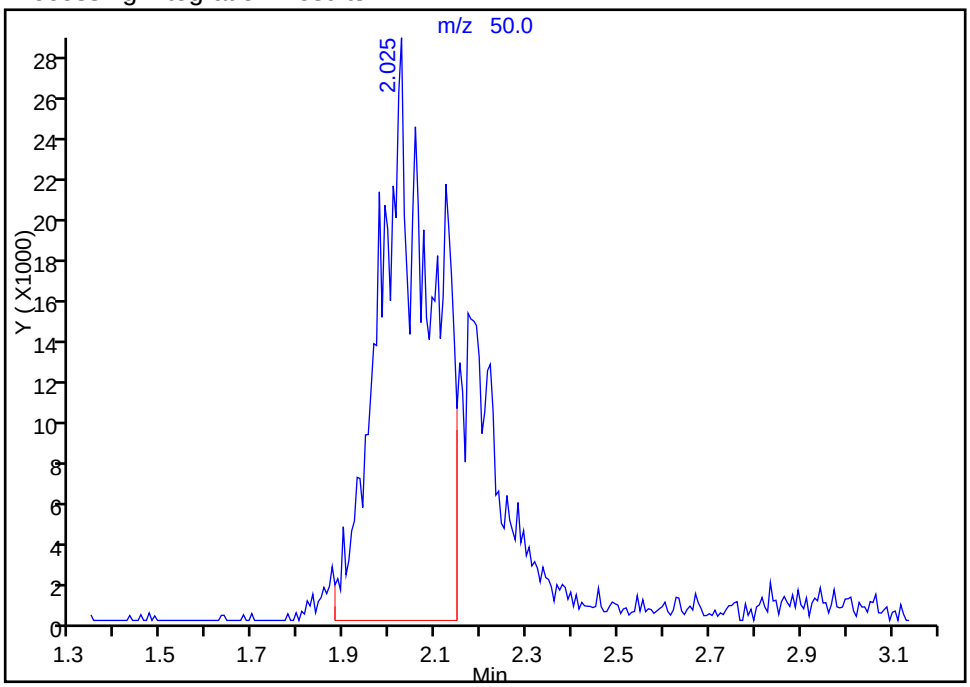
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052912.D				
Injection Date:	29-May-2015 14:18:30	Instrument ID:	CHHP7		
Lims ID:	lcs				
Client ID:					
Operator ID:	034635	ALS Bottle#:	9	Worklist Smp#:	13
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

12 Chloromethane, CAS: 74-87-3

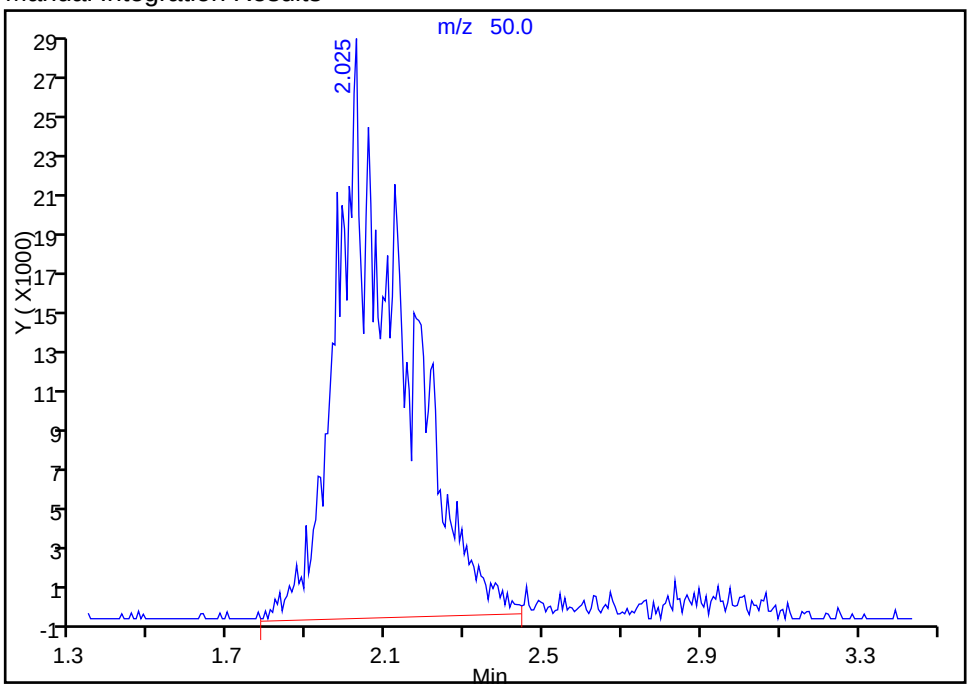
Processing Integration Results

RT: 2.02
Area: 226308
Amount: 105.4954
Amount Units: ng



Manual Integration Results

RT: 2.02
Area: 320949
Amount: 149.6131
Amount Units: ng



Reviewer: journetp, 29-May-2015 16:58:36
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

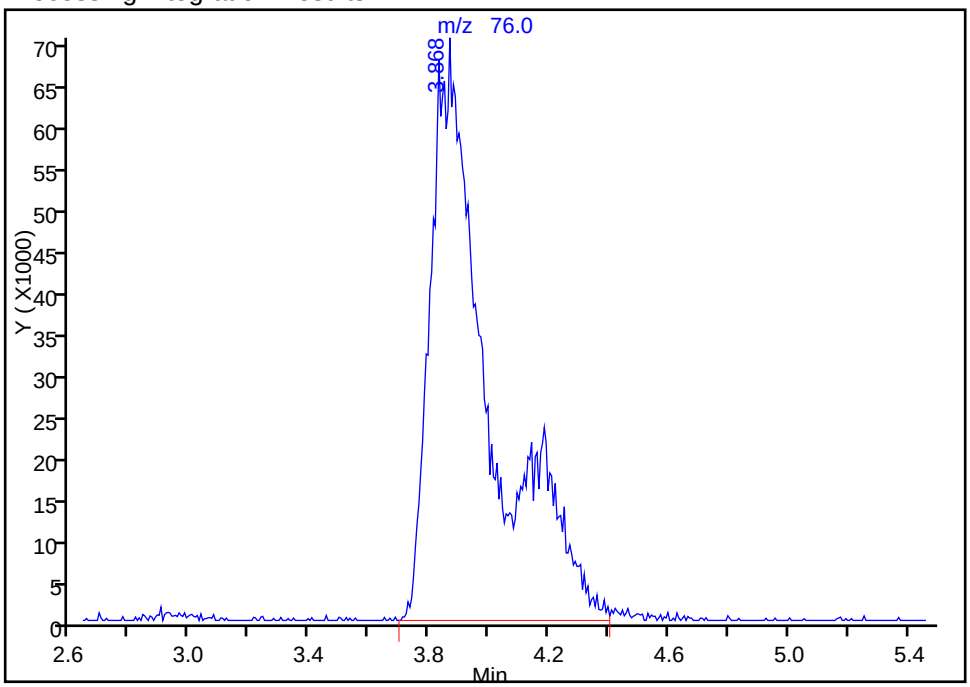
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052912.D				
Injection Date:	29-May-2015 14:18:30	Instrument ID:	CHHP7		
Lims ID:	lcs				
Client ID:					
Operator ID:	034635	ALS Bottle#:	9	Worklist Smp#:	13
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

26 Carbon disulfide, CAS: 75-15-0

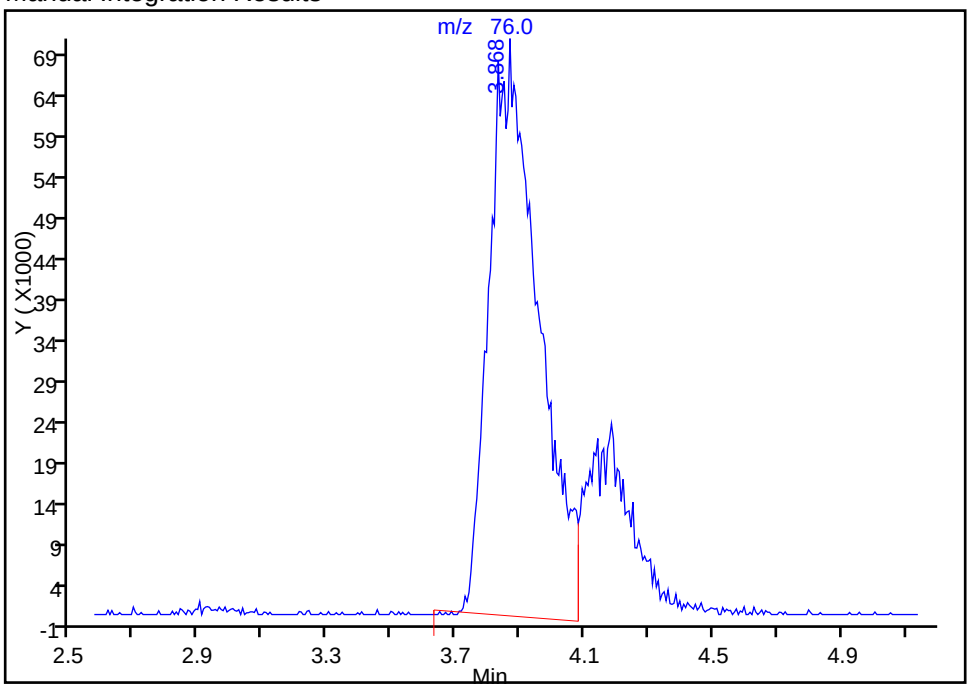
Processing Integration Results

RT: 3.87
Area: 952639
Amount: 222.3660
Amount Units: ng



Manual Integration Results

RT: 3.87
Area: 746308
Amount: 174.2040
Amount Units: ng



Reviewer: journetp, 29-May-2015 16:58:36
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-143337/7

Matrix: Water Lab File ID: 60530007.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/31/2015 11:13

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143337 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	10.0		1.0	0.28
75-01-4	Vinyl chloride	10.6		1.0	0.23
74-83-9	Bromomethane	10.4		1.0	0.31
75-00-3	Chloroethane	11.9		1.0	0.21
75-35-4	1,1-Dichloroethene	10.1		1.0	0.30
67-64-1	Acetone	25.3		5.0	2.5
75-15-0	Carbon disulfide	9.00		1.0	0.21
75-09-2	Methylene Chloride	11.4		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	11.1		1.0	0.17
1634-04-4	Methyl tert-butyl ether	7.79		1.0	0.18
75-34-3	1,1-Dichloroethane	9.54		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	9.93		1.0	0.24
74-97-5	Bromochloromethane	11.1		1.0	0.18
78-93-3	2-Butanone (MEK)	24.2		5.0	0.55
67-66-3	Chloroform	10.6		1.0	0.17
71-55-6	1,1,1-Trichloroethane	9.29		1.0	0.29
56-23-5	Carbon tetrachloride	9.32		1.0	0.14
71-43-2	Benzene	10.3		1.0	0.11
107-06-2	1,2-Dichloroethane	10.3		1.0	0.21
79-01-6	Trichloroethene	11.5		1.0	0.14
78-87-5	1,2-Dichloropropane	9.55		1.0	0.095
75-27-4	Bromodichloromethane	8.56		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	7.30		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	15.5		5.0	0.53
108-88-3	Toluene	9.80		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	6.60		1.0	0.15
79-00-5	1,1,2-Trichloroethane	9.76		1.0	0.20
127-18-4	Tetrachloroethene	11.4		1.0	0.15
591-78-6	2-Hexanone	17.9		5.0	0.16
124-48-1	Dibromochloromethane	9.10		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	9.43		1.0	0.18
108-90-7	Chlorobenzene	10.6		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	10.5		1.0	0.28
100-41-4	Ethylbenzene	10.1		1.0	0.23
1330-20-7	Xylenes, Total	19.7		3.0	0.49
100-42-5	Styrene	9.96		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-143337/7

Matrix: Water Lab File ID: 60530007.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 05/31/2015 11:13

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143337 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	7.67		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	9.50		1.0	0.20
107-13-1	Acrylonitrile	89.6		20	0.55
123-91-1	1,4-Dioxane	166	J	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		64-135
2037-26-5	Toluene-d8 (Surr)	98		71-118
460-00-4	4-Bromofluorobenzene (Surr)	95		70-118
1868-53-7	Dibromofluoromethane (Surr)	112		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530007.D
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 31-May-2015 11:13:30 ALS Bottle#: 7 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: lcs
Misc. Info.: 180-0007190-007
Operator ID: 034635 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 31-May-2015 16:21:03 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK001

First Level Reviewer: journetp Date: 31-May-2015 12:37:21

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.241	4.236	0.005	91	163213	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.283	7.284	-0.001	98	540002	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.391	10.393	-0.002	90	124479	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.746	12.747	-0.001	94	215500	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.553	6.554	-0.001	92	125066	50.0	56.0	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.930	6.925	0.005	71	186188	50.0	49.9	
$ 7 Toluene-d8 (Surr)	98	8.937	8.939	-0.002	94	515810	50.0	49.0	
$ 8 4-Bromofluorobenzene (Surr	95	11.584	11.579	0.005	85	204247	50.0	47.6	
11 Dichlorodifluoromethane	85	1.595	1.596	-0.001	99	133675	50.0	40.5	
12 Chloromethane	50	1.759	1.760	-0.001	99	137016	50.0	50.0	
13 Vinyl chloride	62	1.887	1.882	0.005	98	154453	50.0	52.9	
14 Butadiene	39	1.929	1.931	-0.002	94	166635	50.0	59.8	
15 Bromomethane	94	2.227	2.229	-0.002	91	79055	50.0	52.0	
16 Chloroethane	64	2.367	2.375	-0.008	99	109557	50.0	59.6	
17 Dichlorofluoromethane	67	2.647	2.642	0.005	96	264424	50.0	59.5	
18 Trichlorofluoromethane	101	2.665	2.673	-0.008	96	200785	50.0	59.5	
20 Ethyl ether	59	3.042	3.044	-0.002	92	139103	50.0	55.2	
21 Acrolein	56	3.219	3.208	0.011	97	57042	150.0	127.6	
22 1,1-Dichloroethene	96	3.334	3.336	-0.002	99	126288	50.0	50.5	
23 1,1,2-Trichloro-1,2,2-trif	101	3.389	3.385	0.004	94	132425	50.0	52.5	
24 Acetone	43	3.420	3.421	-0.001	85	90637	100.0	126.5	
25 Iodomethane	142	3.535	3.531	0.004	99	191780	50.0	60.0	
26 Carbon disulfide	76	3.633	3.628	0.005	99	329565	50.0	45.0	
29 3-Chloro-1-propene	76	3.912	3.914	-0.002	67	68631	50.0	39.1	
30 Methyl acetate	43	3.925	3.926	-0.001	97	523647	250.0	221.3	
31 Methylene Chloride	84	4.131	4.115	0.016	93	173518	50.0	57.2	
32 2-Methyl-2-propanol	59	4.375	4.370	0.005	93	91855	500.0	516.6	
33 Acrylonitrile	53	4.502	4.498	0.004	98	541158	500.0	448.1	
34 trans-1,2-Dichloroethene	96	4.557	4.553	0.004	98	154127	50.0	55.3	
35 Methyl tert-butyl ether	73	4.569	4.565	0.004	97	389732	50.0	39.0	
36 Hexane	57	4.989	4.991	-0.002	94	182218	50.0	48.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.196	5.198	-0.002	97	249934	50.0	47.7	
38 Vinyl acetate	43	5.239	5.240	-0.001	97	239200	50.0	38.0	
43 cis-1,2-Dichloroethene	96	5.938	5.940	-0.002	85	157321	50.0	49.7	
44 2-Butanone (MEK)	43	5.944	5.940	0.004	99	144412	100.0	121.1	
42 2,2-Dichloropropane	77	5.938	5.946	-0.008	62	132534	50.0	40.9	
48 Chlorobromomethane	128	6.230	6.226	0.004	97	72314	50.0	55.7	
49 Tetrahydrofuran	42	6.242	6.238	0.004	85	82257	100.0	74.2	
50 Chloroform	83	6.370	6.366	0.004	95	268148	50.0	53.0	
51 1,1,1-Trichloroethane	97	6.540	6.536	0.004	98	193227	50.0	46.5	
52 Cyclohexane	56	6.613	6.615	-0.002	89	236608	50.0	47.4	
53 Carbon tetrachloride	117	6.717	6.712	0.005	96	148000	50.0	46.6	
54 1,1-Dichloropropene	75	6.723	6.724	-0.001	95	206750	50.0	51.4	
55 Isobutyl alcohol	41	6.893	6.907	-0.014	88	87221	1250.0	801.5	
56 Benzene	78	6.942	6.943	-0.001	97	612006	50.0	51.5	
57 1,2-Dichloroethane	62	7.015	7.016	-0.001	99	232265	50.0	51.5	
59 n-Heptane	43	7.307	7.308	-0.001	89	140320	50.0	48.9	
61 Trichloroethene	130	7.672	7.673	-0.001	97	147751	50.0	57.5	
63 Methylcyclohexane	83	7.921	7.923	-0.002	89	231551	50.0	47.8	
64 1,2-Dichloropropane	63	7.952	7.947	0.005	94	149617	50.0	47.8	
65 1,4-Dioxane	88	8.037	8.020	0.017	36	24982	1000.0	828.0	
67 Dibromomethane	93	8.037	8.038	-0.001	96	91640	50.0	48.3	
68 Dichlorobromomethane	83	8.226	8.227	-0.001	99	162230	50.0	42.8	
71 cis-1,3-Dichloropropene	75	8.676	8.677	-0.001	93	183109	50.0	36.5	
72 4-Methyl-2-pentanone (MIBK	43	8.828	8.823	0.005	96	258886	100.0	77.6	
73 Toluene	91	9.010	9.012	-0.002	98	632481	50.0	49.0	
74 trans-1,3-Dichloropropene	75	9.254	9.255	-0.001	95	155026	50.0	33.0	
75 Ethyl methacrylate	69	9.308	9.310	-0.002	89	171780	50.0	36.5	
76 1,1,2-Trichloroethane	97	9.448	9.450	-0.002	93	137121	50.0	48.8	
77 Tetrachloroethene	164	9.521	9.523	-0.002	95	121463	50.0	57.2	
78 1,3-Dichloropropane	76	9.607	9.608	-0.002	91	252468	50.0	47.5	
79 2-Hexanone	43	9.655	9.657	-0.002	96	181786	100.0	89.4	
81 Chlorodibromomethane	129	9.826	9.821	0.005	89	100667	50.0	45.5	
82 Ethylene Dibromide	107	9.941	9.937	0.004	100	125204	50.0	47.1	
83 3-Chlorobenzotrifluoride	180	10.391	10.393	-0.002	92	212822	50.0	54.0	
84 Chlorobenzene	112	10.428	10.423	0.005	94	431776	50.0	53.0	
85 4-Chlorobenzotrifluoride	180	10.483	10.484	-0.001	97	199928	50.0	53.4	
86 1,1,1,2-Tetrachloroethane	131	10.519	10.521	-0.002	88	125955	50.0	52.7	
87 Ethylbenzene	106	10.525	10.527	-0.002	99	230460	50.0	50.6	
88 m-Xylene & p-Xylene	106	10.659	10.654	0.005	99	283169	50.0	49.7	
89 o-Xylene	106	11.042	11.044	-0.002	96	268981	50.0	48.6	
90 Styrene	104	11.060	11.062	-0.002	95	452924	50.0	49.8	
91 Bromoform	173	11.243	11.244	-0.001	95	54250	50.0	38.4	
92 2-Chlorobenzotrifluoride	180	11.304	11.299	0.005	93	211103	50.0	53.0	
93 Isopropylbenzene	105	11.407	11.409	-0.002	97	668929	50.0	49.8	
96 1,1,2,2-Tetrachloroethane	83	11.711	11.713	-0.002	96	183288	50.0	47.5	
95 Bromobenzene	156	11.717	11.719	-0.002	96	172748	50.0	49.4	
97 trans-1,4-Dichloro-2-buten	53	11.748	11.749	-0.001	77	45800	50.0	28.5	
98 1,2,3-Trichloropropane	110	11.772	11.774	-0.002	86	66166	50.0	43.1	
99 N-Propylbenzene	120	11.827	11.822	0.005	98	193656	50.0	45.9	
100 2-Chlorotoluene	126	11.912	11.914	-0.002	95	163707	50.0	47.3	
101 3-Chlorotoluene	126	11.973	11.981	-0.008	96	183697	50.0	48.7	
102 1,3,5-Trimethylbenzene	105	12.009	12.011	-0.002	96	588522	50.0	43.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
103 4-Chlorotoluene	126	12.034	12.035	-0.001	99	187738	50.0	51.4	
104 tert-Butylbenzene	119	12.326	12.321	0.005	92	457464	50.0	44.5	
106 1,2,4-Trimethylbenzene	105	12.381	12.382	-0.001	98	599972	50.0	42.7	
107 1,2-dichloro-4-(trifluorom	214	12.417	12.419	-0.002	95	165012	50.0	46.7	
108 sec-Butylbenzene	105	12.545	12.546	-0.001	96	668936	50.0	42.8	
109 1,3-Dichlorobenzene	146	12.666	12.668	-0.002	96	340176	50.0	51.0	
110 4-Isopropyltoluene	119	12.703	12.705	-0.001	96	569387	50.0	46.0	
111 1,4-Dichlorobenzene	146	12.770	12.771	-0.001	92	359474	50.0	52.1	
113 2,4-Dichloro-1-(triflourom	214	12.788	12.790	-0.002	93	153264	50.0	43.8	
114 2,5-Dichlorobenzotrifluori	214	12.825	12.832	-0.007	97	178651	50.0	46.7	
116 n-Butylbenzene	91	13.111	13.112	-0.001	97	501569	50.0	40.3	
117 1,2-Dichlorobenzene	146	13.123	13.124	-0.001	94	341935	50.0	51.8	
118 1,2-Dibromo-3-Chloropropan	75	13.914	13.921	-0.007	75	24392	50.0	24.2	
119 2,4- & 2,5- & 2,6- Dichlor	125	14.060	14.061	-0.001	99	779134	150.0	139.9	
121 2,3- & 3,4- Dichlorotoluen	125	14.473	14.475	-0.002	99	568316	100.0	93.1	
122 1,2,4-Trichlorobenzene	180	14.741	14.736	0.005	94	222675	50.0	48.2	
123 Hexachlorobutadiene	225	14.887	14.882	0.005	96	78379	50.0	49.8	
124 Naphthalene	128	15.003	15.004	-0.001	98	487642	50.0	39.9	
125 1,2,3-Trichlorobenzene	180	15.228	15.229	-0.001	94	201426	50.0	46.5	
126 2,4,5-Trichlorotoluene	159	16.006	16.008	-0.002	0	101731	50.0	37.1	
127 2,3,6-Trichlorotoluene	159	16.104	16.105	-0.001	94	101964	50.0	41.0	
143 2,5-Dichlorotoluene	1		0.000				ND	ND	
147 2,6-Dichlorotoluene	1		0.000				ND	ND	
144 2,4-Dichlorotoluene	1		0.000				ND	ND	
145 2,3-Dichlorotoluene	1		0.000				ND	ND	
146 3,4-Dichlorotoluene	1		0.000				ND	ND	
S 130 1,2-Dichloroethene, Total	96				0		100.0	105.0	
S 131 Xylenes, Total	106				0		100.0	98.3	
S 132 1,3-Dichloropropene, Total	1				0		100.0	69.5	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Reagents:

VOA8260VOA2ND_00124	Amount Added:	2.00	Units: uL		
voaWVA1st Res_00001	Amount Added:	2.00	Units: uL		
VOAACROPRI_00005	Amount Added:	6.00	Units: uL		
voaWketPri Re_00005	Amount Added:	2.00	Units: uL		
voaWeemix2nd_00001	Amount Added:	2.00	Units: uL		
VOA8260INT_00033	Amount Added:	2.00	Units: uL	Run Reagent	
VOA8260SURR_00035	Amount Added:	2.00	Units: uL	Run Reagent	

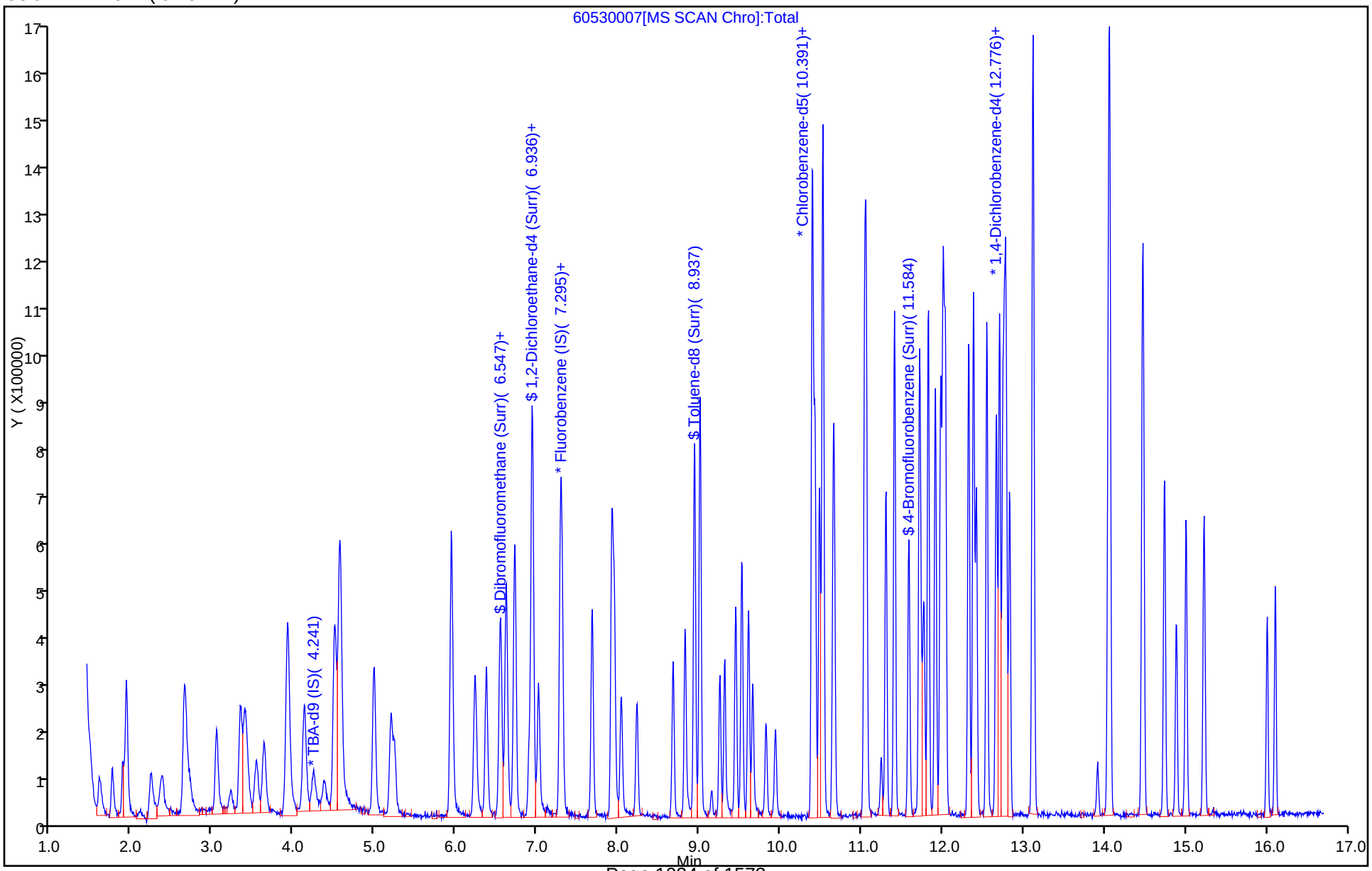
Report Date: 31-May-2015 16:21:06 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530007.D

Injection Date:	31-May-2015 11:13:30	Instrument ID:	CHHP6	Operator ID:	034635
Lims ID:	lcs			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530007.D
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 31-May-2015 11:13:30 ALS Bottle#: 7 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: lcs
Misc. Info.: 180-0007190-007
Operator ID: 034635 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 31-May-2015 16:21:03 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK001

First Level Reviewer: journetp Date: 31-May-2015 12:37:21

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	56.0	111.95
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	49.9	99.75
$ 7 Toluene-d8 (Surr)	50.0	49.0	97.95
$ 8 4-Bromofluorobenzene (Surr)	50.0	47.6	95.14

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-143339/11

Matrix: Water Lab File ID: 7053111.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 20(mL) Date Analyzed: 05/31/2015 16:05

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.: 143339 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	6.65		1.0	0.28
75-01-4	Vinyl chloride	6.00		1.0	0.23
74-83-9	Bromomethane	7.09		1.0	0.31
75-00-3	Chloroethane	5.05		1.0	0.21
75-35-4	1,1-Dichloroethene	10.0		1.0	0.30
67-64-1	Acetone	24.6		5.0	2.5
75-15-0	Carbon disulfide	12.5		1.0	0.21
75-09-2	Methylene Chloride	11.4		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	9.68		1.0	0.17
1634-04-4	Methyl tert-butyl ether	10.9		1.0	0.18
75-34-3	1,1-Dichloroethane	11.3		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	11.2		1.0	0.24
74-97-5	Bromochloromethane	9.98		1.0	0.18
78-93-3	2-Butanone (MEK)	18.4		5.0	0.55
67-66-3	Chloroform	11.2		1.0	0.17
71-55-6	1,1,1-Trichloroethane	10.1		1.0	0.29
56-23-5	Carbon tetrachloride	9.44		1.0	0.14
71-43-2	Benzene	10.4		1.0	0.11
107-06-2	1,2-Dichloroethane	10.5		1.0	0.21
79-01-6	Trichloroethene	9.31		1.0	0.14
78-87-5	1,2-Dichloropropane	10.9		1.0	0.095
75-27-4	Bromodichloromethane	10.8		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	10.5		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	19.2		5.0	0.53
108-88-3	Toluene	10.3		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	9.93		1.0	0.15
79-00-5	1,1,2-Trichloroethane	9.94		1.0	0.20
127-18-4	Tetrachloroethene	8.16		1.0	0.15
591-78-6	2-Hexanone	22.1		5.0	0.16
124-48-1	Dibromochloromethane	9.53		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	9.98		1.0	0.18
108-90-7	Chlorobenzene	10.2		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	10.0		1.0	0.28
100-41-4	Ethylbenzene	8.77		1.0	0.23
1330-20-7	Xylenes, Total	17.5		3.0	0.49
100-42-5	Styrene	10.0		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-143339/11

Matrix: Water Lab File ID: 7053111.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 20(mL) Date Analyzed: 05/31/2015 16:05

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.: 143339 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	9.49		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	9.35		1.0	0.20
107-13-1	Acrylonitrile	92.4		20	0.55
123-91-1	1,4-Dioxane	135	J	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		64-135
2037-26-5	Toluene-d8 (Surr)	103		71-118
460-00-4	4-Bromofluorobenzene (Surr)	96		70-118
1868-53-7	Dibromofluoromethane (Surr)	104		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150531-7191.b\7053111.D
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 31-May-2015 16:05:30 ALS Bottle#: 11 Worklist Smp#: 11
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: LCS
Misc. Info.: 180-0007169-011
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150531-7191.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 09:14:45 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

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

First Level Reviewer: journetp Date: 01-Jun-2015 08:57:07

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.647	4.678	-0.031	94	343987	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.402	7.404	-0.002	96	1394928	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.468	10.470	-0.002	85	403372	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.786	12.787	-0.001	95	384017	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.685	6.680	0.004	74	463924	200.0	208.5	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.037	7.039	-0.002	93	436229	200.0	205.6	
$ 7 Toluene-d8 (Surr)	98	9.039	9.034	0.005	92	1236755	200.0	206.7	
$ 8 4-Bromofluorobenzene (Surr	95	11.630	11.632	-0.002	90	514230	200.0	191.6	
11 Dichlorodifluoromethane	85	1.927	1.910	0.017	62	285358	200.0	110.4	
12 Chloromethane	50	2.043	2.038	0.005	93	374607	200.0	133.0	
14 Butadiene	39	2.201	2.184	0.017	97	298101	200.0	128.7	
13 Vinyl chloride	62	2.231	2.214	0.017	58	263410	200.0	120.1	M
15 Bromomethane	94	2.517	2.500	0.017	89	250797	200.0	141.9	
16 Chloroethane	64	2.651	2.646	0.005	78	178623	200.0	100.9	M
18 Trichlorofluoromethane	101	2.901	2.877	0.024	74	412318	200.0	83.2	M
17 Dichlorofluoromethane	67	2.919	2.902	0.017	93	446255	200.0	94.8	
20 Ethyl ether	59	3.320	3.346	-0.026	87	195218	200.0	124.2	
22 1,1-Dichloroethene	96	3.582	3.583	-0.001	95	376368	200.0	201.0	
23 1,1,2-Trichloro-1,2,2-trif	101	3.698	3.753	-0.055	79	348830	200.0	160.2	
24 Acetone	43	3.783	3.753	0.030	38	210820	400.0	492.0	
25 Iodomethane	142	3.789	3.802	-0.013	98	852910	200.0	217.7	
26 Carbon disulfide	76	3.886	3.863	0.023	100	1410390	200.0	250.7	
28 3-Chloro-1-propene	76	4.178	4.179	-0.001	86	274556	200.0	198.7	
30 Methyl acetate	43	4.288	4.295	-0.007	94	780167	1000.0	839.5	
31 Methylene Chloride	84	4.361	4.362	-0.001	96	459278	200.0	228.5	
33 Acrylonitrile	53	4.768	4.769	-0.001	95	687019	2000.0	1848.0	M
34 trans-1,2-Dichloroethene	96	4.793	4.775	0.018	91	449895	200.0	193.6	
32 2-Methyl-2-propanol	59	4.756	4.794	-0.038	91	208118	2000.0	18327	E
35 Methyl tert-butyl ether	73	4.847	4.836	0.011	95	999480	200.0	218.2	
38 Vinyl acetate	43	5.194	5.165	0.029	67	162817	200.0	88.9	
36 Hexane	57	5.188	5.171	0.017	93	228289	200.0	93.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.352	5.353	-0.001	96	771549	200.0	226.5	
44 2,2-Dichloropropane	77	6.088	6.096	-0.008	84	663404	200.0	233.2	
45 cis-1,2-Dichloroethene	96	6.107	6.108	-0.001	84	518063	200.0	224.7	
46 2-Butanone (MEK)	43	6.167	6.163	0.004	99	229554	400.0	367.1	
49 Chlorobromomethane	128	6.392	6.388	0.004	84	265221	200.0	199.7	
52 Chloroform	83	6.496	6.497	-0.001	93	855759	200.0	223.1	
53 1,1,1-Trichloroethane	97	6.685	6.680	0.004	97	702533	200.0	201.7	
54 Cyclohexane	56	6.739	6.728	0.011	91	399644	200.0	162.6	
51 Tetrahydrofuran	42	6.745	6.734	0.011	47	106740	400.0	312.0	
56 Carbon tetrachloride	117	6.867	6.868	-0.001	95	662970	200.0	188.7	
55 1,1-Dichloropropene	75	6.867	6.874	-0.007	86	452108	200.0	179.8	
58 Benzene	78	7.092	7.093	-0.001	96	1426697	200.0	207.8	
59 1,2-Dichloroethane	62	7.135	7.130	0.005	74	488938	200.0	210.9	
57 Isobutyl alcohol	41	7.092	7.276	-0.184	36	120754	5000.0	2156.2	
62 n-Heptane	43	7.408	7.404	0.004	47	180587	200.0	84.9	
64 Trichloroethene	130	7.798	7.793	0.005	95	512606	200.0	186.3	
66 Methylcyclohexane	83	7.986	7.988	-0.002	88	392374	200.0	116.0	
67 1,2-Dichloropropane	63	8.023	8.024	-0.001	88	340788	200.0	217.9	
68 Dibromomethane	93	8.151	8.146	0.005	96	238055	200.0	204.4	
70 1,4-Dioxane	88	8.187	8.182	0.005	90	29599	4000.0	2707.9	
71 Dichlorobromomethane	83	8.315	8.316	-0.001	99	628866	200.0	216.9	
74 cis-1,3-Dichloropropene	75	8.771	8.766	0.005	93	631394	200.0	209.9	
75 4-Methyl-2-pentanone (MIBK	43	8.929	8.931	-0.001	97	453334	400.0	384.6	
76 Toluene	91	9.106	9.101	0.005	98	1478653	200.0	205.8	
77 trans-1,3-Dichloropropene	75	9.325	9.326	-0.001	96	503539	200.0	198.6	
78 Ethyl methacrylate	69	9.422	9.423	-0.001	88	350273	200.0	207.7	
79 1,1,2-Trichloroethane	97	9.507	9.502	0.005	92	287897	200.0	198.9	
80 Tetrachloroethene	164	9.647	9.648	-0.001	94	320283	200.0	163.2	
81 1,3-Dichloropropane	76	9.671	9.673	-0.002	93	444605	200.0	207.8	
82 2-Hexanone	43	9.763	9.758	0.005	97	336631	400.0	442.8	
84 Chlorodibromomethane	129	9.897	9.898	-0.001	89	474125	200.0	190.5	
85 Ethylene Dibromide	107	10.006	10.007	-0.001	96	327387	200.0	199.6	
87 Chlorobenzene	112	10.499	10.494	0.005	93	1048820	200.0	204.0	
89 1,1,1,2-Tetrachloroethane	131	10.578	10.573	0.005	93	498906	200.0	200.7	
90 Ethylbenzene	106	10.602	10.603	-0.001	98	512354	200.0	175.4	
91 m-Xylene & p-Xylene	106	10.718	10.719	-0.001	98	678740	200.0	172.3	
92 o-Xylene	106	11.113	11.108	0.005	96	702806	200.0	177.7	
93 Styrene	104	11.125	11.127	-0.002	93	1093973	200.0	200.2	
94 Bromoform	173	11.314	11.315	-0.001	95	267741	200.0	189.9	
97 Isopropylbenzene	105	11.478	11.479	-0.001	96	1527855	200.0	149.8	
99 1,1,2,2-Tetrachloroethane	83	11.770	11.765	0.005	96	284055	200.0	187.0	
100 Bromobenzene	156	11.789	11.784	0.005	89	474978	200.0	288.6	
101 1,2,3-Trichloropropane	110	11.819	11.814	0.005	85	92514	200.0	251.1	
102 trans-1,4-Dichloro-2-buten	53	11.825	11.832	-0.007	69	59667	200.0	258.5	
103 N-Propylbenzene	120	11.886	11.887	-0.001	97	444751	200.0	220.2	
104 2-Chlorotoluene	126	11.977	11.978	-0.001	97	463445	200.0	252.7	
106 1,3,5-Trimethylbenzene	105	12.062	12.057	0.005	96	1200535	200.0	258.9	
107 4-Chlorotoluene	126	12.087	12.088	-0.001	96	429620	200.0	244.5	
108 tert-Butylbenzene	119	12.385	12.386	-0.001	92	1103799	200.0	193.6	
110 1,2,4-Trimethylbenzene	105	12.433	12.435	-0.002	97	1184728	200.0	240.7	
112 sec-Butylbenzene	105	12.604	12.605	-0.001	95	1260200	200.0	192.4	
113 1,3-Dichlorobenzene	146	12.719	12.720	-0.001	96	697545	200.0	213.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
114 4-Isopropyltoluene	119	12.750	12.751	-0.001	95	1089119	200.0	181.7	
115 1,4-Dichlorobenzene	146	12.811	12.812	-0.001	93	656982	200.0	215.7	
120 n-Butylbenzene	91	13.163	13.159	0.005	96	807517	200.0	157.6	
121 1,2-Dichlorobenzene	146	13.188	13.183	0.005	97	568616	200.0	190.5	
122 1,2-Dibromo-3-Chloropropan	75	13.966	13.968	-0.002	87	35627	200.0	235.9	
126 1,2,4-Trichlorobenzene	180	14.800	14.801	-0.001	94	158847	200.0	167.9	
127 Hexachlorobutadiene	225	14.970	14.965	0.005	95	73409	200.0	129.5	
128 Naphthalene	128	15.055	15.050	0.005	97	332243	200.0	214.4	
129 1,2,3-Trichlorobenzene	180	15.305	15.300	0.005	96	100901	200.0	155.8	
S 134 1,2-Dichloroethene, Total	96				0		400.0	418.3	
S 133 Xylenes, Total	106				0		400.0	350.0	
S 135 1,3-Dichloropropene, Total	1				0		400.0	408.5	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOA2ND_00124	Amount Added:	8.00	Units: uL	
voaWketPri Re_00005	Amount Added:	8.00	Units: uL	
voaWVA1st Res_00001	Amount Added:	8.00	Units: uL	
VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

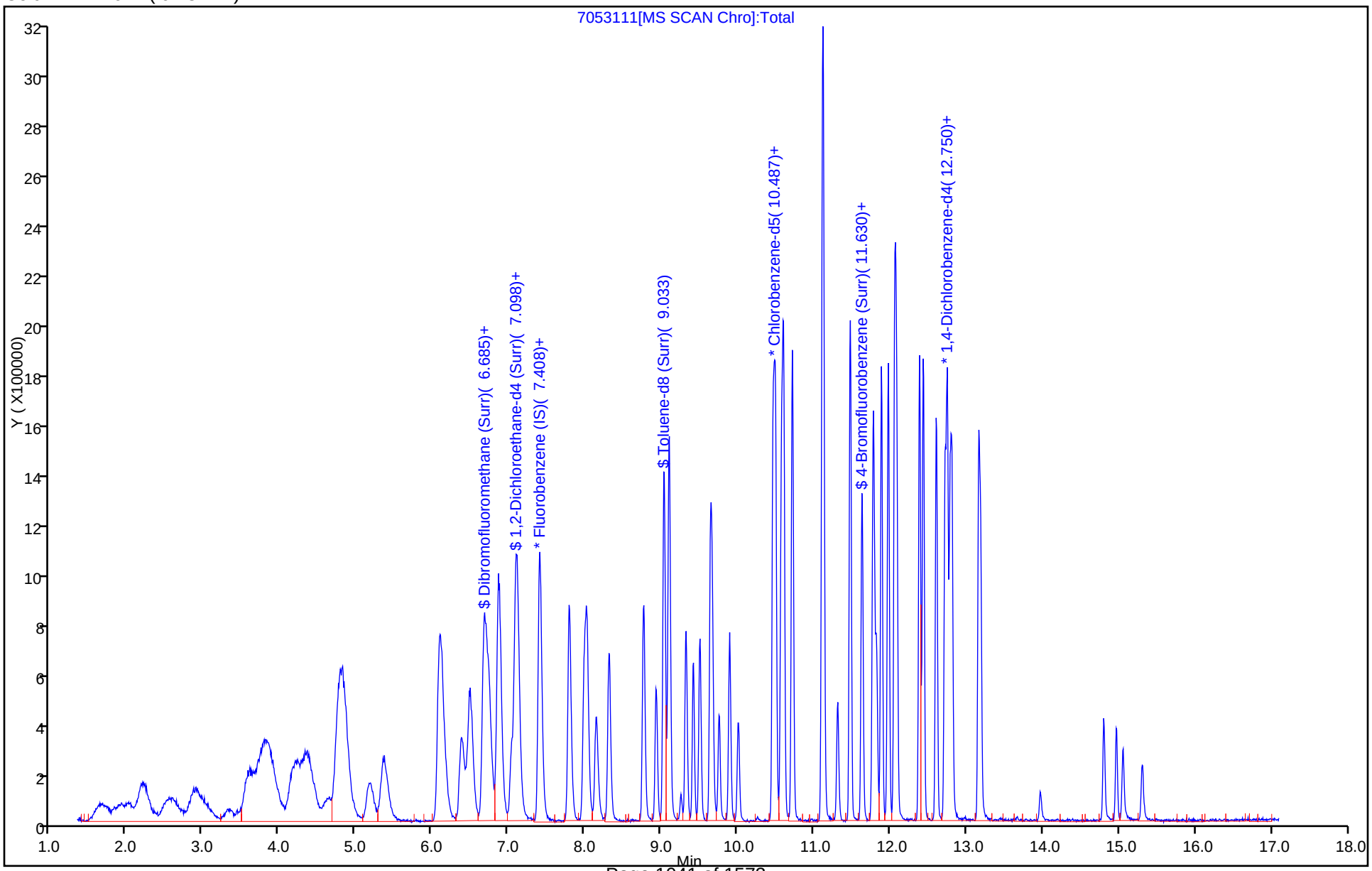
Report Date: 01-Jun-2015 09:14:50 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150531-7191.b\7053111.D

Injection Date:	31-May-2015 16:05:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	lcs			Worklist Smp#:	11
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File:	\\PITCHROM\ChromData\CHHP7\20150531-7191.b\7053111.D				
Lims ID:	lcs				
Client ID:					
Sample Type:	LCS				
Inject. Date:	31-May-2015 16:05:30	ALS Bottle#:	11	Worklist Smp#:	11
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Sample Info:	LCS				
Misc. Info.:	180-0007169-011				
Operator ID:	034635	Instrument ID:	CHHP7		
Method:	\\PITCHROM\ChromData\CHHP7\20150531-7191.b\MSVOA_LL_CHHP7.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	01-Jun-2015 09:14:45	Calib Date:	30-Mar-2015 14:36:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK004				

First Level Reviewer: journetp Date: 01-Jun-2015 08:57:07

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	200.0	208.5	104.25
$ 6 1,2-Dichloroethane-d4 (Surr)	200.0	205.6	102.82
$ 7 Toluene-d8 (Surr)	200.0	206.7	103.36
$ 8 4-Bromofluorobenzene (Surr)	200.0	191.6	95.78

Manual Integration/User Assign Peak Report

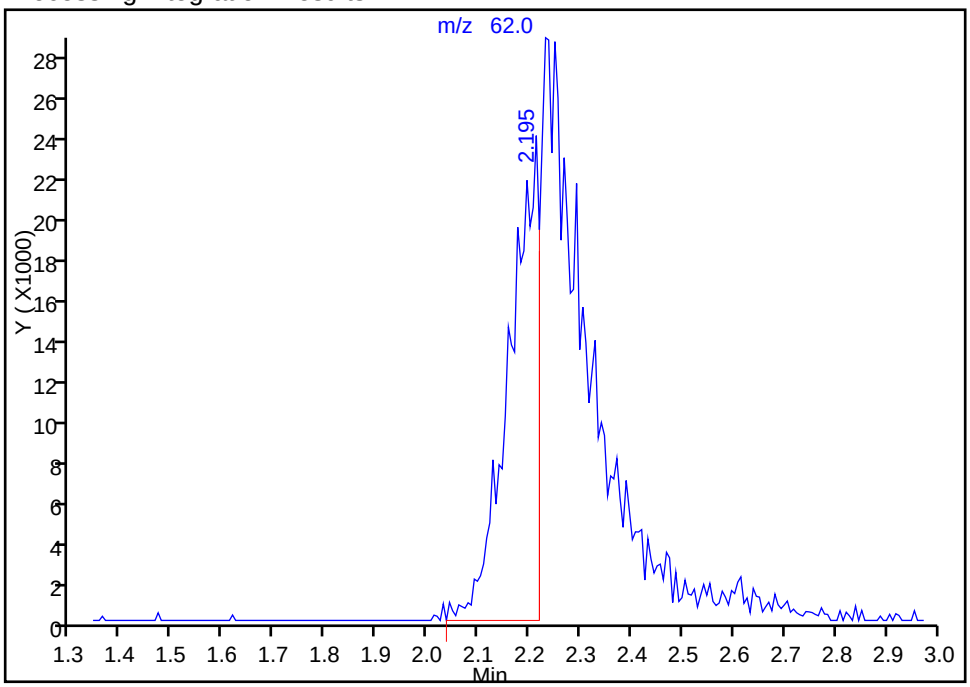
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150531-7191.b\7053111.D				
Injection Date:	31-May-2015 16:05:30	Instrument ID:	CHHP7		
Lims ID:	lcs				
Client ID:					
Operator ID:	034635	ALS Bottle#:	11	Worklist Smp#:	11
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

13 Vinyl chloride, CAS: 75-01-4

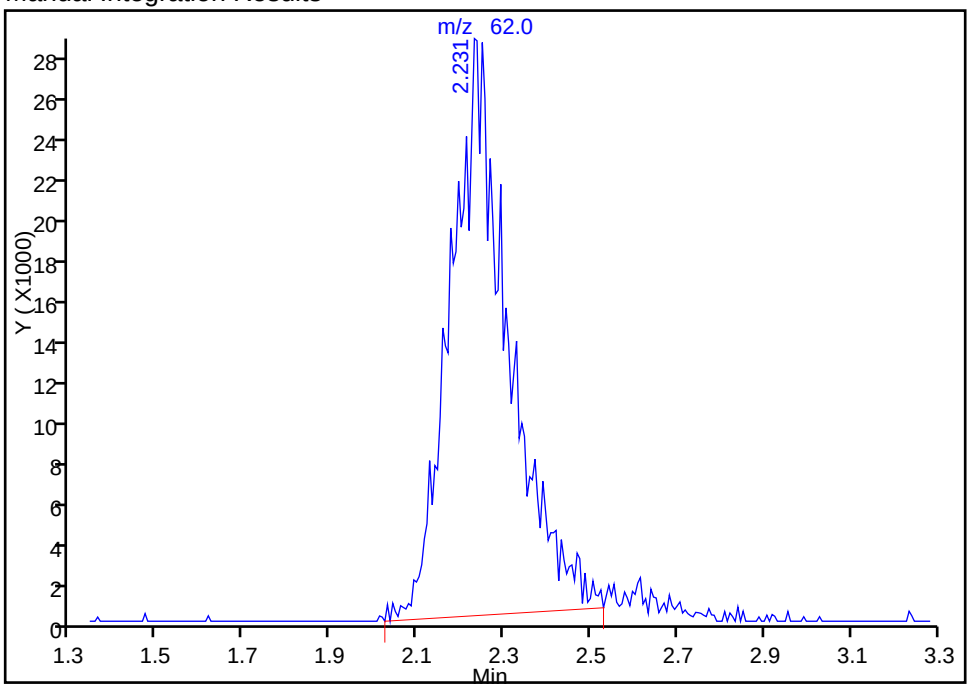
Processing Integration Results

RT: 2.19
Area: 95878
Amount: 43.709242
Amount Units: ng



Manual Integration Results

RT: 2.23
Area: 263410
Amount: 120.0844
Amount Units: ng



Reviewer: journetp, 01-Jun-2015 08:57:07
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

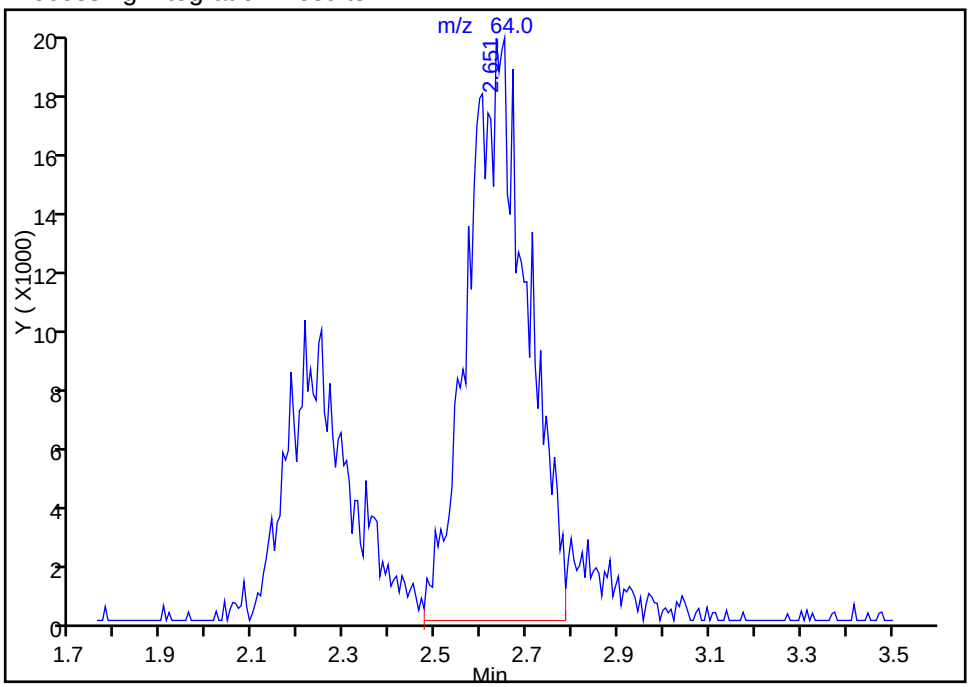
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150531-7191.b\7053111.D				
Injection Date:	31-May-2015 16:05:30	Instrument ID:	CHHP7		
Lims ID:	lcs				
Client ID:					
Operator ID:	034635	ALS Bottle#:	11	Worklist Smp#:	11
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

16 Chloroethane, CAS: 75-00-3

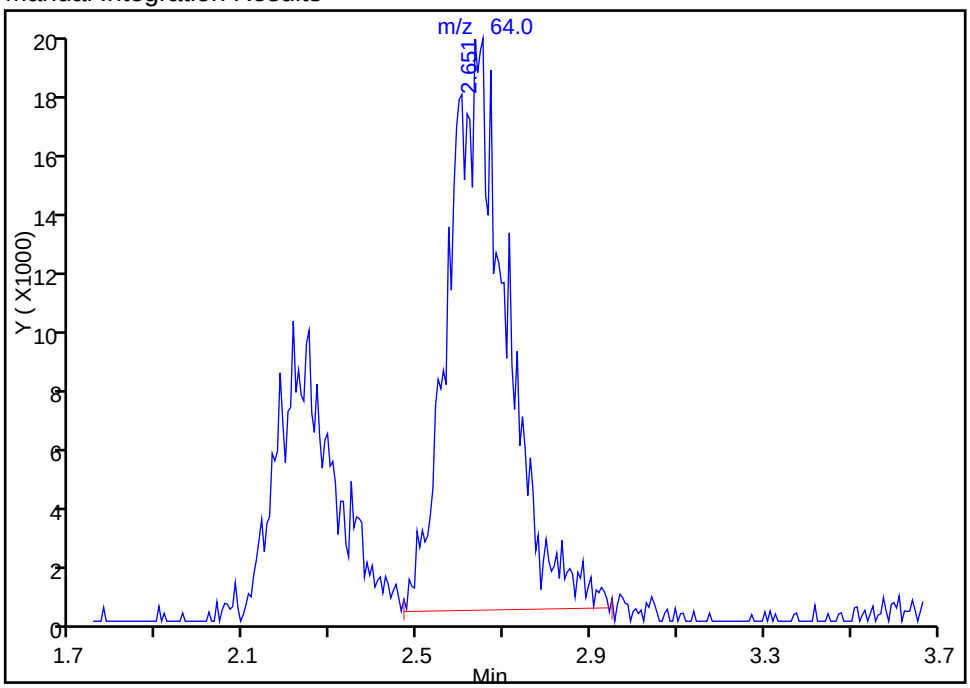
Processing Integration Results

RT: 2.65
Area: 175466
Amount: 99.155979
Amount Units: ng



Manual Integration Results

RT: 2.65
Area: 178623
Amount: 100.9400
Amount Units: ng



Reviewer: journetp, 01-Jun-2015 08:57:07
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

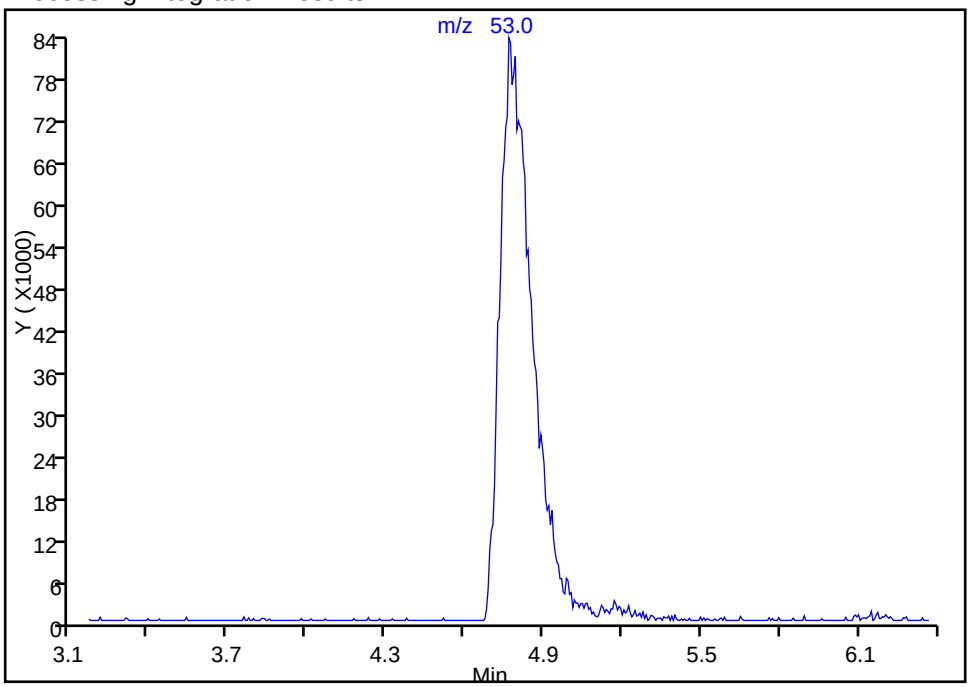
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150531-7191.b\7053111.D				
Injection Date:	31-May-2015 16:05:30	Instrument ID:	CHHP7		
Lims ID:	lcs				
Client ID:					
Operator ID:	034635	ALS Bottle#:	11	Worklist Smp#:	11
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

33 Acrylonitrile, CAS: 107-13-1

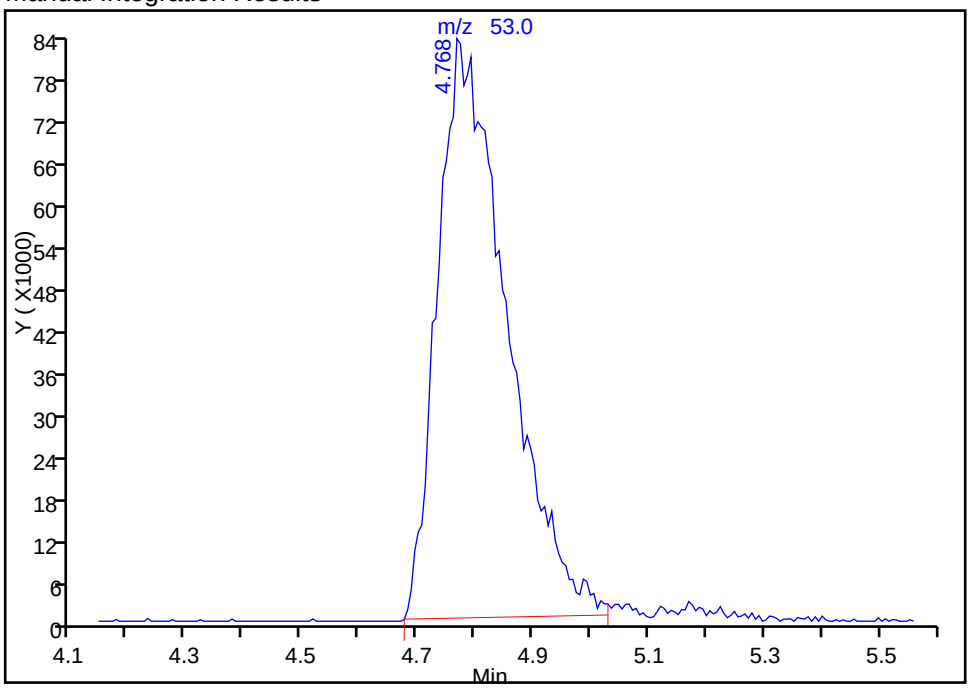
Not Detected
Expected RT: 4.77

Processing Integration Results



Manual Integration Results

RT: 4.77
Area: 687019
Amount: 1847.9662
Amount Units: ng



Reviewer: journetp, 01-Jun-2015 08:57:07
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44321-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-143422/8

Matrix: Water | Lab File ID: 7060108.D

Analysis Method: 8260C | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 06/01/2015 13:26

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 143422 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	4.93		1.0	0.28
75-01-4	Vinyl chloride	5.37		1.0	0.23
74-83-9	Bromomethane	6.93		1.0	0.31
75-00-3	Chloroethane	5.69		1.0	0.21
75-35-4	1,1-Dichloroethene	9.34		1.0	0.30
67-64-1	Acetone	21.8		5.0	2.5
75-15-0	Carbon disulfide	11.4		1.0	0.21
75-09-2	Methylene Chloride	11.7		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	9.80		1.0	0.17
1634-04-4	Methyl tert-butyl ether	11.7		1.0	0.18
75-34-3	1,1-Dichloroethane	11.0		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	10.7		1.0	0.24
74-97-5	Bromochloromethane	10.0		1.0	0.18
78-93-3	2-Butanone (MEK)	16.4		5.0	0.55
67-66-3	Chloroform	11.0		1.0	0.17
71-55-6	1,1,1-Trichloroethane	11.1		1.0	0.29
56-23-5	Carbon tetrachloride	9.96		1.0	0.14
71-43-2	Benzene	9.00		1.0	0.11
107-06-2	1,2-Dichloroethane	10.3		1.0	0.21
79-01-6	Trichloroethene	8.52		1.0	0.14
78-87-5	1,2-Dichloropropane	10.4		1.0	0.095
75-27-4	Bromodichloromethane	11.0		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	9.86		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	19.3		5.0	0.53
108-88-3	Toluene	9.83		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	9.64		1.0	0.15
79-00-5	1,1,2-Trichloroethane	10.9		1.0	0.20
127-18-4	Tetrachloroethene	8.73		1.0	0.15
591-78-6	2-Hexanone	20.7		5.0	0.16
124-48-1	Dibromochloromethane	10.2		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	10.3		1.0	0.18
108-90-7	Chlorobenzene	10.5		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	10.8		1.0	0.28
100-41-4	Ethylbenzene	9.31		1.0	0.23
1330-20-7	Xylenes, Total	18.9		3.0	0.49
100-42-5	Styrene	10.3		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-143422/8

Matrix: Water Lab File ID: 7060108.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 20(mL) Date Analyzed: 06/01/2015 13:26

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143422 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	9.71		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	9.82		1.0	0.20
107-13-1	Acrylonitrile	105		20	0.55
123-91-1	1,4-Dioxane	179	J	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		64-135
2037-26-5	Toluene-d8 (Surr)	112		71-118
460-00-4	4-Bromofluorobenzene (Surr)	108		70-118
1868-53-7	Dibromofluoromethane (Surr)	103		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060108.D
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 01-Jun-2015 13:26:30 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: LCS
Misc. Info.: 180-0007205-008
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 17:16:16 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

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

First Level Reviewer: journetp Date: 01-Jun-2015 17:06:24

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.656	4.666	-0.010	93	291851	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.405	7.404	0.001	96	918645	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.465	10.470	-0.005	85	264285	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.789	12.787	0.002	93	299791	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.675	6.680	-0.005	79	302400	200.0	206.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.053	7.038	0.015	79	277328	200.0	198.5	
$ 7 Toluene-d8 (Surr)	98	9.036	9.034	0.002	93	881369	200.0	224.8	
$ 8 4-Bromofluorobenzene (Surr	95	11.627	11.632	-0.005	88	376852	200.0	216.0	
11 Dichlorodifluoromethane	85	1.936	1.928	0.008	17	95600	200.0	56.1	
12 Chloromethane	50	2.046	2.032	0.014	80	182723	200.0	98.5	M
14 Butadiene	39	2.222	2.184	0.038	88	129464	200.0	84.9	
13 Vinyl chloride	62	2.204	2.245	-0.041	81	155221	200.0	107.5	M
15 Bromomethane	94	2.533	2.518	0.015	82	161384	200.0	138.6	
16 Chloroethane	64	2.630	2.646	-0.016	76	132608	200.0	113.8	
18 Trichlorofluoromethane	101	2.806	2.829	-0.023	80	432214	200.0	132.5	
17 Dichlorofluoromethane	67	2.916	2.896	0.020	77	447349	200.0	144.3	
20 Ethyl ether	59	3.323	3.395	-0.071	71	175856	200.0	169.9	
21 Acrolein	56	3.536	3.516	0.020	23	16545	600.0	231.5	
22 1,1-Dichloroethene	96	3.542	3.583	-0.041	94	230487	200.0	186.9	
23 1,1,2-Trichloro-1,2,2-trif	101	3.755	3.716	0.039	50	238411	200.0	166.2	
25 Iodomethane	142	3.804	3.790	0.014	100	538924	200.0	208.9	
24 Acetone	43	3.780	3.796	-0.016	37	124944	400.0	435.3	
26 Carbon disulfide	76	3.865	3.881	-0.016	98	841686	200.0	227.2	
28 3-Chloro-1-propene	76	4.163	4.173	-0.010	63	167901	200.0	184.6	
30 Methyl acetate	43	4.297	4.289	0.008	99	550484	1000.0	899.4	
31 Methylene Chloride	84	4.358	4.380	-0.022	92	310246	200.0	234.4	
34 trans-1,2-Dichloroethene	96	4.753	4.763	-0.010	93	300003	200.0	196.0	
32 2-Methyl-2-propanol	59	4.777	4.782	-0.005	61	168355	2000.0	17749	E
33 Acrylonitrile	53	4.777	4.794	-0.017	96	513666	2000.0	2098.0	
35 Methyl tert-butyl ether	73	4.838	4.854	-0.016	96	707056	200.0	234.4	
36 Hexane	57	5.173	5.177	-0.004	93	120576	200.0	75.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
37 1,1-Dichloroethane	63	5.349	5.359	-0.010	97	491976	200.0	219.3	
44 2,2-Dichloropropane	77	6.098	6.083	0.015	82	408071	200.0	217.8	
45 cis-1,2-Dichloroethene	96	6.091	6.102	-0.011	84	325807	200.0	214.5	
46 2-Butanone (MEK)	43	6.164	6.175	-0.011	99	134938	400.0	327.7	
49 Chlorobromomethane	128	6.383	6.381	0.002	83	175468	200.0	200.6	
52 Chloroform	83	6.499	6.497	0.002	95	553846	200.0	219.3	
53 1,1,1-Trichloroethane	97	6.675	6.680	-0.005	98	509182	200.0	222.0	
51 Tetrahydrofuran	42	6.736	6.728	0.008	50	83928	400.0	372.5	
54 Cyclohexane	56	6.736	6.746	-0.010	92	288676	200.0	178.4	
55 1,1-Dichloropropene	75	6.870	6.862	0.008	81	277523	200.0	167.6	
56 Carbon tetrachloride	117	6.858	6.868	-0.010	95	460921	200.0	199.2	
58 Benzene	78	7.101	7.099	0.002	96	813493	200.0	179.9	
59 1,2-Dichloroethane	62	7.120	7.124	-0.004	98	315689	200.0	206.7	
57 Isobutyl alcohol	41	7.095	7.251	-0.156	42	91235	5000.0	2473.8	
62 n-Heptane	43	7.412	7.410	0.002	52	184260	200.0	131.5	
64 Trichloroethene	130	7.795	7.793	0.002	93	308847	200.0	170.4	
66 Methylcyclohexane	83	7.983	7.988	-0.005	87	351924	200.0	157.9	
67 1,2-Dichloropropane	63	8.020	8.140	-0.120	90	213370	200.0	207.2	
68 Dibromomethane	93	8.142	8.146	-0.004	96	152431	200.0	198.7	
70 1,4-Dioxane	88	8.196	8.188	0.008	80	25793	4000.0	3583.1	
71 Dichlorobromomethane	83	8.312	8.316	-0.004	98	421172	200.0	220.6	
74 cis-1,3-Dichloropropene	75	8.768	8.766	0.002	92	390618	200.0	197.2	
75 4-Methyl-2-pentanone (MIBK	43	8.932	8.937	-0.005	95	298224	400.0	386.2	
76 Toluene	91	9.103	9.101	0.002	98	932738	200.0	196.6	
77 trans-1,3-Dichloropropene	75	9.328	9.320	0.008	96	320300	200.0	192.8	
78 Ethyl methacrylate	69	9.419	9.417	0.002	87	225478	200.0	204.0	
79 1,1,2-Trichloroethane	97	9.510	9.502	0.008	89	207470	200.0	218.7	
80 Tetrachloroethene	164	9.644	9.642	0.002	94	222130	200.0	174.7	
81 1,3-Dichloropropane	76	9.675	9.673	0.002	93	303008	200.0	216.1	
82 2-Hexanone	43	9.760	9.758	0.002	97	206689	400.0	414.9	
84 Chlorodibromomethane	129	9.900	9.898	0.002	89	334192	200.0	204.9	
85 Ethylene Dibromide	107	10.009	10.007	0.002	98	220981	200.0	205.7	
87 Chlorobenzene	112	10.496	10.500	-0.004	95	706755	200.0	209.8	
89 1,1,1,2-Tetrachloroethane	131	10.575	10.573	0.002	93	351699	200.0	215.9	
90 Ethylbenzene	106	10.605	10.603	0.002	98	356426	200.0	186.2	
91 m-Xylene & p-Xylene	106	10.715	10.719	-0.004	98	471324	200.0	182.6	
92 o-Xylene	106	11.110	11.108	0.002	96	506755	200.0	195.5	
93 Styrene	104	11.122	11.127	-0.005	93	732532	200.0	205.6	
94 Bromoform	173	11.305	11.315	-0.010	94	179366	200.0	194.1	
97 Isopropylbenzene	105	11.475	11.473	0.002	96	1196446	200.0	187.1	
99 1,1,2,2-Tetrachloroethane	83	11.767	11.771	-0.004	97	195429	200.0	196.3	
100 Bromobenzene	156	11.786	11.784	0.002	89	340826	200.0	265.3	
101 1,2,3-Trichloropropane	110	11.816	11.820	-0.004	82	69034	200.0	240.0	
102 trans-1,4-Dichloro-2-buten	53	11.828	11.826	0.002	66	39076	200.0	216.9	
103 N-Propylbenzene	120	11.883	11.887	-0.004	98	338765	200.0	214.8	
104 2-Chlorotoluene	126	11.974	11.972	0.002	97	332347	200.0	232.1	
106 1,3,5-Trimethylbenzene	105	12.059	12.057	0.002	96	957002	200.0	265.7	
107 4-Chlorotoluene	126	12.084	12.173	-0.089	96	312138	200.0	227.5	
108 tert-Butylbenzene	119	12.388	12.386	0.002	93	906028	200.0	204.1	
110 1,2,4-Trimethylbenzene	105	12.430	12.435	-0.005	97	938200	200.0	245.0	
112 sec-Butylbenzene	105	12.607	12.605	0.002	95	1113183	200.0	223.8	
113 1,3-Dichlorobenzene	146	12.722	12.720	0.002	97	533245	200.0	208.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
114 4-Isopropyltoluene	119	12.747	12.751	-0.004	96	944452	200.0	207.0	
115 1,4-Dichlorobenzene	146	12.808	12.812	-0.004	94	484091	200.0	203.6	
120 n-Butylbenzene	91	13.160	13.158	0.002	97	700101	200.0	179.4	
121 1,2-Dichlorobenzene	146	13.185	13.189	-0.004	96	410989	200.0	176.4	
122 1,2-Dibromo-3-Chloropropan	75	13.976	13.980	-0.004	88	27274	200.0	231.5	
126 1,2,4-Trichlorobenzene	180	14.803	14.807	-0.004	92	137448	200.0	186.1	
127 Hexachlorobutadiene	225	14.967	14.965	0.002	95	69403	200.0	156.8	
128 Naphthalene	128	15.052	15.063	-0.011	96	248010	200.0	205.0	
129 1,2,3-Trichlorobenzene	180	15.308	15.300	0.008	94	87987	200.0	174.1	
S 133 Xylenes, Total	106				0		400.0	378.2	
S 134 1,2-Dichloroethene, Total	96				0		400.0	410.6	
S 135 1,3-Dichloropropene, Total	1				0		400.0	390.0	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOA2ND_00124	Amount Added:	8.00	Units: uL	
voaWketPri Re_00005	Amount Added:	8.00	Units: uL	
voaWacro2 Res_00003	Amount Added:	24.00	Units: uL	
VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

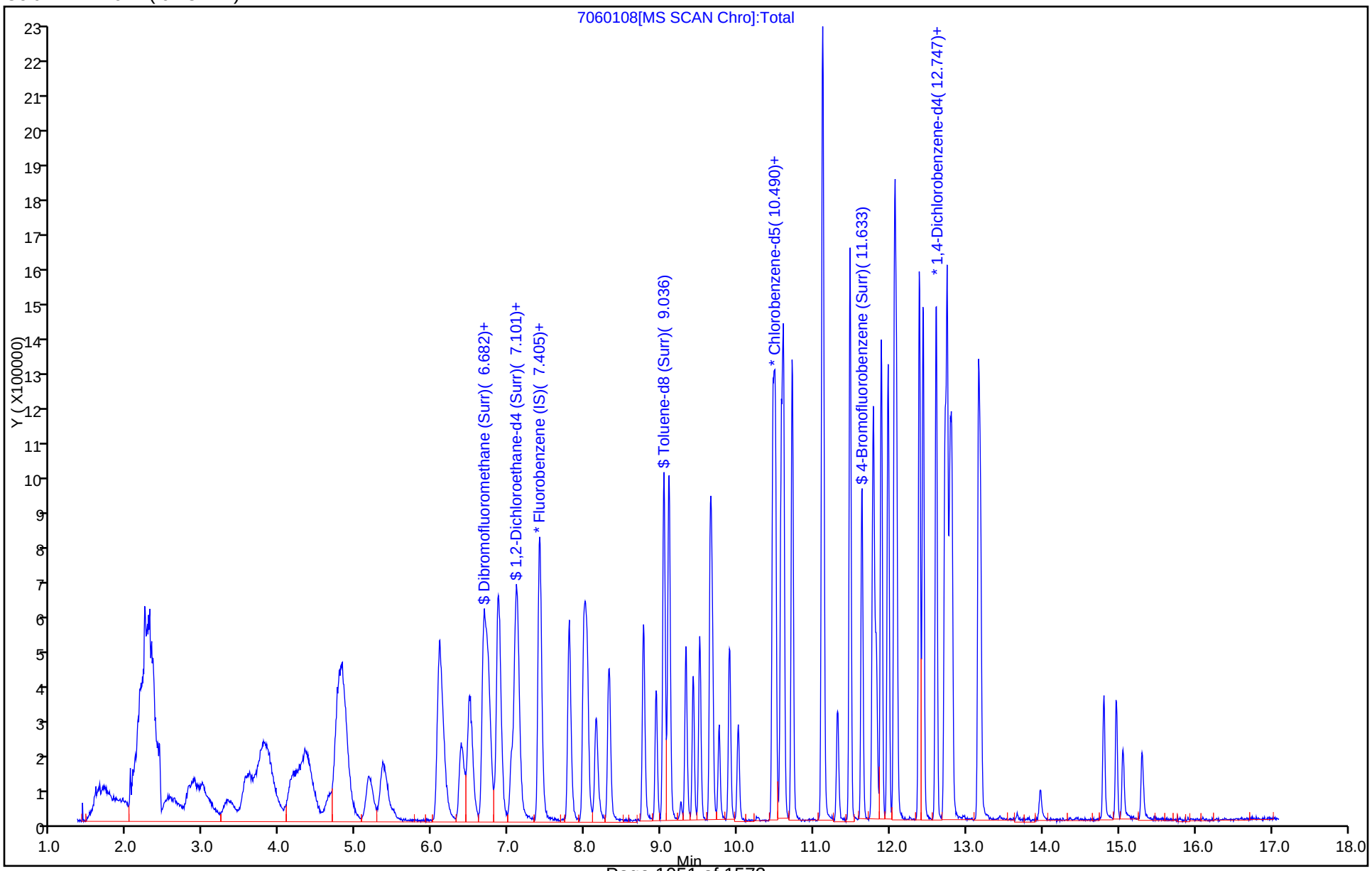
Report Date: 01-Jun-2015 17:16:23 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060108.D

Injection Date:	01-Jun-2015 13:26:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	lcs			Worklist Smp#:	8
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060108.D
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 01-Jun-2015 13:26:30 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: LCS
Misc. Info.: 180-0007205-008
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 17:16:16 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

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

First Level Reviewer: journetp Date: 01-Jun-2015 17:06:24

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	200.0	206.4	103.18
$ 6 1,2-Dichloroethane-d4 (Surr)	200.0	198.5	99.25
$ 7 Toluene-d8 (Surr)	200.0	224.8	112.42
$ 8 4-Bromofluorobenzene (Surr)	200.0	216.0	108.02

Manual Integration/User Assign Peak Report

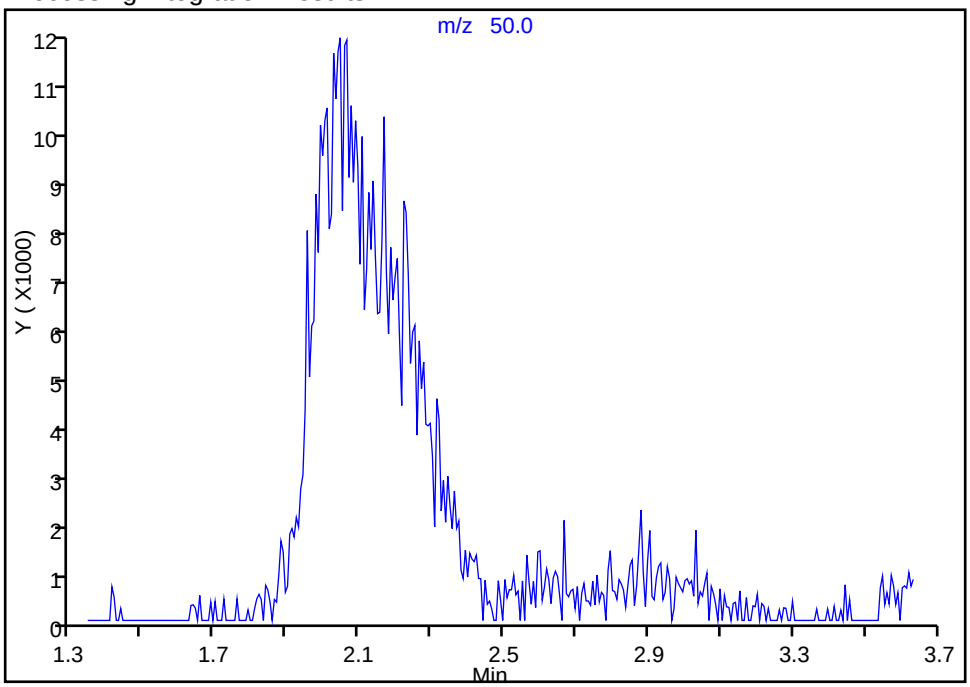
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060108.D				
Injection Date:	01-Jun-2015 13:26:30	Instrument ID:	CHHP7		
Lims ID:	lcs				
Client ID:					
Operator ID:	034635	ALS Bottle#:	7	Worklist Smp#:	8
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

12 Chloromethane, CAS: 74-87-3

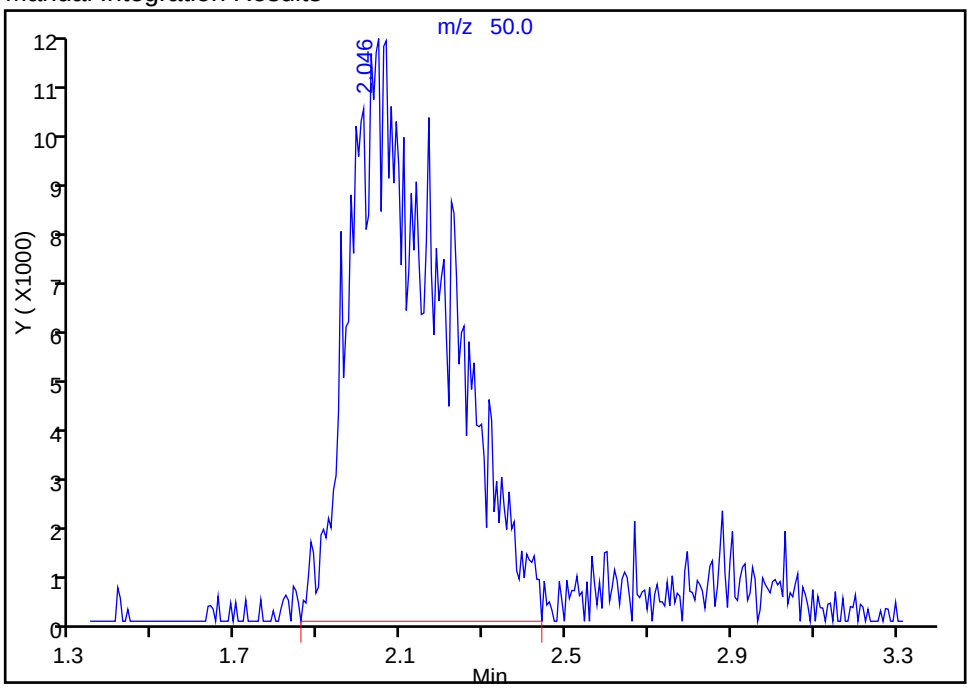
Not Detected
Expected RT: 2.03

Processing Integration Results



Manual Integration Results

RT: 2.05
Area: 182723
Amount: 98.501945
Amount Units: ng



Reviewer: journetp, 01-Jun-2015 14:03:11
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

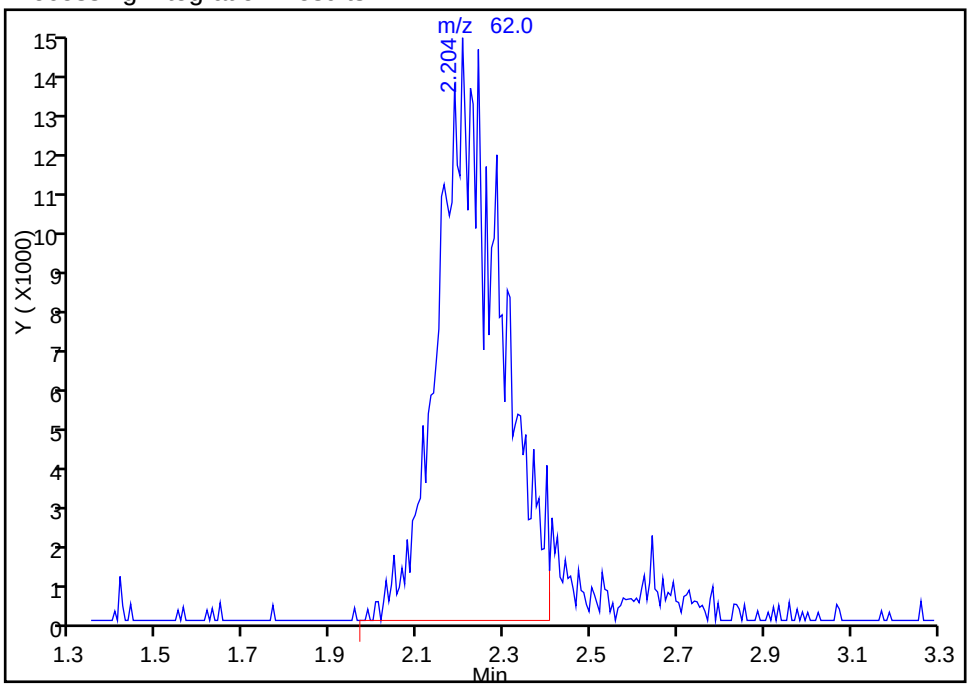
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060108.D				
Injection Date:	01-Jun-2015 13:26:30	Instrument ID:	CHHP7		
Lims ID:	lcs				
Client ID:					
Operator ID:	034635	ALS Bottle#:	7	Worklist Smp#:	8
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

13 Vinyl chloride, CAS: 75-01-4

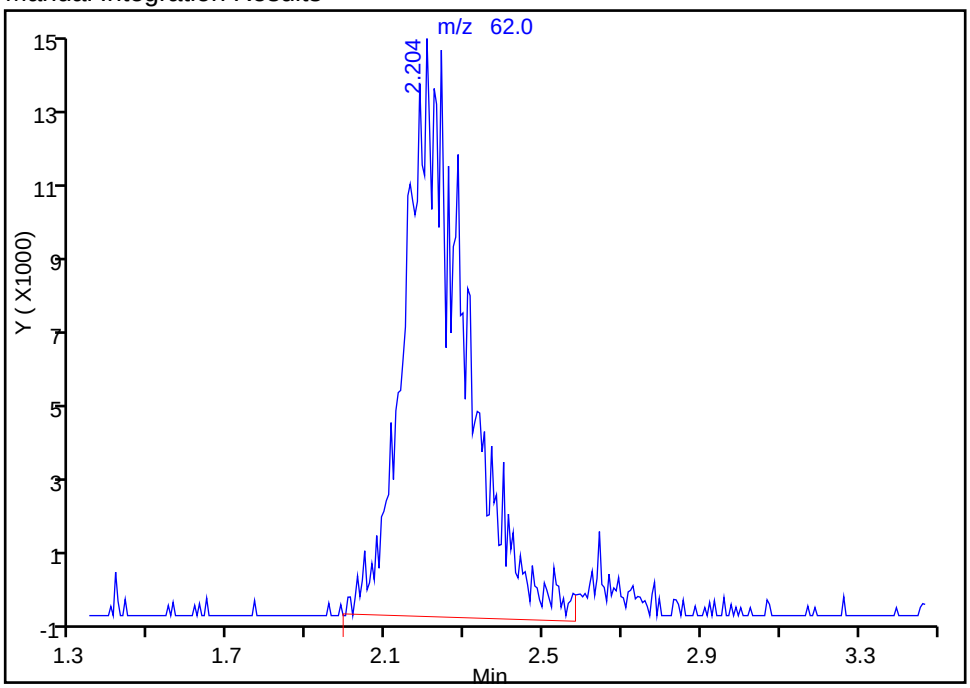
Processing Integration Results

RT: 2.20
Area: 144815
Amount: 100.2471
Amount Units: ng



Manual Integration Results

RT: 2.20
Area: 155221
Amount: 107.4506
Amount Units: ng



Reviewer: journetp, 01-Jun-2015 13:58:47
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-143527/10

Matrix: Water Lab File ID: 7060210.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 20(mL) Date Analyzed: 06/02/2015 14:40

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143527 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	6.52		1.0	0.28
75-01-4	Vinyl chloride	6.88		1.0	0.23
74-83-9	Bromomethane	8.46		1.0	0.31
75-00-3	Chloroethane	8.01		1.0	0.21
75-35-4	1,1-Dichloroethene	8.19		1.0	0.30
67-64-1	Acetone	12.2		5.0	2.5
75-15-0	Carbon disulfide	8.08		1.0	0.21
75-09-2	Methylene Chloride	11.9		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	10.6		1.0	0.17
1634-04-4	Methyl tert-butyl ether	11.5		1.0	0.18
75-34-3	1,1-Dichloroethane	12.1		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	11.2		1.0	0.24
74-97-5	Bromochloromethane	10.6		1.0	0.18
78-93-3	2-Butanone (MEK)	17.2		5.0	0.55
67-66-3	Chloroform	11.5		1.0	0.17
71-55-6	1,1,1-Trichloroethane	12.6		1.0	0.29
56-23-5	Carbon tetrachloride	12.2		1.0	0.14
71-43-2	Benzene	10.6		1.0	0.11
107-06-2	1,2-Dichloroethane	10.7		1.0	0.21
79-01-6	Trichloroethene	10.0		1.0	0.14
78-87-5	1,2-Dichloropropane	10.4		1.0	0.095
75-27-4	Bromodichloromethane	11.2		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	10.5		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	16.9		5.0	0.53
108-88-3	Toluene	10.2		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	9.86		1.0	0.15
79-00-5	1,1,2-Trichloroethane	9.92		1.0	0.20
127-18-4	Tetrachloroethene	10.8		1.0	0.15
591-78-6	2-Hexanone	20.6		5.0	0.16
124-48-1	Dibromochloromethane	10.1		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	9.63		1.0	0.18
108-90-7	Chlorobenzene	10.8		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	10.6		1.0	0.28
100-41-4	Ethylbenzene	10.1		1.0	0.23
1330-20-7	Xylenes, Total	20.2		3.0	0.49
100-42-5	Styrene	10.6		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-143527/10

Matrix: Water Lab File ID: 7060210.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 20(mL) Date Analyzed: 06/02/2015 14:40

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143527 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	8.89		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	9.37		1.0	0.20
107-13-1	Acrylonitrile	91.2		20	0.55
123-91-1	1,4-Dioxane	192	J	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		64-135
2037-26-5	Toluene-d8 (Surr)	109		71-118
460-00-4	4-Bromofluorobenzene (Surr)	105		70-118
1868-53-7	Dibromofluoromethane (Surr)	110		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060210.D
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 02-Jun-2015 14:40:30 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: lcs
Misc. Info.: 180-0007217-010
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150602-7217.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 03-Jun-2015 09:01:24 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK016

First Level Reviewer: journetp Date: 03-Jun-2015 09:00:59

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.616	4.568	0.048	95	271285	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.408	7.415	-0.007	94	1048432	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.468	10.469	0.000	86	316438	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.786	12.786	0.000	96	356058	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.690	6.691	-0.001	86	368881	200.0	220.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.043	7.050	-0.007	88	332462	200.0	208.5	
$ 7 Toluene-d8 (Surr)	98	9.039	9.039	0.000	92	1019780	200.0	217.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.630	11.630	0.000	89	437492	200.0	209.0	
11 Dichlorodifluoromethane	85	1.921	1.982	-0.061	56	260041	200.0	133.8	
12 Chloromethane	50	2.037	2.049	-0.012	89	276210	200.0	130.5	
13 Vinyl chloride	62	2.219	2.219	0.000	90	226795	200.0	137.6	
14 Butadiene	39	2.207	2.238	-0.031	87	221552	200.0	127.2	
15 Bromomethane	94	2.554	2.578	-0.024	87	224748	200.0	169.2	
16 Chloroethane	64	2.688	2.651	0.037	50	213158	200.0	160.3	
17 Dichlorofluoromethane	67	2.949	2.949	0.000	77	559475	200.0	158.1	
18 Trichlorofluoromethane	101	2.888	3.004	-0.116	80	679455	200.0	182.5	
20 Ethyl ether	59	3.357	3.381	-0.024	84	126440	200.0	107.0	
21 Acrolein	56	3.588	3.509	0.079	1	9236	600.0	113.2	M
22 1,1-Dichloroethene	96	3.606	3.655	-0.049	90	230677	200.0	163.9	
23 1,1,2-Trichloro-1,2,2-trif	101	3.758	3.771	-0.013	78	242132	200.0	147.9	M
24 Acetone	43	3.783	3.777	0.006	39	88879	400.0	243.2	
25 Iodomethane	142	3.807	3.838	-0.031	96	505038	200.0	171.5	
26 Carbon disulfide	76	3.910	3.935	-0.025	85	683327	200.0	161.6	M
28 3-Chloro-1-propene	76	4.190	4.148	0.042	78	255727	200.0	246.3	
30 Methyl acetate	43	4.312	4.318	-0.006	96	562857	1000.0	805.8	
31 Methylene Chloride	84	4.379	4.415	-0.036	89	358082	200.0	237.0	
33 Acrylonitrile	53	4.786	4.793	-0.007	98	509509	2000.0	1823.4	
32 2-Methyl-2-propanol	59	4.756	4.799	-0.043	90	89088	2000.0	11980	E
34 trans-1,2-Dichloroethene	96	4.786	4.799	-0.013	95	371176	200.0	212.5	
35 Methyl tert-butyl ether	73	4.859	4.847	0.012	95	794335	200.0	230.8	
36 Hexane	57	5.194	5.079	0.115	92	337635	200.0	184.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
38 Vinyl acetate	43	5.188	5.188	0.000	81	245706	200.0	178.4	
37 1,1-Dichloroethane	63	5.364	5.371	-0.007	97	621906	200.0	242.9	
44 2,2-Dichloropropane	77	6.283	6.119	0.164	1	3709	200.0	1.73	
45 cis-1,2-Dichloroethene	96	6.106	6.125	-0.019	84	386523	200.0	223.0	
46 2-Butanone (MEK)	43	6.173	6.161	0.012	99	162042	400.0	344.8	
49 Chlorobromomethane	128	6.405	6.399	0.005	81	211295	200.0	211.7	
52 Chloroform	83	6.502	6.508	-0.006	93	665651	200.0	230.9	
53 1,1,1-Trichloroethane	97	6.690	6.697	-0.007	96	657629	200.0	251.2	
51 Tetrahydrofuran	42	6.745	6.752	-0.007	47	122482	400.0	476.4	
54 Cyclohexane	56	6.745	6.752	-0.007	90	445807	200.0	241.4	
56 Carbon tetrachloride	117	6.867	6.879	-0.012	96	645558	200.0	244.5	
55 1,1-Dichloropropene	75	6.879	6.879	0.000	87	412683	200.0	218.3	
58 Benzene	78	7.104	7.104	0.000	96	1094163	200.0	212.1	
59 1,2-Dichloroethane	62	7.135	7.135	0.000	98	373201	200.0	214.1	
62 n-Heptane	43	7.414	7.415	-0.001	62	324114	200.0	202.7	
57 Isobutyl alcohol	41	7.420	7.421	-0.001	54	238642	5000.0	5669.6	
64 Trichloroethene	130	7.798	7.798	0.000	95	413795	200.0	200.1	
66 Methylcyclohexane	83	7.998	7.999	-0.001	89	562652	200.0	221.2	
67 1,2-Dichloropropane	63	8.035	8.029	0.006	75	244163	200.0	207.8	
68 Dibromomethane	93	8.150	8.151	-0.001	94	179588	200.0	205.2	
70 1,4-Dioxane	88	8.199	8.187	0.012	90	31522	4000.0	3836.9	
71 Dichlorobromomethane	83	8.315	8.321	-0.006	98	487692	200.0	223.8	
74 cis-1,3-Dichloropropene	75	8.771	8.771	0.000	91	476602	200.0	210.8	
75 4-Methyl-2-pentanone (MIBK	43	8.935	8.935	0.000	96	313032	400.0	338.5	
76 Toluene	91	9.106	9.106	0.000	98	1152836	200.0	204.3	
77 trans-1,3-Dichloropropene	75	9.325	9.331	-0.006	95	392383	200.0	197.3	
78 Ethyl methacrylate	69	9.422	9.422	0.000	88	245276	200.0	185.4	
79 1,1,2-Trichloroethane	97	9.507	9.507	0.000	90	225394	200.0	198.5	
80 Tetrachloroethene	164	9.653	9.653	0.000	93	316813	200.0	215.2	
81 1,3-Dichloropropane	76	9.671	9.672	-0.001	92	333715	200.0	198.8	
82 2-Hexanone	43	9.756	9.757	-0.001	97	245897	400.0	412.3	
84 Chlorodibromomethane	129	9.896	9.897	-0.001	88	393198	200.0	201.4	
85 Ethylene Dibromide	107	10.006	10.012	-0.006	96	247802	200.0	192.6	
87 Chlorobenzene	112	10.499	10.499	0.000	95	868835	200.0	215.4	
89 1,1,1,2-Tetrachloroethane	131	10.578	10.578	0.000	93	413896	200.0	212.2	
90 Ethylbenzene	106	10.602	10.602	0.000	98	463693	200.0	202.3	
91 m-Xylene & p-Xylene	106	10.718	10.718	0.000	97	619308	200.0	200.4	
92 o-Xylene	106	11.113	11.113	0.000	95	634473	200.0	204.5	
93 Styrene	104	11.125	11.126	-0.001	94	901670	200.0	212.7	
94 Bromoform	173	11.314	11.314	0.000	94	196669	200.0	177.8	
97 Isopropylbenzene	105	11.478	11.478	0.000	96	1571351	200.0	210.1	
99 1,1,2,2-Tetrachloroethane	83	11.770	11.770	0.000	98	223239	200.0	187.3	
100 Bromobenzene	156	11.782	11.783	-0.001	89	401163	200.0	262.9	
101 1,2,3-Trichloropropane	110	11.819	11.813	0.006	79	67590	200.0	197.8	
102 trans-1,4-Dichloro-2-buten	53	11.831	11.831	0.000	73	41591	200.0	194.4	
103 N-Propylbenzene	120	11.886	11.892	-0.006	96	473485	200.0	252.8	
104 2-Chlorotoluene	126	11.977	11.977	0.000	97	411012	200.0	241.7	
106 1,3,5-Trimethylbenzene	105	12.062	12.062	0.000	95	1268268	200.0	304.2	
107 4-Chlorotoluene	126	12.086	12.190	-0.104	96	395960	200.0	243.0	
108 tert-Butylbenzene	119	12.385	12.385	0.000	92	1222337	200.0	233.3	
110 1,2,4-Trimethylbenzene	105	12.433	12.433	0.000	98	1207895	200.0	270.4	
112 sec-Butylbenzene	105	12.604	12.604	0.000	95	1575694	200.0	277.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
113 1,3-Dichlorobenzene	146	12.719	12.719	0.000	96	658187	200.0	217.5	
114 4-Isopropyltoluene	119	12.750	12.750	0.000	95	1283066	200.0	245.0	
115 1,4-Dichlorobenzene	146	12.810	12.811	-0.001	94	585370	200.0	207.2	
120 n-Butylbenzene	91	13.157	13.163	-0.006	95	1027847	200.0	233.6	
121 1,2-Dichlorobenzene	146	13.188	13.188	0.000	97	503715	200.0	182.0	
122 1,2-Dibromo-3-Chloropropan	75	13.972	13.985	-0.013	89	29545	200.0	211.8	
126 1,2,4-Trichlorobenzene	180	14.806	14.818	-0.012	95	167012	200.0	190.3	
127 Hexachlorobutadiene	225	14.964	14.970	-0.006	94	113871	200.0	216.6	
128 Naphthalene	128	15.055	15.068	-0.013	97	264781	200.0	184.3	
129 1,2,3-Trichlorobenzene	180	15.305	15.305	0.000	96	73429	200.0	122.3	
S 134 1,2-Dichloroethene, Total	96				0		400.0	435.5	
S 133 Xylenes, Total	106				0		400.0	404.9	
S 135 1,3-Dichloropropene, Total	1				0		400.0	408.1	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Review Flags

M - Manually Integrated

Reagents:

voaWVA2nd Res_00007	Amount Added:	8.00	Units: uL	
voaWket2nd Re_00002	Amount Added:	8.00	Units: uL	
VOA8260VOA2ND_00124	Amount Added:	8.00	Units: uL	
VOAACRLOEINPR_00001	Amount Added:	24.00	Units: uL	
VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

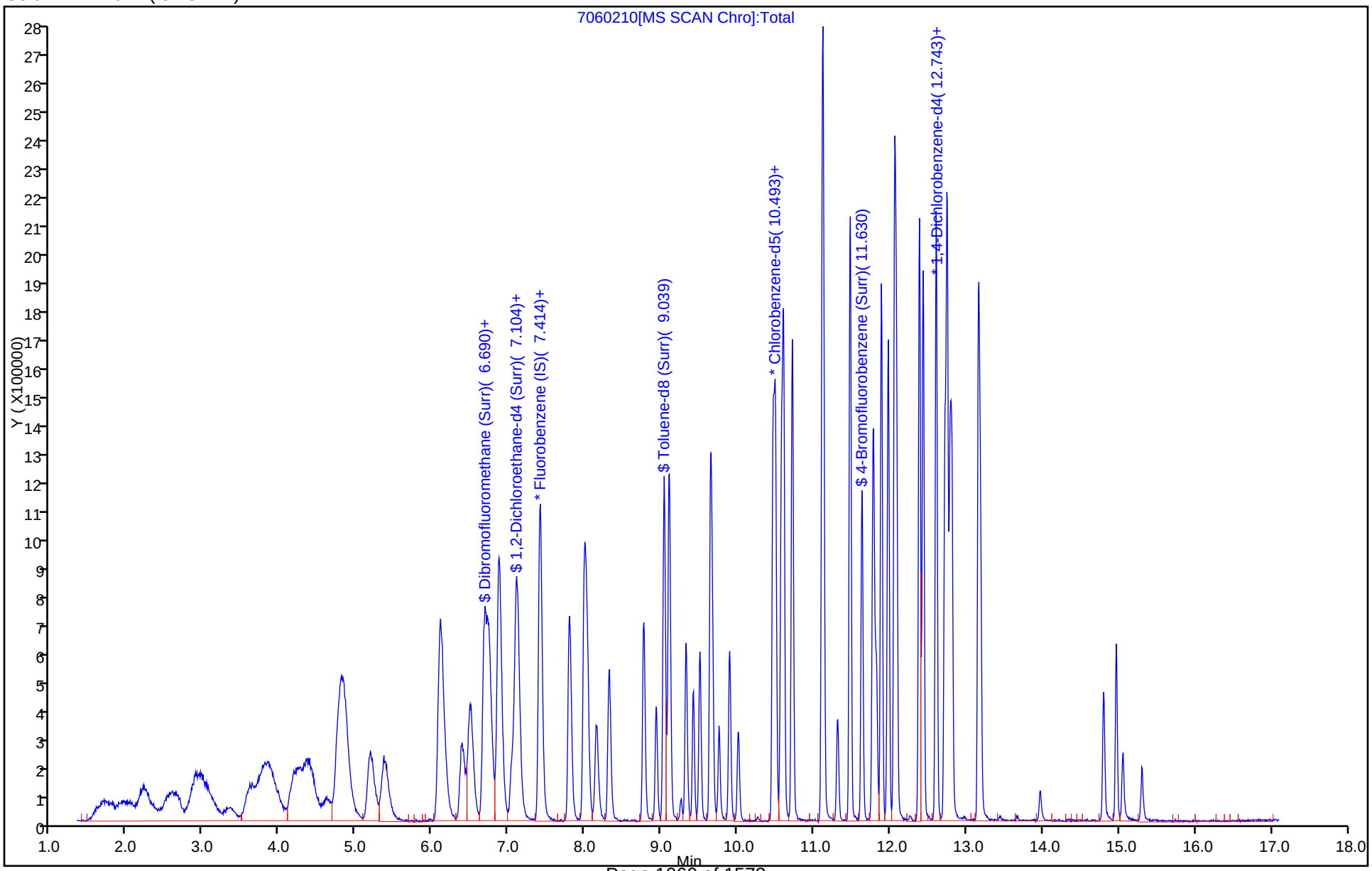
Report Date: 03-Jun-2015 09:24:23 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060210.D

Injection Date:	02-Jun-2015 14:40:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	lcs			Worklist Smp#:	10
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060210.D
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 02-Jun-2015 14:40:30 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: lcs
Misc. Info.: 180-0007217-010
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150602-7217.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 03-Jun-2015 09:01:24 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK016

First Level Reviewer: journetp Date: 03-Jun-2015 09:00:59

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	200.0	220.6	110.28
$ 6 1,2-Dichloroethane-d4 (Surr)	200.0	208.5	104.26
$ 7 Toluene-d8 (Surr)	200.0	217.3	108.64
$ 8 4-Bromofluorobenzene (Surr)	200.0	209.0	104.51

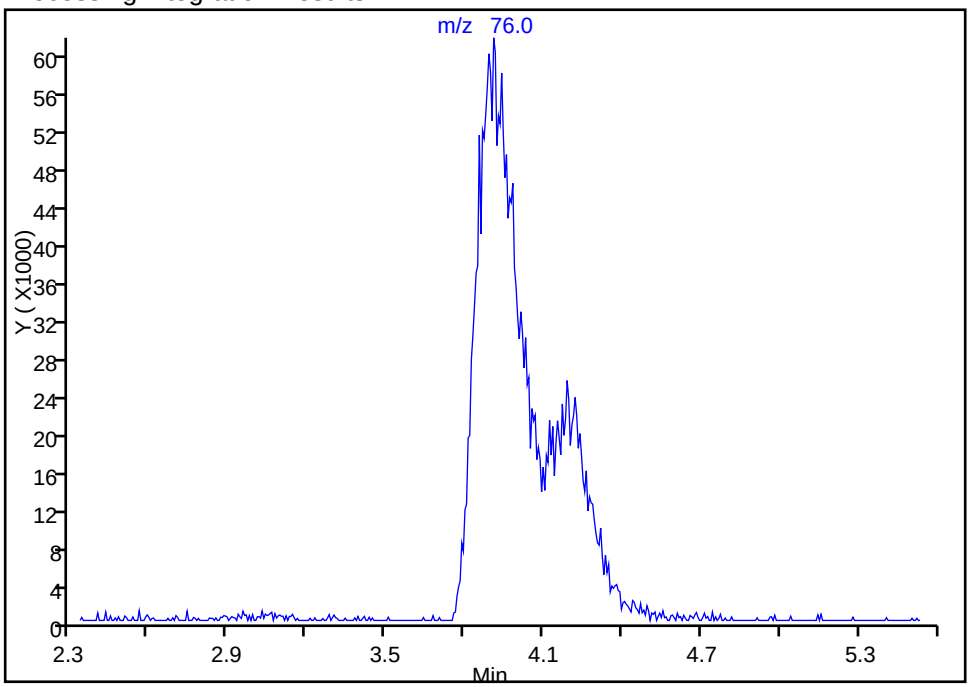
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150602-7217.b\7060210.D				
Injection Date:	02-Jun-2015 14:40:30	Instrument ID:	CHHP7		
Lims ID:	lcs				
Client ID:					
Operator ID:	034635	ALS Bottle#:	9	Worklist Smp#:	10
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

26 Carbon disulfide, CAS: 75-15-0

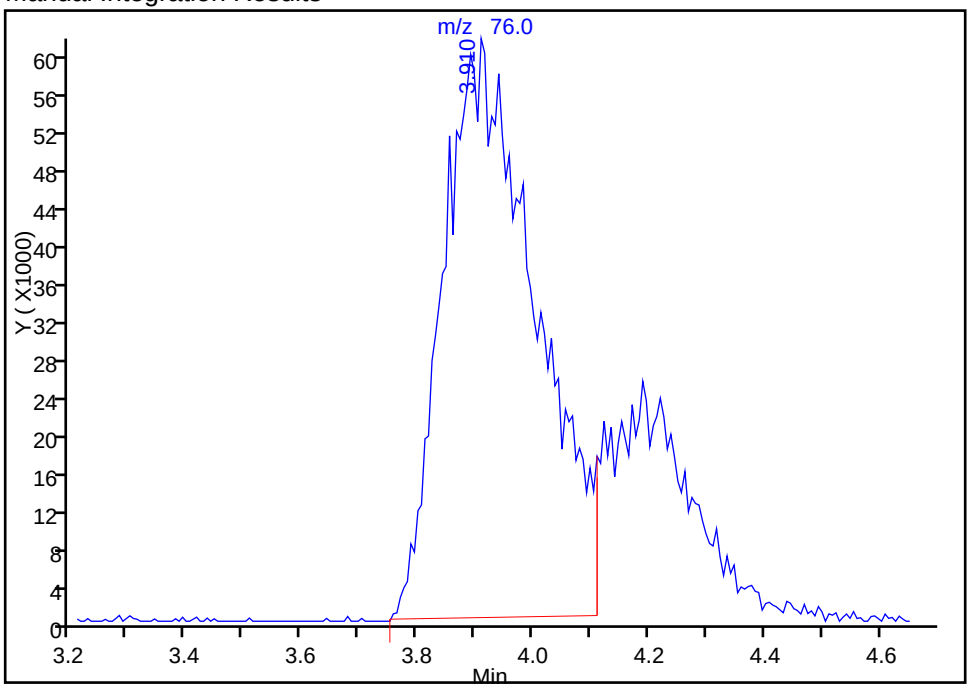
Processing Integration Results

Not Detected
Expected RT: 3.93



Manual Integration Results

RT: 3.91
Area: 683327
Amount: 161.6195
Amount Units: ng



Reviewer: journetp, 02-Jun-2015 15:34:58
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-6-0/1-0 MS Lab Sample ID: 180-44321-1 MS

Matrix: Water Lab File ID: 7052910.D

Analysis Method: 8260C Date Collected: 05/20/2015 10:45

Sample wt/vol: 20(mL) Date Analyzed: 05/29/2015 13:23

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143153 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	6.02		1.0	0.28
75-01-4	Vinyl chloride	5.10		1.0	0.23
74-83-9	Bromomethane	6.47		1.0	0.31
75-00-3	Chloroethane	4.09		1.0	0.21
75-35-4	1,1-Dichloroethene	6.14		1.0	0.30
67-64-1	Acetone	20.9		5.0	2.5
75-15-0	Carbon disulfide	6.80		1.0	0.21
75-09-2	Methylene Chloride	12.2		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	8.16		1.0	0.17
1634-04-4	Methyl tert-butyl ether	14.1		1.0	0.18
75-34-3	1,1-Dichloroethane	11.0		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	11.5		1.0	0.24
74-97-5	Bromochloromethane	11.8		1.0	0.18
78-93-3	2-Butanone (MEK)	18.7		5.0	0.55
67-66-3	Chloroform	11.3		1.0	0.17
71-55-6	1,1,1-Trichloroethane	7.95		1.0	0.29
56-23-5	Carbon tetrachloride	6.64		1.0	0.14
71-43-2	Benzene	10.3		1.0	0.11
107-06-2	1,2-Dichloroethane	13.0		1.0	0.21
79-01-6	Trichloroethene	8.43		1.0	0.14
78-87-5	1,2-Dichloropropane	12.4		1.0	0.095
75-27-4	Bromodichloromethane	12.6		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	12.5		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	19.1		5.0	0.53
108-88-3	Toluene	8.50		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	10.1		1.0	0.15
79-00-5	1,1,2-Trichloroethane	10.9		1.0	0.20
127-18-4	Tetrachloroethene	6.92		1.0	0.15
591-78-6	2-Hexanone	17.9		5.0	0.16
124-48-1	Dibromochloromethane	9.85		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	10.2		1.0	0.18
108-90-7	Chlorobenzene	10.3		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	10.0		1.0	0.28
100-41-4	Ethylbenzene	8.86		1.0	0.23
1330-20-7	Xylenes, Total	18.7		3.0	0.49
100-42-5	Styrene	10.6		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-6-0/1-0 MS Lab Sample ID: 180-44321-1 MS

Matrix: Water Lab File ID: 7052910.D

Analysis Method: 8260C Date Collected: 05/20/2015 10:45

Sample wt/vol: 20(mL) Date Analyzed: 05/29/2015 13:23

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143153 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	10.2		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	10.9		1.0	0.20
107-13-1	Acrylonitrile	137		20	0.55
123-91-1	1,4-Dioxane	190	J	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	123		64-135
2037-26-5	Toluene-d8 (Surr)	94		71-118
460-00-4	4-Bromofluorobenzene (Surr)	108		70-118
1868-53-7	Dibromofluoromethane (Surr)	109		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052910.D
Lims ID: 180-44321-D-1 MS
Client ID:
Sample Type: MS
Inject. Date: 29-May-2015 13:23:30 ALS Bottle#: 7 Worklist Smp#: 11
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 180-44321-D-1 MS
Misc. Info.: 180-0007169-011
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 08:21:05 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

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

First Level Reviewer: journetp Date: 01-Jun-2015 09:31:52

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.674	4.658	0.016	95	394764	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.405	7.408	-0.003	96	980697	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.465	10.468	-0.003	84	347695	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.783	12.785	-0.002	95	449496	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.681	6.684	-0.003	91	340127	200.0	217.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.046	7.037	0.009	93	367093	200.0	246.1	
$ 7 Toluene-d8 (Surr)	98	9.035	9.038	-0.003	93	972568	200.0	188.6	
$ 8 4-Bromofluorobenzene (Surr	95	11.633	11.630	0.003	89	496862	200.0	216.5	
12 Chloromethane	50	2.039	2.048	-0.009	56	238586	200.0	120.5	
13 Vinyl chloride	62	2.234	2.212	0.022	63	157168	200.0	101.9	
15 Bromomethane	94	2.532	2.517	0.015	80	160901	200.0	129.5	
16 Chloroethane	64	2.605	2.590	0.015	64	101827	200.0	81.8	
22 1,1-Dichloroethene	96	3.597	3.563	0.034	89	161633	200.0	122.8	
24 Acetone	43	3.828	3.764	0.064	33	128787	400.0	417.7	
26 Carbon disulfide	76	3.858	3.861	-0.003	100	537677	200.0	136.0	M
31 Methylene Chloride	84	4.375	4.384	-0.009	89	343986	200.0	243.4	
33 Acrylonitrile	53	4.783	4.773	0.010	96	717174	2000.0	2743.9	
34 trans-1,2-Dichloroethene	96	4.765	4.780	-0.015	89	266582	200.0	163.2	
35 Methyl tert-butyl ether	73	4.850	4.853	-0.003	94	905347	200.0	281.2	
37 1,1-Dichloroethane	63	5.343	5.351	-0.008	97	525449	200.0	219.4	
45 cis-1,2-Dichloroethene	96	6.103	6.094	0.009	82	371505	200.0	229.1	
46 2-Butanone (MEK)	43	6.164	6.167	-0.003	96	163967	400.0	373.0	
49 Chlorobromomethane	128	6.383	6.386	-0.003	85	219547	200.0	235.1	
52 Chloroform	83	6.499	6.495	0.004	92	610115	200.0	226.3	
53 1,1,1-Trichloroethane	97	6.681	6.678	0.003	96	389089	200.0	158.9	
56 Carbon tetrachloride	117	6.858	6.872	-0.014	95	328218	200.0	132.9	
58 Benzene	78	7.107	7.097	0.010	95	993770	200.0	205.9	
59 1,2-Dichloroethane	62	7.125	7.128	-0.003	97	423603	200.0	259.9	
64 Trichloroethene	130	7.794	7.791	0.003	95	326021	200.0	168.5	
67 1,2-Dichloropropane	63	8.026	8.022	0.004	91	272365	200.0	247.8	
70 1,4-Dioxane	88	8.196	8.180	0.016	57	29188	4000.0	3798.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
71 Dichlorobromomethane	83	8.318	8.314	0.004	98	515455	200.0	252.9	
74 cis-1,3-Dichloropropene	75	8.768	8.770	-0.002	93	529937	200.0	250.6	
75 4-Methyl-2-pentanone (MIBK	43	8.938	8.935	0.003	96	387792	400.0	381.7	
76 Toluene	91	9.102	9.105	-0.003	98	1088229	200.0	170.0	
77 trans-1,3-Dichloropropene	75	9.321	9.324	-0.003	95	443282	200.0	202.8	
79 1,1,2-Trichloroethane	97	9.504	9.506	-0.002	90	270929	200.0	217.1	
80 Tetrachloroethene	164	9.650	9.646	0.004	94	240695	200.0	138.3	
82 2-Hexanone	43	9.759	9.762	-0.003	97	234592	400.0	358.0	
84 Chlorodibromomethane	129	9.899	9.896	0.003	89	422828	200.0	197.1	
85 Ethylene Dibromide	107	10.003	10.011	-0.008	98	288557	200.0	204.1	
87 Chlorobenzene	112	10.495	10.498	-0.003	94	913004	200.0	206.0	
89 1,1,1,2-Tetrachloroethane	131	10.575	10.577	-0.003	92	429318	200.0	200.4	
90 Ethylbenzene	106	10.605	10.601	0.004	98	446153	200.0	177.2	
91 m-Xylene & p-Xylene	106	10.721	10.717	0.004	99	604890		178.2	
92 o-Xylene	106	11.116	11.112	0.004	95	670515		196.6	
93 Styrene	104	11.128	11.125	0.003	94	987541	200.0	211.9	
94 Bromoform	173	11.311	11.313	-0.002	94	247041	200.0	203.2	
99 1,1,2,2-Tetrachloroethane	83	11.773	11.769	0.004	97	284277	200.0	217.1	
S 133 Xylenes, Total	106				0		400.0	374.8	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

voaWacro2 Res_00003	Amount Added:	24.00	Units: uL	
voaWketPri Re_00005	Amount Added:	8.00	Units: uL	
VOA8260VOA2ND_00124	Amount Added:	8.00	Units: uL	
voaWVA1st Res_00001	Amount Added:	8.00	Units: uL	
VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

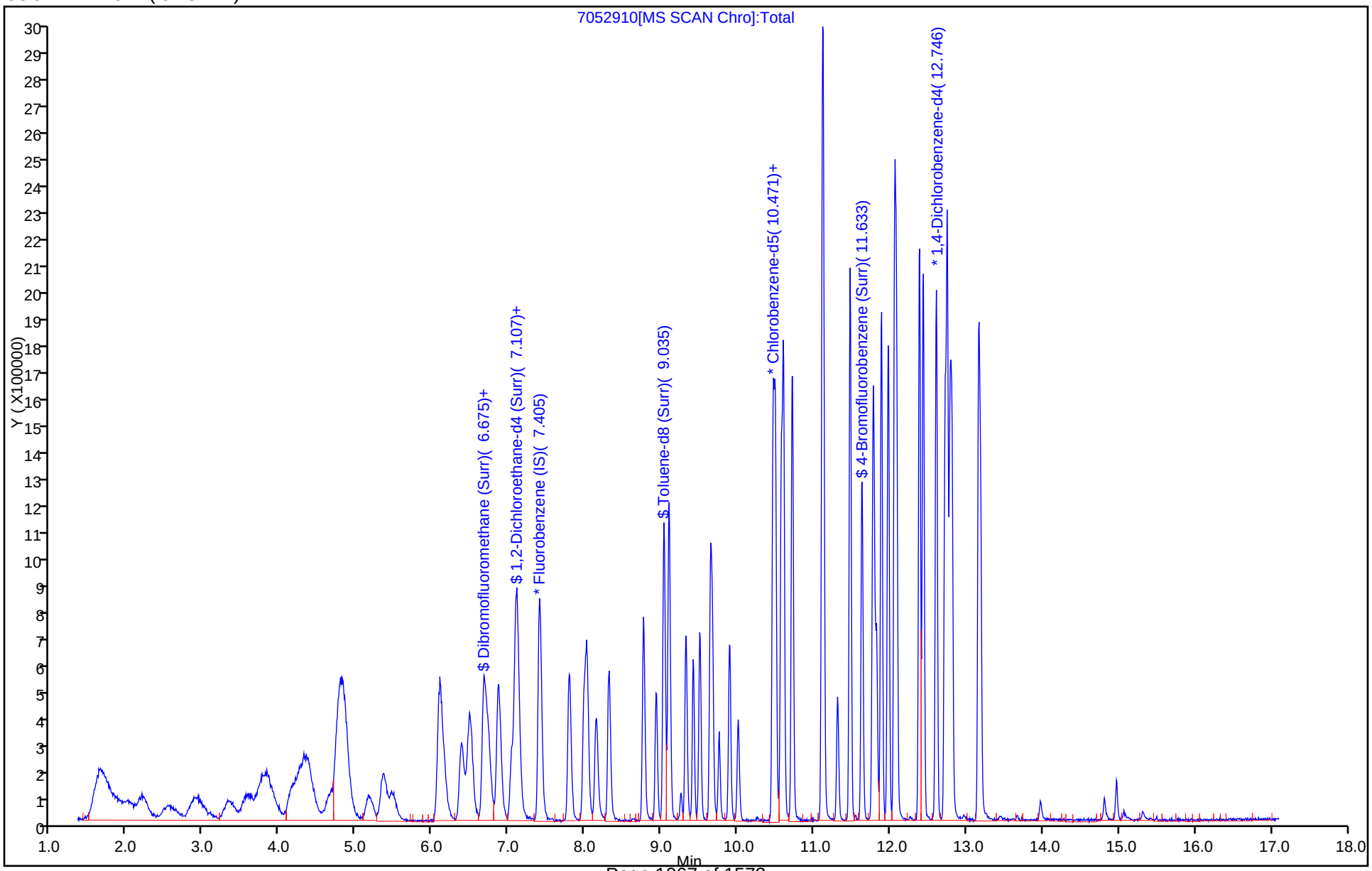
Report Date: 01-Jun-2015 09:31:52 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052910.D

Injection Date:	29-May-2015 13:23:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-44321-D-1 MS			Worklist Smp#:	11
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052910.D
Lims ID: 180-44321-D-1 MS
Client ID:
Sample Type: MS
Inject. Date: 29-May-2015 13:23:30 ALS Bottle#: 7 Worklist Smp#: 11
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 180-44321-D-1 MS
Misc. Info.: 180-0007169-011
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 08:21:05 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

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

First Level Reviewer: journetp Date: 01-Jun-2015 09:31:52

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	200.0	217.4	108.71
$ 6 1,2-Dichloroethane-d4 (Surr)	200.0	246.1	123.07
$ 7 Toluene-d8 (Surr)	200.0	188.6	94.29
$ 8 4-Bromofluorobenzene (Surr)	200.0	216.5	108.27

Manual Integration/User Assign Peak Report

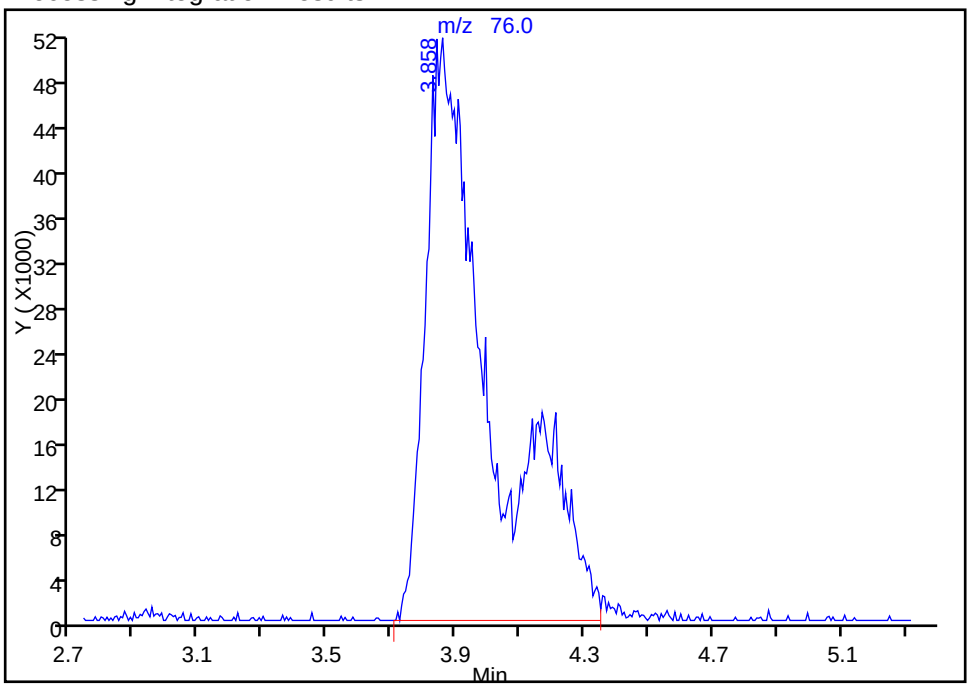
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052910.D				
Injection Date:	29-May-2015 13:23:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-D-1 MS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	7	Worklist Smp#:	11
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

26 Carbon disulfide, CAS: 75-15-0

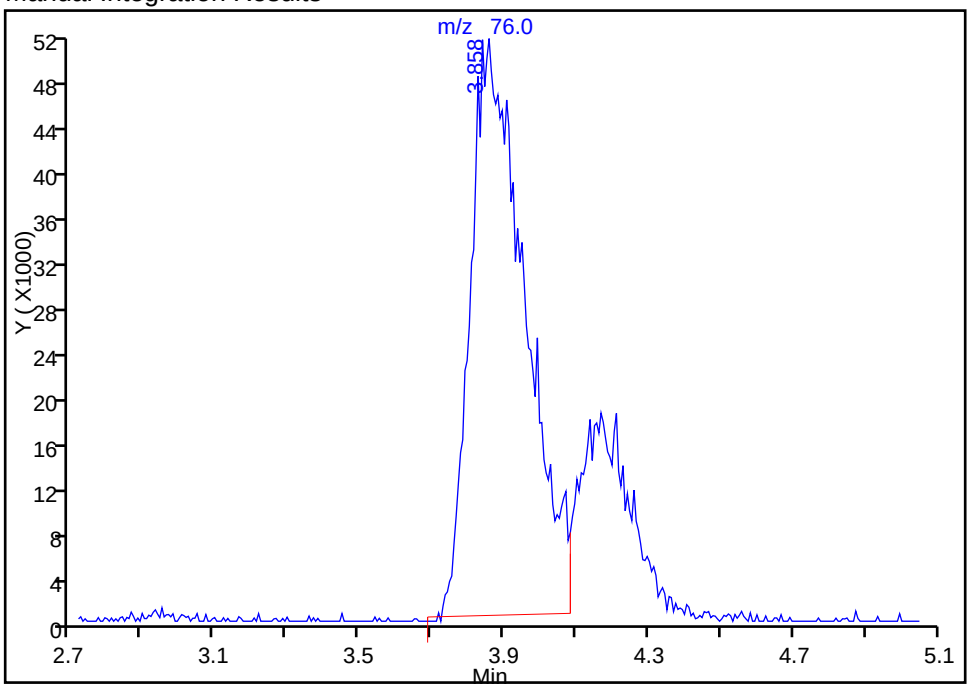
Processing Integration Results

RT: 3.86
Area: 724336
Amount: 183.1516
Amount Units: ng



Manual Integration Results

RT: 3.86
Area: 537677
Amount: 135.9541
Amount Units: ng



Reviewer: journetp, 29-May-2015 13:57:02
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-28-0/1-0 MS | Lab Sample ID: 180-44321-15 MS

Matrix: Water | Lab File ID: 7053112.D

Analysis Method: 8260C | Date Collected: 05/20/2015 12:05

Sample wt/vol: 20(mL) | Date Analyzed: 05/31/2015 16:32

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 143339 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	6.60		1.0	0.28
75-01-4	Vinyl chloride	6.04		1.0	0.23
74-83-9	Bromomethane	7.18		1.0	0.31
75-00-3	Chloroethane	5.59		1.0	0.21
75-35-4	1,1-Dichloroethene	10.2		1.0	0.30
67-64-1	Acetone	27.1		5.0	2.5
75-15-0	Carbon disulfide	9.98		1.0	0.21
75-09-2	Methylene Chloride	11.4		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	9.78		1.0	0.17
1634-04-4	Methyl tert-butyl ether	11.4		1.0	0.18
75-34-3	1,1-Dichloroethane	11.2		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	11.0		1.0	0.24
74-97-5	Bromochloromethane	9.93		1.0	0.18
78-93-3	2-Butanone (MEK)	18.4		5.0	0.55
67-66-3	Chloroform	10.9		1.0	0.17
71-55-6	1,1,1-Trichloroethane	10.4		1.0	0.29
56-23-5	Carbon tetrachloride	9.79		1.0	0.14
71-43-2	Benzene	10.2		1.0	0.11
107-06-2	1,2-Dichloroethane	10.5		1.0	0.21
79-01-6	Trichloroethene	9.56		1.0	0.14
78-87-5	1,2-Dichloropropane	11.3		1.0	0.095
75-27-4	Bromodichloromethane	10.7		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	10.6		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	20.0		5.0	0.53
108-88-3	Toluene	10.6		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	9.95		1.0	0.15
79-00-5	1,1,2-Trichloroethane	10.3		1.0	0.20
127-18-4	Tetrachloroethene	8.59		1.0	0.15
591-78-6	2-Hexanone	22.8		5.0	0.16
124-48-1	Dibromochloromethane	10.1		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	10.4		1.0	0.18
108-90-7	Chlorobenzene	10.6		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	10.6		1.0	0.28
100-41-4	Ethylbenzene	9.34		1.0	0.23
1330-20-7	Xylenes, Total	18.2		3.0	0.49
100-42-5	Styrene	10.4		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-28-0/1-0 MS Lab Sample ID: 180-44321-15 MS

Matrix: Water Lab File ID: 7053112.D

Analysis Method: 8260C Date Collected: 05/20/2015 12:05

Sample wt/vol: 20(mL) Date Analyzed: 05/31/2015 16:32

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143339 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	9.67		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	9.86		1.0	0.20
107-13-1	Acrylonitrile	96.2		20	0.55
123-91-1	1,4-Dioxane	163	J	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		64-135
2037-26-5	Toluene-d8 (Surr)	108		71-118
460-00-4	4-Bromofluorobenzene (Surr)	98		70-118
1868-53-7	Dibromofluoromethane (Surr)	97		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150531-7191.b\7053112.D
Lims ID: 180-44321-E-15 MS
Client ID:
Sample Type: MS
Inject. Date: 31-May-2015 16:32:30 ALS Bottle#: 12 Worklist Smp#: 12
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 180-44321-E-15 MS
Misc. Info.: 180-0007169-012
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150531-7191.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 09:14:45 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

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

First Level Reviewer: journetp Date: 01-Jun-2015 09:06:46

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.628	4.678	-0.050	94	373591	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.402	7.404	-0.002	97	1431281	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.468	10.470	-0.002	85	397436	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.786	12.787	-0.001	94	395802	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.684	6.680	0.004	72	442214	200.0	193.7	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.043	7.039	0.004	93	442988	200.0	203.5	
$ 7 Toluene-d8 (Surr)	98	9.038	9.034	0.004	93	1269849	200.0	215.4	
$ 8 4-Bromofluorobenzene (Surr	95	11.630	11.632	-0.002	91	519834	200.0	196.9	
12 Chloromethane	50	2.091	2.038	0.053	82	381408	200.0	132.0	
13 Vinyl chloride	62	2.237	2.214	0.023	97	271783	200.0	120.8	
15 Bromomethane	94	2.523	2.500	0.023	80	260326	200.0	143.5	
16 Chloroethane	64	2.651	2.646	0.005	74	202919	200.0	111.8	
22 1,1-Dichloroethene	96	3.587	3.583	0.004	96	393480	200.0	204.8	
24 Acetone	43	3.782	3.753	0.029	37	235278	400.0	541.7	
26 Carbon disulfide	76	3.879	3.863	0.016	100	1152502	200.0	199.7	M
31 Methylene Chloride	84	4.384	4.362	0.022	93	469525	200.0	227.6	
33 Acrylonitrile	53	4.792	4.769	0.023	97	733704	2000.0	1923.4	
34 trans-1,2-Dichloroethene	96	4.774	4.775	-0.001	90	466342	200.0	195.6	
35 Methyl tert-butyl ether	73	4.847	4.836	0.011	94	1067323	200.0	227.1	
37 1,1-Dichloroethane	63	5.370	5.353	0.017	97	784453	200.0	224.5	
45 cis-1,2-Dichloroethene	96	6.100	6.108	-0.008	86	522017	200.0	220.6	
46 2-Butanone (MEK)	43	6.161	6.163	-0.002	95	235847	400.0	367.6	
49 Chlorobromomethane	128	6.392	6.388	0.004	83	270757	200.0	198.7	
52 Chloroform	83	6.489	6.497	-0.008	93	858409	200.0	218.1	
53 1,1,1-Trichloroethane	97	6.690	6.680	0.010	98	742473	200.0	207.8	
56 Carbon tetrachloride	117	6.860	6.868	-0.008	95	705654	200.0	195.7	
58 Benzene	78	7.104	7.093	0.011	96	1442094	200.0	204.7	
59 1,2-Dichloroethane	62	7.122	7.130	-0.008	93	500467	200.0	210.4	
64 Trichloroethene	130	7.791	7.793	-0.002	94	540118	200.0	191.3	
67 1,2-Dichloropropane	63	8.028	8.024	0.004	80	363150	200.0	226.3	
70 1,4-Dioxane	88	8.187	8.182	0.005	65	36587	4000.0	3262.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
71 Dichlorobromomethane	83	8.320	8.316	0.004	99	637465	200.0	214.3	
74 cis-1,3-Dichloropropene	75	8.771	8.766	0.005	93	654676	200.0	212.1	
75 4-Methyl-2-pentanone (MIBK	43	8.935	8.931	0.005	96	464182	400.0	399.7	
76 Toluene	91	9.105	9.101	0.004	96	1488451	200.0	211.3	
77 trans-1,3-Dichloropropene	75	9.324	9.326	-0.002	95	497221	200.0	199.0	
79 1,1,2-Trichloroethane	97	9.507	9.502	0.005	92	294314	200.0	206.3	
80 Tetrachloroethene	164	9.647	9.648	-0.001	95	329520	200.0	171.9	
82 2-Hexanone	43	9.756	9.758	-0.002	97	341512	400.0	455.9	
84 Chlorodibromomethane	129	9.896	9.898	-0.002	89	495729	200.0	202.2	
85 Ethylene Dibromide	107	10.005	10.007	-0.002	98	336035	200.0	208.0	
87 Chlorobenzene	112	10.498	10.494	0.004	95	1075927	200.0	212.4	
89 1,1,1,2-Tetrachloroethane	131	10.571	10.573	-0.002	93	517444	200.0	211.3	
90 Ethylbenzene	106	10.602	10.603	-0.001	98	537822	200.0	186.8	
91 m-Xylene & p-Xylene	106	10.717	10.719	-0.002	97	693589		178.7	
92 o-Xylene	106	11.113	11.108	0.005	96	720427		184.8	
93 Styrene	104	11.125	11.127	-0.002	93	1113416	200.0	208.3	
94 Bromoform	173	11.313	11.315	-0.002	95	268597	200.0	193.3	
99 1,1,2,2-Tetrachloroethane	83	11.770	11.765	0.005	96	295146	200.0	197.2	
S 133 Xylenes, Total	106				0		400.0	363.6	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

VOA8260VOA2ND_00124	Amount Added:	8.00	Units: uL		
voaWketPri Re_00005	Amount Added:	8.00	Units: uL		
voaWVA1st Res_00001	Amount Added:	8.00	Units: uL		
VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent	
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent	

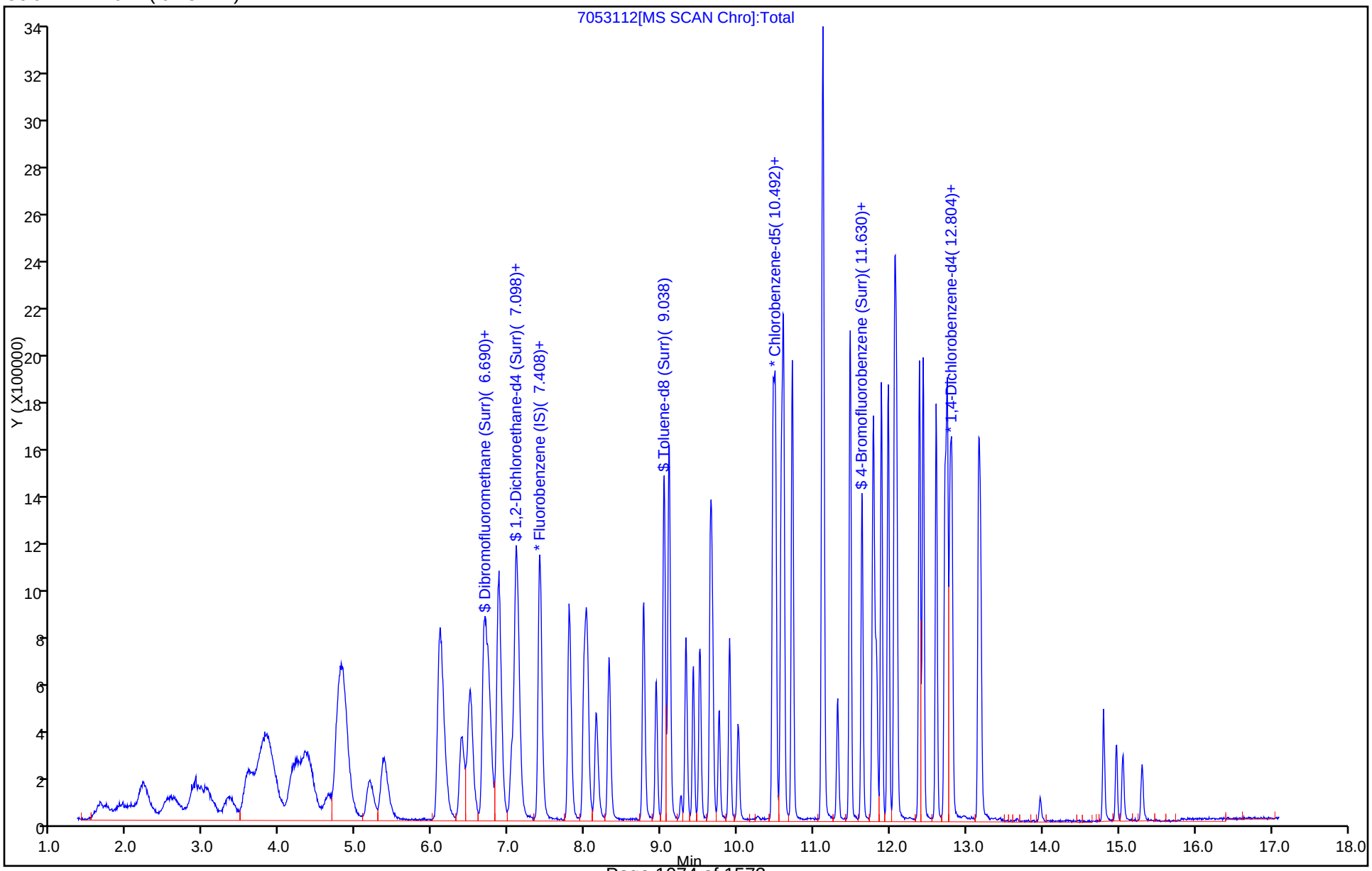
Report Date: 01-Jun-2015 09:14:50 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150531-7191.b\7053112.D

Injection Date:	31-May-2015 16:32:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-44321-E-15 MS			Worklist Smp#:	12
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\PITCHROM\ChromData\CHHP7\20150531-7191.b\7053112.D
Lims ID: 180-44321-E-15 MS
Client ID:
Sample Type: MS
Inject. Date: 31-May-2015 16:32:30 ALS Bottle#: 12 Worklist Smp#: 12
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 180-44321-E-15 MS
Misc. Info.: 180-0007169-012
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150531-7191.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 09:14:45 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

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

First Level Reviewer: journetp Date: 01-Jun-2015 09:06:46

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	200.0	193.7	96.84
$ 6 1,2-Dichloroethane-d4 (Surr)	200.0	203.5	101.76
$ 7 Toluene-d8 (Surr)	200.0	215.4	107.71
$ 8 4-Bromofluorobenzene (Surr)	200.0	196.9	98.47

Manual Integration/User Assign Peak Report

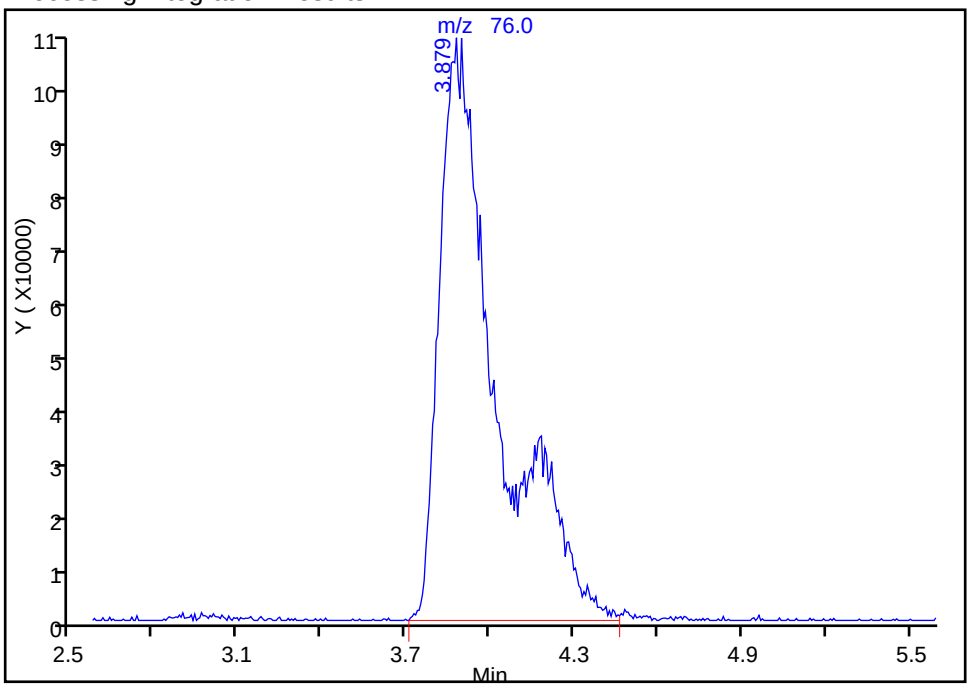
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150531-7191.b\7053112.D				
Injection Date:	31-May-2015 16:32:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-E-15 MS				
Client ID:					
Operator ID:	034635	ALS Bottle#:	12	Worklist Smp#:	12
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

26 Carbon disulfide, CAS: 75-15-0

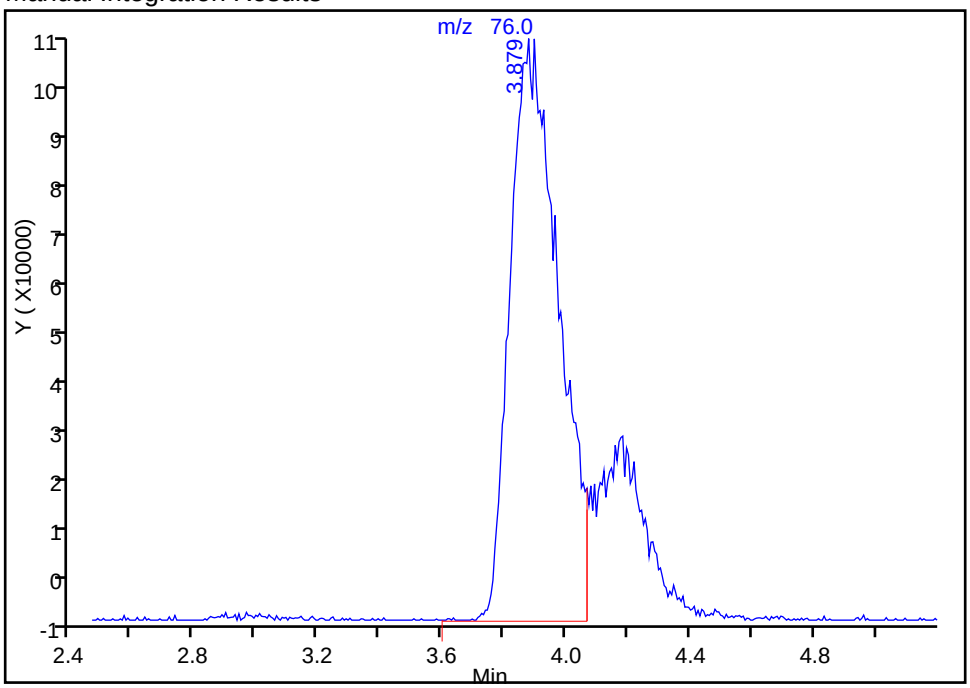
Processing Integration Results

RT: 3.88
Area: 1500716
Amount: 260.0035
Amount Units: ng



Manual Integration Results

RT: 3.88
Area: 1152502
Amount: 199.6744
Amount Units: ng



Reviewer: journetp, 01-Jun-2015 09:06:46
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-QC2-0/1-1 MS | Lab Sample ID: 180-44321-18 MS

Matrix: Water | Lab File ID: 7060109.D

Analysis Method: 8260C | Date Collected: 05/20/2015 08:00

Sample wt/vol: 20(mL) | Date Analyzed: 06/01/2015 13:54

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.: 143422 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	7.13		1.0	0.28
75-01-4	Vinyl chloride	7.27		1.0	0.23
74-83-9	Bromomethane	7.92		1.0	0.31
75-00-3	Chloroethane	6.84		1.0	0.21
75-35-4	1,1-Dichloroethene	13.6		1.0	0.30
67-64-1	Acetone	26.6		5.0	2.5
75-15-0	Carbon disulfide	13.2		1.0	0.21
75-09-2	Methylene Chloride	12.4		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	11.6		1.0	0.17
1634-04-4	Methyl tert-butyl ether	11.6		1.0	0.18
75-34-3	1,1-Dichloroethane	13.2		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	12.8		1.0	0.24
74-97-5	Bromochloromethane	10.6		1.0	0.18
78-93-3	2-Butanone (MEK)	18.7		5.0	0.55
67-66-3	Chloroform	12.6		1.0	0.17
71-55-6	1,1,1-Trichloroethane	13.5		1.0	0.29
56-23-5	Carbon tetrachloride	13.2		1.0	0.14
71-43-2	Benzene	11.7		1.0	0.11
107-06-2	1,2-Dichloroethane	11.3		1.0	0.21
79-01-6	Trichloroethene	11.0		1.0	0.14
78-87-5	1,2-Dichloropropane	11.8		1.0	0.095
75-27-4	Bromodichloromethane	11.9		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	11.5		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	19.5		5.0	0.53
108-88-3	Toluene	12.0		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	10.9		1.0	0.15
79-00-5	1,1,2-Trichloroethane	10.5		1.0	0.20
127-18-4	Tetrachloroethene	12.3		1.0	0.15
591-78-6	2-Hexanone	24.1		5.0	0.16
124-48-1	Dibromochloromethane	10.5		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	10.3		1.0	0.18
108-90-7	Chlorobenzene	11.5		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	11.2		1.0	0.28
100-41-4	Ethylbenzene	11.2		1.0	0.23
1330-20-7	Xylenes, Total	22.2		3.0	0.49
100-42-5	Styrene	11.8		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-QC2-0/1-1 MS Lab Sample ID: 180-44321-18 MS

Matrix: Water Lab File ID: 7060109.D

Analysis Method: 8260C Date Collected: 05/20/2015 08:00

Sample wt/vol: 20(mL) Date Analyzed: 06/01/2015 13:54

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.: 143422 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	9.47		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	9.59		1.0	0.20
107-13-1	Acrylonitrile	96.6		20	0.55
123-91-1	1,4-Dioxane	188	J	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		64-135
2037-26-5	Toluene-d8 (Surr)	112		71-118
460-00-4	4-Bromofluorobenzene (Surr)	105		70-118
1868-53-7	Dibromofluoromethane (Surr)	100		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060109.D
Lims ID: 180-44321-E-18 MS
Client ID:
Sample Type: MS
Inject. Date: 01-Jun-2015 13:54:30 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ms 180-44321-E-18
Misc. Info.: 180-0007205-009
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 17:06:25 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

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

First Level Reviewer: journetp Date: 01-Jun-2015 14:51:25

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.624	4.666	-0.042	97	315355	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.410	7.404	0.006	93	1282361	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.470	10.470	0.000	85	370397	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.788	12.787	0.001	95	398773	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.680	6.680	0.000	62	408294	200.0	199.6	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.051	7.038	0.013	89	376063	200.0	192.8	
$ 7 Toluene-d8 (Surr)	98	9.034	9.034	0.000	93	1232347	200.0	224.3	
$ 8 4-Bromofluorobenzene (Surr	95	11.632	11.632	0.000	88	513302	200.0	209.5	
12 Chloromethane	50	2.111	2.032	0.079	84	369418	200.0	142.7	
13 Vinyl chloride	62	2.221	2.245	-0.024	86	293350	200.0	145.5	
15 Bromomethane	94	2.543	2.518	0.025	92	257310	200.0	158.3	
16 Chloroethane	64	2.641	2.646	-0.005	70	222627	200.0	136.9	
22 1,1-Dichloroethene	96	3.608	3.583	0.025	95	468112	200.0	271.9	
24 Acetone	43	3.784	3.796	-0.012	43	207632	400.0	532.4	
26 Carbon disulfide	76	3.906	3.881	0.025	100	1361249	200.0	263.2	M
31 Methylene Chloride	84	4.411	4.380	0.031	80	459760	200.0	248.8	
34 trans-1,2-Dichloroethene	96	4.782	4.763	0.019	95	497428	200.0	232.8	
33 Acrylonitrile	53	4.794	4.794	0.000	97	660135	2000.0	1931.5	
35 Methyl tert-butyl ether	73	4.867	4.854	0.013	95	976780	200.0	232.0	
37 1,1-Dichloroethane	63	5.366	5.359	0.007	96	827160	200.0	264.2	
45 cis-1,2-Dichloroethene	96	6.108	6.102	0.006	80	544747	200.0	257.0	
46 2-Butanone (MEK)	43	6.163	6.175	-0.012	74	214464	400.0	373.1	
49 Chlorobromomethane	128	6.394	6.381	0.013	83	259535	200.0	212.5	
52 Chloroform	83	6.497	6.497	0.000	92	885920	200.0	251.3	
53 1,1,1-Trichloroethane	97	6.686	6.680	0.006	97	863740	200.0	269.8	
56 Carbon tetrachloride	117	6.869	6.868	0.001	96	852556	200.0	264.0	
58 Benzene	78	7.106	7.099	0.007	96	1477000	200.0	234.0	
59 1,2-Dichloroethane	62	7.130	7.124	0.006	98	481595	200.0	225.9	
64 Trichloroethene	130	7.799	7.793	0.006	95	555031	200.0	219.4	
67 1,2-Dichloropropane	63	8.030	8.140	-0.110	92	338711	200.0	235.6	
70 1,4-Dioxane	88	8.176	8.188	-0.012	88	37874	4000.0	3769.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
71 Dichlorobromomethane	83	8.316	8.316	0.000	98	633896	200.0	237.8	
74 cis-1,3-Dichloropropene	75	8.767	8.766	0.001	92	633526	200.0	229.1	
75 4-Methyl-2-pentanone (MIBK	43	8.937	8.937	0.000	97	421844	400.0	389.8	
76 Toluene	91	9.101	9.101	0.000	97	1540898	200.0	240.2	
77 trans-1,3-Dichloropropene	75	9.320	9.320	0.000	96	505980	200.0	217.3	
79 1,1,2-Trichloroethane	97	9.509	9.502	0.007	92	280258	200.0	210.8	
80 Tetrachloroethene	164	9.649	9.642	0.007	93	414729	200.0	245.9	
82 2-Hexanone	43	9.758	9.758	0.000	97	336622	400.0	482.2	
84 Chlorodibromomethane	129	9.898	9.898	0.000	88	477856	200.0	209.1	
85 Ethylene Dibromide	107	10.008	10.007	0.001	99	309215	200.0	205.3	
87 Chlorobenzene	112	10.494	10.500	-0.006	93	1083178	200.0	229.4	
89 1,1,1,2-Tetrachloroethane	131	10.573	10.573	0.000	93	511025	200.0	223.9	
90 Ethylbenzene	106	10.604	10.603	0.001	98	600222	200.0	223.7	
91 m-Xylene & p-Xylene	106	10.719	10.719	0.000	97	795730		220.0	
92 o-Xylene	106	11.115	11.108	0.007	95	814913		224.3	
93 Styrene	104	11.127	11.127	0.000	93	1146258	200.0	235.4	
94 Bromoform	173	11.316	11.315	0.001	95	245158	200.0	189.3	
99 1,1,2,2-Tetrachloroethane	83	11.772	11.771	0.001	97	267703	200.0	191.9	
S 133 Xylenes, Total	106				0		400.0	444.4	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

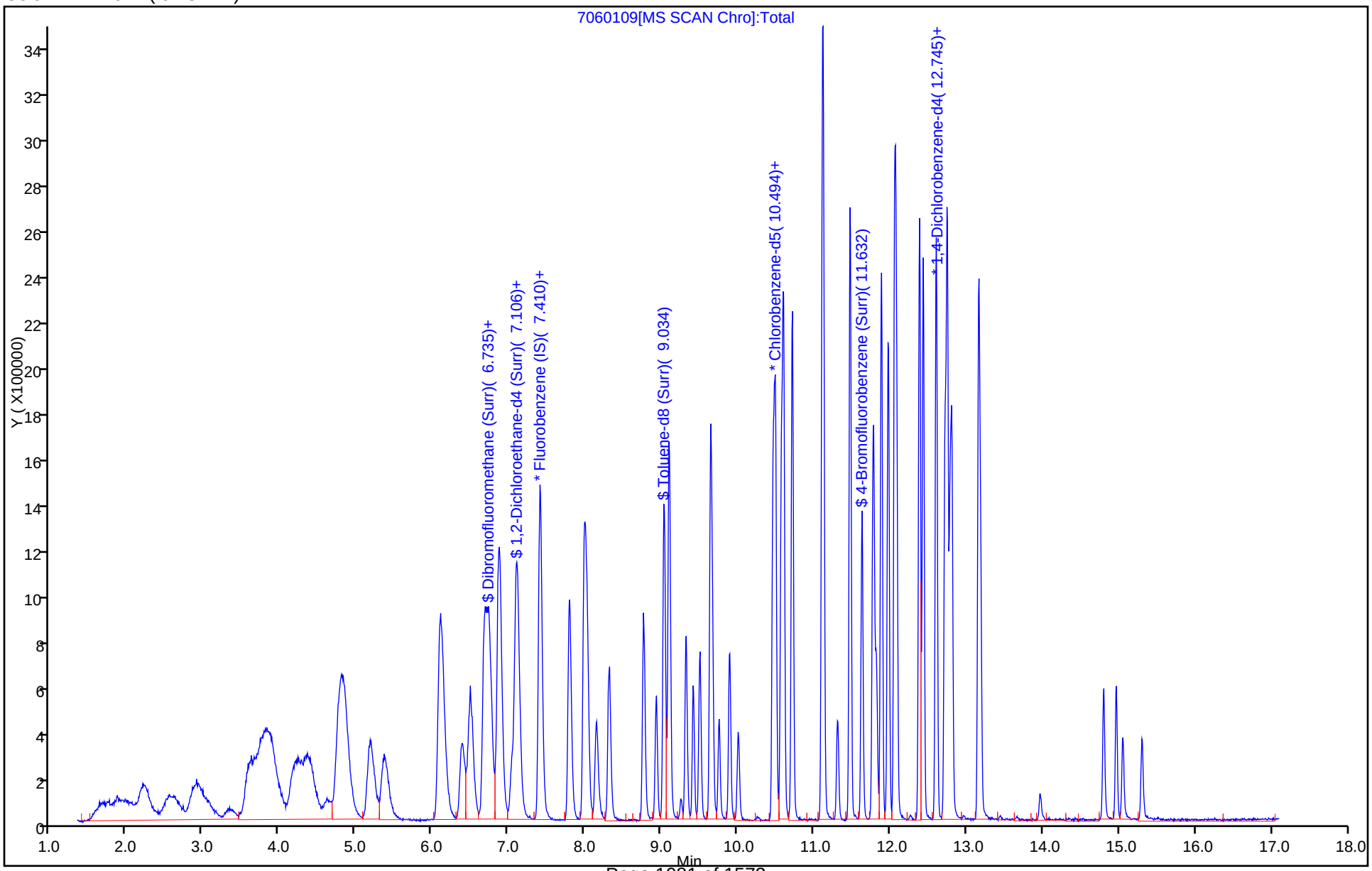
voaWacro2 Res_00003	Amount Added:	24.00	Units: uL	
VOA8260VOA2ND_00124	Amount Added:	8.00	Units: uL	
voaWketPri Re_00005	Amount Added:	8.00	Units: uL	
VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

Report Date: 01-Jun-2015 17:06:33 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060109.D				
Injection Date:	01-Jun-2015 13:54:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-44321-E-18 MS			Worklist Smp#:	9
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060109.D
Lims ID: 180-44321-E-18 MS
Client ID:
Sample Type: MS
Inject. Date: 01-Jun-2015 13:54:30 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: ms 180-44321-E-18
Misc. Info.: 180-0007205-009
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 17:06:25 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

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

First Level Reviewer: journetp Date: 01-Jun-2015 14:51:25

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	200.0	199.6	99.80
$ 6 1,2-Dichloroethane-d4 (Surr)	200.0	192.8	96.42
$ 7 Toluene-d8 (Surr)	200.0	224.3	112.16
$ 8 4-Bromofluorobenzene (Surr)	200.0	209.5	104.77

Manual Integration/User Assign Peak Report

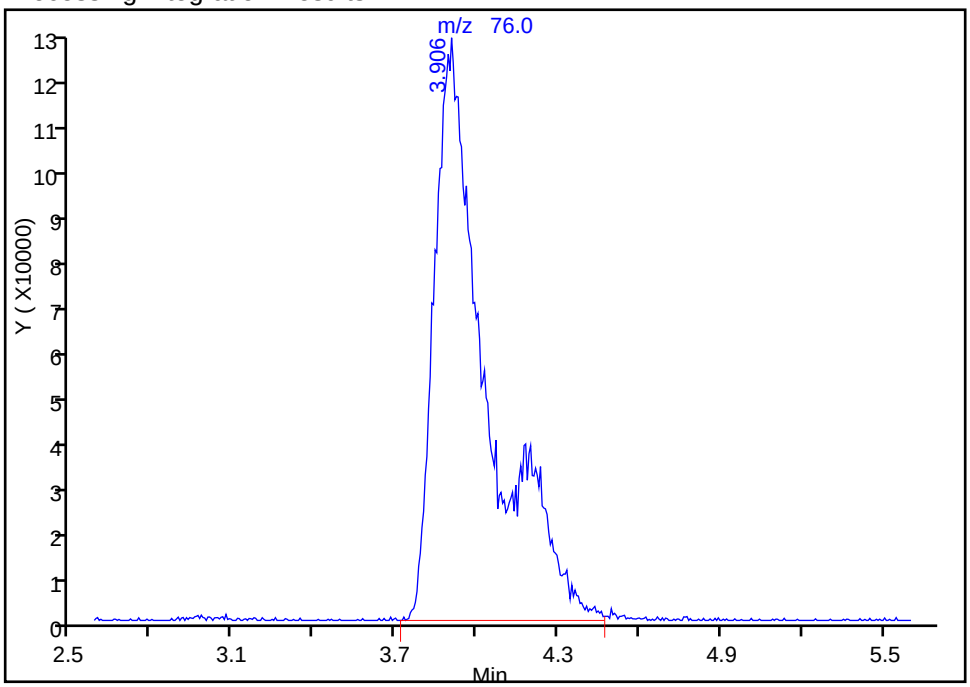
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060109.D
Injection Date: 01-Jun-2015 13:54:30 Instrument ID: CHHP7
Lims ID: 180-44321-E-18 MS
Client ID:
Operator ID: 034635 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

26 Carbon disulfide, CAS: 75-15-0

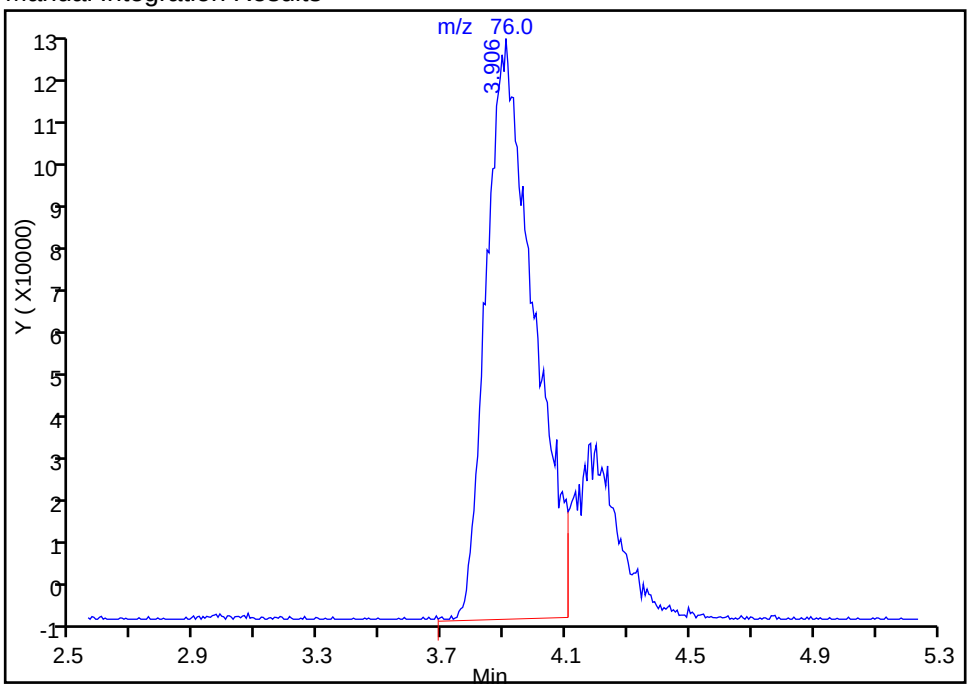
Processing Integration Results

RT: 3.91
Area: 1723555
Amount: 333.2885
Amount Units: ng



Manual Integration Results

RT: 3.91
Area: 1361249
Amount: 263.2284
Amount Units: ng



Reviewer: journetp, 01-Jun-2015 15:12:08
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-MW-95-0/1-0 MS | Lab Sample ID: 180-44321-24 MS

Matrix: Water | Lab File ID: 60530008.D

Analysis Method: 8260C | Date Collected: 05/20/2015 09:25

Sample wt/vol: 5(mL) | Date Analyzed: 05/31/2015 11:37

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 143337 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	10.3		1.0	0.28
75-01-4	Vinyl chloride	10.7		1.0	0.23
74-83-9	Bromomethane	9.34		1.0	0.31
75-00-3	Chloroethane	11.7		1.0	0.21
75-35-4	1,1-Dichloroethene	10.5		1.0	0.30
67-64-1	Acetone	26.0		5.0	2.5
75-15-0	Carbon disulfide	9.26		1.0	0.21
75-09-2	Methylene Chloride	11.1		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	11.0		1.0	0.17
1634-04-4	Methyl tert-butyl ether	8.33		1.0	0.18
75-34-3	1,1-Dichloroethane	10.3		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	16.9		1.0	0.24
74-97-5	Bromochloromethane	11.9		1.0	0.18
78-93-3	2-Butanone (MEK)	23.7		5.0	0.55
67-66-3	Chloroform	11.2		1.0	0.17
71-55-6	1,1,1-Trichloroethane	9.98		1.0	0.29
56-23-5	Carbon tetrachloride	9.49		1.0	0.14
71-43-2	Benzene	10.7		1.0	0.11
107-06-2	1,2-Dichloroethane	10.7		1.0	0.21
79-01-6	Trichloroethene	15.8		1.0	0.14
78-87-5	1,2-Dichloropropane	9.84		1.0	0.095
75-27-4	Bromodichloromethane	9.18		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	7.89		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	16.7		5.0	0.53
108-88-3	Toluene	10.2		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	7.38		1.0	0.15
79-00-5	1,1,2-Trichloroethane	9.81		1.0	0.20
127-18-4	Tetrachloroethene	14.2		1.0	0.15
591-78-6	2-Hexanone	18.3		5.0	0.16
124-48-1	Dibromochloromethane	9.62		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	9.85		1.0	0.18
108-90-7	Chlorobenzene	11.0		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	11.0		1.0	0.28
100-41-4	Ethylbenzene	10.9		1.0	0.23
1330-20-7	Xylenes, Total	21.2		3.0	0.49
100-42-5	Styrene	10.5		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-MW-95-0/1-0 MS Lab Sample ID: 180-44321-24 MS

Matrix: Water Lab File ID: 60530008.D

Analysis Method: 8260C Date Collected: 05/20/2015 09:25

Sample wt/vol: 5(mL) Date Analyzed: 05/31/2015 11:37

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143337 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	8.02		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	9.89		1.0	0.20
107-13-1	Acrylonitrile	93.0		20	0.55
123-91-1	1,4-Dioxane	188	J	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		64-135
2037-26-5	Toluene-d8 (Surr)	100		71-118
460-00-4	4-Bromofluorobenzene (Surr)	100		70-118
1868-53-7	Dibromofluoromethane (Surr)	114		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530008.D
Lims ID: 180-44321-E-24 MS
Client ID: HD-MW-95-0/1-0
Sample Type: MS
Inject. Date: 31-May-2015 11:37:30 ALS Bottle#: 8 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-44321-E-24 MS
Misc. Info.: 180-0007190-008
Operator ID: 034635 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 31-May-2015 16:21:03 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK001

First Level Reviewer: journetp Date: 31-May-2015 12:36:45

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.247	4.236	0.011	89	172511	1000.0	1000.0	
* 2 Fluorobenzene (IS)	96	7.289	7.284	0.005	98	561202	50.0	50.0	
* 3 Chlorobenzene-d5	119	10.398	10.393	0.005	90	128140	50.0	50.0	
* 4 1,4-Dichlorobenzene-d4	152	12.746	12.747	-0.001	94	219396	50.0	50.0	
$ 5 Dibromofluoromethane (Surr	113	6.559	6.554	0.005	93	132045	50.0	56.9	
$ 6 1,2-Dichloroethane-d4 (Sur	65	6.930	6.925	0.005	71	195564	50.0	50.4	
$ 7 Toluene-d8 (Surr)	98	8.944	8.939	0.005	93	541408	50.0	49.9	
$ 8 4-Bromofluorobenzene (Surr	95	11.584	11.579	0.005	84	220081	50.0	49.8	
12 Chloromethane	50	1.759	1.760	-0.001	100	146949	50.0	51.6	
13 Vinyl chloride	62	1.887	1.882	0.005	99	162019	50.0	53.4	
15 Bromomethane	94	2.228	2.229	-0.001	92	73738	50.0	46.7	
16 Chloroethane	64	2.374	2.375	-0.001	99	111417	50.0	58.3	
22 1,1-Dichloroethene	96	3.341	3.336	0.005	97	136838	50.0	52.7	
24 Acetone	43	3.432	3.421	0.011	98	96694	100.0	129.8	
26 Carbon disulfide	76	3.633	3.628	0.005	100	352463	50.0	46.3	
31 Methylene Chloride	84	4.132	4.115	0.017	93	175440	50.0	55.6	
33 Acrylonitrile	53	4.503	4.498	0.005	99	583707	500.0	465.1	
34 trans-1,2-Dichloroethene	96	4.558	4.553	0.005	97	158854	50.0	54.9	
35 Methyl tert-butyl ether	73	4.576	4.565	0.011	97	433081	50.0	41.7	
37 1,1-Dichloroethane	63	5.202	5.198	0.004	97	281068	50.0	51.6	
43 cis-1,2-Dichloroethene	96	5.939	5.940	-0.002	82	278739	50.0	84.7	
44 2-Butanone (MEK)	43	5.945	5.940	0.005	57	147224	100.0	118.7	
48 Chlorobromomethane	128	6.224	6.226	-0.002	97	80024	50.0	59.3	
50 Chloroform	83	6.377	6.366	0.010	93	294194	50.0	56.0	
51 1,1,1-Trichloroethane	97	6.541	6.536	0.005	97	215563	50.0	49.9	
53 Carbon tetrachloride	117	6.717	6.712	0.005	96	156550	50.0	47.4	
56 Benzene	78	6.942	6.943	-0.001	97	659502	50.0	53.4	
57 1,2-Dichloroethane	62	7.015	7.016	-0.001	98	250329	50.0	53.4	
61 Trichloroethene	130	7.678	7.673	0.005	97	211196	50.0	79.1	
64 1,2-Dichloropropane	63	7.952	7.947	0.005	94	160098	50.0	49.2	
65 1,4-Dioxane	88	8.037	8.020	0.017	38	29479	1000.0	940.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
68 Dichlorobromomethane	83	8.226	8.227	-0.001	98	180767	50.0	45.9	
71 cis-1,3-Dichloropropene	75	8.676	8.677	-0.001	94	205558	50.0	39.4	
72 4-Methyl-2-pentanone (MIBK	43	8.822	8.823	-0.001	97	286127	100.0	83.3	
73 Toluene	91	9.011	9.012	-0.001	98	680236	50.0	51.2	
74 trans-1,3-Dichloropropene	75	9.254	9.255	-0.001	95	178612	50.0	36.9	
76 1,1,2-Trichloroethane	97	9.449	9.450	-0.001	94	141821	50.0	49.0	
77 Tetrachloroethene	164	9.528	9.523	0.005	96	155292	50.0	71.0	
79 2-Hexanone	43	9.655	9.657	-0.002	97	191291	100.0	91.4	
81 Chlorodibromomethane	129	9.826	9.821	0.005	89	109568	50.0	48.1	
82 Ethylene Dibromide	107	9.941	9.937	0.004	98	134669	50.0	49.2	
84 Chlorobenzene	112	10.428	10.423	0.005	93	460750	50.0	54.9	
86 1,1,1,2-Tetrachloroethane	131	10.519	10.521	-0.002	88	135462	50.0	55.1	
87 Ethylbenzene	106	10.525	10.527	-0.002	98	256064	50.0	54.6	
88 m-Xylene & p-Xylene	106	10.659	10.654	0.005	100	306840		52.3	
89 o-Xylene	106	11.036	11.044	-0.008	97	304193		53.4	
90 Styrene	104	11.061	11.062	-0.001	95	489874	50.0	52.3	
91 Bromoform	173	11.243	11.244	-0.001	94	58389	50.0	40.1	
96 1,1,2,2-Tetrachloroethane	83	11.712	11.713	-0.001	95	196412	50.0	49.4	
S 131 Xylenes, Total	106				0		100.0	105.7	

Reagents:

VOA8260VOA2ND_00124	Amount Added:	2.00	Units: uL	
voaWVA1st Res_00001	Amount Added:	2.00	Units: uL	
VOAACROPRI_00005	Amount Added:	6.00	Units: uL	
voaWketPri Re_00005	Amount Added:	2.00	Units: uL	
voaWeemix2nd_00001	Amount Added:	2.00	Units: uL	
VOA8260INT_00033	Amount Added:	2.00	Units: uL	Run Reagent
VOA8260SURR_00035	Amount Added:	2.00	Units: uL	Run Reagent

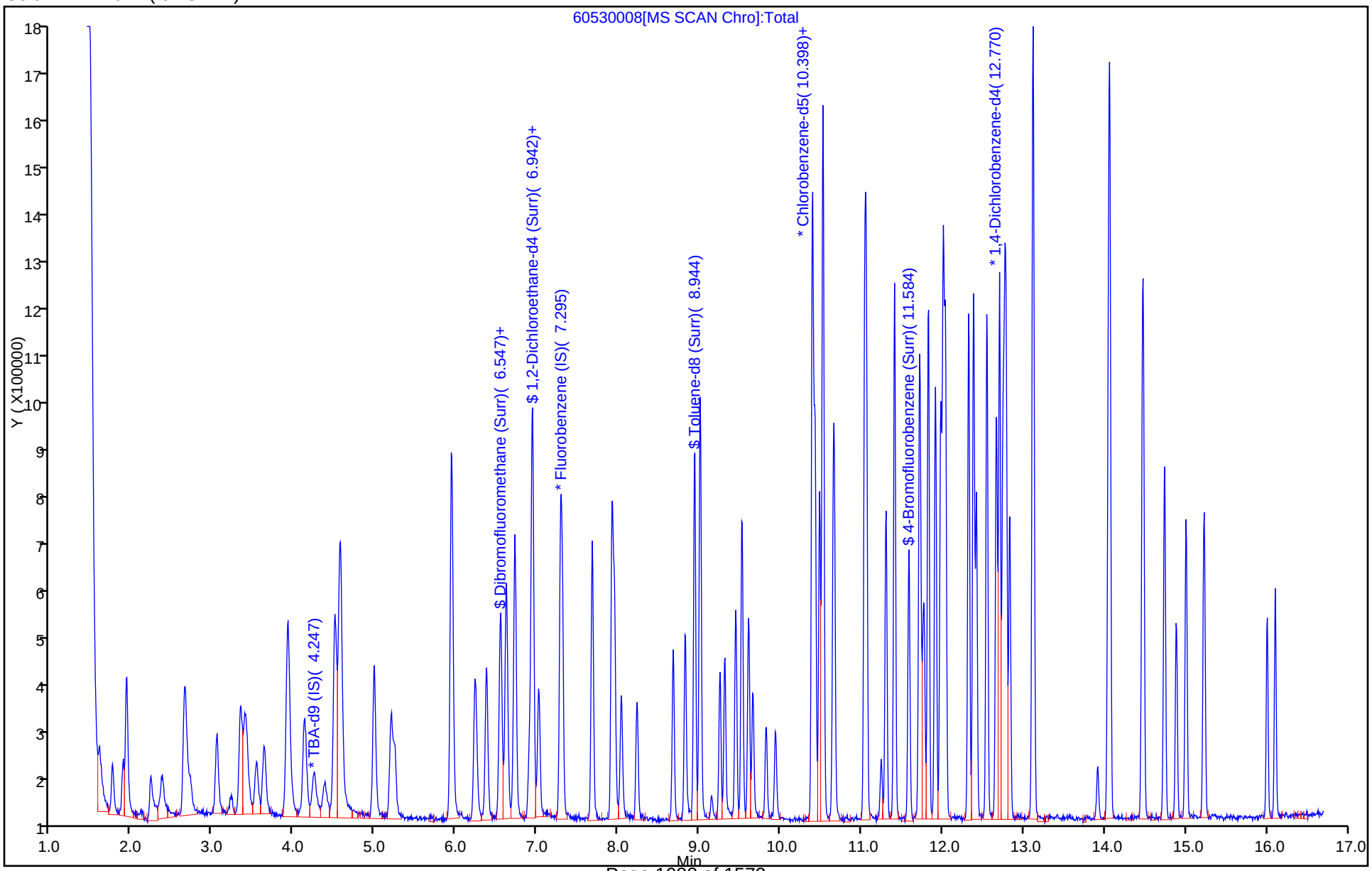
Report Date: 31-May-2015 16:21:07 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530008.D

Injection Date:	31-May-2015 11:37:30	Instrument ID:	CHHP6	Operator ID:	034635
Lims ID:	180-44321-E-24 MS			Worklist Smp#:	8
Client ID:	HD-MW-95-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530008.D
Lims ID: 180-44321-E-24 MS
Client ID: HD-MW-95-0/1-0
Sample Type: MS
Inject. Date: 31-May-2015 11:37:30 ALS Bottle#: 8 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-44321-E-24 MS
Misc. Info.: 180-0007190-008
Operator ID: 034635 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 31-May-2015 16:21:03 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK001

First Level Reviewer: journetp Date: 31-May-2015 12:36:45

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	56.9	113.73
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	50.4	100.82
$ 7 Toluene-d8 (Surr)	50.0	49.9	99.87
$ 8 4-Bromofluorobenzene (Surr)	50.0	49.8	99.59

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-6-0/1-0 MSD | Lab Sample ID: 180-44321-1 MSD

Matrix: Water | Lab File ID: 7052911.D

Analysis Method: 8260C | Date Collected: 05/20/2015 10:45

Sample wt/vol: 20(mL) | Date Analyzed: 05/29/2015 13:50

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 143153 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	9.84		1.0	0.28
75-01-4	Vinyl chloride	8.29		1.0	0.23
74-83-9	Bromomethane	6.53		1.0	0.31
75-00-3	Chloroethane	4.99		1.0	0.21
75-35-4	1,1-Dichloroethene	8.90		1.0	0.30
67-64-1	Acetone	14.1		5.0	2.5
75-15-0	Carbon disulfide	9.58		1.0	0.21
75-09-2	Methylene Chloride	10.9		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	9.18		1.0	0.17
1634-04-4	Methyl tert-butyl ether	11.8		1.0	0.18
75-34-3	1,1-Dichloroethane	10.8		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	10.9		1.0	0.24
74-97-5	Bromochloromethane	10.1		1.0	0.18
78-93-3	2-Butanone (MEK)	14.3		5.0	0.55
67-66-3	Chloroform	10.7		1.0	0.17
71-55-6	1,1,1-Trichloroethane	10.5		1.0	0.29
56-23-5	Carbon tetrachloride	9.64		1.0	0.14
71-43-2	Benzene	10.4		1.0	0.11
107-06-2	1,2-Dichloroethane	11.1		1.0	0.21
79-01-6	Trichloroethene	9.29		1.0	0.14
78-87-5	1,2-Dichloropropane	11.2		1.0	0.095
75-27-4	Bromodichloromethane	11.0		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	10.8		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	17.5		5.0	0.53
108-88-3	Toluene	9.64		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	10.0		1.0	0.15
79-00-5	1,1,2-Trichloroethane	10.4		1.0	0.20
127-18-4	Tetrachloroethene	8.96		1.0	0.15
591-78-6	2-Hexanone	16.2		5.0	0.16
124-48-1	Dibromochloromethane	9.78		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	10.1		1.0	0.18
108-90-7	Chlorobenzene	10.1		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	9.85		1.0	0.28
100-41-4	Ethylbenzene	9.40		1.0	0.23
1330-20-7	Xylenes, Total	18.9		3.0	0.49
100-42-5	Styrene	10.0		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-6-0/1-0 MSD Lab Sample ID: 180-44321-1 MSD

Matrix: Water Lab File ID: 7052911.D

Analysis Method: 8260C Date Collected: 05/20/2015 10:45

Sample wt/vol: 20(mL) Date Analyzed: 05/29/2015 13:50

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143153 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	9.24		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	9.82		1.0	0.20
107-13-1	Acrylonitrile	114		20	0.55
123-91-1	1,4-Dioxane	214		200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	108		64-135
2037-26-5	Toluene-d8 (Surr)	102		71-118
460-00-4	4-Bromofluorobenzene (Surr)	103		70-118
1868-53-7	Dibromofluoromethane (Surr)	100		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052911.D
Lims ID: 180-44321-D-1 MSD
Client ID:
Sample Type: MSD
Inject. Date: 29-May-2015 13:50:30 ALS Bottle#: 8 Worklist Smp#: 12
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 180-44321-D-1 MSD
Misc. Info.: 180-0007169-012
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150529-7169.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 08:21:05 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: RT Order ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

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

First Level Reviewer: journetp Date: 01-Jun-2015 09:31:10

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.671	4.658	0.013	96	334346	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.402	7.408	-0.006	96	1140648	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.468	10.468	0.000	84	348637	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.786	12.785	0.001	95	412059	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.691	6.684	0.007	89	362825	200.0	199.4	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.050	7.037	0.013	63	373173	200.0	215.1	
$ 7 Toluene-d8 (Surr)	98	9.033	9.038	-0.005	93	1055710	200.0	204.2	
$ 8 4-Bromofluorobenzene (Surr	95	11.630	11.630	0.000	90	475867	200.0	206.2	
12 Chloromethane	50	2.055	2.048	0.007	98	453204	200.0	196.8	
13 Vinyl chloride	62	2.238	2.212	0.026	92	297241	200.0	165.7	
15 Bromomethane	94	2.517	2.517	0.000	85	188752	200.0	130.6	
16 Chloroethane	64	2.603	2.590	0.013	51	144284	200.0	99.7	
22 1,1-Dichloroethene	96	3.582	3.563	0.019	90	272499	200.0	177.9	M
24 Acetone	43	3.771	3.764	0.007	28	108261	400.0	281.2	
26 Carbon disulfide	76	3.868	3.861	0.007	100	881640	200.0	191.7	M
31 Methylene Chloride	84	4.373	4.384	-0.011	85	358409	200.0	218.0	
33 Acrylonitrile	53	4.787	4.773	0.013	99	691021	2000.0	2273.1	
34 trans-1,2-Dichloroethene	96	4.793	4.780	0.013	90	348808	200.0	183.6	
35 Methyl tert-butyl ether	73	4.853	4.853	0.000	95	883033	200.0	235.8	
37 1,1-Dichloroethane	63	5.358	5.351	0.007	96	601779	200.0	216.1	
45 cis-1,2-Dichloroethene	96	6.101	6.094	0.007	85	409472	200.0	217.1	
46 2-Butanone (MEK)	43	6.186	6.167	0.019	99	146222	400.0	286.0	
49 Chlorobromomethane	128	6.380	6.386	-0.006	86	220364	200.0	202.9	
52 Chloroform	83	6.502	6.495	0.007	93	668690	200.0	213.2	
53 1,1,1-Trichloroethane	97	6.685	6.678	0.007	97	598982	200.0	210.3	
56 Carbon tetrachloride	117	6.867	6.872	-0.005	96	554078	200.0	192.9	
58 Benzene	78	7.098	7.097	0.001	97	1162382	200.0	207.1	
59 1,2-Dichloroethane	62	7.129	7.128	0.001	97	420285	200.0	221.7	
64 Trichloroethene	130	7.798	7.791	0.007	95	418343	200.0	185.9	
67 1,2-Dichloropropane	63	8.023	8.022	0.001	92	286266	200.0	223.9	
70 1,4-Dioxane	88	8.187	8.180	0.007	92	38327	4000.0	4288.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
71 Dichlorobromomethane	83	8.321	8.314	0.007	99	521793	200.0	220.1	
74 cis-1,3-Dichloropropene	75	8.771	8.770	0.001	93	529168	200.0	215.2	
75 4-Methyl-2-pentanone (MIBK	43	8.935	8.935	0.000	97	356848	400.0	350.3	
76 Toluene	91	9.106	9.105	0.001	98	1210710	200.0	192.8	
77 trans-1,3-Dichloropropene	75	9.325	9.324	0.001	96	439990	200.0	200.8	
79 1,1,2-Trichloroethane	97	9.501	9.506	-0.005	91	259394	200.0	207.3	
80 Tetrachloroethene	164	9.647	9.646	0.001	94	299319	200.0	179.2	
82 2-Hexanone	43	9.763	9.762	0.001	97	213506	400.0	324.9	
84 Chlorodibromomethane	129	9.903	9.896	0.007	88	420616	200.0	195.5	
85 Ethylene Dibromide	107	10.012	10.011	0.001	99	286090	200.0	201.8	
87 Chlorobenzene	112	10.493	10.498	-0.005	94	900912	200.0	202.7	
89 1,1,1,2-Tetrachloroethane	131	10.578	10.577	0.001	93	423323	200.0	197.0	
90 Ethylbenzene	106	10.602	10.601	0.001	98	474783	200.0	188.0	
91 m-Xylene & p-Xylene	106	10.718	10.717	0.001	98	632385		185.8	
92 o-Xylene	106	11.113	11.112	0.001	96	655349		191.7	
93 Styrene	104	11.125	11.125	0.000	93	948063	200.0	200.9	
94 Bromoform	173	11.314	11.313	0.001	95	225281	200.0	184.8	
99 1,1,2,2-Tetrachloroethane	83	11.770	11.769	0.001	97	257928	200.0	196.4	
S 133 Xylenes, Total	106				0		400.0	377.4	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

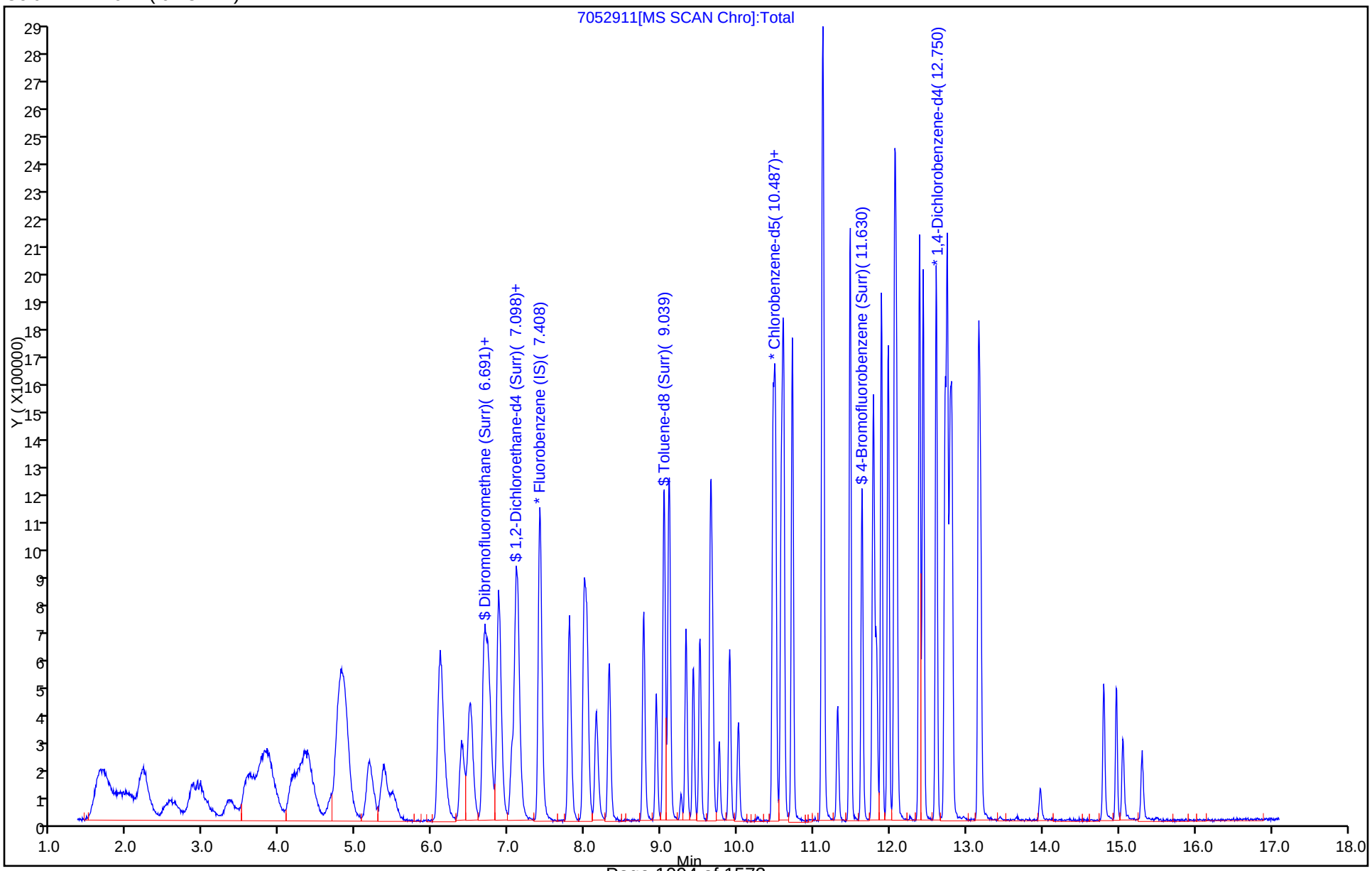
voaWacro2 Res_00003	Amount Added:	24.00	Units: uL	
voaWketPri Re_00005	Amount Added:	8.00	Units: uL	
VOA8260VOA2ND_00124	Amount Added:	8.00	Units: uL	
voaWVA1st Res_00001	Amount Added:	8.00	Units: uL	
VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

Report Date: 01-Jun-2015 09:31:53 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052911.D				
Injection Date:	29-May-2015 13:50:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-44321-D-1 MSD			Worklist Smp#:	12
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File:	\\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052911.D				
Lims ID:	180-44321-D-1 MSD				
Client ID:					
Sample Type:	MSD				
Inject. Date:	29-May-2015 13:50:30	ALS Bottle#:	8	Worklist Smp#:	12
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Sample Info:	180-44321-D-1 MSD				
Misc. Info.:	180-0007169-012				
Operator ID:	034635	Instrument ID:	CHHP7		
Method:	\\PITCHROM\ChromData\CHHP7\20150529-7169.b\MSVOA_LL_CHHP7.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	01-Jun-2015 08:21:05	Calib Date:	30-Mar-2015 14:36:30		
Integrator:	RTE	ID Type:	RT Order ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK004				
First Level Reviewer: journetp		Date:	01-Jun-2015 09:31:10		

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	200.0	199.4	99.70
$ 6 1,2-Dichloroethane-d4 (Surr)	200.0	215.1	107.56
$ 7 Toluene-d8 (Surr)	200.0	204.2	102.08
$ 8 4-Bromofluorobenzene (Surr)	200.0	206.2	103.08

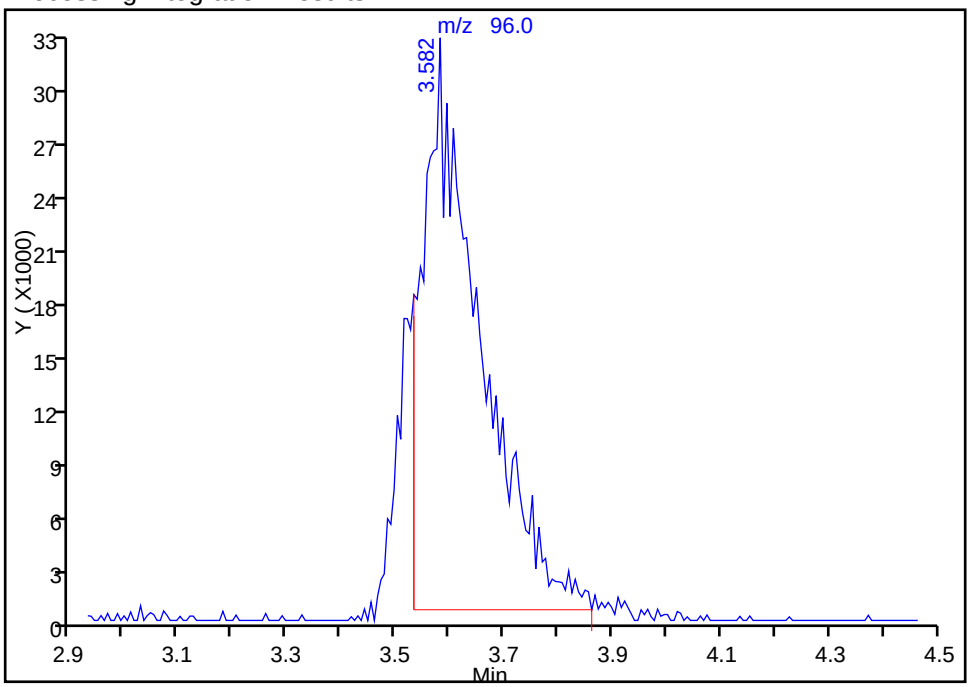
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052911.D				
Injection Date:	29-May-2015 13:50:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-D-1 MSD				
Client ID:					
Operator ID:	034635	ALS Bottle#:	8	Worklist Smp#:	12
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

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

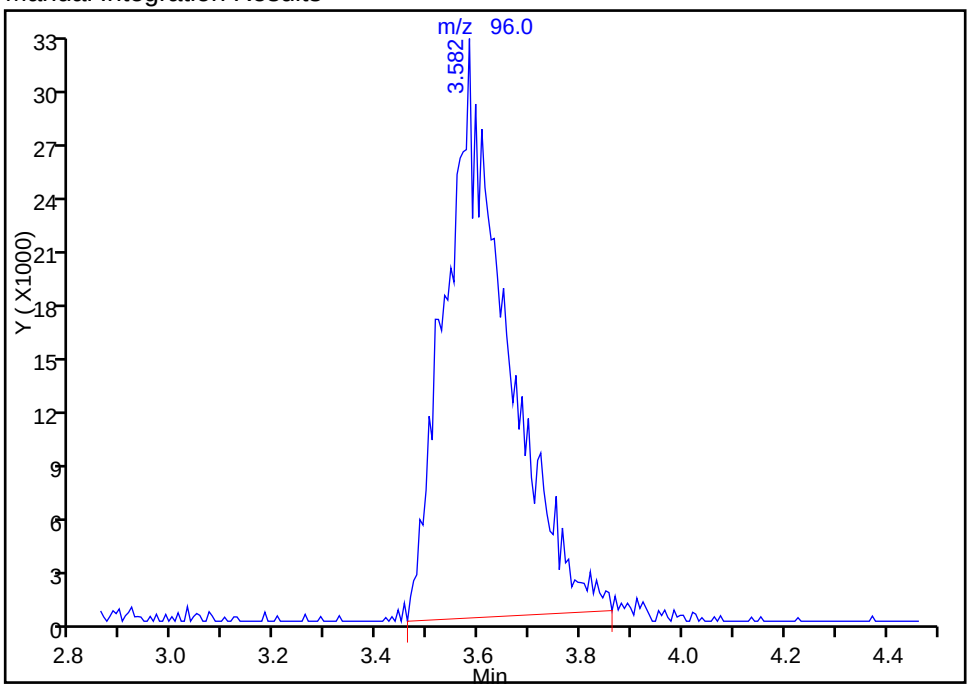
Processing Integration Results

RT: 3.58
Area: 232190
Amount: 151.6097
Amount Units: ng



Manual Integration Results

RT: 3.58
Area: 272499
Amount: 177.9297
Amount Units: ng



Reviewer: journetp, 31-May-2015 10:15:40
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

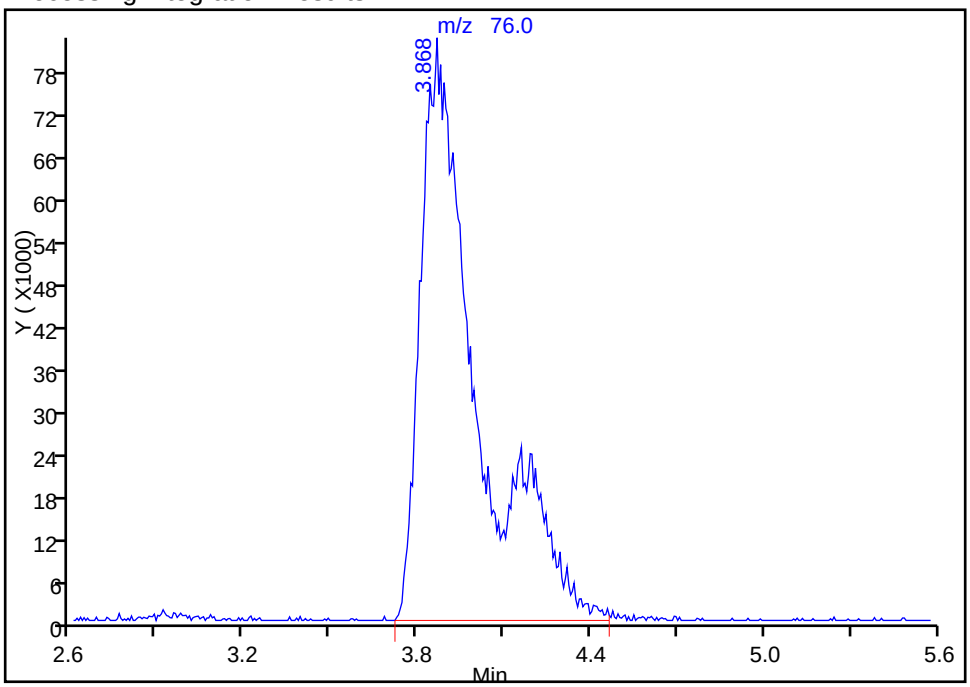
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150529-7169.b\7052911.D				
Injection Date:	29-May-2015 13:50:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-D-1 MSD				
Client ID:					
Operator ID:	034635	ALS Bottle#:	8	Worklist Smp#:	12
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

26 Carbon disulfide, CAS: 75-15-0

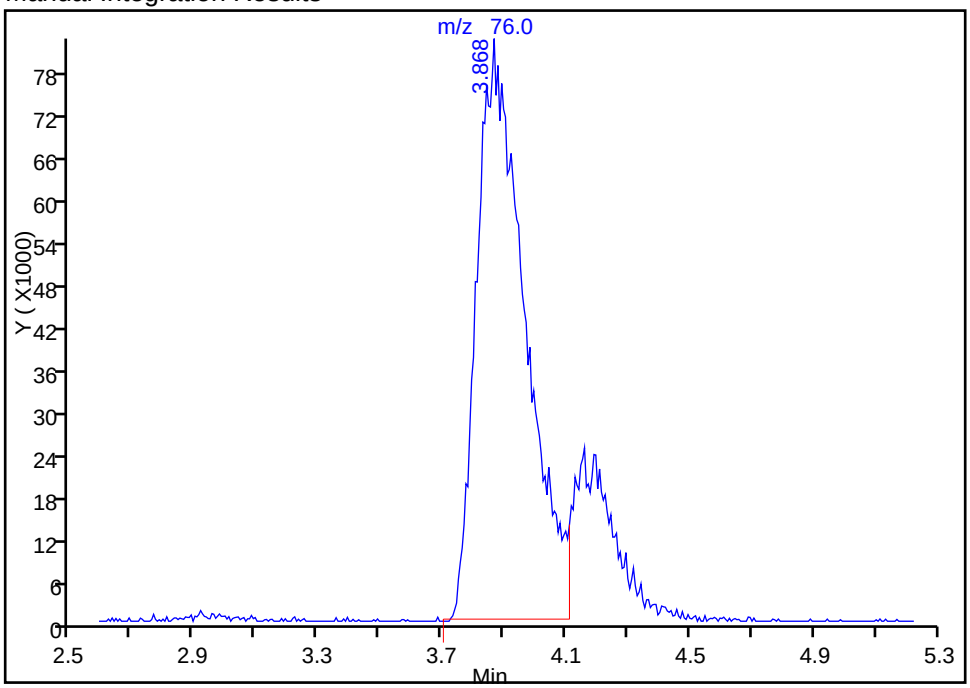
Processing Integration Results

RT: 3.87
Area: 1099981
Amount: 239.1328
Amount Units: ng



Manual Integration Results

RT: 3.87
Area: 881640
Amount: 191.6660
Amount Units: ng



Reviewer: journetp, 31-May-2015 10:15:40
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-28-0/1-0 MSD Lab Sample ID: 180-44321-15 MSD

Matrix: Water Lab File ID: 7053113.D

Analysis Method: 8260C Date Collected: 05/20/2015 12:05

Sample wt/vol: 20(mL) Date Analyzed: 05/31/2015 16:59

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143339 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	6.23		1.0	0.28
75-01-4	Vinyl chloride	5.75		1.0	0.23
74-83-9	Bromomethane	6.89		1.0	0.31
75-00-3	Chloroethane	5.74		1.0	0.21
75-35-4	1,1-Dichloroethene	10.2		1.0	0.30
67-64-1	Acetone	27.9		5.0	2.5
75-15-0	Carbon disulfide	10.3		1.0	0.21
75-09-2	Methylene Chloride	11.4		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	9.81		1.0	0.17
1634-04-4	Methyl tert-butyl ether	11.0		1.0	0.18
75-34-3	1,1-Dichloroethane	11.6		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	11.3		1.0	0.24
74-97-5	Bromochloromethane	10.2		1.0	0.18
78-93-3	2-Butanone (MEK)	19.2		5.0	0.55
67-66-3	Chloroform	11.0		1.0	0.17
71-55-6	1,1,1-Trichloroethane	10.4		1.0	0.29
56-23-5	Carbon tetrachloride	9.82		1.0	0.14
71-43-2	Benzene	10.6		1.0	0.11
107-06-2	1,2-Dichloroethane	10.9		1.0	0.21
79-01-6	Trichloroethene	9.71		1.0	0.14
78-87-5	1,2-Dichloropropane	11.6		1.0	0.095
75-27-4	Bromodichloromethane	11.3		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	11.1		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	20.1		5.0	0.53
108-88-3	Toluene	10.6		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	10.5		1.0	0.15
79-00-5	1,1,2-Trichloroethane	10.4		1.0	0.20
127-18-4	Tetrachloroethene	8.42		1.0	0.15
591-78-6	2-Hexanone	23.5		5.0	0.16
124-48-1	Dibromochloromethane	10.3		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	10.6		1.0	0.18
108-90-7	Chlorobenzene	10.4		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	10.2		1.0	0.28
100-41-4	Ethylbenzene	9.32		1.0	0.23
1330-20-7	Xylenes, Total	18.3		3.0	0.49
100-42-5	Styrene	10.3		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-28-0/1-0 MSD Lab Sample ID: 180-44321-15 MSD

Matrix: Water Lab File ID: 7053113.D

Analysis Method: 8260C Date Collected: 05/20/2015 12:05

Sample wt/vol: 20(mL) Date Analyzed: 05/31/2015 16:59

Soil Aliquot Vol: Dilution Factor: 1

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

% Moisture: Level: (low/med) Low

Analysis Batch No.: 143339 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	9.58		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	9.58		1.0	0.20
107-13-1	Acrylonitrile	96.2		20	0.55
123-91-1	1,4-Dioxane	183	J	200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		64-135
2037-26-5	Toluene-d8 (Surr)	106		71-118
460-00-4	4-Bromofluorobenzene (Surr)	97		70-118
1868-53-7	Dibromofluoromethane (Surr)	99		70-128

Report Date: 01-Jun-2015 09:14:51 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150531-7191.b\7053113.D
Lims ID: 180-44321-E-15 MSD
Client ID:
Sample Type: MSD
Inject. Date: 31-May-2015 16:59:30 ALS Bottle#: 13 Worklist Smp#: 13
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 180-44321-E-15 MSD
Misc. Info.: 180-0007169-013
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150531-7191.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 09:14:45 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

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

First Level Reviewer: journetp Date: 01-Jun-2015 09:07:15

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.664	4.678	-0.014	94	382637	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.414	7.404	0.010	97	1428249	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.467	10.470	-0.003	85	414728	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.785	12.787	-0.002	96	401457	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.677	6.680	-0.003	75	451403	200.0	198.1	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.049	7.039	0.010	76	452290	200.0	208.2	
$ 7 Toluene-d8 (Surr)	98	9.038	9.034	0.004	92	1307107	200.0	212.5	
$ 8 4-Bromofluorobenzene (Surr	95	11.635	11.632	0.003	90	537219	200.0	194.9	
12 Chloromethane	50	2.048	2.038	0.010	87	359070	200.0	124.5	
13 Vinyl chloride	62	2.255	2.214	0.041	92	258431	200.0	115.1	
15 Bromomethane	94	2.541	2.500	0.041	97	249292	200.0	137.7	
16 Chloroethane	64	2.632	2.646	-0.014	93	208049	200.0	114.8	
22 1,1-Dichloroethene	96	3.611	3.583	0.028	97	389985	200.0	203.4	
24 Acetone	43	3.794	3.753	0.041	39	240679	400.0	557.2	
26 Carbon disulfide	76	3.903	3.863	0.040	99	1187036	200.0	206.1	M
31 Methylene Chloride	84	4.396	4.362	0.034	93	468759	200.0	227.8	
33 Acrylonitrile	53	4.779	4.769	0.010	99	732707	2000.0	1924.9	
34 trans-1,2-Dichloroethene	96	4.773	4.775	-0.002	95	466648	200.0	196.1	
35 Methyl tert-butyl ether	73	4.852	4.836	0.016	97	1031121	200.0	219.9	
37 1,1-Dichloroethane	63	5.370	5.353	0.017	97	808585	200.0	231.9	
45 cis-1,2-Dichloroethene	96	6.100	6.108	-0.008	81	533183	200.0	225.8	
46 2-Butanone (MEK)	43	6.179	6.163	0.016	91	246210	400.0	384.6	
49 Chlorobromomethane	128	6.385	6.388	-0.003	88	278362	200.0	204.7	
52 Chloroform	83	6.495	6.497	-0.002	96	865344	200.0	220.4	
53 1,1,1-Trichloroethane	97	6.684	6.680	0.004	97	745097	200.0	208.9	
56 Carbon tetrachloride	117	6.872	6.868	0.004	96	706782	200.0	196.5	
58 Benzene	78	7.097	7.093	0.004	96	1490789	200.0	212.1	
59 1,2-Dichloroethane	62	7.128	7.130	-0.002	98	517044	200.0	217.8	
64 Trichloroethene	130	7.797	7.793	0.004	95	547018	200.0	194.1	
67 1,2-Dichloropropane	63	8.034	8.024	0.010	91	371751	200.0	232.2	
70 1,4-Dioxane	88	8.186	8.182	0.004	93	41009	4000.0	3664.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
71 Dichlorobromomethane	83	8.320	8.316	0.004	98	671064	200.0	226.0	
74 cis-1,3-Dichloropropene	75	8.770	8.766	0.004	93	685469	200.0	222.6	
75 4-Methyl-2-pentanone (MIBK	43	8.934	8.931	0.004	97	486511	400.0	401.5	
76 Toluene	91	9.105	9.101	0.004	97	1552195	200.0	211.1	
77 trans-1,3-Dichloropropene	75	9.324	9.326	-0.002	95	549169	200.0	210.6	
79 1,1,2-Trichloroethane	97	9.506	9.502	0.004	92	309133	200.0	207.7	
80 Tetrachloroethene	164	9.646	9.648	-0.002	95	338012	200.0	168.4	
82 2-Hexanone	43	9.756	9.758	-0.002	97	367388	400.0	470.0	
84 Chlorodibromomethane	129	9.896	9.898	-0.002	88	529131	200.0	206.8	
85 Ethylene Dibromide	107	10.011	10.007	0.004	99	356566	200.0	211.5	
87 Chlorobenzene	112	10.498	10.494	0.004	93	1102226	200.0	208.5	
89 1,1,1,2-Tetrachloroethane	131	10.577	10.573	0.004	93	521828	200.0	204.2	
90 Ethylbenzene	106	10.607	10.603	0.004	98	560171	200.0	186.5	
91 m-Xylene & p-Xylene	106	10.717	10.719	-0.002	98	731197		180.6	
92 o-Xylene	106	11.112	11.108	0.004	95	755151		185.7	
93 Styrene	104	11.124	11.127	-0.003	93	1148737	200.0	205.5	
94 Bromoform	173	11.313	11.315	-0.002	94	277903	200.0	191.7	
99 1,1,2,2-Tetrachloroethane	83	11.769	11.765	0.004	96	299437	200.0	191.7	
S 133 Xylenes, Total	106				0		400.0	366.2	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

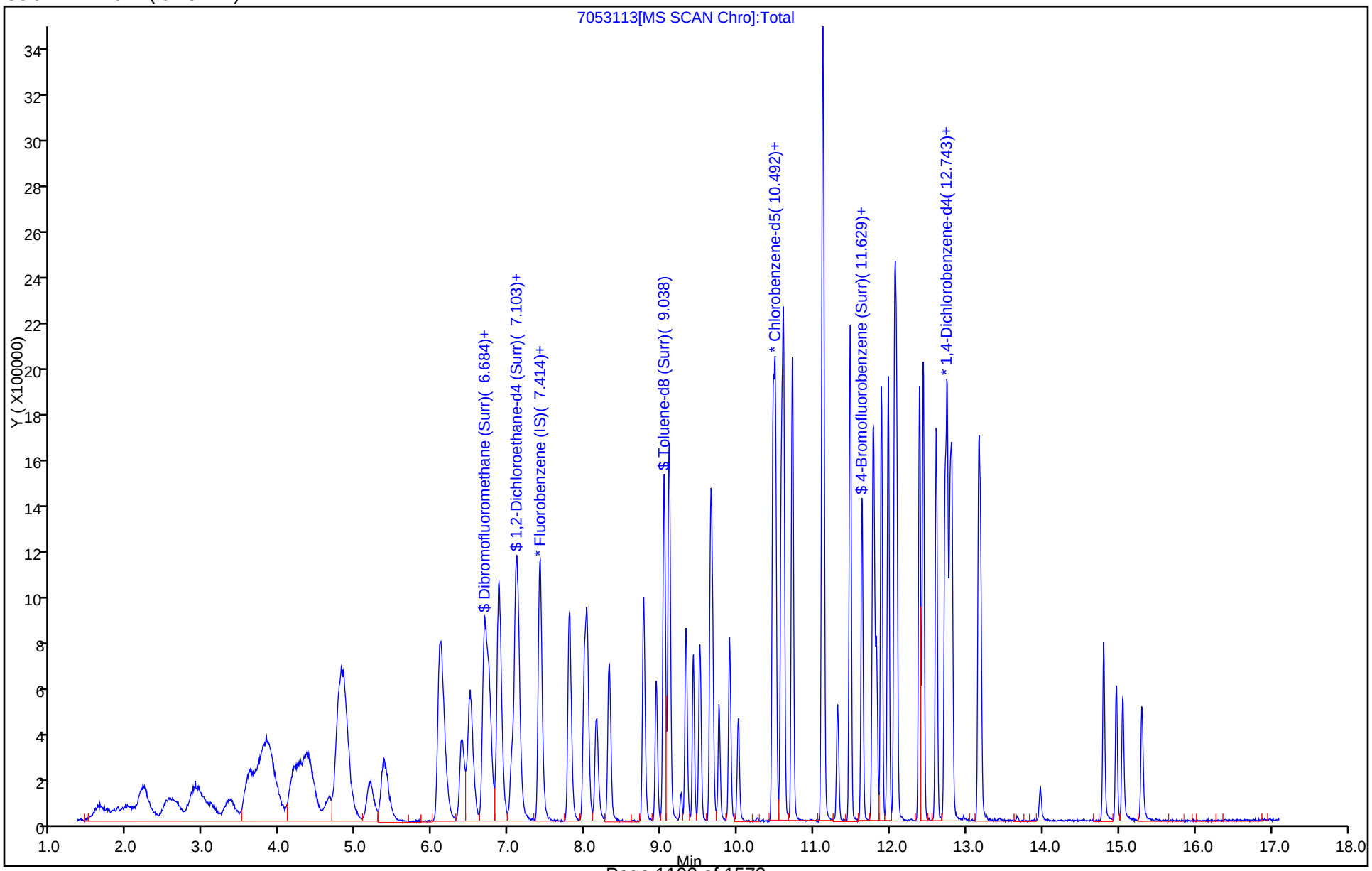
VOA8260VOA2ND_00124	Amount Added:	8.00	Units: uL	
voaWketPri Re_00005	Amount Added:	8.00	Units: uL	
voaWVA1st Res_00001	Amount Added:	8.00	Units: uL	
VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

Report Date: 01-Jun-2015 09:14:51 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150531-7191.b\7053113.D				
Injection Date:	31-May-2015 16:59:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-44321-E-15 MSD			Worklist Smp#:	13
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\PITCHROM\ChromData\CHHP7\20150531-7191.b\7053113.D
Lims ID: 180-44321-E-15 MSD
Client ID:
Sample Type: MSD
Inject. Date: 31-May-2015 16:59:30 ALS Bottle#: 13 Worklist Smp#: 13
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: 180-44321-E-15 MSD
Misc. Info.: 180-0007169-013
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150531-7191.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 09:14:45 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

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

First Level Reviewer: journetp Date: 01-Jun-2015 09:07:15

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	200.0	198.1	99.07
$ 6 1,2-Dichloroethane-d4 (Surr)	200.0	208.2	104.12
$ 7 Toluene-d8 (Surr)	200.0	212.5	106.25
$ 8 4-Bromofluorobenzene (Surr)	200.0	194.9	97.44

Manual Integration/User Assign Peak Report

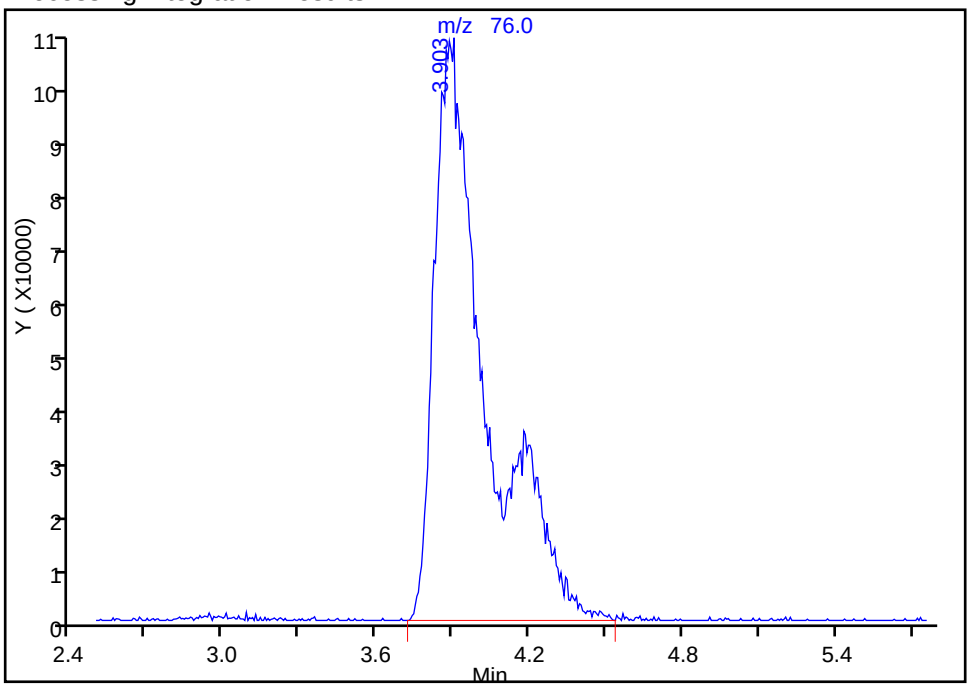
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150531-7191.b\7053113.D				
Injection Date:	31-May-2015 16:59:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-E-15 MSD				
Client ID:					
Operator ID:	034635	ALS Bottle#:	13	Worklist Smp#:	13
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

26 Carbon disulfide, CAS: 75-15-0

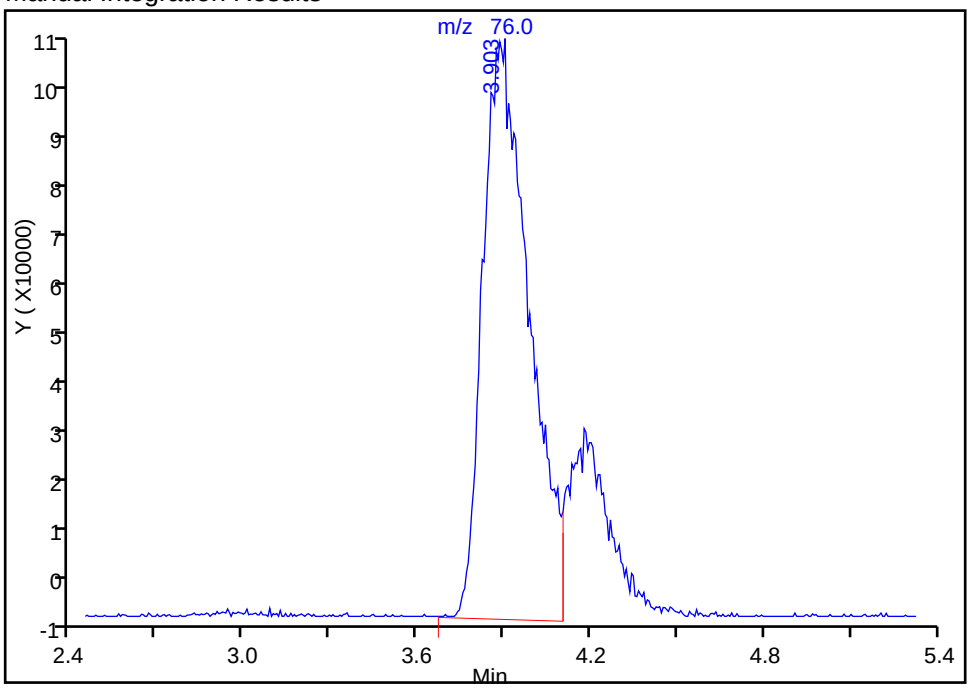
Processing Integration Results

RT: 3.90
Area: 1494633
Amount: 259.4993
Amount Units: ng



Manual Integration Results

RT: 3.90
Area: 1187036
Amount: 206.0941
Amount Units: ng



Reviewer: journetp, 01-Jun-2015 09:07:15
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-QC2-0/1-1 MSD Lab Sample ID: 180-44321-18 MSD

Matrix: Water Lab File ID: 7060110.D

Analysis Method: 8260C Date Collected: 05/20/2015 08:00

Sample wt/vol: 20(mL) Date Analyzed: 06/01/2015 14:22

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.: 143422 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	7.06		1.0	0.28
75-01-4	Vinyl chloride	7.00		1.0	0.23
74-83-9	Bromomethane	7.89		1.0	0.31
75-00-3	Chloroethane	5.71		1.0	0.21
75-35-4	1,1-Dichloroethene	13.7		1.0	0.30
67-64-1	Acetone	31.5		5.0	2.5
75-15-0	Carbon disulfide	13.7		1.0	0.21
75-09-2	Methylene Chloride	12.9		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	11.7		1.0	0.17
1634-04-4	Methyl tert-butyl ether	12.6		1.0	0.18
75-34-3	1,1-Dichloroethane	12.8		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	12.2		1.0	0.24
74-97-5	Bromochloromethane	11.1		1.0	0.18
78-93-3	2-Butanone (MEK)	19.6		5.0	0.55
67-66-3	Chloroform	12.4		1.0	0.17
71-55-6	1,1,1-Trichloroethane	13.8		1.0	0.29
56-23-5	Carbon tetrachloride	13.1		1.0	0.14
71-43-2	Benzene	11.3		1.0	0.11
107-06-2	1,2-Dichloroethane	11.5		1.0	0.21
79-01-6	Trichloroethene	9.66		1.0	0.14
78-87-5	1,2-Dichloropropane	11.2		1.0	0.095
75-27-4	Bromodichloromethane	11.6		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	11.0		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	18.9		5.0	0.53
108-88-3	Toluene	11.2		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	10.6		1.0	0.15
79-00-5	1,1,2-Trichloroethane	10.7		1.0	0.20
127-18-4	Tetrachloroethene	11.5		1.0	0.15
591-78-6	2-Hexanone	23.3		5.0	0.16
124-48-1	Dibromochloromethane	10.3		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	10.1		1.0	0.18
108-90-7	Chlorobenzene	11.1		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	11.1		1.0	0.28
100-41-4	Ethylbenzene	10.7		1.0	0.23
1330-20-7	Xylenes, Total	21.2		3.0	0.49
100-42-5	Styrene	11.2		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-QC2-0/1-1 MSD Lab Sample ID: 180-44321-18 MSD

Matrix: Water Lab File ID: 7060110.D

Analysis Method: 8260C Date Collected: 05/20/2015 08:00

Sample wt/vol: 20(mL) Date Analyzed: 06/01/2015 14:22

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.: 143422 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	9.40		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	9.64		1.0	0.20
107-13-1	Acrylonitrile	106		20	0.55
123-91-1	1,4-Dioxane	213		200	34

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		64-135
2037-26-5	Toluene-d8 (Surr)	112		71-118
460-00-4	4-Bromofluorobenzene (Surr)	105		70-118
1868-53-7	Dibromofluoromethane (Surr)	100		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060110.D
Lims ID: 180-44321-E-18 MSD
Client ID:
Sample Type: MSD
Inject. Date: 01-Jun-2015 14:22:30 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: msd 180-44321-E-18
Misc. Info.: 180-0007205-010
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 16:53:05 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

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

First Level Reviewer: journetp Date: 01-Jun-2015 15:10:08

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
* 1 TBA-d9 (IS)	65	4.601	4.665	-0.064	70	281624	4000.0	4000.0	
* 2 Fluorobenzene (IS)	96	7.405	7.403	0.002	94	1037784	200.0	200.0	
* 3 Chlorobenzene-d5	119	10.465	10.463	0.002	84	309039	200.0	200.0	
* 4 1,4-Dichlorobenzene-d4	152	12.789	12.787	0.002	93	346003	200.0	200.0	
$ 5 Dibromofluoromethane (Surr	113	6.681	6.679	0.002	63	331474	200.0	200.2	
$ 6 1,2-Dichloroethane-d4 (Sur	65	7.046	7.038	0.008	94	323134	200.0	204.7	
$ 7 Toluene-d8 (Surr)	98	9.035	9.033	0.002	93	1028870	200.0	224.5	
$ 8 4-Bromofluorobenzene (Surr	95	11.627	11.631	-0.004	89	430674	200.0	210.8	
12 Chloromethane	50	2.076	2.049	0.027	1	295993	200.0	141.2	M
13 Vinyl chloride	62	2.246	2.232	0.014	47	228568	200.0	140.1	
15 Bromomethane	94	2.538	2.506	0.032	82	207429	200.0	157.7	
16 Chloroethane	64	2.654	2.621	0.033	77	150408	200.0	114.2	
22 1,1-Dichloroethene	96	3.597	3.540	0.057	87	382588	200.0	274.6	
24 Acetone	43	3.761	3.783	-0.022	93	195039	400.0	630.0	
26 Carbon disulfide	76	3.925	3.868	0.057	100	1147021	200.0	274.1	M
31 Methylene Chloride	84	4.388	4.398	-0.010	82	384993	200.0	257.4	
34 trans-1,2-Dichloroethene	96	4.801	4.781	0.020	97	404568	200.0	234.0	
33 Acrylonitrile	53	4.777	4.799	-0.022	97	588105	2000.0	2126.3	
35 Methyl tert-butyl ether	73	4.838	4.854	-0.016	96	860416	200.0	252.5	
37 1,1-Dichloroethane	63	5.361	5.359	0.002	96	650127	200.0	256.6	
45 cis-1,2-Dichloroethene	96	6.115	6.095	0.020	78	418758	200.0	244.1	
46 2-Butanone (MEK)	43	6.170	6.180	-0.010	99	182396	400.0	392.1	
49 Chlorobromomethane	128	6.389	6.387	0.002	83	218572	200.0	221.2	
52 Chloroform	83	6.505	6.497	0.009	94	707949	200.0	248.1	
53 1,1,1-Trichloroethane	97	6.693	6.679	0.014	96	717172	200.0	276.8	
56 Carbon tetrachloride	117	6.876	6.862	0.014	96	685490	200.0	262.3	
58 Benzene	78	7.101	7.099	0.002	96	1154313	200.0	226.0	
59 1,2-Dichloroethane	62	7.131	7.123	0.008	85	395171	200.0	229.1	
64 Trichloroethene	130	7.800	7.798	0.002	93	395441	200.0	193.1	
67 1,2-Dichloropropane	63	8.032	8.023	0.009	74	260884	200.0	224.3	
70 1,4-Dioxane	88	8.190	8.194	-0.004	38	34613	4000.0	4256.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
71 Dichlorobromomethane	83	8.311	8.315	-0.004	97	500540	200.0	232.0	
74 cis-1,3-Dichloropropene	75	8.774	8.772	0.002	92	491769	200.0	219.8	
75 4-Methyl-2-pentanone (MIBK	43	8.932	8.936	-0.004	95	341386	400.0	378.0	
76 Toluene	91	9.102	9.100	0.002	98	1215841	200.0	224.4	
77 trans-1,3-Dichloropropene	75	9.327	9.325	0.002	95	411223	200.0	211.7	
79 1,1,2-Trichloroethane	97	9.510	9.508	0.002	90	238026	200.0	214.6	
80 Tetrachloroethene	164	9.644	9.642	0.002	92	327444	200.0	230.3	
82 2-Hexanone	43	9.759	9.763	-0.004	97	271142	400.0	465.5	
84 Chlorodibromomethane	129	9.899	9.897	0.002	89	393199	200.0	206.2	
85 Ethylene Dibromide	107	10.009	10.007	0.002	95	254823	200.0	202.8	
87 Chlorobenzene	112	10.495	10.493	0.002	93	874869	200.0	222.1	
89 1,1,1,2-Tetrachloroethane	131	10.575	10.572	0.003	93	424450	200.0	222.9	
90 Ethylbenzene	106	10.605	10.603	0.002	97	478499	200.0	213.8	
91 m-Xylene & p-Xylene	106	10.721	10.718	0.003	98	619590		205.3	
92 o-Xylene	106	11.110	11.114	-0.004	96	662639		218.6	
93 Styrene	104	11.128	11.126	0.002	93	921363	200.0	224.8	
94 Bromoform	173	11.311	11.315	-0.004	95	203145	200.0	188.0	
99 1,1,2,2-Tetrachloroethane	83	11.767	11.771	-0.004	97	224398	200.0	192.8	
S 133 Xylenes, Total	106				0		400.0	424.0	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

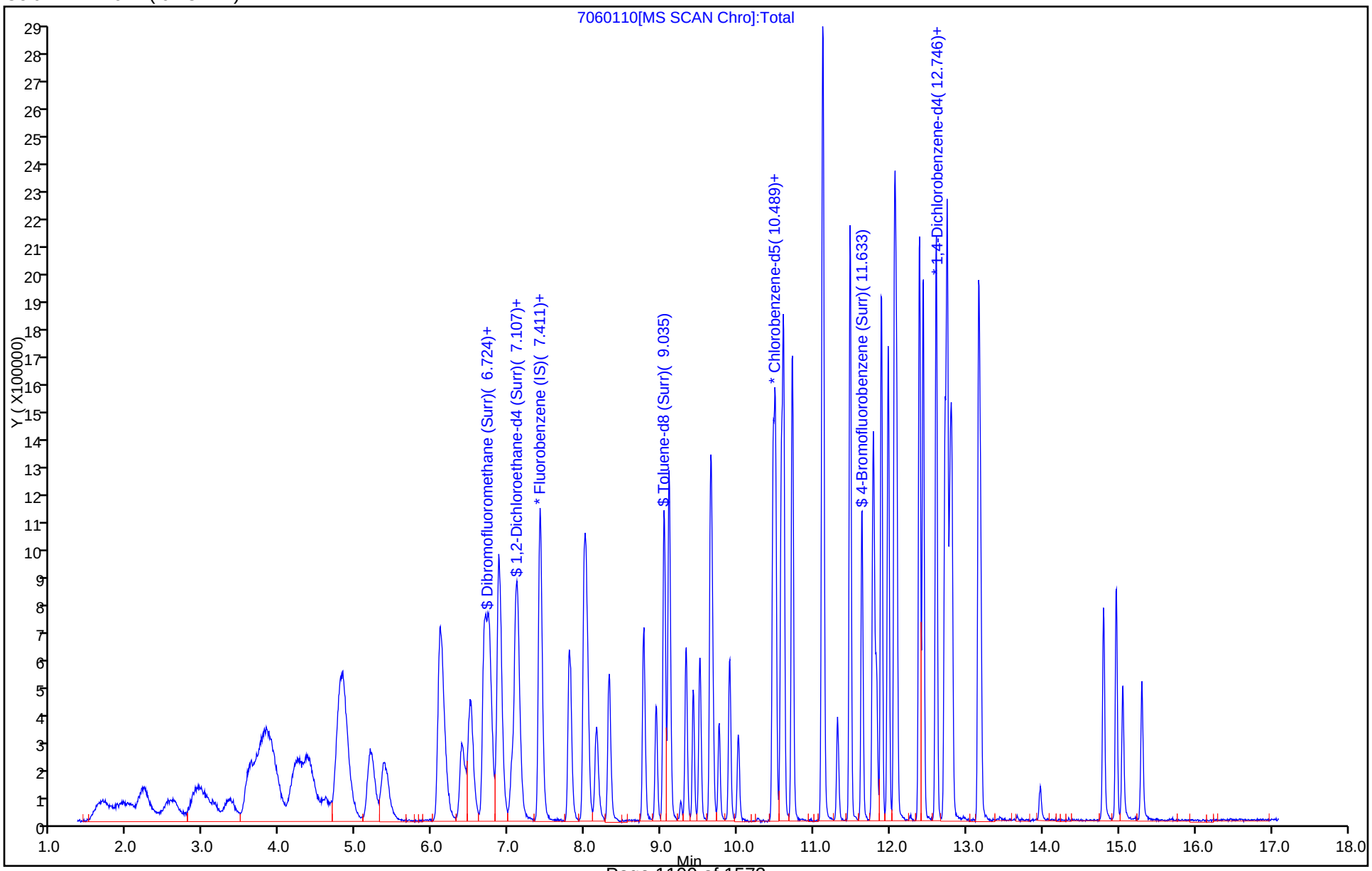
voaWketPri Re_00005	Amount Added:	8.00	Units: uL	
VOA8260VOA2ND_00124	Amount Added:	8.00	Units: uL	
voaWacro2 Res_00003	Amount Added:	24.00	Units: uL	
VOA8260SURR_00036	Amount Added:	8.00	Units: uL	Run Reagent
VOA8260INT_00036	Amount Added:	8.00	Units: uL	Run Reagent

Report Date: 01-Jun-2015 16:53:11 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060110.D				
Injection Date:	01-Jun-2015 14:22:30	Instrument ID:	CHHP7	Operator ID:	034635
Lims ID:	180-44321-E-18 MSD			Worklist Smp#:	10
Client ID:					
Purge Vol:	20.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060110.D
Lims ID: 180-44321-E-18 MSD
Client ID:
Sample Type: MSD
Inject. Date: 01-Jun-2015 14:22:30 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Sample Info: msd 180-44321-E-18
Misc. Info.: 180-0007205-010
Operator ID: 034635 Instrument ID: CHHP7

Method: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\MSVOA_LL_CHHP7.m
Limit Group: VOA 8260C ICAL
Last Update: 01-Jun-2015 16:53:05 Calib Date: 30-Mar-2015 14:36:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP7\20150330-6234.b\7033010.D

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

First Level Reviewer: journetp Date: 01-Jun-2015 15:10:08

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	200.0	200.2	100.12
$ 6 1,2-Dichloroethane-d4 (Surr)	200.0	204.7	102.37
$ 7 Toluene-d8 (Surr)	200.0	224.5	112.23
$ 8 4-Bromofluorobenzene (Surr)	200.0	210.8	105.40

Manual Integration/User Assign Peak Report

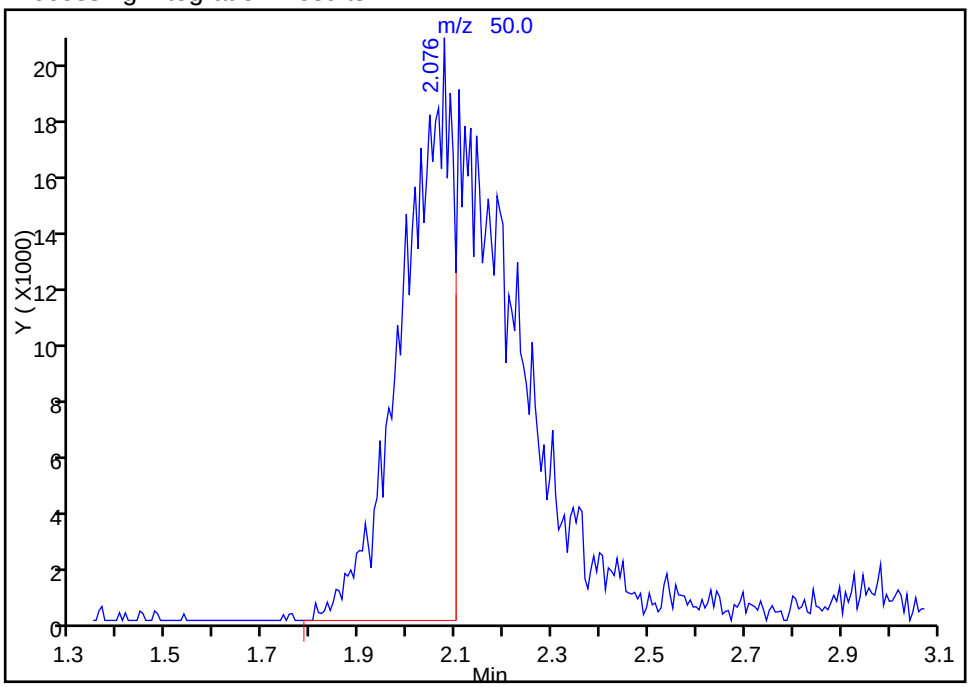
TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060110.D				
Injection Date:	01-Jun-2015 14:22:30	Instrument ID:	CHHP7		
Lims ID:	180-44321-E-18 MSD				
Client ID:					
Operator ID:	034635	ALS Bottle#:	9	Worklist Smp#:	10
Purge Vol:	20.000 mL	Dil. Factor:	1.0000		
Method:	MSVOA_LL_CHHP7	Limit Group:	VOA 8260C ICAL		
Column:	DB-624 (0.18 mm)	Detector	MS SCAN		

12 Chloromethane, CAS: 74-87-3

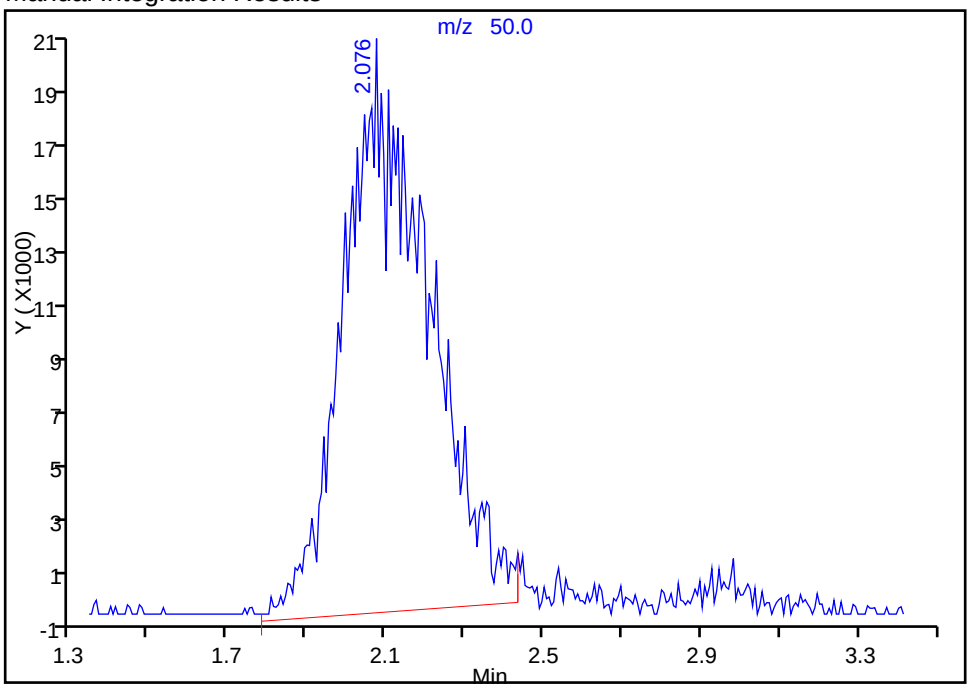
Processing Integration Results

RT: 2.08
Area: 141536
Amount: 67.539719
Amount Units: ng



Manual Integration Results

RT: 2.08
Area: 295993
Amount: 141.2452
Amount Units: ng



Reviewer: journetp, 01-Jun-2015 15:10:08
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

Manual Integration/User Assign Peak Report

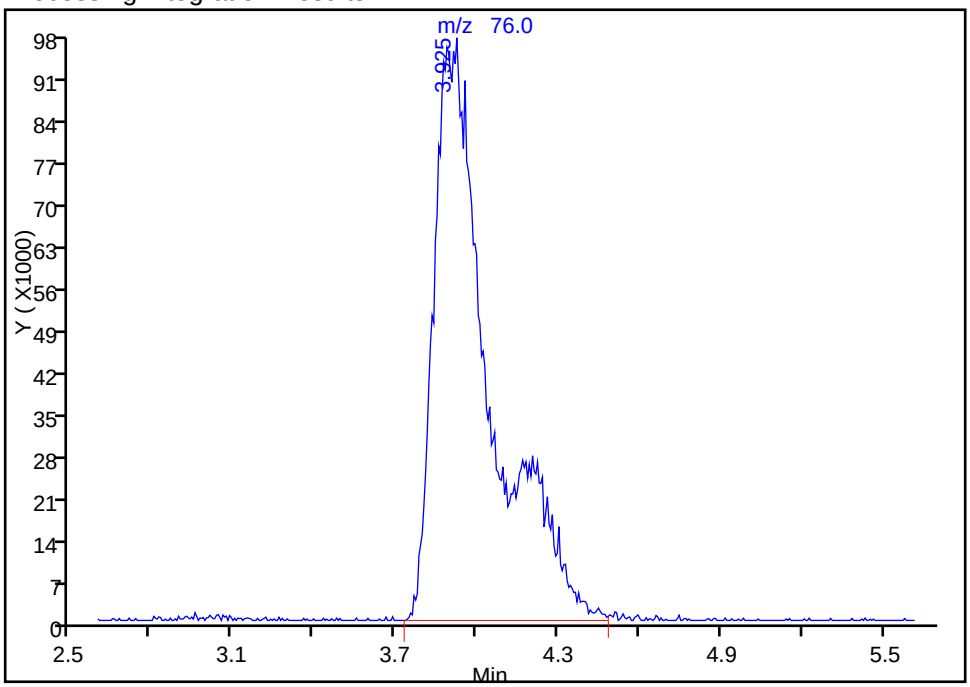
TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP7\20150601-7205.b\7060110.D
Injection Date: 01-Jun-2015 14:22:30 Instrument ID: CHHP7
Lims ID: 180-44321-E-18 MSD
Client ID:
Operator ID: 034635 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 20.000 mL Dil. Factor: 1.0000
Method: MSVOA_LL_CHHP7 Limit Group: VOA 8260C ICAL
Column: DB-624 (0.18 mm) Detector MS SCAN

26 Carbon disulfide, CAS: 75-15-0

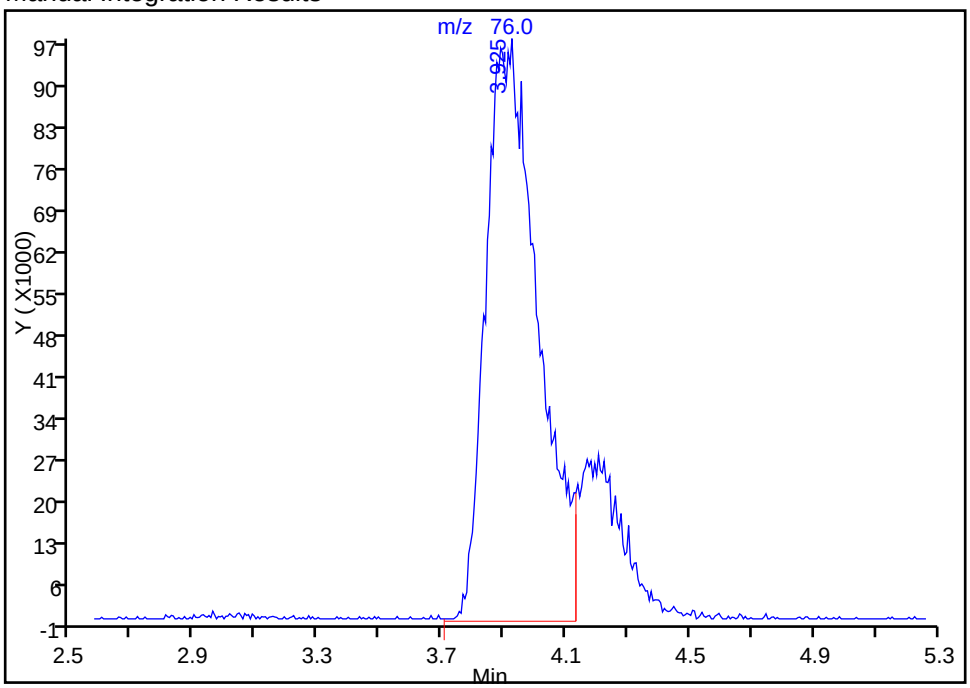
Processing Integration Results

RT: 3.93
Area: 1392915
Amount: 332.8306
Amount Units: ng



Manual Integration Results

RT: 3.93
Area: 1147021
Amount: 274.0753
Amount Units: ng



Reviewer: journetp, 01-Jun-2015 15:10:08
Audit Action: Manually Integrated
Audit Reason: Poor chromatography

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-MW-95-0/1-0 MSD Lab Sample ID: 180-44321-24 MSD

Matrix: Water Lab File ID: 60530009.D

Analysis Method: 8260C Date Collected: 05/20/2015 09:25

Sample wt/vol: 5(mL) Date Analyzed: 05/31/2015 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.: 143337 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
74-87-3	Chloromethane	11.0		1.0	0.28
75-01-4	Vinyl chloride	11.2		1.0	0.23
74-83-9	Bromomethane	10.3		1.0	0.31
75-00-3	Chloroethane	11.9		1.0	0.21
75-35-4	1,1-Dichloroethene	10.8		1.0	0.30
67-64-1	Acetone	23.6		5.0	2.5
75-15-0	Carbon disulfide	9.37		1.0	0.21
75-09-2	Methylene Chloride	11.3		1.0	0.13
156-60-5	trans-1,2-Dichloroethene	11.1		1.0	0.17
1634-04-4	Methyl tert-butyl ether	8.31		1.0	0.18
75-34-3	1,1-Dichloroethane	10.4		1.0	0.12
156-59-2	cis-1,2-Dichloroethene	17.1		1.0	0.24
74-97-5	Bromochloromethane	11.7		1.0	0.18
78-93-3	2-Butanone (MEK)	24.9		5.0	0.55
67-66-3	Chloroform	11.1		1.0	0.17
71-55-6	1,1,1-Trichloroethane	9.91		1.0	0.29
56-23-5	Carbon tetrachloride	9.20		1.0	0.14
71-43-2	Benzene	10.6		1.0	0.11
107-06-2	1,2-Dichloroethane	10.5		1.0	0.21
79-01-6	Trichloroethene	15.0		1.0	0.14
78-87-5	1,2-Dichloropropane	9.90		1.0	0.095
75-27-4	Bromodichloromethane	8.85		1.0	0.13
10061-01-5	cis-1,3-Dichloropropene	7.63		1.0	0.19
108-10-1	4-Methyl-2-pentanone (MIBK)	16.3		5.0	0.53
108-88-3	Toluene	10.3		1.0	0.15
10061-02-6	trans-1,3-Dichloropropene	7.06		1.0	0.15
79-00-5	1,1,2-Trichloroethane	9.91		1.0	0.20
127-18-4	Tetrachloroethene	14.1		1.0	0.15
591-78-6	2-Hexanone	18.3		5.0	0.16
124-48-1	Dibromochloromethane	9.07		1.0	0.14
106-93-4	1,2-Dibromoethane (EDB)	9.78		1.0	0.18
108-90-7	Chlorobenzene	11.0		1.0	0.14
630-20-6	1,1,1,2-Tetrachloroethane	10.8		1.0	0.28
100-41-4	Ethylbenzene	10.3		1.0	0.23
1330-20-7	Xylenes, Total	20.3		3.0	0.49
100-42-5	Styrene	10.3		1.0	0.097

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-MW-95-0/1-0 MSD Lab Sample ID: 180-44321-24 MSD

Matrix: Water Lab File ID: 60530009.D

Analysis Method: 8260C Date Collected: 05/20/2015 09:25

Sample wt/vol: 5(mL) Date Analyzed: 05/31/2015 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.: 143337 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
75-25-2	Bromoform	7.75		1.0	0.19
79-34-5	1,1,2,2-Tetrachloroethane	9.82		1.0	0.20
107-13-1	Acrylonitrile	97.9		20	0.55
123-91-1	1,4-Dioxane	216		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)	99		71-118
460-00-4	4-Bromofluorobenzene (Surr)	96		70-118
1868-53-7	Dibromofluoromethane (Surr)	117		70-128

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530009.D
Lims ID: 180-44321-D-24 MSD
Client ID: HD-MW-95-0/1-0
Sample Type: MSD
Inject. Date: 31-May-2015 12:00:30 ALS Bottle#: 9 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 180-44321-D-24 MSD
Misc. Info.: 180-0007190-009
Operator ID: 034635 Instrument ID: CHHP6

Method: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\MSVOA_LL_CHHP6.m
Limit Group: VOA 8260C ICAL
Last Update: 31-May-2015 16:21:03 Calib Date: 01-May-2015 16:46:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D

Column 1 : DB-624 (0.18 mm) Det: MS SCAN
Process Host: XAWRK001

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
*	1 TBA-d9 (IS)	65	4.242	4.236	0.006	90	171706	1000.0	1000.0	
*	2 Fluorobenzene (IS)	96	7.284	7.284	0.000	99	530617	50.0	50.0	
*	3 Chlorobenzene-d5	119	10.398	10.393	0.005	89	121256	50.0	50.0	
*	4 1,4-Dichlorobenzene-d4	152	12.740	12.747	-0.007	94	208651	50.0	50.0	
$	5 Dibromofluoromethane (Surr	113	6.554	6.554	0.000	91	128784	50.0	58.7	
$	6 1,2-Dichloroethane-d4 (Sur	65	6.931	6.925	0.006	70	178400	50.0	48.6	
$	7 Toluene-d8 (Surr)	98	8.938	8.939	-0.001	93	507184	50.0	49.4	
$	8 4-Bromofluorobenzene (Surr	95	11.585	11.579	0.006	84	201458	50.0	48.2	
	12 Chloromethane	50	1.760	1.760	0.000	99	147663	50.0	54.8	
	13 Vinyl chloride	62	1.888	1.882	0.006	99	161235	50.0	56.2	
	15 Bromomethane	94	2.234	2.229	0.005	91	77056	50.0	51.6	
	16 Chloroethane	64	2.362	2.375	-0.013	100	107850	50.0	59.7	
	22 1,1-Dichloroethene	96	3.335	3.336	-0.001	98	133226	50.0	54.2	
	24 Acetone	43	3.421	3.421	0.000	93	82980	100.0	117.8	
	26 Carbon disulfide	76	3.627	3.628	-0.001	99	337281	50.0	46.9	
	31 Methylene Chloride	84	4.132	4.115	0.017	91	168870	50.0	56.6	
	33 Acrylonitrile	53	4.503	4.498	0.005	99	580756	500.0	489.4	
	34 trans-1,2-Dichloroethene	96	4.564	4.553	0.011	98	151470	50.0	55.3	
	35 Methyl tert-butyl ether	73	4.570	4.565	0.005	97	408527	50.0	41.6	
	37 1,1-Dichloroethane	63	5.197	5.198	-0.001	97	268698	50.0	52.2	
	43 cis-1,2-Dichloroethene	96	5.939	5.940	-0.001	82	265437	50.0	85.3	
	44 2-Butanone (MEK)	43	5.939	5.940	-0.001	47	146192	100.0	124.7	
	48 Chlorobromomethane	128	6.225	6.226	-0.001	98	74434	50.0	58.3	
	50 Chloroform	83	6.371	6.366	0.005	94	276653	50.0	55.7	
	51 1,1,1-Trichloroethane	97	6.535	6.536	-0.001	98	202517	50.0	49.6	
	53 Carbon tetrachloride	117	6.712	6.712	0.000	96	143468	50.0	46.0	
	56 Benzene	78	6.943	6.943	0.000	98	619257	50.0	53.1	
	57 1,2-Dichloroethane	62	7.016	7.016	0.000	98	233385	50.0	52.6	
	61 Trichloroethene	130	7.679	7.673	0.006	96	189649	50.0	75.1	
	64 1,2-Dichloropropane	63	7.947	7.947	0.000	94	152366	50.0	49.5	
	65 1,4-Dioxane	88	8.032	8.020	0.012	39	32025	1000.0	1080.2	
	68 Dichlorobromomethane	83	8.227	8.227	0.000	99	164810	50.0	44.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ng	OnCol Amt ng	Flags
71 cis-1,3-Dichloropropene	75	8.677	8.677	0.000	94	188145	50.0	38.2	
72 4-Methyl-2-pentanone (MIBK	43	8.823	8.823	0.000	96	264719	100.0	81.5	
73 Toluene	91	9.011	9.012	-0.001	98	647362	50.0	51.5	
74 trans-1,3-Dichloropropene	75	9.255	9.255	0.000	96	161670	50.0	35.3	
76 1,1,2-Trichloroethane	97	9.449	9.450	-0.001	94	135623	50.0	49.6	
77 Tetrachloroethene	164	9.528	9.523	0.005	96	145738	50.0	70.4	
79 2-Hexanone	43	9.656	9.657	-0.001	96	180896	100.0	91.3	
81 Chlorodibromomethane	129	9.820	9.821	-0.001	91	97683	50.0	45.3	
82 Ethylene Dibromide	107	9.942	9.937	0.005	99	126490	50.0	48.9	
84 Chlorobenzene	112	10.423	10.423	0.000	94	435286	50.0	54.8	
86 1,1,1,2-Tetrachloroethane	131	10.520	10.521	-0.001	87	125500	50.0	53.9	
87 Ethylbenzene	106	10.526	10.527	-0.001	99	229337	50.0	51.7	
88 m-Xylene & p-Xylene	106	10.660	10.654	0.006	100	280905		50.6	
89 o-Xylene	106	11.043	11.044	-0.001	97	274535		51.0	
90 Styrene	104	11.061	11.062	-0.001	94	457724	50.0	51.7	
91 Bromoform	173	11.244	11.244	0.000	93	53363	50.0	38.7	
96 1,1,2,2-Tetrachloroethane	83	11.712	11.713	-0.001	97	184492	50.0	49.1	
S 131 Xylenes, Total	106				0		100.0	101.5	

Reagents:

VOA8260VOA2ND_00124	Amount Added:	2.00	Units: uL		
voaWVA1st Res_00001	Amount Added:	2.00	Units: uL		
voaWEEmix1st_00001	Amount Added:	2.00	Units: uL		
VOAACROPRI_00005	Amount Added:	6.00	Units: uL		
voaWketPri Re_00005	Amount Added:	2.00	Units: uL		
voaWeemix2nd_00001	Amount Added:	2.00	Units: uL		
VOA8260INT_00033	Amount Added:	2.00	Units: uL	Run Reagent	
VOA8260SURR_00035	Amount Added:	2.00	Units: uL	Run Reagent	

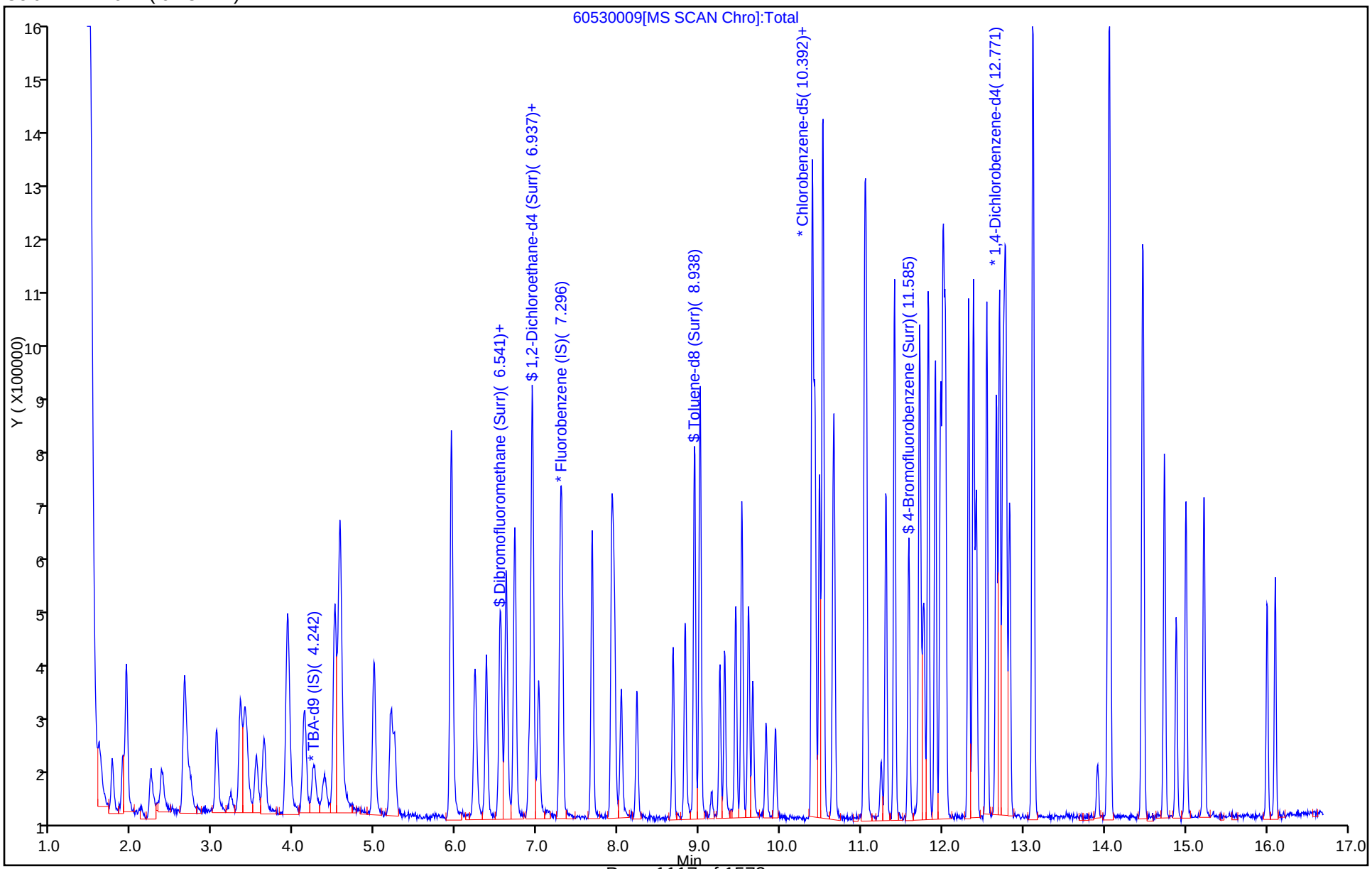
Report Date: 31-May-2015 16:21:07 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530009.D

Injection Date:	31-May-2015 12:00:30	Instrument ID:	CHHP6	Operator ID:	034635
Lims ID:	180-44321-D-24 MSD			Worklist Smp#:	9
Client ID:	HD-MW-95-0/1-0				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	MSVOA_LL_CHHP6	Limit Group:	VOA 8260C ICAL		

Column: DB-624 (0.18 mm)



TestAmerica Pittsburgh
Recovery Report

Data File:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\60530009.D				
Lims ID:	180-44321-D-24 MSD				
Client ID:	HD-MW-95-0/1-0				
Sample Type:	MSD				
Inject. Date:	31-May-2015 12:00:30	ALS Bottle#:	9	Worklist Smp#:	9
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Sample Info:	180-44321-D-24 MSD				
Misc. Info.:	180-0007190-009				
Operator ID:	034635	Instrument ID:	CHHP6		
Method:	\\PITCHROM\ChromData\CHHP6\20150531-7190.b\MSVOA_LL_CHHP6.m				
Limit Group:	VOA 8260C ICAL				
Last Update:	31-May-2015 16:21:03	Calib Date:	01-May-2015 16:46:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHHP6\20150501-6721.b\60501012.D				
Column 1 :	DB-624 (0.18 mm)		Det: MS SCAN		
Process Host:	XAWRK001				

Compound	Amount Added	Amount Recovered	% Rec.
$ 5 Dibromofluoromethane (Surr)	50.0	58.7	117.32
$ 6 1,2-Dichloroethane-d4 (Surr)	50.0	48.6	97.27
$ 7 Toluene-d8 (Surr)	50.0	49.4	98.87
$ 8 4-Bromofluorobenzene (Surr)	50.0	48.2	96.34

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Instrument ID: CHHP7 Start Date: 03/30/2015 09:32

Analysis Batch Number: 136928 End Date: 03/30/2015 14:36

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-136928/1		03/30/2015 09:32	1	7033001.D	DB-624 0.18(mm)
IC 180-136928/3		03/30/2015 10:57	1	7033003.D	DB-624 0.18(mm)
IC 180-136928/4		03/30/2015 11:28	1	7033004.D	DB-624 0.18(mm)
ICIS 180-136928/5		03/30/2015 11:55	1	7033005.D	DB-624 0.18(mm)
IC 180-136928/6		03/30/2015 12:23	1	7033006.D	DB-624 0.18(mm)
IC 180-136928/7		03/30/2015 13:05	1	7033007.D	DB-624 0.18(mm)
IC 180-136928/8		03/30/2015 13:32	1	7033008.D	DB-624 0.18(mm)
IC 180-136928/9		03/30/2015 14:05	1	7033009.D	DB-624 0.18(mm)
IC 180-136928/10		03/30/2015 14:36	1	7033010.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Instrument ID: CHHP6 Start Date: 05/01/2015 11:31

Analysis Batch Number: 140280 End Date: 05/02/2015 14:27

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-140280/5		05/01/2015 11:31	1	60501005.D	DB-624 0.18(mm)
IC 180-140280/3		05/01/2015 13:53	1	60501003.D	DB-624 0.18(mm)
IC 180-140280/6		05/01/2015 14:17	1	60501006.D	DB-624 0.18(mm)
ICIS 180-140280/7		05/01/2015 14:41	1	60501007.D	DB-624 0.18(mm)
IC 180-140280/8		05/01/2015 15:06	1	60501008.D	DB-624 0.18(mm)
IC 180-140280/9		05/01/2015 15:31	1	60501009.D	DB-624 0.18(mm)
IC 180-140280/10		05/01/2015 15:56	1	60501010.D	DB-624 0.18(mm)
IC 180-140280/11		05/01/2015 16:20	1	60501011.D	DB-624 0.18(mm)
IC 180-140280/12		05/01/2015 16:46	1	60501012.D	DB-624 0.18(mm)
ICV 180-140280/18		05/02/2015 14:27	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Instrument ID: CHHP7 Start Date: 05/29/2015 07:18

Analysis Batch Number: 143153 End Date: 05/29/2015 19:12

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-143153/1		05/29/2015 07:18	1	7052901.D	DB-624 0.18(mm)
CCVIS 180-143153/3		05/29/2015 08:40	1	7052902.D	DB-624 0.18(mm)
LODV 180-143153/4		05/29/2015 09:27	1		DB-624 0.18(mm)
MB 180-143153/7		05/29/2015 11:33	1	7052906.D	DB-624 0.18(mm)
180-44321-1		05/29/2015 12:01	1	7052907.D	DB-624 0.18(mm)
180-44321-3		05/29/2015 12:28	1	7052908.D	DB-624 0.18(mm)
180-44321-4		05/29/2015 12:56	1	7052909.D	DB-624 0.18(mm)
180-44321-1 MS		05/29/2015 13:23	1	7052910.D	DB-624 0.18(mm)
180-44321-1 MSD		05/29/2015 13:50	1	7052911.D	DB-624 0.18(mm)
LCS 180-143153/13		05/29/2015 14:18	1	7052912.D	DB-624 0.18(mm)
180-44321-5		05/29/2015 15:32	1	7052913.D	DB-624 0.18(mm)
180-44321-6		05/29/2015 16:00	1	7052914.D	DB-624 0.18(mm)
180-44321-7		05/29/2015 16:27	1	7052915.D	DB-624 0.18(mm)
180-44321-9		05/29/2015 17:49	1	7052917.D	DB-624 0.18(mm)
180-44321-10		05/29/2015 18:17	1	7052918.D	DB-624 0.18(mm)
180-44321-11		05/29/2015 18:44	1	7052919.D	DB-624 0.18(mm)
180-44321-12		05/29/2015 19:12	1	7052920.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Instrument ID: CHHP6 Start Date: 05/31/2015 07:53

Analysis Batch Number: 143337 End Date: 05/31/2015 19:38

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-143337/1		05/31/2015 07:53	1	60530001.D	DB-624 0.18(mm)
CCVIS 180-143337/2		05/31/2015 08:32	1	60530002.D	DB-624 0.18(mm)
LODV 180-143337/3		05/31/2015 09:23	1		DB-624 0.18(mm)
MB 180-143337/4		05/31/2015 09:47	1	60530004.D	DB-624 0.18(mm)
180-44321-31		05/31/2015 10:42	1	60530006.D	DB-624 0.18(mm)
LCS 180-143337/7		05/31/2015 11:13	1	60530007.D	DB-624 0.18(mm)
180-44321-24 MS		05/31/2015 11:37	1	60530008.D	DB-624 0.18(mm)
180-44321-24 MSD		05/31/2015 12:00	1	60530009.D	DB-624 0.18(mm)
180-44321-24		05/31/2015 12:49	1	60530011.D	DB-624 0.18(mm)
180-44321-27		05/31/2015 13:37	25	60530013.D	DB-624 0.18(mm)
180-44321-28		05/31/2015 14:01	1	60530014.D	DB-624 0.18(mm)
180-44321-29		05/31/2015 14:25	125	60530015.D	DB-624 0.18(mm)
180-44321-30		05/31/2015 14:49	50	60530016.D	DB-624 0.18(mm)
180-44321-17		05/31/2015 15:38	1	60530018.D	DB-624 0.18(mm)
180-44321-32		05/31/2015 16:02	1	60530019.D	DB-624 0.18(mm)
180-44321-33		05/31/2015 16:26	1	60530020.D	DB-624 0.18(mm)
180-44321-19		05/31/2015 17:14	12.5	60530022.D	DB-624 0.18(mm)
180-44321-20		05/31/2015 17:38	25	60530023.D	DB-624 0.18(mm)
180-44321-23 DL		05/31/2015 18:50	50	60530026.D	DB-624 0.18(mm)
180-44321-16		05/31/2015 19:14	1	60530027.D	DB-624 0.18(mm)
180-44321-25 DL		05/31/2015 19:38	10	60530028.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Instrument ID: CHHP7 Start Date: 05/31/2015 08:36

Analysis Batch Number: 143339 End Date: 05/31/2015 20:12

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-143339/1		05/31/2015 08:36	1	7053101.D	DB-624 0.18(mm)
CCVIS 180-143339/3		05/31/2015 11:59	1	7053103.D	DB-624 0.18(mm)
LODV 180-143339/4		05/31/2015 12:40	1		DB-624 0.18(mm)
MB 180-143339/7		05/31/2015 14:05	1	7053107.D	DB-624 0.18(mm)
180-44321-15		05/31/2015 14:59	1	7053109.D	DB-624 0.18(mm)
LCS 180-143339/11		05/31/2015 16:05	1	7053111.D	DB-624 0.18(mm)
180-44321-15 MS		05/31/2015 16:32	1	7053112.D	DB-624 0.18(mm)
180-44321-15 MSD		05/31/2015 16:59	1	7053113.D	DB-624 0.18(mm)
180-44321-2		05/31/2015 18:50	1	7053117.D	DB-624 0.18(mm)
180-44321-8		05/31/2015 19:17	1	7053118.D	DB-624 0.18(mm)
180-44321-13		05/31/2015 19:44	1	7053119.D	DB-624 0.18(mm)
180-44321-14		05/31/2015 20:12	1	7053120.D	DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Instrument ID: CHHP7 Start Date: 06/01/2015 08:05

Analysis Batch Number: 143422 End Date: 06/01/2015 19:03

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-143422/1		06/01/2015 08:05	1	7060101.D	DB-624 0.18(mm)
CCVIS 180-143422/3		06/01/2015 10:16	1	7060103.D	DB-624 0.18(mm)
LODV 180-143422/4		06/01/2015 10:59	1		DB-624 0.18(mm)
MB 180-143422/6		06/01/2015 12:21	1	7060106.D	DB-624 0.18(mm)
LCS 180-143422/8		06/01/2015 13:26	1	7060108.D	DB-624 0.18(mm)
180-44321-18 MS		06/01/2015 13:54	1	7060109.D	DB-624 0.18(mm)
180-44321-18 MSD		06/01/2015 14:22	1	7060110.D	DB-624 0.18(mm)
ZZZZZ		06/01/2015 15:17	1		DB-624 0.18(mm)
180-44321-18		06/01/2015 15:45	1	7060113.D	DB-624 0.18(mm)
180-44321-22		06/01/2015 16:12	3	7060114.D	DB-624 0.18(mm)
180-44321-26		06/01/2015 16:40	10	7060115.D	DB-624 0.18(mm)
180-44321-21		06/01/2015 17:08	250	7060116.D	DB-624 0.18(mm)
180-44321-23		06/01/2015 17:40	5	7060117.D	DB-624 0.18(mm)
180-44321-25		06/01/2015 18:08	1	7060118.D	DB-624 0.18(mm)
ZZZZZ		06/01/2015 19:03	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Instrument ID: CHHP7 Start Date: 06/02/2015 08:07

Analysis Batch Number: 143527 End Date: 06/02/2015 19:44

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-143527/1		06/02/2015 08:07	1	7060201.D	DB-624 0.18(mm)
CCVIS 180-143527/3		06/02/2015 10:22	1	7060203.D	DB-624 0.18(mm)
LODV 180-143527/4		06/02/2015 11:02	1		DB-624 0.18(mm)
MB 180-143527/7		06/02/2015 13:18	1	7060207.D	DB-624 0.18(mm)
ZZZZZ		06/02/2015 13:46	1		DB-624 0.18(mm)
ZZZZZ		06/02/2015 14:13	1		DB-624 0.18(mm)
LCS 180-143527/10		06/02/2015 14:40	1	7060210.D	DB-624 0.18(mm)
ZZZZZ		06/02/2015 15:08	1		DB-624 0.18(mm)
ZZZZZ		06/02/2015 15:35	1		DB-624 0.18(mm)
180-44321-21 RA		06/02/2015 16:03	250	7060213.D	DB-624 0.18(mm)
ZZZZZ		06/02/2015 16:31	5		DB-624 0.18(mm)
ZZZZZ		06/02/2015 16:58	5		DB-624 0.18(mm)
ZZZZZ		06/02/2015 17:26	25		DB-624 0.18(mm)
ZZZZZ		06/02/2015 18:21	25		DB-624 0.18(mm)
ZZZZZ		06/02/2015 19:16	25		DB-624 0.18(mm)
ZZZZZ		06/02/2015 19:44	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.: 180-44321-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A-ICS2100 A 05-21-2015-5.d

Lab ID: LCS 180-142454/5 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
Nitrate as N	2.50	2.47	99	90-110	
Chloride	50.0	49.8	100	90-110	
Sulfate	50.0	49.2	98	90-110	

Column to be used to flag recovery and RPD values

FORM III 300.0

FORM III
HPLC/IC LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A-ICS2100 A 05-21-2015-34.d

Lab ID: LCS 180-142454/34 Client ID:

COMPOUND	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC	QC LIMITS REC	#
Nitrate as N	2.50	2.62	105	90-110	
Chloride	50.0	52.4	105	90-110	
Sulfate	50.0	51.9	104	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.: 180-44321-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A-ICS2100 A 05-21-2015-37.d

Lab ID: 180-44321-15 MS Client ID: HD-COD-SW-28-0/1-0 MS

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC	QC LIMITS REC	#
Nitrate as N	1.25	3.4	4.80	109	80-120	
Chloride	25.0	96	123	105	80-120	
Sulfate	25.0	38	64.1	104	80-120	

Column to be used to flag recovery and RPD values

FORM III 300.0

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A-ICS2100 A 05-21-2015-21.d

Lab ID: 180-44321-20 MS Client ID: HD-CW-13-0/1-0 MS

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC	QC LIMITS REC	#
Nitrate as N	1.25	3.2	4.39	94	80-120	
Chloride	25.0	140	160	89	80-120	4
Sulfate	25.0	35	57.6	92	80-120	

Column to be used to flag recovery and RPD values

FORM III 300.0

FORM III
HPLC/IC MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A-ICS2100 A 05-21-2015-11.d

Lab ID: 180-44321-24 MS Client ID: HD-MW-95-0/1-0 MS

COMPOUND	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC	QC LIMITS REC	#
Nitrate as N	1.25	0.84	2.04	96	80-120	
Chloride	25.0	52	76.1	95	80-120	
Sulfate	25.0	32	55.8	94	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.: 180-44321-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A-ICS2100 A 05-21-2015-38.d

Lab ID: 180-44321-15 MSD Client ID: HD-COD-SW-28-0/1-0 MSD

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Nitrate as N	1.25	4.46	82	7	20	80-120	
Chloride	25.0	114	72	7	20	80-120	F1
Sulfate	25.0	59.0	83	8	20	80-120	

Column to be used to flag recovery and RPD values

FORM III 300.0

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A-ICS2100 A 05-21-2015-22.d

Lab ID: 180-44321-20 MSD Client ID: HD-CW-13-0/1-0 MSD

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Nitrate as N	1.25	4.39	95	0	20	80-120	
Chloride	25.0	160	89	0	20	80-120	4
Sulfate	25.0	57.8	93	0	20	80-120	

Column to be used to flag recovery and RPD values

FORM III 300.0

FORM III
HPLC/IC MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Matrix: Water Level: Low Lab File ID: A-ICS2100 A 05-21-2015-12.d

Lab ID: 180-44321-24 MSD Client ID: HD-MW-95-0/1-0 MSD

COMPOUND	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Nitrate as N	1.25	2.04	96	0	20	80-120	
Chloride	25.0	75.7	93	1	20	80-120	
Sulfate	25.0	55.1	91	1	20	80-120	

Column to be used to flag recovery and RPD values

FORM III 300.0

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Lab File ID: A-ICS2100 A 05-21-2015-6.d Lab Sample ID: MB 180-142454/6

Matrix: Water Date Extracted:

Instrument ID: CHIC2100A Date Analyzed: 05/21/2015 16:41

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 180-142454/5	A-ICS2100 A 05-21-2015-5.d	05/21/2015 16:24
HD-QC2-0/1-1	180-44321-18	A-ICS2100 A 05-21-2015-7.d	05/21/2015 16:58
HD-COD-SW-29-0/1-0	180-44321-16	A-ICS2100 A 05-21-2015-8.d	05/21/2015 17:16
HD-COD-SW-8-0/1-0	180-44321-3	A-ICS2100 A 05-21-2015-9.d	05/21/2015 17:33
HD-MW-95-0/1-0	180-44321-24	A-ICS2100 A 05-21-2015-10.d	05/21/2015 17:50
HD-MW-95-0/1-0 MS	180-44321-24 MS	A-ICS2100 A 05-21-2015-11.d	05/21/2015 18:08
HD-MW-95-0/1-0 MSD	180-44321-24 MSD	A-ICS2100 A 05-21-2015-12.d	05/21/2015 18:25
HD-COD-SW-13-0/1-0	180-44321-8	A-ICS2100 A 05-21-2015-13.d	05/21/2015 18:42
HD-COD-SW-10-0/1-0	180-44321-5	A-ICS2100 A 05-21-2015-14.d	05/21/2015 19:00
HD-MW-50D-0/1-0	180-44321-29	A-ICS2100 A 05-21-2015-17.d	05/21/2015 19:52
HD-COD-SW-16-0/1-0	180-44321-10	A-ICS2100 A 05-21-2015-18.d	05/21/2015 20:09
HD-CW-9-0/1-0	180-44321-19	A-ICS2100 A 05-21-2015-19.d	05/21/2015 20:26
HD-CW-13-0/1-0	180-44321-20	A-ICS2100 A 05-21-2015-20.d	05/21/2015 20:44

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Lab File ID: A-ICS2100 A 05-21-2015-6.d Lab Sample ID: MB 180-142454/6

Matrix: Water Date Extracted:

Instrument ID: CHIC2100A Date Analyzed: 05/21/2015 16:41

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
HD-CW-13-0/1-0 MS	180-44321-20 MS	A-ICS2100 A 05-21-2015-21.d	05/21/2015 21:01
HD-CW-13-0/1-0 MSD	180-44321-20 MSD	A-ICS2100 A 05-21-2015-22.d	05/21/2015 21:18
HD-COD-SW-17-0/1-0	180-44321-11	A-ICS2100 A 05-21-2015-23.d	05/21/2015 21:35
HD-CW-15A-0/1-0	180-44321-21	A-ICS2100 A 05-21-2015-24.d	05/21/2015 21:53
HD-CW-17-0/1-0	180-44321-22	A-ICS2100 A 05-21-2015-25.d	05/21/2015 22:08
HD-COD-SW-6-0/1-0	180-44321-1	A-ICS2100 A 05-21-2015-26.d	05/21/2015 22:23
HD-CW-20-0/1-0	180-44321-23	A-ICS2100 A 05-21-2015-29.d	05/21/2015 23:09
HD-COD-SW-20-0/1-0	180-44321-12	A-ICS2100 A 05-21-2015-30.d	05/21/2015 23:25
HD-MW-96D-0/1-0	180-44321-26	A-ICS2100 A 05-21-2015-31.d	05/21/2015 23:40
HD-MW-96S-0/1-0	180-44321-25	A-ICS2100 A 05-21-2015-32.d	05/21/2015 23:55
HD-COD-SW-9-0/1-0	180-44321-4	A-ICS2100 A 05-21-2015-33.d	05/22/2015 00:11
	LCS 180-142454/34	A-ICS2100 A 05-21-2015-34.d	05/22/2015 00:26

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Lab File ID: A-ICS2100 A 05-21-2015-35.d Lab Sample ID: MB 180-142454/35

Matrix: Water Date Extracted:

Instrument ID: CHIC2100A Date Analyzed: 05/22/2015 00:41

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	CCB 180-142454/4	A-ICS2100 A 05-21-2015-4.d	05/21/2015 16:06
	CCB 180-142454/16	A-ICS2100 A 05-21-2015-16.d	05/21/2015 19:34
	CCB 180-142454/28	A-ICS2100 A 05-21-2015-28.d	05/21/2015 22:54
HD-COD-SW-28-0/1-0	180-44321-15	A-ICS2100 A 05-21-2015-36.d	05/22/2015 00:56
HD-COD-SW-28-0/1-0 MS	180-44321-15 MS	A-ICS2100 A 05-21-2015-37.d	05/22/2015 01:12
HD-COD-SW-28-0/1-0 MSD	180-44321-15 MSD	A-ICS2100 A 05-21-2015-38.d	05/22/2015 01:27
	CCB 180-142454/40	A-ICS2100 A 05-21-2015-40.d	05/22/2015 01:58
HD-COD-SW-11-0/1-0	180-44321-6	A-ICS2100 A 05-21-2015-41.d	05/22/2015 02:13
HD-COD-SW-12-0/1-0	180-44321-7	A-ICS2100 A 05-21-2015-42.d	05/22/2015 02:28
HD-MW-51S-0/1-0	180-44321-30	A-ICS2100 A 05-21-2015-43.d	05/22/2015 02:44
HD-COD-SW-15-0/1-0	180-44321-9	A-ICS2100 A 05-21-2015-44.d	05/22/2015 02:59
HD-COD-SW-27-0/1-0	180-44321-14	A-ICS2100 A 05-21-2015-45.d	05/22/2015 03:14
HD-MW-97-0/1-0	180-44321-27	A-ICS2100 A 05-21-2015-46.d	05/22/2015 03:29

FORM IV
HPLC/IC METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Lab File ID: A-ICS2100 A 05-21-2015-35.d Lab Sample ID: MB 180-142454/35

Matrix: Water Date Extracted:

Instrument ID: CHIC2100A Date Analyzed: 05/22/2015 00:41

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
HD-COD-SW-26-0/1-0	180-44321-13	A-ICS2100 A 05-21-2015-47.d	05/22/2015 03:45
HD-COD-SW-7-0/1-0	180-44321-2	A-ICS2100 A 05-21-2015-48.d	05/22/2015 04:00
HD-CW-18-0/1-0	180-44321-28	A-ICS2100 A 05-21-2015-49.d	05/22/2015 04:15
HD-CW-18-0/1-0	180-44321-28	A-ICS2100 A 05-21-2015-50.d	05/22/2015 04:31
	CCB 180-142454/52	A-ICS2100 A 05-21-2015-52.d	05/22/2015 05:01
HD-MW-50D-0/1-0	180-44321-29	A-ICS2100 A 05-21-2015-53.d	05/22/2015 07:11
HD-COD-SW-26-0/1-0	180-44321-13	A-ICS2100 A 05-21-2015-54.d	05/22/2015 07:26
	CCB 180-142454/56	A-ICS2100 A 05-21-2015-56.d	05/22/2015 07:57

FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-6-0/1-0 Lab Sample ID: 180-44321-1

Matrix: Water Lab File ID: A-ICS2100 A 05-21-2015-26.d

Analysis Method: 300.0 Date Collected: 05/20/2015 10:45

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/21/2015 22:23

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142454 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	1.7	B	0.10	0.0062
16887-00-6	Chloride	95	B	1.0	0.20
14808-79-8	Sulfate	17		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-26.d
Lims ID: 180-44321-A-1 Lab Sample ID: 180-44321-1
Client ID: HD-COD-SW-6-0/1-0
Sample Type: Client
Inject. Date: 21-May-2015 22:23:00 ALS Bottle#: 0 Worklist Smp#: 26
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007057-026
Misc. Info.: 26 180-44321-A-1
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 22-May-2015 07:10:51 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

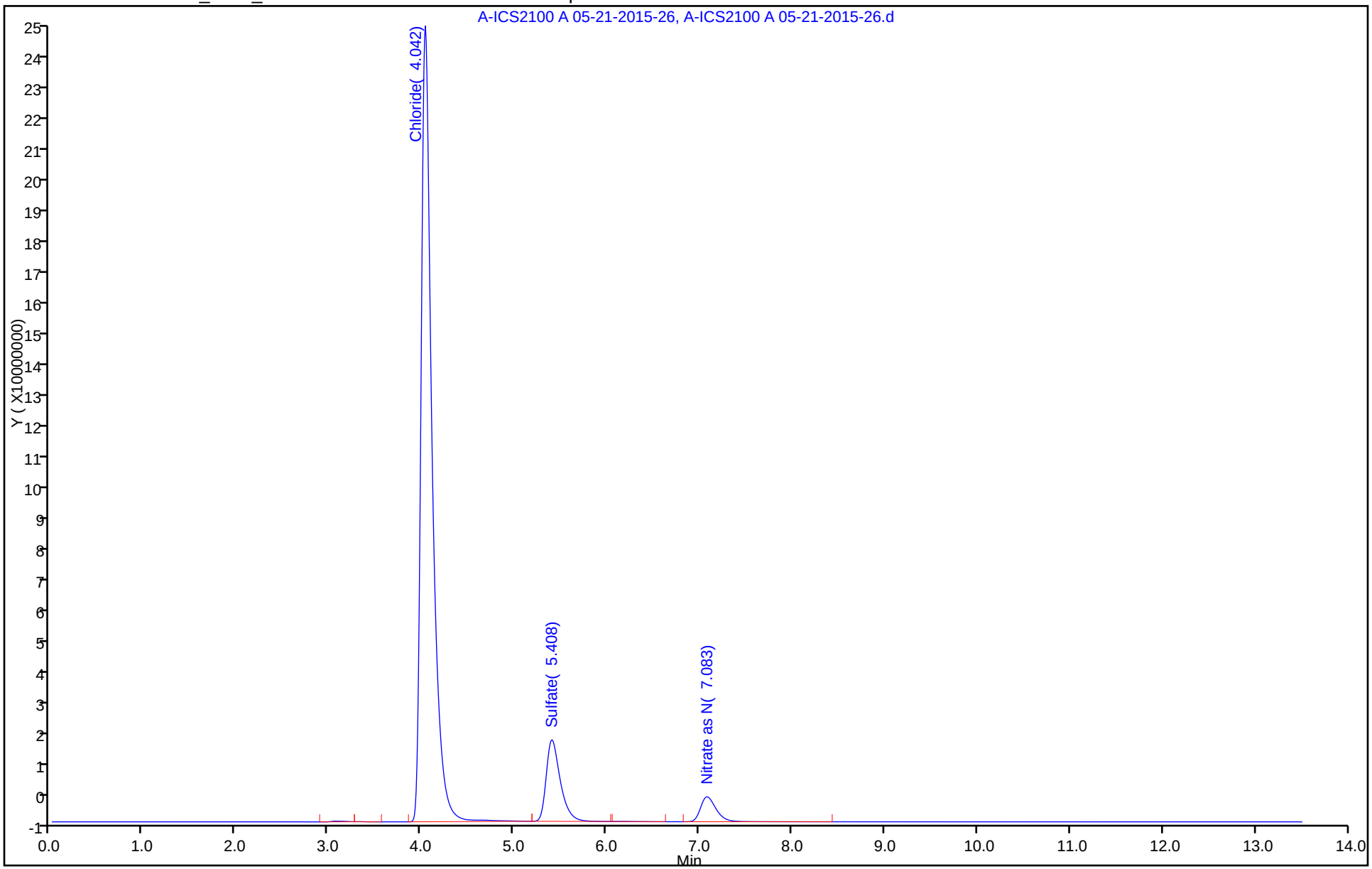
Column 1 : Det: 0008
Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.042	4.050	-0.008	2040000811	94.9	
3 Sulfate	5.408	5.367	0.041	267647052	17.0	
5 Nitrate as N	7.083	7.067	0.016	90718518	1.70	

Report Date: 22-May-2015 07:10:52 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-26.d				
Injection Date:	21-May-2015 22:23:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-44321-A-1	Lab Sample ID:	180-44321-1	Worklist Smp#:	26
Client ID:	HD-COD-SW-6-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-7-0/1-0 Lab Sample ID: 180-44321-2

Matrix: Water Lab File ID: A-ICS2100 A 05-21-2015-48.d

Analysis Method: 300.0 Date Collected: 05/20/2015 13:35

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/22/2015 04:00

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142454 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.5	B	0.10	0.0062
16887-00-6	Chloride	65	B	1.0	0.20
14808-79-8	Sulfate	42		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

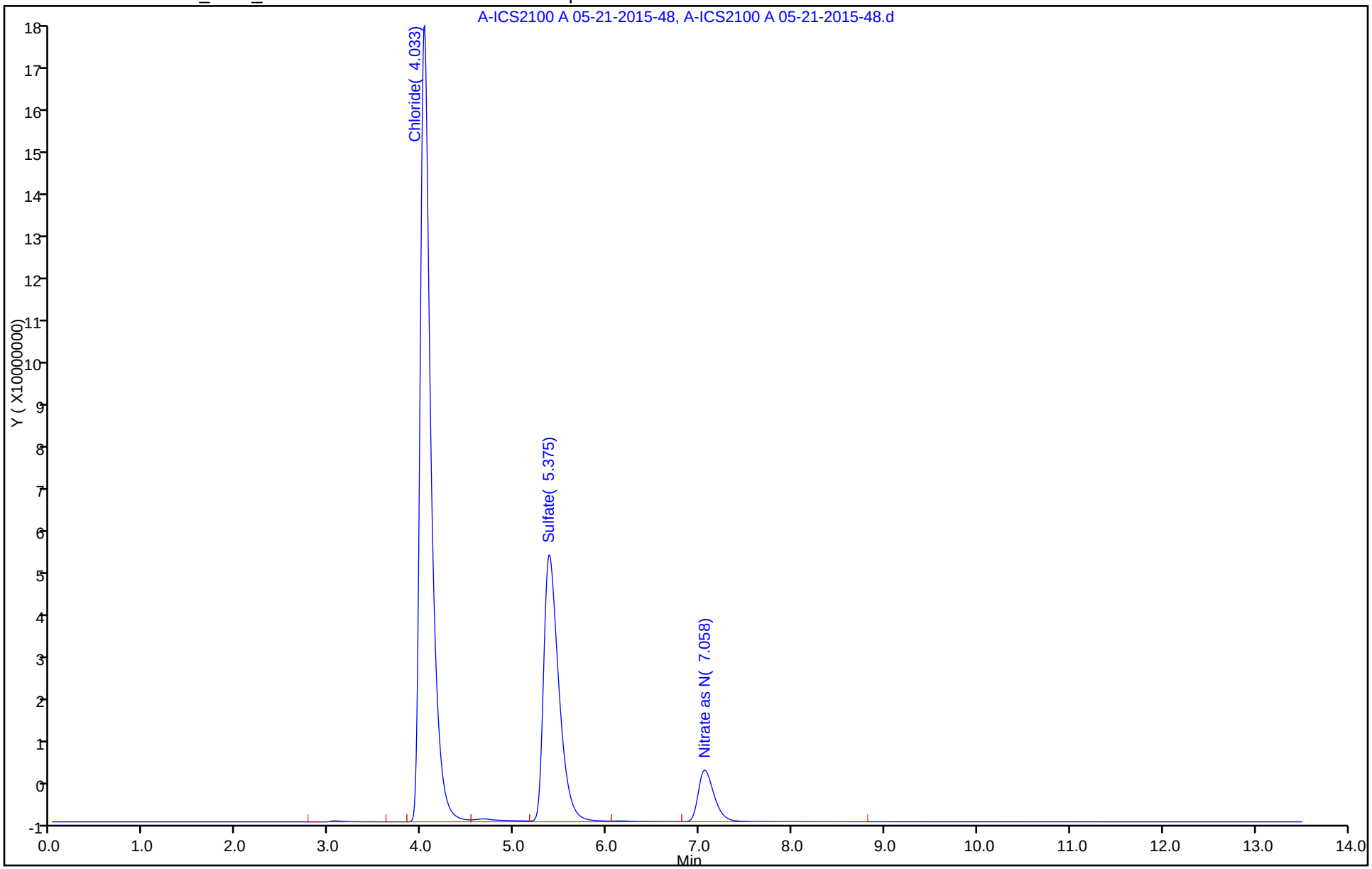
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-48.d				
Lims ID:	180-44321-A-2	Lab Sample ID:	180-44321-2		
Client ID:	HD-COD-SW-7-0/1-0				
Sample Type:	Client				
Inject. Date:	22-May-2015 04:00:00	ALS Bottle#:	0	Worklist Smp#:	48
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0007057-048				
Misc. Info.:	22273 180-44321-A-2				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	22-May-2015 07:10:43	Calib Date:	19-May-2015 14:18:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK025				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.033	4.042	-0.009	1391079829	64.7	
3 Sulfate	5.375	5.367	0.008	655127596	41.7	
5 Nitrate as N	7.058	7.058	0.000	134103587	2.51	

Report Date: 22-May-2015 07:10:44 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-48.d				
Injection Date:	22-May-2015 04:00:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-44321-A-2	Lab Sample ID:	180-44321-2	Worklist Smp#:	48
Client ID:	HD-COD-SW-7-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-8-0/1-0 Lab Sample ID: 180-44321-3

Matrix: Water Lab File ID: A-ICS2100 A 05-21-2015-9.d

Analysis Method: 300.0 Date Collected: 05/20/2015 09:10

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/21/2015 17:33

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142454 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.6	B	0.10	0.0062
16887-00-6	Chloride	53	B	1.0	0.20
14808-79-8	Sulfate	36		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

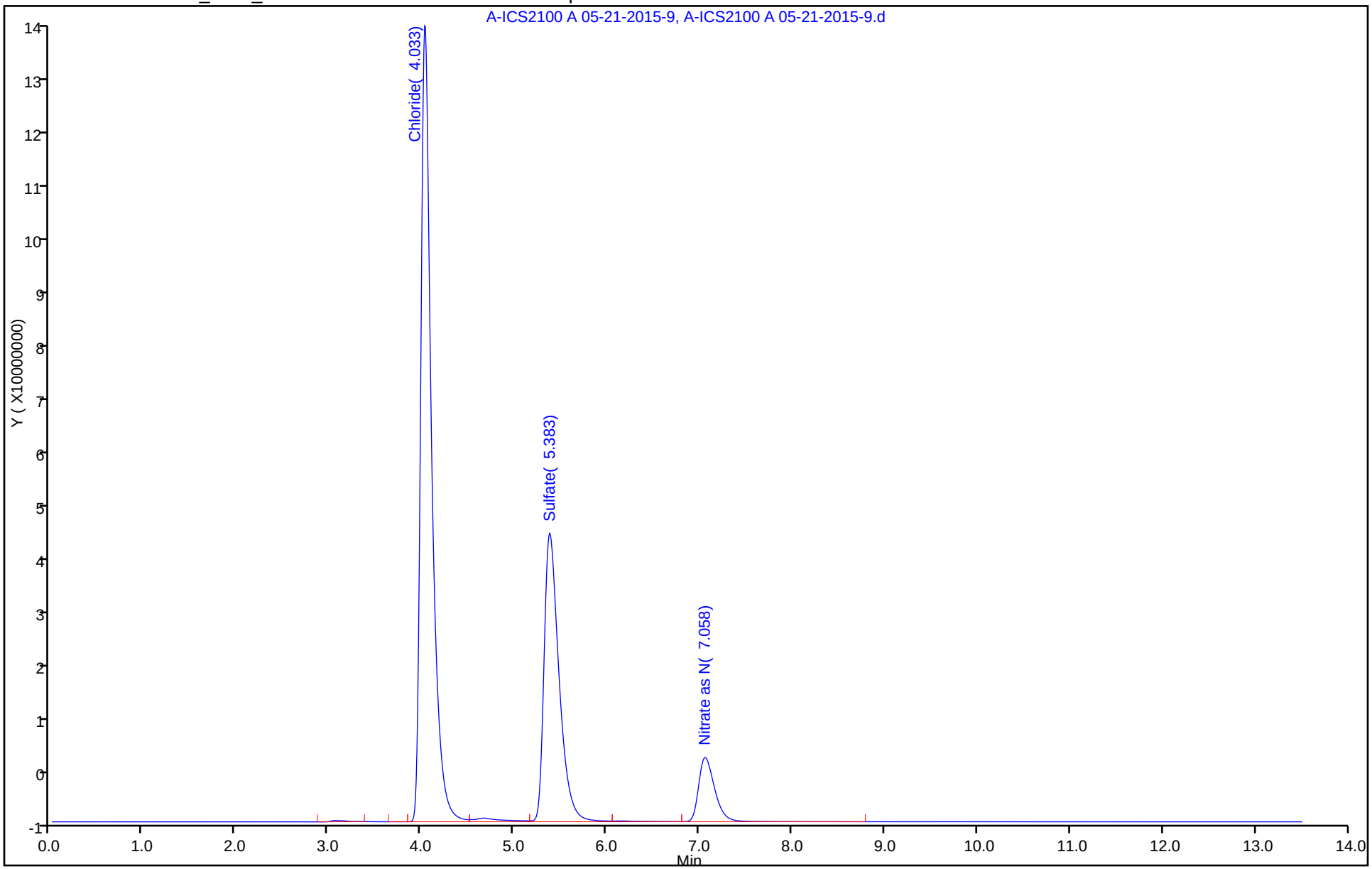
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-9.d				
Lims ID:	180-44321-A-3	Lab Sample ID:	180-44321-3		
Client ID:	HD-COD-SW-8-0/1-0				
Sample Type:	Client				
Inject. Date:	21-May-2015 17:33:00	ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0007057-009				
Misc. Info.:	9 180-44321-A-3				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	22-May-2015 07:02:43	Calib Date:	19-May-2015 14:18:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK025				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.033	4.042	-0.009	1139434511	53.0	
3 Sulfate	5.383	5.367	0.016	570051131	36.3	
5 Nitrate as N	7.058	7.058	0.000	136714051	2.56	

Report Date: 22-May-2015 07:02:45 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-9.d				
Injection Date:	21-May-2015 17:33:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-44321-A-3	Lab Sample ID:	180-44321-3	Worklist Smp#:	9
Client ID:	HD-COD-SW-8-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-9-0/1-0 Lab Sample ID: 180-44321-4

Matrix: Water Lab File ID: A-ICS2100 A 05-21-2015-33.d

Analysis Method: 300.0 Date Collected: 05/20/2015 11:50

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/22/2015 00:11

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142454 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.4	B	0.10	0.0062
16887-00-6	Chloride	93	B	1.0	0.20
14808-79-8	Sulfate	40		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

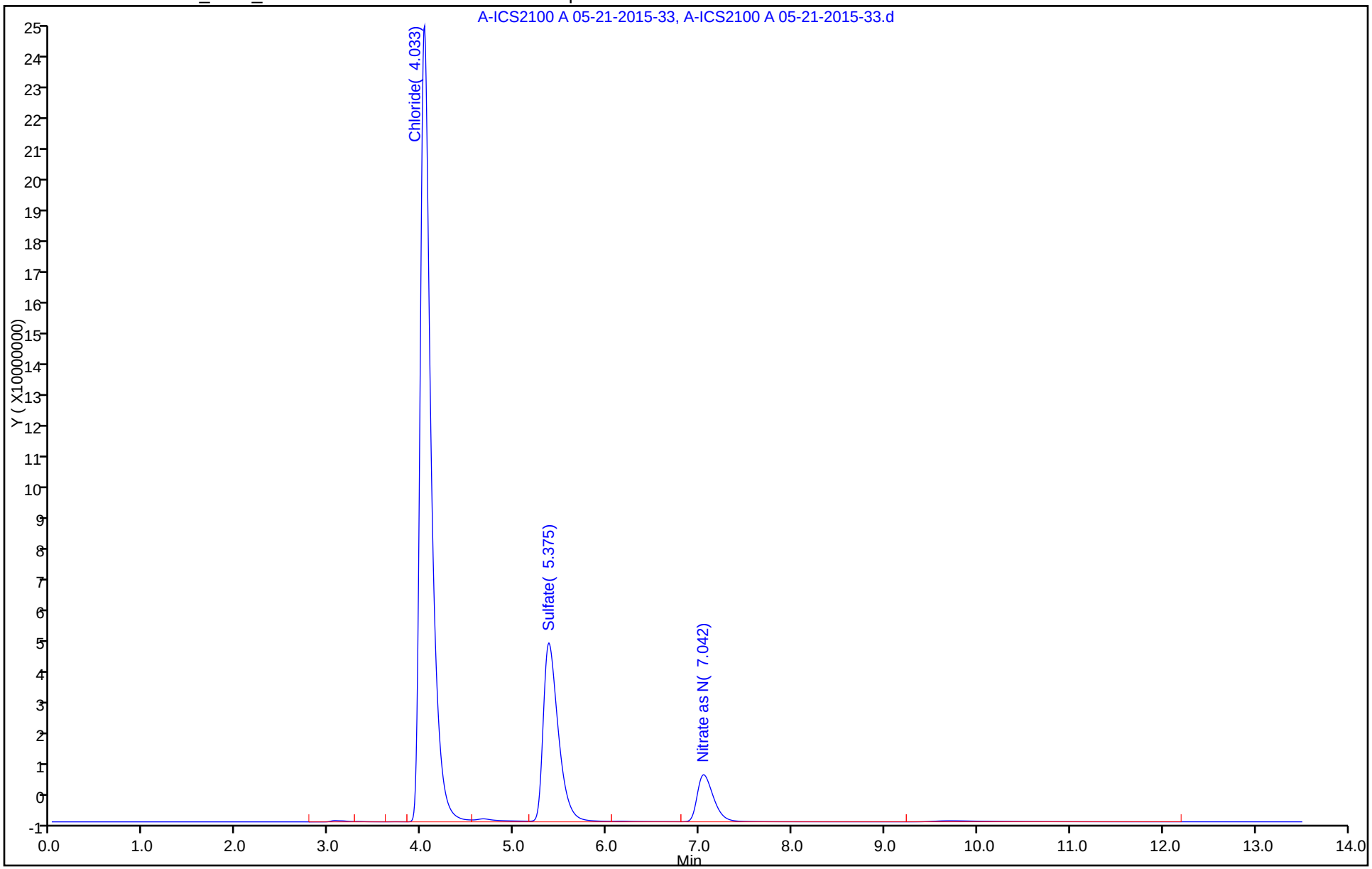
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-33.d				
Lims ID:	180-44321-A-4	Lab Sample ID:	180-44321-4		
Client ID:	HD-COD-SW-9-0/1-0				
Sample Type:	Client				
Inject. Date:	22-May-2015 00:11:00	ALS Bottle#:	0	Worklist Smp#:	33
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0007057-033				
Misc. Info.:	33 180-44321-A-4				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	22-May-2015 07:10:48	Calib Date:	19-May-2015 14:18:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK025				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.033	4.033	0.000	2002855518	93.1	
3 Sulfate	5.375	5.375	0.000	623953780	39.7	
5 Nitrate as N	7.042	7.058	-0.016	180388505	3.37	

Report Date: 22-May-2015 07:10:49 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-33.d				
Injection Date:	22-May-2015 00:11:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-44321-A-4	Lab Sample ID:	180-44321-4	Worklist Smp#:	33
Client ID:	HD-COD-SW-9-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-10-0/1-0 Lab Sample ID: 180-44321-5

Matrix: Water Lab File ID: A-ICS2100 A 05-21-2015-14.d

Analysis Method: 300.0 Date Collected: 05/20/2015 09:45

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/21/2015 19:00

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142454 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.3	B	0.10	0.0062
16887-00-6	Chloride	120	B	1.0	0.20
14808-79-8	Sulfate	28		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

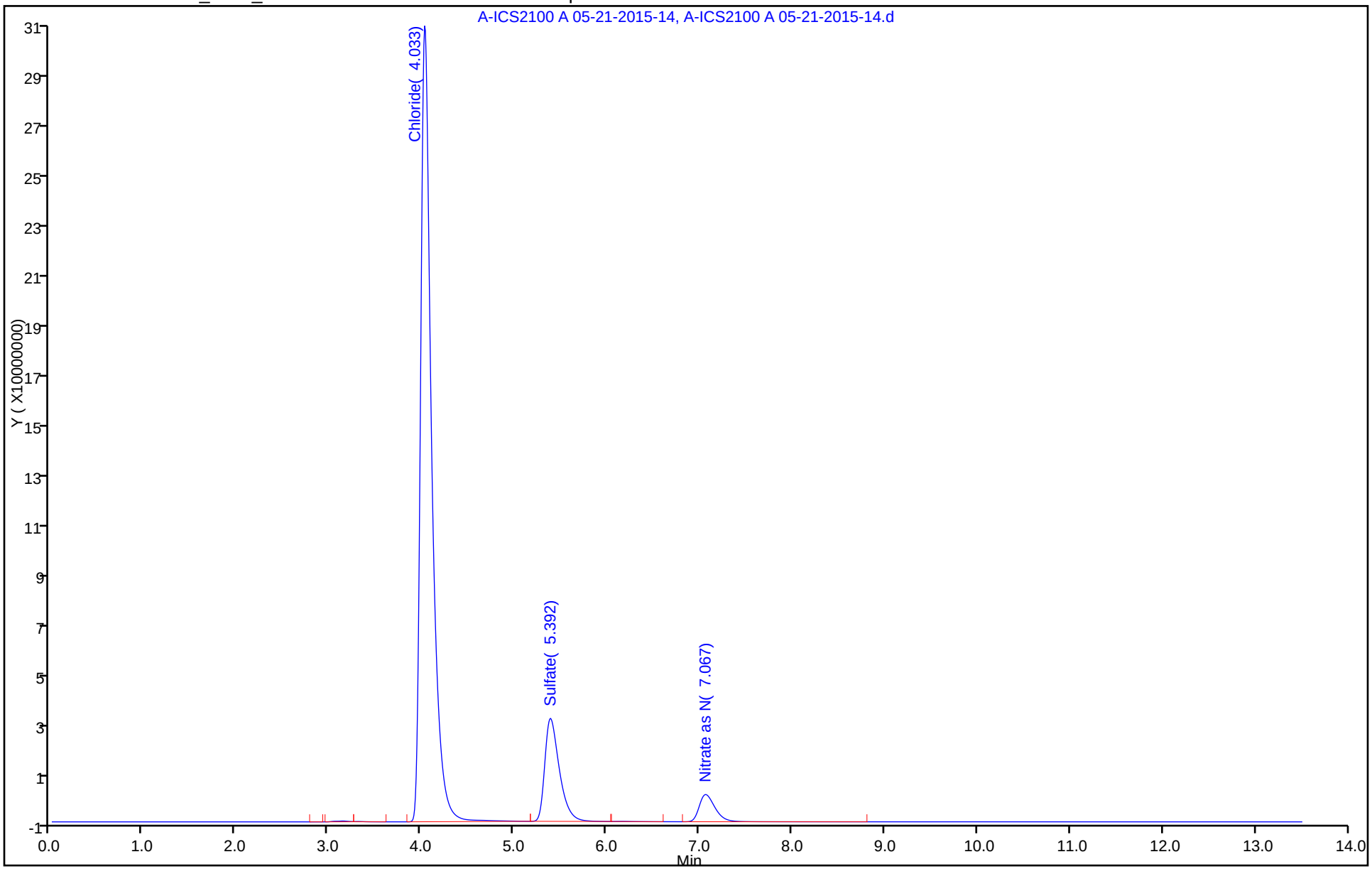
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-14.d				
Lims ID:	180-44321-A-5	Lab Sample ID:	180-44321-5		
Client ID:	HD-COD-SW-10-0/1-0				
Sample Type:	Client				
Inject. Date:	21-May-2015 19:00:00	ALS Bottle#:	0	Worklist Smp#:	14
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0007057-014				
Misc. Info.:	14 180-44321-A-5				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	22-May-2015 07:10:55	Calib Date:	19-May-2015 14:18:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK025				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.033	4.042	-0.009	2534772151	117.9	
3 Sulfate	5.392	5.367	0.025	432741032	27.5	
5 Nitrate as N	7.067	7.058	0.009	124698711	2.33	

Report Date: 22-May-2015 07:10:56 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-14.d				
Injection Date:	21-May-2015 19:00:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-44321-A-5	Lab Sample ID:	180-44321-5	Worklist Smp#:	14
Client ID:	HD-COD-SW-10-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-11-0/1-0 Lab Sample ID: 180-44321-6

Matrix: Water Lab File ID: A-ICS2100 A 05-21-2015-41.d

Analysis Method: 300.0 Date Collected: 05/20/2015 12:15

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/22/2015 02:13

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142454 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	4.2	B	0.10	0.0062
16887-00-6	Chloride	75	B	1.0	0.20
14808-79-8	Sulfate	21		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

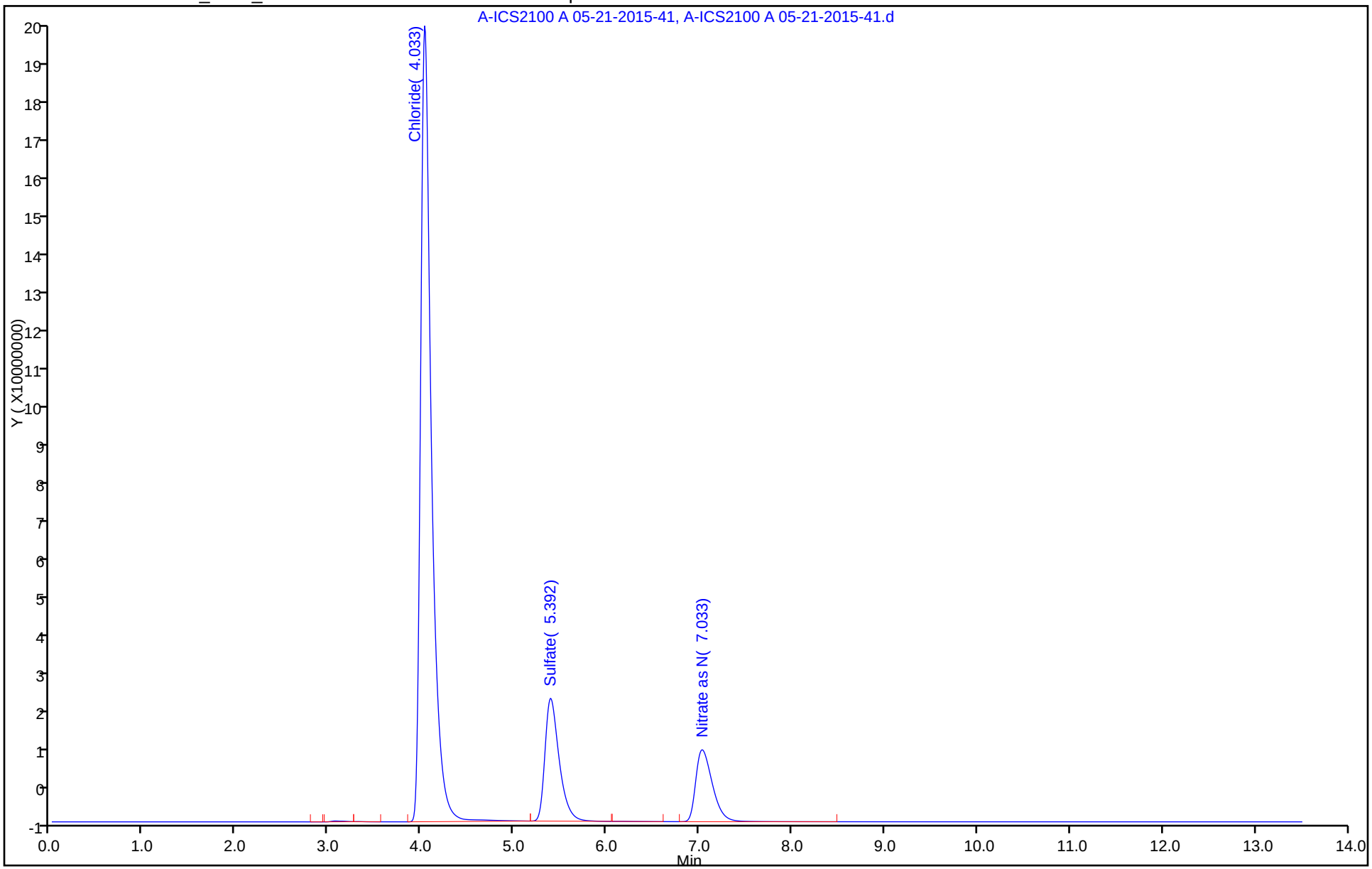
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-41.d				
Lims ID:	180-44321-A-6	Lab Sample ID:	180-44321-6		
Client ID:	HD-COD-SW-11-0/1-0				
Sample Type:	Client				
Inject. Date:	22-May-2015 02:13:00	ALS Bottle#:	0	Worklist Smp#:	41
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0007057-041				
Misc. Info.:	23552 180-44321-A-6				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	22-May-2015 07:10:43	Calib Date:	19-May-2015 14:18:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK025				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.033	4.042	-0.009	1610613689	74.9	
3 Sulfate	5.392	5.367	0.025	325259074	20.7	
5 Nitrate as N	7.033	7.058	-0.025	223020467	4.16	

Report Date: 22-May-2015 07:10:47 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-41.d				
Injection Date:	22-May-2015 02:13:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-44321-A-6	Lab Sample ID:	180-44321-6	Worklist Smp#:	41
Client ID:	HD-COD-SW-11-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-12-0/1-0 Lab Sample ID: 180-44321-7

Matrix: Water Lab File ID: A-ICS2100 A 05-21-2015-42.d

Analysis Method: 300.0 Date Collected: 05/20/2015 12:30

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/22/2015 02:28

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142454 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.9	B	0.10	0.0062
16887-00-6	Chloride	120	B	1.0	0.20
14808-79-8	Sulfate	42		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

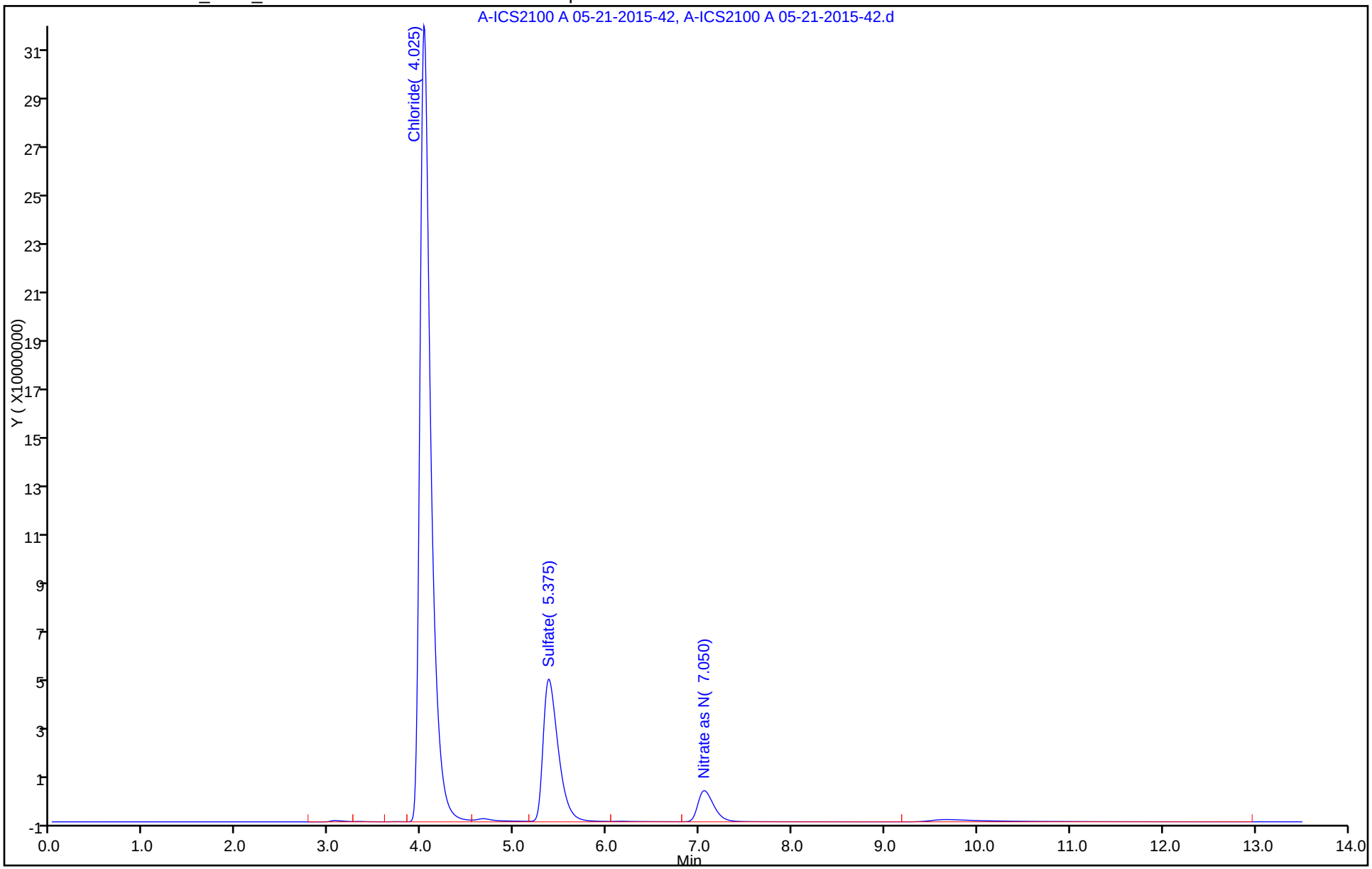
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-42.d				
Lims ID:	180-44321-A-7	Lab Sample ID:	180-44321-7		
Client ID:	HD-COD-SW-12-0/1-0				
Sample Type:	Client				
Inject. Date:	22-May-2015 02:28:00	ALS Bottle#:	0	Worklist Smp#:	42
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0007057-042				
Misc. Info.:	5102 180-44321-A-7				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	22-May-2015 07:10:43	Calib Date:	19-May-2015 14:18:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK025				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.025	4.042	-0.017	2619842197	121.8	
3 Sulfate	5.375	5.367	0.008	653828766	41.6	
5 Nitrate as N	7.050	7.058	-0.008	154306772	2.88	

Report Date: 22-May-2015 07:10:46 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-42.d				
Injection Date:	22-May-2015 02:28:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-44321-A-7	Lab Sample ID:	180-44321-7	Worklist Smp#:	42
Client ID:	HD-COD-SW-12-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-13-0/1-0 Lab Sample ID: 180-44321-8

Matrix: Water Lab File ID: A-ICS2100 A 05-21-2015-13.d

Analysis Method: 300.0 Date Collected: 05/20/2015 09:35

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/21/2015 18:42

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142454 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.3	B	0.10	0.0062
16887-00-6	Chloride	50	B	1.0	0.20
14808-79-8	Sulfate	33		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

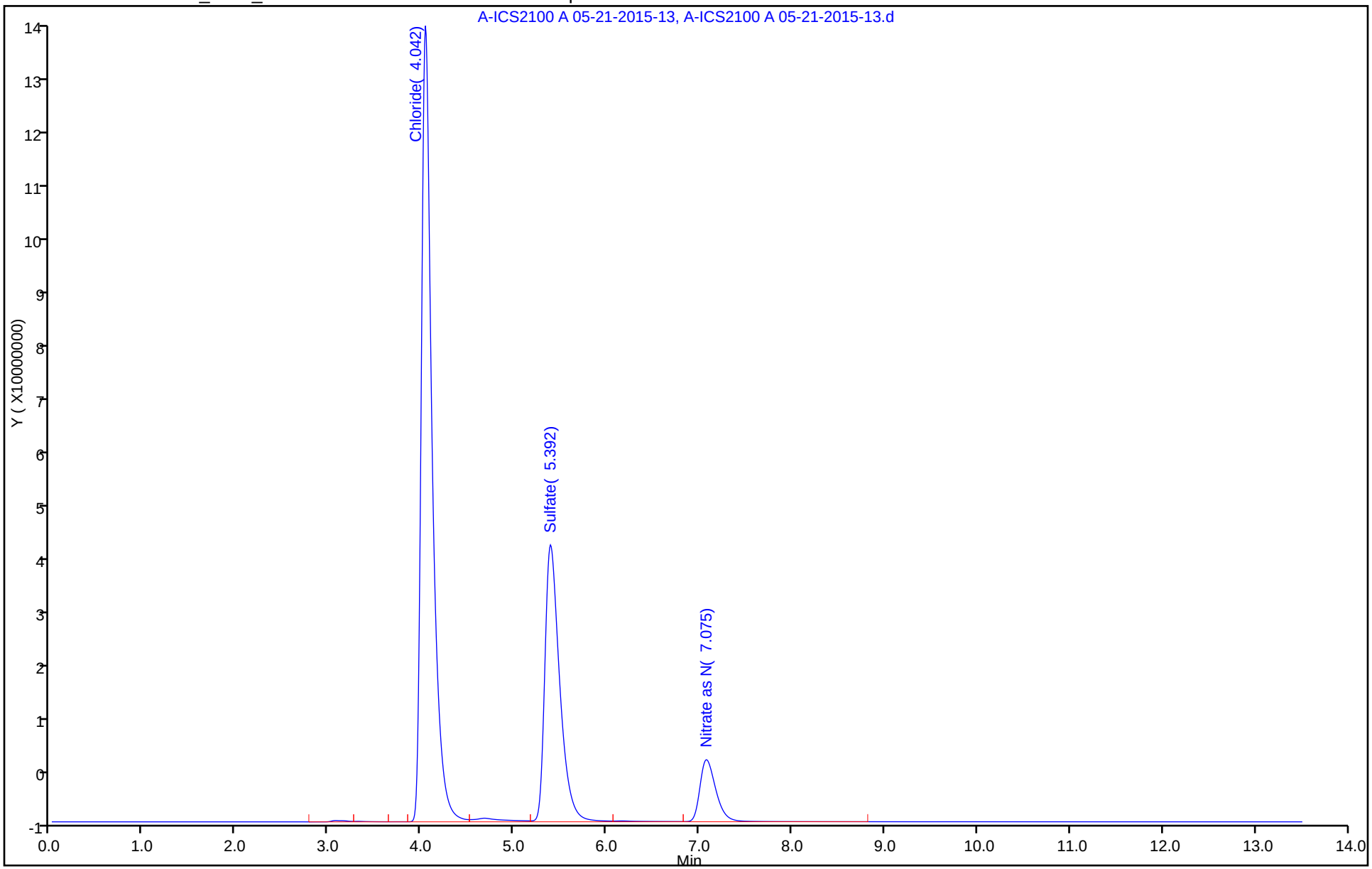
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-13.d				
Lims ID:	180-44321-A-8	Lab Sample ID:	180-44321-8		
Client ID:	HD-COD-SW-13-0/1-0				
Sample Type:	Client				
Inject. Date:	21-May-2015 18:42:00	ALS Bottle#:	0	Worklist Smp#:	13
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0007057-013				
Misc. Info.:	13 180-44321-A-8				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	22-May-2015 07:10:55	Calib Date:	19-May-2015 14:18:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK025				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.042	4.042	0.000	1079948883	50.3	
3 Sulfate	5.392	5.367	0.025	515052330	32.8	
5 Nitrate as N	7.075	7.058	0.017	125039394	2.34	

Report Date: 22-May-2015 07:10:56 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-13.d				
Injection Date:	21-May-2015 18:42:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-44321-A-8	Lab Sample ID:	180-44321-8	Worklist Smp#:	13
Client ID:	HD-COD-SW-13-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-15-0/1-0 Lab Sample ID: 180-44321-9

Matrix: Water Lab File ID: A-ICS2100 A 05-21-2015-44.d

Analysis Method: 300.0 Date Collected: 05/20/2015 12:40

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/22/2015 02:59

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142454 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.8	B	0.10	0.0062
16887-00-6	Chloride	150	B	1.0	0.20
14808-79-8	Sulfate	35		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

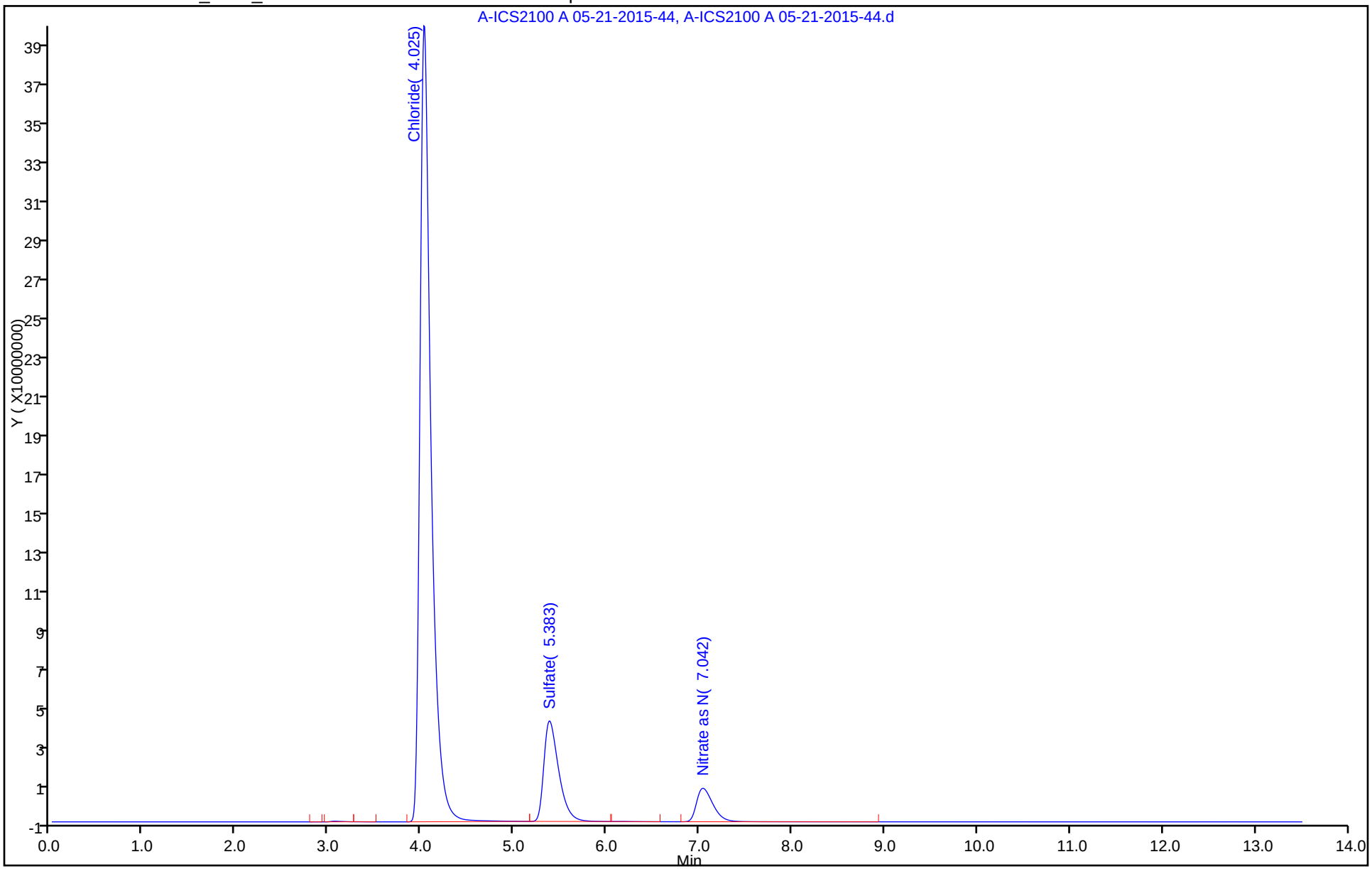
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-44.d				
Lims ID:	180-44321-A-9	Lab Sample ID:	180-44321-9		
Client ID:	HD-COD-SW-15-0/1-0				
Sample Type:	Client				
Inject. Date:	22-May-2015 02:59:00	ALS Bottle#:	0	Worklist Smp#:	44
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0007057-044				
Misc. Info.:	28813 180-44321-A-9				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	22-May-2015 07:10:43	Calib Date:	19-May-2015 14:18:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK025				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.025	4.042	-0.017	3250703032	151.1	
3 Sulfate	5.383	5.367	0.016	552052766	35.1	
5 Nitrate as N	7.042	7.058	-0.016	204389149	3.81	

Report Date: 22-May-2015 07:10:46 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-44.d				
Injection Date:	22-May-2015 02:59:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-44321-A-9	Lab Sample ID:	180-44321-9	Worklist Smp#:	44
Client ID:	HD-COD-SW-15-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-16-0/1-0 Lab Sample ID: 180-44321-10

Matrix: Water Lab File ID: A-ICS2100 A 05-21-2015-18.d

Analysis Method: 300.0 Date Collected: 05/20/2015 10:10

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/21/2015 20:09

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142454 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.5	B	0.10	0.0062
16887-00-6	Chloride	55	B	1.0	0.20
14808-79-8	Sulfate	37		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-18.d
Lims ID: 180-44321-A-10 Lab Sample ID: 180-44321-10
Client ID: HD-COD-SW-16-0/1-0
Sample Type: Client
Inject. Date: 21-May-2015 20:09:00 ALS Bottle#: 0 Worklist Smp#: 18
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007057-018
Misc. Info.: 18 180-44321-A-10
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 22-May-2015 07:10:51 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

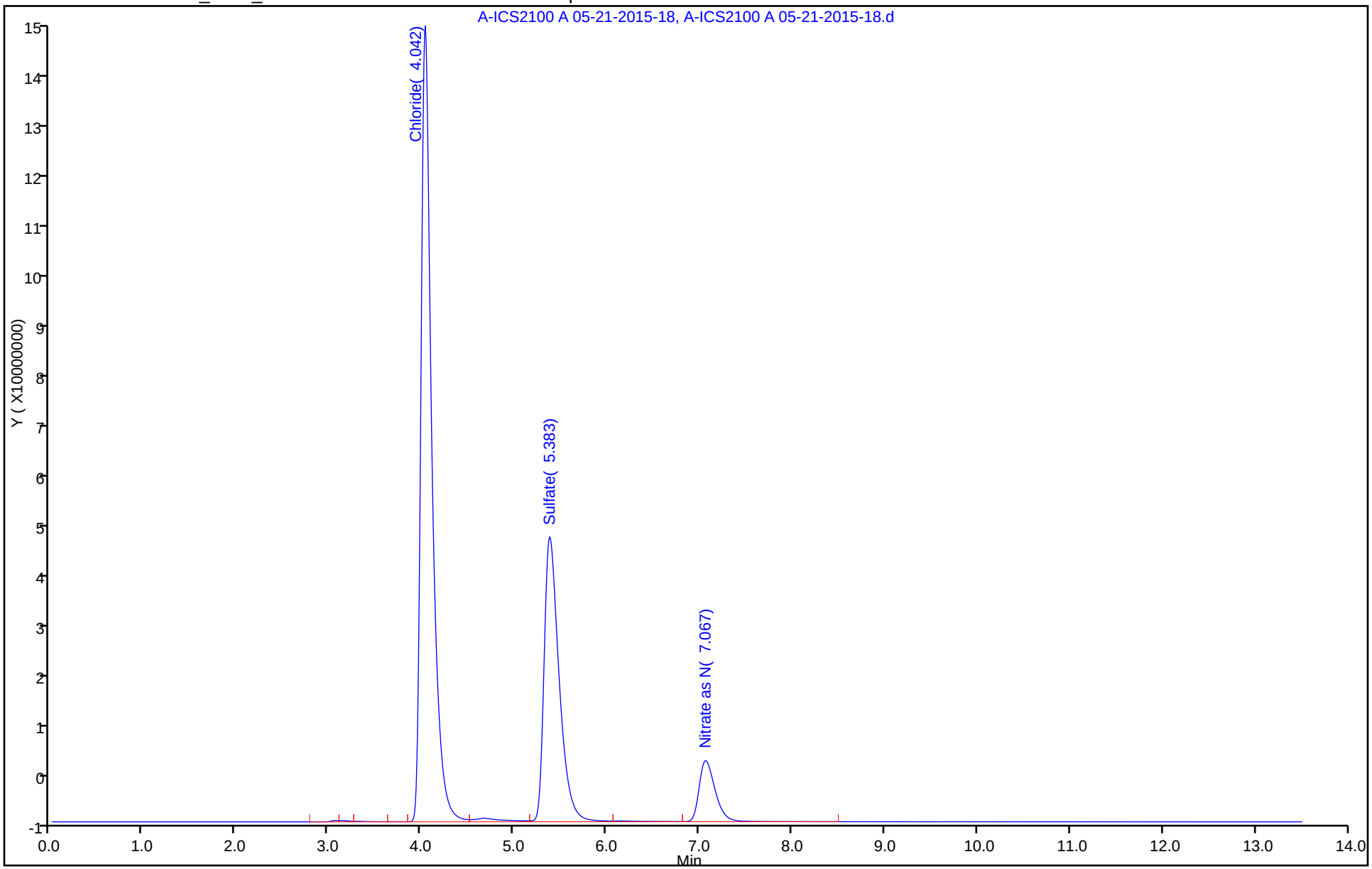
Column 1 : Det: 0008
Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.042	4.050	-0.008	1178484286	54.8	
3 Sulfate	5.383	5.367	0.016	583522096	37.1	
5 Nitrate as N	7.067	7.067	0.000	134092581	2.51	

Report Date: 22-May-2015 07:10:54 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-18.d				
Injection Date:	21-May-2015 20:09:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-44321-A-10	Lab Sample ID:	180-44321-10	Worklist Smp#:	18
Client ID:	HD-COD-SW-16-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-17-0/1-0 Lab Sample ID: 180-44321-11

Matrix: Water Lab File ID: A-ICS2100 A 05-21-2015-23.d

Analysis Method: 300.0 Date Collected: 05/20/2015 10:25

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/21/2015 21:35

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142454 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.3	B	0.10	0.0062
16887-00-6	Chloride	130	B	1.0	0.20
14808-79-8	Sulfate	33		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

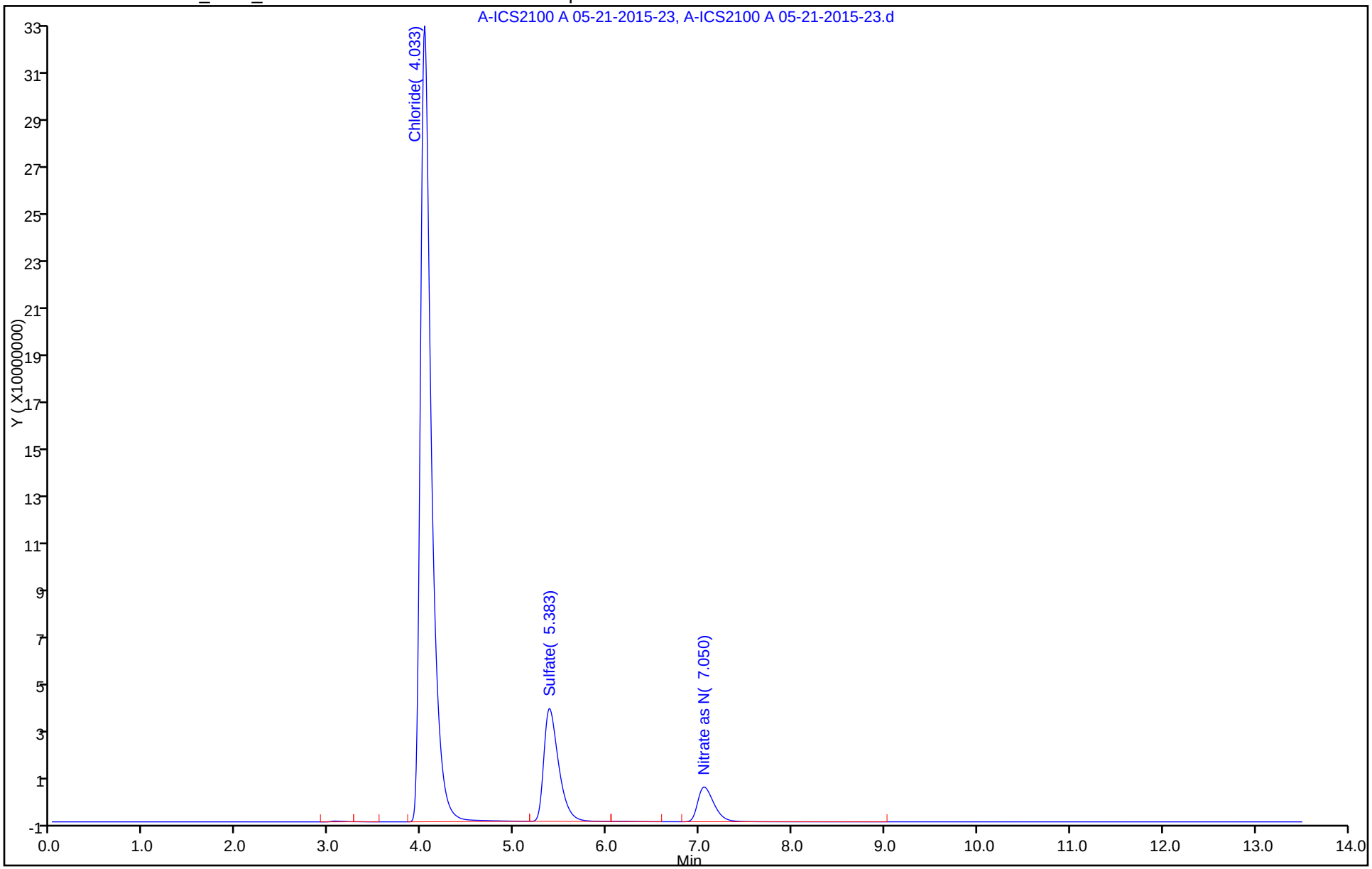
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-23.d				
Lims ID:	180-44321-A-11	Lab Sample ID:	180-44321-11		
Client ID:	HD-COD-SW-17-0/1-0				
Sample Type:	Client				
Inject. Date:	21-May-2015 21:35:00	ALS Bottle#:	0	Worklist Smp#:	23
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0007057-023				
Misc. Info.:	23 180-44321-A-11				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	22-May-2015 07:10:51	Calib Date:	19-May-2015 14:18:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK025				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.033	4.050	-0.017	2718106790	126.4	
3 Sulfate	5.383	5.367	0.016	516529521	32.9	
5 Nitrate as N	7.050	7.067	-0.017	175025612	3.27	

Report Date: 22-May-2015 07:10:53 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-23.d				
Injection Date:	21-May-2015 21:35:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-44321-A-11	Lab Sample ID:	180-44321-11	Worklist Smp#:	23
Client ID:	HD-COD-SW-17-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-20-0/1-0 Lab Sample ID: 180-44321-12

Matrix: Water Lab File ID: A-ICS2100 A 05-21-2015-30.d

Analysis Method: 300.0 Date Collected: 05/20/2015 10:50

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/21/2015 23:25

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142454 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	1.9	B	0.10	0.0062
16887-00-6	Chloride	110	B	1.0	0.20
14808-79-8	Sulfate	16		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-30.d
Lims ID: 180-44321-A-12 Lab Sample ID: 180-44321-12
Client ID: HD-COD-SW-20-0/1-0
Sample Type: Client
Inject. Date: 21-May-2015 23:25:00 ALS Bottle#: 0 Worklist Smp#: 30
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007057-030
Misc. Info.: 30 180-44321-A-12
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 22-May-2015 07:10:48 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

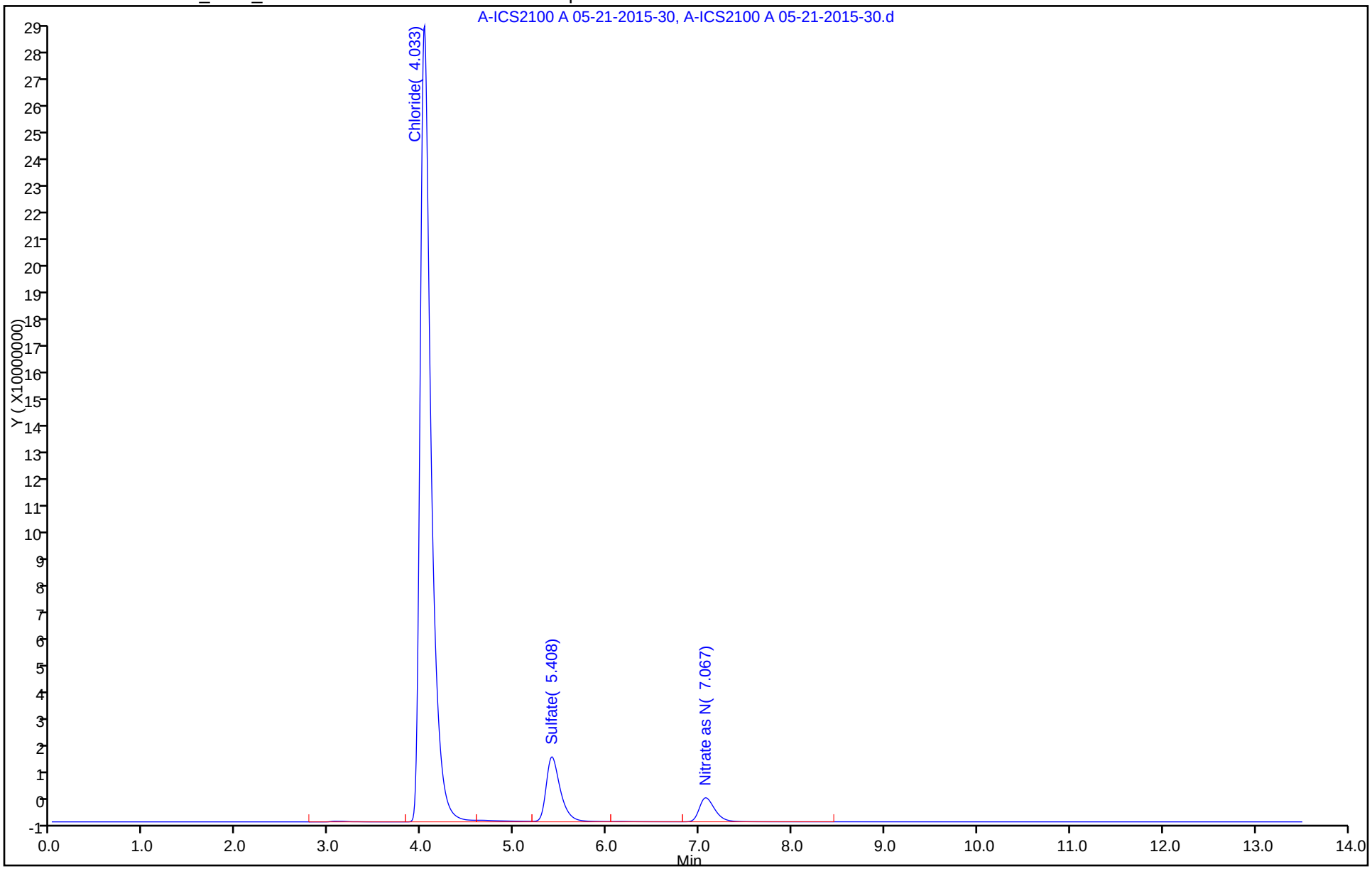
Column 1 : Det: 0008
Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.033	4.033	0.000	2367878917	110.1	
3 Sulfate	5.408	5.375	0.033	252553152	16.0	
5 Nitrate as N	7.067	7.058	0.009	103159141	1.93	

Report Date: 22-May-2015 07:10:50 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-30.d				
Injection Date:	21-May-2015 23:25:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-44321-A-12	Lab Sample ID:	180-44321-12	Worklist Smp#:	30
Client ID:	HD-COD-SW-20-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-26-0/1-0 Lab Sample ID: 180-44321-13

Matrix: Water Lab File ID: A-ICS2100 A 05-21-2015-47.d

Analysis Method: 300.0 Date Collected: 05/20/2015 13:15

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/22/2015 03:45

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142454 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.7	B	0.10	0.0062
14808-79-8	Sulfate	27		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-47.d				
Lims ID:	180-44321-A-13	Lab Sample ID:	180-44321-13		
Client ID:	HD-COD-SW-26-0/1-0				
Sample Type:	Client				
Inject. Date:	22-May-2015 03:45:00	ALS Bottle#:	0	Worklist Smp#:	47
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0007057-047				
Misc. Info.:	16683 180-44321-A-13				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	22-May-2015 07:10:43	Calib Date:	19-May-2015 14:18:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK025				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.025	4.042	-0.017	4805880506	223.4	E
3 Sulfate	5.392	5.367	0.025	424758403	27.0	
5 Nitrate as N	7.033	7.058	-0.025	198631197	3.71	

QC Flag Legend

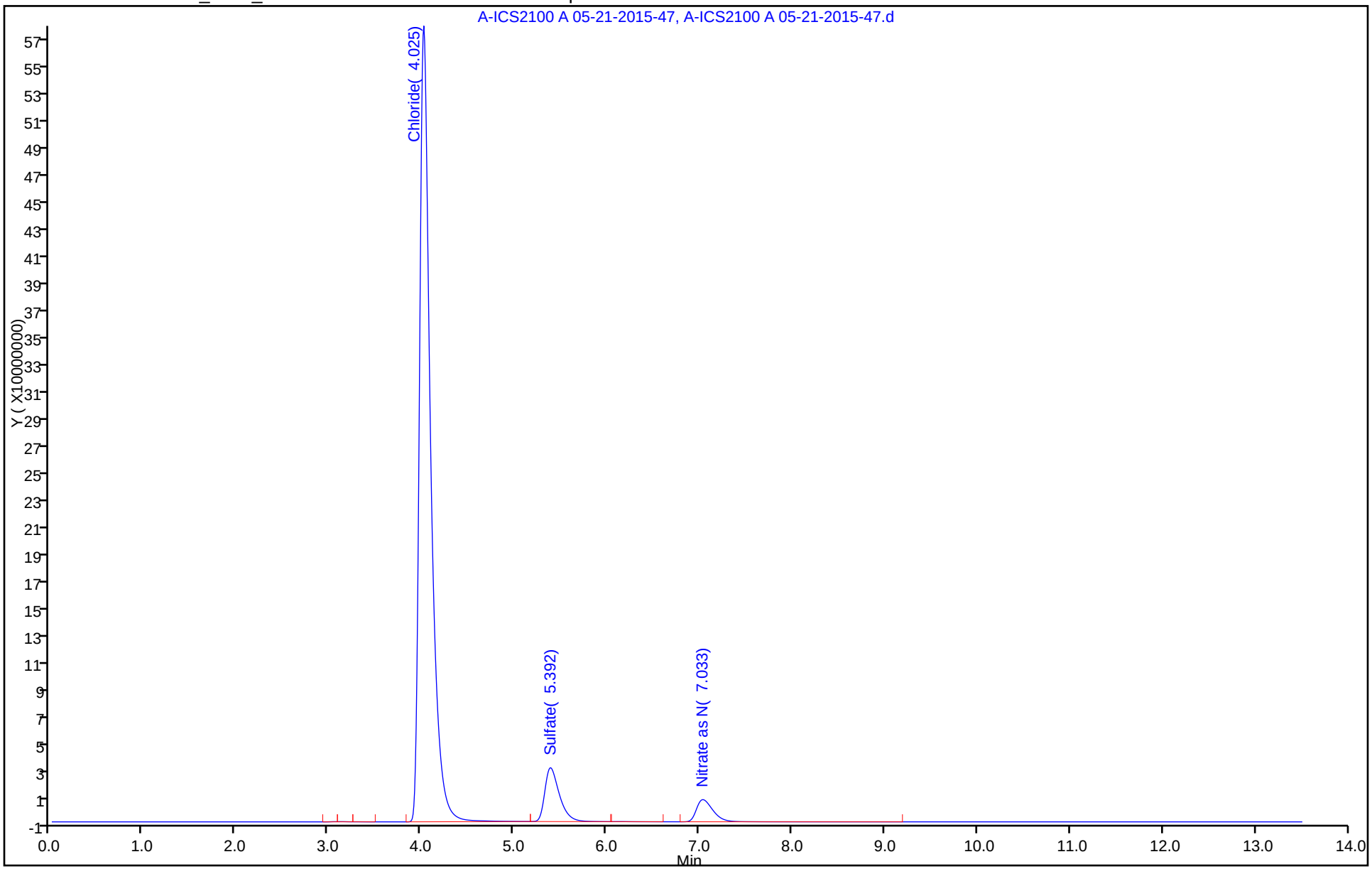
Processing Flags

E - Exceeded Maximum Amount

Report Date: 22-May-2015 07:10:45 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-47.d				
Injection Date:	22-May-2015 03:45:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-44321-A-13	Lab Sample ID:	180-44321-13	Worklist Smp#:	47
Client ID:	HD-COD-SW-26-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-26-0/1-0 Lab Sample ID: 180-44321-13

Matrix: Water Lab File ID: A-ICS2100 A 05-21-2015-54.d

Analysis Method: 300.0 Date Collected: 05/20/2015 13:15

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/22/2015 07:26

Con. Extract Vol.: Dilution Factor: 5

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142454 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	230	B	5.0	0.98

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-54.d
Lims ID: 180-44321-A-13 Lab Sample ID: 180-44321-13
Client ID: HD-COD-SW-26-0/1-0
Sample Type: Client
Inject. Date: 22-May-2015 07:26:00 ALS Bottle#: 0 Worklist Smp#: 54
Injection Vol: 10.0 ul Dil. Factor: 5.0000
Sample Info: 180-0007057-054
Misc. Info.: 17732 180-44321-A-13 5X
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 25-May-2015 07:46:25 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

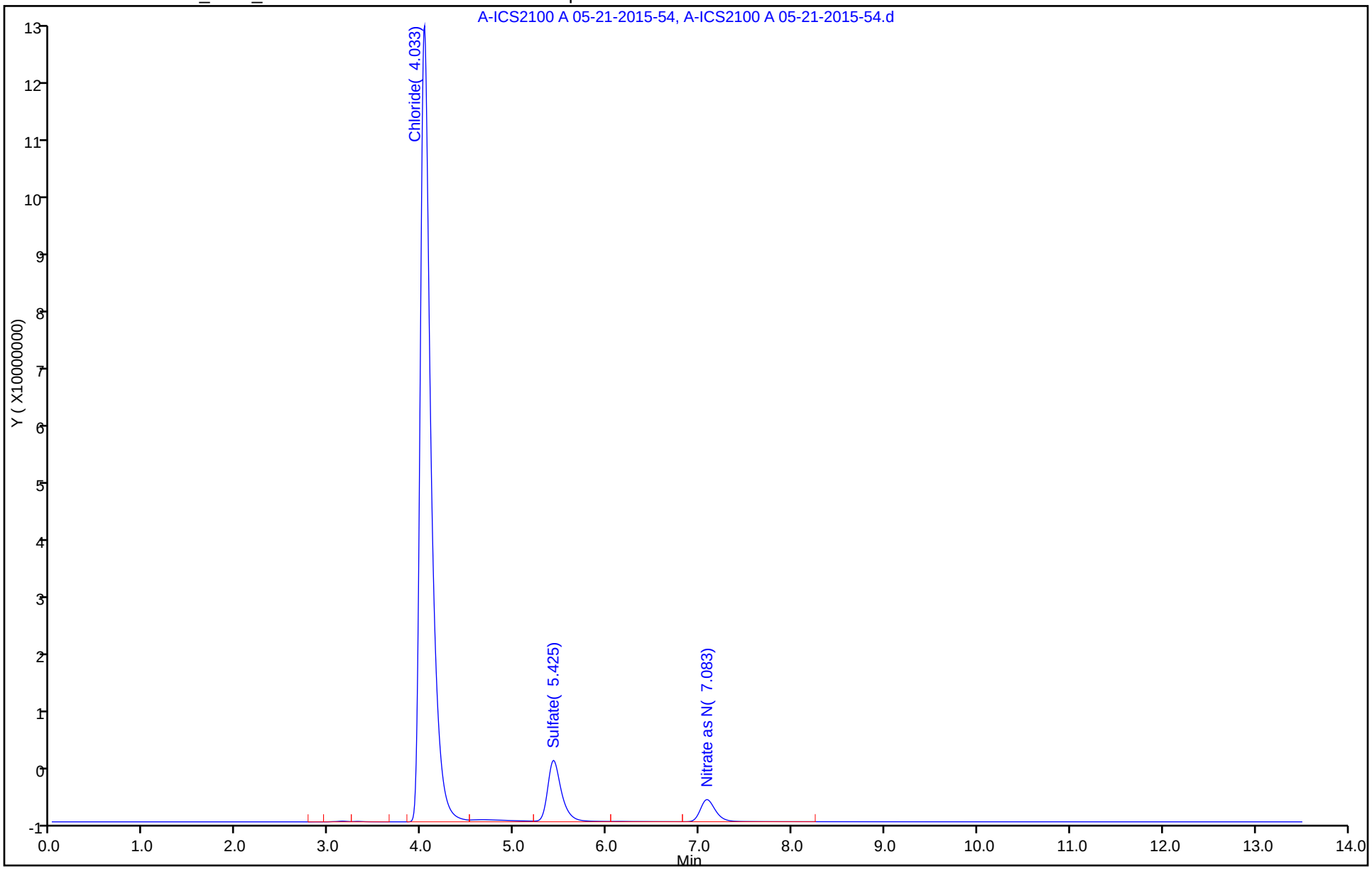
Column 1 : Det: 0008
Process Host: XAWRK010

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.033	4.033	0.000	997889893	46.4	
3 Sulfate	5.425	5.375	0.050	99968057	6.30	
5 Nitrate as N	7.083	7.058	0.025	39679719	0.7500	

Report Date: 25-May-2015 07:46:26 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-54.d				
Injection Date:	22-May-2015 07:26:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-44321-A-13	Lab Sample ID:	180-44321-13	Worklist Smp#:	54
Client ID:	HD-COD-SW-26-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	5.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-27-0/1-0 Lab Sample ID: 180-44321-14

Matrix: Water Lab File ID: A-ICS2100 A 05-21-2015-45.d

Analysis Method: 300.0 Date Collected: 05/20/2015 12:50

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/22/2015 03:14

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142454 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	81	B	1.0	0.20
14808-79-8	Sulfate	38		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

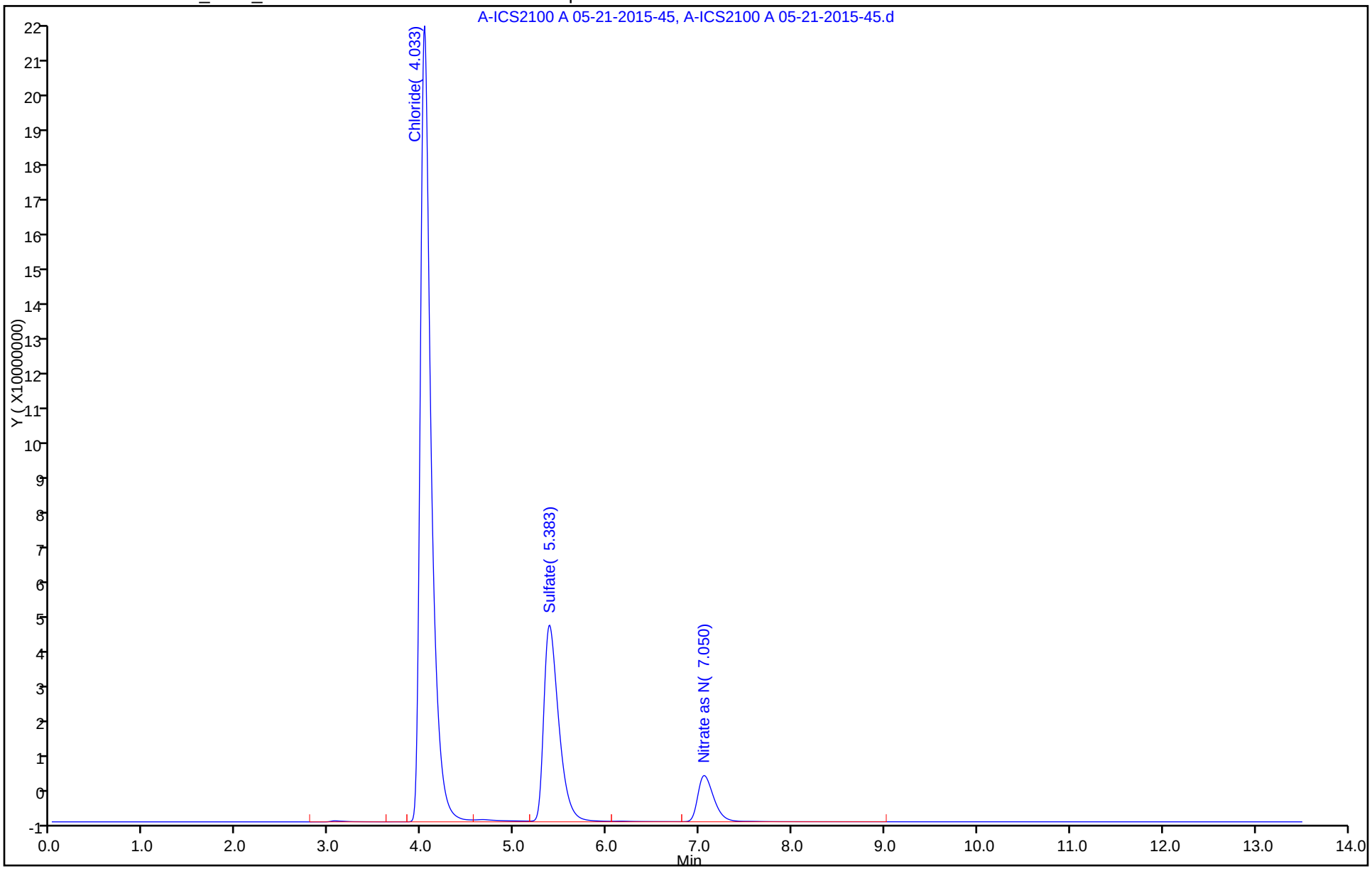
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-45.d				
Lims ID:	180-44321-A-14	Lab Sample ID:	180-44321-14		
Client ID:	HD-COD-SW-27-0/1-0				
Sample Type:	Client				
Inject. Date:	22-May-2015 03:14:00	ALS Bottle#:	0	Worklist Smp#:	45
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0007057-045				
Misc. Info.:	8258 180-44321-A-14				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	22-May-2015 07:10:43	Calib Date:	19-May-2015 14:18:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK025				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.033	4.042	-0.009	1736449444	80.8	
3 Sulfate	5.383	5.367	0.016	596003621	37.9	
5 Nitrate as N	7.050	7.058	-0.008	152061928	2.84	

Report Date: 22-May-2015 07:10:45 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-45.d				
Injection Date:	22-May-2015 03:14:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-44321-A-14	Lab Sample ID:	180-44321-14	Worklist Smp#:	45
Client ID:	HD-COD-SW-27-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-28-0/1-0 Lab Sample ID: 180-44321-15

Matrix: Water Lab File ID: A-ICS2100 A 05-21-2015-36.d

Analysis Method: 300.0 Date Collected: 05/20/2015 12:05

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/22/2015 00:56

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142454 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.4	B	0.10	0.0062
16887-00-6	Chloride	96	B F1	1.0	0.20
14808-79-8	Sulfate	38		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-36.d
Lims ID: 180-44321-A-15 Lab Sample ID: 180-44321-15
Client ID: HD-COD-SW-28-0/1-0
Sample Type: Client
Inject. Date: 22-May-2015 00:56:00 ALS Bottle#: 0 Worklist Smp#: 36
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007057-036
Misc. Info.: 36 180-44321-A-15
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 22-May-2015 07:10:48 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

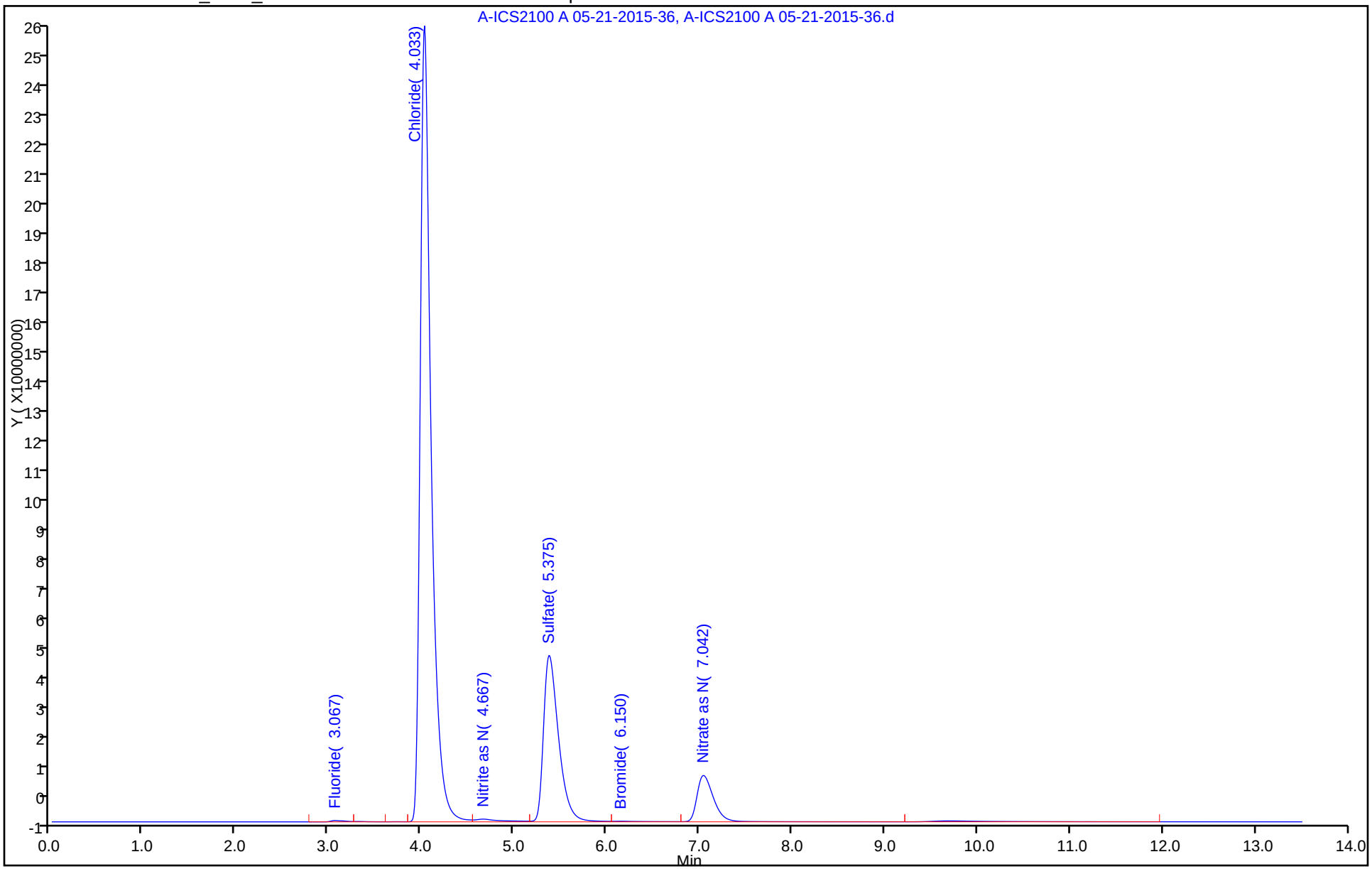
Column 1 : Det: 0008
Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	3.067	3.067	0.000	440817H	0.1151	
2 Chloride	4.033	4.033	0.000	2073284727	96.4	
7 Nitrite as N	4.667	4.683	-0.016	17118433	0.3298	
3 Sulfate	5.375	5.375	0.000	600690162	38.2	
4 Bromide	6.150	6.158	-0.008	4764112	0.5192	
5 Nitrate as N	7.042	7.058	-0.016	184102453	3.44	
6 Orthophosphate as P		9.425			ND	

Report Date: 22-May-2015 07:10:49 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-36.d				
Injection Date:	22-May-2015 00:56:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-44321-A-15	Lab Sample ID:	180-44321-15	Worklist Smp#:	36
Client ID:	HD-COD-SW-28-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-29-0/1-0 Lab Sample ID: 180-44321-16

Matrix: Water Lab File ID: A-ICS2100 A 05-21-2015-8.d

Analysis Method: 300.0 Date Collected: 05/20/2015 08:47

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/21/2015 17:16

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142454 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.6	B	0.10	0.0062
16887-00-6	Chloride	52	B	1.0	0.20
14808-79-8	Sulfate	36		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-8.d
Lims ID: 180-44321-A-16 Lab Sample ID: 180-44321-16
Client ID: HD-COD-SW-29-0/1-0
Sample Type: Client
Inject. Date: 21-May-2015 17:16:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007057-008
Misc. Info.: 8 180-44321-A-16
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 22-May-2015 07:02:43 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

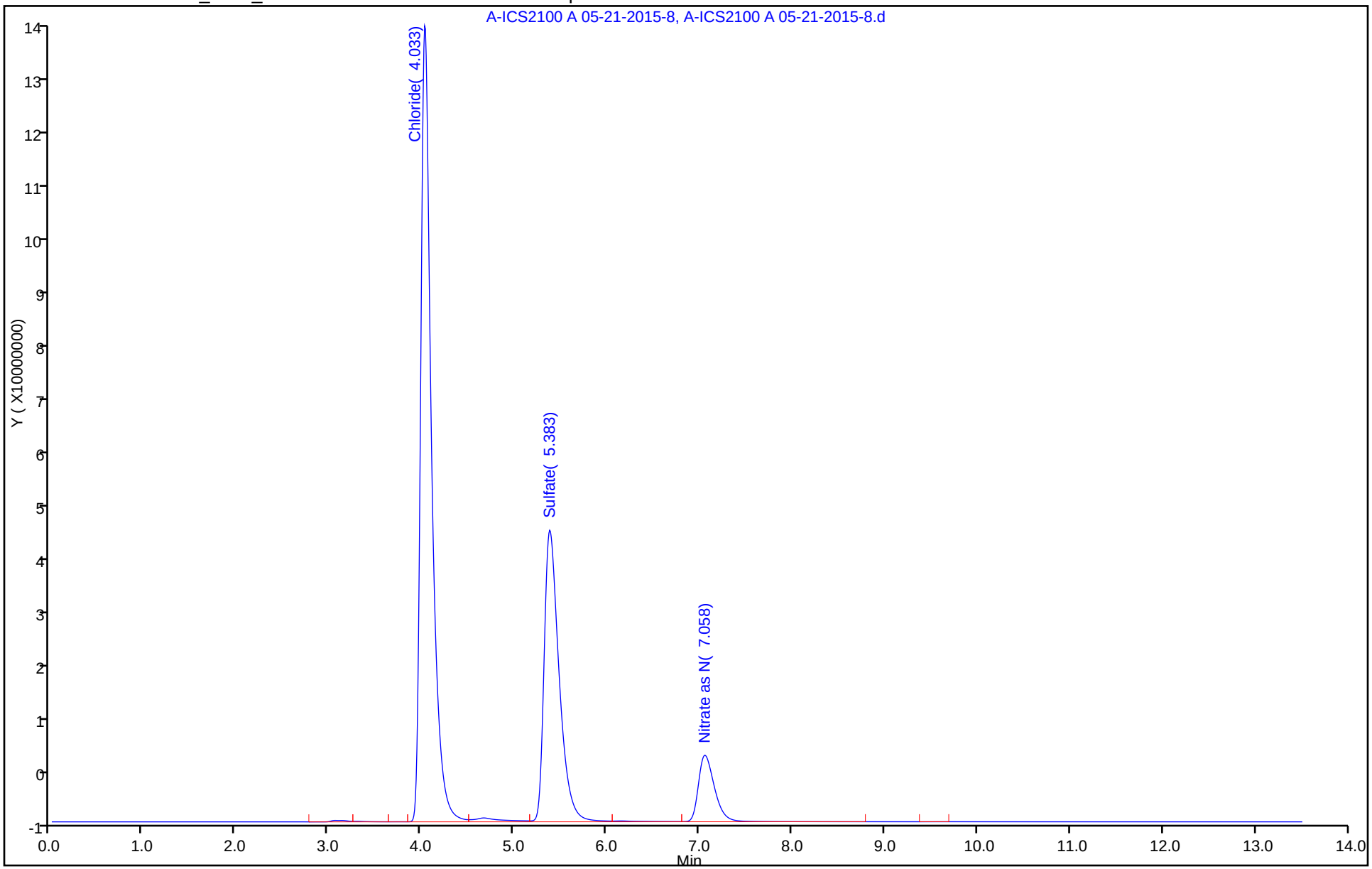
Column 1 : Det: 0008
Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.033	4.042	-0.009	1127691368	52.5	
3 Sulfate	5.383	5.367	0.016	571042516	36.3	
5 Nitrate as N	7.058	7.058	0.000	140787186	2.63	

Report Date: 22-May-2015 07:02:46 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-8.d				
Injection Date:	21-May-2015 17:16:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-44321-A-16	Lab Sample ID:	180-44321-16	Worklist Smp#:	8
Client ID:	HD-COD-SW-29-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-QC2-0/1-1 Lab Sample ID: 180-44321-18

Matrix: Water Lab File ID: A-ICS2100 A 05-21-2015-7.d

Analysis Method: 300.0 Date Collected: 05/20/2015 08:00

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/21/2015 16:58

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142454 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.3	B	0.10	0.0062
16887-00-6	Chloride	130	B	1.0	0.20
14808-79-8	Sulfate	33		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-7.d
Lims ID: 180-44321-A-18 Lab Sample ID: 180-44321-18
Client ID: HD-QC2-0/1-1
Sample Type: Client
Inject. Date: 21-May-2015 16:58:00 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007057-007
Misc. Info.: 7 180-44321-A-18
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 22-May-2015 07:02:43 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK025

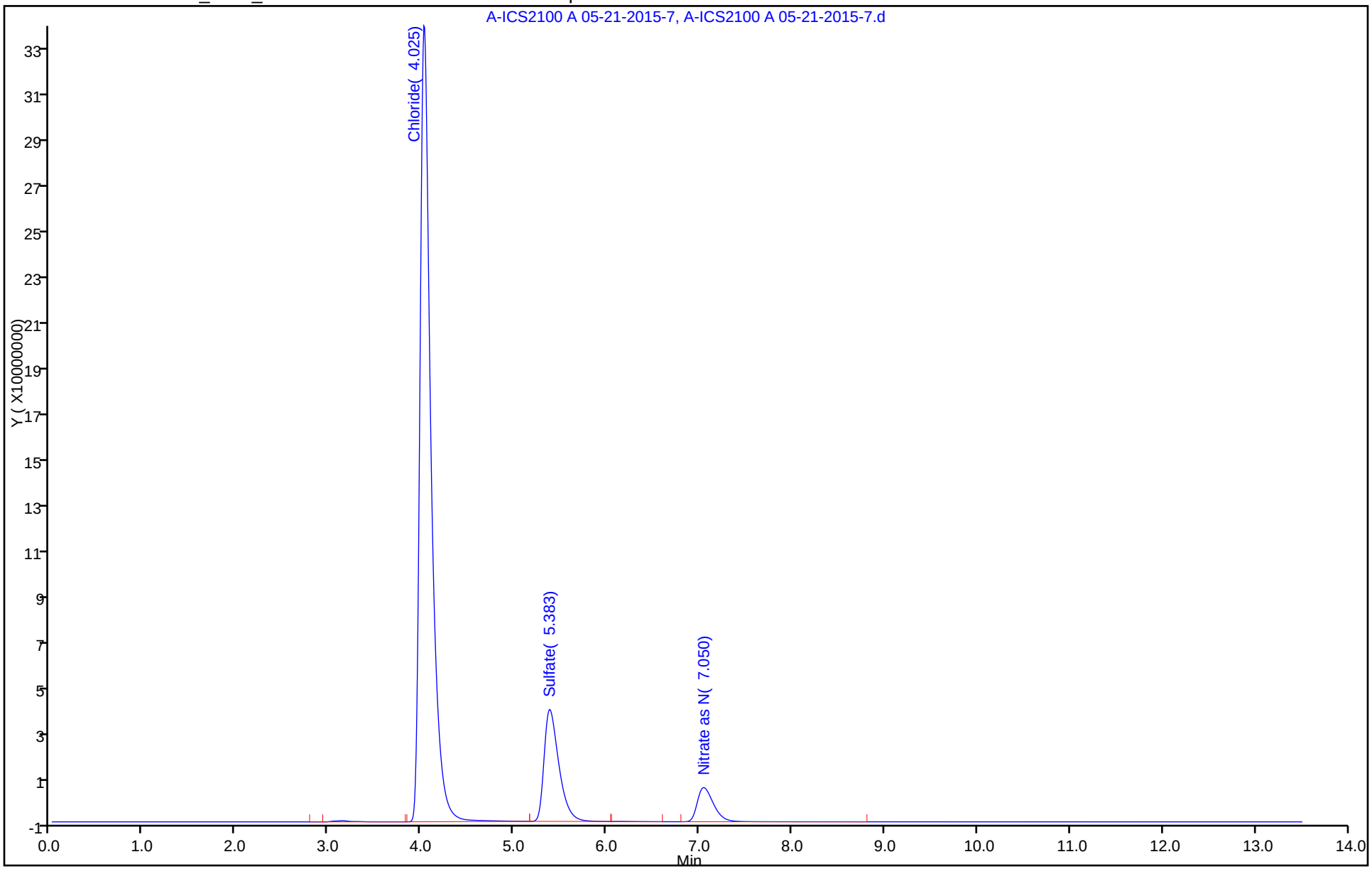
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.025	4.042	-0.017	2775261718	129.0	
3 Sulfate	5.383	5.367	0.016	524271573	33.3	
5 Nitrate as N	7.050	7.058	-0.008	176089970	3.29	

Report Date: 22-May-2015 07:02:46 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-7.d

Injection Date:	21-May-2015 16:58:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-44321-A-18	Lab Sample ID:	180-44321-18	Worklist Smp#:	7
Client ID:	HD-QC2-0/1-1				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-CW-9-0/1-0 Lab Sample ID: 180-44321-19

Matrix: Water Lab File ID: A-ICS2100 A 05-21-2015-19.d

Analysis Method: 300.0 Date Collected: 05/20/2015 10:10

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/21/2015 20:26

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142454 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	180	B	1.0	0.20
14808-79-8	Sulfate	32		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

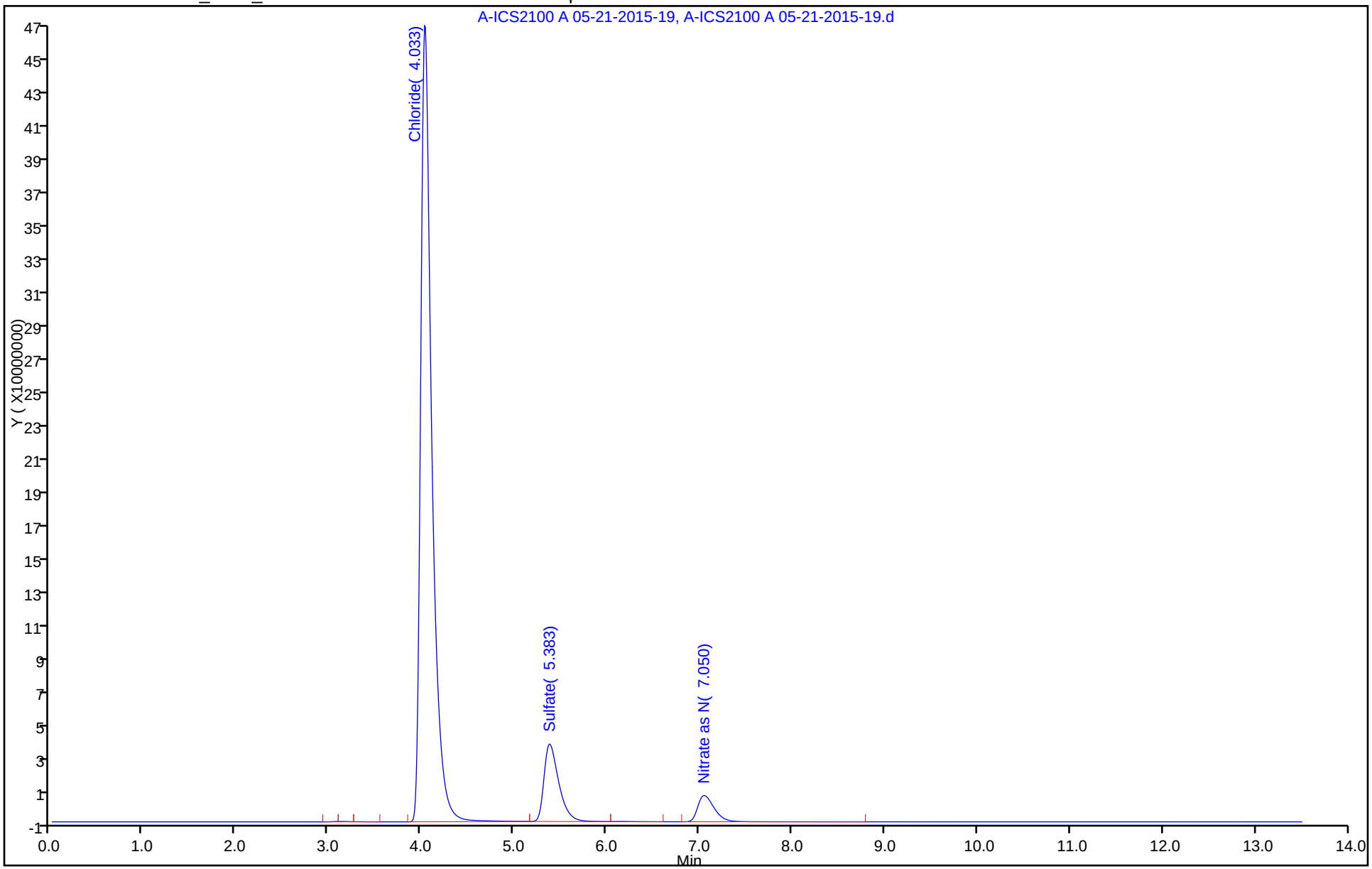
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-19.d				
Lims ID:	180-44321-A-19	Lab Sample ID:	180-44321-19		
Client ID:	HD-CW-9-0/1-0				
Sample Type:	Client				
Inject. Date:	21-May-2015 20:26:00	ALS Bottle#:	0	Worklist Smp#:	19
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0007057-019				
Misc. Info.:	19 180-44321-A-19				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	22-May-2015 07:10:51	Calib Date:	19-May-2015 14:18:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK025				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.033	4.050	-0.017	3934101154	182.9	
3 Sulfate	5.383	5.367	0.016	506381377	32.2	
5 Nitrate as N	7.050	7.067	-0.017	191712474	3.58	

Report Date: 22-May-2015 07:10:54 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-19.d				
Injection Date:	21-May-2015 20:26:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-44321-A-19	Lab Sample ID:	180-44321-19	Worklist Smp#:	19
Client ID:	HD-CW-9-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-CW-13-0/1-0 Lab Sample ID: 180-44321-20

Matrix: Water Lab File ID: A-ICS2100 A 05-21-2015-20.d

Analysis Method: 300.0 Date Collected: 05/20/2015 10:15

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/21/2015 20:44

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142454 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.2	B	0.10	0.0062
16887-00-6	Chloride	140	B	1.0	0.20
14808-79-8	Sulfate	35		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-20.d
Lims ID: 180-44321-A-20 Lab Sample ID: 180-44321-20
Client ID: HD-CW-13-0/1-0
Sample Type: Client
Inject. Date: 21-May-2015 20:44:00 ALS Bottle#: 0 Worklist Smp#: 20
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007057-020
Misc. Info.: 20 180-44321-A-20
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 22-May-2015 07:10:51 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

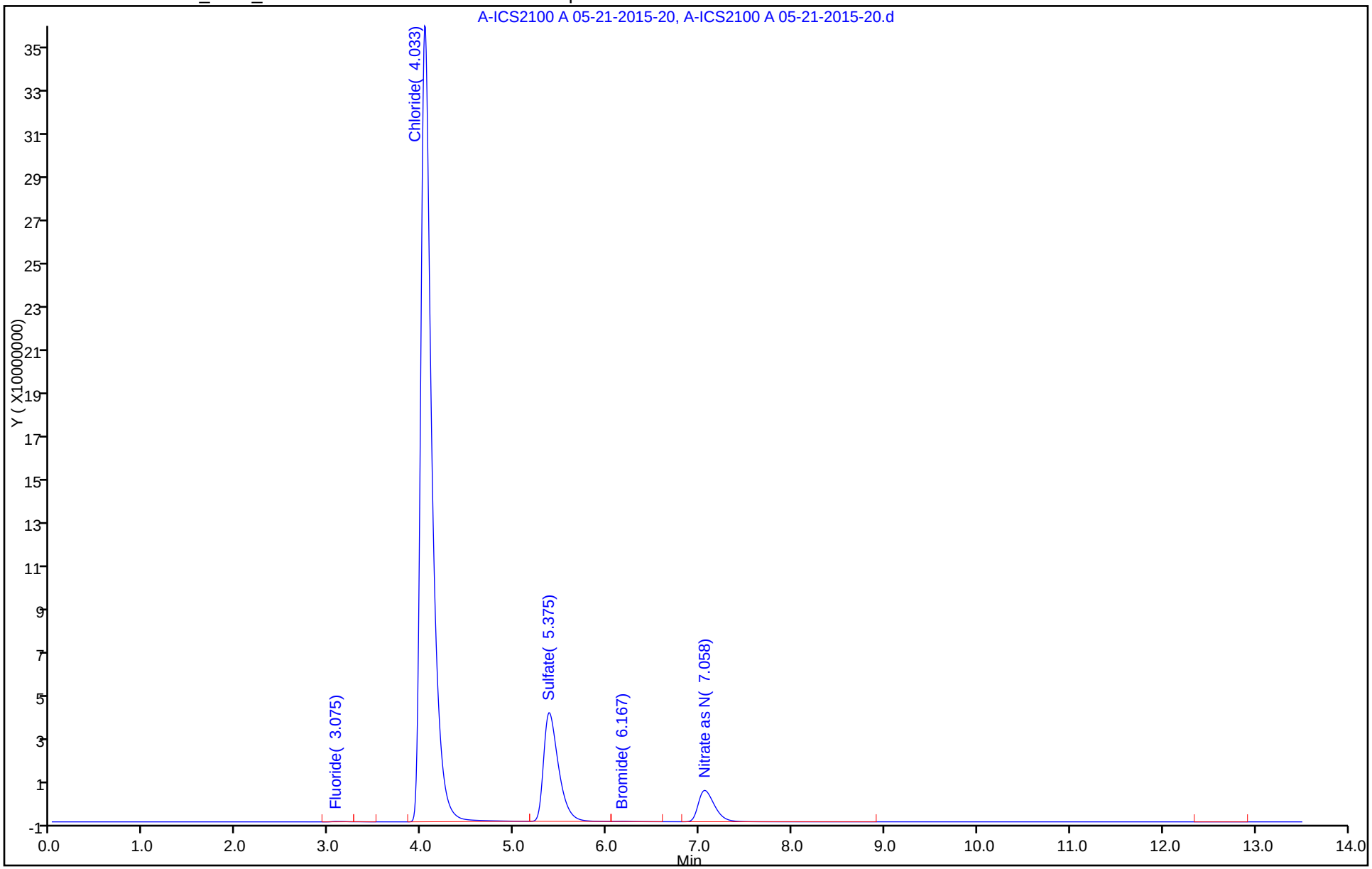
Column 1 : Det: 0008
Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
1 Fluoride	3.075	3.083	-0.008	153254H	0.0452	
2 Chloride	4.033	4.050	-0.017	2972083975	138.2	
7 Nitrite as N		4.692			ND	
3 Sulfate	5.375	5.367	0.008	544722181	34.7	
4 Bromide	6.167	6.158	0.009	768139	0.0965	
5 Nitrate as N	7.058	7.067	-0.009	171941932	3.21	
6 Orthophosphate as P		9.375			ND	

Report Date: 22-May-2015 07:10:54 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-20.d				
Injection Date:	21-May-2015 20:44:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-44321-A-20	Lab Sample ID:	180-44321-20	Worklist Smp#:	20
Client ID:	HD-CW-13-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-CW-15A-0/1-0 Lab Sample ID: 180-44321-21

Matrix: Water Lab File ID: A-ICS2100 A 05-21-2015-24.d

Analysis Method: 300.0 Date Collected: 05/20/2015 10:25

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/21/2015 21:53

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142454 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.2	B	0.10	0.0062
16887-00-6	Chloride	170	B	1.0	0.20
14808-79-8	Sulfate	100		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

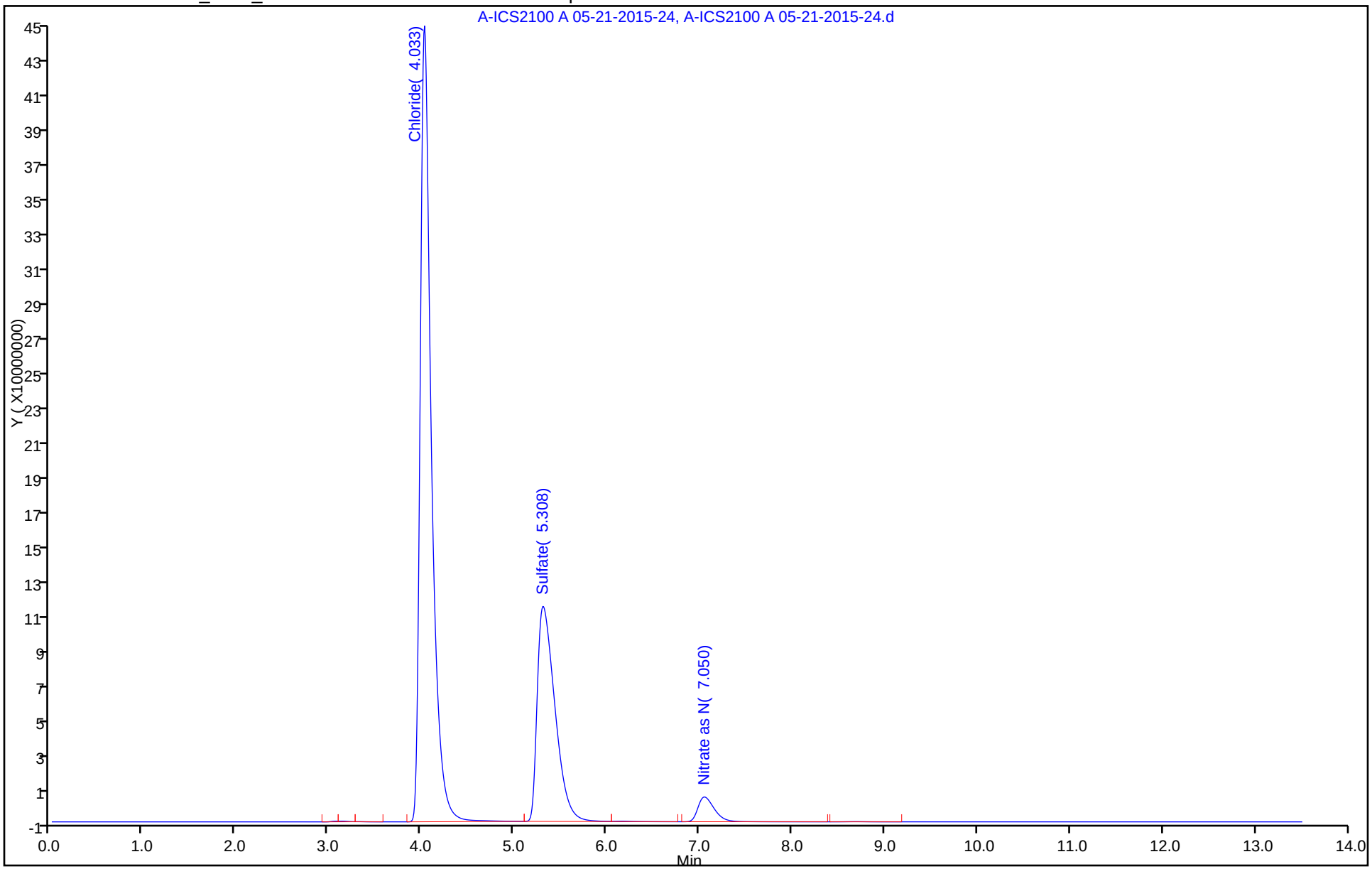
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-24.d				
Lims ID:	180-44321-A-21	Lab Sample ID:	180-44321-21		
Client ID:	HD-CW-15A-0/1-0				
Sample Type:	Client				
Inject. Date:	21-May-2015 21:53:00	ALS Bottle#:	0	Worklist Smp#:	24
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0007057-024				
Misc. Info.:	24 180-44321-A-21				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	22-May-2015 07:10:51	Calib Date:	19-May-2015 14:18:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK025				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.033	4.050	-0.017	3751474838	174.4	
3 Sulfate	5.308	5.367	-0.059	1612073199	102.7	
5 Nitrate as N	7.050	7.067	-0.017	171659652	3.21	

Report Date: 22-May-2015 07:10:52 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-24.d				
Injection Date:	21-May-2015 21:53:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-44321-A-21	Lab Sample ID:	180-44321-21	Worklist Smp#:	24
Client ID:	HD-CW-15A-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-CW-17-0/1-0 Lab Sample ID: 180-44321-22

Matrix: Water Lab File ID: A-ICS2100 A 05-21-2015-25.d

Analysis Method: 300.0 Date Collected: 05/20/2015 10:35

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/21/2015 22:08

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142454 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.1	B	0.10	0.0062
16887-00-6	Chloride	100	B	1.0	0.20
14808-79-8	Sulfate	38		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

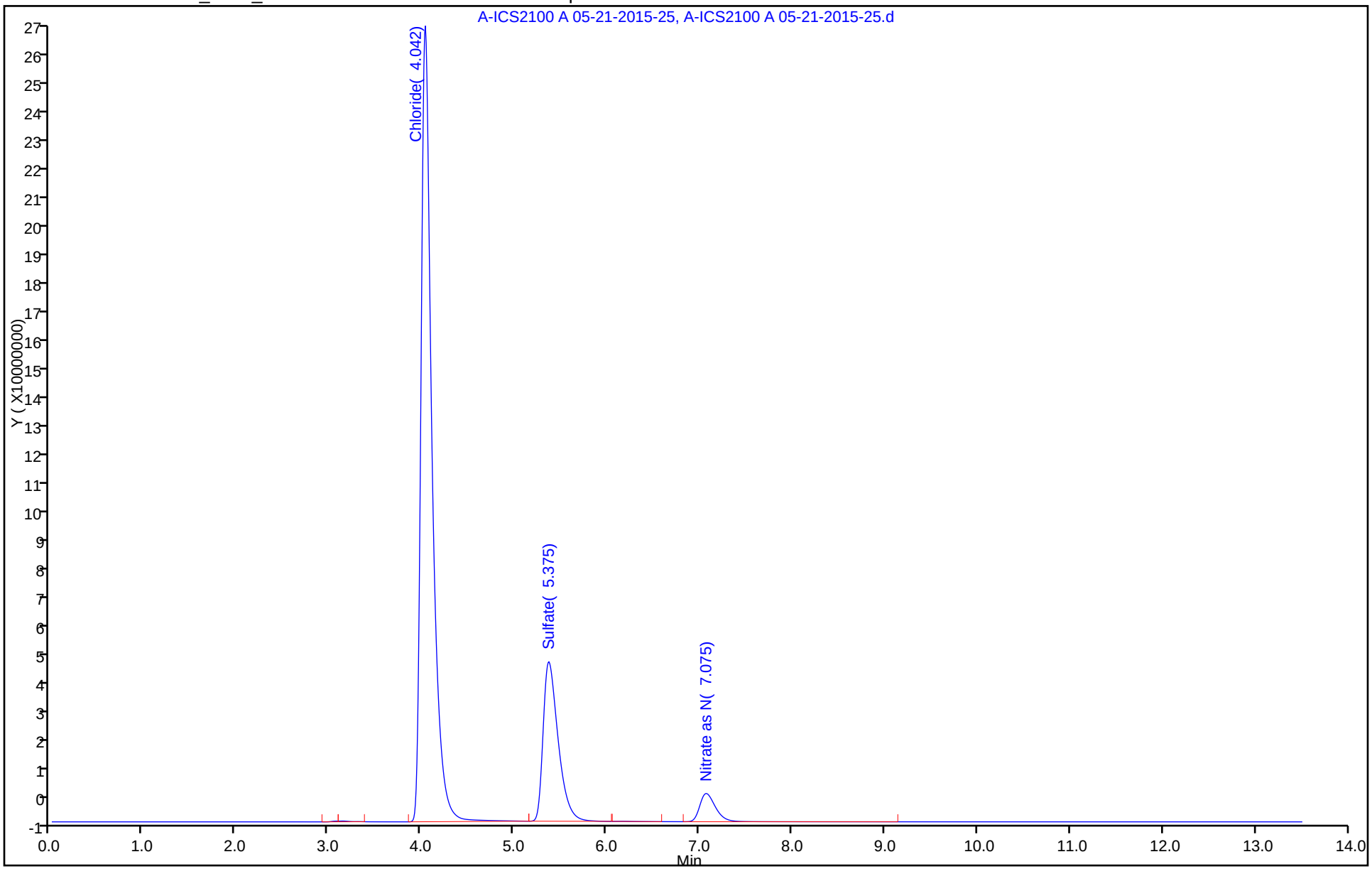
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-25.d				
Lims ID:	180-44321-A-22	Lab Sample ID:	180-44321-22		
Client ID:	HD-CW-17-0/1-0				
Sample Type:	Client				
Inject. Date:	21-May-2015 22:08:00	ALS Bottle#:	0	Worklist Smp#:	25
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0007057-025				
Misc. Info.:	25 180-44321-A-22				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	22-May-2015 07:10:51	Calib Date:	19-May-2015 14:18:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK025				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.042	4.050	-0.008	2207255199	102.6	
3 Sulfate	5.375	5.367	0.008	604780800	38.5	
5 Nitrate as N	7.075	7.067	0.008	112366992	2.10	

Report Date: 22-May-2015 07:10:52 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-25.d				
Injection Date:	21-May-2015 22:08:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-44321-A-22	Lab Sample ID:	180-44321-22	Worklist Smp#:	25
Client ID:	HD-CW-17-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-CW-20-0/1-0 Lab Sample ID: 180-44321-23

Matrix: Water Lab File ID: A-ICS2100 A 05-21-2015-29.d

Analysis Method: 300.0 Date Collected: 05/20/2015 10:45

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/21/2015 23:09

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142454 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.1	B	0.10	0.0062
16887-00-6	Chloride	160	B	1.0	0.20
14808-79-8	Sulfate	29		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

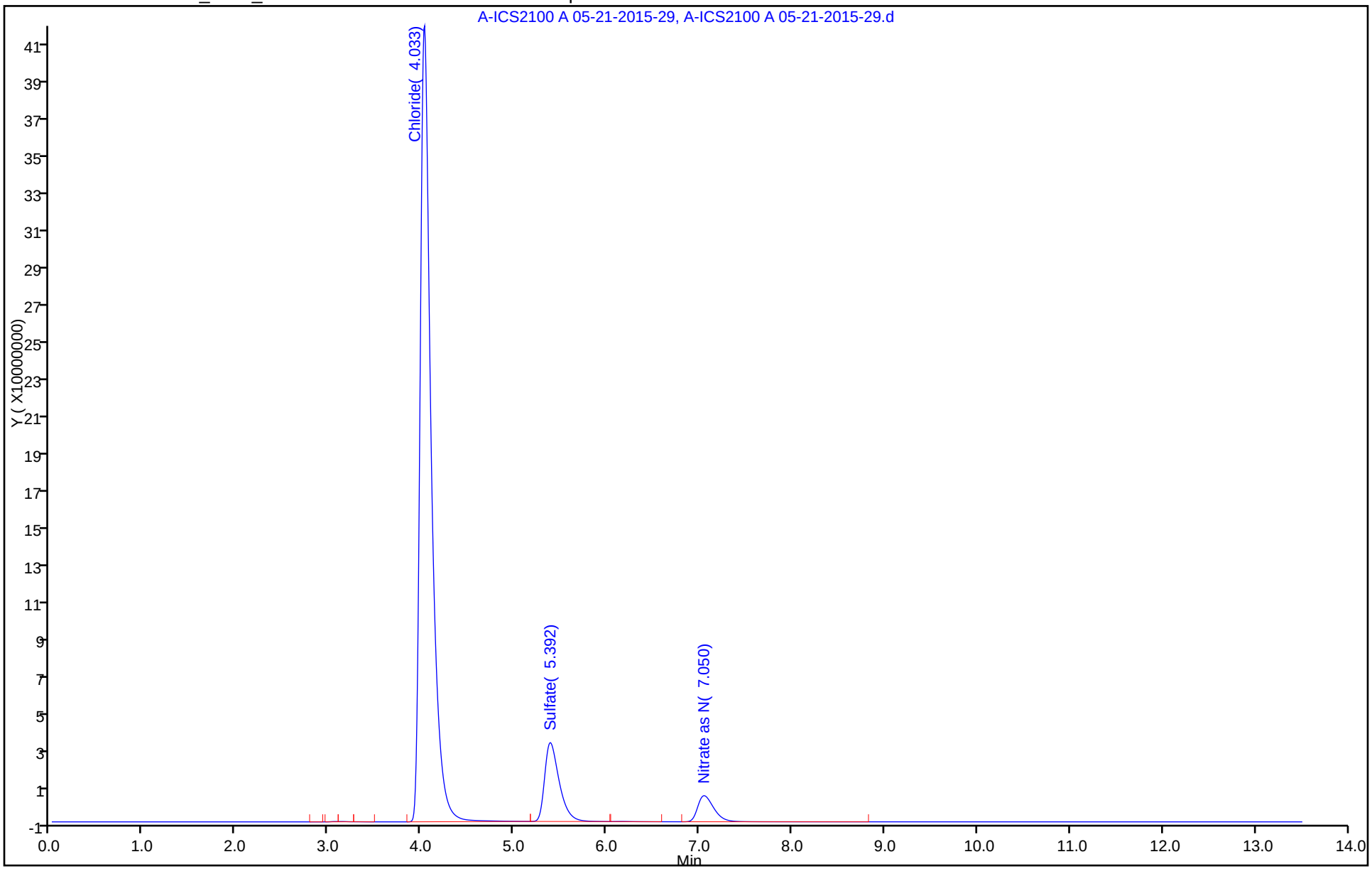
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-29.d				
Lims ID:	180-44321-A-23	Lab Sample ID:	180-44321-23		
Client ID:	HD-CW-20-0/1-0				
Sample Type:	Client				
Inject. Date:	21-May-2015 23:09:00	ALS Bottle#:	0	Worklist Smp#:	29
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0007057-029				
Misc. Info.:	29 180-44321-A-23				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	22-May-2015 07:10:48	Calib Date:	19-May-2015 14:18:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK025				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.033	4.033	0.000	3473249700	161.5	
3 Sulfate	5.392	5.375	0.017	454043165	28.9	
5 Nitrate as N	7.050	7.058	-0.008	166979728	3.12	

Report Date: 22-May-2015 07:10:51 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-29.d				
Injection Date:	21-May-2015 23:09:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-44321-A-23	Lab Sample ID:	180-44321-23	Worklist Smp#:	29
Client ID:	HD-CW-20-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-MW-95-0/1-0 Lab Sample ID: 180-44321-24

Matrix: Water Lab File ID: A-ICS2100 A 05-21-2015-10.d

Analysis Method: 300.0 Date Collected: 05/20/2015 09:25

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/21/2015 17:50

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142454 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.84	B	0.10	0.0062
16887-00-6	Chloride	52	B	1.0	0.20
14808-79-8	Sulfate	32		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

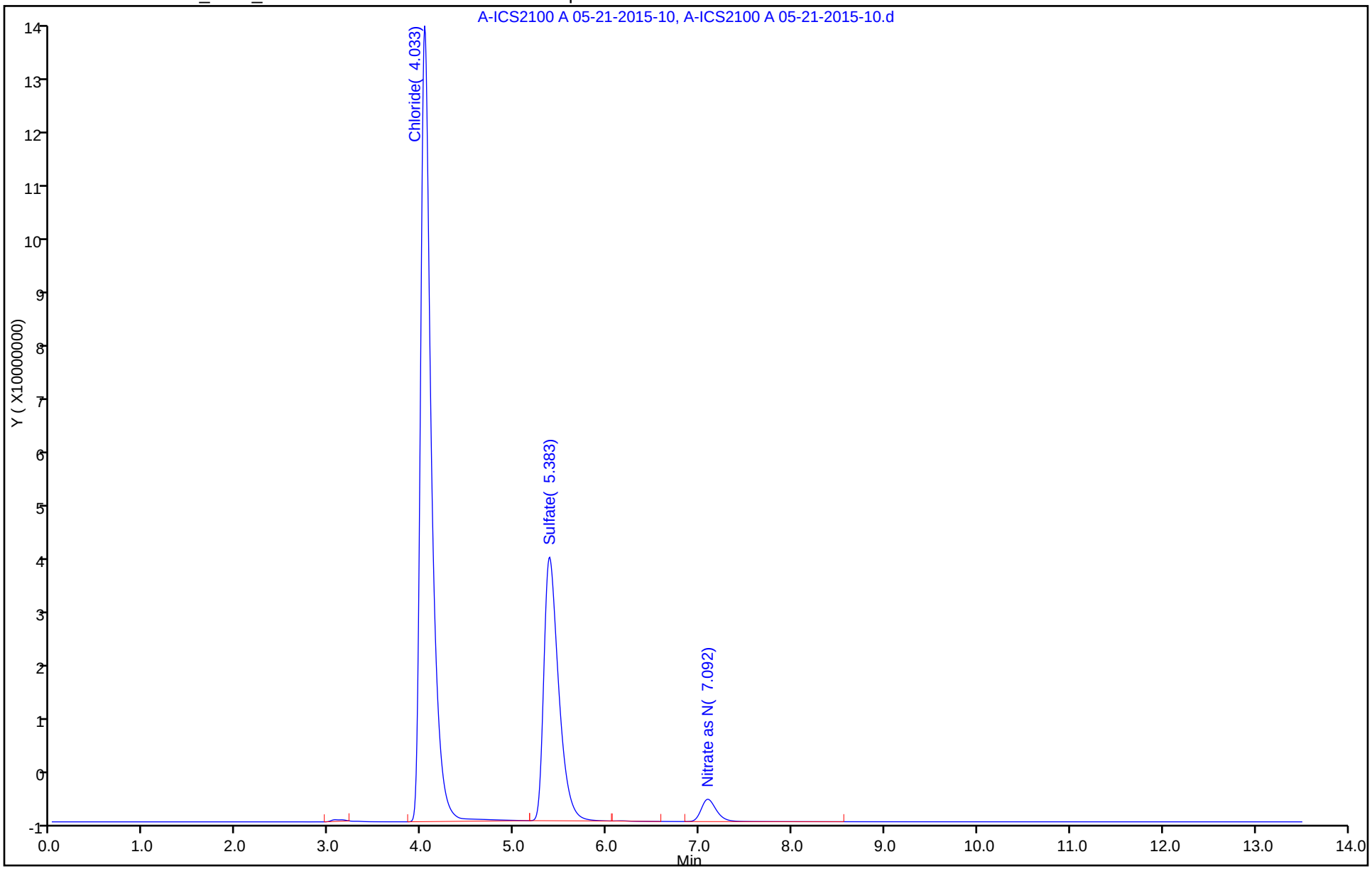
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-10.d				
Lims ID:	180-44321-A-24	Lab Sample ID:	180-44321-24		
Client ID:	HD-MW-95-0/1-0				
Sample Type:	Client				
Inject. Date:	21-May-2015 17:50:00	ALS Bottle#:	0	Worklist Smp#:	10
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0007057-010				
Misc. Info.:	10 180-44321-A-24				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	22-May-2015 07:10:55	Calib Date:	19-May-2015 14:18:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK025				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.033	4.042	-0.009	1125513159	52.4	
3 Sulfate	5.383	5.367	0.016	508832429	32.4	
5 Nitrate as N	7.092	7.058	0.034	44463451	0.8390	

Report Date: 22-May-2015 07:10:57 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-10.d				
Injection Date:	21-May-2015 17:50:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-44321-A-24	Lab Sample ID:	180-44321-24	Worklist Smp#:	10
Client ID:	HD-MW-95-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-MW-96S-0/1-0 Lab Sample ID: 180-44321-25

Matrix: Water Lab File ID: A-ICS2100 A 05-21-2015-32.d

Analysis Method: 300.0 Date Collected: 05/20/2015 11:30

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/21/2015 23:55

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142454 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	B	1.0	0.20
14808-79-8	Sulfate	51		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-32.d
Lims ID: 180-44321-A-25 Lab Sample ID: 180-44321-25
Client ID: HD-MW-96S-0/1-0
Sample Type: Client
Inject. Date: 21-May-2015 23:55:00 ALS Bottle#: 0 Worklist Smp#: 32
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007057-032
Misc. Info.: 32 180-44321-A-25
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 22-May-2015 07:10:48 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

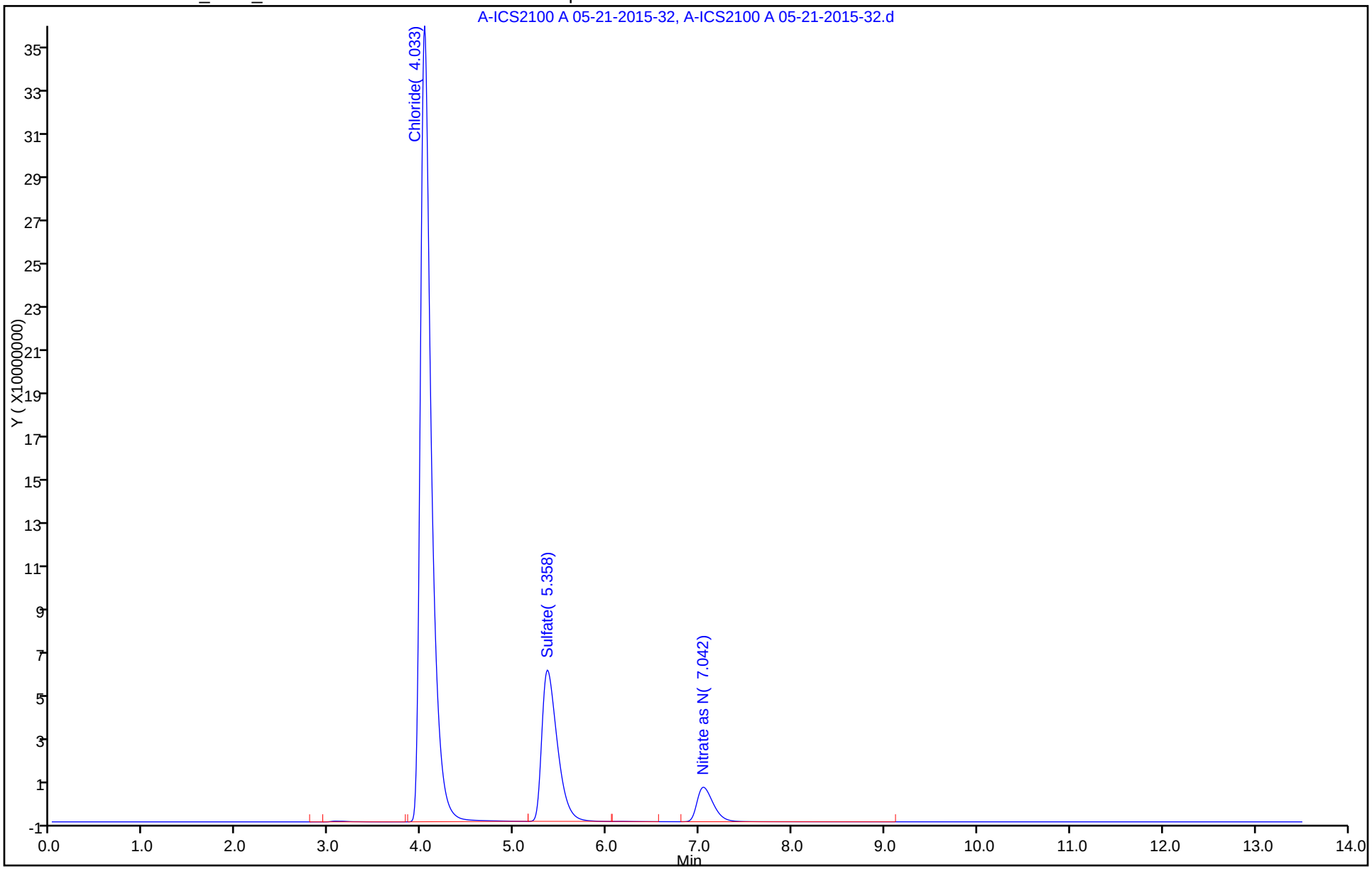
Column 1 : Det: 0008
Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.033	4.033	0.000	2961352126	137.7	
3 Sulfate	5.358	5.375	-0.017	794449921	50.6	
5 Nitrate as N	7.042	7.058	-0.016	191219728	3.57	

Report Date: 22-May-2015 07:10:50 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-32.d				
Injection Date:	21-May-2015 23:55:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-44321-A-25	Lab Sample ID:	180-44321-25	Worklist Smp#:	32
Client ID:	HD-MW-96S-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-MW-96D-0/1-0 Lab Sample ID: 180-44321-26

Matrix: Water Lab File ID: A-ICS2100 A 05-21-2015-31.d

Analysis Method: 300.0 Date Collected: 05/20/2015 10:50

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/21/2015 23:40

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142454 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	3.8	B	0.10	0.0062
16887-00-6	Chloride	120	B	1.0	0.20
14808-79-8	Sulfate	44		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

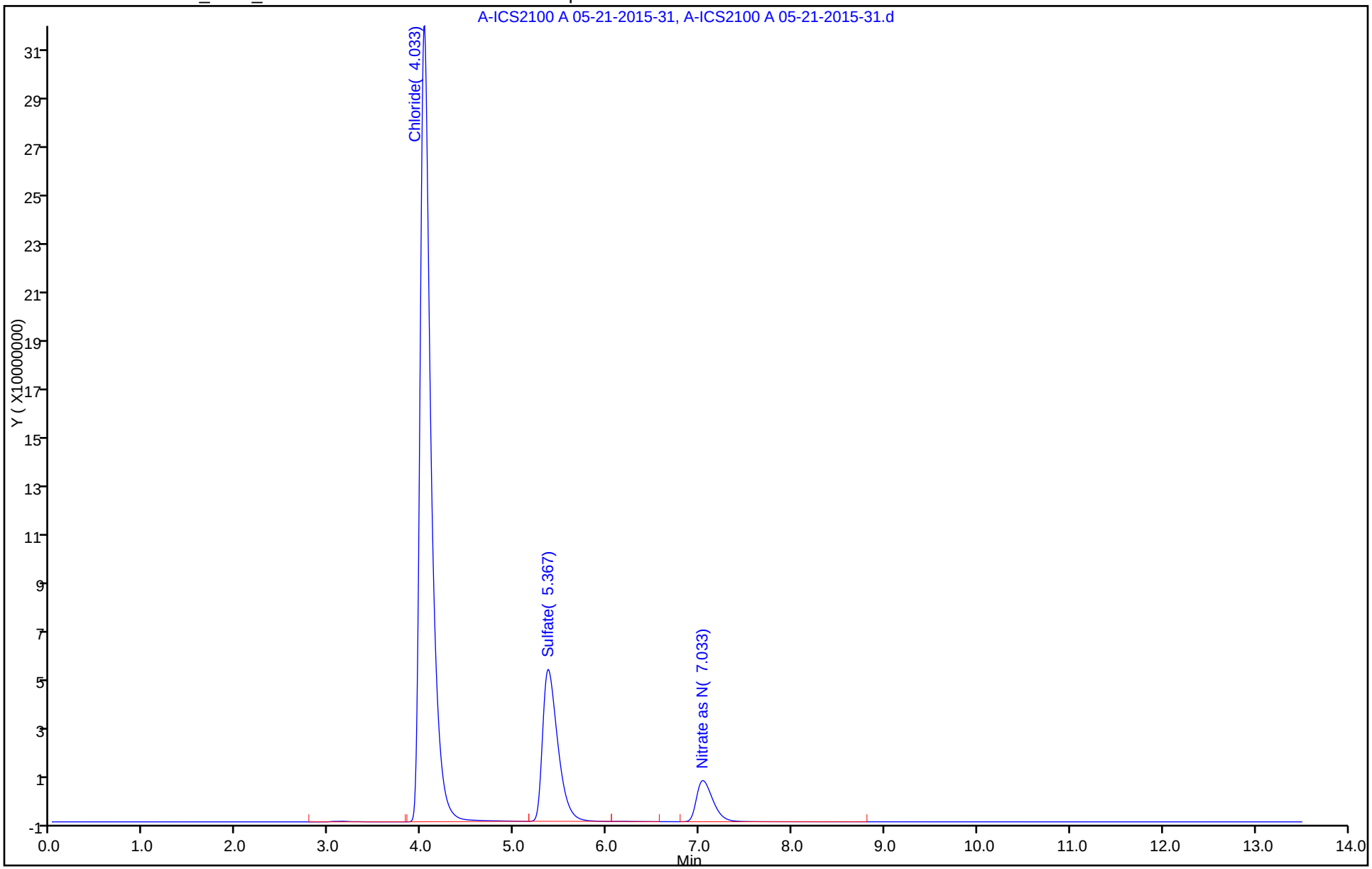
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-31.d				
Lims ID:	180-44321-A-26	Lab Sample ID:	180-44321-26		
Client ID:	HD-MW-96D-0/1-0				
Sample Type:	Client				
Inject. Date:	21-May-2015 23:40:00	ALS Bottle#:	0	Worklist Smp#:	31
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0007057-031				
Misc. Info.:	31 180-44321-A-26				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	22-May-2015 07:10:48	Calib Date:	19-May-2015 14:18:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK025				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.033	4.033	0.000	2639704143	122.7	
3 Sulfate	5.367	5.375	-0.008	698742609	44.5	
5 Nitrate as N	7.033	7.058	-0.025	205133940	3.83	

Report Date: 22-May-2015 07:10:50 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-31.d				
Injection Date:	21-May-2015 23:40:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-44321-A-26	Lab Sample ID:	180-44321-26	Worklist Smp#:	31
Client ID:	HD-MW-96D-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-MW-97-0/1-0 Lab Sample ID: 180-44321-27

Matrix: Water Lab File ID: A-ICS2100 A 05-21-2015-46.d

Analysis Method: 300.0 Date Collected: 05/20/2015 12:50

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/22/2015 03:29

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142454 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	1.8	B	0.10	0.0062
16887-00-6	Chloride	120	B	1.0	0.20
14808-79-8	Sulfate	29		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

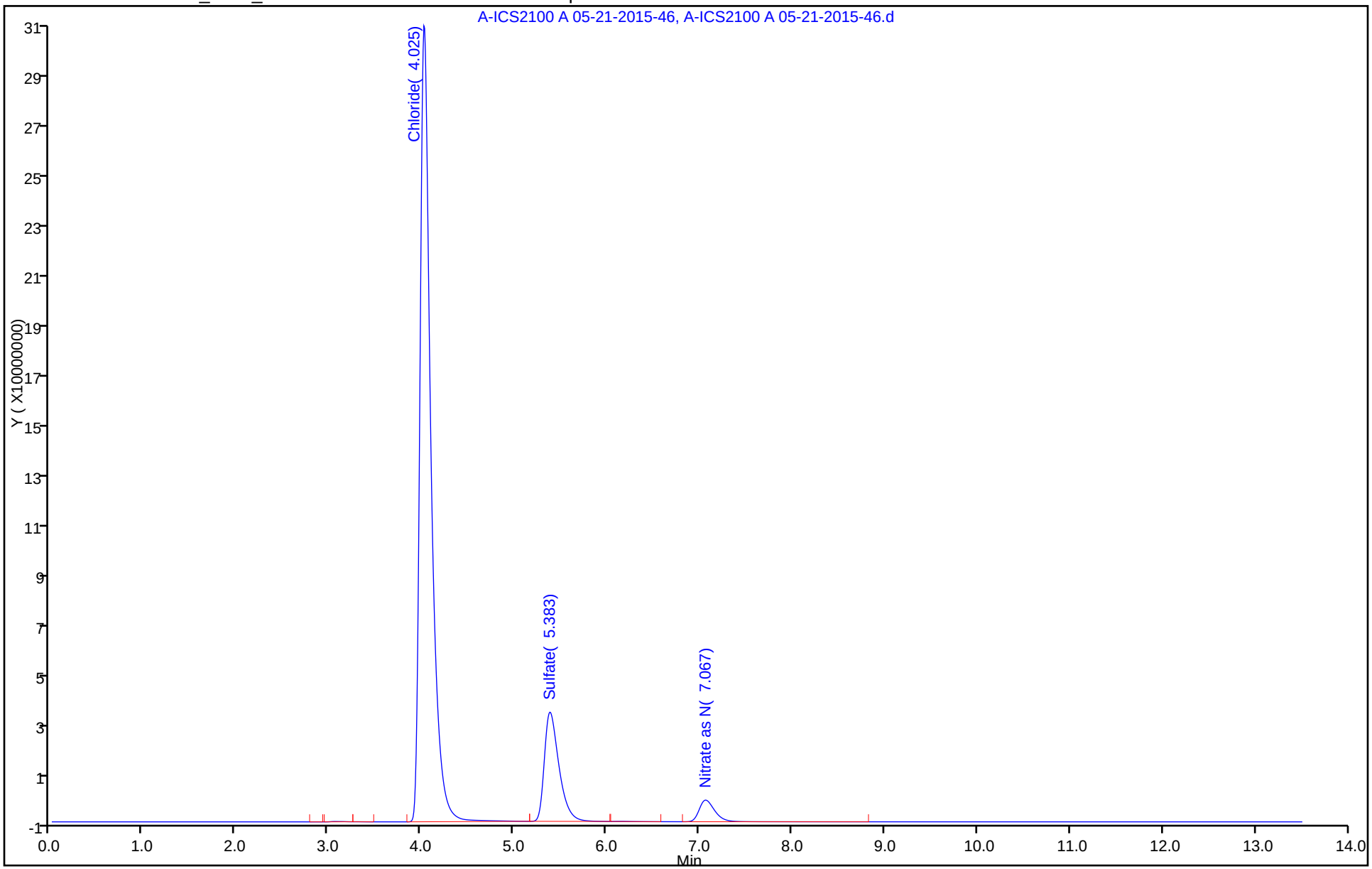
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-46.d				
Lims ID:	180-44321-A-27	Lab Sample ID:	180-44321-27		
Client ID:	HD-MW-97-0/1-0				
Sample Type:	Client				
Inject. Date:	22-May-2015 03:29:00	ALS Bottle#:	0	Worklist Smp#:	46
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0007057-046				
Misc. Info.:	28196 180-44321-A-27				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	22-May-2015 07:10:43	Calib Date:	19-May-2015 14:18:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK025				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.025	4.042	-0.017	2528956181	117.6	
3 Sulfate	5.383	5.367	0.016	463225330	29.5	
5 Nitrate as N	7.067	7.058	0.009	97836172	1.83	

Report Date: 22-May-2015 07:10:45 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-46.d				
Injection Date:	22-May-2015 03:29:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-44321-A-27	Lab Sample ID:	180-44321-27	Worklist Smp#:	46
Client ID:	HD-MW-97-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-CW-18-0/1-0 Lab Sample ID: 180-44321-28

Matrix: Water Lab File ID: A-ICS2100 A 05-21-2015-49.d

Analysis Method: 300.0 Date Collected: 05/20/2015 14:00

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/22/2015 04:15

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142454 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.085	J B	0.10	0.0062

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-49.d				
Lims ID:	180-44321-A-28	Lab Sample ID:	180-44321-28		
Client ID:	HD-CW-18-0/1-0				
Sample Type:	Client				
Inject. Date:	22-May-2015 04:15:00	ALS Bottle#:	0	Worklist Smp#:	49
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0007057-049				
Misc. Info.:	23023 180-44321-A-28				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	22-May-2015 07:10:43	Calib Date:	19-May-2015 14:18:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK025				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.017	4.042	-0.025	4825534887	224.3	E
3 Sulfate	5.225	5.367	-0.142	3931164911	250.6	E
5 Nitrate as N	7.092	7.058	0.034	3919369	0.0846	

QC Flag Legend

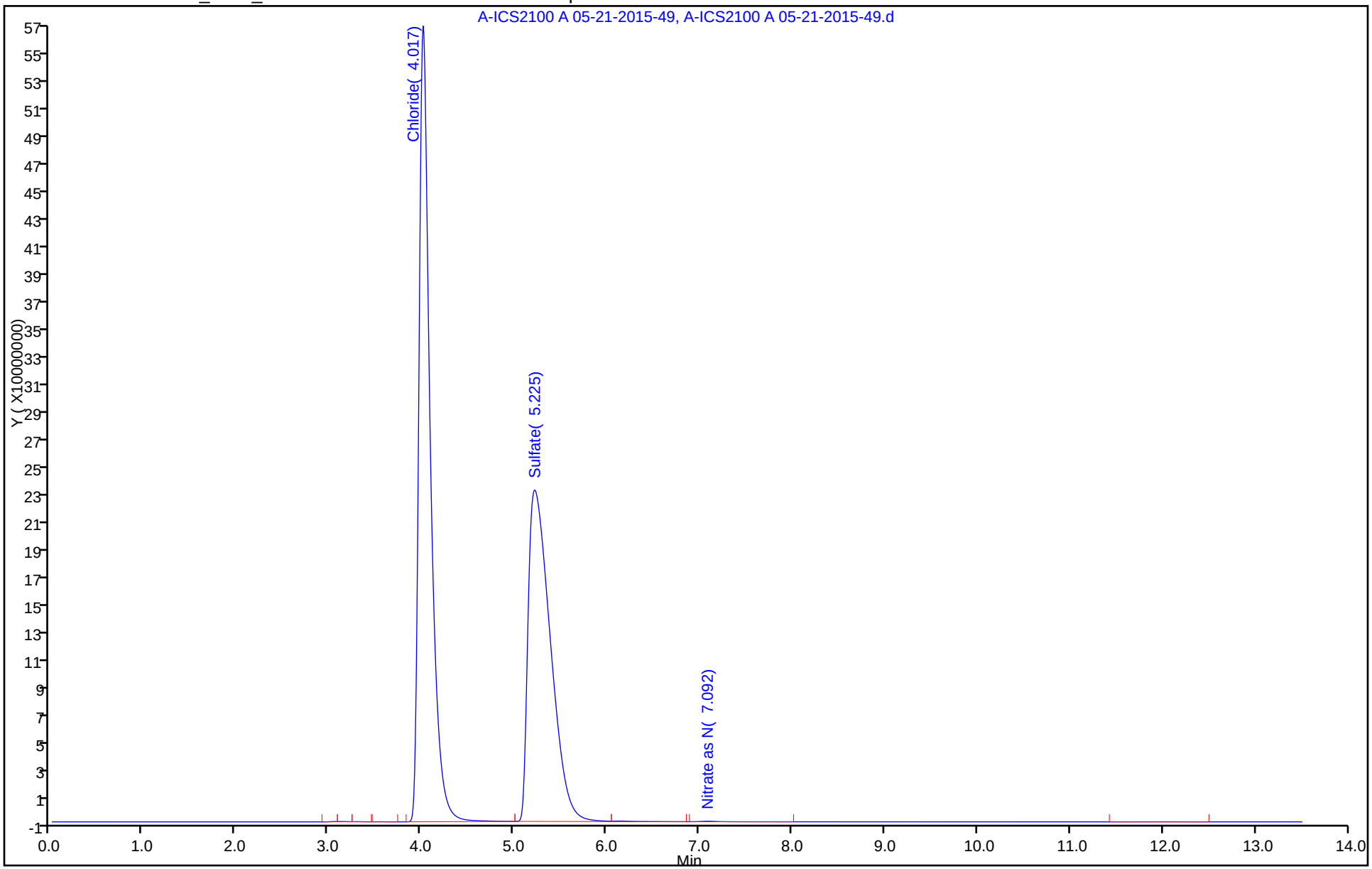
Processing Flags

E - Exceeded Maximum Amount

Report Date: 22-May-2015 07:10:44 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-49.d				
Injection Date:	22-May-2015 04:15:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-44321-A-28	Lab Sample ID:	180-44321-28	Worklist Smp#:	49
Client ID:	HD-CW-18-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-CW-18-0/1-0 Lab Sample ID: 180-44321-28

Matrix: Water Lab File ID: A-ICS2100 A 05-21-2015-50.d

Analysis Method: 300.0 Date Collected: 05/20/2015 14:00

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/22/2015 04:31

Con. Extract Vol.: Dilution Factor: 5

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142454 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
16887-00-6	Chloride	240	B	5.0	0.98
14808-79-8	Sulfate	280		5.0	1.1

TestAmerica Pittsburgh
Target Compound Quantitation Report

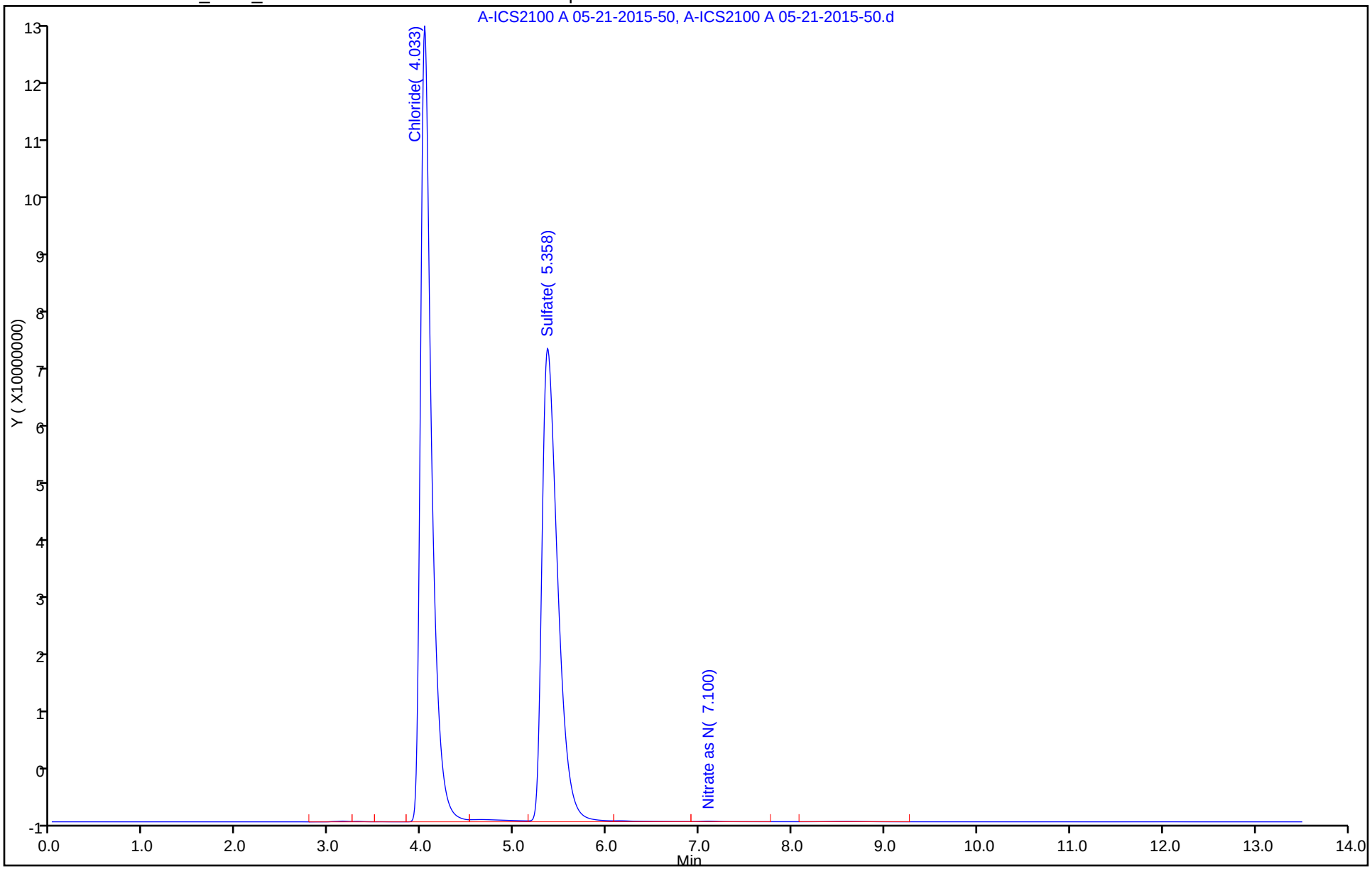
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-50.d				
Lims ID:	180-44321-A-28	Lab Sample ID:	180-44321-28		
Client ID:	HD-CW-18-0/1-0				
Sample Type:	Client				
Inject. Date:	22-May-2015 04:31:00	ALS Bottle#:	0	Worklist Smp#:	50
Injection Vol:	10.0 ul	Dil. Factor:	5.0000		
Sample Info:	180-0007057-050				
Misc. Info.:	28741 180-44321-A-28,,,5				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	22-May-2015 07:10:43	Calib Date:	19-May-2015 14:18:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK025				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.033	4.042	-0.009	1023810867	47.6	
3 Sulfate	5.358	5.367	-0.009	868512057	55.3	
5 Nitrate as N	7.100	7.058	0.042	1365818	0.0371	

Report Date: 22-May-2015 07:10:44 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-50.d				
Injection Date:	22-May-2015 04:31:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-44321-A-28	Lab Sample ID:	180-44321-28	Worklist Smp#:	50
Client ID:	HD-CW-18-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	5.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-MW-50D-0/1-0 Lab Sample ID: 180-44321-29

Matrix: Water Lab File ID: A-ICS2100 A 05-21-2015-17.d

Analysis Method: 300.0 Date Collected: 05/20/2015 10:07

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/21/2015 19:52

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142454 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.022	J B	0.10	0.0062
16887-00-6	Chloride	99	B	1.0	0.20

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-17.d
Lims ID: 180-44321-A-29 Lab Sample ID: 180-44321-29
Client ID: HD-MW-50D-0/1-0
Sample Type: Client
Inject. Date: 21-May-2015 19:52:00 ALS Bottle#: 0 Worklist Smp#: 17
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007057-017
Misc. Info.: 17 180-44321-A-29
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 22-May-2015 07:10:51 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK025

First Level Reviewer: oravecj Date: 22-May-2015 06:58:50

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.033	4.050	-0.017	2129405516	99.0	
3 Sulfate	5.233	5.367	-0.134	3694876224	235.5	E
5 Nitrate as N	7.100	7.067	0.033	545319	0.0219	

QC Flag Legend

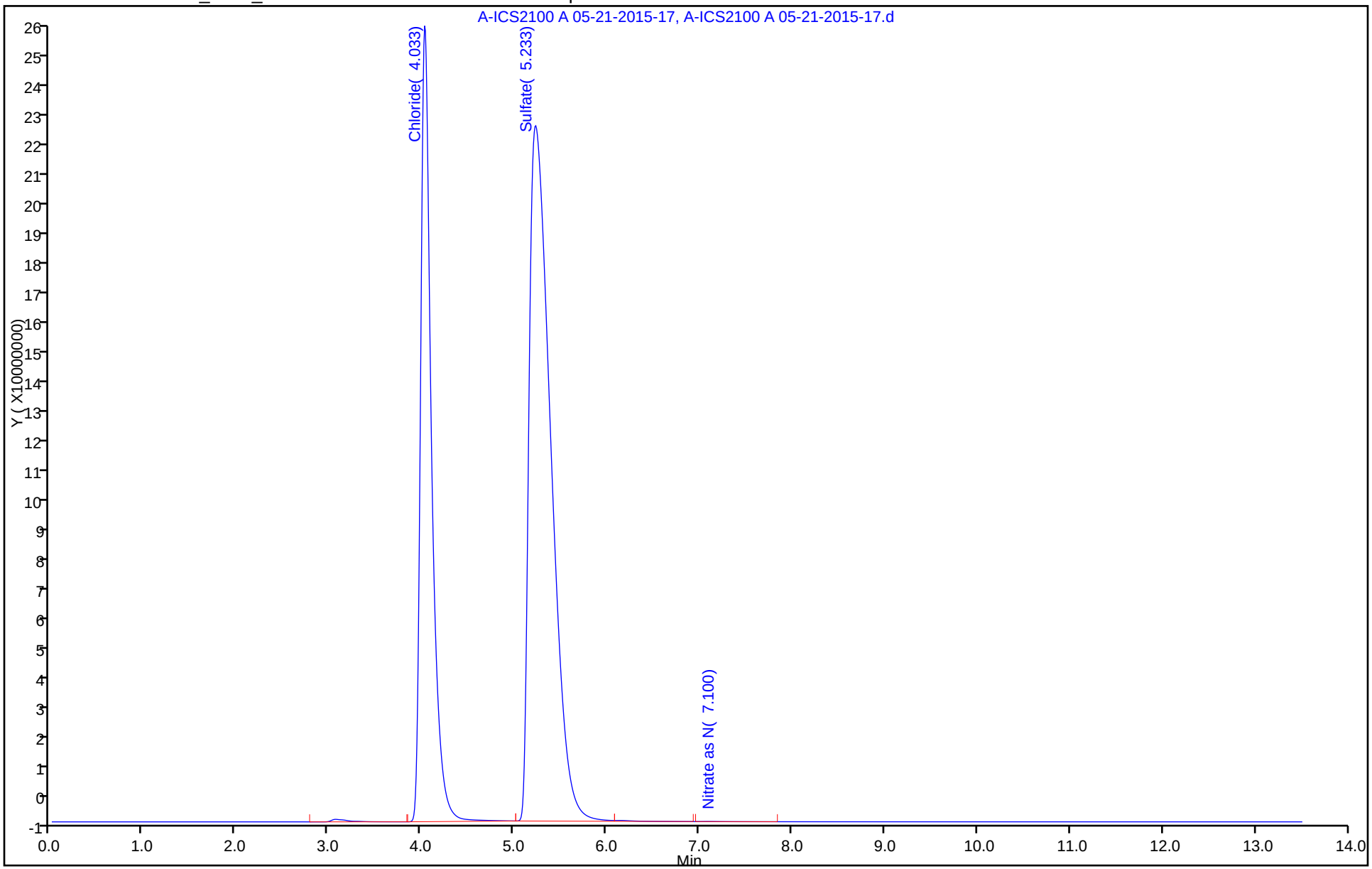
Processing Flags

E - Exceeded Maximum Amount

Report Date: 22-May-2015 07:10:55 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-17.d				
Injection Date:	21-May-2015 19:52:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-44321-A-29	Lab Sample ID:	180-44321-29	Worklist Smp#:	17
Client ID:	HD-MW-50D-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-MW-50D-0/1-0 Lab Sample ID: 180-44321-29

Matrix: Water Lab File ID: A-ICS2100 A 05-21-2015-53.d

Analysis Method: 300.0 Date Collected: 05/20/2015 10:07

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/22/2015 07:11

Con. Extract Vol.: Dilution Factor: 5

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142454 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14808-79-8	Sulfate	250		5.0	1.1

TestAmerica Pittsburgh
Target Compound Quantitation Report

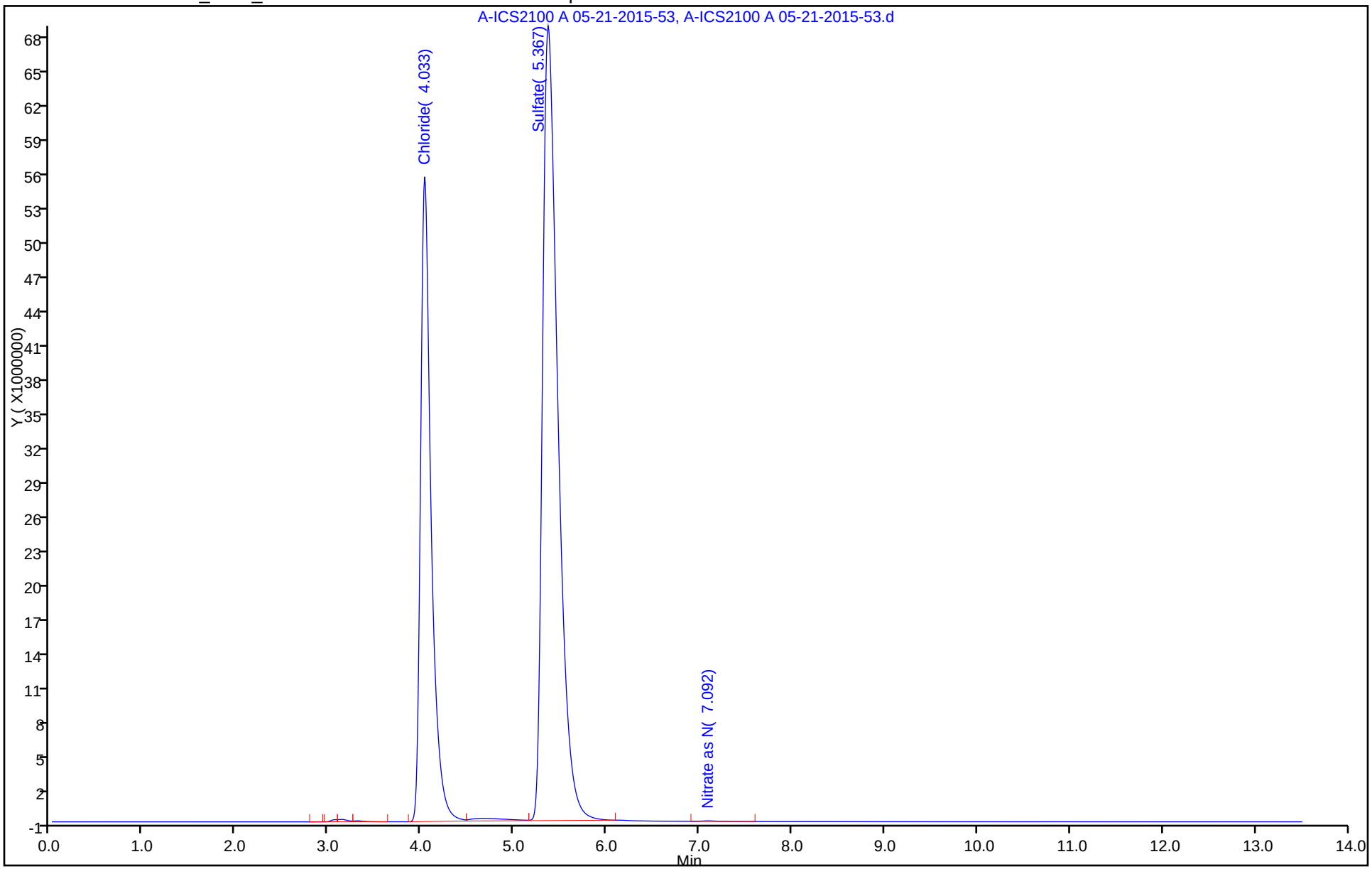
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-53.d				
Lims ID:	180-44321-A-29	Lab Sample ID:	180-44321-29		
Client ID:	HD-MW-50D-0/1-0				
Sample Type:	Client				
Inject. Date:	22-May-2015 07:11:00	ALS Bottle#:	0	Worklist Smp#:	53
Injection Vol:	10.0 ul	Dil. Factor:	5.0000		
Sample Info:	180-0007057-053				
Misc. Info.:	28284 180-44321-A-29 5X				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	25-May-2015 07:46:25	Calib Date:	19-May-2015 14:18:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK010				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.033	4.033	0.000	442821737	20.6	
3 Sulfate	5.367	5.375	-0.008	798540115	50.8	
5 Nitrate as N	7.092	7.058	0.034	522233	0.0214	

Report Date: 25-May-2015 07:46:26 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-53.d				
Injection Date:	22-May-2015 07:11:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-44321-A-29	Lab Sample ID:	180-44321-29	Worklist Smp#:	53
Client ID:	HD-MW-50D-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	5.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-MW-51S-0/1-0 Lab Sample ID: 180-44321-30

Matrix: Water Lab File ID: A-ICS2100 A 05-21-2015-43.d

Analysis Method: 300.0 Date Collected: 05/20/2015 12:31

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/22/2015 02:44

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142454 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	160	B	1.0	0.20
14808-79-8	Sulfate	59		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

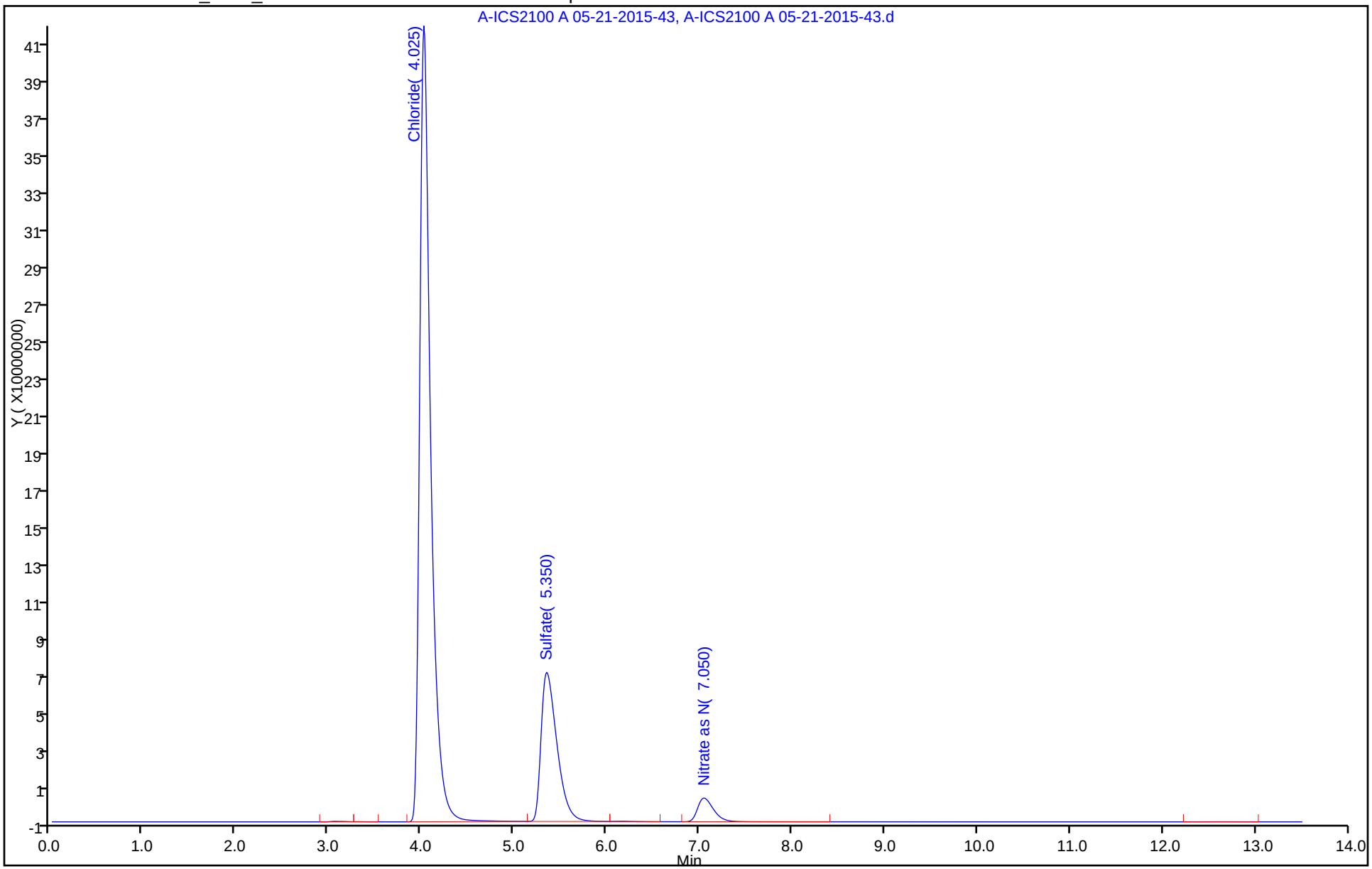
Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-43.d				
Lims ID:	180-44321-A-30	Lab Sample ID:	180-44321-30		
Client ID:	HD-MW-51S-0/1-0				
Sample Type:	Client				
Inject. Date:	22-May-2015 02:44:00	ALS Bottle#:	0	Worklist Smp#:	43
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0007057-043				
Misc. Info.:	2948 180-44321-A-30				
Operator ID:		Instrument ID:	CHIC2100A		
Method:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	22-May-2015 07:10:43	Calib Date:	19-May-2015 14:18:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK025				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
2 Chloride	4.025	4.042	-0.017	3434890387	159.7	
3 Sulfate	5.350	5.367	-0.017	926038083	59.0	
5 Nitrate as N	7.050	7.058	-0.008	148762421	2.78	

Report Date: 22-May-2015 07:10:46 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-43.d				
Injection Date:	22-May-2015 02:44:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-44321-A-30	Lab Sample ID:	180-44321-30	Worklist Smp#:	43
Client ID:	HD-MW-51S-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1 Analy Batch No.: 142103

SDG No.:

Instrument ID: CHIC2100A GC Column: AS-18 ID: Heated Purge: (Y/N) N

Calibration Start Date: 05/19/2015 12:31 Calibration End Date: 05/19/2015 14:18 Calibration ID: 23936

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-142103/2	A-ICS2100 A 05-19-2015-2.d
Level 2	IC 180-142103/3	A-ICS2100 A 05-19-2015-3.d
Level 3	ICRT 180-142103/4	A-ICS2100 A 05-19-2015-4.d
Level 4	IC 180-142103/5	A-ICS2100 A 05-19-2015-5.d
Level 5	IC 180-142103/6	A-ICS2100 A 05-19-2015-6.d
Level 6	IC 180-142103/7	A-ICS2100 A 05-19-2015-7.d
Level 7	IC 180-142103/8	A-ICS2100 A 05-19-2015-8.d
Level 8	IC 180-142103/9	A-ICS2100 A 05-19-2015-9.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7	LVL 8			RT WINDOW	AVG RT
Fluoride	3.083	3.092	3.092	3.092	3.092	3.083	3.083	3.083			2.733 - 3.433	3.088
Chloride	4.067	4.067	4.067	4.058	4.058	4.050	4.042	4.033			3.700 - 4.400	4.055
Nitrite as N	4.708	4.708	4.708	4.708	4.708	+++++	+++++	+++++			4.450 - 4.950	4.708
Sulfate	5.433	5.433	5.425	5.408	5.367	5.325	5.275	5.258			5.025 - 5.725	5.366
Bromide	6.192	6.200	6.200	6.192	6.183	6.158	6.133	6.117			5.817 - 6.517	6.172
Nitrate as N	7.125	7.133	7.125	7.108	7.083	7.042	7.000	6.975			6.825 - 7.325	7.074
Orthophosphate as P	+++++	9.467	9.442	9.400	9.308	9.233	9.150	9.092			9.117 - 9.617	9.299

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1 Analy Batch No.: 142103

SDG No.:

Instrument ID: CHIC2100A GC Column: AS-18 ID: Heated Purge: (Y/N) N

Calibration Start Date: 05/19/2015 12:31 Calibration End Date: 05/19/2015 14:18 Calibration ID: 23936

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-142103/2	A-ICS2100 A 05-19-2015-2.d
Level 2	IC 180-142103/3	A-ICS2100 A 05-19-2015-3.d
Level 3	ICRT 180-142103/4	A-ICS2100 A 05-19-2015-4.d
Level 4	IC 180-142103/5	A-ICS2100 A 05-19-2015-5.d
Level 5	IC 180-142103/6	A-ICS2100 A 05-19-2015-6.d
Level 6	IC 180-142103/7	A-ICS2100 A 05-19-2015-7.d
Level 7	IC 180-142103/8	A-ICS2100 A 05-19-2015-8.d
Level 8	IC 180-142103/9	A-ICS2100 A 05-19-2015-9.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4 LVL 8		B	M1	M2								
Fluoride	3455360 4386234	3874176 4081731	4200910 4084534	4193692 3739261	Lin2	-32984.443	4116745.50							0.9970		0.9950
Chloride	19689183 21359131	22242308 20493892	22712075 21671984	21258789 20612105	Lin2	-1514627.6	21518415.5							0.9980		0.9950
Nitrite as N	71586720 45200728	55889756 +++++	54188364 +++++	47372184 +++++	Lin2	1204022.56	48249506.8							0.9950		0.9950
Sulfate	16543334 15539008	17164970 14900977	17026632 15700707	15569128 14708371	Lin2	1203615.18	15684762.0							0.9970		0.9950
Bromide	8559145 9078427	10040729 9121705	10072858 9728017	8753657 9279629	Lin2	-144748.46	9455171.83							0.9970		0.9950
Nitrate as N	40718480 53252602	52290872 51583541	55641962 54966225	51654104 52320137	Lin2	-629659.24	53744179.8							0.9990		0.9950
Orthophosphate as P	+++++ 20034764	14182088 19801129	17226090 21353245	17663285 20080471	Lin	-1838363.9	20663065.4							0.9980		0.9950

Note: The m1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
HPLC/IC BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1 Analy Batch No.: 142103

SDG No.:

Instrument ID: CHIC2100A GC Column: AS-18 ID: Heated Purge: (Y/N) N

Calibration Start Date: 05/19/2015 12:31 Calibration End Date: 05/19/2015 14:18 Calibration ID: 23936

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-142103/2	A-ICS2100 A 05-19-2015-2.d
Level 2	IC 180-142103/3	A-ICS2100 A 05-19-2015-3.d
Level 3	ICRT 180-142103/4	A-ICS2100 A 05-19-2015-4.d
Level 4	IC 180-142103/5	A-ICS2100 A 05-19-2015-5.d
Level 5	IC 180-142103/6	A-ICS2100 A 05-19-2015-6.d
Level 6	IC 180-142103/7	A-ICS2100 A 05-19-2015-7.d
Level 7	IC 180-142103/8	A-ICS2100 A 05-19-2015-8.d
Level 8	IC 180-142103/9	A-ICS2100 A 05-19-2015-9.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (UG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4	LVL 5
Fluoride	Lin2	172768 20408654	968544 30634003	2100455 37392605	4193692	10965585	0.0500 5.00	0.250 7.50	0.500 10.0	1.00	2.50
Chloride	Lin2	19689183 2049389234	111211541 3250797562	227120751 4122421026	425175787	1067956527	1.00 100	5.00 150	10.0 200	20.0	50.0
Nitrite as N	Lin2	3579336 +++++	13972439 +++++	27094182 +++++	47372184	113001820	0.0500 +++++	0.250 +++++	0.500 +++++	1.00	2.50
Sulfate	Lin2	16543334 1490097661	85824852 2355106108	170266320 2941674111	311382557	776950423	1.00 100	5.00 150	10.0 200	20.0	50.0
Bromide	Lin2	1711829 182434104	10040729 291840519	20145715 371185166	35014627	90784267	0.200 20.0	1.00 30.0	2.00 40.0	4.00	10.0
Nitrate as N	Lin2	2035924 257917705	13072718 412246685	27820981 523201370	51654104	133131506	0.0500 5.00	0.250 7.50	0.500 10.0	1.00	2.50
Orthophosphate as P	Lin	+++++ 99005645	3545522 160149338	8613045 200804708	17663285	50086909	+++++ 5.00	0.250 7.50	0.500 10.0	1.00	2.50

Curve Type Legend

Lin = Linear
Lin2 = Linear 1/conc^2

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-2.d
Lims ID: ic L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 19-May-2015 12:31:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007010-002
Misc. Info.: 2 IC L2
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 20-May-2015 16:39:36 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK002

First Level Reviewer: hartmanm Date: 19-May-2015 19:34:48

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.083	3.083	0.000	172768H	0.0500	0.0500	
2 Chloride	4.067	4.050	0.017	19689183	1.00	0.9854	
7 Nitrite as N	4.708	4.700	0.008	3579336	0.0500	0.0492	
3 Sulfate	5.433	5.375	0.058	16543334	1.00	0.9780	
4 Bromide	6.192	6.167	0.025	1711829	0.2000	0.1964	
5 Nitrate as N	7.125	7.075	0.050	2035924	0.0500	0.0496	
6 Orthophosphate as P	9.467	9.367	0.100	427235	0.0500	0.1096	

Reagents:

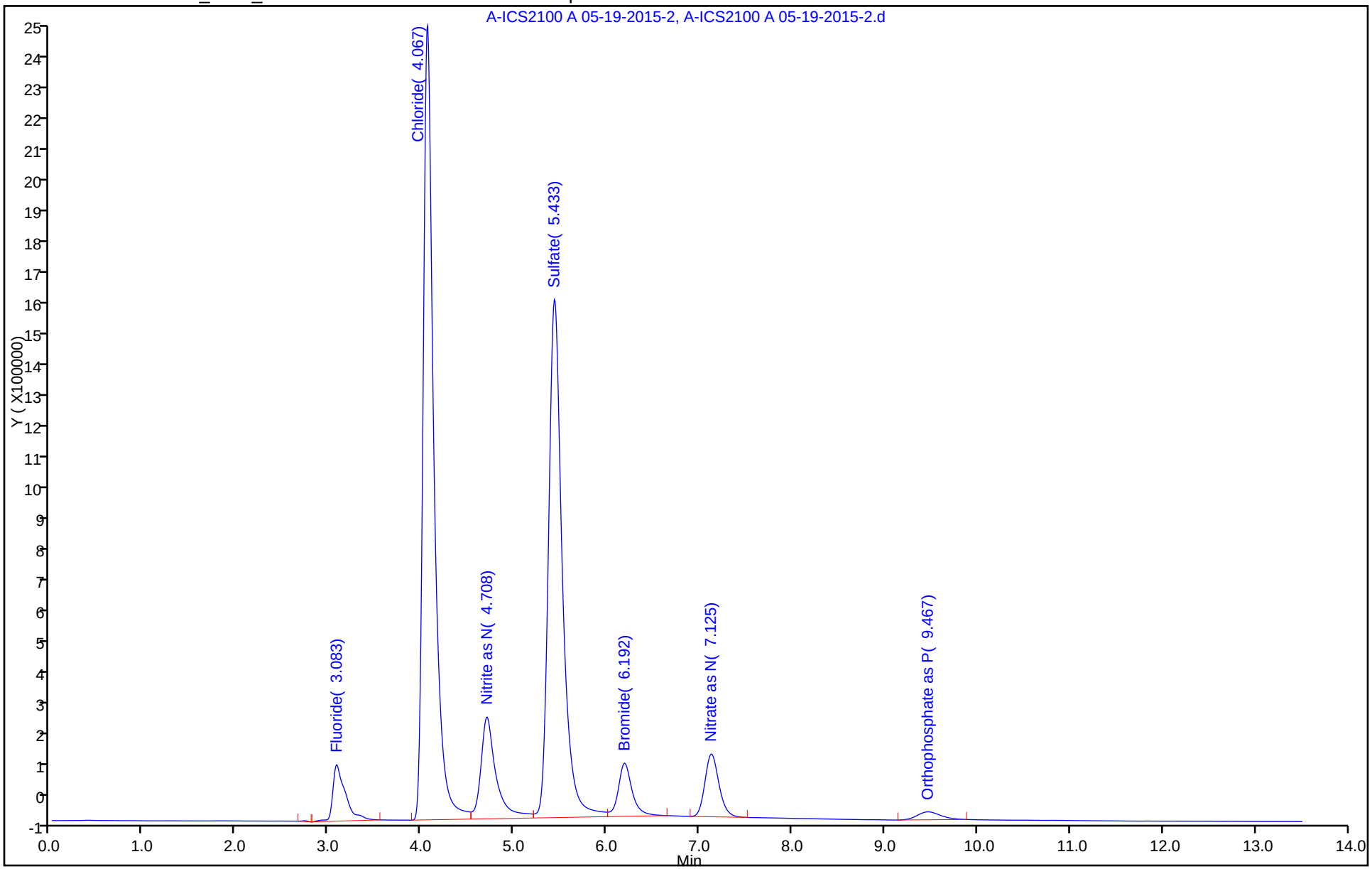
ICSTDL2_00179 Amount Added: 1.00 Units: mL

Report Date: 20-May-2015 16:39:37 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-2.d

Injection Date:	19-May-2015 12:31:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ic L2			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-3.d
Lims ID: ic L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 19-May-2015 12:46:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007010-003
Misc. Info.: 3 IC L3
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 20-May-2015 16:39:37 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK002

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.092	3.083	0.009	968544H	0.2500	0.2433	
2 Chloride	4.067	4.050	0.017	111211541	5.00	5.24	
7 Nitrite as N	4.708	4.700	0.008	13972439	0.2500	0.2646	
3 Sulfate	5.433	5.375	0.058	85824852	5.00	5.40	
4 Bromide	6.200	6.167	0.033	10040729	1.00	1.08	
5 Nitrate as N	7.133	7.075	0.058	13072718	0.2500	0.2550	
6 Orthophosphate as P	9.467	9.367	0.100	3545522	0.2500	0.2606	

Reagents:

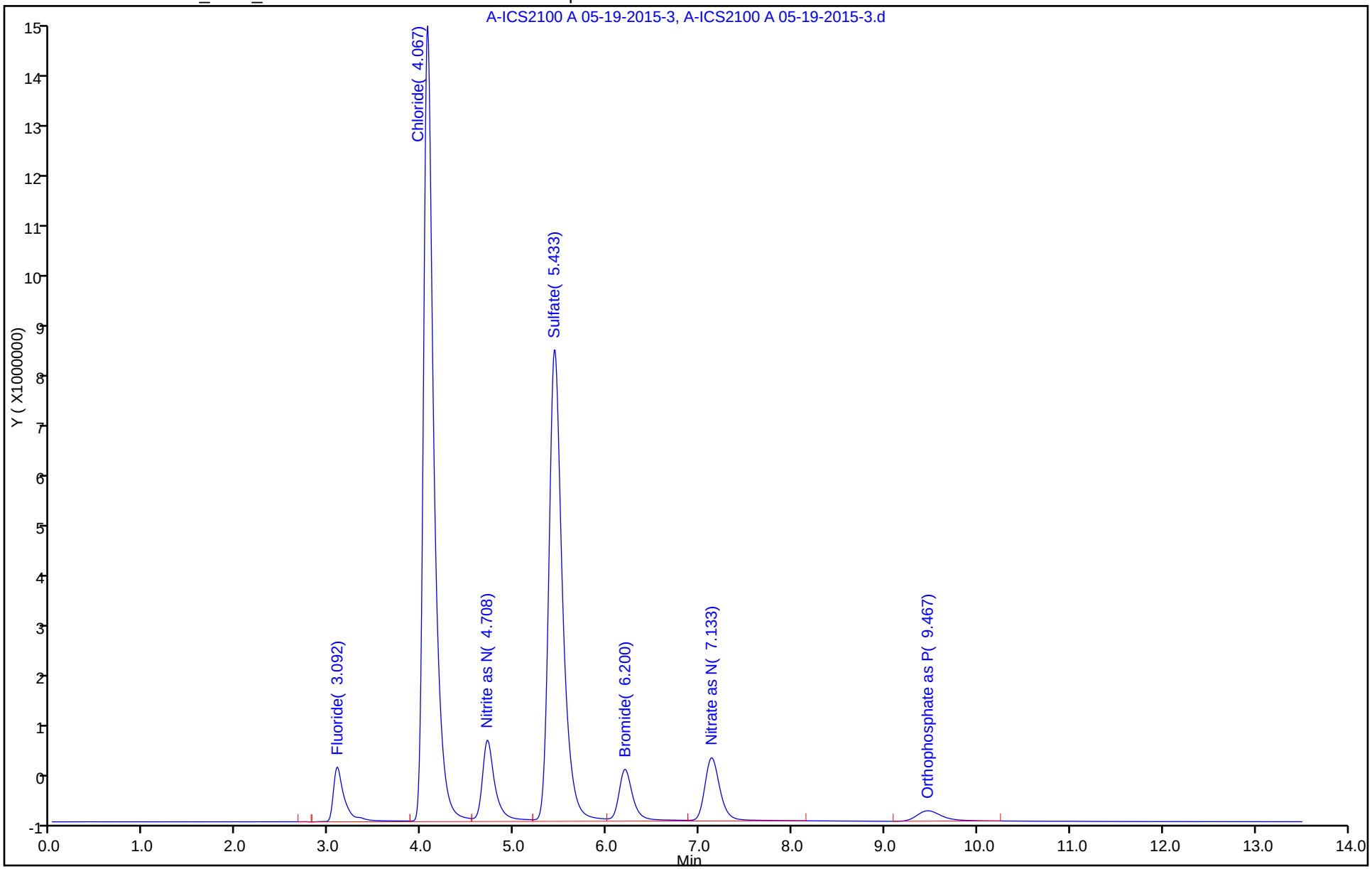
ICSTDL3_00225 Amount Added: 1.00 Units: mL

Report Date: 20-May-2015 16:39:37 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-3.d

Injection Date:	19-May-2015 12:46:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ic L3			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-4.d
Lims ID: icrt L4
Client ID:
Sample Type: ICRT Calib Level: 4
Inject. Date: 19-May-2015 13:01:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007010-004
Misc. Info.: 4 ICRT L4
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 20-May-2015 16:39:38 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK002

First Level Reviewer: hartmanm Date: 19-May-2015 19:34:18

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.092	3.092	0.000	2100455H	0.5000	0.5182	
2 Chloride	4.067	4.067	0.000	227120751	10.0	10.6	
7 Nitrite as N	4.708	4.708	0.000	27094182	0.5000	0.5366	
3 Sulfate	5.425	5.425	0.000	170266320	10.0	10.8	
4 Bromide	6.200	6.200	0.000	20145715	2.00	2.15	
5 Nitrate as N	7.125	7.125	0.000	27820981	0.5000	0.5294	
6 Orthophosphate as P	9.442	9.442	0.000	8613045	0.5000	0.5058	

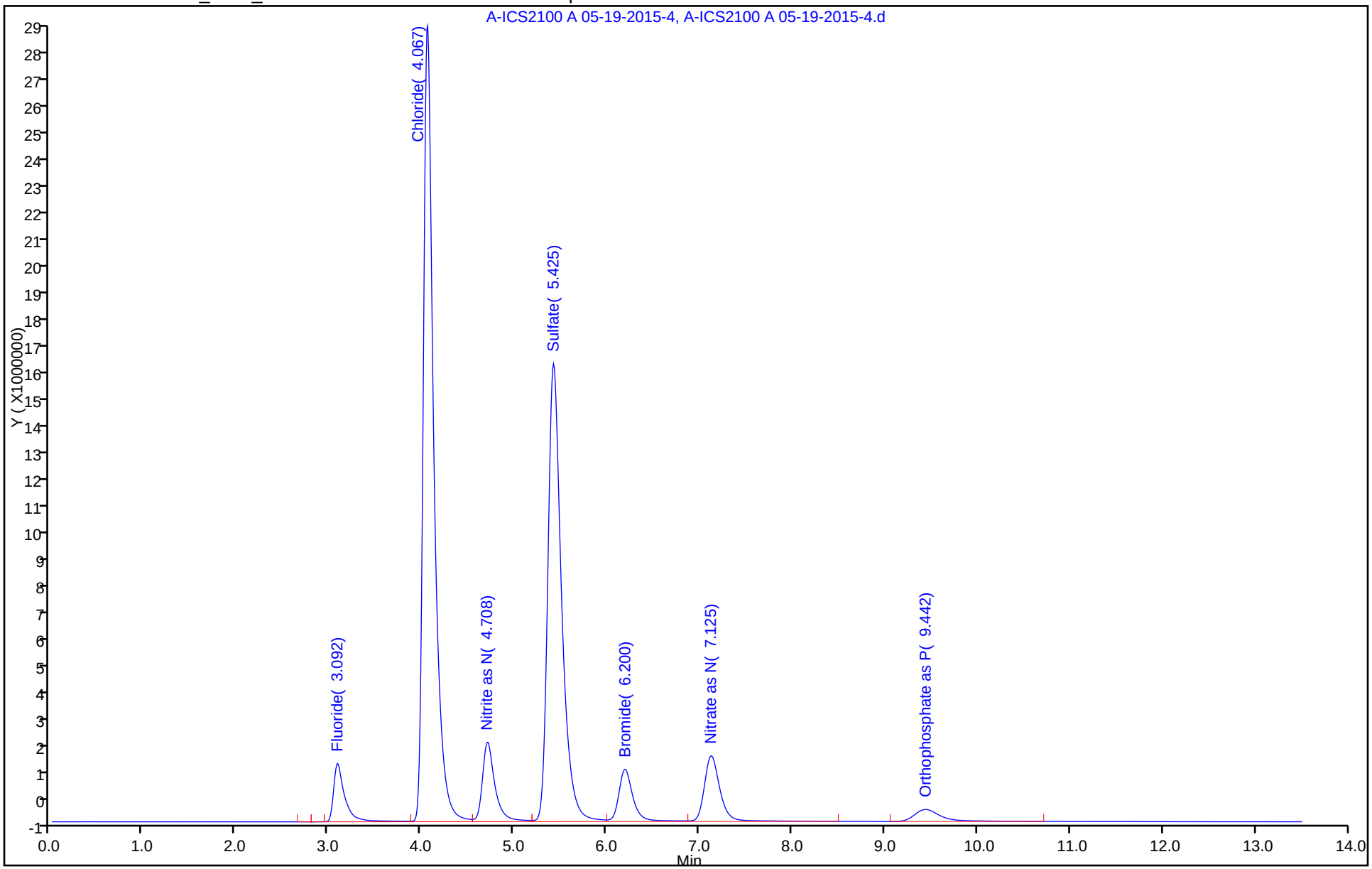
Reagents:

ICSTDL4_00150 Amount Added: 1.00 Units: mL

Report Date: 20-May-2015 16:39:38 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-4.d				
Injection Date:	19-May-2015 13:01:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	icrt L4			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-5.d
Lims ID: ic L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 19-May-2015 13:17:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007010-005
Misc. Info.: 5 IC L5
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 20-May-2015 16:39:38 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK002

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.092	3.092	0.000	4193692H	1.00	1.03	
2 Chloride	4.058	4.067	-0.009	425175787	20.0	19.8	
7 Nitrite as N	4.708	4.708	0.000	47372184	1.00	0.9569	
3 Sulfate	5.408	5.425	-0.017	311382557	20.0	19.8	
4 Bromide	6.192	6.200	-0.008	35014627	4.00	3.72	
5 Nitrate as N	7.108	7.125	-0.017	51654104	1.00	0.9728	
6 Orthophosphate as P	9.400	9.442	-0.042	17663285	1.00	0.9438	

Reagents:

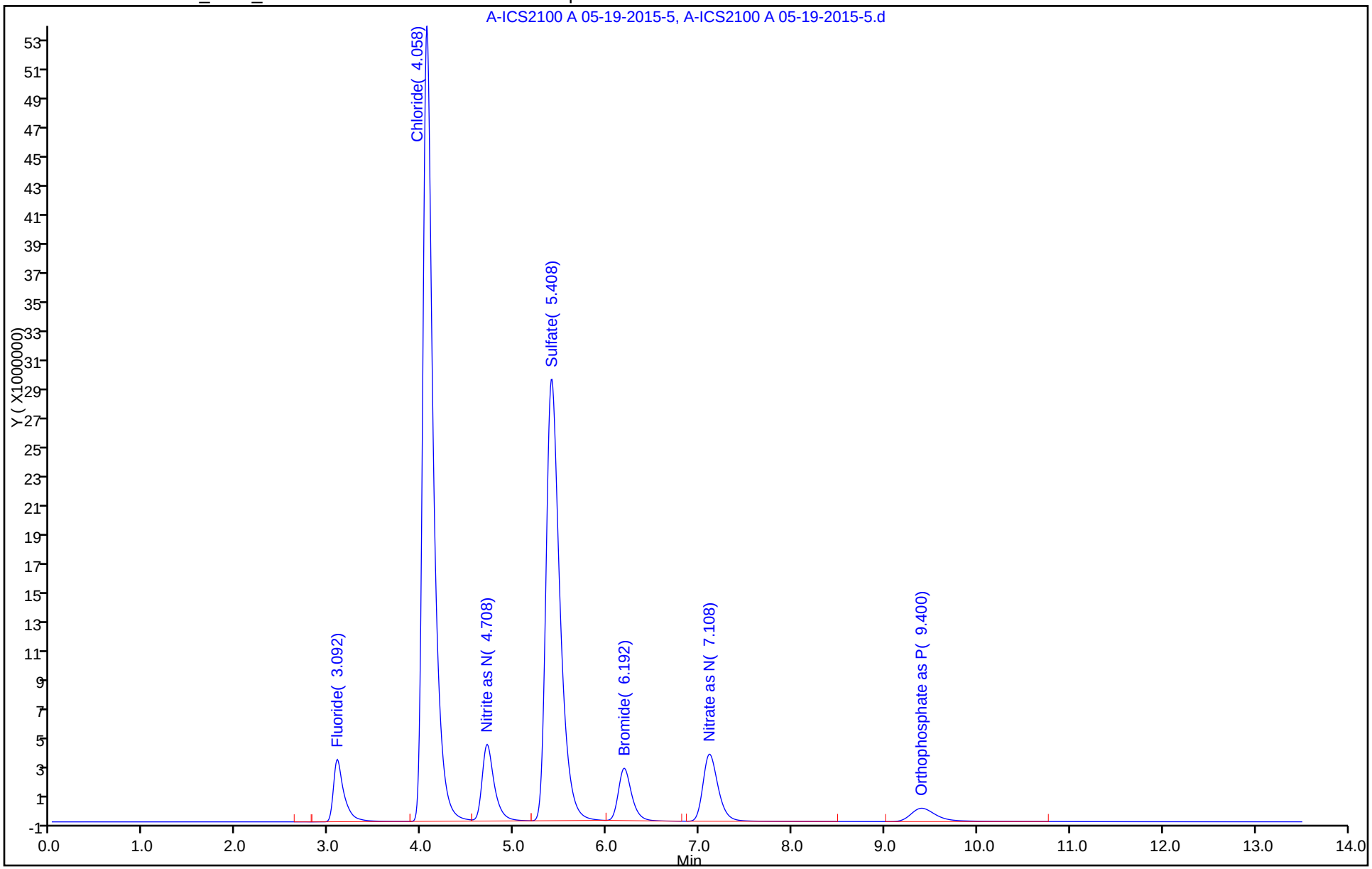
ICSTDL5_00156 Amount Added: 1.00 Units: mL

Report Date: 20-May-2015 16:39:38 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-5.d

Injection Date:	19-May-2015 13:17:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ic L5			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-6.d
Lims ID: ic L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 19-May-2015 13:32:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007010-006
Misc. Info.: 6 IC L6
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 20-May-2015 16:39:39 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK002

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.092	3.092	0.000	10965585H	2.50	2.67	
2 Chloride	4.058	4.067	-0.009	1067956527	50.0	49.7	
7 Nitrite as N	4.708	4.708	0.000	113001820	2.50	2.32	
3 Sulfate	5.367	5.425	-0.058	776950423	50.0	49.5	
4 Bromide	6.183	6.200	-0.017	90784267	10.0	9.62	
5 Nitrate as N	7.083	7.125	-0.042	133131506	2.50	2.49	
6 Orthophosphate as P	9.308	9.442	-0.134	50086909	2.50	2.51	

Reagents:

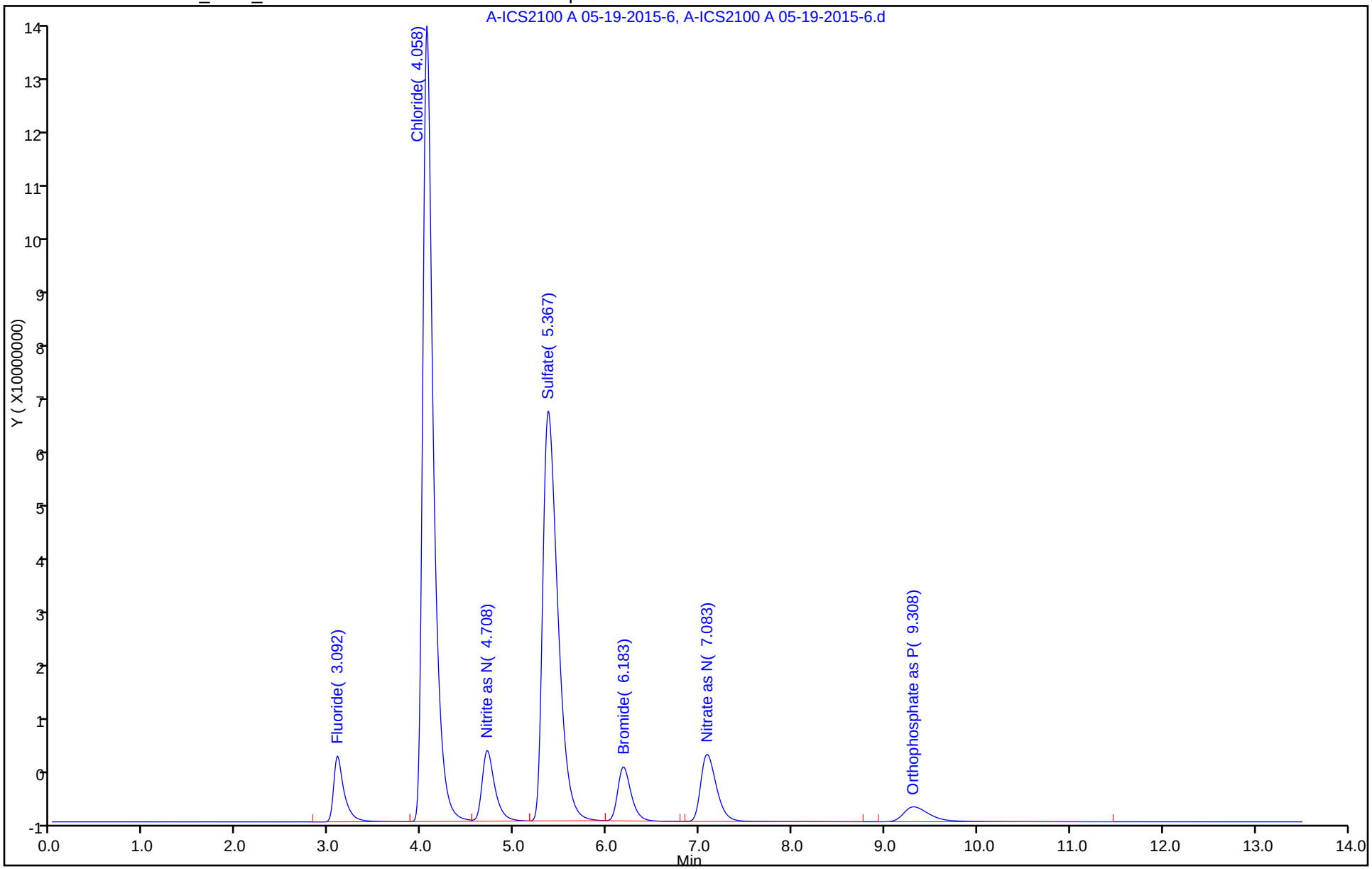
ICSTDL6_00228 Amount Added: 1.00 Units: mL

Report Date: 20-May-2015 16:39:39 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-6.d

Injection Date:	19-May-2015 13:32:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ic L6			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-7.d				
Lims ID:	ic L7				
Client ID:					
Sample Type:	IC	Calib Level:	7		
Inject. Date:	19-May-2015 13:47:00	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0007010-007				
Misc. Info.:	7 IC L7				
Operator ID:		Instrument ID:	CHIC2100A		
Sublist:	chrom-300_9056_CHIC2100A*sub3				
Method:	\\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	20-May-2015 16:39:39	Calib Date:	19-May-2015 14:18:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK002				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.083	3.092	-0.009	20408654H	5.00	4.97	
2 Chloride	4.050	4.067	-0.017	2049389234	100.0	95.3	
7 Nitrite as N	4.700	4.708	-0.008	209281469	5.00	4.31	
3 Sulfate	5.325	5.425	-0.100	1490097661	100.0	94.9	
4 Bromide	6.158	6.200	-0.042	182434104	20.0	19.3	
5 Nitrate as N	7.042	7.125	-0.083	257917705	5.00	4.81	
6 Orthophosphate as P	9.233	9.442	-0.209	99005645	5.00	4.88	

Reagents:

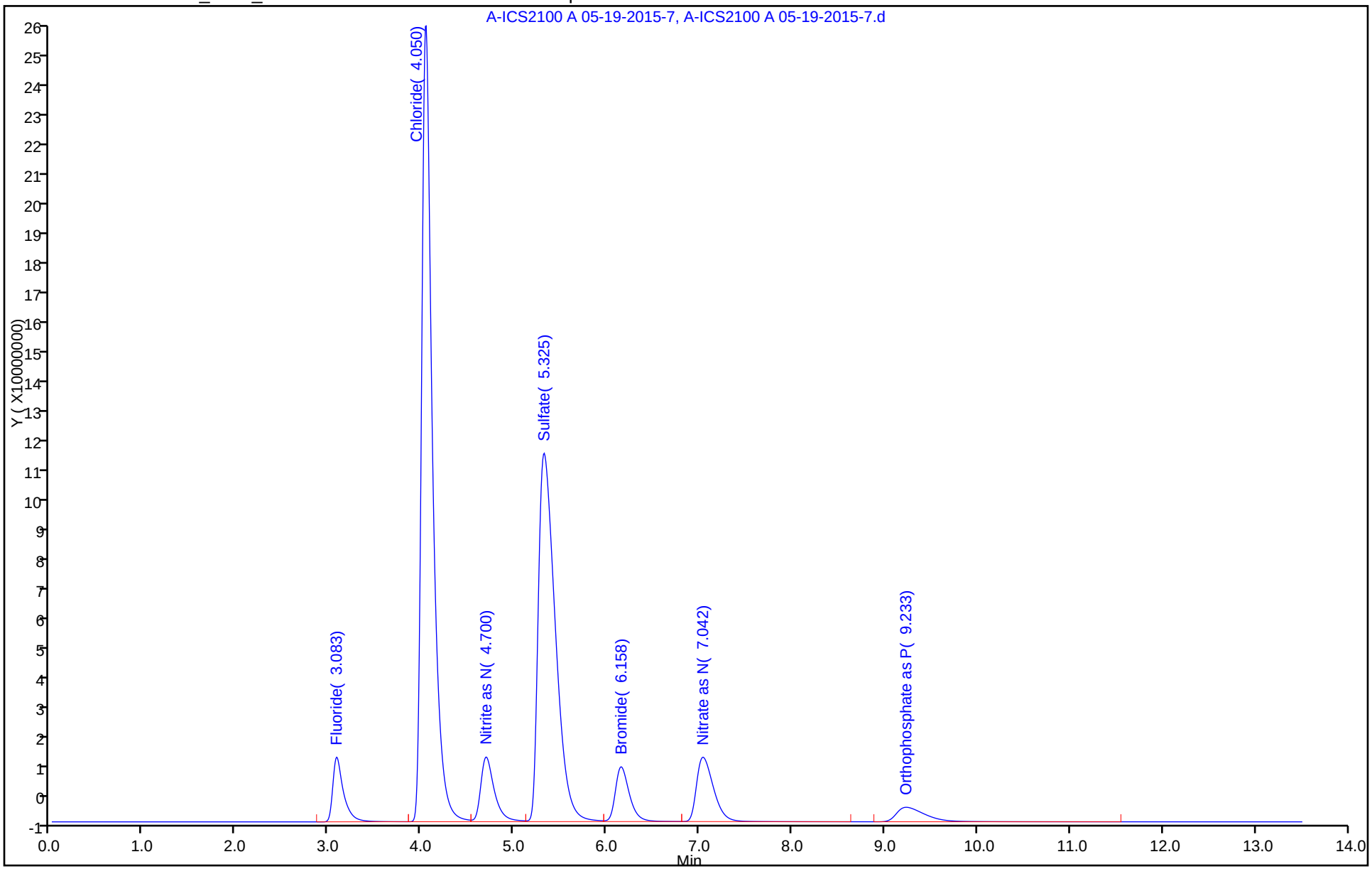
ICSTDL7_00149 Amount Added: 1.00 Units: mL

Report Date: 20-May-2015 16:39:39 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-7.d

Injection Date:	19-May-2015 13:47:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ic L7			Worklist Smp#:	7
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-8.d
Lims ID: ic L8
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 19-May-2015 14:03:00 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007010-008
Misc. Info.: 8 IC L8
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 20-May-2015 16:39:40 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK002

First Level Reviewer: hartmanm Date: 19-May-2015 19:35:50

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.083	3.092	-0.009	30634003H	7.50	7.45	
2 Chloride	4.042	4.067	-0.025	3250797562	150.0	151.1	
7 Nitrite as N	4.683	4.708	-0.025	312548798	7.50	6.45	
3 Sulfate	5.275	5.425	-0.150	2355106108	150.0	150.1	
4 Bromide	6.133	6.200	-0.067	291840519	30.0	30.9	
5 Nitrate as N	7.000	7.125	-0.125	412246685	7.50	7.68	
6 Orthophosphate as P	9.150	9.442	-0.292	160149338	7.50	7.84	

Reagents:

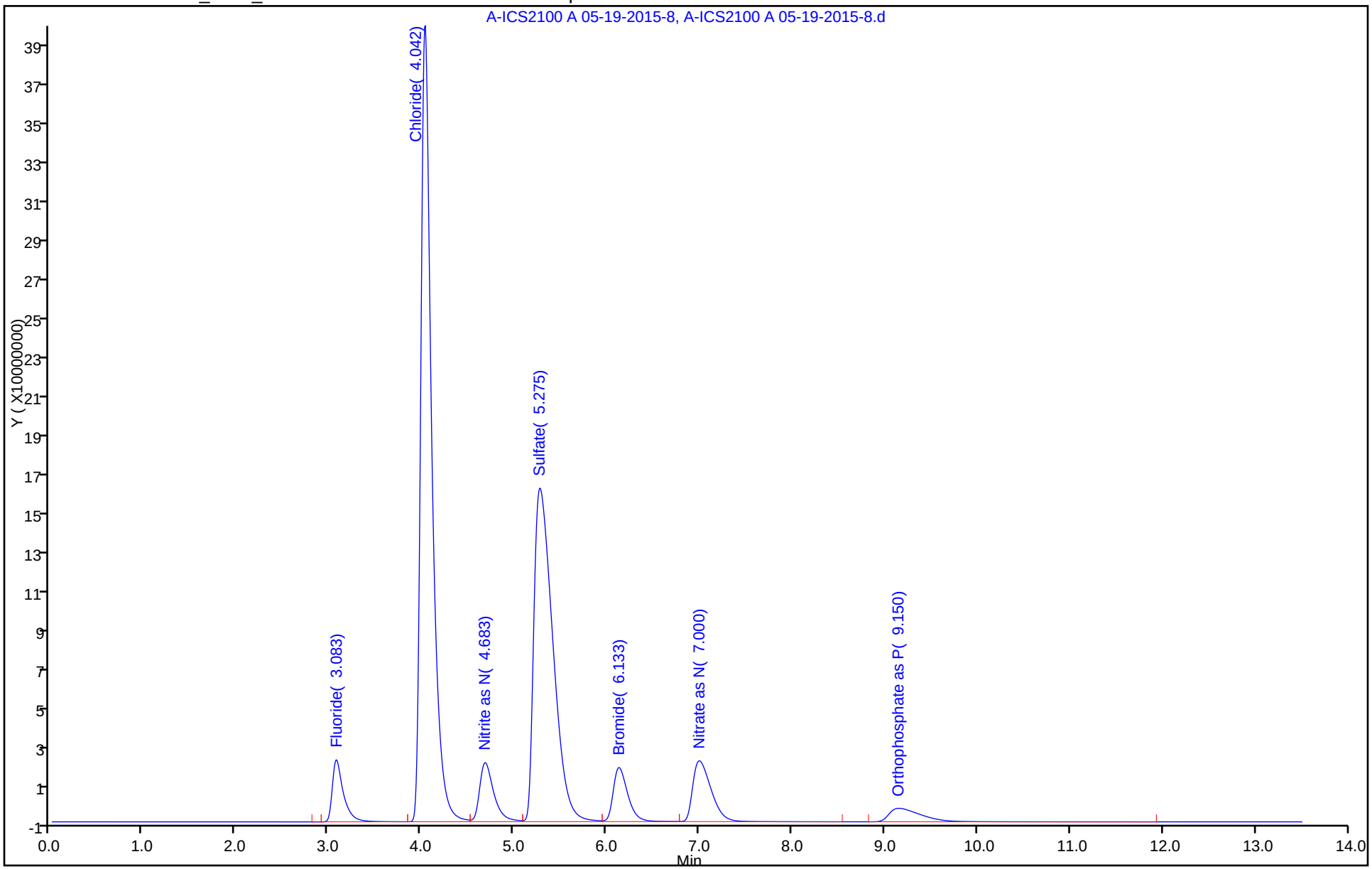
ICSTDL8_00118 Amount Added: 1.00 Units: mL

Report Date: 20-May-2015 16:39:40 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-8.d

Injection Date:	19-May-2015 14:03:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ic L8			Worklist Smp#:	8
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



Report Date: 20-May-2015 16:39:40 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d
Lims ID: ic L9
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 19-May-2015 14:18:00 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007010-009
Misc. Info.: 9 IC L9
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 20-May-2015 16:39:40 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK002

First Level Reviewer: hartmanm Date: 19-May-2015 19:38:31

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.083	3.092	-0.009	37392605H	10.0	9.09	
2 Chloride	4.033	4.067	-0.034	4122421026	200.0	191.6	
7 Nitrite as N	4.683	4.708	-0.025	385383668	10.0	7.96	
3 Sulfate	5.258	5.425	-0.167	2941674111	200.0	187.5	
4 Bromide	6.117	6.200	-0.083	371185166	40.0	39.3	
5 Nitrate as N	6.975	7.125	-0.150	523201370	10.0	9.75	
6 Orthophosphate as P	9.092	9.442	-0.350	200804708	10.0	9.81	

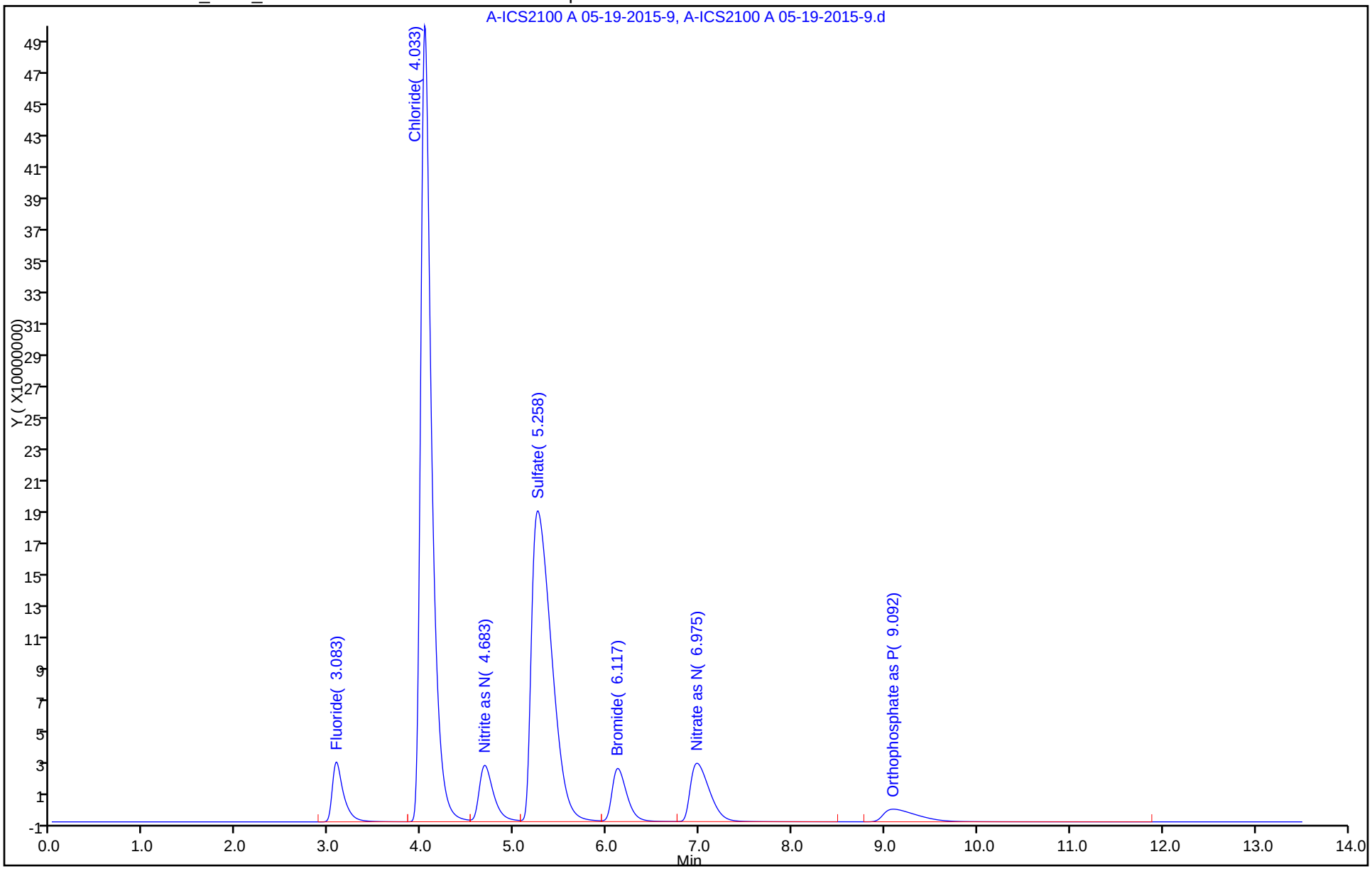
Reagents:

ICSTDL9_00119 Amount Added: 1.00 Units: mL

Report Date: 20-May-2015 16:39:41 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d				
Injection Date:	19-May-2015 14:18:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ic L9			Worklist Smp#:	9
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Lab Sample ID: ICV 180-142454/2 Calibration Date: 05/21/2015 15:33

Instrument ID: CHIC2100A Calib Start Date: 05/19/2015 12:31

GC Column: AS-18 ID: Calib End Date: 05/19/2015 14:18

Lab File ID: A-ICS2100 A 05-21-2015-2.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		4340682		3.17	3.00	5.7	10.0
Chloride	Lin2		21576273		60.2	60.0	0.4	10.0
Nitrite as N	Lin2	54847550	46990908		2.90	3.00	-3.4	10.0
Sulfate	Lin2		15722338		60.1	60.0	0.1	10.0
Bromide	Lin2		9636852		12.2	12.0	2.0	10.0
Nitrate as N	Lin2		53013902		2.97	3.00	-1.0	10.0
Orthophosphate as P	Lin		18879118		2.83	3.00	-5.7	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Lab Sample ID: ICV 180-142454/2 Calibration Date: 05/21/2015 15:33

Instrument ID: CHIC2100A Calib Start Date: 05/19/2015 12:31

GC Column: AS-18 ID: Calib End Date: 05/19/2015 14:18

Lab File ID: A-ICS2100 A 05-21-2015-2.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.08	2.73	3.43
Chloride	4.03	3.69	4.39
Nitrite as N	4.68	4.43	4.93
Sulfate	5.36	5.02	5.72
Bromide	6.15	5.80	6.50
Nitrate as N	7.05	6.81	7.31
Orthophosphate as P	9.38	9.15	9.65

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-2.d
Lims ID: icv
Client ID:
Sample Type: ICV
Inject. Date: 21-May-2015 15:33:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007057-002
Misc. Info.: 2 ICV
Operator ID: Instrument ID: CHIC2100A
Sublist:

Method: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 22-May-2015 07:02:47 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.075	3.075	0.000	13022045H	3.00	3.17	
2 Chloride	4.033	4.042	-0.009	1294576357	60.0	60.2	
7 Nitrite as N	4.683	4.683	0.000	141029112	3.00	2.90	E
3 Sulfate	5.358	5.367	-0.009	943340297	60.0	60.1	
4 Bromide	6.150	6.150	0.000	115642227	12.0	12.2	
5 Nitrate as N	7.050	7.058	-0.008	159041706	3.00	2.97	
6 Orthophosphate as P	9.383	9.400	-0.017	56637354	3.00	2.83	

QC Flag Legend

Processing Flags
E - Exceeded Maximum Amount
H - Response Measured by Height

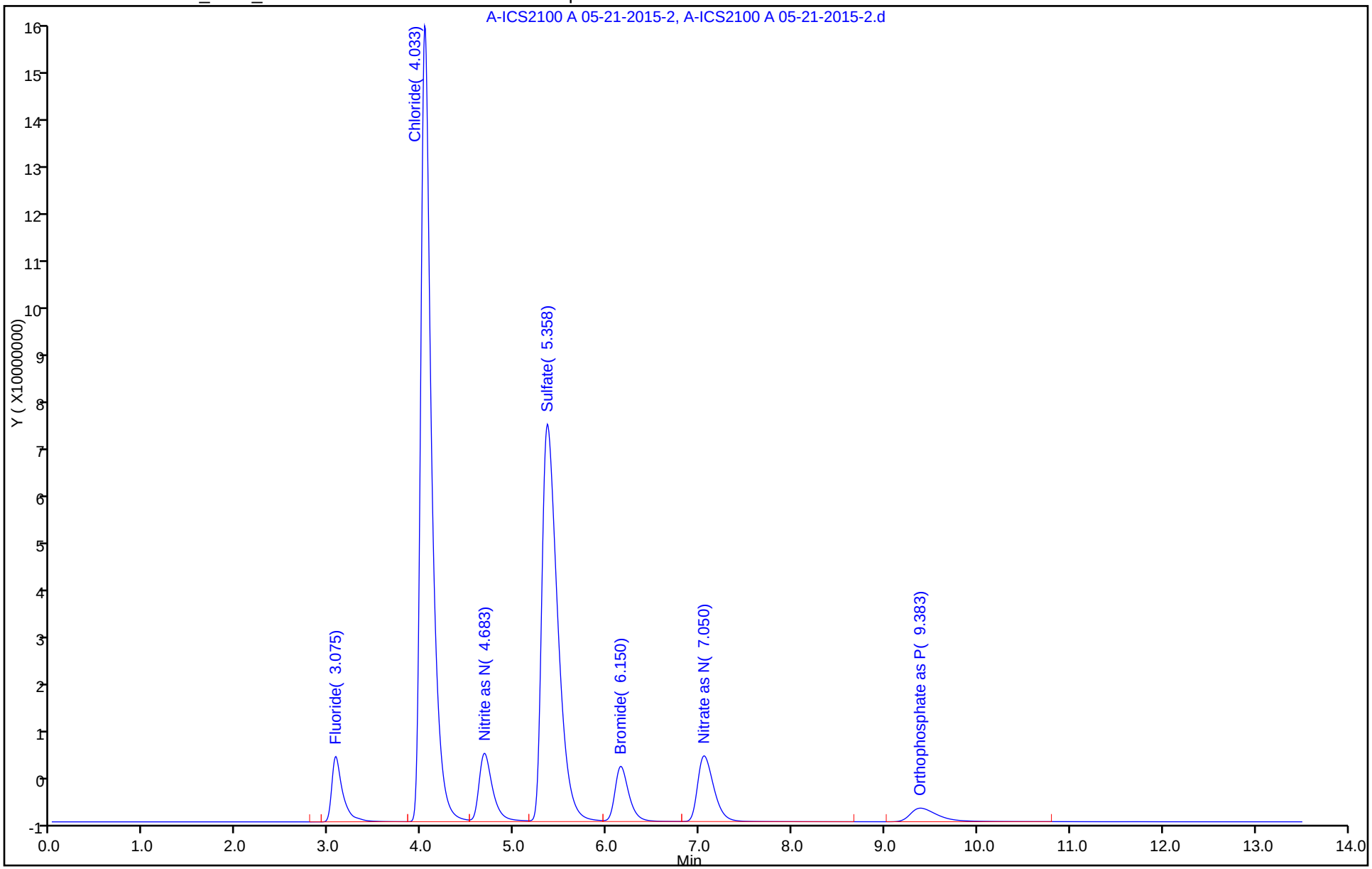
Reagents:

icicv_01276 Amount Added: 1.00 Units: mL

Report Date: 22-May-2015 07:02:48 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-2.d				
Injection Date:	21-May-2015 15:33:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	icv			Worklist Smp#:	2
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Lab Sample ID: CCV 180-142454/3 Calibration Date: 05/21/2015 15:49

Instrument ID: CHIC2100A Calib Start Date: 05/19/2015 12:31

GC Column: AS-18 ID: Calib End Date: 05/19/2015 14:18

Lab File ID: A-ICS2100 A 05-21-2015-3.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		4300583		2.62	2.50	4.8	10.0
Chloride	Lin2		21431434		49.9	50.0	-0.3	10.0
Nitrite as N	Lin2	54847550	45433296		2.33	2.50	-6.8	10.0
Sulfate	Lin2		15301919		48.7	50.0	-2.6	10.0
Bromide	Lin2		9098097		9.64	10.0	-3.6	10.0
Nitrate as N	Lin2		53355130		2.49	2.50	-0.3	10.0
Orthophosphate as P	Lin		18937342		2.38	2.50	-4.8	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Lab Sample ID: CCV 180-142454/3 Calibration Date: 05/21/2015 15:49

Instrument ID: CHIC2100A Calib Start Date: 05/19/2015 12:31

GC Column: AS-18 ID: Calib End Date: 05/19/2015 14:18

Lab File ID: A-ICS2100 A 05-21-2015-3.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.08	2.73	3.43
Chloride	4.04	3.69	4.39
Nitrite as N	4.68	4.43	4.93
Sulfate	5.37	5.02	5.72
Bromide	6.15	5.80	6.50
Nitrate as N	7.06	6.81	7.31
Orthophosphate as P	9.40	9.15	9.65

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-3.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 21-May-2015 15:49:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007057-003
Misc. Info.: 3 CCV
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 22-May-2015 07:02:47 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.075	3.075	0.000	10751457H	2.50	2.62	
2 Chloride	4.042	4.042	0.000	1071571687	50.0	49.9	
7 Nitrite as N	4.683	4.683	0.000	113583240	2.50	2.33	
3 Sulfate	5.367	5.367	0.000	765095960	50.0	48.7	
4 Bromide	6.150	6.150	0.000	90980966	10.0	9.64	
5 Nitrate as N	7.058	7.058	0.000	133387826	2.50	2.49	
6 Orthophosphate as P	9.400	9.400	0.000	47343355	2.50	2.38	

Reagents:

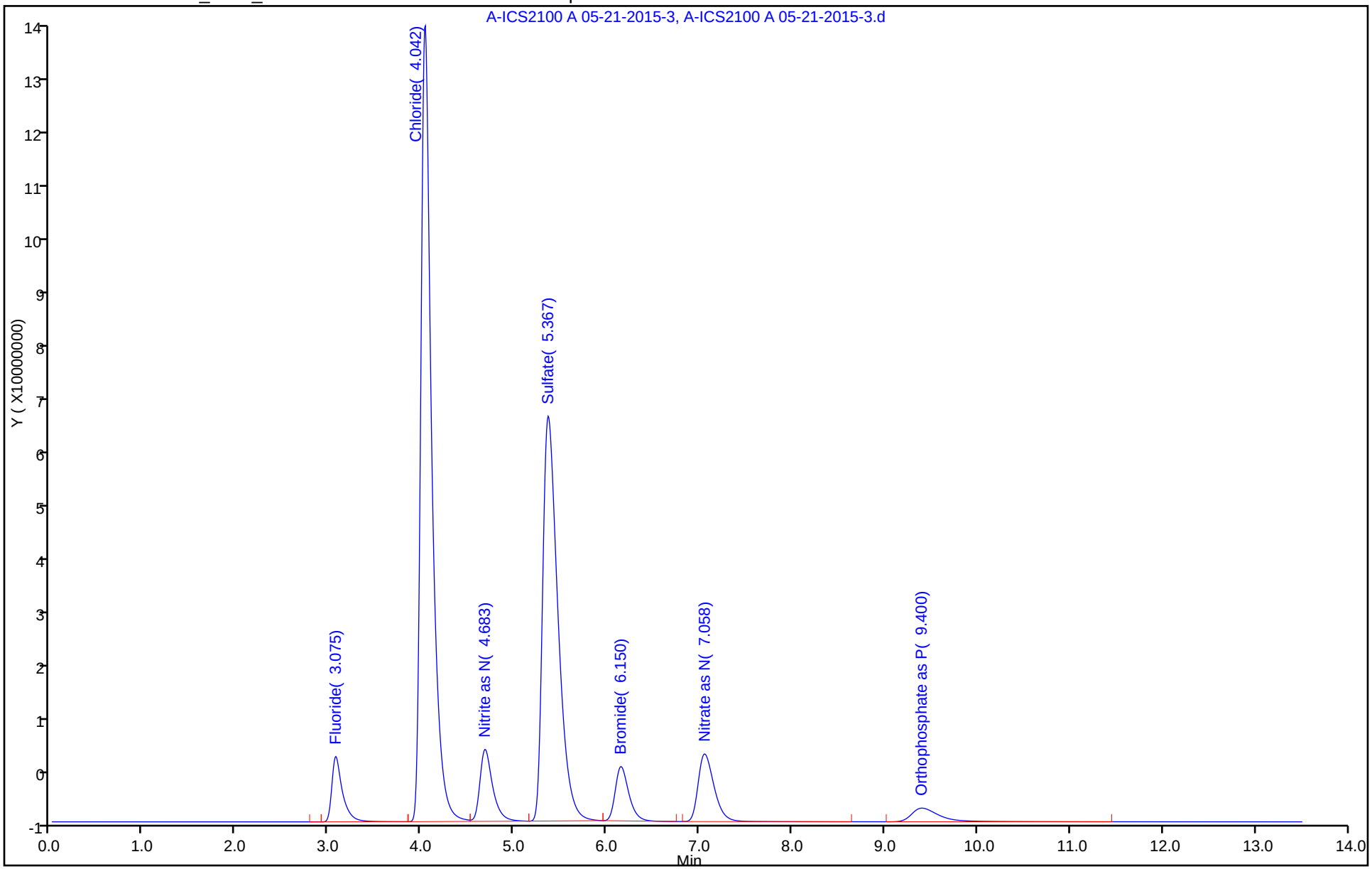
icccv_01244 Amount Added: 1.00 Units: mL

Report Date: 22-May-2015 07:02:47 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-3.d

Injection Date:	21-May-2015 15:49:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	3
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Lab Sample ID: CCV 180-142454/15 Calibration Date: 05/21/2015 19:17

Instrument ID: CHIC2100A Calib Start Date: 05/19/2015 12:31

GC Column: AS-18 ID: Calib End Date: 05/19/2015 14:18

Lab File ID: A-ICS2100 A 05-21-2015-15.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		4278304		2.61	2.50	4.2	10.0
Chloride	Lin2		21567921		50.2	50.0	0.4	10.0
Nitrite as N	Lin2	54847550	45577930		2.34	2.50	-6.5	10.0
Sulfate	Lin2		15368699		48.9	50.0	-2.2	10.0
Bromide	Lin2		9129997		9.67	10.0	-3.3	10.0
Nitrate as N	Lin2		53677701		2.51	2.50	0.3	10.0
Orthophosphate as P	Lin		18587804		2.34	2.50	-6.5	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Lab Sample ID: CCV 180-142454/15 Calibration Date: 05/21/2015 19:17

Instrument ID: CHIC2100A Calib Start Date: 05/19/2015 12:31

GC Column: AS-18 ID: Calib End Date: 05/19/2015 14:18

Lab File ID: A-ICS2100 A 05-21-2015-15.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.08	2.73	3.43
Chloride	4.04	3.69	4.39
Nitrite as N	4.69	4.44	4.94
Sulfate	5.37	5.02	5.72
Bromide	6.16	5.81	6.51
Nitrate as N	7.06	6.81	7.31
Orthophosphate as P	9.38	9.13	9.63

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-15.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 21-May-2015 19:17:00 ALS Bottle#: 0 Worklist Smp#: 15
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007057-015
Misc. Info.: 15 ccv
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 22-May-2015 07:10:55 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.075	3.075	0.000	10695759H	2.50	2.61	
2 Chloride	4.042	4.042	0.000	1078396038	50.0	50.2	
7 Nitrite as N	4.692	4.692	0.000	113944825	2.50	2.34	
3 Sulfate	5.367	5.367	0.000	768434974	50.0	48.9	
4 Bromide	6.158	6.158	0.000	91299972	10.0	9.67	
5 Nitrate as N	7.058	7.058	0.000	134194253	2.50	2.51	
6 Orthophosphate as P	9.383	9.383	0.000	46469511	2.50	2.34	

Reagents:

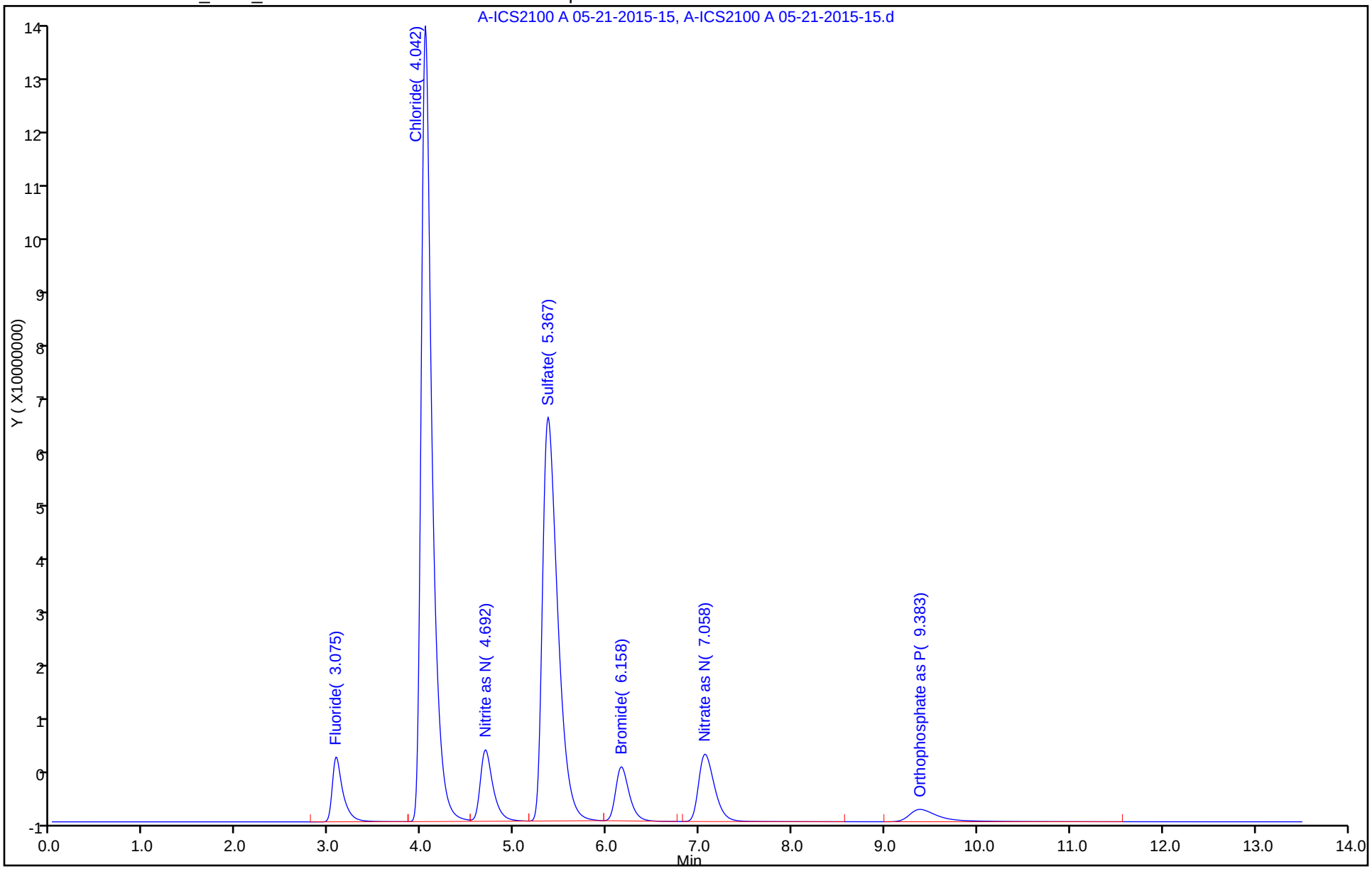
icccv_01244 Amount Added: 1.00 Units: mL

Report Date: 22-May-2015 07:10:55 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-15.d

Injection Date:	21-May-2015 19:17:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	15
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Lab Sample ID: CCV 180-142454/27 Calibration Date: 05/21/2015 22:39

Instrument ID: CHIC2100A Calib Start Date: 05/19/2015 12:31

GC Column: AS-18 ID: Calib End Date: 05/19/2015 14:18

Lab File ID: A-ICS2100 A 05-21-2015-27.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		4239466		2.58	2.50	3.3	10.0
Chloride	Lin2		21326864		49.6	50.0	-0.7	10.0
Nitrite as N	Lin2	54847550	44960986		2.30	2.50	-7.8	10.0
Sulfate	Lin2		15176055		48.3	50.0	-3.4	10.0
Bromide	Lin2		9007843		9.54	10.0	-4.6	10.0
Nitrate as N	Lin2		52908583		2.47	2.50	-1.1	10.0
Orthophosphate as P	Lin		17810581		2.24	2.50	-10.2*	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Lab Sample ID: CCV 180-142454/27 Calibration Date: 05/21/2015 22:39

Instrument ID: CHIC2100A Calib Start Date: 05/19/2015 12:31

GC Column: AS-18 ID: Calib End Date: 05/19/2015 14:18

Lab File ID: A-ICS2100 A 05-21-2015-27.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.08	2.73	3.43
Chloride	4.05	3.70	4.40
Nitrite as N	4.69	4.44	4.94
Sulfate	5.37	5.02	5.72
Bromide	6.16	5.81	6.51
Nitrate as N	7.07	6.82	7.32
Orthophosphate as P	9.38	9.13	9.63

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-27.d				
Lims ID:	ccv				
Client ID:					
Sample Type:	CCV				
Inject. Date:	21-May-2015 22:39:00	ALS Bottle#:	0	Worklist Smp#:	27
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0007057-027				
Misc. Info.:	27 ccv				
Operator ID:		Instrument ID:	CHIC2100A		
Sublist:	chrom-300_9056_CHIC2100A*sub3				
Method:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	22-May-2015 07:10:51	Calib Date:	19-May-2015 14:18:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK025				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.083	3.083	0.000	10598664H	2.50	2.58	
2 Chloride	4.050	4.050	0.000	1066343182	50.0	49.6	
7 Nitrite as N	4.692	4.692	0.000	112402464	2.50	2.30	
3 Sulfate	5.367	5.367	0.000	758802774	50.0	48.3	
4 Bromide	6.158	6.158	0.000	90078428	10.0	9.54	
5 Nitrate as N	7.067	7.067	0.000	132271457	2.50	2.47	
6 Orthophosphate as P	9.375	9.375	0.000	44526452	2.50	2.24	

Reagents:

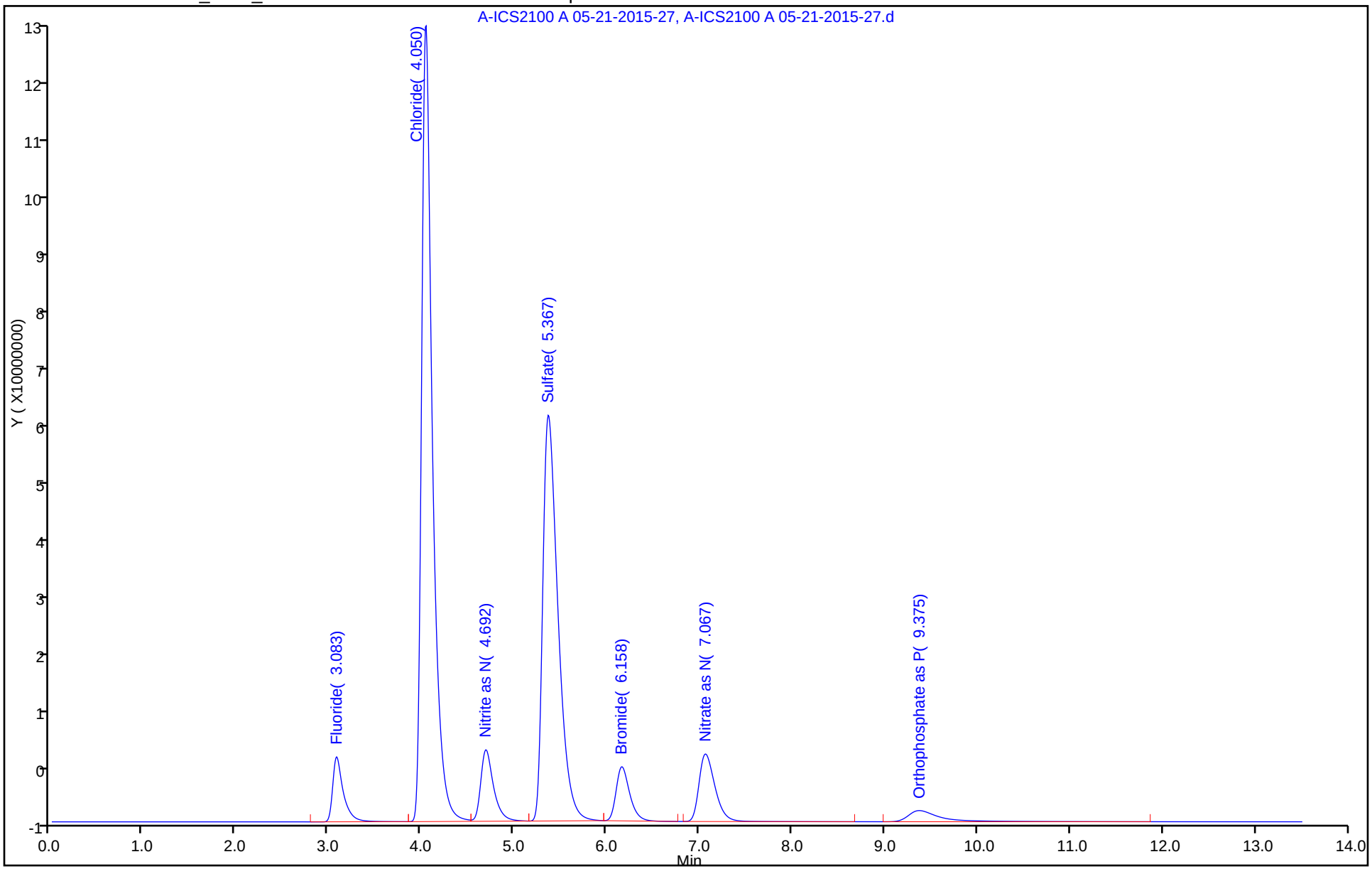
icccv_01244 Amount Added: 1.00 Units: mL

Report Date: 22-May-2015 07:10:51 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-27.d

Injection Date:	21-May-2015 22:39:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	27
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Lab Sample ID: CCV 180-142454/39 Calibration Date: 05/22/2015 01:42

Instrument ID: CHIC2100A Calib Start Date: 05/19/2015 12:31

GC Column: AS-18 ID: Calib End Date: 05/19/2015 14:18

Lab File ID: A-ICS2100 A 05-21-2015-39.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		4281828		2.61	2.50	4.3	10.0
Chloride	Lin2		21266719		49.5	50.0	-1.0	10.0
Nitrite as N	Lin2	54847550	45066628		2.31	2.50	-7.6	10.0
Sulfate	Lin2		15196349		48.4	50.0	-3.3	10.0
Bromide	Lin2		8983541		9.52	10.0	-4.8	10.0
Nitrate as N	Lin2		52807306		2.47	2.50	-1.3	10.0
Orthophosphate as P	Lin		18187648		2.29	2.50	-8.4	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Lab Sample ID: CCV 180-142454/39 Calibration Date: 05/22/2015 01:42

Instrument ID: CHIC2100A Calib Start Date: 05/19/2015 12:31

GC Column: AS-18 ID: Calib End Date: 05/19/2015 14:18

Lab File ID: A-ICS2100 A 05-21-2015-39.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.07	2.72	3.42
Chloride	4.03	3.68	4.38
Nitrite as N	4.68	4.43	4.93
Sulfate	5.38	5.03	5.73
Bromide	6.16	5.81	6.51
Nitrate as N	7.06	6.81	7.31
Orthophosphate as P	9.43	9.18	9.68

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-39.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 22-May-2015 01:42:00 ALS Bottle#: 0 Worklist Smp#: 39
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007057-039
Misc. Info.: 39 CCV
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 22-May-2015 07:10:48 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.067	3.067	0.000	10704571H	2.50	2.61	
2 Chloride	4.033	4.033	0.000	1063335970	50.0	49.5	
7 Nitrite as N	4.683	4.683	0.000	112666569	2.50	2.31	
3 Sulfate	5.375	5.375	0.000	759817443	50.0	48.4	
4 Bromide	6.158	6.158	0.000	89835413	10.0	9.52	
5 Nitrate as N	7.058	7.058	0.000	132018266	2.50	2.47	
6 Orthophosphate as P	9.425	9.425	0.000	45469119	2.50	2.29	

Reagents:

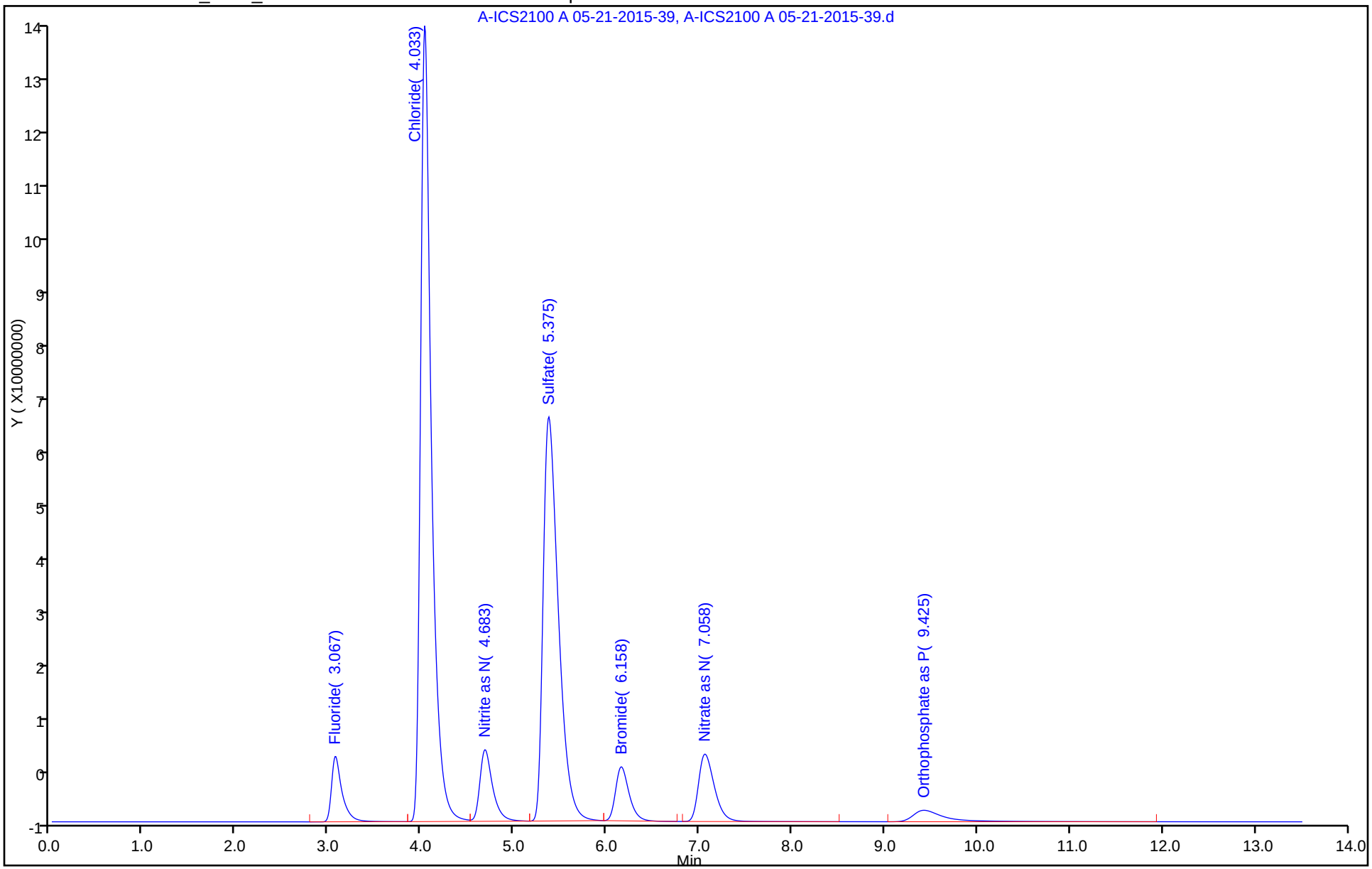
icccv_01244 Amount Added: 1.00 Units: mL

Report Date: 22-May-2015 07:10:48 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-39.d

Injection Date:	22-May-2015 01:42:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	39
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Lab Sample ID: CCV 180-142454/51 Calibration Date: 05/22/2015 04:46

Instrument ID: CHIC2100A Calib Start Date: 05/19/2015 12:31

GC Column: AS-18 ID: Calib End Date: 05/19/2015 14:18

Lab File ID: A-ICS2100 A 05-21-2015-51.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		4505165		2.74	2.50	9.8	10.0
Chloride	Lin2		22396020		52.1	50.0	4.2	10.0
Nitrite as N	Lin2	54847550	47072231		2.41	2.50	-3.4	10.0
Sulfate	Lin2		16239955		51.7	50.0	3.4	10.0
Bromide	Lin2		9736297		10.3	10.0	3.1	10.0
Nitrate as N	Lin2		55580192		2.60	2.50	3.9	10.0
Orthophosphate as P	Lin		18704296		2.35	2.50	-5.9	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Lab Sample ID: CCV 180-142454/51 Calibration Date: 05/22/2015 04:46

Instrument ID: CHIC2100A Calib Start Date: 05/19/2015 12:31

GC Column: AS-18 ID: Calib End Date: 05/19/2015 14:18

Lab File ID: A-ICS2100 A 05-21-2015-51.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.08	2.73	3.43
Chloride	4.04	3.69	4.39
Nitrite as N	4.68	4.43	4.93
Sulfate	5.37	5.02	5.72
Bromide	6.16	5.81	6.51
Nitrate as N	7.06	6.81	7.31
Orthophosphate as P	9.43	9.18	9.68

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-51.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 22-May-2015 04:46:00 ALS Bottle#: 0 Worklist Smp#: 51
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007057-051
Misc. Info.: 19093 CCV
Operator ID: Instrument ID: CHIC2100A
Sublist: chrom-300_9056_CHIC2100A*sub3

Method: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 22-May-2015 07:10:43 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.075	3.075	0.000	11262912H	2.50	2.74	
2 Chloride	4.042	4.042	0.000	1119801011	50.0	52.1	
7 Nitrite as N	4.683	4.683	0.000	117680578	2.50	2.41	
3 Sulfate	5.367	5.367	0.000	811997743	50.0	51.7	
4 Bromide	6.158	6.158	0.000	97362966	10.0	10.3	
5 Nitrate as N	7.058	7.058	0.000	138950481	2.50	2.60	
6 Orthophosphate as P	9.425	9.425	0.000	46760740	2.50	2.35	

Reagents:

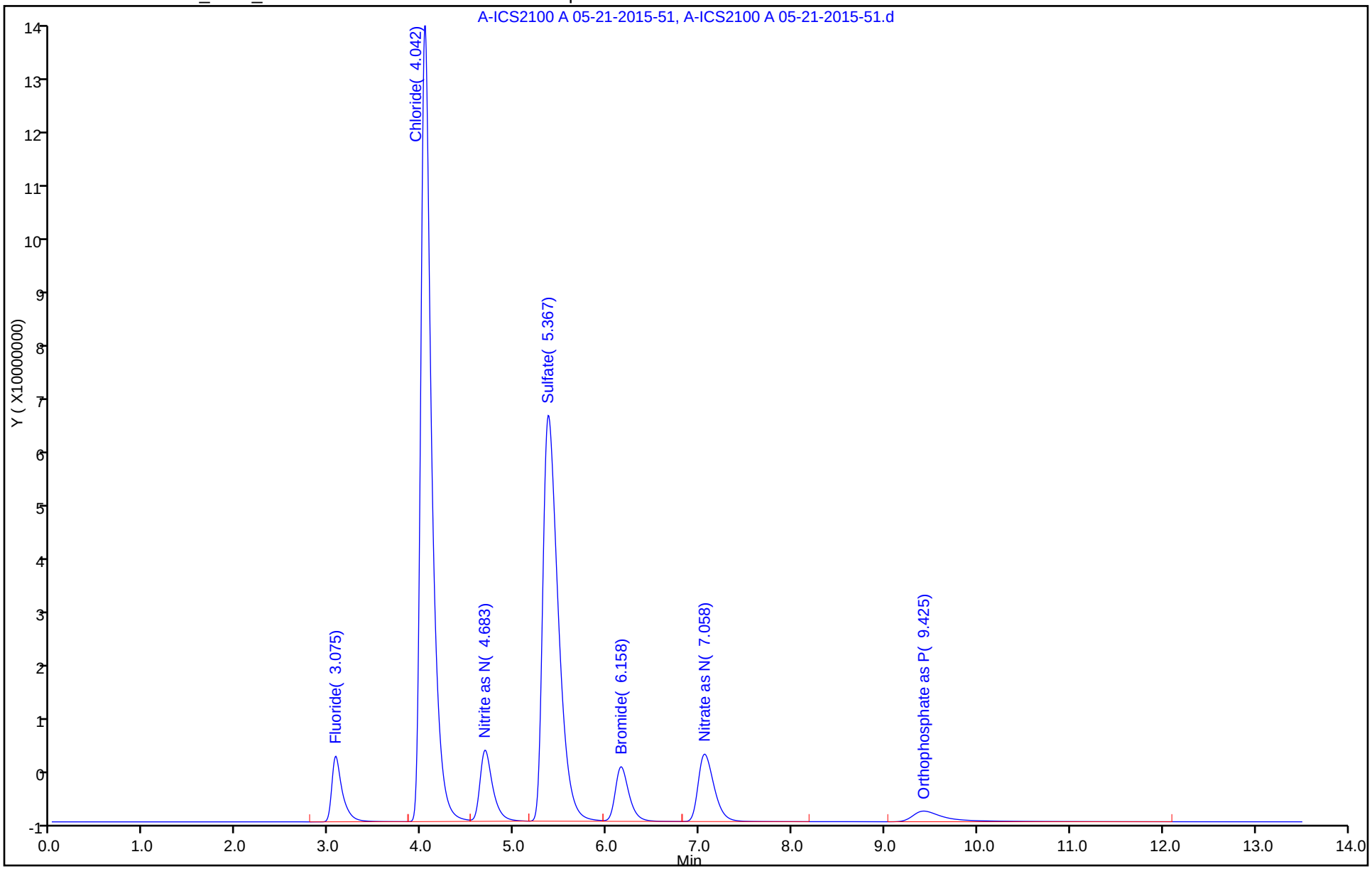
icccv_01244 Amount Added: 1.00 Units: mL

Report Date: 22-May-2015 07:10:43 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-51.d

Injection Date:	22-May-2015 04:46:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	51
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM VII
HPLC/IC CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Lab Sample ID: CCV 180-142454/55 Calibration Date: 05/22/2015 07:42

Instrument ID: CHIC2100A Calib Start Date: 05/19/2015 12:31

GC Column: AS-18 ID: Calib End Date: 05/19/2015 14:18

Lab File ID: A-ICS2100 A 05-21-2015-55.d Conc. Units: mg/L

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Fluoride	Lin2		4519904		2.75	2.50	10.1*	10.0
Chloride	Lin2		22454066		52.2	50.0	4.5	10.0
Nitrite as N	Lin2	54847550	47347433		2.43	2.50	-2.9	10.0
Sulfate	Lin2		16282233		51.8	50.0	3.7	10.0
Bromide	Lin2		9784457		10.4	10.0	3.6	10.0
Nitrate as N	Lin2		55810745		2.61	2.50	4.3	10.0
Orthophosphate as P	Lin		19310761		2.43	2.50	-3.0	10.0

FORM VII
HPLC/IC CONTINUING CALIBRATION RETENTION TIME SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Lab Sample ID: CCV 180-142454/55 Calibration Date: 05/22/2015 07:42

Instrument ID: CHIC2100A Calib Start Date: 05/19/2015 12:31

GC Column: AS-18 ID: Calib End Date: 05/19/2015 14:18

Lab File ID: A-ICS2100 A 05-21-2015-55.d

Analyte	RT	RT WINDOW	
		FROM	TO
Fluoride	3.07	2.72	3.42
Chloride	4.03	3.68	4.38
Nitrite as N	4.68	4.43	4.93
Sulfate	5.38	5.03	5.73
Bromide	6.15	5.80	6.50
Nitrate as N	7.06	6.81	7.31
Orthophosphate as P	9.43	9.18	9.68

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-55.d				
Lims ID:	ccv				
Client ID:					
Sample Type:	CCV				
Inject. Date:	22-May-2015 07:42:00	ALS Bottle#:	0	Worklist Smp#:	55
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Sample Info:	180-0007057-055				
Misc. Info.:	27257 CCV				
Operator ID:		Instrument ID:	CHIC2100A		
Sublist:	chrom-300_9056_CHIC2100A*sub3				
Method:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m				
Limit Group:	GC Anions ICAL				
Last Update:	25-May-2015 07:46:25	Calib Date:	19-May-2015 14:18:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d				
Column 1 :			Det: 0008		
Process Host:	XAWRK010				

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.067	3.067	0.000	11299760H	2.50	2.75	
2 Chloride	4.033	4.033	0.000	1122703301	50.0	52.2	
7 Nitrite as N	4.683	4.683	0.000	118368582	2.50	2.43	
3 Sulfate	5.375	5.375	0.000	814111654	50.0	51.8	
4 Bromide	6.150	6.150	0.000	97844566	10.0	10.4	
5 Nitrate as N	7.058	7.058	0.000	139526862	2.50	2.61	
6 Orthophosphate as P	9.433	9.433	0.000	48276902	2.50	2.43	

Reagents:

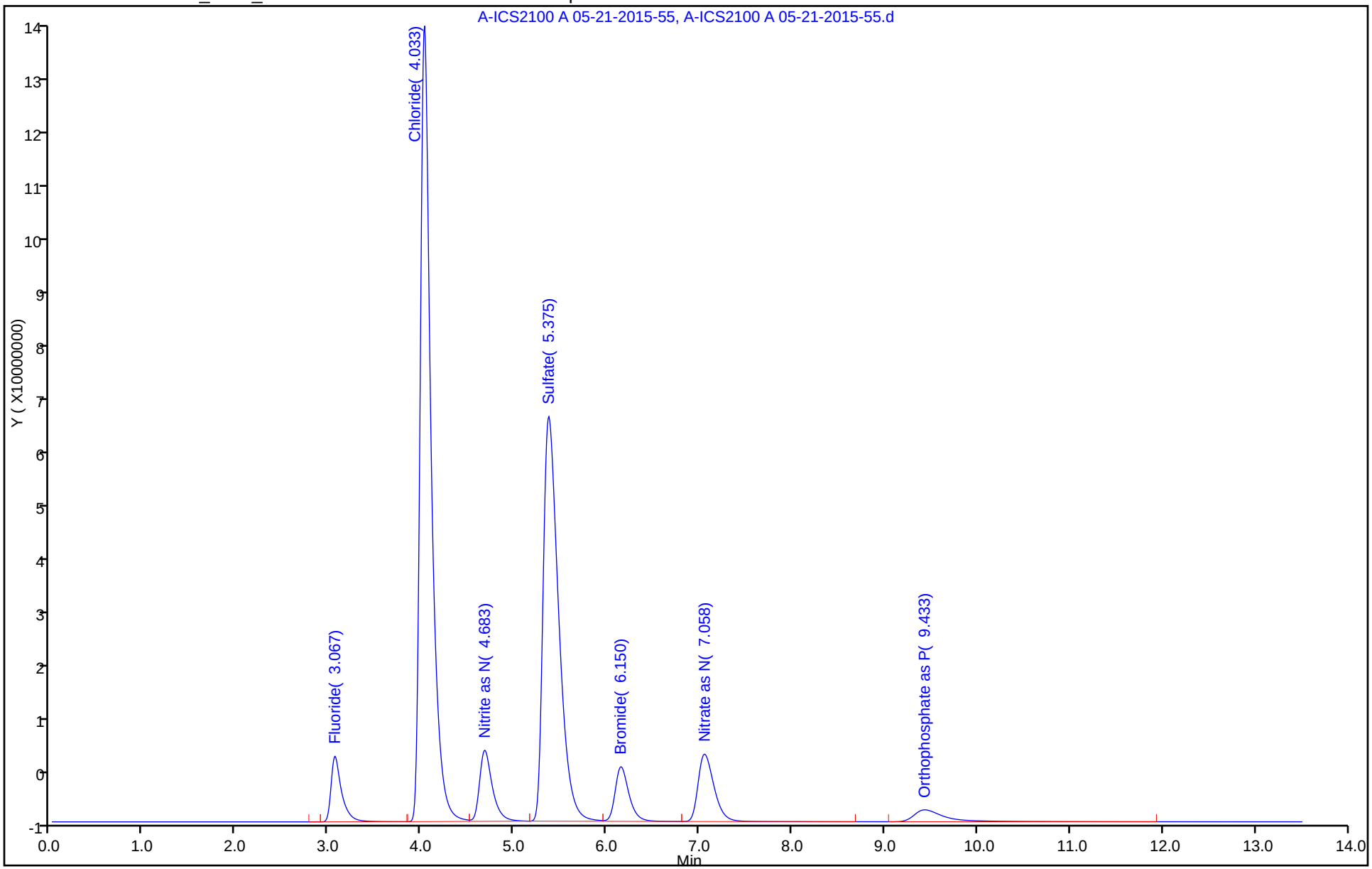
icccv_01244 Amount Added: 1.00 Units: mL

Report Date: 25-May-2015 07:46:25 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-55.d

Injection Date:	22-May-2015 07:42:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ccv			Worklist Smp#:	55
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-142454/6

Matrix: Water Lab File ID: A-ICS2100 A 05-21-2015-6.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/21/2015 16:41

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142454 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.0146	J	0.10	0.0062
16887-00-6	Chloride	0.289	J	1.0	0.20
14808-79-8	Sulfate	1.0	U	1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-6.d
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 21-May-2015 16:41:00 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007057-006
Misc. Info.: 6 MB
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 22-May-2015 07:02:43 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK025

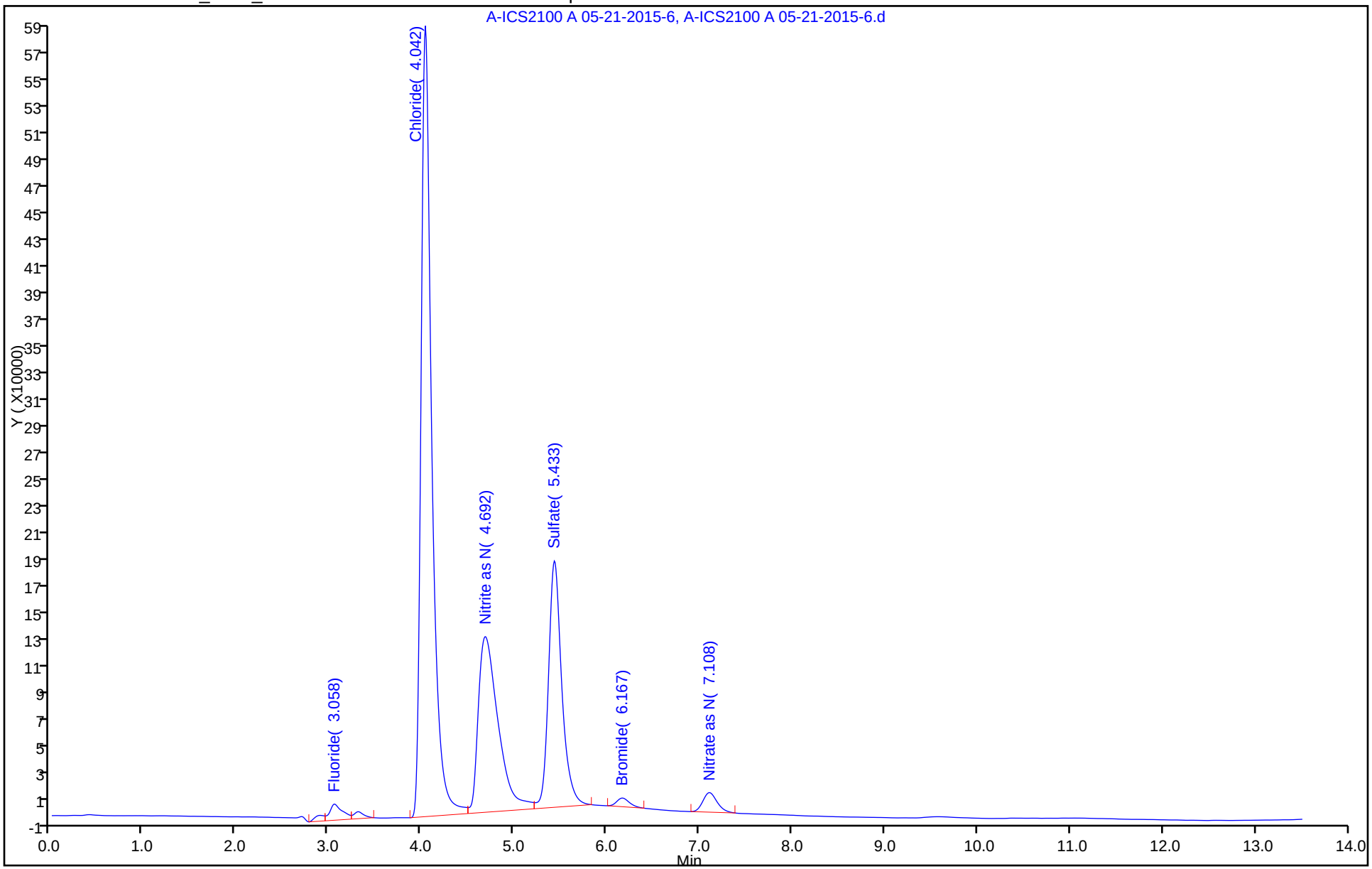
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.058	3.075	-0.017	11902H		0.0109	
2 Chloride	4.042	4.042	0.000	4711256		0.2893	
7 Nitrite as N	4.692	4.692	0.000	1946288		0.0154	
3 Sulfate	5.433	5.367	0.066	1820292		0.0393	
4 Bromide	6.167	6.158	0.009	60848		0.0217	
5 Nitrate as N	7.108	7.058	0.050	154712		0.0146	
6 Orthophosphate as P		9.383				ND	

Report Date: 22-May-2015 07:02:46 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-6.d

Injection Date:	21-May-2015 16:41:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	mb			Worklist Smp#:	6
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 180-142454/35

Matrix: Water Lab File ID: A-ICS2100 A 05-21-2015-35.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/22/2015 00:41

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142454 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.0188	J	0.10	0.0062
16887-00-6	Chloride	0.369	J	1.0	0.20
14808-79-8	Sulfate	1.0	U	1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-35.d
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 22-May-2015 00:41:00 ALS Bottle#: 0 Worklist Smp#: 35
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007057-035
Misc. Info.: 35 LCS
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 22-May-2015 07:10:48 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK025

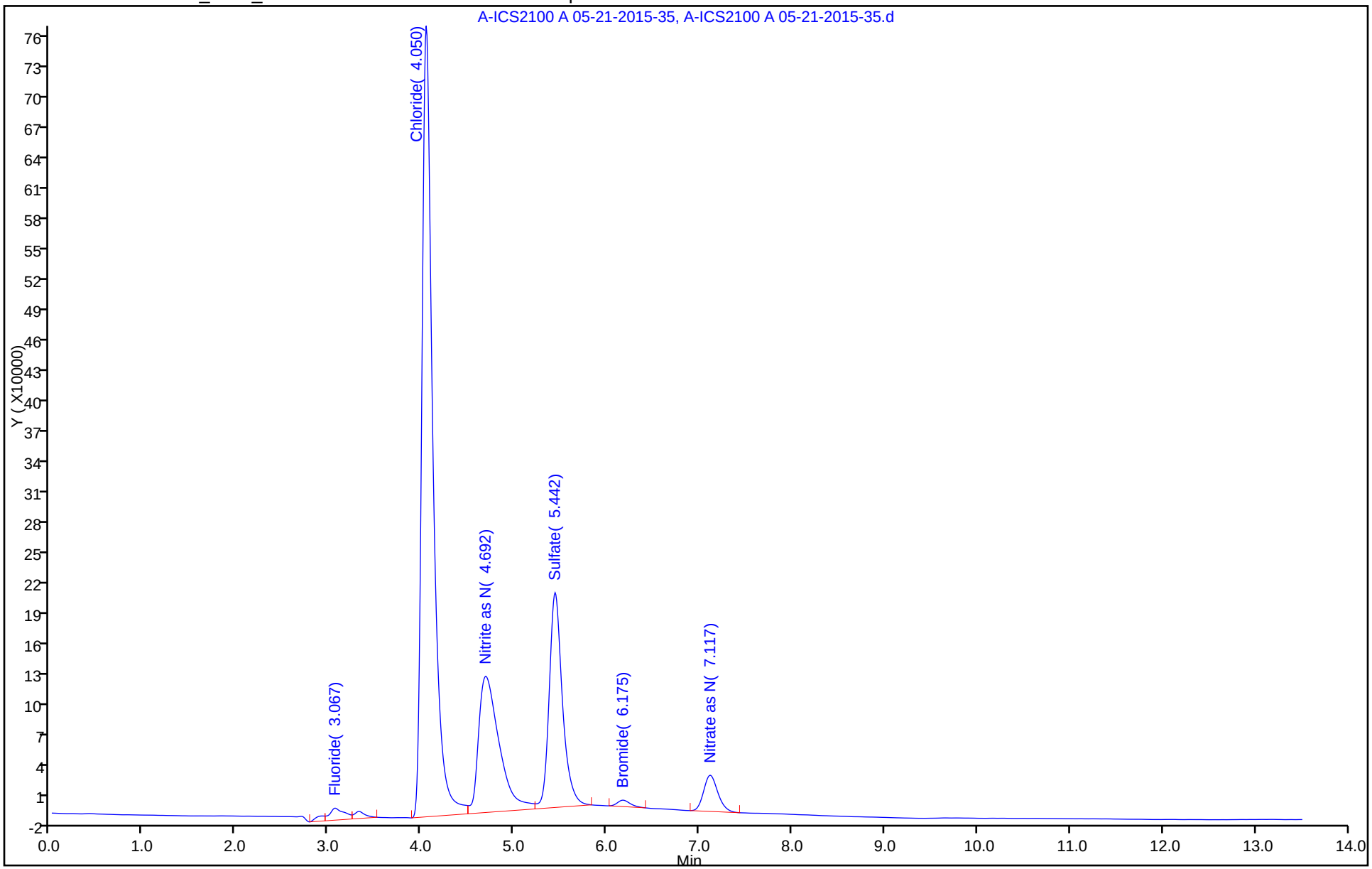
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.067	3.067	0.000	11734H		0.0109	
2 Chloride	4.050	4.033	0.017	6425050		0.3690	
7 Nitrite as N	4.692	4.683	0.009	2077413		0.0181	
3 Sulfate	5.442	5.375	0.067	2100553		0.0572	
4 Bromide	6.175	6.158	0.017	60048		0.0217	
5 Nitrate as N	7.117	7.058	0.059	379652		0.0188	
6 Orthophosphate as P		9.425				ND	

Report Date: 22-May-2015 07:10:49 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-35.d

Injection Date:	22-May-2015 00:41:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	mb			Worklist Smp#:	35
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-142454/4

Matrix: Water Lab File ID: A-ICS2100 A 05-21-2015-4.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/21/2015 16:06

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142454 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.0147	J	0.10	0.0062
16887-00-6	Chloride	0.695	J	1.0	0.20
14808-79-8	Sulfate	1.0	U	1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-4.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 21-May-2015 16:06:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007057-004
Misc. Info.: 4 CCB
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 22-May-2015 07:02:43 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK025

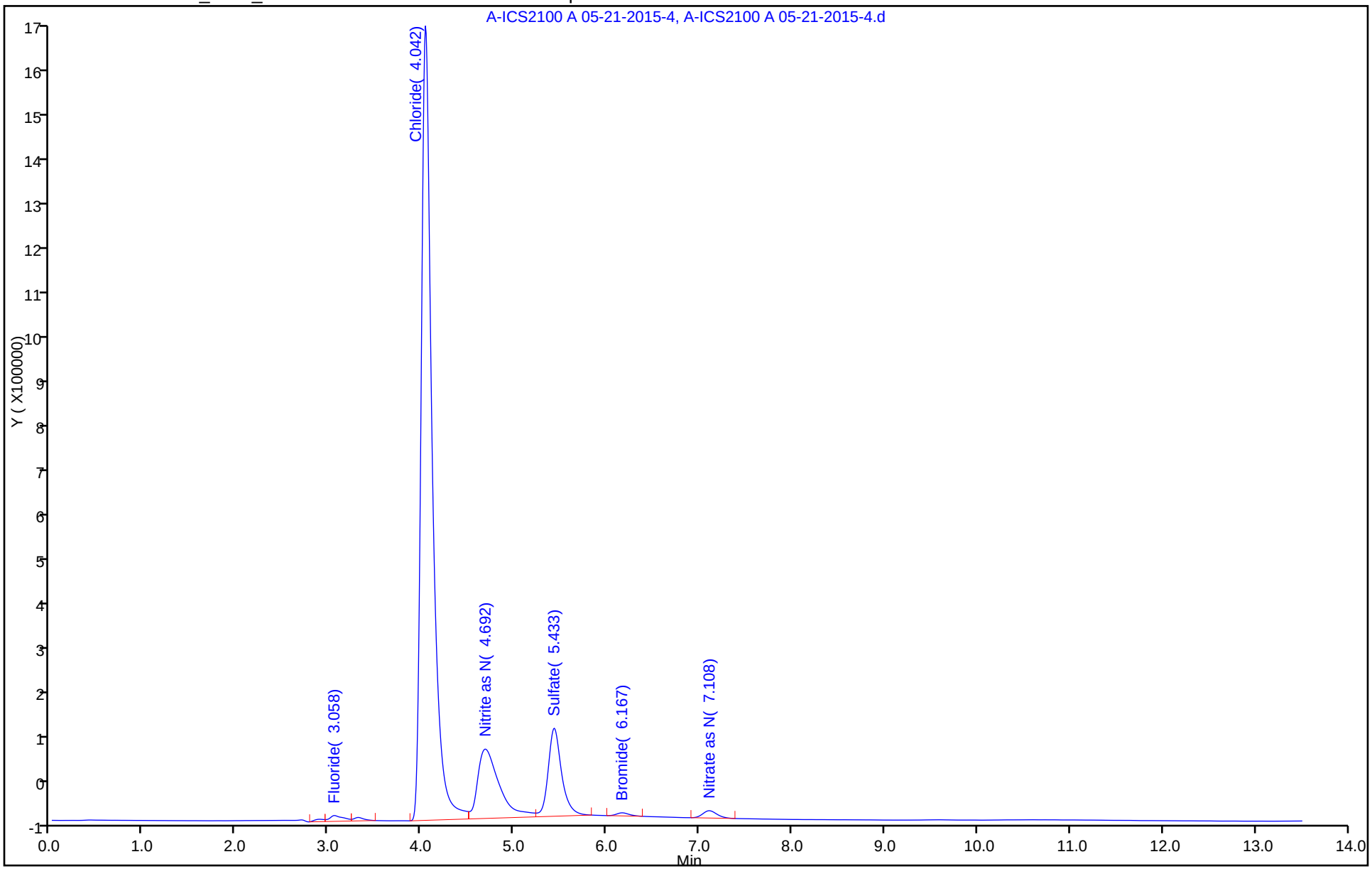
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.058	3.075	-0.017	11921H		0.0109	
2 Chloride	4.042	4.042	0.000	13440955		0.6950	
7 Nitrite as N	4.692	4.692	0.000	2307400		0.0229	
3 Sulfate	5.433	5.367	0.066	1827718		0.0398	
4 Bromide	6.167	6.158	0.009	58767		0.0215	
5 Nitrate as N	7.108	7.058	0.050	159939		0.0147	
6 Orthophosphate as P		9.383				ND	

Report Date: 22-May-2015 07:02:47 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-4.d

Injection Date:	21-May-2015 16:06:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	4
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-142454/16

Matrix: Water Lab File ID: A-ICS2100 A 05-21-2015-16.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/21/2015 19:34

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142454 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.0169	J	0.10	0.0062
16887-00-6	Chloride	0.416	J	1.0	0.20
14808-79-8	Sulfate	1.0	U	1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-16.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 21-May-2015 19:34:00 ALS Bottle#: 0 Worklist Smp#: 16
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007057-016
Misc. Info.: 16 ccb
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 22-May-2015 07:10:51 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

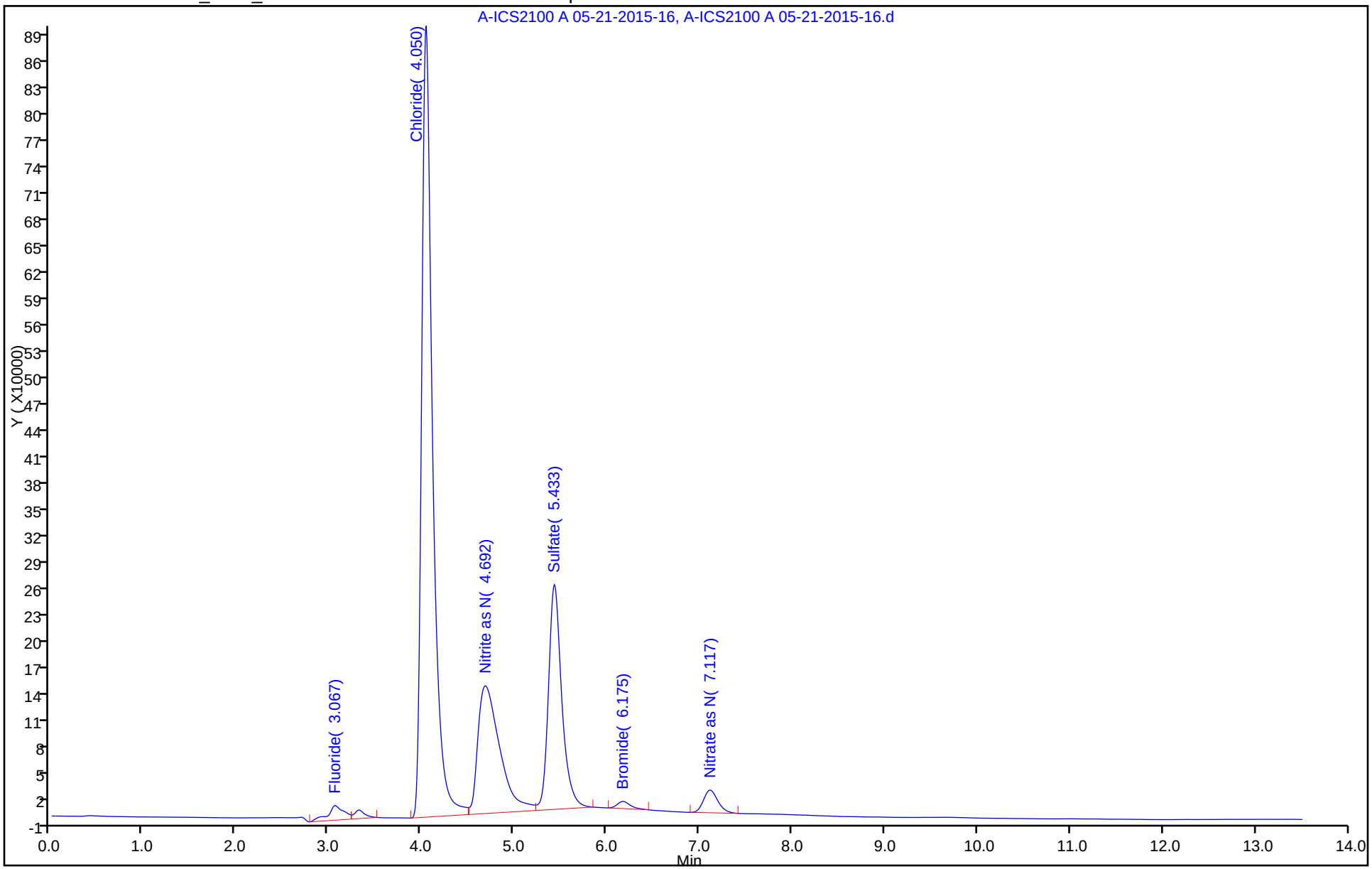
Column 1 : Det: 0008
Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.067	3.083	-0.016	16708H		0.0121	
2 Chloride	4.050	4.050	0.000	7431761		0.4158	
7 Nitrite as N	4.692	4.692	0.000	2396107		0.0247	
3 Sulfate	5.433	5.367	0.066	2565554		0.0868	
4 Bromide	6.175	6.158	0.017	79736		0.0237	
5 Nitrate as N	7.117	7.067	0.050	278622		0.0169	
6 Orthophosphate as P		9.375				ND	

Report Date: 22-May-2015 07:10:55 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-16.d				
Injection Date:	21-May-2015 19:34:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	16
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-142454/28

Matrix: Water Lab File ID: A-ICS2100 A 05-21-2015-28.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/21/2015 22:54

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142454 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.0164	J	0.10	0.0062
16887-00-6	Chloride	0.275	J	1.0	0.20
14808-79-8	Sulfate	1.0	U	1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-28.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 21-May-2015 22:54:00 ALS Bottle#: 0 Worklist Smp#: 28
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007057-028
Misc. Info.: 28 ccb
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 22-May-2015 07:10:48 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK025

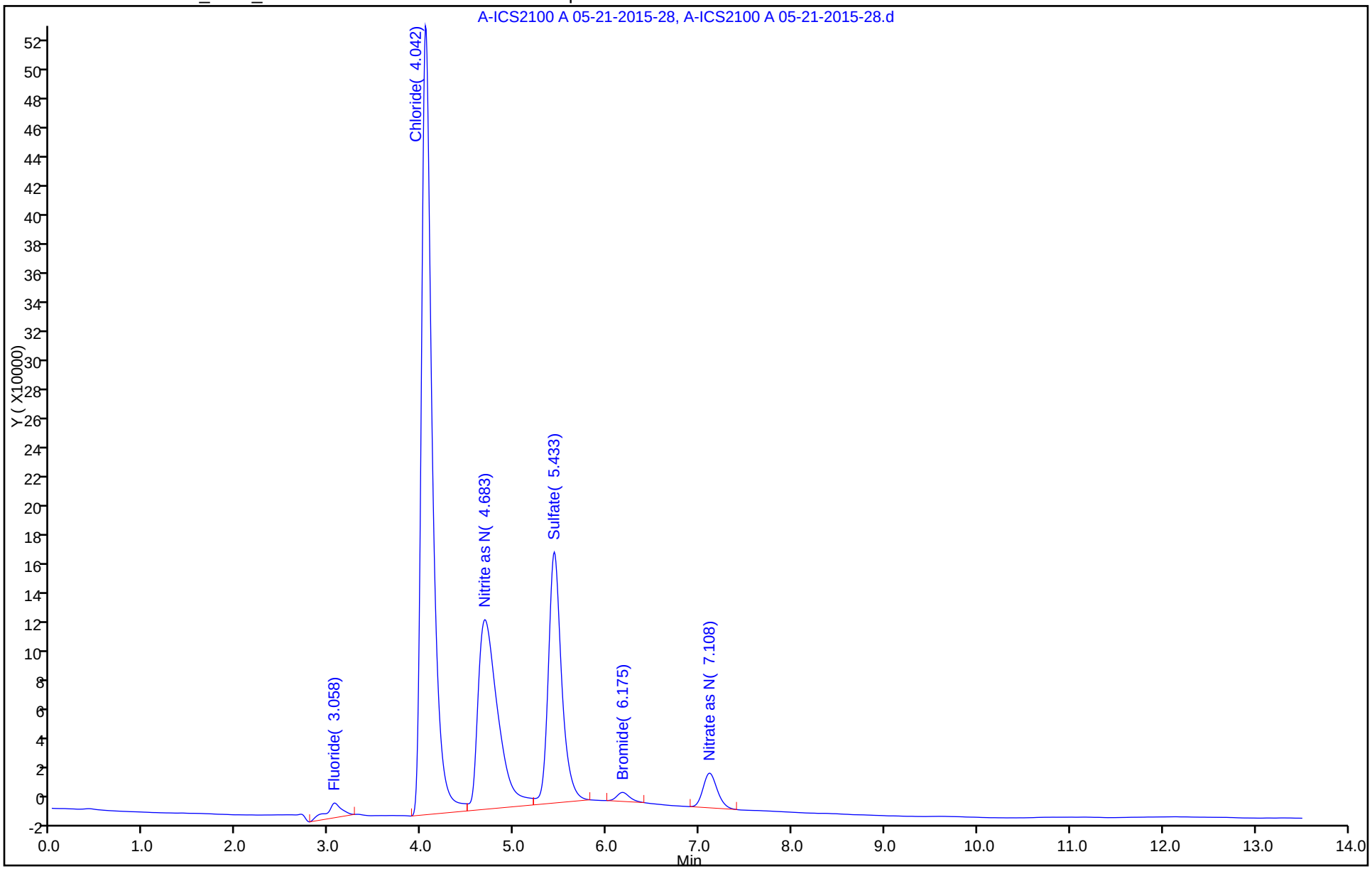
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.058	3.067	-0.009	9982H		0.0104	
2 Chloride	4.042	4.033	0.009	4396096		0.2747	
7 Nitrite as N	4.683	4.683	0.000	1935032		0.0152	
3 Sulfate	5.433	5.375	0.058	1711719		0.0324	
4 Bromide	6.175	6.158	0.017	58776		0.0215	
5 Nitrate as N	7.108	7.058	0.050	251887		0.0164	
6 Orthophosphate as P		9.425				ND	

Report Date: 22-May-2015 07:10:51 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-28.d

Injection Date:	21-May-2015 22:54:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	28
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-142454/40

Matrix: Water Lab File ID: A-ICS2100 A 05-21-2015-40.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/22/2015 01:58

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142454 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.0173	J	0.10	0.0062
16887-00-6	Chloride	0.282	J	1.0	0.20
14808-79-8	Sulfate	1.0	U	1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-40.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 22-May-2015 01:58:00 ALS Bottle#: 0 Worklist Smp#: 40
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007057-040
Misc. Info.: 15658 CCB
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 22-May-2015 07:10:43 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK025

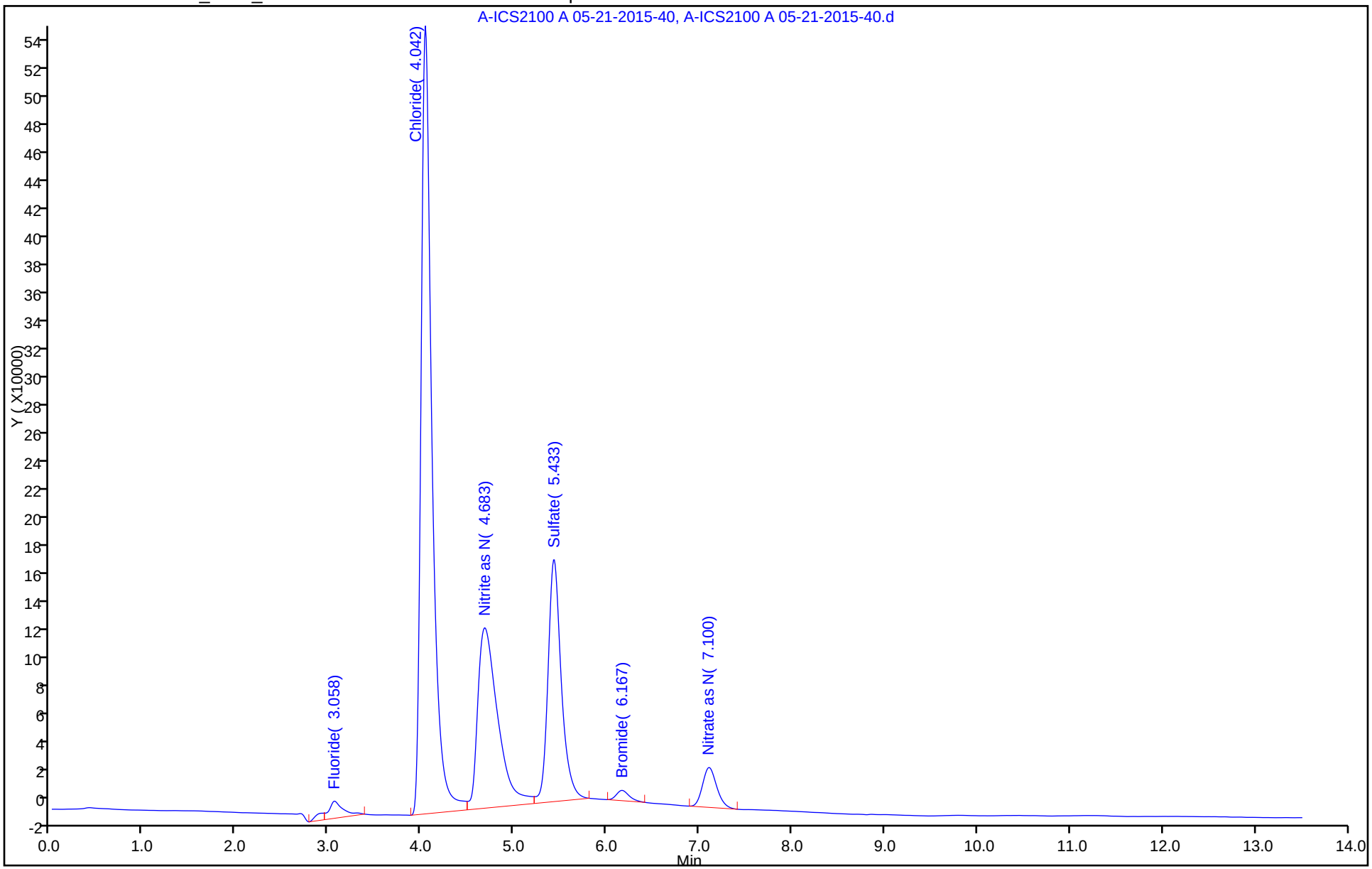
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.058	3.075	-0.017	12063H		0.0109	
2 Chloride	4.042	4.042	0.000	4555454		0.2821	
7 Nitrite as N	4.683	4.683	0.000	1921999		0.0149	
3 Sulfate	5.433	5.367	0.066	1709987		0.0323	
4 Bromide	6.167	6.158	0.009	69138		0.0226	
5 Nitrate as N	7.100	7.058	0.042	299641		0.0173	
6 Orthophosphate as P		9.425				ND	

Report Date: 22-May-2015 07:10:47 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-40.d

Injection Date:	22-May-2015 01:58:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	40
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-142454/52

Matrix: Water Lab File ID: A-ICS2100 A 05-21-2015-52.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/22/2015 05:01

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142454 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.0174	J	0.10	0.0062
16887-00-6	Chloride	0.333	J	1.0	0.20
14808-79-8	Sulfate	1.0	U	1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-52.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 22-May-2015 05:01:00 ALS Bottle#: 0 Worklist Smp#: 52
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007057-052
Misc. Info.: 13211 CCB
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 22-May-2015 07:02:47 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK025

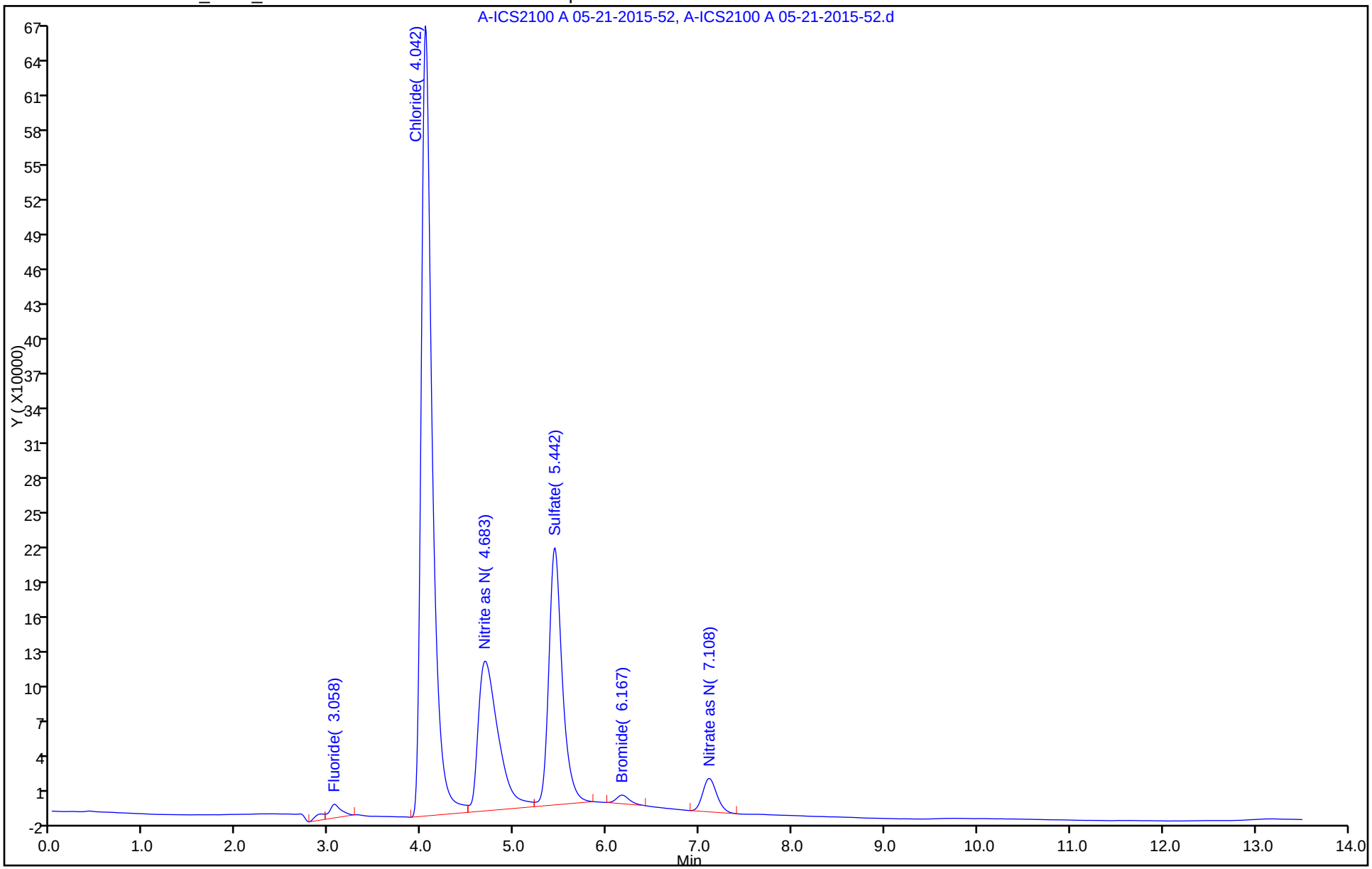
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.058	3.075	-0.017	11751H		0.0109	
2 Chloride	4.042	4.042	0.000	5644247		0.3327	
7 Nitrite as N	4.683	4.683	0.000	1950295		0.0155	
3 Sulfate	5.442	5.367	0.075	2243322		0.0663	
4 Bromide	6.167	6.150	0.017	72070		0.0229	
5 Nitrate as N	7.108	7.058	0.050	305017		0.0174	
6 Orthophosphate as P		9.400				ND	

Report Date: 22-May-2015 07:10:43 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-52.d

Injection Date:	22-May-2015 05:01:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	52
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 180-142454/56

Matrix: Water Lab File ID: A-ICS2100 A 05-21-2015-56.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/22/2015 07:57

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142454 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	0.0165	J	0.10	0.0062
16887-00-6	Chloride	0.280	J	1.0	0.20
14808-79-8	Sulfate	1.0	U	1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-56.d
Lims ID: ccb
Client ID:
Sample Type: CCB
Inject. Date: 22-May-2015 07:57:00 ALS Bottle#: 0 Worklist Smp#: 56
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007057-056
Misc. Info.: 1564 CCB
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 22-May-2015 06:49:27 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK010

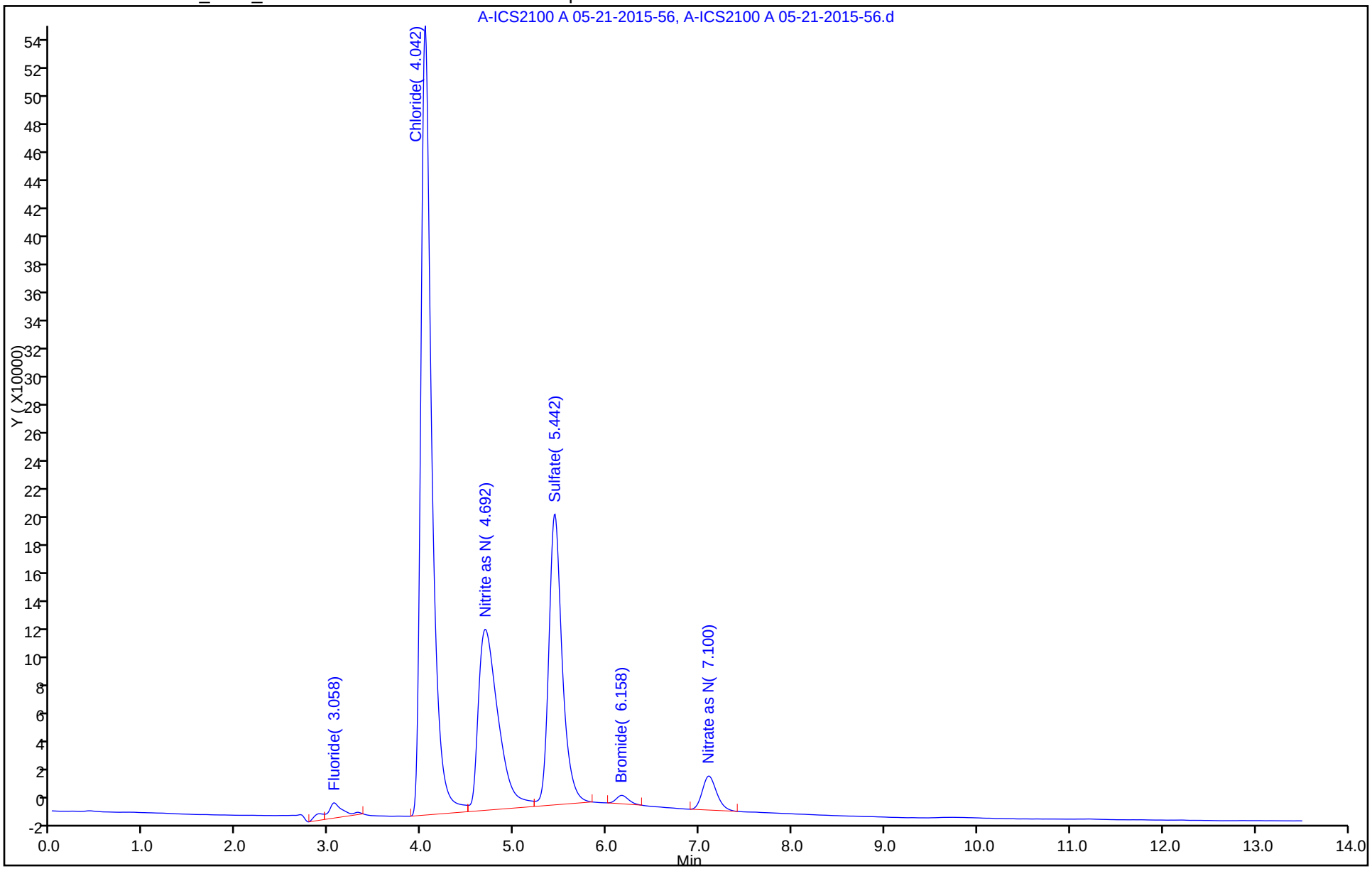
Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.058	3.067	-0.009	10578H		0.0106	
2 Chloride	4.042	4.033	0.009	4513011		0.2801	
7 Nitrite as N	4.692	4.683	0.009	1893997		0.0143	
3 Sulfate	5.442	5.375	0.067	2045629		0.0537	
4 Bromide	6.158	6.150	0.008	53790		0.0210	
5 Nitrate as N	7.100	7.058	0.042	254997		0.0165	
6 Orthophosphate as P		9.433				ND	

Report Date: 25-May-2015 07:46:25 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-56.d

Injection Date:	22-May-2015 07:57:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	ccb			Worklist Smp#:	56
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-142454/5

Matrix: Water Lab File ID: A-ICS2100 A 05-21-2015-5.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/21/2015 16:24

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142454 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.47		0.10	0.0062
16887-00-6	Chloride	49.8		1.0	0.20
14808-79-8	Sulfate	49.2		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-5.d
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 21-May-2015 16:24:00 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007057-005
Misc. Info.: 5 LCS
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 22-May-2015 07:02:43 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.075	3.075	0.000	10725280H	2.50	2.61	
2 Chloride	4.042	4.042	0.000	1070509444	50.0	49.8	
7 Nitrite as N	4.683	4.692	-0.009	113121775	2.50	2.32	
3 Sulfate	5.375	5.367	0.008	773142640	50.0	49.2	
4 Bromide	6.158	6.158	0.000	90297195	10.0	9.57	
5 Nitrate as N	7.058	7.058	0.000	132330599	2.50	2.47	
6 Orthophosphate as P	9.408	9.383	0.025	46718174	2.50	2.35	

Reagents:

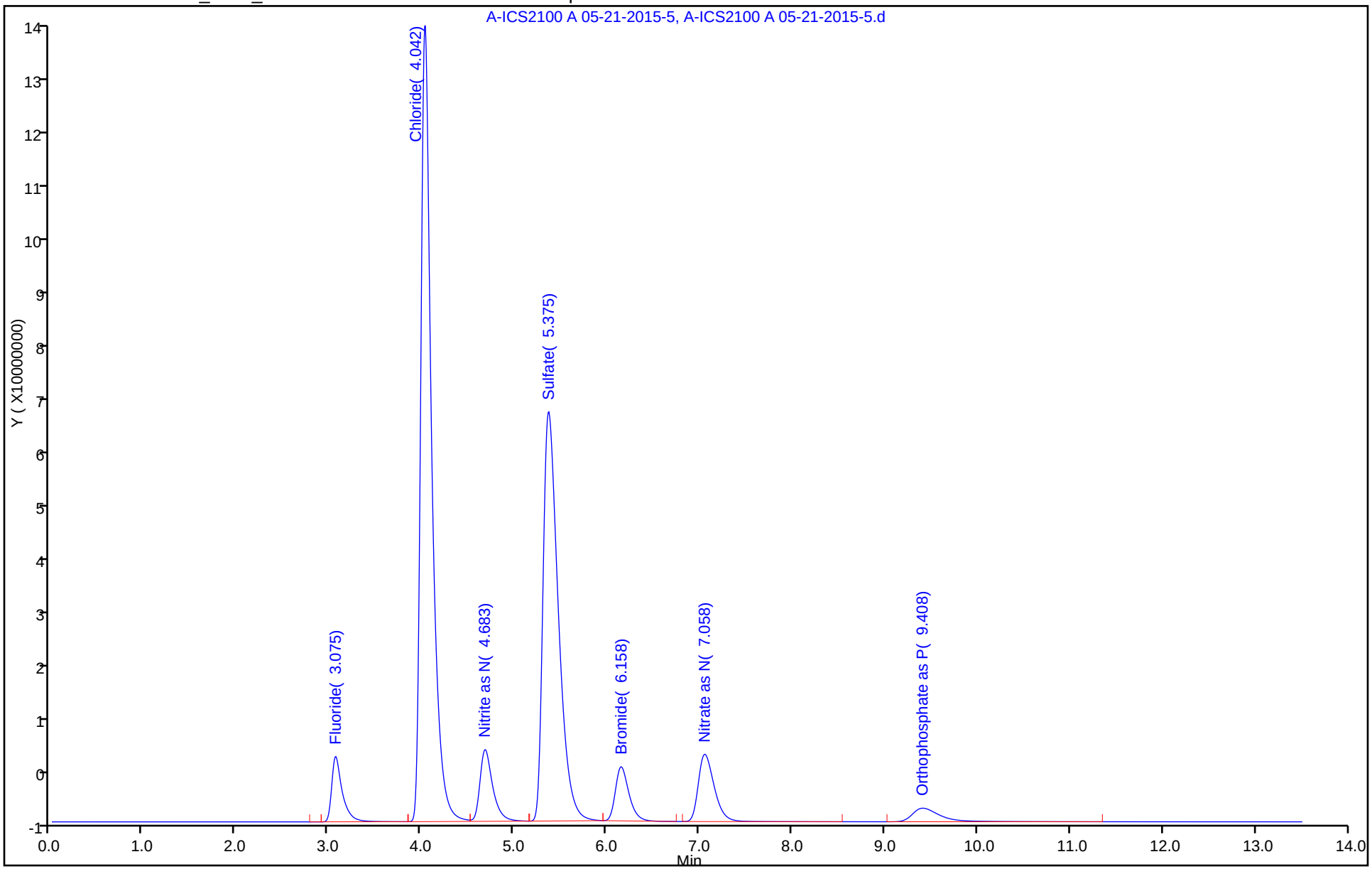
icccv_01244 Amount Added: 1.00 Units: mL

Report Date: 22-May-2015 07:02:47 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-5.d

Injection Date:	21-May-2015 16:24:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	lcs			Worklist Smp#:	5
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 180-142454/34

Matrix: Water Lab File ID: A-ICS2100 A 05-21-2015-34.d

Analysis Method: 300.0 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/22/2015 00:26

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142454 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.62		0.10	0.0062
16887-00-6	Chloride	52.4		1.0	0.20
14808-79-8	Sulfate	51.9		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-34.d
Lims ID: lcs
Client ID:
Sample Type: LCS
Inject. Date: 22-May-2015 00:26:00 ALS Bottle#: 0 Worklist Smp#: 34
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007057-034
Misc. Info.: 34 MB
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 22-May-2015 07:10:48 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.067	3.067	0.000	11356688H	2.50	2.77	
2 Chloride	4.033	4.033	0.000	1125888359	50.0	52.4	
7 Nitrite as N	4.683	4.683	0.000	118651812	2.50	2.43	
3 Sulfate	5.367	5.375	-0.008	815151969	50.0	51.9	
4 Bromide	6.150	6.158	-0.008	95130741	10.0	10.1	
5 Nitrate as N	7.050	7.058	-0.008	140277758	2.50	2.62	
6 Orthophosphate as P	9.417	9.425	-0.008	48628875	2.50	2.44	

Reagents:

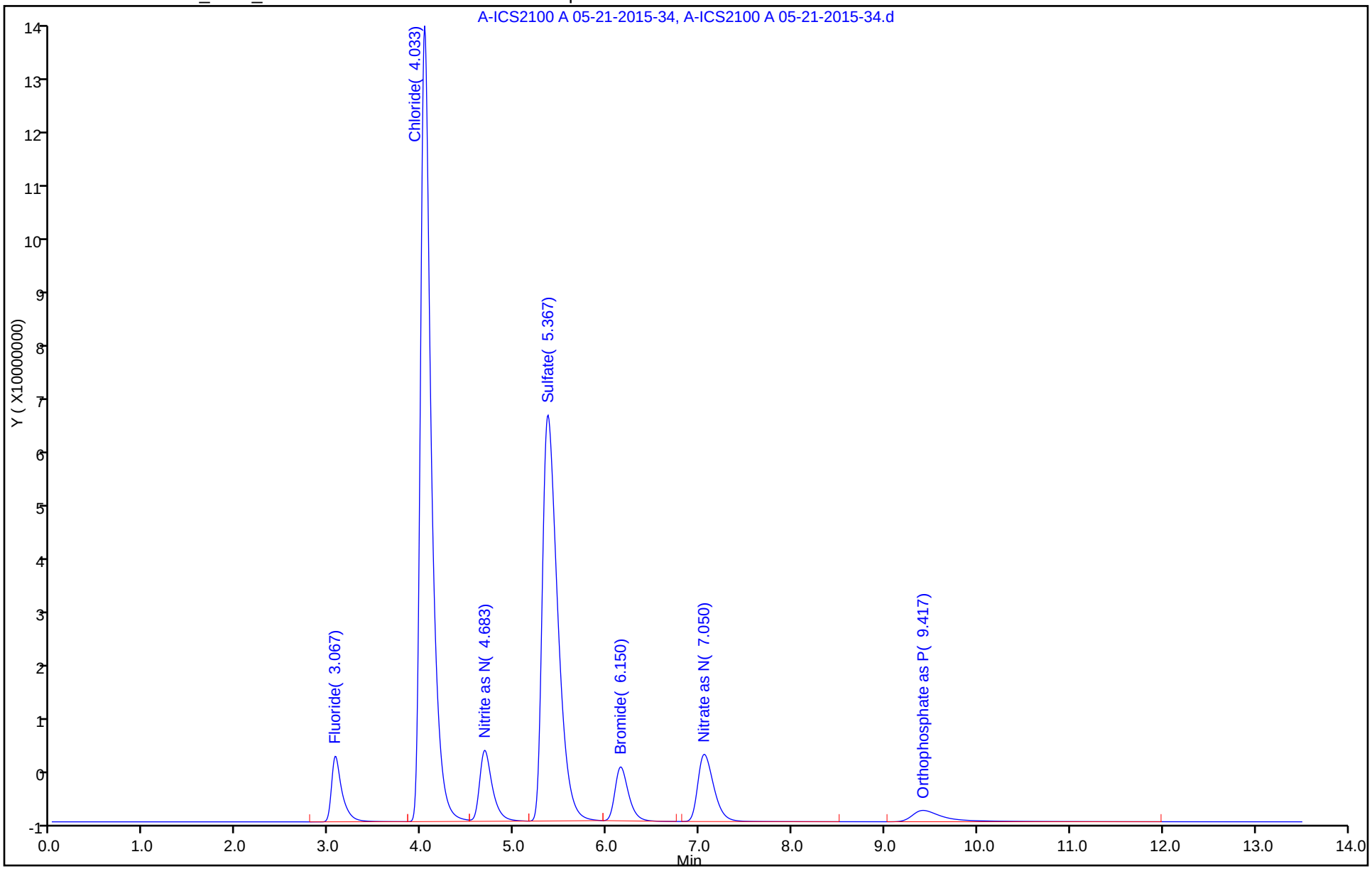
icccv_01244 Amount Added: 1.00 Units: mL

Report Date: 22-May-2015 07:10:49 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-34.d

Injection Date:	22-May-2015 00:26:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	lcs			Worklist Smp#:	34
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-28-0/1-0 MS Lab Sample ID: 180-44321-15 MS

Matrix: Water Lab File ID: A-ICS2100 A 05-21-2015-37.d

Analysis Method: 300.0 Date Collected: 05/20/2015 12:05

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/22/2015 01:12

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142454 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	4.80		0.10	0.0062
16887-00-6	Chloride	123		1.0	0.20
14808-79-8	Sulfate	64.1		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-37.d
Lims ID: 180-44321-A-15 MS
Client ID:
Sample Type: MS
Inject. Date: 22-May-2015 01:12:00 ALS Bottle#: 0 Worklist Smp#: 37
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007057-037
Misc. Info.: 37 180-44321-A-15 MS
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 22-May-2015 07:10:48 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.075	3.067	0.008	5936012H	1.25	1.45	
2 Chloride	4.033	4.033	0.000	2636984341	25.0	122.6	
7 Nitrite as N	4.667	4.683	-0.016	17496232		0.3377	
3 Sulfate	5.350	5.375	-0.025	1007143026	25.0	64.1	
4 Bromide	6.167	6.158	0.009	54526431	5.00	5.78	
5 Nitrate as N	7.033	7.058	-0.025	257155826	1.25	4.80	
6 Orthophosphate as P		9.425			ND	ND	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND
H - Response Measured by Height

Reagents:

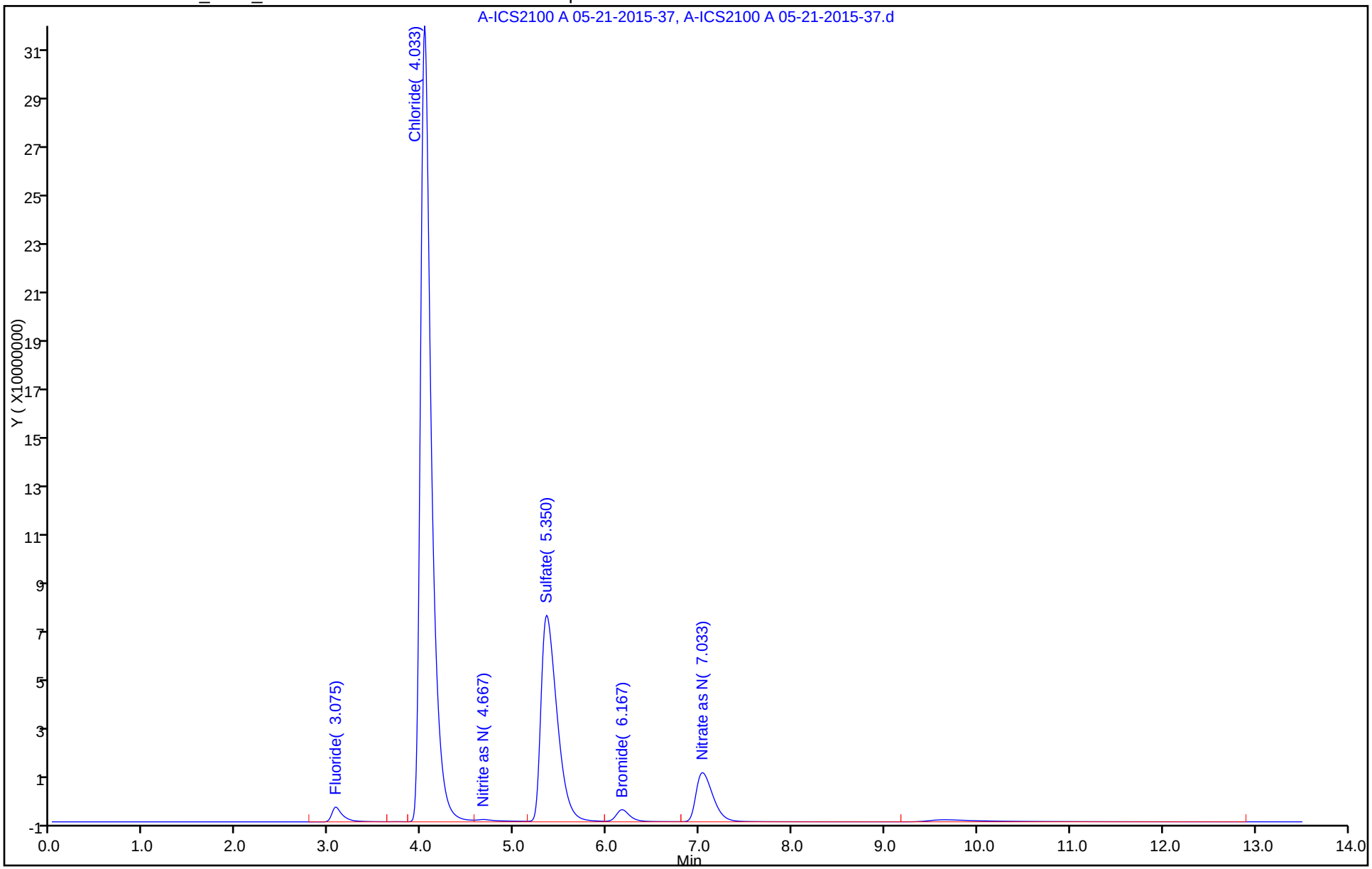
ICPRIMARYSTA_00006 Amount Added: 0.15 Units: mL

Report Date: 22-May-2015 07:10:48 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-37.d

Injection Date:	22-May-2015 01:12:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-44321-A-15 MS			Worklist Smp#:	37
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-CW-13-0/1-0 MS Lab Sample ID: 180-44321-20 MS

Matrix: Water Lab File ID: A-ICS2100 A 05-21-2015-21.d

Analysis Method: 300.0 Date Collected: 05/20/2015 10:15

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/21/2015 21:01

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142454 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	4.39		0.10	0.0062
16887-00-6	Chloride	160		1.0	0.20
14808-79-8	Sulfate	57.6		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-21.d
Lims ID: 180-44321-A-20 MS
Client ID:
Sample Type: MS
Inject. Date: 21-May-2015 21:01:00 ALS Bottle#: 0 Worklist Smp#: 21
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007057-021
Misc. Info.: 21 180-44321-A-20 MS
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 22-May-2015 07:10:51 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.075	3.083	-0.008	5044505H	1.25	1.23	
2 Chloride	4.033	4.050	-0.017	3449222676	25.0	160.4	
7 Nitrite as N		4.692				ND	
3 Sulfate	5.350	5.367	-0.017	904426112	25.0	57.6	
4 Bromide	6.167	6.158	0.009	43302660	5.00	4.60	
5 Nitrate as N	7.042	7.067	-0.025	235257141	1.25	4.39	
6 Orthophosphate as P		9.375			ND	ND	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND
H - Response Measured by Height

Reagents:

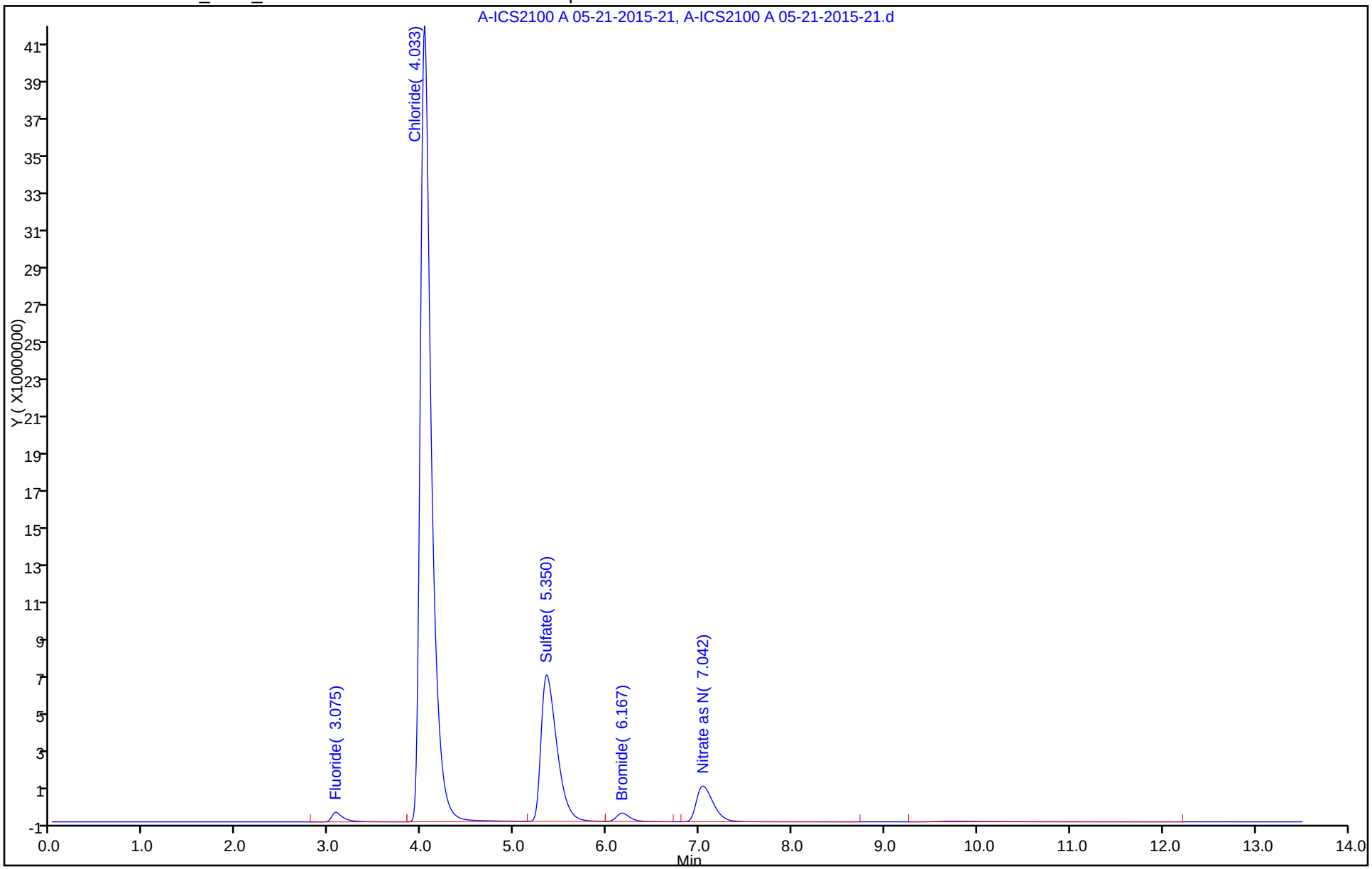
ICPRIMARYSTA_00006 Amount Added: 0.15 Units: mL

Report Date: 22-May-2015 07:10:53 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-21.d

Injection Date:	21-May-2015 21:01:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-44321-A-20 MS			Worklist Smp#:	21
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-MW-95-0/1-0 MS Lab Sample ID: 180-44321-24 MS

Matrix: Water Lab File ID: A-ICS2100 A 05-21-2015-11.d

Analysis Method: 300.0 Date Collected: 05/20/2015 09:25

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/21/2015 18:08

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142454 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.04		0.10	0.0062
16887-00-6	Chloride	76.1		1.0	0.20
14808-79-8	Sulfate	55.8		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-11.d
Lims ID: 180-44321-A-24 MS
Client ID: HD-MW-95-0/1-0
Sample Type: MS
Inject. Date: 21-May-2015 18:08:00 ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007057-011
Misc. Info.: 11 180-44321-A-24 MS
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 22-May-2015 07:10:55 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.067	3.075	-0.008	5436989H	1.25	1.33	
2 Chloride	4.033	4.042	-0.009	1635946627	25.0	76.1	
7 Nitrite as N		4.692				ND	
3 Sulfate	5.358	5.367	-0.009	877189642	25.0	55.8	
4 Bromide	6.158	6.158	0.000	42599333	5.00	4.52	
5 Nitrate as N	7.067	7.058	0.009	109058487	1.25	2.04	
6 Orthophosphate as P		9.383			ND	ND	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND
H - Response Measured by Height

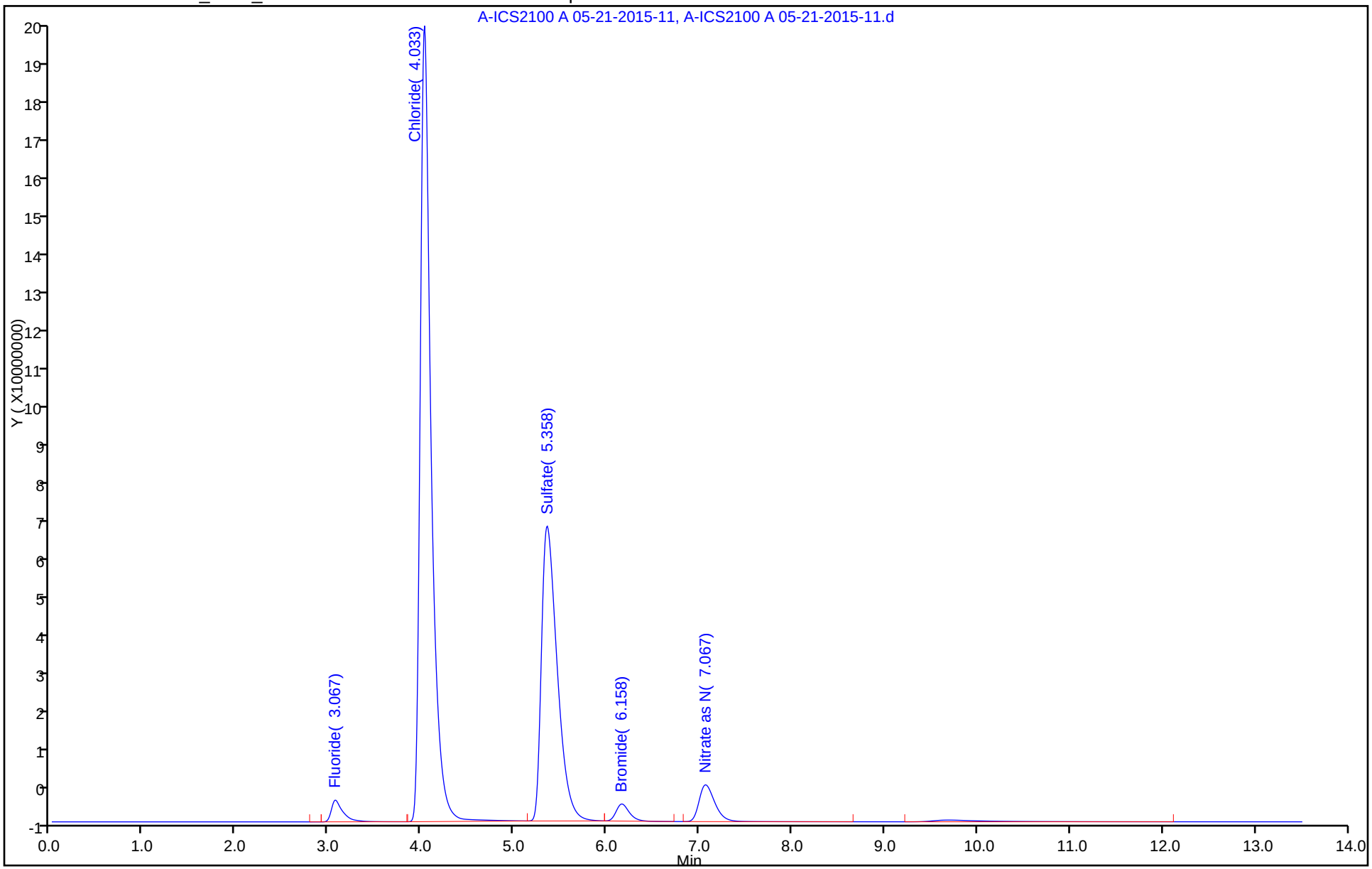
Reagents:

ICPRIMARYSTA_00006 Amount Added: 0.15 Units: mL

Report Date: 22-May-2015 07:10:57 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-11.d				
Injection Date:	21-May-2015 18:08:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-44321-A-24 MS			Worklist Smp#:	11
Client ID:	HD-MW-95-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-COD-SW-28-0/1-0 MSD Lab Sample ID: 180-44321-15 MSD

Matrix: Water Lab File ID: A-ICS2100 A 05-21-2015-38.d

Analysis Method: 300.0 Date Collected: 05/20/2015 12:05

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/22/2015 01:27

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142454 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	4.46		0.10	0.0062
16887-00-6	Chloride	114		1.0	0.20
14808-79-8	Sulfate	59.0		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-38.d
Lims ID: 180-44321-A-15 MSD
Client ID:
Sample Type: MSD
Inject. Date: 22-May-2015 01:27:00 ALS Bottle#: 0 Worklist Smp#: 38
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007057-038
Misc. Info.: 38 180-44321-A-15 MSD
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 22-May-2015 07:10:48 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.075	3.067	0.008	5515591H	1.25	1.35	
2 Chloride	4.033	4.033	0.000	2459452325	25.0	114.4	
7 Nitrite as N	4.667	4.683	-0.016	16879308		0.3249	
3 Sulfate	5.358	5.375	-0.017	926019317	25.0	59.0	
4 Bromide	6.158	6.158	0.000	50644750	5.00	5.37	
5 Nitrate as N	7.033	7.058	-0.025	238888958	1.25	4.46	
6 Orthophosphate as P		9.425			ND	ND	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND
H - Response Measured by Height

Reagents:

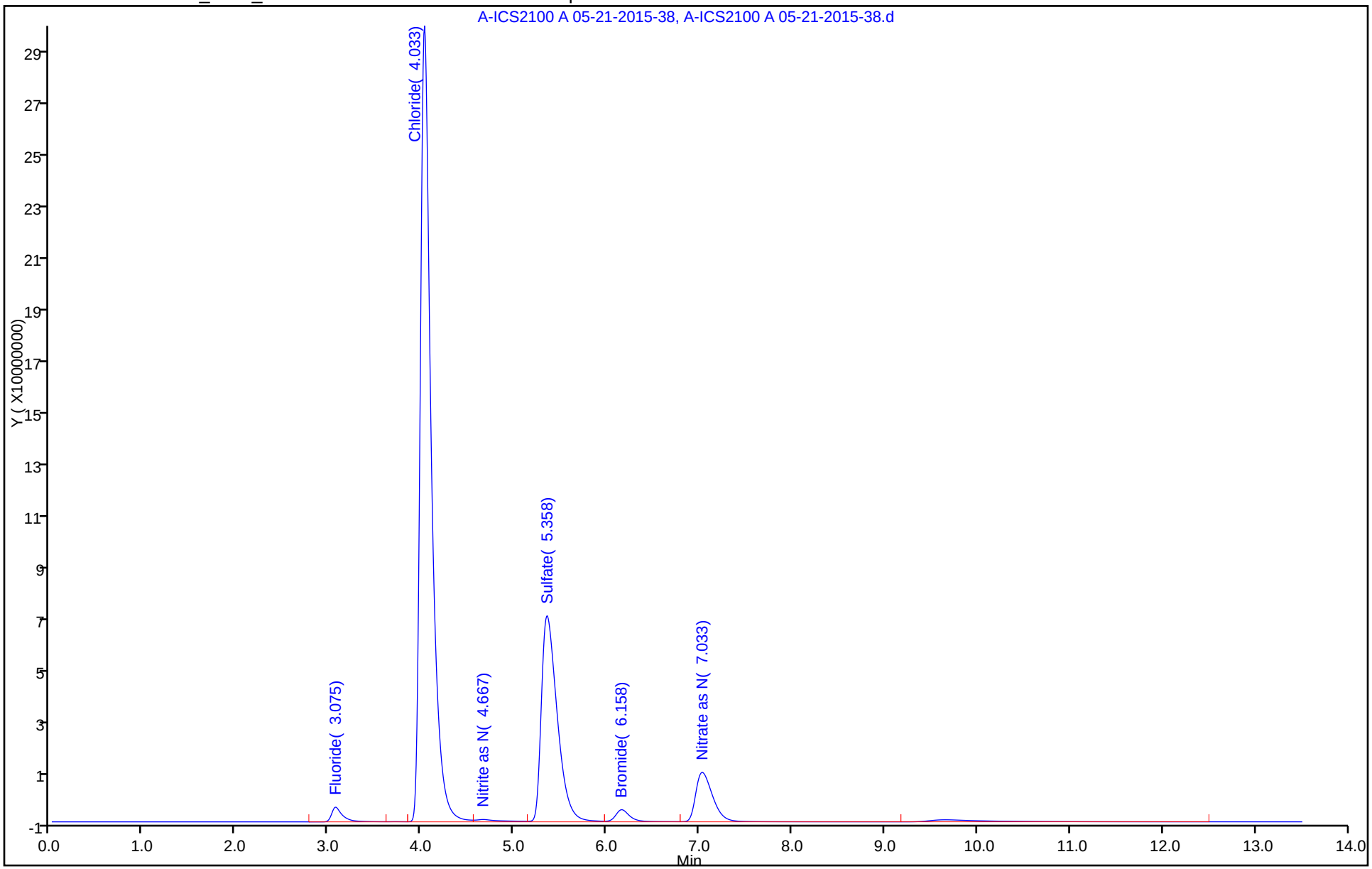
ICPRIMARYSTA_00006 Amount Added: 0.15 Units: mL

Report Date: 22-May-2015 07:10:48 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-38.d

Injection Date:	22-May-2015 01:27:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-44321-A-15 MSD			Worklist Smp#:	38
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-CW-13-0/1-0 MSD Lab Sample ID: 180-44321-20 MSD

Matrix: Water Lab File ID: A-ICS2100 A 05-21-2015-22.d

Analysis Method: 300.0 Date Collected: 05/20/2015 10:15

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/21/2015 21:18

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142454 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	4.39		0.10	0.0062
16887-00-6	Chloride	160		1.0	0.20
14808-79-8	Sulfate	57.8		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-22.d
Lims ID: 180-44321-A-20 MSD
Client ID:
Sample Type: MSD
Inject. Date: 21-May-2015 21:18:00 ALS Bottle#: 0 Worklist Smp#: 22
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007057-022
Misc. Info.: 22 180-44321-A-20 MSD
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 22-May-2015 07:10:51 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.075	3.083	-0.008	5057479H	1.25	1.24	
2 Chloride	4.033	4.050	-0.017	3450534067	25.0	160.4	
7 Nitrite as N		4.692				ND	
3 Sulfate	5.342	5.367	-0.025	908408021	25.0	57.8	
4 Bromide	6.167	6.158	0.009	43428948	5.00	4.61	
5 Nitrate as N	7.033	7.067	-0.034	235519816	1.25	4.39	
6 Orthophosphate as P		9.375			ND	ND	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND
H - Response Measured by Height

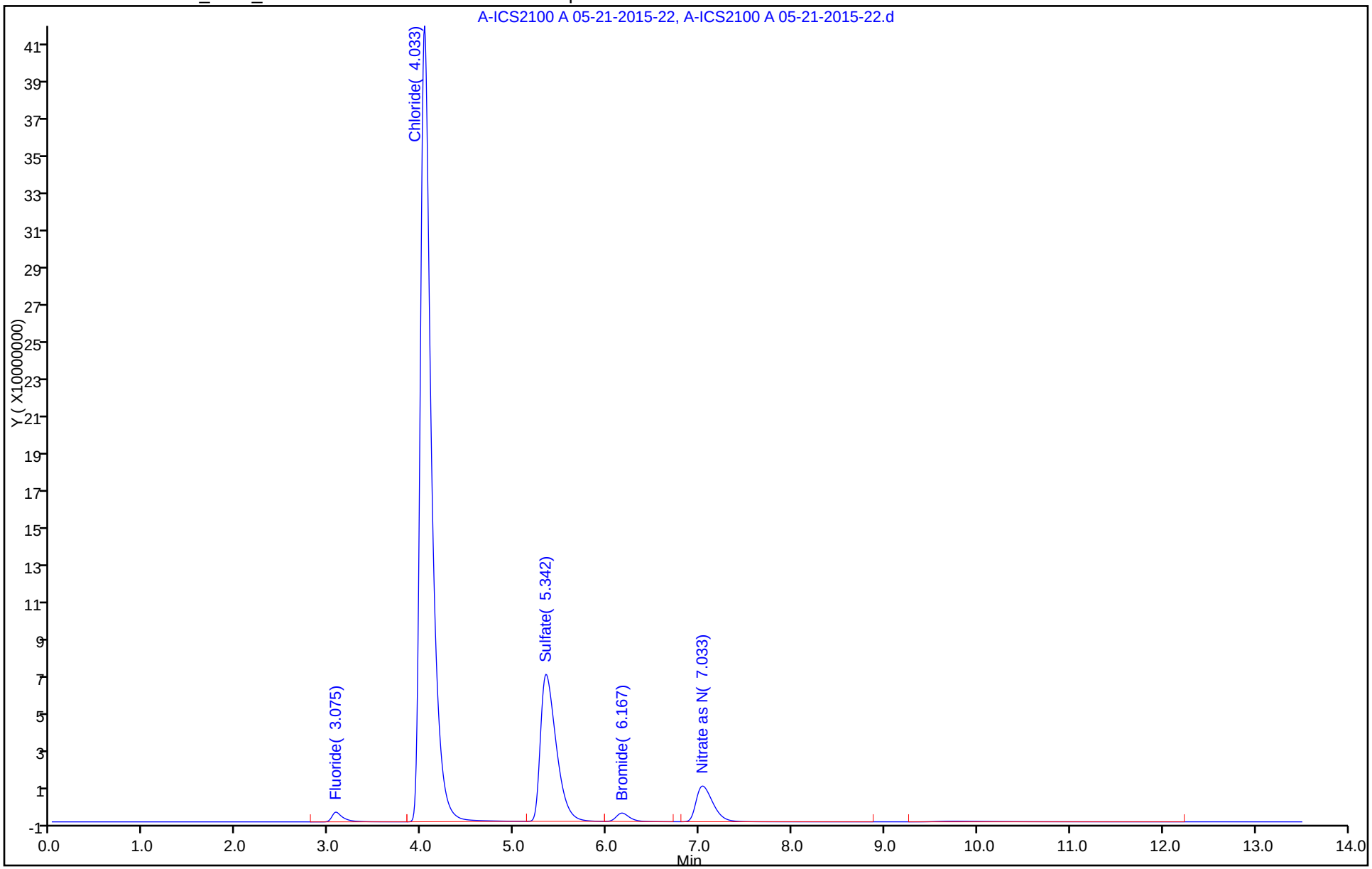
Reagents:

ICPRIMARYSTA_00006 Amount Added: 0.15 Units: mL

Report Date: 22-May-2015 07:10:53 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-22.d				
Injection Date:	21-May-2015 21:18:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-44321-A-20 MSD			Worklist Smp#:	22
Client ID:					
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



FORM I
HPLC/IC ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Client Sample ID: HD-MW-95-0/1-0 MSD Lab Sample ID: 180-44321-24 MSD

Matrix: Water Lab File ID: A-ICS2100 A 05-21-2015-12.d

Analysis Method: 300.0 Date Collected: 05/20/2015 09:25

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 05/21/2015 18:25

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 10(uL) GC Column: AS-18 ID:

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 142454 Units: mg/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
14797-55-8	Nitrate as N	2.04		0.10	0.0062
16887-00-6	Chloride	75.7		1.0	0.20
14808-79-8	Sulfate	55.1		1.0	0.21

TestAmerica Pittsburgh
Target Compound Quantitation Report

Data File: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-12.d
Lims ID: 180-44321-A-24 MSD
Client ID: HD-MW-95-0/1-0
Sample Type: MSD
Inject. Date: 21-May-2015 18:25:00 ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 180-0007057-012
Misc. Info.: 12 180-44321-A-24 MSD
Operator ID: Instrument ID: CHIC2100A

Method: \\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\300_9056_CHIC2100A.m
Limit Group: GC Anions ICAL
Last Update: 22-May-2015 07:10:55 Calib Date: 19-May-2015 14:18:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\PITCHROM\ChromData\CHIC2100A\20150519-7010.b\A-ICS2100 A 05-19-2015-9.d

Column 1 : Det: 0008
Process Host: XAWRK025

Compound	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
1 Fluoride	3.075	3.075	0.000	5428472H	1.25	1.33	
2 Chloride	4.033	4.042	-0.009	1626464915	25.0	75.7	
7 Nitrite as N		4.692				ND	
3 Sulfate	5.358	5.367	-0.009	865795462	25.0	55.1	
4 Bromide	6.167	6.158	0.009	42697545	5.00	4.53	
5 Nitrate as N	7.067	7.058	0.009	108766814	1.25	2.04	
6 Orthophosphate as P		9.383			ND	ND	

QC Flag Legend

Processing Flags
ND - Not Detected or Marked ND
H - Response Measured by Height

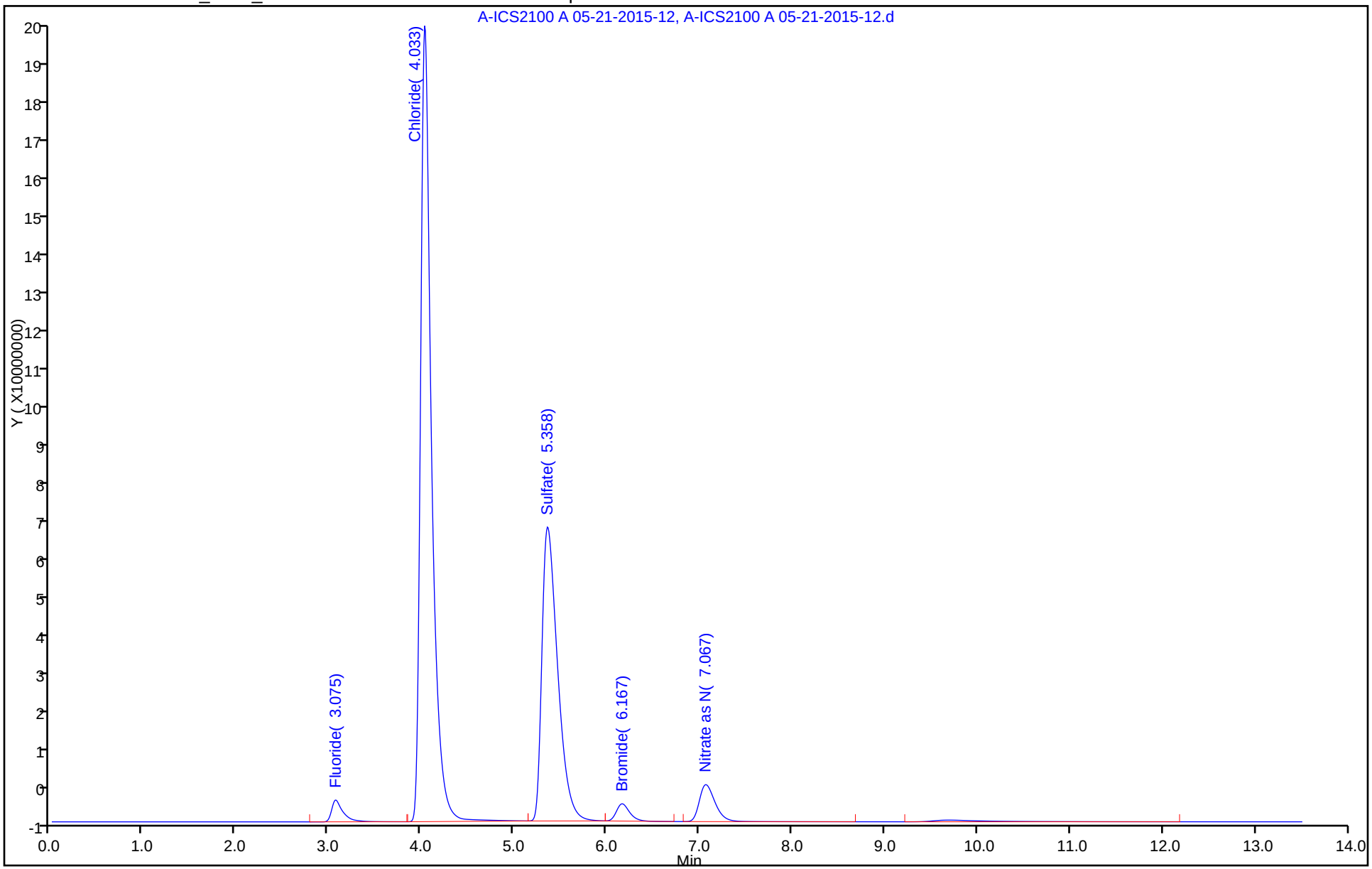
Reagents:

ICPRIMARYSTA_00006 Amount Added: 0.15 Units: mL

Report Date: 22-May-2015 07:10:56 Chrom Revision: 2.2 05-May-2015 11:39:10

TestAmerica Pittsburgh

Data File:	\\PITCHROM\ChromData\CHIC2100A\20150521-7057.b\A-ICS2100 A 05-21-2015-12.d				
Injection Date:	21-May-2015 18:25:00	Instrument ID:	CHIC2100A	Operator ID:	
Lims ID:	180-44321-A-24 MSD			Worklist Smp#:	12
Client ID:	HD-MW-95-0/1-0				
Injection Vol:	10.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	300_9056_CHIC2100A	Limit Group:	GC Anions ICAL		



HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Instrument ID: CHIC2100A Start Date: 05/19/2015 12:31

Analysis Batch Number: 142103 End Date: 05/20/2015 00:16

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 180-142103/2		05/19/2015 12:31	1	A-ICS2100 A 05-19-2015-2.d	AS-18
IC 180-142103/3		05/19/2015 12:46	1	A-ICS2100 A 05-19-2015-3.d	AS-18
ICRT 180-142103/4		05/19/2015 13:01	1	A-ICS2100 A 05-19-2015-4.d	AS-18
IC 180-142103/5		05/19/2015 13:17	1	A-ICS2100 A 05-19-2015-5.d	AS-18
IC 180-142103/6		05/19/2015 13:32	1	A-ICS2100 A 05-19-2015-6.d	AS-18
IC 180-142103/7		05/19/2015 13:47	1	A-ICS2100 A 05-19-2015-7.d	AS-18
IC 180-142103/8		05/19/2015 14:03	1	A-ICS2100 A 05-19-2015-8.d	AS-18
IC 180-142103/9		05/19/2015 14:18	1	A-ICS2100 A 05-19-2015-9.d	AS-18
ZZZZZ		05/19/2015 14:33	1		AS-18
ZZZZZ		05/19/2015 14:52	1		AS-18
ZZZZZ		05/19/2015 15:08	1		AS-18
ICV 180-142103/13		05/19/2015 15:23	1		AS-18
CCV 180-142103/14		05/19/2015 15:38	1		AS-18
CCB 180-142103/15		05/19/2015 15:54	1		AS-18
ZZZZZ		05/19/2015 16:12	1		AS-18
ZZZZZ		05/19/2015 16:29	1		AS-18
ZZZZZ		05/19/2015 19:45	1		AS-18
ZZZZZ		05/19/2015 20:08	1		AS-18
ZZZZZ		05/19/2015 20:23	1		AS-18
ZZZZZ		05/19/2015 20:38	1		AS-18
ZZZZZ		05/19/2015 20:54	1		AS-18
ZZZZZ		05/19/2015 21:09	1		AS-18
ZZZZZ		05/19/2015 21:24	1		AS-18
ZZZZZ		05/19/2015 21:41	1		AS-18
CCV 180-142103/26		05/19/2015 21:58	1		AS-18
CCB 180-142103/27		05/19/2015 22:15	1		AS-18
ZZZZZ		05/19/2015 22:33	1		AS-18
ZZZZZ		05/19/2015 22:50	1		AS-18
ZZZZZ		05/19/2015 23:07	1		AS-18
ZZZZZ		05/19/2015 23:25	1		AS-18
ZZZZZ		05/19/2015 23:42	1		AS-18
CCV 180-142103/38		05/19/2015 23:59	1		AS-18

300.0

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Instrument ID: CHIC2100A Start Date: 05/19/2015 12:31

Analysis Batch Number: 142103 End Date: 05/20/2015 00:16

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCB 180-142103/39		05/20/2015 00:16	1		AS-18

300.0

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Instrument ID: CHIC2100A Start Date: 05/21/2015 15:18

Analysis Batch Number: 142454 End Date: 05/22/2015 07:57

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		05/21/2015 15:18	1		AS-18
ICV 180-142454/2		05/21/2015 15:33	1	A-ICS2100 A 05-21-2015-2.d	AS-18
CCV 180-142454/3		05/21/2015 15:49	1	A-ICS2100 A 05-21-2015-3.d	AS-18
CCB 180-142454/4		05/21/2015 16:06	1	A-ICS2100 A 05-21-2015-4.d	AS-18
LCS 180-142454/5		05/21/2015 16:24	1	A-ICS2100 A 05-21-2015-5.d	AS-18
MB 180-142454/6		05/21/2015 16:41	1	A-ICS2100 A 05-21-2015-6.d	AS-18
180-44321-18		05/21/2015 16:58	1	A-ICS2100 A 05-21-2015-7.d	AS-18
180-44321-16		05/21/2015 17:16	1	A-ICS2100 A 05-21-2015-8.d	AS-18
180-44321-3		05/21/2015 17:33	1	A-ICS2100 A 05-21-2015-9.d	AS-18
180-44321-24		05/21/2015 17:50	1	A-ICS2100 A 05-21-2015-10.d	AS-18
180-44321-24 MS		05/21/2015 18:08	1	A-ICS2100 A 05-21-2015-11.d	AS-18
180-44321-24 MSD		05/21/2015 18:25	1	A-ICS2100 A 05-21-2015-12.d	AS-18
180-44321-8		05/21/2015 18:42	1	A-ICS2100 A 05-21-2015-13.d	AS-18
180-44321-5		05/21/2015 19:00	1	A-ICS2100 A 05-21-2015-14.d	AS-18
CCV 180-142454/15		05/21/2015 19:17	1	A-ICS2100 A 05-21-2015-15.d	AS-18
CCB 180-142454/16		05/21/2015 19:34	1	A-ICS2100 A 05-21-2015-16.d	AS-18
180-44321-29		05/21/2015 19:52	1	A-ICS2100 A 05-21-2015-17.d	AS-18

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Instrument ID: CHIC2100A Start Date: 05/21/2015 15:18

Analysis Batch Number: 142454 End Date: 05/22/2015 07:57

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
180-44321-10		05/21/2015 20:09	1	A-ICS2100 A 05-21-2015-18 .d	AS-18
180-44321-19		05/21/2015 20:26	1	A-ICS2100 A 05-21-2015-19 .d	AS-18
180-44321-20		05/21/2015 20:44	1	A-ICS2100 A 05-21-2015-20 .d	AS-18
180-44321-20 MS		05/21/2015 21:01	1	A-ICS2100 A 05-21-2015-21 .d	AS-18
180-44321-20 MSD		05/21/2015 21:18	1	A-ICS2100 A 05-21-2015-22 .d	AS-18
180-44321-11		05/21/2015 21:35	1	A-ICS2100 A 05-21-2015-23 .d	AS-18
180-44321-21		05/21/2015 21:53	1	A-ICS2100 A 05-21-2015-24 .d	AS-18
180-44321-22		05/21/2015 22:08	1	A-ICS2100 A 05-21-2015-25 .d	AS-18
180-44321-1		05/21/2015 22:23	1	A-ICS2100 A 05-21-2015-26 .d	AS-18
CCV 180-142454/27		05/21/2015 22:39	1	A-ICS2100 A 05-21-2015-27 .d	AS-18
CCB 180-142454/28		05/21/2015 22:54	1	A-ICS2100 A 05-21-2015-28 .d	AS-18
180-44321-23		05/21/2015 23:09	1	A-ICS2100 A 05-21-2015-29 .d	AS-18
180-44321-12		05/21/2015 23:25	1	A-ICS2100 A 05-21-2015-30 .d	AS-18
180-44321-26		05/21/2015 23:40	1	A-ICS2100 A 05-21-2015-31 .d	AS-18
180-44321-25		05/21/2015 23:55	1	A-ICS2100 A 05-21-2015-32 .d	AS-18
180-44321-4		05/22/2015 00:11	1	A-ICS2100 A 05-21-2015-33 .d	AS-18
LCS 180-142454/34		05/22/2015 00:26	1	A-ICS2100 A 05-21-2015-34 .d	AS-18

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HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Instrument ID: CHIC2100A Start Date: 05/21/2015 15:18

Analysis Batch Number: 142454 End Date: 05/22/2015 07:57

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
MB 180-142454/35		05/22/2015 00:41	1	A-ICS2100 A 05-21-2015-35 .d	AS-18
180-44321-15		05/22/2015 00:56	1	A-ICS2100 A 05-21-2015-36 .d	AS-18
180-44321-15 MS		05/22/2015 01:12	1	A-ICS2100 A 05-21-2015-37 .d	AS-18
180-44321-15 MSD		05/22/2015 01:27	1	A-ICS2100 A 05-21-2015-38 .d	AS-18
CCV 180-142454/39		05/22/2015 01:42	1	A-ICS2100 A 05-21-2015-39 .d	AS-18
CCB 180-142454/40		05/22/2015 01:58	1	A-ICS2100 A 05-21-2015-40 .d	AS-18
180-44321-6		05/22/2015 02:13	1	A-ICS2100 A 05-21-2015-41 .d	AS-18
180-44321-7		05/22/2015 02:28	1	A-ICS2100 A 05-21-2015-42 .d	AS-18
180-44321-30		05/22/2015 02:44	1	A-ICS2100 A 05-21-2015-43 .d	AS-18
180-44321-9		05/22/2015 02:59	1	A-ICS2100 A 05-21-2015-44 .d	AS-18
180-44321-14		05/22/2015 03:14	1	A-ICS2100 A 05-21-2015-45 .d	AS-18
180-44321-27		05/22/2015 03:29	1	A-ICS2100 A 05-21-2015-46 .d	AS-18
180-44321-13		05/22/2015 03:45	1	A-ICS2100 A 05-21-2015-47 .d	AS-18
180-44321-2		05/22/2015 04:00	1	A-ICS2100 A 05-21-2015-48 .d	AS-18
180-44321-28		05/22/2015 04:15	1	A-ICS2100 A 05-21-2015-49 .d	AS-18
180-44321-28		05/22/2015 04:31	5	A-ICS2100 A 05-21-2015-50 .d	AS-18
CCV 180-142454/51		05/22/2015 04:46	1	A-ICS2100 A 05-21-2015-51 .d	AS-18

HPLC/IC ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Instrument ID: CHIC2100A Start Date: 05/21/2015 15:18

Analysis Batch Number: 142454 End Date: 05/22/2015 07:57

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCB 180-142454/52		05/22/2015 05:01	1	A-ICS2100 A 05-21-2015-52 .d	AS-18
180-44321-29		05/22/2015 07:11	5	A-ICS2100 A 05-21-2015-53 .d	AS-18
180-44321-13		05/22/2015 07:26	5	A-ICS2100 A 05-21-2015-54 .d	AS-18
CCV 180-142454/55		05/22/2015 07:42	1	A-ICS2100 A 05-21-2015-55 .d	AS-18
CCB 180-142454/56		05/22/2015 07:57	1	A-ICS2100 A 05-21-2015-56 .d	AS-18

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Pittsburgh Job Number: 180-44321-1

SDG No.:

Project: Harley Davidson

Client Sample ID	Lab Sample ID
HD-COD-SW-6-0/1-0	180-44321-1
HD-COD-SW-7-0/1-0	180-44321-2
HD-COD-SW-8-0/1-0	180-44321-3
HD-COD-SW-9-0/1-0	180-44321-4
HD-COD-SW-10-0/1-0	180-44321-5
HD-COD-SW-11-0/1-0	180-44321-6
HD-COD-SW-12-0/1-0	180-44321-7
HD-COD-SW-13-0/1-0	180-44321-8
HD-COD-SW-15-0/1-0	180-44321-9
HD-COD-SW-16-0/1-0	180-44321-10
HD-COD-SW-17-0/1-0	180-44321-11
HD-COD-SW-20-0/1-0	180-44321-12
HD-COD-SW-26-0/1-0	180-44321-13
HD-COD-SW-27-0/1-0	180-44321-14
HD-COD-SW-28-0/1-0	180-44321-15
HD-COD-SW-29-0/1-0	180-44321-16
HD-QC2-0/1-1	180-44321-18
HD-CW-9-0/1-0	180-44321-19
HD-CW-13-0/1-0	180-44321-20
HD-CW-15A-0/1-0	180-44321-21
HD-CW-17-0/1-0	180-44321-22
HD-CW-20-0/1-0	180-44321-23
HD-MW-95-0/1-0	180-44321-24
HD-MW-96S-0/1-0	180-44321-25
HD-MW-96D-0/1-0	180-44321-26
HD-MW-97-0/1-0	180-44321-27
HD-CW-18-0/1-0	180-44321-28
HD-MW-50D-0/1-0	180-44321-29
HD-MW-51S-0/1-0	180-44321-30

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-COD-SW-6-0/1-0
Lab Sample ID: 180-44321-1
Lab Name: TestAmerica Pittsburgh
Job No.: 180-44321-1
SDG ID.:
Matrix: Water
Date Sampled: 05/20/2015 10:45
Reporting Basis WET
Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	48000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	3100	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	8400	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	40000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-COD-SW-7-0/1-0
Lab Sample ID: 180-44321-2
Lab Name: TestAmerica Pittsburgh
Job No.: 180-44321-1
SDG ID.:
Matrix: Water
Date Sampled: 05/20/2015 13:35
Reporting Basis WET
Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	39000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	5600	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	9600	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	39000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-COD-SW-8-0/1-0
Lab Sample ID: 180-44321-3
Lab Name: TestAmerica Pittsburgh
Job No.: 180-44321-1
SDG ID.:
Matrix: Water
Date Sampled: 05/20/2015 09:10
Reporting Basis WET
Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	34000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	5800	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	7000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	35000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-COD-SW-9-0/1-0
Lab Sample ID: 180-44321-4
Lab Name: TestAmerica Pittsburgh
Job No.: 180-44321-1
SDG ID.:
Matrix: Water
Date Sampled: 05/20/2015 11:50
Reporting Basis WET
Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	54000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	9700	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	10000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	48000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-COD-SW-10-0/1-0
Lab Sample ID: 180-44321-5
Lab Name: TestAmerica Pittsburgh
Job No.: 180-44321-1
SDG ID.:
Matrix: Water
Date Sampled: 05/20/2015 09:45
Reporting Basis WET
Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	83000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	7700	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	13000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	45000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-COD-SW-11-0/1-0
Lab Sample ID: 180-44321-6
Lab Name: TestAmerica Pittsburgh
Job No.: 180-44321-1
SDG ID.:
Matrix: Water
Date Sampled: 05/20/2015 12:15
Reporting Basis WET
Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	69000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	2200	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	15000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	31000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-COD-SW-12-0/1-0
Lab Sample ID: 180-44321-7
Lab Name: TestAmerica Pittsburgh
Job No.: 180-44321-1
SDG ID.:
Matrix: Water
Date Sampled: 05/20/2015 12:30
Reporting Basis WET
Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	65000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	17000	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	10000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	64000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-COD-SW-13-0/1-0
Lab Sample ID: 180-44321-8
Lab Name: TestAmerica Pittsburgh
Job No.: 180-44321-1
SDG ID.:
Matrix: Water
Date Sampled: 05/20/2015 09:35
Reporting Basis WET
Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	35000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	5600	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	7100	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	35000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-COD-SW-15-0/1-0
Lab Sample ID: 180-44321-9
Lab Name: TestAmerica Pittsburgh
Job No.: 180-44321-1
SDG ID.:
Matrix: Water
Date Sampled: 05/20/2015 12:40
Reporting Basis WET
Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	87000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	5200	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	16000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	54000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-COD-SW-16-0/1-0
Lab Sample ID: 180-44321-10
Lab Name: TestAmerica Pittsburgh
Job No.: 180-44321-1
SDG ID.:
Matrix: Water
Date Sampled: 05/20/2015 10:10
Reporting Basis WET
Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	38000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	5700	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	7500	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	36000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-COD-SW-17-0/1-0
Lab Sample ID: 180-44321-11
Lab Name: TestAmerica Pittsburgh
Job No.: 180-44321-1
SDG ID.:
Matrix: Water
Date Sampled: 05/20/2015 10:25
Reporting Basis WET
Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	89000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	5200	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	16000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	53000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-COD-SW-20-0/1-0
Lab Sample ID: 180-44321-12
Lab Name: TestAmerica Pittsburgh
Job No.: 180-44321-1
SDG ID.:
Matrix: Water
Date Sampled: 05/20/2015 10:50
Reporting Basis WET
Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	51000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	2700	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	9200	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	44000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-COD-SW-26-0/1-0
Lab Sample ID: 180-44321-13
Lab Name: TestAmerica Pittsburgh
Job No.: 180-44321-1
SDG ID.:
Matrix: Water
Date Sampled: 05/20/2015 13:15
Reporting Basis WET
Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	110000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	3100	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	16000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	91000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-COD-SW-27-0/1-0
Lab Sample ID: 180-44321-14
Lab Name: TestAmerica Pittsburgh
Job No.: 180-44321-1
SDG ID.:
Matrix: Water
Date Sampled: 05/20/2015 12:50
Reporting Basis WET
Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	52000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	6400	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	11000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	43000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-COD-SW-28-0/1-0
Lab Sample ID: 180-44321-15
Lab Name: TestAmerica Pittsburgh
Job No.: 180-44321-1
SDG ID.:
Matrix: Water
Date Sampled: 05/20/2015 12:05
Reporting Basis WET
Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	130000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	11000	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	24000	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-COD-SW-29-0/1-0
Lab Sample ID: 180-44321-16
Lab Name: TestAmerica Pittsburgh
Job No.: 180-44321-1
SDG ID.:
Matrix: Water
Date Sampled: 05/20/2015 08:47
Reporting Basis WET
Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	34000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	5900	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	6900	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	35000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-QC2-0/1-1
Lab Sample ID: 180-44321-18
Lab Name: TestAmerica Pittsburgh
Job No.: 180-44321-1
SDG ID.:
Matrix: Water
Date Sampled: 05/20/2015 08:00
Reporting Basis WET
Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	84000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	5000	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	16000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	53000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-CW-9-0/1-0
Lab Sample ID: 180-44321-19
Lab Name: TestAmerica Pittsburgh
Job No.: 180-44321-1
SDG ID.:
Matrix: Water
Date Sampled: 05/20/2015 10:10
Reporting Basis WET
Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	86000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	12000	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	19000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	72000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-CW-13-0/1-0 Lab Sample ID: 180-44321-20

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG ID.:

Matrix: Water Date Sampled: 05/20/2015 10:15

Reporting Basis WET Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	120000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	12000	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	16000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	44000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-CW-15A-0/1-0
Lab Sample ID: 180-44321-21
Lab Name: TestAmerica Pittsburgh
Job No.: 180-44321-1
SDG ID.:
Matrix: Water
Date Sampled: 05/20/2015 10:25
Reporting Basis WET
Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	140000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	9100	500	5.8	ug/L			1	6020A
7439-95-4	Magnesium	16000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	54000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-CW-17-0/1-0
Lab Sample ID: 180-44321-22
Lab Name: TestAmerica Pittsburgh
Job No.: 180-44321-1
SDG ID.:
Matrix: Water
Date Sampled: 05/20/2015 10:35
Reporting Basis WET
Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	100000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	4900	500	5.8	ug/L		B	1	6020A
7439-95-4	Magnesium	11000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	35000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-CW-20-0/1-0
Lab Sample ID: 180-44321-23
Lab Name: TestAmerica Pittsburgh
Job No.: 180-44321-1
SDG ID.:
Matrix: Water
Date Sampled: 05/20/2015 10:45
Reporting Basis WET
Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	87000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	6000	500	5.8	ug/L		B	1	6020A
7439-95-4	Magnesium	18000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	62000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-95-0/1-0 Lab Sample ID: 180-44321-24

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG ID.:

Matrix: Water Date Sampled: 05/20/2015 09:25

Reporting Basis WET Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	96000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	2700	500	5.8	ug/L		B	1	6020A
7439-95-4	Magnesium	8000	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-96S-0/1-0
Lab Sample ID: 180-44321-25
Lab Name: TestAmerica Pittsburgh
Job No.: 180-44321-1
SDG ID.:
Matrix: Water
Date Sampled: 05/20/2015 11:30
Reporting Basis WET
Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	120000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	7000	500	5.8	ug/L		B	1	6020A
7439-95-4	Magnesium	17000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	56000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-96D-0/1-0
Lab Sample ID: 180-44321-26
Lab Name: TestAmerica Pittsburgh
Job No.: 180-44321-1
SDG ID.:
Matrix: Water
Date Sampled: 05/20/2015 10:50
Reporting Basis WET
Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	110000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	4400	500	5.8	ug/L		B	1	6020A
7439-95-4	Magnesium	15000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	40000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-97-0/1-0 Lab Sample ID: 180-44321-27

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG ID.:

Matrix: Water Date Sampled: 05/20/2015 12:50

Reporting Basis WET Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	88000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	6400	500	5.8	ug/L		B	1	6020A
7439-95-4	Magnesium	16000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	35000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-CW-18-0/1-0 Lab Sample ID: 180-44321-28

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG ID.:

Matrix: Water Date Sampled: 05/20/2015 14:00

Reporting Basis WET Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	95000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	11000	500	5.8	ug/L		B	1	6020A
7439-95-4	Magnesium	42000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	150000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-50D-0/1-0
Lab Sample ID: 180-44321-29
Lab Name: TestAmerica Pittsburgh
Job No.: 180-44321-1
SDG ID.:
Matrix: Water
Date Sampled: 05/20/2015 10:07
Reporting Basis WET
Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	150000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	2300	500	5.8	ug/L		B	1	6020A
7439-95-4	Magnesium	45000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	17000	500	3.8	ug/L			1	6020A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: HD-MW-51S-0/1-0
Lab Sample ID: 180-44321-30
Lab Name: TestAmerica Pittsburgh
Job No.: 180-44321-1
SDG ID.:
Matrix: Water
Date Sampled: 05/20/2015 12:31
Reporting Basis WET
Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-70-2	Calcium	110000	500	2.8	ug/L		B	1	6020A
7440-09-7	Potassium	7700	500	5.8	ug/L		B	1	6020A
7439-95-4	Magnesium	14000	500	1.2	ug/L			1	6020A
7440-23-5	Sodium	44000	500	3.8	ug/L			1	6020A

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

ICV Source: MICVX_00032 Concentration Units: ug/L

CCV Source: MCCV1X_00076

Analyte	ICV 180-143685/5 06/02/2015 10:21				CCV 180-143685/10 06/02/2015 10:42				CCV 180-143685/46 06/02/2015 13:10			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	41400		40000	104	49400		50000	99	47900		50000	96
Magnesium	38300		40000	96	46300		50000	93	45500		50000	91
Potassium	41300		40000	103	48600		50000	97	46800		50000	94
Sodium	38800		40000	97	47300		50000	95	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.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

ICV Source: MICVX_00032 Concentration Units: ug/L

CCV Source: MCCV1X_00076

Analyte	CCV 180-143685/58 06/02/2015 14:01				CCV 180-143685/70 06/02/2015 14:50				CCV 180-143685/82 06/02/2015 15:41			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	48600		50000	97	50200		50000	100	49700		50000	99
Magnesium	45900		50000	92	45800		50000	92	45600		50000	91
Potassium	49000		50000	98	49600		50000	99	49200		50000	98
Sodium	46700		50000	93	46500		50000	93	47100		50000	94

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.: 180-44321-1

SDG No.:

ICV Source: MICVX_00032 Concentration Units: ug/L

CCV Source: MCCV1X_00076

Analyte	CCV 180-143685/94 06/02/2015 16:30				CCV 180-143685/104 06/02/2015 17:17							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	49800		50000	100	49500		50000	99				
Magnesium	47000		50000	94	47400		50000	95				
Potassium	50800		50000	102	50600		50000	101				
Sodium	48700		50000	97	48400		50000	97				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Method: 6020A Instrument ID: M

Lab Sample ID: CRI 180-143685/7 Concentration Units: ug/L

CRQL Check Standard Source: MCRIX_00066

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Calcium	500	482	J	96	70-130
Potassium	500	507		101	70-130
Magnesium	500	469	J	94	70-130
Sodium	500	468	J	94	70-130

Lab Sample ID: CRI 180-143685/99 Concentration Units: ug/L

CRQL Check Standard Source: MCRIX_00066

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Calcium	500	482	J	96	70-130
Potassium	500	522		104	70-130
Magnesium	500	463	J	93	70-130
Sodium	500	461	J	92	70-130

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	ICB 180-143685/6 06/02/2015 10:24		CCB1 180-143685/11 06/02/2015 10:48		CCB4 180-143685/47 06/02/2015 13:16		CCB5 180-143685/59 06/02/2015 14:08	
		Found	C	Found	C	Found	C	Found	C
Calcium	500	500	U	500	U	500	U	500	U
Magnesium	500	500	U	500	U	500	U	500	U
Potassium	500	5.98	J	500	U	7.86	J	11.3	J
Sodium	500	500	U	500	U	500	U	500	U

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Concentration Units: ug/L

Analyte	RL	CCB6 180-143685/71 06/02/2015 14:56		CCB7 180-143685/83 06/02/2015 15:48		CCB8 180-143685/95 06/02/2015 16:36		CCB9 180-143685/105 06/02/2015 17:24	
		Found	C	Found	C	Found	C	Found	C
Calcium	500	500	U	500	U	2.90	J	500	U
Magnesium	500	500	U	500	U	500	U	500	U
Potassium	500	7.04	J	13.1	J	13.8	J	17.0	J
Sodium	500	500	U	500	U	500	U	500	U

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 180-142539/1-A

Instrument Code: M Batch No.: 143685

CAS No.	Analyte	Concentration	C	Q	Method
7440-70-2	Calcium	13.3	J		6020A
7440-09-7	Potassium	500	U		6020A
7439-95-4	Magnesium	500	U		6020A
7440-23-5	Sodium	500	U		6020A

3-IN
METHOD BLANK
METALS - TOTAL RECOVERABLE

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Concentration Units: ug/L Lab Sample ID: MB 180-142542/1-A

Instrument Code: M Batch No.: 143685

CAS No.	Analyte	Concentration	C	Q	Method
7440-70-2	Calcium	13.9	J		6020A
7440-09-7	Potassium	8.13	J		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.: 180-44321-1

SDG No.:

Lab Sample ID: ICSA 180-143685/8 Instrument ID: M

Lab File ID: M50602A.xml ICS Source: MICSAX_00067

Concentration Units: ug/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Calcium	**100000**	**103000**	**103**
Magnesium	**100000**	**98360**	**98**
Potassium	**100000**	**99470**	**99**
Sodium	**100000**	**98340**	**98**
Aluminum	*100000*	*95720*	*96*
Antimony		*0.0030*	
Arsenic		*0.131*	
Barium		*0.152*	
Beryllium		*0.0040*	
Boron		*1.15*	
Cadmium		*0.405*	
Chromium		*-0.935*	
Cobalt		*0.193*	
Copper		*1.94*	
Iron	*100000*	*103300*	*103*
Lead		*0.255*	
Manganese		*0.513*	
Molybdenum	*2000*	*2369*	*118*
Nickel		*0.581*	
Selenium		*1.40*	
Silicon		*21.8*	
Silver		*0.155*	
Strontium		*0.688*	
Thallium		*0.0160*	
Tin		*-0.0530*	
Titanium	*2000*	*2116*	*106*
Vanadium		*-0.701*	
Zinc		*4.22*	

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.: 180-44321-1

SDG No.:

Lab Sample ID: ICSAB 180-143685/9 Instrument ID: M

Lab File ID: M50602A.xml ICS Source: MICSABX_00071

Concentration Units: ug/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Calcium	**100000**	**107107**	**107**
Magnesium	**100000**	**101800**	**102**
Potassium	**100000**	**103890**	**104**
Sodium	**100000**	**98953**	**99**
Aluminum	*100000*	*99207*	*99*
Antimony	*20.0*	*22.0*	*110*
Arsenic	*20.0*	*22.2*	*111*
Barium	*20.0*	*20.7*	*104*
Beryllium	*20.0*	*19.9*	*100*
Boron	*50.0*	*52.2*	*104*
Cadmium	*20.0*	*21.6*	*108*
Chromium	*20.0*	*20.5*	*102*
Cobalt	*20.0*	*21.9*	*109*
Copper	*20.0*	*23.2*	*116*
Iron	*100000*	*106950*	*107*
Lead	*20.0*	*22.1*	*110*
Manganese	*22.5*	*21.5*	*96*
Molybdenum	*2000*	*2394*	*120*
Nickel	*20.0*	*22.3*	*112*
Selenium	*50.0*	*57.3*	*115*
Silicon	*500*	*521*	*104*
Silver	*20.0*	*20.7*	*104*
Strontium	*25.0*	*21.3*	*85*
Thallium	*20.0*	*21.2*	*106*
Tin	*100*	*107*	*107*
Titanium	*2000*	*2207*	*110*
Vanadium	*20.0*	*20.4*	*102*
Zinc	*25.0*	*26.7*	*107*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: HD-COD-SW-6-0/1-0 MS
Lab ID: 180-44321-1 MS
Lab Name: TestAmerica Pittsburgh
Job No.: 180-44321-1
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	97300		48000		50000	98	75-125		6020A
Potassium	48700		3100		50000	91	75-125		6020A
Magnesium	50300		8400		50000	84	75-125		6020A
Sodium	84500		40000		50000	88	75-125		6020A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: HD-MW-95-0/1-0 MS
Lab ID: 180-44321-24 MS
Lab Name: TestAmerica Pittsburgh
Job No.: 180-44321-1
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	144000		96000		50000	95	75-125		6020A
Potassium	47300		2700		50000	89	75-125		6020A
Magnesium	48800		8000		50000	82	75-125		6020A
Sodium	62600		23000		50000	79	75-125		6020A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: HD-COD-SW-6-0/1-0 MSD
Lab ID: 180-44321-1 MSD
Lab Name: TestAmerica Pittsburgh
Job No.: 180-44321-1
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	93900		50000	92	75-125	3	20		6020A
Potassium	46100		50000	86	75-125	6	20		6020A
Magnesium	47900		50000	79	75-125	5	20		6020A
Sodium	79900		50000	79	75-125	6	20		6020A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: HD-MW-95-0/1-0 MSD
Lab ID: 180-44321-24 MSD
Lab Name: TestAmerica Pittsburgh
Job No.: 180-44321-1
SDG No.:
Matrix: Water
Concentration Units: ug/L
% Solids:

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Calcium	144000		50000	96	75-125	0	20		6020A
Potassium	46900		50000	88	75-125	1	20		6020A
Magnesium	48500		50000	81	75-125	1	20		6020A
Sodium	62600		50000	80	75-125	0	20		6020A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS

Client ID: HD-COD-SW-6-0/1-0 PDS Lab ID: 180-44321-1 PDS

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Matrix: Water Concentration Units: ug/L

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Calcium	99400		48000		50000	103	75-125		6020A
Potassium	50200		3100		50000	94	75-125		6020A
Magnesium	50700		8400		50000	84	75-125		6020A
Sodium	82800		40000		50000	85	75-125		6020A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VB - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS

Client ID: HD-MW-95-0/1-0 PDS Lab ID: 180-44321-24 PDS

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Matrix: Water Concentration Units: ug/L

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Calcium	142000		96000		50000	91	75-125		6020A
Potassium	47900		2700		50000	90	75-125		6020A
Magnesium	49600		8000		50000	83	75-125		6020A
Sodium	63700		23000		50000	82	75-125		6020A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VB - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 180-142539/2-A

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

Sample Matrix: Water LCS Source: MTAPITTMSA_00024

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Calcium	50000	47300		95	80	120		6020A
Potassium	50000	45200		90	80	120		6020A
Magnesium	50000	41500		83	80	120		6020A
Sodium	50000	41800		84	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS - TOTAL RECOVERABLE

Lab ID: LCS 180-142542/2-A

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

Sample Matrix: Water LCS Source: MTAPITTMSA_00024

Analyte	Water(ug/L)							
	True	Found	C	%R	Limits		Q	Method
Calcium	50000	47600		95	80	120		6020A
Potassium	50000	45100		90	80	120		6020A
Magnesium	50000	41000		82	80	120		6020A
Sodium	50000	40400		81	80	120		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 180-44321-1

SDG No:

Lab Name: TestAmerica Pittsburgh Job No: 180-44321-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Calcium	48000		44700		7.0		6020A
Potassium	3100		3030		1.0		6020A
Magnesium	8400		8470		0.69		6020A
Sodium	40000		42300		4.5		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 180-44321-24

SDG No:

Lab Name: TestAmerica Pittsburgh Job No: 180-44321-1

Matrix: Water Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Calcium	96000		94400		2.1		6020A
Potassium	2700		2690		0.66		6020A
Magnesium	8000		7860		1.7		6020A
Sodium	23000		22900		0.13		6020A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Pittsburgh Job Number: 180-44321-1

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: 180-44321-1

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: 180-44321-1

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.: 180-44321-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 180-142539/1-A	05/22/2015 10:04	142539		50	50
LCS 180-142539/2-A	05/22/2015 10:04	142539		50	50
180-44321-1	05/22/2015 10:04	142539		50	50
180-44321-1 MS	05/22/2015 10:04	142539		50	50
180-44321-1 MSD	05/22/2015 10:04	142539		50	50
180-44321-2	05/22/2015 10:04	142539		50	50
180-44321-3	05/22/2015 10:04	142539		50	50
180-44321-4	05/22/2015 10:04	142539		50	50
180-44321-5	05/22/2015 10:04	142539		50	50
180-44321-6	05/22/2015 10:04	142539		50	50
180-44321-7	05/22/2015 10:04	142539		50	50
180-44321-8	05/22/2015 10:04	142539		50	50
180-44321-9	05/22/2015 10:04	142539		50	50
180-44321-10	05/22/2015 10:04	142539		50	50
180-44321-11	05/22/2015 10:04	142539		50	50
180-44321-12	05/22/2015 10:04	142539		50	50
180-44321-13	05/22/2015 10:04	142539		50	50
180-44321-14	05/22/2015 10:04	142539		50	50
180-44321-15	05/22/2015 10:04	142539		50	50
180-44321-16	05/22/2015 10:04	142539		50	50
180-44321-18	05/22/2015 10:04	142539		50	50
180-44321-19	05/22/2015 10:04	142539		50	50
180-44321-20	05/22/2015 10:04	142539		50	50
180-44321-21	05/22/2015 10:04	142539		50	50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Prep Method: 3005A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 180-142542/1-A	05/22/2015 10:06	142542		50	50
LCS 180-142542/2-A	05/22/2015 10:06	142542		50	50
180-44321-22	05/22/2015 10:06	142542		50	50
180-44321-23	05/22/2015 10:06	142542		50	50
180-44321-24	05/22/2015 10:06	142542		50	50
180-44321-24 MS	05/22/2015 10:06	142542		50	50
180-44321-24 MSD	05/22/2015 10:06	142542		50	50
180-44321-25	05/22/2015 10:06	142542		50	50
180-44321-26	05/22/2015 10:06	142542		50	50
180-44321-27	05/22/2015 10:06	142542		50	50
180-44321-28	05/22/2015 10:06	142542		50	50
180-44321-29	05/22/2015 10:06	142542		50	50
180-44321-30	05/22/2015 10:06	142542		50	50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Instrument ID: M Analysis Method: 6020A

Start Date: 06/02/2015 07:51 End Date: 06/02/2015 17:24

Lab Sample Id	D/F	Typ	Time	Analytes																										
				Ca	K	Mg	Na																							
ITUNE 180-143685/1			07:51																											
STD1 180-143685/2 IC	1		10:10	X	X	X	X																							
STD2 180-143685/3 IC	1		10:13	X	X	X	X																							
STD3 180-143685/4 IC	1		10:17	X	X	X	X																							
ICV 180-143685/5	1		10:21	X	X	X	X																							
ICB 180-143685/6	1		10:24	X	X	X	X																							
CRI 180-143685/7	1		10:28	X	X	X	X																							
ICSA 180-143685/8	1		10:32	X	X	X	X																							
ICSAB 180-143685/9	1		10:35	X	X	X	X																							
CCV 180-143685/10	1		10:42	X	X	X	X																							
CCB1 180-143685/11	1		10:48	X	X	X	X																							
ZZZZZZ			10:52																											
ZZZZZZ			10:56																											
ZZZZZZ			11:00																											
ZZZZZZ			11:03																											
ZZZZZZ			11:07																											
ZZZZZZ			11:11																											
ZZZZZZ			11:15																											
ZZZZZZ			11:19																											
ZZZZZZ			11:22																											
ZZZZZZ			11:26																											
CCV 180-143685/22			11:30																											
CCB2 180-143685/23			11:37																											
ZZZZZZ			11:40																											
ZZZZZZ			11:44																											
ZZZZZZ			11:48																											
ZZZZZZ			11:52																											
ZZZZZZ			11:56																											
ZZZZZZ			11:59																											
ZZZZZZ			12:06																											
ZZZZZZ			12:10																											
ZZZZZZ			12:14																											
ZZZZZZ			12:18																											
CCV 180-143685/34			12:21																											
CCB3 180-143685/35			12:28																											
ZZZZZZ			12:32																											
ZZZZZZ			12:36																											
ZZZZZZ			12:39																											
ZZZZZZ			12:43																											
ZZZZZZ			12:47																											
ZZZZZZ			12:51																											
ZZZZZZ			12:55																											

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Instrument ID: M Analysis Method: 6020A

Start Date: 06/02/2015 07:51 End Date: 06/02/2015 17:24

Lab Sample Id	D/F	Typ	Time	Analytes																										
				Ca	K	Mg	Na																							
ZZZZZZ			12:58																											
ZZZZZZ			13:02																											
ZZZZZZ			13:06																											
CCV 180-143685/46	1		13:10	X	X	X	X																							
CCB4 180-143685/47	1		13:16	X	X	X	X																							
ZZZZZZ			13:20																											
ZZZZZZ			13:24																											
MB 180-142539/1-A	1	R	13:31	X	X	X	X																							
LCS 180-142539/2-A	1	R	13:34	X	X	X	X																							
180-44321-1	1	T	13:38	X	X	X	X																							
180-44321-1 SD	5	T	13:42	X	X	X	X																							
180-44321-1 MS	1	T	13:46	X	X	X	X																							
180-44321-1 MSD	1	T	13:50	X	X	X	X																							
180-44321-1 PDS	1	T	13:53	X	X	X	X																							
180-44321-2	1	T	13:57	X	X	X	X																							
CCV 180-143685/58	1		14:01	X	X	X	X																							
CCB5 180-143685/59	1		14:08	X	X	X	X																							
180-44321-3	1	T	14:11	X	X	X	X																							
180-44321-4	1	T	14:15	X	X	X	X																							
180-44321-5	1	T	14:19	X	X	X	X																							
180-44321-6	1	T	14:23	X	X	X	X																							
180-44321-7	1	T	14:27	X	X	X	X																							
180-44321-8	1	T	14:31	X	X	X	X																							
180-44321-9	1	T	14:34	X	X	X	X																							
180-44321-10	1	T	14:38	X	X	X	X																							
180-44321-11	1	T	14:42	X	X	X	X																							
180-44321-12	1	T	14:46	X	X	X	X																							
CCV 180-143685/70	1		14:50	X	X	X	X																							
CCB6 180-143685/71	1		14:56	X	X	X	X																							
180-44321-13	1	T	15:00	X	X	X	X																							
180-44321-14	1	T	15:04	X	X	X	X																							
180-44321-15	1	T	15:08	X	X	X	X																							
180-44321-16	1	T	15:11	X	X	X	X																							
180-44321-18	1	T	15:15	X	X	X	X																							
180-44321-19	1	T	15:19	X	X	X	X																							
180-44321-20	1	T	15:23	X	X	X	X																							
180-44321-21	1	T	15:27	X	X	X	X																							
MB 180-142542/1-A	1	R	15:33	X	X	X	X																							
LCS 180-142542/2-A	1	R	15:37	X	X	X	X																							
CCV 180-143685/82	1		15:41	X	X	X	X																							
CCB7 180-143685/83	1		15:48	X	X	X	X																							
180-44321-22	1	T	15:51	X	X	X	X																							

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Instrument ID: M Analysis Method: 6020A

Start Date: 06/02/2015 07:51 End Date: 06/02/2015 17:24

Lab Sample Id	D/F	Typ	Time	Analytes																								
				Ca	K	Mg	Na																					
180-44321-23	1	T	15:55	X	X	X	X																					
180-44321-24	1	T	15:59	X	X	X	X																					
180-44321-24 SD	5	T	16:03	X	X	X	X																					
180-44321-24 MS	1	T	16:07	X	X	X	X																					
180-44321-24 MSD	1	T	16:10	X	X	X	X																					
180-44321-24 PDS	1	T	16:14	X	X	X	X																					
180-44321-25	1	T	16:18	X	X	X	X																					
180-44321-26	1	T	16:22	X	X	X	X																					
180-44321-27	1	T	16:26	X	X	X	X																					
CCV 180-143685/94	1		16:30	X	X	X	X																					
CCB8 180-143685/95	1		16:36	X	X	X	X																					
180-44321-28	1	T	16:40	X	X	X	X																					
180-44321-29	1	T	16:44	X	X	X	X																					
180-44321-30	1	T	16:47	X	X	X	X																					
CRI 180-143685/99	1		16:58	X	X	X	X																					
ZZZZZZ			17:02																									
ZZZZZZ			17:06																									
ZZZZZZ			17:09																									
ZZZZZZ			17:13																									
CCV 180-143685/104	1		17:17	X	X	X	X																					
CCB9 180-143685/105	1		17:24	X	X	X	X																					

Prep Types:
R = Total Recoverable
T = Total/NA

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

ICP-MS Instrument ID: M Start Date: 06/02/2015 End Date: 06/02/2015

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 180-143685/2 I	10:10	100		100		100		100		100	
STD2 180-143685/3 I	10:13	93		106		101		95		97	
STD3 180-143685/4 I	10:17	109		108		106		106		107	
ICV 180-143685/5	10:21	106		109		113		109		112	
ICB 180-143685/6	10:24	107		112		112		112		112	
CRI 180-143685/7	10:28	106		110		113		107		110	
ICSA 180-143685/8	10:32	80		92		95		89		95	
ICSAB 180-143685/9	10:35	80		86		94		88		95	
CCV 180-143685/10	10:42	88		94		99		100		99	
CCB1 180-143685/11	10:48	94		100		104		104		107	
CCV 180-143685/46	13:10	98		98		96		91		90	
CCB4 180-143685/47	13:16	111		101		102		101		102	
MB 180-142539/1-A	13:31	112		105		102		101		102	
LCS 180-142539/2-A	13:34	97		82		90		86		89	
180-44321-1	13:38	102		89		91		89		91	
180-44321-1 SD	13:42	107		97		96		97		98	
180-44321-1 MS	13:46	93		84		90		85		91	
180-44321-1 MSD	13:50	96		86		90		85		90	
180-44321-1 PDS	13:53	97		79		90		84		89	
180-44321-2	13:57	98		83		93		90		94	
CCV 180-143685/58	14:01	99		98		97		93		95	
CCB5 180-143685/59	14:08	111		103		100		99		98	
180-44321-3	14:11	102		87		94		91		94	
180-44321-4	14:15	105		88		94		91		94	
180-44321-5	14:19	103		87		92		89		92	
180-44321-6	14:23	100		86		92		89		92	
180-44321-7	14:27	99		80		92		89		92	
180-44321-8	14:31	103		88		92		88		91	
180-44321-9	14:34	105		84		91		87		90	
180-44321-10	14:38	102		84		93		89		92	
180-44321-11	14:42	100		84		92		89		92	
180-44321-12	14:46	95		89		93		90		94	
CCV 180-143685/70	14:50	96		93		98		94		93	
CCB6 180-143685/71	14:56	113		109		102		101		101	
180-44321-13	15:00	104		88		95		88		91	
180-44321-14	15:04	105		88		94		91		93	
180-44321-15	15:08	102		87		137		90		95	
180-44321-16	15:11	105		90		96		93		96	
180-44321-18	15:15	102		93		94		91		94	
180-44321-19	15:19	101		90		94		89		93	
180-44321-20	15:23	100		82		94		89		94	
180-44321-21	15:27	105		89		94		89		92	

FORM XV - IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

ICP-MS Instrument ID: M Start Date: 06/02/2015 End Date: 06/02/2015

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
MB 180-142542/1-A	15:33	115		103		103		101		101	
LCS 180-142542/2-A	15:37	101		85		93		88		92	
CCV 180-143685/82	15:41	106		96		100		95		92	
CCB7 180-143685/83	15:48	119		106		102		101		100	
180-44321-22	15:51	105		90		93		89		92	
180-44321-23	15:55	103		96		93		90		92	
180-44321-24	15:59	110		91		95		91		94	
180-44321-24 SD	16:03	111		100		100		98		99	
180-44321-24 MS	16:07	100		90		95		88		92	
180-44321-24 MSD	16:10	106		88		94		88		91	
180-44321-24 PDS	16:14	103		91		93		87		91	
180-44321-25	16:18	101		86		94		90		94	
180-44321-26	16:22	103		91		93		88		92	
180-44321-27	16:26	107		94		95		90		93	
CCV 180-143685/94	16:30	104		96		100		95		93	
CCB8 180-143685/95	16:36	111		111		106		105		103	
180-44321-28	16:40	101		89		93		89		91	
180-44321-29	16:44	109		92		97		92		94	
180-44321-30	16:47	102		94		97		93		96	
CRI 180-143685/99	16:58	118		112		106		101		101	
CCV 180-143685/104	17:17	109		107		103		97		90	
CCB9 180-143685/105	17:24	116		113		104		102		99	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

ICP-MS Instrument ID: M Start Date: 06/02/2015 End Date: 06/02/2015

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
STD1 180-143685/2 I	10:10	100		100		100					
STD2 180-143685/3 I	10:13	99		99		98					
STD3 180-143685/4 I	10:17	106		106		110					
ICV 180-143685/5	10:21	114		108		110					
ICB 180-143685/6	10:24	110		110		113					
CRI 180-143685/7	10:28	108		107		105					
ICSA 180-143685/8	10:32	104		104		112					
ICSAB 180-143685/9	10:35	104		105		103					
CCV 180-143685/10	10:42	105		105		104					
CCB1 180-143685/11	10:48	109		110		112					
CCV 180-143685/46	13:10	100		100		92					
CCB4 180-143685/47	13:16	102		102		104					
MB 180-142539/1-A	13:31	102		102		104					
LCS 180-142539/2-A	13:34	98		98		84					
180-44321-1	13:38	98		99		88					
180-44321-1 SD	13:42	101		101		98					
180-44321-1 MS	13:46	101		103		91					
180-44321-1 MSD	13:50	100		102		89					
180-44321-1 PDS	13:53	99		100		87					
180-44321-2	13:57	102		102		94					
CCV 180-143685/58	14:01	98		98		92					
CCB5 180-143685/59	14:08	97		96		98					
180-44321-3	14:11	100		101		94					
180-44321-4	14:15	101		102		92					
180-44321-5	14:19	100		100		89					
180-44321-6	14:23	100		100		89					
180-44321-7	14:27	101		101		92					
180-44321-8	14:31	97		98		89					
180-44321-9	14:34	97		97		86					
180-44321-10	14:38	99		100		90					
180-44321-11	14:42	100		101		91					
180-44321-12	14:46	100		101		93					
CCV 180-143685/70	14:50	100		100		95					
CCB6 180-143685/71	14:56	98		98		99					
180-44321-13	15:00	97		98		88					
180-44321-14	15:04	100		100		90					
180-44321-15	15:08	107		108		92					
180-44321-16	15:11	104		105		96					
180-44321-18	15:15	100		102		90					
180-44321-19	15:19	101		101		88					
180-44321-20	15:23	101		103		90					
180-44321-21	15:27	99		99		87					

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

ICP-MS Instrument ID: M Start Date: 06/02/2015 End Date: 06/02/2015

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Tb	Q	Element Ho	Q	Element Bi	Q	Element	Q	Element	Q
MB 180-142542/1-A	15:33	100		100		103					
LCS 180-142542/2-A	15:37	100		101		90					
CCV 180-143685/82	15:41	97		97		92					
CCB7 180-143685/83	15:48	96		96		99					
180-44321-22	15:51	98		98		86					
180-44321-23	15:55	98		98		89					
180-44321-24	15:59	100		100		90					
180-44321-24 SD	16:03	101		101		98					
180-44321-24 MS	16:07	101		103		90					
180-44321-24 MSD	16:10	100		101		88					
180-44321-24 PDS	16:14	99		100		87					
180-44321-25	16:18	101		102		91					
180-44321-26	16:22	98		98		86					
180-44321-27	16:26	99		100		89					
CCV 180-143685/94	16:30	98		99		93					
CCB8 180-143685/95	16:36	100		100		101					
180-44321-28	16:40	98		99		86					
180-44321-29	16:44	101		102		88					
180-44321-30	16:47	102		102		92					
CRI 180-143685/99	16:58	97		96		94					
CCV 180-143685/104	17:17	93		93		89					
CCB9 180-143685/105	17:24	93		92		95					

Dilution Corrected Concentrations

STD1 1565410 INT STD 6/2/2015 10:10:39 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:10:58	101.747%	-0.001	-0.087	-0.034	0.000	0.193	0.575	0.168
2	10:11:17	101.441%	-0.001	-0.082	-0.015	0.000	-0.072	-0.249	0.022
3	10:11:36	96.812%	0.002	0.169	0.049	0.000	-0.121	-0.326	-0.191
x		100.000%	-0.000	0.000	0.000	0.000	0.000	0.000	0.000
σ		2.765%	0.002	0.147	0.043	0.000	0.169	0.500	0.181
%RSD		2.765	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	10:10:58	-0.076	-5.420	0.000	0.091	3.462	-0.099	101.760%	-0.044
2	10:11:17	0.030	1.198	0.000	0.637	-2.317	0.638	98.366%	-0.000
3	10:11:36	0.045	4.222	0.000	-0.728	-1.144	-0.538	99.874%	0.044
x		-0.000	0.000	0.000	-0.000	0.000	-0.000	100.000%	-0.000
σ		0.066	4.931	0.000	0.687	3.055	0.594	1.700%	0.044
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	1.700	0.000

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:10:58	0.008	0.038	0.018	0.422	-0.726	0.000	-0.041	-0.010
2	10:11:17	-0.004	-0.009	-0.008	-0.035	0.648	-0.003	0.022	0.012
3	10:11:36	-0.004	-0.029	-0.009	-0.387	0.079	0.003	0.020	-0.002
x		-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
σ		0.007	0.035	0.015	0.406	0.690	0.003	0.036	0.011
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:10:58	-0.016	-0.033	-0.015	-0.066	0.213	0.086	0.000	0.004
2	10:11:17	-0.005	0.001	0.110	0.000	-0.210	-0.076	0.000	-0.002
3	10:11:36	0.022	0.032	-0.095	0.066	-0.003	-0.011	0.000	-0.001
x		-0.000	-0.000	-0.000	0.000	0.000	0.000	0.000	0.000
σ		0.019	0.032	0.103	0.066	0.211	0.082	0.000	0.003
%RSD		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:10:58	98.645%	-0.044	-0.036	99.249%	0.001	-0.007	-0.022	-0.012
2	10:11:17	100.214%	0.013	-0.007	100.203%	0.002	-0.001	0.017	0.007
3	10:11:36	101.141%	0.030	0.043	100.547%	-0.004	0.008	0.005	0.005
x		100.000%	-0.000	0.000	100.000%	-0.000	0.000	0.000	-0.000
σ		1.262%	0.039	0.040	0.672%	0.003	0.007	0.020	0.011
%RSD		1.262	0.000	0.000	0.672	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	10:10:58	98.788%	-0.096	-0.064	-0.075	0.015	-0.006	98.064%	97.649%
2	10:11:17	100.965%	0.018	0.061	0.014	-0.011	0.005	100.563%	100.924%
3	10:11:36	100.246%	0.078	0.003	0.060	-0.004	0.001	101.374%	101.427%
x		100.000%	-0.000	-0.000	-0.000	-0.000	0.000	100.000%	100.000%
σ		1.109%	0.088	0.063	0.069	0.014	0.006	1.725%	2.052%
%RSD		1.109	0.000	0.000	0.000	0.000	0.000	1.725	2.052

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:10:58	-0.001	-0.001	-0.004	0.002	-0.002	99.975%
2	10:11:17	0.004	-0.001	-0.007	-0.005	-0.005	100.140%
3	10:11:36	-0.003	0.001	0.010	0.003	0.007	99.885%
x		-0.000	-0.000	0.000	-0.000	0.000	100.000%
σ		0.004	0.001	0.009	0.004	0.006	0.129%
%RSD		0.000	0.000	0.000	0.000	0.000	0.129

STD2 1594024 6/2/2015 10:13:54 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:13:54	100.975%	197.200	0.714	0.978	0.000	95760.000	94860.000	95820.000
2	10:14:13	88.339%	201.700	0.694	1.182	0.000	102700.000	103100.000	103400.000
3	10:14:32	90.512%	201.100	1.085	0.934	0.000	101600.000	102000.000	100700.000
x		93.275%	200.000	0.831	1.031	0.000	100000.000	100000.000	100000.000
σ		6.756%	2.444	0.220	0.133	0.000	3712.000	4486.000	3862.000
%RSD		7.243	1.222	26.520	12.850	0.000	3.712	4.486	3.862
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:13:54	967.700	23.900	0.000	96550.000	96090.000	97710.000	107.891%	0.235
2	10:14:13	1037.000	47.080	0.000	102900.000	103100.000	101300.000	105.245%	0.041
3	10:14:32	995.500	49.810	0.000	100500.000	100800.000	101000.000	105.137%	0.213
x		1000.000	40.260	0.000	100000.000	100000.000	100000.000	106.091%	0.163
σ		34.760	14.240	0.000	3223.000	3575.000	1993.000	1.559%	0.106
%RSD		3.476	35.360	0.000	3.223	3.575	1.993	1.470	65.240
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:13:54	194.800	196.300	974.800	48910.000	49000.000	196.000	196.800	197.600
2	10:14:13	202.900	200.600	1011.000	50580.000	50290.000	202.000	201.900	199.600
3	10:14:32	202.300	203.100	1015.000	50510.000	50710.000	202.000	201.300	202.800
x		200.000	200.000	1000.000	50000.000	50000.000	200.000	200.000	200.000
σ		4.521	3.477	21.930	943.600	890.400	3.443	2.761	2.603
%RSD		2.261	1.738	2.193	1.887	1.781	1.722	1.381	1.302
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:13:54	200.400	196.500	197.500	198.300	198.100	199.100	0.000	198.400
2	10:14:13	200.000	202.000	202.100	199.800	201.100	200.100	0.000	200.700
3	10:14:32	199.600	201.500	200.400	201.900	200.900	200.700	0.000	200.800
x		200.000	200.000	200.000	200.000	200.000	200.000	0.000	200.000
σ		0.376	3.024	2.322	1.813	1.679	0.798	0.000	1.359
%RSD		0.188	1.512	1.161	0.906	0.839	0.399	0.000	0.680
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:13:54	99.810%	0.072	0.062	93.890%	198.000	198.200	198.100	198.200
2	10:14:13	100.589%	0.211	0.207	95.016%	200.900	200.600	200.600	200.200
3	10:14:32	101.358%	0.266	0.342	95.503%	201.100	201.200	201.300	201.600
x		100.586%	0.183	0.204	94.803%	200.000	200.000	200.000	200.000
σ		0.774%	0.100	0.140	0.827%	1.728	1.587	1.644	1.685
%RSD		0.769	54.560	68.690	0.873	0.864	0.793	0.822	0.843
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:13:54	94.702%	-0.066	0.235	0.224	199.200	199.000	95.515%	96.471%
2	10:14:13	97.237%	0.163	0.308	0.313	199.500	199.300	100.223%	99.420%
3	10:14:32	97.771%	0.275	0.321	0.343	201.300	201.700	100.375%	99.956%
x		96.570%	0.124	0.288	0.293	200.000	200.000	98.704%	98.616%
σ		1.639%	0.174	0.047	0.062	1.123	1.449	2.763%	1.876%
%RSD		1.697	139.900	16.150	21.100	0.562	0.725	2.799	1.903
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:13:54	193.200	193.300	192.400	193.200	192.600	98.492%		
2	10:14:13	200.000	198.800	199.000	199.200	199.800	98.736%		
3	10:14:32	206.800	207.900	208.700	207.600	207.600	96.429%		
x		200.000	200.000	200.000	200.000	200.000	97.886%		
σ		6.816	7.352	8.186	7.260	7.509	1.267%		
%RSD		3.408	3.676	4.093	3.630	3.754	1.294		

STD3 1594025 6/2/2015 10:17:30 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:17:30	116.286%	0.045	195.900	199.600	0.000	24.430	16.070	15.730
2	10:17:49	107.117%	0.069	199.500	197.700	0.000	24.460	14.350	14.470
3	10:18:08	103.048%	0.098	204.600	202.700	0.000	25.090	15.580	14.820
x		108.817%	0.071	200.000	200.000	0.000	24.660	15.330	15.010
σ		6.781%	0.026	4.398	2.488	0.000	0.373	0.882	0.648
%RSD		6.231	37.260	2.199	1.244	0.000	1.512	5.752	4.316
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:17:30	19.380	9502.000	0.000	17.260	33.070	133.900	109.692%	198.100
2	10:17:49	20.320	10030.000	0.000	16.370	45.950	133.200	107.730%	202.200
3	10:18:08	21.270	10470.000	0.000	15.030	31.930	133.500	107.108%	199.700
x		20.320	10000.000	0.000	16.220	36.980	133.600	108.177%	200.000
σ		0.946	482.600	0.000	1.123	7.788	0.362	1.348%	2.075
%RSD		4.652	4.826	0.000	6.923	21.060	0.271	1.246	1.038
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:17:30	0.074	0.082	0.277	37.480	30.920	0.032	0.130	0.197
2	10:17:49	0.116	0.067	0.251	33.670	29.290	0.044	0.178	0.213
3	10:18:08	0.094	0.050	0.241	26.610	26.690	0.040	0.132	0.229
x		0.095	0.066	0.256	32.590	28.970	0.039	0.147	0.213
σ		0.021	0.016	0.019	5.511	2.132	0.006	0.027	0.016
%RSD		22.020	23.930	7.318	16.910	7.359	15.300	18.390	7.536
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:17:30	0.245	2.982	2.878	0.660	2.763	2.227	0.000	0.072
2	10:17:49	0.260	3.077	2.849	1.144	3.226	3.415	0.000	0.061
3	10:18:08	0.287	2.991	3.333	1.146	3.178	2.887	0.000	0.072
x		0.264	3.017	3.020	0.983	3.056	2.843	0.000	0.068
σ		0.021	0.052	0.272	0.280	0.254	0.595	0.000	0.006
%RSD		8.091	1.734	8.993	28.520	8.322	20.940	0.000	9.082
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:17:30	104.836%	199.400	198.300	105.327%	0.055	0.087	0.085	-0.141
2	10:17:49	106.786%	200.100	200.700	106.305%	0.079	0.083	0.104	-0.316
3	10:18:08	107.238%	200.400	201.100	106.976%	0.073	0.073	0.071	-0.502
x		106.287%	200.000	200.000	106.202%	0.069	0.081	0.087	-0.320
σ		1.276%	0.534	1.520	0.830%	0.012	0.007	0.017	0.180
%RSD		1.201	0.267	0.760	0.781	17.720	8.893	19.160	56.360
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:17:30	105.646%	196.900	199.000	198.500	0.079	0.380	103.213%	102.325%
2	10:17:49	107.167%	201.100	200.600	200.400	0.095	0.323	106.581%	106.766%
3	10:18:08	108.590%	202.000	200.400	201.100	0.215	0.403	108.639%	109.296%
x		107.134%	200.000	200.000	200.000	0.130	0.369	106.144%	106.129%
σ		1.472%	2.742	0.884	1.313	0.074	0.041	2.739%	3.529%
%RSD		1.374	1.371	0.442	0.656	57.220	11.070	2.581	3.325
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:17:30	0.062	0.063	0.050	0.069	0.064	108.229%		
2	10:17:49	0.073	0.062	0.067	0.063	0.066	109.524%		
3	10:18:08	0.074	0.060	0.069	0.088	0.071	110.749%		
x		0.070	0.062	0.062	0.073	0.067	109.501%		
σ		0.007	0.002	0.010	0.013	0.004	1.260%		
%RSD		10.270	2.447	16.330	17.960	5.356	1.151		

ICV 1578172 6/2/2015 10:21:06 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:21:06	107.008%	80.830	94.130	86.210	0.000	39350.000	39490.000	39270.000
2	10:21:26	106.072%	73.620	86.060	86.410	0.000	38610.000	38790.000	38780.000
3	10:21:45	106.102%	77.000	85.530	84.280	0.000	38520.000	37960.000	36990.000
x		106.394%	96.438%	110.713%	107.043%	0.000	97.067%	96.867%	95.860%
σ		0.532%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		0.500	4.679	5.440	1.373	0.000	1.178	1.983	3.127

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:21:06	390.300	4906.000	0.000	41680.000	40720.000	40610.000	112.584%	82.100
2	10:21:26	392.900	5052.000	0.000	41820.000	42270.000	42070.000	106.549%	86.380
3	10:21:45	388.300	5224.000	0.000	40480.000	41800.000	41650.000	106.455%	86.520
x		97.624%	126.522%	0.000	103.326%	103.992%	103.614%	108.529%	106.247%
σ		n/a	n/a	0.000	n/a	n/a	n/a	3.512%	n/a
%RSD		0.586	3.141	0.000	1.780	1.911	1.822	3.236	2.958

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:21:06	80.330	82.280	398.600	20030.000	19690.000	80.680	83.220	81.230
2	10:21:26	85.890	87.030	419.600	21160.000	20660.000	84.910	85.590	83.140
3	10:21:45	84.440	85.840	424.000	20920.000	20760.000	87.220	85.090	85.390
x		104.442%	106.314%	103.512%	103.521%	101.856%	105.342%	105.791%	104.067%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		3.450	2.903	3.275	2.879	2.911	3.934	1.474	2.499

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:21:06	80.110	83.460	82.820	80.450	86.030	81.830	0.000	77.200
2	10:21:26	83.650	86.300	86.150	82.310	83.890	82.140	0.000	78.940
3	10:21:45	85.580	85.330	87.040	83.130	84.800	85.510	0.000	78.610
x		103.889%	106.285%	106.672%	102.456%	106.134%	103.952%	0.000	97.815%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		3.341	1.699	2.607	1.677	1.266	2.455	0.000	1.185

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:21:06	111.615%	83.120	85.370	107.770%	79.280	79.540	79.800	78.870
2	10:21:26	112.849%	86.530	86.870	108.336%	80.540	80.150	81.130	79.500
3	10:21:45	114.420%	85.960	87.020	109.486%	80.800	80.300	80.030	79.240
x		112.961%	106.507%	108.024%	108.531%	100.258%	99.994%	100.399%	99.008%
σ		1.406%	n/a	n/a	0.874%	n/a	n/a	n/a	n/a
%RSD		1.245	2.145	1.058	0.806	1.014	0.503	0.887	0.402

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:21:06	109.655%	79.520	86.470	86.730	77.370	77.690	111.454%	105.576%
2	10:21:26	111.718%	80.970	88.370	87.680	78.550	79.010	114.322%	109.166%
3	10:21:45	114.100%	80.640	88.080	88.060	77.790	78.760	115.572%	110.573%
x		111.824%	100.470%	109.550%	109.364%	97.380%	98.106%	113.782%	108.438%
σ		2.224%	n/a	n/a	n/a	n/a	n/a	2.111%	2.577%
%RSD		1.989	0.940	1.166	0.785	0.771	0.896	1.856	2.376

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:21:06	83.940	83.220	81.690	79.960	81.180	110.005%
2	10:21:26	86.100	86.140	84.930	82.930	84.230	110.137%
3	10:21:45	88.510	89.280	88.040	85.980	87.300	109.147%
x		107.727%	107.766%	106.105%	103.696%	105.300%	109.763%
σ		n/a	n/a	n/a	n/a	n/a	0.537%
%RSD		2.654	3.520	3.742	3.628	3.632	0.489

ICB 6/2/2015 10:24:45 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:24:45	110.835%	0.001	0.381	0.405	0.000	3.881	2.030	1.579
2	10:25:04	107.226%	0.050	0.317	0.524	0.000	3.302	1.202	0.916
3	10:25:23	104.190%	-0.027	0.580	0.363	0.000	2.861	0.787	0.877
x		107.417%	0.008	0.426	0.431	0.000	3.348	1.340	1.124
σ		3.327%	0.039	0.137	0.083	0.000	0.512	0.633	0.395
%RSD		3.097	478.000	32.200	19.290	0.000	15.280	47.220	35.110

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:24:45	0.368	-25.470	0.000	5.394	1.531	1.558	117.585%	-0.062
2	10:25:04	-0.368	-7.960	0.000	8.065	-3.519	1.616	109.839%	-0.049
3	10:25:23	-0.386	-0.242	0.000	4.475	-2.436	0.518	109.564%	-0.005
x		-0.129	-11.220	0.000	5.978	-1.475	1.231	112.329%	-0.038
σ		0.430	12.930	0.000	1.865	2.659	0.618	4.554%	0.030
%RSD		333.800	115.200	0.000	31.190	180.300	50.220	4.054	78.010

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:24:45	0.034	0.025	0.000	15.300	10.200	-0.000	0.030	-0.025
2	10:25:04	0.030	0.036	-0.007	15.620	11.130	0.001	0.018	-0.014
3	10:25:23	0.036	0.045	-0.016	15.280	9.655	-0.002	0.015	0.007
x		0.033	0.036	-0.008	15.400	10.330	-0.000	0.021	-0.011
σ		0.003	0.010	0.008	0.188	0.746	0.001	0.008	0.016
%RSD		9.261	28.490	107.400	1.221	7.222	329.000	39.550	156.000

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:24:45	-0.048	-0.001	-0.047	0.235	1.800	1.142	0.000	-0.000
2	10:25:04	0.003	-0.010	0.069	0.416	2.159	1.474	0.000	-0.005
3	10:25:23	0.017	0.014	-0.026	0.446	2.323	1.533	0.000	-0.004
x		-0.009	0.001	-0.001	0.365	2.094	1.383	0.000	-0.003
σ		0.034	0.012	0.062	0.114	0.268	0.211	0.000	0.003
%RSD		363.200	1463.000	4903.000	31.220	12.780	15.230	0.000	79.660

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:24:45	110.570%	1.324	1.467	111.590%	0.000	0.008	-0.020	-0.022
2	10:25:04	112.740%	1.974	1.852	111.261%	0.013	0.021	0.032	0.026
3	10:25:23	112.317%	2.165	2.146	111.800%	0.012	0.038	-0.053	-0.031
x		111.876%	1.821	1.822	111.550%	0.008	0.022	-0.014	-0.009
σ		1.150%	0.441	0.341	0.272%	0.007	0.015	0.043	0.031
%RSD		1.028	24.220	18.700	0.244	86.190	68.600	309.300	347.000

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:24:45	110.842%	-0.225	-0.147	-0.136	0.006	0.011	105.662%	106.336%
2	10:25:04	112.876%	-0.148	-0.111	-0.056	-0.001	0.007	111.400%	110.950%
3	10:25:23	113.531%	-0.041	-0.035	-0.013	-0.007	0.013	112.393%	111.584%
x		112.416%	-0.138	-0.098	-0.068	-0.000	0.010	109.818%	109.623%
σ		1.402%	0.093	0.057	0.062	0.006	0.003	3.633%	2.865%
%RSD		1.247	67.250	58.650	91.260	1306.000	31.970	3.309	2.613

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:24:45	0.025	0.023	-0.001	0.002	0.003	113.107%
2	10:25:04	0.024	0.041	0.002	0.011	0.007	113.155%
3	10:25:23	0.030	0.028	0.006	-0.008	0.004	114.032%
x		0.026	0.031	0.002	0.002	0.004	113.431%
σ		0.003	0.009	0.004	0.009	0.002	0.521%
%RSD		13.290	29.230	152.700	607.800	47.730	0.459

CRI 1554040 6/2/2015 10:28:24 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:28:24	110.675%	0.922	21.150	19.690	0.000	449.500	456.300	453.000
2	10:28:43	101.265%	0.893	22.400	20.810	0.000	469.900	474.900	470.400
3	10:29:02	105.973%	1.018	21.340	21.280	0.000	483.600	485.000	483.400
x		105.971%	94.407%	108.144%	102.962%	0.000	93.532%	94.412%	93.788%
σ		4.705%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		4.440	6.968	3.135	3.974	0.000	3.673	3.088	3.247
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:28:24	27.930	456.700	0.000	497.600	518.500	464.800	113.100%	4.679
2	10:28:43	29.160	474.100	0.000	500.600	528.600	493.400	109.966%	4.887
3	10:29:02	30.590	501.200	0.000	523.500	541.500	489.000	106.728%	5.483
x		97.412%	95.470%	0.000	101.446%	105.907%	96.480%	109.931%	100.323%
σ		n/a	n/a	0.000	n/a	n/a	n/a	3.186%	n/a
%RSD		4.552	4.699	0.000	2.799	2.174	3.189	2.898	8.324
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:28:24	1.011	2.068	4.900	60.520	57.240	0.565	1.036	2.120
2	10:28:43	0.982	2.166	5.083	63.150	58.650	0.512	1.146	2.224
3	10:29:02	1.010	2.121	5.096	61.390	56.310	0.541	1.167	2.269
x		100.092%	105.914%	100.532%	123.374%	114.798%	107.884%	111.640%	110.225%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.643	2.312	2.182	2.170	2.054	4.907	6.314	3.457
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:28:24	2.212	6.176	6.255	1.043	6.388	5.224	0.000	4.651
2	10:28:43	2.199	5.972	6.404	1.078	5.597	5.307	0.000	4.919
3	10:29:02	1.997	6.716	6.491	1.221	6.542	5.402	0.000	4.852
x		106.807%	125.761%	127.667%	111.390%	123.515%	106.222%	0.000	96.146%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		5.642	6.119	1.866	8.462	8.204	1.671	0.000	2.908
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:28:24	112.144%	4.224	4.372	106.170%	1.015	1.018	1.020	1.067
2	10:28:43	113.449%	4.461	4.700	106.589%	1.062	1.015	0.931	1.081
3	10:29:02	113.989%	4.640	4.592	107.768%	1.074	1.056	1.031	1.087
x		113.194%	88.837%	91.096%	106.842%	105.038%	102.969%	99.428%	107.851%
σ		0.949%	n/a	n/a	0.829%	n/a	n/a	n/a	n/a
%RSD		0.838	4.695	3.677	0.776	2.950	2.216	5.510	0.947
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:28:24	108.935%	3.984	1.833	1.758	9.661	9.790	104.158%	104.428%
2	10:28:43	109.653%	4.266	1.948	1.941	9.998	9.916	107.915%	107.090%
3	10:29:02	110.696%	4.000	1.962	1.930	10.140	9.787	110.837%	109.558%
x		109.761%	81.667%	95.714%	93.820%	99.343%	98.311%	107.637%	107.025%
σ		0.885%	n/a	n/a	n/a	n/a	n/a	3.348%	2.566%
%RSD		0.807	3.873	3.683	5.464	2.498	0.745	3.111	2.397
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	10:28:24	1.030	1.063	1.039	1.007	1.068	103.793%		
2	10:28:43	1.028	1.077	1.060	1.093	1.091	105.478%		
3	10:29:02	1.101	1.110	1.123	1.062	1.101	106.173%		
x		105.295%	108.334%	107.403%	105.398%	108.648%	105.148%		
σ		n/a	n/a	n/a	n/a	n/a	1.224%		
%RSD		3.931	2.198	4.091	4.156	1.558	1.164		

ICSA 1578047 6/2/2015 10:32:02 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:32:02	80.882%	0.017	1.249	1.081	0.000	99670.000	99690.000	98990.000
2	10:32:21	85.274%	-0.016	1.685	1.084	0.000	94350.000	96730.000	94440.000
3	10:32:40	74.199%	0.011	0.955	1.271	0.000	101000.000	101700.000	101600.000
x		80.118%	0.004	1.297	1.146	0.000	98340.000	99380.000	98360.000
σ		5.577%	0.018	0.367	0.109	0.000	3519.000	2507.000	3642.000
%RSD		6.961	473.100	28.340	9.521	0.000	3.578	2.523	3.703

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:32:02	95630.000	13.200	0.000	98460.000	100300.000	100400.000	94.429%	2093.000
2	10:32:21	92480.000	18.950	0.000	97620.000	101600.000	103000.000	89.653%	2103.000
3	10:32:40	99060.000	33.220	0.000	102300.000	103700.000	105600.000	91.538%	2151.000
x		95720.000	21.790	0.000	99470.000	101900.000	103000.000	91.873%	2116.000
σ		3291.000	10.310	0.000	2512.000	1702.000	2614.000	2.406%	30.980
%RSD		3.438	47.320	0.000	2.526	1.671	2.538	2.618	1.464

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:32:02	-0.769	-1.012	0.483	102100.000	100600.000	0.182	0.629	1.472
2	10:32:21	-0.711	-0.994	0.556	104700.000	103300.000	0.219	0.702	1.563
3	10:32:40	-0.624	-0.800	0.500	103000.000	102100.000	0.179	0.411	1.567
x		-0.701	-0.935	0.513	103300.000	102000.000	0.193	0.581	1.534
σ		0.073	0.118	0.039	1333.000	1351.000	0.023	0.151	0.054
%RSD		10.420	12.600	7.546	1.291	1.325	11.640	26.060	3.494

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:32:02	2.002	4.019	2.750	0.327	1.387	0.483	0.000	0.705
2	10:32:21	2.033	4.392	3.175	0.017	1.480	0.353	0.000	0.673
3	10:32:40	1.799	4.244	3.091	0.050	1.324	0.368	0.000	0.684
x		1.944	4.219	3.006	0.131	1.397	0.401	0.000	0.688
σ		0.127	0.188	0.225	0.170	0.078	0.072	0.000	0.016
%RSD		6.542	4.451	7.487	129.500	5.613	17.830	0.000	2.397

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:32:02	92.867%	2298.000	2351.000	87.764%	0.140	0.137	0.517	0.218
2	10:32:21	94.780%	2338.000	2388.000	88.640%	0.170	0.166	0.481	0.417
3	10:32:40	96.152%	2315.000	2368.000	89.130%	0.154	0.166	0.218	0.299
x		94.600%	2317.000	2369.000	88.511%	0.155	0.156	0.405	0.311
σ		1.650%	20.120	18.420	0.692%	0.015	0.016	0.163	0.100
%RSD		1.744	0.868	0.777	0.782	9.522	10.490	40.250	32.050

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:32:02	93.679%	-0.128	-0.028	0.006	0.147	0.158	99.574%	99.350%
2	10:32:21	94.750%	-0.019	0.017	0.109	0.117	0.175	104.902%	105.005%
3	10:32:40	97.474%	-0.012	0.022	0.030	0.101	0.123	107.330%	107.409%
x		95.301%	-0.053	0.003	0.048	0.122	0.152	103.936%	103.921%
σ		1.957%	0.065	0.027	0.054	0.024	0.026	3.967%	4.137%
%RSD		2.053	122.200	790.200	112.600	19.360	17.250	3.817	3.981

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:32:02	0.014	0.012	0.194	0.206	0.217	119.620%
2	10:32:21	0.017	0.018	0.275	0.292	0.269	108.997%
3	10:32:40	0.014	0.018	0.315	0.255	0.280	107.433%
x		0.015	0.016	0.261	0.251	0.255	112.017%
σ		0.002	0.003	0.062	0.043	0.033	6.631%
%RSD		10.320	20.650	23.580	17.120	13.110	5.920

ICSAB 1578158 6/2/2015 10:35:41 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:35:41	80.055%	20.040	56.580	53.860	0.000	98870.000	99810.000	99700.000
2	10:36:00	80.968%	20.360	55.440	51.910	0.000	99150.000	99670.000	101500.000
3	10:36:19	78.527%	19.430	51.790	50.830	0.000	98840.000	102900.000	104200.000
x		79.850%	99.703%	109.208%	104.398%	0.000	98.952%	100.799%	101.819%
σ		1.233%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.544	2.374	4.577	2.941	0.000	0.177	1.827	2.236

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:35:41	96500.000	509.300	0.000	97970.000	99240.000	99120.000	94.322%	2081.000
2	10:36:00	98920.000	513.600	0.000	106100.000	108500.000	109500.000	82.628%	2242.000
3	10:36:19	102200.000	540.200	0.000	107600.000	113900.000	112700.000	80.679%	2298.000
x		99.197%	104.205%	0.000	103.910%	107.225%	107.107%	85.876%	110.351%
σ		n/a	n/a	0.000	n/a	n/a	n/a	7.379%	n/a
%RSD		2.871	3.209	0.000	4.999	6.915	6.636	8.593	5.099

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:35:41	19.160	18.750	19.630	98850.000	98660.000	20.360	20.420	21.110
2	10:36:00	20.490	21.200	22.270	112000.000	111300.000	23.050	23.600	23.570
3	10:36:19	21.450	21.480	22.580	110000.000	109400.000	22.270	23.020	23.760
x		101.848%	102.391%	93.446%	106.944%	106.447%	109.475%	111.746%	114.078%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		5.646	7.339	7.561	6.627	6.397	6.308	7.568	6.479

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:35:41	21.780	25.020	23.510	21.910	56.980	55.330	0.000	20.900
2	10:36:00	23.690	27.400	25.050	22.300	57.570	55.030	0.000	21.280
3	10:36:19	24.190	27.590	25.840	22.290	57.240	55.780	0.000	21.590
x		116.096%	106.673%	99.200%	110.843%	114.534%	110.762%	0.000	106.294%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		5.457	5.372	4.771	1.008	0.516	0.684	0.000	1.639

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:35:41	93.593%	2315.000	2379.000	87.565%	20.710	20.600	21.420	20.840
2	10:36:00	94.151%	2348.000	2404.000	87.923%	20.670	20.380	21.730	21.270
3	10:36:19	94.021%	2346.000	2399.000	88.063%	20.810	20.560	21.580	20.850
x		93.922%	116.820%	119.691%	87.851%	103.638%	102.563%	107.892%	104.930%
σ		0.292%	n/a	n/a	0.257%	n/a	n/a	n/a	n/a
%RSD		0.311	0.777	0.544	0.292	0.341	0.568	0.712	1.159

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:35:41	93.496%	105.700	21.380	21.390	20.210	20.300	101.219%	102.493%
2	10:36:00	95.409%	106.900	22.340	22.100	21.640	20.780	104.229%	105.271%
3	10:36:19	96.267%	108.000	22.180	22.240	20.250	21.090	106.820%	107.820%
x		95.057%	106.844%	109.837%	109.549%	103.507%	103.623%	104.089%	105.195%
σ		1.418%	n/a	n/a	n/a	n/a	n/a	2.803%	2.664%
%RSD		1.492	1.074	2.349	2.081	3.929	1.930	2.693	2.532

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:35:41	19.950	19.810	20.770	20.560	20.630	107.352%
2	10:36:00	21.870	21.410	22.390	22.660	22.400	101.714%
3	10:36:19	22.520	22.340	23.070	22.970	23.210	100.021%
x		107.231%	105.929%	110.379%	110.318%	110.409%	103.029%
σ		n/a	n/a	n/a	n/a	n/a	3.838%
%RSD		6.241	6.046	5.357	5.955	5.963	3.725

CCV 1594026 6/2/2015 10:42:17 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:42:17	93.333%	95.210	105.700	103.000	0.000	47560.000	45990.000	45160.000
2	10:42:36	82.841%	101.300	108.600	98.920	0.000	48610.000	48370.000	47200.000
3	10:42:55	88.820%	95.780	107.900	100.900	0.000	45810.000	46420.000	46480.000
x		88.331%	97.448%	107.427%	100.914%	0.000	94.659%	93.855%	92.563%
σ		5.263%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		5.959	3.478	1.414	2.007	0.000	2.992	2.701	2.236

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:42:17	449.500	4968.000	0.000	47850.000	48630.000	47840.000	96.202%	97.160
2	10:42:36	471.300	5185.000	0.000	48870.000	51130.000	50080.000	93.552%	101.200
3	10:42:55	462.200	4963.000	0.000	49150.000	51430.000	50210.000	91.131%	103.300
x		92.197%	100.778%	0.000	97.244%	100.792%	98.756%	93.628%	100.561%
σ		n/a	n/a	0.000	n/a	n/a	n/a	2.536%	n/a
%RSD		2.374	2.518	0.000	1.404	3.043	2.700	2.709	3.111

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:42:17	96.890	98.950	486.700	24830.000	24720.000	101.800	100.800	101.200
2	10:42:36	101.000	103.100	499.900	25470.000	24750.000	102.100	103.900	101.400
3	10:42:55	99.240	102.600	501.600	25540.000	25570.000	103.500	104.100	104.200
x		99.034%	101.534%	99.217%	101.122%	100.044%	102.480%	102.954%	102.294%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		2.072	2.214	1.646	1.536	1.930	0.883	1.776	1.630

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:42:17	100.800	95.440	96.490	97.030	101.100	98.120	0.000	95.170
2	10:42:36	102.700	99.440	98.700	99.950	101.100	101.400	0.000	95.870
3	10:42:55	103.500	98.560	101.500	99.280	98.310	97.510	0.000	95.840
x		102.318%	97.812%	98.904%	98.754%	100.168%	99.001%	0.000	95.626%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.359	2.149	2.551	1.547	1.602	2.098	0.000	0.411

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:42:17	98.402%	106.400	105.600	99.513%	93.740	94.400	95.180	95.480
2	10:42:36	98.571%	110.300	110.300	98.594%	95.900	95.930	98.540	97.360
3	10:42:55	101.110%	111.100	111.400	100.557%	95.160	95.650	97.090	97.740
x		99.361%	109.246%	109.125%	99.554%	94.932%	95.328%	96.940%	96.863%
σ		1.517%	n/a	n/a	0.982%	n/a	n/a	n/a	n/a
%RSD		1.527	2.322	2.845	0.987	1.159	0.857	1.739	1.249

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:42:17	97.307%	94.880	91.630	91.160	94.630	94.410	101.223%	102.107%
2	10:42:36	98.257%	96.310	93.360	92.570	95.110	95.490	105.101%	104.953%
3	10:42:55	101.119%	96.120	92.900	92.170	93.590	95.030	107.792%	108.139%
x		98.894%	95.770%	92.631%	91.967%	94.445%	94.976%	104.705%	105.066%
σ		1.985%	n/a	n/a	n/a	n/a	n/a	3.302%	3.018%
%RSD		2.007	0.809	0.966	0.792	0.825	0.571	3.154	2.872

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:42:17	94.680	95.660	95.300	95.040	94.770	104.874%
2	10:42:36	99.250	100.300	99.700	100.400	100.400	104.401%
3	10:42:55	103.800	105.400	105.000	103.800	104.900	102.215%
x		99.230%	100.464%	99.991%	99.763%	100.030%	103.830%
σ		n/a	n/a	n/a	n/a	n/a	1.418%
%RSD		4.575	4.868	4.842	4.437	5.096	1.366

CCB1 6/2/2015 10:48:41 AM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:49:00	94.895%	-0.028	0.343	0.512	0.000	2.922	0.651	0.890
2	10:49:19	94.425%	-0.027	0.448	0.288	0.000	2.892	0.913	0.780
3	10:49:38	91.524%	-0.031	0.294	0.491	0.000	2.567	0.637	0.848
x		93.615%	-0.029	0.362	0.430	0.000	2.794	0.734	0.839
σ		1.826%	0.002	0.079	0.124	0.000	0.197	0.155	0.056
%RSD		1.950	7.593	21.820	28.730	0.000	7.060	21.160	6.618

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:49:00	-0.290	-10.660	0.000	6.173	-1.216	0.429	103.270%	-0.001
2	10:49:19	-0.299	-3.048	0.000	5.466	-1.141	0.353	99.873%	0.008
3	10:49:38	-0.382	-0.850	0.000	5.175	1.336	-0.432	97.886%	0.000
x		-0.324	-4.852	0.000	5.605	-0.340	0.117	100.343%	0.002
σ		0.050	5.147	0.000	0.513	1.452	0.477	2.723%	0.004
%RSD		15.580	106.100	0.000	9.153	426.800	408.700	2.713	185.200

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:49:00	-0.010	0.004	-0.028	8.239	6.971	-0.004	-0.002	-0.027
2	10:49:19	-0.006	0.055	-0.043	10.260	4.542	-0.001	0.022	-0.012
3	10:49:38	0.001	0.028	-0.020	8.994	3.661	-0.002	0.037	-0.031
x		-0.005	0.029	-0.030	9.164	5.058	-0.002	0.019	-0.024
σ		0.005	0.026	0.011	1.021	1.714	0.002	0.020	0.010
%RSD		108.000	89.640	37.490	11.140	33.890	73.820	105.200	41.790

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:49:00	-0.031	0.036	-0.031	-0.015	0.872	0.402	0.000	-0.007
2	10:49:19	-0.045	0.150	0.041	0.159	1.198	0.511	0.000	-0.008
3	10:49:38	-0.005	0.042	-0.036	0.098	1.453	0.622	0.000	-0.006
x		-0.027	0.076	-0.009	0.081	1.174	0.512	0.000	-0.007
σ		0.021	0.064	0.043	0.088	0.291	0.110	0.000	0.001
%RSD		76.360	84.290	491.300	109.100	24.800	21.550	0.000	15.660

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:49:00	103.396%	2.352	2.413	102.971%	-0.042	-0.022	-0.091	-0.067
2	10:49:19	104.110%	2.992	3.031	103.898%	-0.024	-0.027	-0.053	-0.029
3	10:49:38	105.843%	3.396	3.198	104.597%	-0.036	-0.025	-0.102	-0.075
x		104.450%	2.913	2.881	103.822%	-0.034	-0.025	-0.082	-0.057
σ		1.258%	0.526	0.414	0.816%	0.009	0.002	0.026	0.024
%RSD		1.205	18.070	14.370	0.786	25.860	8.865	31.580	42.500

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:49:00	106.096%	-0.339	0.316	0.458	-0.011	-0.003	105.581%	105.780%
2	10:49:19	107.212%	-0.289	0.415	0.504	-0.017	0.021	110.362%	110.855%
3	10:49:38	108.878%	-0.216	0.545	0.521	0.005	0.010	112.328%	113.027%
x		107.395%	-0.281	0.425	0.494	-0.008	0.009	109.424%	109.887%
σ		1.400%	0.062	0.115	0.033	0.012	0.012	3.470%	3.719%
%RSD		1.304	21.950	26.950	6.647	150.700	125.800	3.171	3.385

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:49:00	0.004	0.010	-0.001	-0.004	-0.000	111.483%
2	10:49:19	0.015	0.014	0.005	-0.005	-0.000	112.212%
3	10:49:38	0.016	0.013	-0.008	0.003	-0.000	113.152%
x		0.012	0.013	-0.001	-0.002	-0.000	112.282%
σ		0.006	0.002	0.007	0.004	0.000	0.837%
%RSD		54.150	15.250	631.900	223.700	69.150	0.746

MB 180-142536/1-A 6/2/2015 10:52:30 AM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:52:49	95.305%	-0.012	0.278	0.278	0.000	3.157	0.716	1.060
2	10:53:08	94.878%	-0.028	0.790	0.215	0.000	2.749	0.484	0.860
3	10:53:27	91.100%	-0.015	0.198	0.273	0.000	2.956	0.602	0.934
x		93.761%	-0.018	0.422	0.255	0.000	2.954	0.601	0.951
σ		2.315%	0.008	0.321	0.035	0.000	0.204	0.116	0.101
%RSD		2.469	44.780	76.080	13.640	0.000	6.898	19.360	10.610

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:52:49	0.277	-30.450	0.000	5.586	20.030	20.330	100.843%	-0.114
2	10:53:08	0.398	-27.040	0.000	4.510	32.280	19.520	99.475%	-0.040
3	10:53:27	0.152	-24.770	0.000	3.758	15.600	23.300	99.546%	0.008
x		0.276	-27.420	0.000	4.618	22.640	21.050	99.955%	-0.048
σ		0.123	2.860	0.000	0.919	8.637	1.992	0.770%	0.061
%RSD		44.730	10.430	0.000	19.900	38.160	9.464	0.770	126.800

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:52:49	0.008	-0.021	-0.004	7.985	3.340	0.000	0.076	-0.001
2	10:53:08	-0.005	-0.035	-0.002	8.885	4.720	-0.002	0.024	0.012
3	10:53:27	-0.051	-0.059	-0.009	8.576	3.912	0.002	0.031	0.013
x		-0.016	-0.038	-0.005	8.482	3.991	0.000	0.044	0.008
σ		0.031	0.019	0.004	0.457	0.694	0.002	0.028	0.008
%RSD		194.200	50.460	71.320	5.392	17.380	1737.000	64.780	100.700

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:52:49	-0.009	1.831	1.625	-0.013	1.113	0.250	0.000	0.012
2	10:53:08	0.019	1.750	1.837	0.005	0.964	0.154	0.000	0.010
3	10:53:27	0.037	1.769	1.799	0.056	1.072	0.249	0.000	0.008
x		0.016	1.783	1.754	0.016	1.050	0.218	0.000	0.010
σ		0.023	0.043	0.113	0.036	0.077	0.055	0.000	0.002
%RSD		146.400	2.388	6.428	223.400	7.334	25.300	0.000	20.530

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:52:49	103.849%	1.245	1.259	103.453%	-0.024	-0.037	-0.009	-0.015
2	10:53:08	106.331%	1.720	1.729	104.572%	-0.031	-0.029	-0.075	-0.046
3	10:53:27	106.305%	1.806	1.856	104.417%	-0.029	-0.028	-0.029	-0.016
x		105.495%	1.591	1.615	104.148%	-0.028	-0.031	-0.038	-0.025
σ		1.426%	0.302	0.314	0.606%	0.003	0.005	0.034	0.018
%RSD		1.351	19.010	19.470	0.582	11.660	15.080	89.370	69.880

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:52:49	106.758%	-0.403	0.189	0.194	0.018	0.052	108.391%	108.870%
2	10:53:08	110.216%	-0.351	0.202	0.139	0.039	0.030	111.747%	112.083%
3	10:53:27	110.092%	-0.327	0.217	0.230	0.033	0.053	113.121%	112.964%
x		109.022%	-0.360	0.203	0.188	0.030	0.045	111.087%	111.306%
σ		1.962%	0.039	0.014	0.046	0.011	0.013	2.433%	2.155%
%RSD		1.800	10.920	6.955	24.510	36.770	28.730	2.190	1.936

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:52:49	0.006	0.008	-0.002	-0.002	-0.002	119.009%
2	10:53:08	0.001	0.006	0.005	0.003	0.002	119.366%
3	10:53:27	0.003	0.008	0.001	0.006	0.002	117.770%
x		0.003	0.008	0.001	0.002	0.001	118.715%
σ		0.002	0.001	0.004	0.004	0.002	0.837%
%RSD		73.390	14.100	260.400	176.500	260.700	0.705

LCS 180-142536/2-A 6/2/2015 10:56:17 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	10:56:36	98.332%	40.370	898.300	914.900	0.000	39590.000	40170.000	40530.000
2	10:56:55	98.706%	41.100	871.600	865.200	0.000	40050.000	39370.000	40100.000
3	10:57:14	90.776%	41.670	929.700	896.600	0.000	41170.000	41470.000	40490.000
x		95.938%	41.040	899.900	892.200	0.000	40270.000	40340.000	40380.000
σ		4.475%	0.653	29.060	25.170	0.000	814.400	1058.000	237.900
%RSD		4.664	1.590	3.229	2.822	0.000	2.022	2.624	0.589

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:56:36	1593.000	8749.000	0.000	45080.000	46850.000	45570.000	87.255%	930.600
2	10:56:55	1661.000	9231.000	0.000	44800.000	49210.000	49040.000	82.223%	978.800
3	10:57:14	1614.000	8970.000	0.000	44110.000	46080.000	45700.000	88.788%	915.700
x		1623.000	8983.000	0.000	44660.000	47380.000	46770.000	86.089%	941.700
σ		35.180	241.400	0.000	499.900	1634.000	1966.000	3.434%	32.970
%RSD		2.168	2.687	0.000	1.119	3.449	4.204	3.989	3.501

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:56:36	489.500	191.200	470.700	989.500	1277.000	492.900	496.700	251.700
2	10:56:55	497.500	200.700	492.600	1008.000	1303.000	515.100	517.000	253.000
3	10:57:14	484.500	190.100	456.600	958.800	1190.000	472.800	482.500	238.700
x		490.500	194.000	473.300	985.400	1256.000	493.600	498.800	247.800
σ		6.594	5.848	18.160	24.780	59.430	21.130	17.340	7.911
%RSD		1.344	3.014	3.838	2.515	4.730	4.281	3.476	3.192

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:56:36	243.500	465.400	463.300	37.680	10.070	10.510	0.000	905.900
2	10:56:55	255.600	489.800	484.900	38.220	9.797	10.320	0.000	916.800
3	10:57:14	237.100	466.100	466.600	36.550	9.868	10.700	0.000	911.100
x		245.400	473.800	471.600	37.480	9.913	10.510	0.000	911.300
σ		9.373	13.870	11.620	0.854	0.144	0.191	0.000	5.434
%RSD		3.820	2.927	2.463	2.279	1.456	1.814	0.000	0.596

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:56:36	93.005%	1008.000	1030.000	88.922%	48.290	47.650	47.830	42.910
2	10:56:55	94.576%	1025.000	1046.000	89.971%	47.880	47.470	48.810	42.610
3	10:57:14	94.638%	1019.000	1042.000	90.468%	48.220	48.460	48.920	42.880
x		94.073%	1017.000	1039.000	89.787%	48.130	47.860	48.520	42.800
σ		0.926%	8.797	8.222	0.789%	0.221	0.529	0.598	0.165
%RSD		0.984	0.865	0.791	0.879	0.458	1.105	1.233	0.385

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	10:56:36	92.336%	1886.000	494.000	491.900	1790.000	1807.000	103.413%	103.690%
2	10:56:55	95.517%	1878.000	493.300	491.500	1803.000	1817.000	104.760%	107.062%
3	10:57:14	97.014%	1856.000	489.500	486.200	1786.000	1808.000	107.717%	108.254%
x		94.955%	1874.000	492.200	489.900	1793.000	1811.000	105.297%	106.335%
σ		2.389%	15.490	2.423	3.166	8.791	5.439	2.202%	2.367%
%RSD		2.516	0.827	0.492	0.646	0.490	0.300	2.091	2.226

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	10:56:36	49.890	49.270	19.920	20.070	20.290	95.686%
2	10:56:55	51.790	51.590	20.920	21.010	21.290	95.158%
3	10:57:14	52.280	52.920	21.610	21.490	21.730	95.619%
x		51.320	51.260	20.820	20.860	21.110	95.488%
σ		1.262	1.845	0.849	0.726	0.737	0.288%
%RSD		2.459	3.599	4.080	3.481	3.494	0.301

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:00:23	90.618%	43.150	952.200	969.200	0.000	42090.000	41930.000	43520.000
2	11:00:42	92.024%	40.570	910.400	927.100	0.000	43870.000	44020.000	44040.000
3	11:01:01	86.953%	42.480	947.800	899.300	0.000	40910.000	41250.000	42180.000
x		89.865%	42.070	936.800	931.900	0.000	42290.000	42400.000	43250.000
σ		2.618%	1.342	22.980	35.200	0.000	1492.000	1443.000	958.100
%RSD		2.913	3.191	2.453	3.777	0.000	3.527	3.403	2.215
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:00:23	1700.000	9583.000	0.000	43980.000	46760.000	45990.000	91.370%	927.000
2	11:00:42	1717.000	9589.000	0.000	48090.000	50480.000	49340.000	84.402%	1003.000
3	11:01:01	1686.000	9182.000	0.000	44920.000	47400.000	47060.000	87.771%	939.100
x		1701.000	9451.000	0.000	45660.000	48210.000	47460.000	87.848%	956.200
σ		15.650	233.600	0.000	2154.000	1990.000	1710.000	3.485%	40.610
%RSD		0.920	2.472	0.000	4.717	4.128	3.602	3.967	4.247
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:00:23	484.200	189.600	457.000	949.900	1224.000	478.500	475.100	234.700
2	11:00:42	506.100	195.200	483.700	999.700	1277.000	493.400	504.700	247.900
3	11:01:01	491.300	195.200	466.400	973.100	1229.000	489.200	486.600	242.800
x		493.800	193.300	469.000	974.200	1243.000	487.000	488.800	241.800
σ		11.170	3.225	13.590	24.910	29.440	7.678	14.940	6.674
%RSD		2.261	1.668	2.897	2.557	2.367	1.577	3.057	2.760
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:00:23	237.600	457.600	460.000	37.470	9.996	10.320	0.000	906.300
2	11:00:42	249.000	482.400	478.700	38.020	10.200	10.340	0.000	905.400
3	11:01:01	240.700	465.900	470.200	37.540	10.040	9.972	0.000	900.000
x		242.400	468.600	469.600	37.680	10.080	10.210	0.000	903.900
σ		5.859	12.600	9.326	0.299	0.110	0.208	0.000	3.407
%RSD		2.417	2.690	1.986	0.793	1.090	2.040	0.000	0.377
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:00:23	94.410%	1011.000	1029.000	90.166%	47.530	47.680	48.030	42.960
2	11:00:42	95.250%	1009.000	1042.000	91.411%	47.600	48.130	46.730	41.560
3	11:01:01	95.515%	1014.000	1032.000	91.053%	47.210	47.400	46.940	41.570
x		95.058%	1011.000	1034.000	90.877%	47.450	47.740	47.230	42.030
σ		0.577%	2.417	6.773	0.641%	0.208	0.367	0.697	0.807
%RSD		0.607	0.239	0.655	0.706	0.439	0.768	1.476	1.919
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:00:23	94.084%	1847.000	477.200	474.300	1764.000	1790.000	102.838%	103.451%
2	11:00:42	95.947%	1839.000	481.400	480.800	1774.000	1799.000	104.308%	105.151%
3	11:01:01	96.869%	1841.000	483.900	481.800	1779.000	1806.000	105.530%	107.844%
x		95.634%	1842.000	480.800	479.000	1772.000	1798.000	104.225%	105.482%
σ		1.419%	4.499	3.360	4.059	7.430	8.100	1.348%	2.215%
%RSD		1.484	0.244	0.699	0.847	0.419	0.450	1.294	2.100
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:00:23	51.710	52.240	21.220	20.970	21.270	90.118%		
2	11:00:42	52.700	53.400	21.620	21.730	21.650	90.195%		
3	11:01:01	52.570	53.270	21.580	21.900	21.790	92.152%		
x		52.330	52.970	21.470	21.530	21.570	90.822%		
σ		0.537	0.636	0.223	0.492	0.272	1.152%		
%RSD		1.027	1.201	1.039	2.286	1.262	1.269		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:04:10	105.688%	-0.003	111.000	106.500	0.000	7522.000	17670.000	17960.000
2	11:04:29	102.161%	-0.015	110.900	105.900	0.000	7239.000	17430.000	17790.000
3	11:04:49	97.286%	-0.018	108.500	110.000	0.000	7830.000	17880.000	17950.000
x		101.711%	-0.012	110.200	107.500	0.000	7531.000	17660.000	17900.000
σ		4.219%	0.008	1.389	2.223	0.000	295.700	225.600	97.670
%RSD		4.148	65.890	1.261	2.068	0.000	3.926	1.278	0.545

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:04:10	3.902	8087.000	0.000	2323.000	67080.000	65090.000	87.963%	1.145
2	11:04:29	3.157	8216.000	0.000	2286.000	67410.000	66010.000	86.504%	1.554
3	11:04:49	3.264	8511.000	0.000	2324.000	68800.000	68700.000	82.133%	1.211
x		3.441	8271.000	0.000	2311.000	67760.000	66600.000	85.533%	1.303
σ		0.403	217.300	0.000	21.790	911.200	1876.000	3.034%	0.220
%RSD		11.700	2.627	0.000	0.943	1.345	2.817	3.547	16.870

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:04:10	0.662	1.135	30.340	421.100	807.000	0.193	0.375	0.259
2	11:04:29	-0.347	1.096	31.010	429.500	832.700	0.167	0.422	0.252
3	11:04:49	-1.665	1.289	32.560	446.200	852.700	0.179	0.298	0.277
x		-0.450	1.173	31.310	432.300	830.800	0.180	0.365	0.263
σ		1.167	0.102	1.136	12.790	22.890	0.013	0.063	0.013
%RSD		259.300	8.711	3.628	2.959	2.755	7.356	17.220	4.887

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:04:10	0.396	1.346	0.992	0.454	-0.519	0.456	0.000	3246.000
2	11:04:29	0.320	1.601	1.675	0.726	-0.201	0.642	0.000	3280.000
3	11:04:49	0.406	1.589	2.102	-0.075	-0.023	0.515	0.000	3293.000
x		0.374	1.512	1.589	0.368	-0.248	0.537	0.000	3273.000
σ		0.047	0.144	0.560	0.407	0.252	0.095	0.000	24.460
%RSD		12.600	9.497	35.220	110.600	101.600	17.670	0.000	0.747

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:04:10	93.825%	7.875	7.924	91.068%	-0.020	-0.032	-0.048	-0.002
2	11:04:29	93.970%	8.483	8.391	91.393%	-0.012	-0.028	-0.095	-0.082
3	11:04:49	93.870%	8.230	8.308	91.751%	-0.030	-0.027	-0.095	-0.078
x		93.888%	8.196	8.208	91.404%	-0.021	-0.029	-0.080	-0.054
σ		0.074%	0.305	0.249	0.342%	0.009	0.003	0.027	0.045
%RSD		0.079	3.723	3.036	0.374	42.940	9.677	33.920	83.180

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:04:10	92.596%	2.164	0.249	0.482	119.800	121.600	100.985%	100.355%
2	11:04:29	94.596%	2.141	0.312	0.525	118.400	120.700	103.670%	103.777%
3	11:04:49	96.150%	1.871	0.277	0.612	118.500	118.800	104.229%	104.173%
x		94.448%	2.059	0.279	0.540	118.900	120.300	102.961%	102.768%
σ		1.782%	0.163	0.031	0.066	0.780	1.411	1.734%	2.099%
%RSD		1.886	7.903	11.230	12.280	0.656	1.172	1.685	2.042

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:04:10	0.250	0.254	0.006	0.004	0.007	90.568%
2	11:04:29	0.212	0.197	0.021	0.003	0.011	92.679%
3	11:04:49	0.139	0.131	0.026	0.015	0.018	95.162%
x		0.201	0.194	0.018	0.007	0.012	92.803%
σ		0.056	0.061	0.011	0.007	0.005	2.300%
%RSD		28.000	31.660	60.440	91.960	44.740	2.478

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:07:58	103.969%	0.003	116.000	119.500	0.000	7938.000	18930.000	19250.000
2	11:08:17	97.305%	-0.038	112.000	112.800	0.000	7881.000	18450.000	18280.000
3	11:08:37	91.748%	-0.004	117.800	120.700	0.000	8181.000	19060.000	19200.000
x		97.674%	-0.013	115.300	117.700	0.000	8000.000	18810.000	18910.000
σ		6.119%	0.022	2.966	4.278	0.000	159.500	323.600	546.800
%RSD		6.265	173.800	2.573	3.635	0.000	1.994	1.720	2.891

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:07:58	3.834	8447.000	0.000	2412.000	71050.000	70220.000	83.635%	1.100
2	11:08:17	3.376	8668.000	0.000	2293.000	65610.000	64360.000	90.140%	0.993
3	11:08:37	3.630	8997.000	0.000	2480.000	73300.000	70800.000	82.344%	1.005
x		3.614	8704.000	0.000	2395.000	69980.000	68460.000	85.373%	1.033
σ		0.229	276.400	0.000	94.650	3955.000	3563.000	4.178%	0.059
%RSD		6.350	3.175	0.000	3.952	5.652	5.205	4.894	5.685

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:07:58	-0.699	1.126	30.690	431.600	856.500	0.173	0.390	0.316
2	11:08:17	0.296	1.001	30.040	404.000	780.700	0.165	0.405	0.340
3	11:08:37	0.568	1.157	31.680	420.300	795.300	0.185	0.324	0.353
x		0.055	1.094	30.810	418.600	810.800	0.174	0.373	0.336
σ		0.667	0.083	0.826	13.870	40.220	0.010	0.043	0.019
%RSD		1218.000	7.539	2.680	3.312	4.961	5.760	11.540	5.562

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:07:58	0.502	1.945	2.523	-0.309	-0.153	0.299	0.000	3295.000
2	11:08:17	0.416	2.057	1.842	0.435	-0.230	0.215	0.000	3295.000
3	11:08:37	0.515	2.119	2.481	0.925	-0.395	0.176	0.000	3311.000
x		0.478	2.041	2.282	0.350	-0.259	0.230	0.000	3301.000
σ		0.054	0.088	0.382	0.622	0.124	0.063	0.000	9.385
%RSD		11.280	4.327	16.730	177.400	47.730	27.270	0.000	0.284

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:07:58	93.374%	2.709	2.788	91.724%	-0.029	-0.036	-0.075	-0.059
2	11:08:17	92.843%	3.400	3.507	90.953%	-0.035	-0.026	-0.071	-0.051
3	11:08:37	93.455%	3.419	3.472	91.228%	-0.031	-0.028	-0.135	-0.102
x		93.224%	3.176	3.256	91.302%	-0.032	-0.030	-0.093	-0.071
σ		0.332%	0.405	0.405	0.391%	0.003	0.005	0.036	0.027
%RSD		0.357	12.750	12.450	0.428	9.174	18.050	38.600	38.450

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:07:58	92.589%	0.464	-0.055	0.200	122.100	121.800	100.458%	100.730%
2	11:08:17	94.718%	0.514	-0.025	0.252	120.900	119.900	101.159%	101.921%
3	11:08:37	95.524%	0.655	-0.058	0.199	119.500	119.400	103.089%	103.603%
x		94.277%	0.544	-0.046	0.217	120.800	120.400	101.569%	102.085%
σ		1.517%	0.100	0.018	0.030	1.260	1.283	1.363%	1.444%
%RSD		1.609	18.290	39.620	13.990	1.043	1.065	1.342	1.414

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:07:58	0.037	0.039	0.023	0.026	0.024	89.422%
2	11:08:17	0.029	0.036	0.036	0.025	0.024	91.095%
3	11:08:37	0.032	0.033	0.020	0.045	0.022	92.914%
x		0.032	0.036	0.026	0.032	0.023	91.144%
σ		0.004	0.003	0.008	0.011	0.001	1.746%
%RSD		12.250	8.412	32.310	35.530	5.175	1.916

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:11:46	93.882%	-0.005	6.831	6.331	0.000	133200.000	11000.000	11100.000
2	11:12:05	85.627%	-0.039	5.400	6.115	0.000	129300.000	10850.000	10910.000
3	11:12:25	84.847%	-0.027	5.932	5.751	0.000	129800.000	10500.000	10680.000
x		88.119%	-0.024	6.054	6.066	0.000	130800.000	10780.000	10900.000
σ		5.007%	0.018	0.723	0.293	0.000	2144.000	259.700	214.200
%RSD		5.682	73.670	11.950	4.832	0.000	1.639	2.409	1.965

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:11:46	11.190	3477.000	0.000	2787.000	466900.000	426600.000	79.631%	0.524
2	11:12:05	10.220	3465.000	0.000	2719.000	468100.000	428500.000	79.219%	0.618
3	11:12:25	10.650	3455.000	0.000	2735.000	467200.000	439000.000	77.658%	0.774
x		10.690	3466.000	0.000	2747.000	467400.000	431400.000	78.836%	0.639
σ		0.486	11.040	0.000	35.330	627.300	6648.000	1.041%	0.126
%RSD		4.546	0.319	0.000	1.286	0.134	1.541	1.320	19.760

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:11:46	0.647	2.932	103.800	117.900	2960.000	0.977	4.119	1.120
2	11:12:05	-2.211	2.777	104.300	106.500	2814.000	0.883	3.352	1.071
3	11:12:25	1.312	2.960	106.100	102.400	2750.000	0.885	3.219	0.960
x		-0.084	2.890	104.700	109.000	2842.000	0.915	3.563	1.050
σ		1.872	0.098	1.191	8.020	107.500	0.054	0.486	0.082
%RSD		2229.000	3.408	1.138	7.361	3.785	5.861	13.640	7.781

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:11:46	1.260	2.560	2.836	0.262	0.064	7.856	0.000	938.100
2	11:12:05	1.067	2.403	1.712	0.310	-0.209	7.845	0.000	934.500
3	11:12:25	1.115	2.802	2.821	1.439	0.047	7.935	0.000	929.800
x		1.147	2.588	2.456	0.670	-0.032	7.879	0.000	934.100
σ		0.100	0.201	0.645	0.666	0.153	0.049	0.000	4.154
%RSD		8.747	7.763	26.240	99.390	472.500	0.624	0.000	0.445

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:11:46	88.328%	1.588	1.628	82.740%	-0.034	-0.020	-0.111	-0.076
2	11:12:05	88.143%	2.181	2.067	82.640%	-0.036	-0.034	0.004	0.007
3	11:12:25	87.595%	2.418	2.332	82.296%	-0.031	-0.015	-0.064	-0.048
x		88.022%	2.062	2.009	82.559%	-0.034	-0.023	-0.057	-0.039
σ		0.381%	0.428	0.356	0.233%	0.002	0.010	0.058	0.042
%RSD		0.433	20.740	17.710	0.282	7.276	42.700	101.000	108.700

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:11:46	85.300%	0.389	-0.013	0.028	502.000	505.600	93.075%	94.863%
2	11:12:05	87.462%	0.589	-0.004	0.059	499.900	505.400	95.617%	95.844%
3	11:12:25	87.311%	0.608	-0.042	0.073	502.000	502.400	97.003%	96.904%
x		86.691%	0.529	-0.020	0.053	501.300	504.500	95.232%	95.871%
σ		1.207%	0.122	0.020	0.023	1.191	1.813	1.992%	1.021%
%RSD		1.393	23.030	102.000	43.140	0.238	0.359	2.092	1.065

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:11:46	0.045	0.052	0.086	0.114	0.111	76.479%
2	11:12:05	0.051	0.039	0.135	0.121	0.130	79.070%
3	11:12:25	0.056	0.050	0.121	0.138	0.138	82.162%
x		0.050	0.047	0.114	0.124	0.126	79.237%
σ		0.006	0.007	0.025	0.012	0.014	2.845%
%RSD		11.080	14.740	22.070	9.825	10.790	3.591

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:15:34	82.742%	-0.033	5.980	6.151	0.000	130100.000	10710.000	10850.000
2	11:15:53	89.354%	-0.013	6.624	5.698	0.000	130100.000	10890.000	10980.000
3	11:16:13	87.268%	-0.023	4.989	6.359	0.000	132600.000	10730.000	10560.000
x		86.454%	-0.023	5.864	6.069	0.000	130900.000	10770.000	10800.000
σ		3.380%	0.010	0.824	0.338	0.000	1436.000	99.420	213.400
%RSD		3.910	43.990	14.050	5.568	0.000	1.097	0.923	1.976
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:15:34	1.745	3416.000	0.000	2654.000	449000.000	418200.000	85.524%	0.627
2	11:15:53	1.601	3458.000	0.000	2822.000	476700.000	445100.000	77.116%	0.532
3	11:16:13	1.491	3447.000	0.000	2665.000	456300.000	431000.000	78.195%	0.461
x		1.612	3440.000	0.000	2714.000	460700.000	431400.000	80.278%	0.540
σ		0.127	21.820	0.000	93.770	14360.000	13470.000	4.575%	0.083
%RSD		7.889	0.634	0.000	3.456	3.116	3.122	5.699	15.390
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:15:34	1.584	2.067	105.100	88.620	2776.000	0.906	4.324	1.702
2	11:15:53	0.516	2.139	112.500	95.960	3005.000	0.919	5.478	1.782
3	11:16:13	1.362	2.058	111.100	86.640	2775.000	0.944	4.728	1.838
x		1.154	2.088	109.600	90.410	2852.000	0.923	4.843	1.774
σ		0.564	0.044	3.910	4.912	132.300	0.019	0.586	0.068
%RSD		48.850	2.130	3.568	5.433	4.637	2.102	12.090	3.860
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:15:34	1.803	3.686	4.002	1.065	-0.629	9.431	0.000	955.900
2	11:15:53	1.975	4.085	3.985	2.198	-0.107	9.544	0.000	955.500
3	11:16:13	1.965	3.488	3.182	1.030	-0.068	9.058	0.000	957.900
x		1.914	3.753	3.723	1.431	-0.268	9.345	0.000	956.500
σ		0.096	0.304	0.469	0.664	0.313	0.254	0.000	1.296
%RSD		5.036	8.107	12.580	46.430	117.000	2.720	0.000	0.136
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:15:34	87.564%	1.167	1.070	82.530%	-0.044	-0.028	-0.016	-0.004
2	11:15:53	88.932%	1.394	1.460	82.570%	-0.042	-0.038	-0.028	-0.028
3	11:16:13	88.967%	1.312	1.450	82.664%	-0.045	-0.043	0.033	0.008
x		88.488%	1.291	1.327	82.588%	-0.044	-0.037	-0.004	-0.008
σ		0.800%	0.115	0.223	0.069%	0.001	0.008	0.032	0.018
%RSD		0.904	8.912	16.780	0.083	2.886	21.230	902.700	225.400
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:15:34	88.045%	0.142	-0.126	-0.026	514.700	514.800	95.733%	97.509%
2	11:15:53	88.363%	0.309	-0.098	0.066	521.200	527.600	99.886%	101.619%
3	11:16:13	90.325%	0.217	-0.089	0.006	510.900	515.600	102.353%	103.416%
x		88.911%	0.222	-0.104	0.015	515.600	519.300	99.324%	100.848%
σ		1.234%	0.084	0.019	0.047	5.242	7.168	3.346%	3.028%
%RSD		1.388	37.730	18.520	303.200	1.017	1.380	3.368	3.003
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:15:34	0.030	0.050	0.097	0.076	0.074	82.086%		
2	11:15:53	0.045	0.032	0.115	0.063	0.084	83.570%		
3	11:16:13	0.039	0.045	0.087	0.084	0.083	84.231%		
x		0.038	0.042	0.100	0.074	0.081	83.296%		
σ		0.008	0.009	0.014	0.010	0.006	1.099%		
%RSD		20.940	22.330	13.830	14.020	6.921	1.319		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:19:23	97.504%	0.009	12.240	10.920	0.000	29180.000	13920.000	13980.000
2	11:19:42	90.447%	-0.019	12.080	11.800	0.000	28320.000	13230.000	14080.000
3	11:20:01	89.314%	-0.013	11.840	11.940	0.000	30090.000	14050.000	13910.000
x		92.422%	-0.008	12.050	11.550	0.000	29200.000	13730.000	13990.000
σ		4.438%	0.014	0.201	0.552	0.000	885.800	436.100	89.900
%RSD		4.802	187.300	1.664	4.778	0.000	3.034	3.176	0.643

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:19:23	14.260	4143.000	0.000	1396.000	396200.000	371400.000	78.034%	0.447
2	11:19:42	14.630	4372.000	0.000	1389.000	394900.000	371600.000	78.311%	0.581
3	11:20:01	14.330	4387.000	0.000	1399.000	390600.000	371800.000	77.047%	0.687
x		14.410	4301.000	0.000	1394.000	393900.000	371600.000	77.797%	0.572
σ		0.197	136.800	0.000	4.798	2934.000	242.700	0.664%	0.120
%RSD		1.368	3.180	0.000	0.344	0.745	0.065	0.854	21.060

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:19:23	-0.144	3.205	4.781	246.700	2784.000	0.683	3.761	0.558
2	11:19:42	-0.154	2.887	4.735	238.000	2565.000	0.654	3.458	0.570
3	11:20:01	-1.694	2.734	4.852	238.600	2508.000	0.620	3.516	0.524
x		-0.664	2.942	4.789	241.100	2619.000	0.652	3.578	0.551
σ		0.892	0.240	0.059	4.866	145.900	0.031	0.161	0.024
%RSD		134.400	8.163	1.232	2.018	5.572	4.798	4.498	4.305

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:19:23	1.095	3.704	4.172	1.923	-0.483	6.625	0.000	1016.000
2	11:19:42	1.098	3.613	3.492	1.734	0.220	7.209	0.000	1013.000
3	11:20:01	1.235	3.677	3.745	1.117	-0.332	6.957	0.000	1016.000
x		1.143	3.665	3.803	1.591	-0.198	6.930	0.000	1015.000
σ		0.080	0.047	0.344	0.421	0.370	0.293	0.000	1.479
%RSD		7.008	1.278	9.035	26.480	186.500	4.226	0.000	0.146

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:19:23	90.449%	0.464	0.593	85.036%	-0.040	-0.035	-0.044	-0.035
2	11:19:42	90.106%	0.760	0.793	84.872%	-0.040	-0.036	-0.019	-0.023
3	11:20:01	91.508%	0.824	0.818	85.318%	-0.037	-0.036	0.018	0.003
x		90.688%	0.683	0.735	85.075%	-0.039	-0.036	-0.015	-0.018
σ		0.731%	0.192	0.123	0.226%	0.001	0.001	0.031	0.019
%RSD		0.806	28.090	16.790	0.265	3.328	2.097	207.500	105.100

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:19:23	91.743%	-0.076	-0.259	-0.230	414.600	417.700	100.461%	101.480%
2	11:19:42	92.689%	-0.014	-0.273	-0.151	414.200	417.100	102.754%	104.231%
3	11:20:01	92.644%	0.033	-0.257	-0.181	417.000	419.200	104.584%	105.352%
x		92.359%	-0.019	-0.263	-0.187	415.300	418.000	102.600%	103.688%
σ		0.534%	0.055	0.009	0.040	1.515	1.090	2.066%	1.993%
%RSD		0.578	291.300	3.292	21.420	0.365	0.261	2.014	1.922

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:19:23	0.008	0.013	0.134	0.085	0.130	87.794%
2	11:19:42	0.010	0.012	0.152	0.139	0.149	90.207%
3	11:20:01	0.010	0.012	0.118	0.100	0.115	90.471%
x		0.009	0.012	0.135	0.108	0.131	89.490%
σ		0.001	0.001	0.017	0.028	0.017	1.475%
%RSD		12.350	6.100	12.670	25.720	12.970	1.648

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:23:12	92.413%	0.023	12.720	11.550	0.000	28620.000	14120.000	14240.000
2	11:23:31	90.519%	-0.036	11.910	11.730	0.000	30400.000	14640.000	14690.000
3	11:23:50	84.030%	0.003	13.110	11.730	0.000	30000.000	15080.000	14720.000
x		88.987%	-0.003	12.580	11.670	0.000	29670.000	14610.000	14550.000
σ		4.396%	0.030	0.616	0.107	0.000	930.800	479.500	270.500
%RSD		4.940	859.100	4.896	0.912	0.000	3.137	3.281	1.859
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:23:12	0.951	4128.000	0.000	1332.000	375900.000	346100.000	86.298%	0.410
2	11:23:31	0.749	4452.000	0.000	1399.000	397000.000	377200.000	79.957%	0.475
3	11:23:50	0.871	4361.000	0.000	1405.000	392500.000	373400.000	79.547%	0.494
x		0.857	4314.000	0.000	1379.000	388500.000	365500.000	81.934%	0.460
σ		0.102	167.100	0.000	40.450	11120.000	16950.000	3.785%	0.044
%RSD		11.910	3.873	0.000	2.934	2.862	4.636	4.619	9.557
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:23:12	1.290	1.420	3.235	54.520	2411.000	0.609	3.643	0.642
2	11:23:31	-0.641	1.369	3.358	53.880	2268.000	0.640	3.441	0.647
3	11:23:50	0.122	1.489	3.404	60.480	2324.000	0.679	4.367	0.586
x		0.257	1.426	3.332	56.290	2335.000	0.643	3.817	0.625
σ		0.973	0.060	0.087	3.644	72.120	0.035	0.487	0.034
%RSD		378.500	4.221	2.620	6.473	3.089	5.510	12.750	5.384
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:23:12	1.253	2.838	3.444	0.321	-0.163	6.665	0.000	1021.000
2	11:23:31	1.265	3.346	2.848	1.506	0.013	5.996	0.000	1010.000
3	11:23:50	1.095	3.092	2.799	0.284	-0.116	6.247	0.000	1018.000
x		1.204	3.092	3.031	0.704	-0.088	6.303	0.000	1016.000
σ		0.095	0.254	0.359	0.695	0.091	0.338	0.000	6.084
%RSD		7.873	8.214	11.840	98.780	103.400	5.358	0.000	0.599
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:23:12	89.417%	0.511	0.412	85.517%	-0.042	-0.035	-0.019	0.001
2	11:23:31	90.501%	0.705	0.643	85.326%	-0.048	-0.045	-0.009	-0.001
3	11:23:50	90.693%	0.732	0.765	84.703%	-0.035	-0.030	-0.026	-0.040
x		90.204%	0.649	0.607	85.182%	-0.041	-0.037	-0.018	-0.013
σ		0.688%	0.121	0.180	0.425%	0.006	0.007	0.009	0.023
%RSD		0.763	18.560	29.590	0.499	15.560	20.260	47.730	175.300
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:23:12	91.361%	-0.176	-0.272	-0.242	411.200	413.600	98.362%	101.323%
2	11:23:31	92.021%	-0.054	-0.284	-0.195	408.700	412.300	102.524%	103.164%
3	11:23:50	92.370%	-0.000	-0.238	-0.179	413.800	415.300	102.876%	103.920%
x		91.917%	-0.077	-0.264	-0.205	411.200	413.700	101.254%	102.802%
σ		0.512%	0.090	0.024	0.033	2.516	1.505	2.511%	1.336%
%RSD		0.557	117.600	8.978	15.950	0.612	0.364	2.479	1.299
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:23:12	0.007	0.012	0.035	0.044	0.043	88.154%		
2	11:23:31	0.009	0.016	0.019	0.035	0.031	90.345%		
3	11:23:50	0.006	0.015	0.027	0.035	0.026	91.311%		
x		0.007	0.014	0.027	0.038	0.033	89.936%		
σ		0.001	0.002	0.008	0.005	0.009	1.618%		
%RSD		18.420	13.300	28.130	12.970	27.210	1.799		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:27:01	91.394%	-0.004	5.619	5.656	0.000	8824.000	13830.000	14200.000
2	11:27:20	89.637%	-0.030	5.881	5.457	0.000	9136.000	14440.000	14710.000
3	11:27:39	91.949%	-0.058	4.718	5.608	0.000	8951.000	14360.000	14210.000
x		90.993%	-0.030	5.406	5.573	0.000	8970.000	14210.000	14370.000
σ		1.207%	0.027	0.610	0.103	0.000	157.100	328.100	292.700
%RSD		1.327	89.470	11.280	1.856	0.000	1.751	2.309	2.036
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:27:01	34.860	4557.000	0.000	528.100	196400.000	184500.000	86.256%	0.841
2	11:27:20	32.330	4749.000	0.000	560.800	206300.000	197100.000	81.024%	0.775
3	11:27:39	35.120	4600.000	0.000	551.700	199600.000	190500.000	82.795%	1.000
x		34.100	4635.000	0.000	546.900	200800.000	190700.000	83.358%	0.872
σ		1.542	100.900	0.000	16.850	5047.000	6299.000	2.661%	0.116
%RSD		4.522	2.176	0.000	3.081	2.514	3.303	3.193	13.250
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:27:01	1.126	1.154	756.800	345.300	1567.000	0.770	0.813	0.202
2	11:27:20	0.979	1.264	783.600	368.100	1610.000	0.833	0.888	0.189
3	11:27:39	0.811	1.104	764.000	367.300	1488.000	0.766	0.655	0.181
x		0.972	1.174	768.100	360.300	1555.000	0.790	0.785	0.191
σ		0.158	0.082	13.900	12.920	61.550	0.038	0.119	0.010
%RSD		16.200	6.988	1.810	3.586	3.958	4.774	15.170	5.487
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:27:01	0.613	2.086	1.518	3.392	-0.625	2.833	0.000	487.200
2	11:27:20	0.589	2.084	2.645	3.538	-0.470	2.522	0.000	483.400
3	11:27:39	0.609	2.262	1.775	3.531	-0.687	2.450	0.000	487.200
x		0.603	2.144	1.979	3.487	-0.594	2.602	0.000	485.900
σ		0.013	0.102	0.591	0.083	0.112	0.204	0.000	2.175
%RSD		2.074	4.756	29.850	2.368	18.800	7.832	0.000	0.448
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:27:01	90.125%	1.782	1.779	86.485%	-0.051	-0.047	-0.039	-0.037
2	11:27:20	90.487%	1.953	2.003	86.512%	-0.049	-0.041	-0.062	-0.049
3	11:27:39	89.810%	2.003	1.972	86.415%	-0.040	-0.038	-0.042	-0.030
x		90.141%	1.913	1.918	86.471%	-0.047	-0.042	-0.048	-0.039
σ		0.339%	0.116	0.121	0.050%	0.006	0.005	0.012	0.010
%RSD		0.376	6.053	6.319	0.058	12.950	11.370	25.590	25.200
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:27:01	90.549%	-0.152	-0.273	-0.266	397.000	400.200	99.350%	100.449%
2	11:27:20	93.266%	-0.084	-0.294	-0.239	402.500	400.200	101.459%	104.404%
3	11:27:39	93.338%	-0.076	-0.274	-0.278	396.400	399.500	103.745%	104.228%
x		92.385%	-0.104	-0.280	-0.261	398.600	400.000	101.518%	103.027%
σ		1.590%	0.042	0.012	0.020	3.339	0.411	2.198%	2.234%
%RSD		1.721	40.470	4.206	7.772	0.838	0.103	2.166	2.168
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:27:01	0.007	0.007	0.089	0.051	0.065	89.919%		
2	11:27:20	0.013	0.011	0.055	0.051	0.050	91.347%		
3	11:27:39	0.008	0.012	0.054	0.065	0.061	92.740%		
x		0.009	0.010	0.066	0.056	0.058	91.335%		
σ		0.004	0.003	0.020	0.008	0.008	1.410%		
%RSD		37.280	27.880	29.850	14.320	13.400	1.544		

CCV 1594026 6/2/2015 11:30:38 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	11:30:38	89.224%	105.100	108.500	105.100	0.000	49150.000	48570.000	47690.000
2	11:30:57	91.317%	95.580	105.300	100.800	0.000	47050.000	47370.000	46960.000
3	11:31:16	92.730%	93.330	102.400	97.500	0.000	44560.000	44640.000	43520.000
x		91.090%	98.016%	105.434%	101.114%	0.000	93.841%	93.718%	92.117%
σ		1.764%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.936	6.392	2.894	3.767	0.000	4.898	4.305	4.838
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:30:38	478.600	5173.000	0.000	49560.000	49820.000	48600.000	99.413%	97.290
2	11:30:57	472.200	5091.000	0.000	48360.000	49150.000	48310.000	97.181%	99.920
3	11:31:16	446.000	5012.000	0.000	47200.000	49560.000	49300.000	96.490%	101.800
x		93.121%	101.839%	0.000	96.741%	99.022%	97.477%	97.695%	99.667%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.528%	n/a
%RSD		3.704	1.579	0.000	2.441	0.678	1.036	1.564	2.263
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:30:38	97.890	98.360	479.900	24320.000	23520.000	95.340	97.110	95.240
2	11:30:57	98.700	100.800	487.700	24470.000	24180.000	100.100	99.730	97.450
3	11:31:16	99.420	103.600	496.400	25200.000	24740.000	100.600	103.700	98.980
x		98.671%	100.908%	97.598%	98.656%	96.593%	98.692%	100.164%	97.224%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		0.776	2.600	1.690	1.921	2.523	2.953	3.288	1.934
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:30:38	95.890	93.560	94.330	95.030	99.830	98.070	0.000	95.150
2	11:30:57	99.990	97.350	96.690	97.750	100.000	98.470	0.000	96.040
3	11:31:16	98.650	97.470	97.710	95.850	97.470	97.940	0.000	96.500
x		98.177%	96.124%	96.245%	96.208%	99.102%	98.163%	0.000	95.896%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		2.133	2.314	1.801	1.452	1.428	0.283	0.000	0.717
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:30:38	96.942%	99.410	100.400	92.968%	98.560	101.000	100.400	100.900
2	11:30:57	98.048%	100.600	102.000	93.993%	100.500	100.200	102.200	101.900
3	11:31:16	99.909%	101.800	101.500	94.506%	99.540	99.620	102.000	101.000
x		98.300%	100.603%	101.282%	93.822%	99.550%	100.273%	101.540%	101.272%
σ		1.500%	n/a	n/a	0.783%	n/a	n/a	n/a	n/a
%RSD		1.526	1.180	0.789	0.835	0.997	0.680	0.954	0.550
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:30:38	92.016%	98.630	93.630	93.090	97.110	95.170	99.486%	101.200%
2	11:30:57	93.814%	99.940	93.950	94.430	95.080	95.820	103.140%	104.341%
3	11:31:16	95.558%	99.380	94.080	93.470	96.420	96.590	105.190%	106.398%
x		93.796%	99.317%	93.886%	93.665%	96.199%	95.861%	102.605%	103.980%
σ		1.771%	n/a	n/a	n/a	n/a	n/a	2.889%	2.618%
%RSD		1.889	0.664	0.244	0.739	1.073	0.745	2.816	2.518
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:30:38	101.700	101.700	102.200	103.400	103.400	96.854%		
2	11:30:57	105.200	106.000	106.000	106.400	107.000	97.348%		
3	11:31:16	108.200	109.700	107.900	108.700	109.000	95.890%		
x		105.047%	105.793%	105.369%	106.159%	106.455%	96.697%		
σ		n/a	n/a	n/a	n/a	n/a	0.742%		
%RSD		3.103	3.773	2.788	2.529	2.653	0.767		

CCB2 6/2/2015 11:37:06 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	11:37:25	102.249%	-0.026	0.320	0.623	0.000	2.328	0.778	0.495
2	11:37:44	100.706%	-0.035	-0.081	0.277	0.000	1.625	0.246	0.457
3	11:38:03	101.521%	-0.060	0.183	0.106	0.000	1.636	-0.018	0.432
x		101.492%	-0.040	0.141	0.335	0.000	1.863	0.336	0.461
σ		0.772%	0.017	0.204	0.263	0.000	0.403	0.405	0.032
%RSD		0.761	43.420	144.700	78.600	0.000	21.610	120.800	6.860
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:37:25	-0.292	-95.740	0.000	4.270	1.086	2.493	102.877%	-0.210
2	11:37:44	-0.344	-97.890	0.000	2.059	-2.371	1.545	103.221%	-0.117
3	11:38:03	-0.306	-96.010	0.000	3.350	0.027	1.760	100.077%	-0.136
x		-0.314	-96.550	0.000	3.226	-0.419	1.933	102.058%	-0.154
σ		0.027	1.168	0.000	1.111	1.771	0.497	1.725%	0.049
%RSD		8.560	1.210	0.000	34.430	422.500	25.710	1.690	31.700
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:37:25	0.011	-0.028	-0.038	0.559	1.656	0.001	-0.012	-0.038
2	11:37:44	-0.028	-0.008	-0.037	0.095	2.646	-0.004	-0.023	-0.050
3	11:38:03	-0.036	0.016	-0.028	-0.702	-0.277	-0.003	-0.041	-0.053
x		-0.018	-0.007	-0.034	-0.016	1.342	-0.002	-0.025	-0.047
σ		0.025	0.022	0.005	0.638	1.487	0.003	0.015	0.008
%RSD		144.100	319.200	15.120	4015.000	110.800	124.900	59.710	17.050
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:37:25	-0.021	0.000	-0.004	0.010	0.055	0.390	0.000	0.006
2	11:37:44	-0.025	0.016	0.015	0.050	-0.135	0.305	0.000	-0.002
3	11:38:03	-0.045	0.039	-0.006	0.146	0.045	0.511	0.000	0.000
x		-0.030	0.018	0.002	0.069	-0.012	0.402	0.000	0.002
σ		0.013	0.019	0.011	0.070	0.107	0.103	0.000	0.004
%RSD		42.150	104.200	687.900	101.800	919.700	25.720	0.000	258.600
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:37:25	101.558%	0.502	0.619	101.217%	-0.041	-0.037	-0.006	-0.004
2	11:37:44	103.415%	0.786	0.738	101.149%	-0.034	-0.027	0.008	0.003
3	11:38:03	102.597%	0.843	0.918	100.584%	-0.034	-0.031	-0.027	-0.030
x		102.523%	0.710	0.758	100.983%	-0.037	-0.032	-0.008	-0.010
σ		0.930%	0.183	0.150	0.347%	0.004	0.005	0.018	0.017
%RSD		0.907	25.730	19.820	0.344	10.850	16.330	212.200	169.500
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:37:25	101.240%	-0.430	0.309	0.304	0.008	0.023	102.294%	101.983%
2	11:37:44	103.205%	-0.359	0.416	0.346	0.001	0.004	105.073%	103.901%
3	11:38:03	104.241%	-0.391	0.422	0.429	0.013	0.004	105.053%	105.005%
x		102.895%	-0.394	0.383	0.360	0.007	0.010	104.140%	103.630%
σ		1.524%	0.036	0.064	0.064	0.006	0.011	1.599%	1.529%
%RSD		1.482	9.034	16.620	17.680	82.710	101.600	1.535	1.476
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:37:25	0.005	0.016	-0.011	-0.005	-0.005	105.022%		
2	11:37:44	0.008	0.021	0.002	-0.001	0.002	103.326%		
3	11:38:03	0.009	0.015	-0.008	-0.001	-0.002	103.366%		
x		0.008	0.017	-0.006	-0.002	-0.002	103.905%		
σ		0.002	0.003	0.007	0.003	0.003	0.968%		
%RSD		30.000	19.760	125.900	119.100	189.900	0.932		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:41:15	98.762%	-0.024	4.732	4.819	0.000	8556.000	13520.000	13800.000
2	11:41:35	90.028%	-0.008	4.866	5.203	0.000	9453.000	15060.000	14880.000
3	11:41:54	95.038%	-0.038	6.177	4.641	0.000	8524.000	13640.000	13730.000
x		94.609%	-0.023	5.258	4.887	0.000	8845.000	14070.000	14140.000
σ		4.383%	0.015	0.798	0.288	0.000	527.400	852.100	641.700
%RSD		4.633	64.730	15.190	5.885	0.000	5.963	6.054	4.539
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:41:15	2.762	4324.000	0.000	539.900	199000.000	185100.000	88.691%	0.500
2	11:41:35	2.595	4614.000	0.000	585.100	217900.000	202700.000	81.888%	0.662
3	11:41:54	2.820	4348.000	0.000	536.900	199200.000	186300.000	88.373%	0.407
x		2.725	4429.000	0.000	554.000	205400.000	191400.000	86.317%	0.523
σ		0.117	161.100	0.000	27.000	10870.000	9848.000	3.839%	0.129
%RSD		4.294	3.639	0.000	4.874	5.291	5.146	4.448	24.640
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:41:15	-0.751	0.985	762.500	340.500	1643.000	0.804	0.806	0.339
2	11:41:35	1.119	1.092	813.400	364.400	1608.000	0.803	0.705	0.273
3	11:41:54	-2.105	0.974	755.400	313.800	1476.000	0.815	0.623	0.287
x		-0.579	1.017	777.100	339.600	1576.000	0.808	0.711	0.300
σ		1.619	0.065	31.630	25.290	88.340	0.007	0.091	0.035
%RSD		279.500	6.413	4.070	7.446	5.607	0.838	12.860	11.570
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:41:15	0.871	3.163	2.909	2.926	-0.403	2.844	0.000	497.200
2	11:41:35	0.727	3.536	3.586	3.368	-0.286	2.531	0.000	501.400
3	11:41:54	0.761	3.403	3.484	3.704	-0.332	2.370	0.000	490.300
x		0.786	3.367	3.326	3.333	-0.340	2.582	0.000	496.300
σ		0.075	0.189	0.365	0.391	0.059	0.241	0.000	5.612
%RSD		9.524	5.609	10.980	11.720	17.280	9.328	0.000	1.131
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:41:15	92.267%	1.985	1.890	87.420%	-0.038	-0.025	-0.000	-0.003
2	11:41:35	92.756%	2.166	2.173	88.460%	-0.036	-0.027	0.136	0.076
3	11:41:54	93.784%	2.168	2.136	87.678%	-0.032	-0.038	-0.048	-0.036
x		92.936%	2.106	2.066	87.853%	-0.035	-0.030	0.029	0.012
σ		0.775%	0.105	0.154	0.541%	0.003	0.007	0.095	0.058
%RSD		0.833	4.980	7.429	0.616	7.737	23.650	329.200	464.000
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:41:15	92.071%	0.177	2.032	2.045	401.900	405.500	99.248%	99.104%
2	11:41:35	93.956%	0.145	1.971	1.947	406.600	404.000	101.474%	102.001%
3	11:41:54	95.214%	0.202	1.732	1.704	398.300	403.400	103.007%	103.184%
x		93.747%	0.175	1.912	1.898	402.300	404.300	101.243%	101.430%
σ		1.582%	0.029	0.159	0.176	4.189	1.079	1.890%	2.099%
%RSD		1.687	16.630	8.294	9.254	1.041	0.267	1.867	2.069
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:41:15	0.019	0.023	0.036	0.035	0.031	93.711%		
2	11:41:35	0.013	0.021	0.015	0.026	0.024	92.834%		
3	11:41:54	0.021	0.022	0.030	0.006	0.031	94.004%		
x		0.018	0.022	0.027	0.022	0.029	93.516%		
σ		0.004	0.001	0.010	0.015	0.004	0.609%		
%RSD		22.900	5.262	38.830	66.460	14.010	0.651		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:45:04	93.882%	-0.011	9.959	8.871	0.000	2372.000	2714.000	2734.000
2	11:45:23	94.088%	-0.011	8.834	9.221	0.000	2348.000	2684.000	2604.000
3	11:45:42	90.157%	-0.019	8.861	9.215	0.000	2442.000	2793.000	2826.000
x		92.709%	-0.014	9.218	9.102	0.000	2388.000	2730.000	2721.000
σ		2.213%	0.005	0.642	0.200	0.000	48.800	56.300	111.600
%RSD		2.387	34.810	6.965	2.200	0.000	2.044	2.062	4.103

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:45:04	77.750	4515.000	0.000	626.000	75770.000	74410.000	89.194%	2.120
2	11:45:23	75.940	4627.000	0.000	616.400	74010.000	73360.000	89.942%	1.955
3	11:45:42	84.290	4869.000	0.000	651.500	80410.000	80110.000	83.145%	2.341
x		79.330	4670.000	0.000	631.300	76730.000	75960.000	87.427%	2.138
σ		4.393	180.900	0.000	18.170	3306.000	3629.000	3.727%	0.194
%RSD		5.537	3.874	0.000	2.878	4.309	4.777	4.263	9.072

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:45:04	-0.664	1.638	133.900	320.000	819.400	0.309	1.385	0.585
2	11:45:23	0.964	1.498	134.300	309.900	766.600	0.325	1.037	0.541
3	11:45:42	0.131	1.509	140.100	323.700	780.200	0.353	1.101	0.617
x		0.144	1.548	136.100	317.900	788.700	0.329	1.174	0.581
σ		0.814	0.078	3.492	7.124	27.420	0.022	0.185	0.038
%RSD		565.800	5.043	2.566	2.241	3.477	6.710	15.780	6.624

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:45:04	0.826	4.465	4.893	0.061	-0.749	0.868	0.000	167.000
2	11:45:23	0.755	4.335	4.169	0.196	-0.644	0.873	0.000	169.600
3	11:45:42	0.774	4.670	4.174	1.037	-0.201	0.767	0.000	168.100
x		0.785	4.490	4.412	0.431	-0.531	0.836	0.000	168.200
σ		0.037	0.169	0.417	0.529	0.291	0.060	0.000	1.299
%RSD		4.697	3.770	9.442	122.700	54.750	7.190	0.000	0.772

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:45:04	93.669%	0.693	0.712	90.909%	-0.032	-0.032	-0.049	-0.026
2	11:45:23	93.158%	0.954	0.928	91.006%	-0.034	-0.028	-0.108	-0.069
3	11:45:42	94.581%	0.960	1.027	91.649%	-0.033	-0.023	-0.016	-0.012
x		93.803%	0.869	0.889	91.188%	-0.033	-0.028	-0.058	-0.036
σ		0.721%	0.153	0.161	0.402%	0.001	0.005	0.046	0.029
%RSD		0.768	17.560	18.130	0.441	3.658	17.760	80.560	81.800

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:45:04	94.764%	-0.040	0.425	0.534	201.000	201.500	100.425%	102.131%
2	11:45:23	96.714%	0.046	0.503	0.514	200.200	201.900	103.214%	103.817%
3	11:45:42	97.661%	0.122	0.470	0.469	196.400	200.300	106.042%	106.496%
x		96.379%	0.043	0.466	0.506	199.200	201.200	103.227%	104.148%
σ		1.477%	0.081	0.039	0.033	2.445	0.804	2.809%	2.201%
%RSD		1.533	189.900	8.440	6.584	1.227	0.400	2.721	2.114

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:45:04	0.011	0.011	0.208	0.221	0.211	97.980%
2	11:45:23	0.009	0.011	0.221	0.174	0.202	98.338%
3	11:45:42	0.017	0.015	0.214	0.203	0.214	100.403%
x		0.012	0.012	0.214	0.199	0.209	98.907%
σ		0.004	0.002	0.007	0.024	0.006	1.307%
%RSD		34.650	19.110	3.052	11.930	3.076	1.322

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:48:50	93.857%	-0.058	9.910	9.691	0.000	2248.000	2712.000	2762.000
2	11:49:09	100.103%	-0.024	10.310	9.600	0.000	2274.000	2798.000	2796.000
3	11:49:28	99.041%	-0.034	9.772	8.860	0.000	2307.000	2786.000	2802.000
x		97.667%	-0.039	9.998	9.384	0.000	2276.000	2765.000	2787.000
σ		3.342%	0.018	0.281	0.456	0.000	29.590	46.700	21.410
%RSD		3.422	45.650	2.808	4.857	0.000	1.300	1.689	0.768
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:48:50	1.324	4447.000	0.000	592.000	76190.000	76420.000	88.198%	0.328
2	11:49:09	1.223	4487.000	0.000	594.500	79290.000	77620.000	84.382%	0.551
3	11:49:28	1.235	4469.000	0.000	608.800	80520.000	81070.000	82.098%	0.412
x		1.261	4468.000	0.000	598.400	78670.000	78370.000	84.893%	0.430
σ		0.055	20.230	0.000	9.089	2235.000	2413.000	3.082%	0.113
%RSD		4.374	0.453	0.000	1.519	2.841	3.079	3.630	26.210
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:48:50	1.016	1.163	185.600	57.130	579.700	0.308	1.253	0.552
2	11:49:09	-1.393	1.066	187.300	54.580	546.400	0.324	1.081	0.539
3	11:49:28	-0.430	1.088	191.000	59.790	553.300	0.301	1.210	0.523
x		-0.269	1.106	188.000	57.170	559.800	0.311	1.182	0.538
σ		1.213	0.051	2.790	2.609	17.580	0.012	0.089	0.015
%RSD		450.800	4.610	1.485	4.563	3.141	3.726	7.564	2.735
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:48:50	0.757	2.648	2.548	-0.326	-0.860	0.392	0.000	174.300
2	11:49:09	0.757	3.058	2.814	0.022	-0.646	0.484	0.000	175.200
3	11:49:28	0.713	2.780	3.198	0.500	-0.731	0.347	0.000	174.400
x		0.742	2.829	2.853	0.065	-0.746	0.407	0.000	174.700
σ		0.026	0.209	0.327	0.415	0.108	0.070	0.000	0.498
%RSD		3.471	7.399	11.440	635.000	14.460	17.100	0.000	0.285
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:48:50	92.392%	0.451	0.542	89.812%	-0.037	-0.043	0.085	0.059
2	11:49:09	93.354%	0.698	0.706	91.032%	-0.042	-0.043	-0.019	0.011
3	11:49:28	95.404%	0.735	0.740	92.065%	-0.037	-0.041	-0.048	-0.030
x		93.717%	0.628	0.663	90.969%	-0.038	-0.042	0.006	0.013
σ		1.538%	0.154	0.106	1.128%	0.003	0.001	0.070	0.044
%RSD		1.641	24.520	16.000	1.240	7.463	2.733	1147.000	332.600
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:48:50	93.475%	-0.102	0.083	0.109	206.000	208.000	100.973%	101.936%
2	11:49:09	95.723%	-0.056	0.045	0.101	206.200	207.700	105.786%	105.731%
3	11:49:28	97.975%	0.003	0.028	0.013	205.800	206.100	107.144%	107.977%
x		95.724%	-0.052	0.052	0.074	206.000	207.200	104.634%	105.215%
σ		2.250%	0.053	0.028	0.054	0.185	0.989	3.243%	3.053%
%RSD		2.350	101.900	54.200	71.940	0.090	0.477	3.099	2.902
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:48:50	0.001	0.009	0.036	0.012	0.018	96.525%		
2	11:49:09	0.007	0.011	0.023	0.010	0.011	97.784%		
3	11:49:28	0.003	0.008	0.004	0.020	0.015	100.014%		
x		0.004	0.009	0.021	0.014	0.015	98.107%		
σ		0.003	0.001	0.016	0.005	0.003	1.767%		
%RSD		73.800	13.800	74.000	38.340	23.200	1.801		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:52:36	94.459%	-0.011	4.608	4.920	0.000	9347.000	14800.000	14460.000
2	11:52:56	95.808%	-0.017	4.802	5.472	0.000	9100.000	14510.000	14830.000
3	11:53:15	94.635%	-0.043	6.014	5.441	0.000	9286.000	15270.000	15000.000
x		94.968%	-0.024	5.141	5.277	0.000	9244.000	14860.000	14760.000
σ		0.733%	0.017	0.762	0.310	0.000	129.000	385.000	273.500
%RSD		0.772	71.070	14.820	5.877	0.000	1.395	2.591	1.852
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:52:36	47.600	4687.000	0.000	578.700	203900.000	193100.000	88.578%	0.948
2	11:52:56	46.470	4551.000	0.000	568.300	205900.000	189700.000	87.315%	0.703
3	11:53:15	51.530	4766.000	0.000	584.500	211100.000	201200.000	84.486%	0.917
x		48.530	4668.000	0.000	577.200	207000.000	194700.000	86.793%	0.856
σ		2.658	108.800	0.000	8.212	3727.000	5877.000	2.095%	0.133
%RSD		5.476	2.331	0.000	1.423	1.801	3.019	2.414	15.580
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:52:36	1.436	1.171	770.400	356.300	1494.000	0.790	0.876	1.166
2	11:52:56	0.339	1.098	788.300	360.500	1582.000	0.815	0.479	1.192
3	11:53:15	0.292	1.129	810.500	375.400	1604.000	0.826	0.678	1.268
x		0.689	1.133	789.700	364.100	1560.000	0.810	0.678	1.209
σ		0.647	0.037	20.100	10.070	58.070	0.018	0.198	0.053
%RSD		93.960	3.252	2.545	2.767	3.722	2.280	29.230	4.367
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:52:36	1.639	3.446	3.533	2.246	-0.647	2.022	0.000	510.600
2	11:52:56	1.563	3.243	3.258	2.873	-0.679	1.657	0.000	498.700
3	11:53:15	1.628	3.631	2.910	3.587	-0.773	2.308	0.000	499.100
x		1.610	3.440	3.234	2.902	-0.700	1.996	0.000	502.800
σ		0.041	0.194	0.312	0.671	0.065	0.326	0.000	6.785
%RSD		2.557	5.649	9.652	23.120	9.324	16.340	0.000	1.350
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:52:36	90.975%	1.489	1.564	88.427%	-0.053	-0.044	-0.079	-0.066
2	11:52:56	92.904%	1.549	1.638	89.124%	-0.046	-0.049	-0.093	-0.077
3	11:53:15	94.100%	1.637	1.772	90.201%	-0.049	-0.038	-0.013	-0.017
x		92.659%	1.558	1.658	89.251%	-0.049	-0.044	-0.062	-0.053
σ		1.577%	0.074	0.105	0.894%	0.003	0.005	0.043	0.032
%RSD		1.702	4.756	6.350	1.001	6.708	11.820	69.560	59.340
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:52:36	93.651%	-0.168	-0.208	-0.165	408.100	407.500	101.440%	102.704%
2	11:52:56	95.582%	-0.123	-0.217	-0.145	407.000	410.500	105.419%	105.593%
3	11:53:15	96.660%	-0.137	-0.168	-0.145	406.700	408.500	106.138%	107.129%
x		95.298%	-0.143	-0.198	-0.152	407.300	408.800	104.332%	105.142%
σ		1.525%	0.023	0.026	0.011	0.730	1.547	2.531%	2.247%
%RSD		1.600	16.050	13.110	7.446	0.179	0.378	2.426	2.137
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	11:52:36	0.005	0.006	0.070	0.043	0.066	96.297%		
2	11:52:56	0.008	0.007	0.081	0.080	0.077	96.757%		
3	11:53:15	0.007	0.009	0.078	0.065	0.076	98.189%		
x		0.006	0.007	0.077	0.063	0.073	97.081%		
σ		0.002	0.001	0.006	0.019	0.006	0.987%		
%RSD		25.680	19.630	7.348	29.700	8.023	1.017		

180-44316-G-6-A 6/2/2015 11:56:04 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	11:56:23	99.615%	-0.024	4.619	4.931	0.000	9138.000	14520.000	14530.000
2	11:56:43	95.333%	-0.043	5.448	4.980	0.000	9350.000	14800.000	14800.000
3	11:57:02	90.481%	-0.041	5.098	5.603	0.000	10160.000	15880.000	15510.000
x		95.143%	-0.036	5.055	5.171	0.000	9549.000	15070.000	14950.000
σ		4.570%	0.011	0.416	0.375	0.000	538.600	721.400	507.400
%RSD		4.803	29.310	8.230	7.248	0.000	5.640	4.789	3.395

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:56:23	1.669	4495.000	0.000	584.900	215800.000	203100.000	81.861%	0.633
2	11:56:43	1.495	4672.000	0.000	583.100	215200.000	204700.000	81.898%	0.472
3	11:57:02	1.838	4825.000	0.000	593.100	221900.000	204800.000	79.296%	0.615
x		1.667	4664.000	0.000	587.000	217600.000	204200.000	81.018%	0.573
σ		0.172	164.800	0.000	5.355	3695.000	942.200	1.492%	0.088
%RSD		10.280	3.532	0.000	0.912	1.698	0.461	1.841	15.410

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:56:23	-0.518	1.171	854.500	347.300	1713.000	0.928	0.904	0.185
2	11:56:43	-1.619	1.055	840.800	345.000	1654.000	0.878	0.880	0.191
3	11:57:02	1.792	0.891	842.700	345.600	1551.000	0.823	0.961	0.256
x		-0.115	1.039	846.000	346.000	1639.000	0.876	0.915	0.211
σ		1.741	0.141	7.389	1.209	81.860	0.053	0.042	0.039
%RSD		1514.000	13.550	0.873	0.350	4.993	6.023	4.548	18.710

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:56:23	0.678	3.242	3.977	3.625	-0.308	2.323	0.000	516.200
2	11:56:43	0.580	3.387	4.039	4.738	-0.673	2.428	0.000	510.600
3	11:57:02	0.568	3.471	3.287	2.830	-0.357	2.794	0.000	512.200
x		0.609	3.367	3.768	3.731	-0.446	2.515	0.000	513.000
σ		0.060	0.116	0.418	0.958	0.198	0.248	0.000	2.903
%RSD		9.896	3.434	11.090	25.680	44.400	9.843	0.000	0.566

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:56:23	92.354%	1.548	1.577	88.422%	-0.045	-0.050	-0.070	-0.038
2	11:56:43	94.274%	1.642	1.863	90.103%	-0.042	-0.044	-0.020	-0.020
3	11:57:02	94.048%	1.564	1.697	90.335%	-0.043	-0.045	-0.053	-0.042
x		93.559%	1.585	1.712	89.620%	-0.043	-0.046	-0.048	-0.034
σ		1.049%	0.051	0.144	1.044%	0.002	0.003	0.025	0.012
%RSD		1.122	3.195	8.382	1.165	3.545	6.497	53.190	34.480

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	11:56:23	93.455%	-0.100	-0.216	-0.185	417.000	417.500	100.881%	102.372%
2	11:56:43	95.650%	-0.170	-0.221	-0.139	414.400	418.100	104.563%	106.409%
3	11:57:02	96.523%	-0.061	-0.230	-0.162	415.200	416.800	107.482%	108.189%
x		95.209%	-0.110	-0.222	-0.162	415.600	417.400	104.309%	105.657%
σ		1.581%	0.055	0.007	0.023	1.346	0.648	3.308%	2.980%
%RSD		1.661	49.900	3.222	14.130	0.324	0.155	3.171	2.821

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	11:56:23	0.005	0.008	0.035	0.025	0.023	95.559%
2	11:56:43	0.002	0.007	0.023	0.028	0.022	98.070%
3	11:57:02	0.000	0.006	0.026	0.021	0.020	97.359%
x		0.002	0.007	0.028	0.024	0.022	96.996%
σ		0.002	0.001	0.006	0.004	0.002	1.294%
%RSD		99.010	14.970	20.860	15.240	8.794	1.334

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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	12:00:10	102.031%	-0.035	1.336	1.201	0.000	1912.000	2945.000	3052.000
2	12:00:30	102.234%	-0.050	0.750	0.848	0.000	1929.000	2994.000	3027.000
3	12:00:49	99.056%	-0.049	0.883	1.245	0.000	1931.000	3164.000	3131.000
x		101.107%	-0.045	0.990	1.098	0.000	1924.000	3034.000	3070.000
σ		1.779%	0.008	0.308	0.218	0.000	10.510	115.000	54.180
%RSD		1.760	18.310	31.070	19.820	0.000	0.546	3.791	1.765
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:00:10	0.614	848.900	0.000	109.300	38740.000	38140.000	98.568%	-0.013
2	12:00:30	0.733	828.300	0.000	113.900	39770.000	39040.000	93.680%	-0.065
3	12:00:49	0.640	883.900	0.000	111.600	40510.000	39050.000	96.628%	-0.070
x		0.662	853.700	0.000	111.600	39670.000	38740.000	96.292%	-0.049
σ		0.063	28.120	0.000	2.274	887.200	524.100	2.461%	0.032
%RSD		9.456	3.294	0.000	2.038	2.236	1.353	2.556	64.190
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:00:10	0.092	0.214	150.600	64.920	322.700	0.149	2.055	0.277
2	12:00:30	0.109	0.234	156.800	70.080	331.300	0.190	1.807	0.301
3	12:00:49	-0.053	0.228	149.800	65.400	311.400	0.162	1.741	0.248
x		0.049	0.225	152.400	66.800	321.800	0.167	1.867	0.275
σ		0.089	0.010	3.838	2.850	9.992	0.021	0.166	0.027
%RSD		181.700	4.482	2.518	4.266	3.105	12.460	8.860	9.702
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:00:10	0.403	1.630	1.814	0.639	-0.605	0.482	0.000	99.020
2	12:00:30	0.341	1.654	1.990	0.808	-0.387	0.472	0.000	99.750
3	12:00:49	0.371	1.732	1.756	0.727	-0.508	0.617	0.000	100.900
x		0.371	1.672	1.853	0.725	-0.500	0.524	0.000	99.870
σ		0.031	0.053	0.122	0.085	0.109	0.081	0.000	0.924
%RSD		8.288	3.194	6.585	11.680	21.840	15.520	0.000	0.925
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:00:10	99.926%	0.297	0.321	98.995%	-0.045	-0.045	0.002	0.003
2	12:00:30	102.085%	0.388	0.339	98.875%	-0.038	-0.041	0.060	0.033
3	12:00:49	101.033%	0.404	0.407	100.045%	-0.044	-0.045	-0.064	-0.047
x		101.015%	0.363	0.356	99.305%	-0.042	-0.043	-0.001	-0.004
σ		1.079%	0.058	0.045	0.644%	0.004	0.002	0.062	0.041
%RSD		1.068	15.950	12.780	0.648	9.080	5.680	9469.000	1103.000
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:00:10	101.524%	-0.533	-0.461	-0.447	84.090	82.920	104.525%	104.274%
2	12:00:30	103.198%	-0.510	-0.447	-0.436	81.990	84.140	108.332%	108.857%
3	12:00:49	104.177%	-0.503	-0.447	-0.439	83.380	83.910	109.724%	110.350%
x		102.966%	-0.515	-0.452	-0.441	83.150	83.660	107.527%	107.827%
σ		1.342%	0.016	0.008	0.006	1.071	0.645	2.691%	3.166%
%RSD		1.303	3.051	1.775	1.262	1.288	0.770	2.503	2.936
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:00:10	0.001	0.004	-0.004	-0.004	-0.000	103.715%		
2	12:00:30	-0.001	0.005	0.017	0.007	0.005	103.081%		
3	12:00:49	-0.005	0.004	0.006	-0.008	0.003	104.778%		
x		-0.002	0.004	0.006	-0.002	0.003	103.858%		
σ		0.003	0.001	0.011	0.008	0.003	0.858%		
%RSD		164.800	16.250	171.900	433.300	96.280	0.826		

MB 180-142252/1-A 6/2/2015 12:06:35 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:06:54	111.295%	-0.047	0.065	-0.014	0.000	0.734	-0.410	-0.152
2	12:07:14	106.370%	-0.046	-0.234	-0.069	0.000	0.542	-0.346	-0.239
3	12:07:34	107.843%	-0.010	-0.216	0.013	0.000	0.489	-0.506	-0.420
x		108.503%	-0.035	-0.128	-0.024	0.000	0.588	-0.420	-0.270
σ		2.528%	0.021	0.168	0.042	0.000	0.129	0.081	0.137
%RSD		2.330	61.880	130.800	176.500	0.000	21.950	19.170	50.670

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:06:54	0.111	-112.500	0.000	2.101	7.821	15.340	104.059%	-0.152
2	12:07:14	0.095	-110.600	0.000	1.622	25.200	15.260	102.885%	-0.210
3	12:07:34	0.144	-111.700	0.000	0.361	15.710	14.090	104.528%	-0.176
x		0.117	-111.600	0.000	1.361	16.240	14.890	103.824%	-0.179
σ		0.025	0.946	0.000	0.899	8.703	0.700	0.846%	0.029
%RSD		21.480	0.847	0.000	66.010	53.580	4.699	0.815	16.030

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:06:54	-0.070	-0.078	-0.023	-0.596	0.858	-0.003	-0.013	-0.022
2	12:07:14	-0.021	-0.060	-0.006	-0.120	-1.574	-0.001	-0.019	-0.020
3	12:07:34	-0.002	-0.057	-0.021	-3.163	-1.499	-0.004	-0.032	-0.015
x		-0.031	-0.065	-0.016	-1.293	-0.738	-0.003	-0.021	-0.019
σ		0.035	0.011	0.009	1.637	1.383	0.002	0.009	0.004
%RSD		113.300	17.620	55.240	126.600	187.300	63.700	43.750	19.720

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:06:54	-0.019	1.245	0.945	-0.164	-0.057	-0.052	0.000	0.018
2	12:07:14	-0.022	1.246	1.217	-0.104	-0.435	0.060	0.000	0.010
3	12:07:34	-0.039	1.167	1.199	-0.081	-0.192	0.113	0.000	0.012
x		-0.027	1.220	1.120	-0.116	-0.228	0.040	0.000	0.013
σ		0.011	0.045	0.152	0.043	0.192	0.084	0.000	0.004
%RSD		39.550	3.714	13.590	36.530	84.050	209.700	0.000	33.200

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:06:54	103.187%	-0.128	-0.107	102.625%	-0.052	-0.046	0.032	0.032
2	12:07:14	102.982%	-0.047	-0.008	102.679%	-0.042	-0.043	-0.014	-0.012
3	12:07:34	105.488%	-0.068	0.008	102.288%	-0.047	-0.047	-0.068	-0.049
x		103.886%	-0.081	-0.036	102.531%	-0.047	-0.045	-0.017	-0.010
σ		1.391%	0.042	0.063	0.212%	0.005	0.002	0.050	0.041
%RSD		1.339	51.450	175.900	0.207	11.540	4.751	295.700	408.200

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:06:54	102.238%	-0.569	-0.478	-0.477	0.026	0.048	102.669%	103.023%
2	12:07:14	104.271%	-0.564	-0.483	-0.473	0.049	0.036	106.009%	106.145%
3	12:07:34	105.035%	-0.579	-0.480	-0.486	0.019	0.029	105.669%	106.434%
x		103.848%	-0.571	-0.480	-0.479	0.031	0.037	104.782%	105.200%
σ		1.446%	0.007	0.003	0.006	0.016	0.010	1.838%	1.891%
%RSD		1.392	1.293	0.540	1.321	50.410	25.760	1.755	1.798

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:06:54	-0.003	0.001	-0.013	-0.000	-0.007	108.714%
2	12:07:14	-0.003	0.003	-0.010	-0.014	-0.012	108.048%
3	12:07:34	-0.002	0.002	-0.010	-0.006	-0.006	106.083%
x		-0.003	0.002	-0.011	-0.007	-0.008	107.615%
σ		0.001	0.001	0.002	0.007	0.003	1.368%
%RSD		19.920	52.030	14.250	105.800	36.210	1.271

LCS 180-142252/2-A 6/2/2015 12:10:23 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:10:43	105.201%	42.600	935.200	910.300	0.000	41400.000	41550.000	41800.000
2	12:11:02	99.712%	43.120	959.900	933.800	0.000	42990.000	42230.000	42240.000
3	12:11:21	95.561%	44.230	942.200	951.800	0.000	42080.000	42110.000	42310.000
x		100.158%	43.320	945.800	932.000	0.000	42160.000	41960.000	42120.000
σ		4.835%	0.835	12.750	20.820	0.000	795.700	362.000	278.100
%RSD		4.828	1.929	1.348	2.234	0.000	1.887	0.863	0.660

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:10:43	1652.000	8986.000	0.000	46390.000	49000.000	49030.000	80.409%	1001.000
2	12:11:02	1711.000	9215.000	0.000	46110.000	50320.000	49580.000	79.354%	992.900
3	12:11:21	1703.000	9349.000	0.000	46630.000	50390.000	49260.000	81.248%	976.500
x		1689.000	9183.000	0.000	46380.000	49900.000	49290.000	80.337%	990.100
σ		32.110	183.800	0.000	257.900	781.600	274.700	0.949%	12.460
%RSD		1.901	2.001	0.000	0.556	1.566	0.557	1.182	1.258

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:10:43	519.700	202.000	501.800	1043.000	1357.000	533.500	521.400	258.000
2	12:11:02	519.700	201.000	502.500	1025.000	1320.000	526.000	523.800	253.000
3	12:11:21	512.400	195.500	486.500	981.700	1244.000	495.500	481.600	244.100
x		517.200	199.500	496.900	1017.000	1307.000	518.300	508.900	251.700
σ		4.239	3.494	9.046	31.640	57.740	20.110	23.700	7.043
%RSD		0.820	1.751	1.820	3.112	4.418	3.881	4.658	2.799

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:10:43	254.300	487.300	483.800	37.130	9.102	10.430	0.000	923.500
2	12:11:02	249.600	494.300	493.700	37.680	8.607	10.220	0.000	922.600
3	12:11:21	246.100	482.000	483.200	36.750	9.271	10.770	0.000	915.000
x		250.000	487.800	486.900	37.190	8.993	10.480	0.000	920.400
σ		4.085	6.185	5.906	0.468	0.346	0.279	0.000	4.626
%RSD		1.634	1.268	1.213	1.259	3.841	2.663	0.000	0.503

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:10:43	89.678%	1010.000	1020.000	85.655%	47.300	46.880	47.110	40.990
2	12:11:02	90.308%	1016.000	1032.000	86.582%	47.840	47.330	47.100	42.200
3	12:11:21	89.954%	1021.000	1040.000	86.570%	47.100	47.850	47.990	42.110
x		89.980%	1016.000	1030.000	86.269%	47.410	47.350	47.400	41.770
σ		0.315%	5.433	10.250	0.532%	0.383	0.486	0.514	0.675
%RSD		0.351	0.535	0.995	0.617	0.808	1.026	1.085	1.617

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:10:43	87.800%	1917.000	488.700	487.400	1783.000	1788.000	97.095%	96.503%
2	12:11:02	88.945%	1902.000	487.800	489.600	1772.000	1793.000	99.537%	99.864%
3	12:11:21	88.795%	1915.000	491.200	489.700	1774.000	1791.000	100.559%	101.664%
x		88.513%	1912.000	489.200	488.900	1776.000	1791.000	99.064%	99.344%
σ		0.622%	7.941	1.795	1.299	5.901	2.306	1.780%	2.620%
%RSD		0.703	0.415	0.367	0.266	0.332	0.129	1.797	2.637

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:10:43	51.320	51.410	20.890	20.550	20.980	84.527%
2	12:11:02	52.830	53.400	21.290	21.840	21.770	83.981%
3	12:11:21	53.230	54.140	21.770	21.400	21.830	85.515%
x		52.460	52.980	21.320	21.260	21.530	84.675%
σ		1.008	1.414	0.441	0.653	0.472	0.778%
%RSD		1.922	2.669	2.067	3.071	2.193	0.918

180-44248-B-2-A 6/2/2015 12:14:11 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:14:31	100.807%	0.001	43.380	43.650	0.000	47500.000	17060.000	16640.000
2	12:14:50	99.547%	-0.018	45.140	43.580	0.000	47200.000	17190.000	17170.000
3	12:15:09	93.203%	-0.021	44.400	45.150	0.000	48250.000	17120.000	17160.000
x		97.852%	-0.013	44.310	44.130	0.000	47650.000	17120.000	16990.000
σ		4.076%	0.012	0.886	0.888	0.000	539.100	65.760	299.700
%RSD		4.165	93.850	1.999	2.013	0.000	1.131	0.384	1.764

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:14:31	1.119	4463.000	0.000	4136.000	91640.000	93680.000	78.362%	0.886
2	12:14:50	0.984	4315.000	0.000	4272.000	93210.000	91710.000	77.159%	0.841
3	12:15:09	1.057	4473.000	0.000	3922.000	86120.000	87630.000	85.761%	0.679
x		1.053	4417.000	0.000	4110.000	90320.000	91010.000	80.427%	0.802
σ		0.068	88.430	0.000	176.500	3726.000	3085.000	4.658%	0.109
%RSD		6.411	2.002	0.000	4.296	4.125	3.390	5.792	13.570

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:14:31	-0.073	3.350	35.760	20.910	675.100	0.289	1.047	0.642
2	12:14:50	1.921	3.142	35.830	18.250	627.700	0.277	0.989	0.577
3	12:15:09	0.121	2.964	32.990	10.580	548.400	0.253	0.665	0.520
x		0.657	3.152	34.860	16.580	617.100	0.273	0.900	0.580
σ		1.099	0.193	1.621	5.364	64.000	0.018	0.206	0.061
%RSD		167.500	6.126	4.649	32.340	10.370	6.603	22.890	10.570

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:14:31	0.572	4.899	5.222	0.147	-0.103	0.620	0.000	195.500
2	12:14:50	0.469	5.261	5.311	0.305	-0.298	1.103	0.000	196.000
3	12:15:09	0.523	4.806	4.247	-0.272	-0.133	0.665	0.000	192.800
x		0.522	4.989	4.926	0.060	-0.178	0.796	0.000	194.800
σ		0.052	0.241	0.591	0.298	0.105	0.267	0.000	1.735
%RSD		9.889	4.823	11.990	498.100	59.240	33.520	0.000	0.891

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:14:31	89.367%	7.305	7.327	86.394%	-0.047	-0.042	0.002	-0.005
2	12:14:50	89.997%	7.637	7.629	87.227%	-0.039	-0.031	-0.024	-0.026
3	12:15:09	90.718%	7.070	7.370	87.142%	-0.038	-0.039	-0.024	-0.037
x		90.027%	7.337	7.442	86.921%	-0.041	-0.038	-0.015	-0.022
σ		0.676%	0.285	0.163	0.458%	0.005	0.006	0.015	0.016
%RSD		0.751	3.887	2.192	0.527	12.010	14.780	99.010	72.670

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:14:31	88.820%	1.025	-0.112	-0.064	37.790	37.990	96.056%	97.501%
2	12:14:50	89.534%	1.070	-0.136	-0.091	37.840	37.570	98.959%	100.607%
3	12:15:09	92.116%	0.896	-0.103	-0.092	37.440	37.820	99.929%	101.346%
x		90.156%	0.997	-0.117	-0.083	37.690	37.790	98.315%	99.818%
σ		1.734%	0.091	0.017	0.016	0.214	0.211	2.015%	2.040%
%RSD		1.924	9.085	14.950	19.540	0.567	0.557	2.050	2.044

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:14:31	0.206	0.193	0.031	0.027	0.034	84.104%
2	12:14:50	0.153	0.160	0.032	0.020	0.029	86.836%
3	12:15:09	0.136	0.139	0.025	0.036	0.036	88.806%
x		0.165	0.164	0.029	0.028	0.033	86.582%
σ		0.036	0.027	0.004	0.008	0.004	2.361%
%RSD		22.040	16.610	13.310	28.820	10.780	2.727

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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	12:18:19	102.759%	-0.031	9.248	8.506	0.000	9442.000	3212.000	3234.000
2	12:18:38	99.162%	-0.034	7.925	8.718	0.000	9088.000	3173.000	3278.000
3	12:18:57	101.842%	-0.035	9.224	8.465	0.000	9470.000	3354.000	3317.000
x		101.254%	-0.033	8.799	8.563	0.000	9333.000	3246.000	3276.000
σ		1.869%	0.002	0.757	0.136	0.000	213.000	94.950	41.330
%RSD		1.846	7.007	8.602	1.589	0.000	2.282	2.925	1.261
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:19	0.268	711.800	0.000	781.500	16960.000	16630.000	95.701%	0.057
2	12:18:38	0.151	755.900	0.000	762.100	16840.000	16970.000	96.091%	-0.044
3	12:18:57	0.292	761.000	0.000	792.400	17590.000	17380.000	92.038%	-0.048
x		0.237	742.900	0.000	778.700	17130.000	17000.000	94.610%	-0.012
σ		0.075	27.060	0.000	15.330	405.200	375.700	2.236%	0.060
%RSD		31.780	3.642	0.000	1.968	2.366	2.211	2.364	502.600
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:19	-0.369	0.644	6.655	0.439	127.200	0.050	0.122	0.135
2	12:18:38	0.575	0.627	6.483	-2.078	116.100	0.045	0.114	0.074
3	12:18:57	-0.119	0.578	6.925	-0.115	115.400	0.049	0.165	0.100
x		0.029	0.616	6.688	-0.585	119.600	0.048	0.134	0.103
σ		0.489	0.034	0.223	1.322	6.602	0.003	0.028	0.031
%RSD		1688.000	5.488	3.329	226.100	5.521	5.762	20.680	29.810
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:19	0.086	1.739	1.652	-0.162	-0.608	0.409	0.000	38.620
2	12:18:38	0.071	1.904	1.912	0.116	-0.827	0.089	0.000	38.520
3	12:18:57	0.105	1.645	1.681	-0.264	-0.717	0.166	0.000	39.000
x		0.088	1.763	1.748	-0.103	-0.717	0.221	0.000	38.720
σ		0.017	0.131	0.142	0.197	0.110	0.167	0.000	0.251
%RSD		19.650	7.435	8.137	190.400	15.280	75.690	0.000	0.649
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:19	97.309%	1.000	1.193	96.700%	-0.046	-0.040	0.036	0.024
2	12:18:38	99.343%	1.400	1.299	97.921%	-0.048	-0.046	0.016	-0.001
3	12:18:57	99.462%	1.313	1.431	98.596%	-0.047	-0.049	-0.039	-0.027
x		98.705%	1.238	1.308	97.739%	-0.047	-0.045	0.004	-0.001
σ		1.210%	0.210	0.119	0.961%	0.001	0.004	0.039	0.025
%RSD		1.226	17.000	9.124	0.983	2.398	9.939	884.900	2487.000
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:18:19	99.800%	-0.358	-0.468	-0.429	7.252	7.674	104.436%	105.274%
2	12:18:38	101.586%	-0.318	-0.452	-0.437	7.710	7.597	107.605%	107.887%
3	12:18:57	102.416%	-0.323	-0.444	-0.441	7.504	7.485	108.846%	109.653%
x		101.267%	-0.333	-0.455	-0.436	7.489	7.585	106.963%	107.605%
σ		1.336%	0.022	0.012	0.006	0.229	0.095	2.274%	2.203%
%RSD		1.320	6.471	2.728	1.340	3.061	1.258	2.126	2.047
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:18:19	0.020	0.024	0.000	-0.012	-0.004	100.246%		
2	12:18:38	0.030	0.017	-0.004	0.007	0.002	101.013%		
3	12:18:57	0.031	0.019	-0.003	0.010	0.002	102.054%		
x		0.027	0.020	-0.002	0.002	0.000	101.104%		
σ		0.006	0.004	0.002	0.012	0.003	0.908%		
%RSD		20.840	18.080	103.700	736.800	1880.000	0.898		

CCV 1594026 6/2/2015 12:21:55 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:21:55	97.571%	98.190	108.300	103.000	0.000	49070.000	49210.000	47220.000
2	12:22:14	99.597%	96.710	108.100	95.550	0.000	46580.000	46220.000	46250.000
3	12:22:34	90.014%	105.600	109.000	107.700	0.000	50120.000	49320.000	49340.000
x		95.727%	100.179%	108.475%	102.084%	0.000	97.181%	96.500%	95.204%
σ		5.051%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		5.276	4.778	0.403	6.016	0.000	3.741	3.654	3.321

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:21:55	469.100	5098.000	0.000	49690.000	49160.000	49050.000	101.577%	98.410
2	12:22:14	455.300	4795.000	0.000	48310.000	49910.000	49740.000	99.678%	101.100
3	12:22:34	493.300	5260.000	0.000	50700.000	51990.000	51230.000	99.934%	101.100
x		94.514%	101.022%	0.000	99.139%	100.710%	100.012%	100.397%	100.182%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.031%	n/a
%RSD		4.077	4.676	0.000	2.424	2.918	2.226	1.027	1.536

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:21:55	98.190	99.590	488.900	24770.000	24070.000	97.960	99.830	97.390
2	12:22:14	101.800	102.900	496.000	25850.000	25070.000	101.500	104.900	100.600
3	12:22:34	101.800	104.000	500.800	25400.000	24410.000	99.890	99.940	101.500
x		100.606%	102.148%	99.047%	101.357%	98.060%	99.774%	101.548%	99.821%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		2.077	2.230	1.210	2.148	2.076	1.766	2.840	2.148

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:21:55	98.110	94.540	94.790	95.580	98.310	98.260	0.000	95.270
2	12:22:14	100.500	97.580	96.320	96.540	96.880	98.450	0.000	95.300
3	12:22:34	99.310	97.410	96.360	96.830	98.430	99.030	0.000	95.940
x		99.316%	96.512%	95.823%	96.320%	97.874%	98.580%	0.000	95.503%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.220	1.768	0.934	0.677	0.882	0.404	0.000	0.393

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:21:55	100.653%	99.570	99.890	98.093%	97.810	98.380	100.300	100.000
2	12:22:14	102.792%	100.300	101.400	98.176%	98.120	98.920	100.000	100.900
3	12:22:34	103.133%	102.500	103.700	98.551%	99.650	100.700	102.700	101.100
x		102.192%	100.807%	101.669%	98.273%	98.526%	99.328%	101.017%	100.679%
σ		1.344%	n/a	n/a	0.244%	n/a	n/a	n/a	n/a
%RSD		1.315	1.540	1.914	0.248	0.996	1.215	1.418	0.570

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:21:55	95.525%	98.220	92.610	92.360	95.330	96.210	102.299%	103.095%
2	12:22:14	97.040%	100.600	93.900	93.490	96.910	96.310	104.737%	105.954%
3	12:22:34	97.893%	100.500	94.230	93.260	94.230	97.970	106.212%	107.423%
x		96.819%	99.766%	93.582%	93.036%	95.492%	96.832%	104.416%	105.490%
σ		1.199%	n/a	n/a	n/a	n/a	n/a	1.976%	2.201%
%RSD		1.239	1.343	0.914	0.640	1.412	1.018	1.893	2.087

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:21:55	101.200	101.700	103.100	103.300	103.200	99.318%
2	12:22:14	105.600	107.200	107.600	107.300	108.100	97.583%
3	12:22:34	107.300	108.300	108.400	109.400	109.600	98.150%
x		104.728%	105.735%	106.358%	106.653%	106.956%	98.350%
σ		n/a	n/a	n/a	n/a	n/a	0.885%
%RSD		3.008	3.354	2.679	2.911	3.103	0.899

CCB3 6/2/2015 12:28:23 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	12:28:43	111.240%	-0.048	0.497	0.380	0.000	2.118	-0.188	0.479
2	12:29:03	108.091%	-0.038	0.535	0.259	0.000	1.871	0.079	0.090
3	12:29:22	109.048%	-0.052	0.442	0.312	0.000	1.650	0.211	-0.051
x		109.460%	-0.046	0.492	0.317	0.000	1.880	0.034	0.173
σ		1.614%	0.007	0.047	0.061	0.000	0.234	0.203	0.275
%RSD		1.475	15.740	9.583	19.160	0.000	12.430	600.800	159.100

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:28:43	-0.378	-126.500	0.000	7.404	4.176	3.280	107.514%	-0.178
2	12:29:03	-0.344	-124.100	0.000	7.254	3.152	2.288	106.392%	-0.132
3	12:29:22	-0.371	-124.600	0.000	6.263	2.070	1.624	105.760%	-0.086
x		-0.364	-125.100	0.000	6.974	3.133	2.397	106.555%	-0.132
σ		0.018	1.289	0.000	0.620	1.053	0.834	0.888%	0.046
%RSD		4.915	1.031	0.000	8.892	33.630	34.770	0.834	34.820

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:28:43	0.017	0.012	-0.024	2.237	5.137	-0.000	-0.060	-0.059
2	12:29:03	-0.000	0.007	-0.029	3.621	4.423	-0.002	-0.026	-0.045
3	12:29:22	-0.021	-0.006	-0.025	0.647	3.014	-0.004	-0.090	-0.026
x		-0.002	0.004	-0.026	2.168	4.191	-0.002	-0.058	-0.043
σ		0.019	0.009	0.003	1.488	1.080	0.002	0.032	0.017
%RSD		1242.000	215.700	10.620	68.650	25.770	95.460	55.070	39.320

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:28:43	-0.012	-0.054	-0.068	-0.026	-0.070	0.353	0.000	0.002
2	12:29:03	-0.006	0.038	-0.074	0.108	-0.158	0.458	0.000	-0.002
3	12:29:22	-0.021	0.008	0.046	0.033	0.127	0.434	0.000	-0.003
x		-0.013	-0.003	-0.032	0.038	-0.034	0.415	0.000	-0.001
σ		0.008	0.046	0.068	0.067	0.146	0.055	0.000	0.003
%RSD		58.220	1706.000	212.900	174.700	435.200	13.210	0.000	247.400

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:28:43	103.550%	0.524	0.726	103.001%	-0.042	-0.041	0.067	0.046
2	12:29:03	104.281%	0.927	0.939	103.943%	-0.049	-0.034	0.058	0.043
3	12:29:22	105.639%	0.930	0.877	104.012%	-0.047	-0.029	0.038	0.035
x		104.490%	0.793	0.847	103.652%	-0.046	-0.034	0.054	0.041
σ		1.060%	0.233	0.110	0.565%	0.003	0.006	0.015	0.006
%RSD		1.015	29.400	12.960	0.545	6.816	17.560	27.260	13.690

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:28:43	101.789%	-0.410	0.327	0.454	0.014	0.027	100.526%	100.830%
2	12:29:03	104.853%	-0.420	0.494	0.375	0.013	0.004	103.721%	102.872%
3	12:29:22	105.423%	-0.362	0.409	0.417	0.001	0.011	103.931%	104.587%
x		104.022%	-0.397	0.410	0.415	0.009	0.014	102.726%	102.763%
σ		1.955%	0.031	0.084	0.040	0.007	0.011	1.908%	1.881%
%RSD		1.879	7.804	20.440	9.576	79.010	80.780	1.857	1.830

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:28:43	0.012	0.012	0.005	-0.002	0.000	102.451%
2	12:29:03	0.021	0.018	-0.011	-0.001	-0.005	103.349%
3	12:29:22	0.017	0.018	-0.003	-0.010	-0.005	103.811%
x		0.016	0.016	-0.003	-0.004	-0.004	103.204%
σ		0.005	0.004	0.008	0.005	0.003	0.692%
%RSD		28.490	23.690	283.700	117.600	88.190	0.670

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:32:34	91.885%	40.820	968.900	970.400	0.000	91770.000	60380.000	62400.000
2	12:32:53	90.960%	41.820	995.200	999.500	0.000	92590.000	59950.000	61450.000
3	12:33:12	89.657%	41.290	1027.000	1006.000	0.000	91850.000	60810.000	61550.000
x		90.834%	41.310	997.000	991.900	0.000	92070.000	60380.000	61800.000
σ		1.119%	0.498	29.070	18.950	0.000	452.100	429.200	523.800
%RSD		1.232	1.205	2.915	1.911	0.000	0.491	0.711	0.848
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:32:34	1745.000	13660.000	0.000	50180.000	147700.000	144700.000	83.282%	971.100
2	12:32:53	1691.000	13630.000	0.000	48850.000	143800.000	138700.000	86.009%	928.200
3	12:33:12	1746.000	14420.000	0.000	52080.000	148500.000	145800.000	80.242%	1022.000
x		1727.000	13900.000	0.000	50370.000	146700.000	143100.000	83.178%	973.700
σ		31.790	445.000	0.000	1622.000	2546.000	3808.000	2.885%	46.830
%RSD		1.841	3.201	0.000	3.219	1.736	2.662	3.468	4.809
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:32:34	506.900	202.900	520.200	1002.000	1973.000	491.300	479.500	236.000
2	12:32:53	477.800	188.000	486.300	944.400	1746.000	465.800	468.300	233.900
3	12:33:12	520.900	200.000	523.700	997.600	1862.000	493.900	495.600	236.900
x		501.900	197.000	510.100	981.500	1861.000	483.600	481.200	235.600
σ		22.010	7.914	20.670	32.210	113.500	15.540	13.710	1.532
%RSD		4.385	4.018	4.052	3.282	6.103	3.213	2.849	0.650
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:32:34	234.900	453.800	457.800	37.040	9.581	10.500	0.000	1123.000
2	12:32:53	235.200	452.600	451.300	37.060	9.238	10.360	0.000	1116.000
3	12:33:12	238.900	469.200	467.800	38.070	9.580	10.830	0.000	1121.000
x		236.400	458.500	459.000	37.390	9.466	10.560	0.000	1120.000
σ		2.228	9.268	8.339	0.590	0.198	0.240	0.000	3.703
%RSD		0.943	2.021	1.817	1.579	2.090	2.272	0.000	0.331
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:32:34	90.722%	1029.000	1052.000	86.407%	46.760	46.970	48.000	41.560
2	12:32:53	92.351%	1035.000	1065.000	86.688%	47.480	47.570	47.960	41.820
3	12:33:12	92.619%	1043.000	1074.000	86.242%	47.820	48.040	48.180	41.990
x		91.897%	1036.000	1064.000	86.446%	47.350	47.530	48.050	41.790
σ		1.026%	7.233	11.480	0.226%	0.541	0.535	0.120	0.221
%RSD		1.117	0.698	1.080	0.261	1.143	1.125	0.250	0.528
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:32:34	90.327%	1921.000	493.500	486.800	1830.000	1850.000	99.617%	100.632%
2	12:32:53	92.044%	1912.000	496.800	493.300	1840.000	1853.000	103.078%	103.899%
3	12:33:12	92.549%	1913.000	495.600	493.100	1834.000	1857.000	104.780%	106.166%
x		91.640%	1915.000	495.300	491.100	1834.000	1854.000	102.492%	103.566%
σ		1.165%	4.683	1.673	3.664	5.218	3.474	2.631%	2.782%
%RSD		1.271	0.245	0.338	0.746	0.285	0.187	2.567	2.686
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:32:34	52.510	52.950	21.580	21.440	21.710	86.493%		
2	12:32:53	53.130	54.040	22.070	21.980	22.160	89.174%		
3	12:33:12	53.310	54.290	22.230	22.270	22.310	90.627%		
x		52.990	53.760	21.960	21.900	22.060	88.765%		
σ		0.419	0.712	0.341	0.422	0.312	2.097%		
%RSD		0.790	1.324	1.554	1.929	1.415	2.363		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:36:22	96.209%	45.050	985.200	1008.000	0.000	90250.000	58040.000	59150.000
2	12:36:41	90.326%	44.890	1031.000	979.800	0.000	92980.000	61770.000	62170.000
3	12:37:01	91.387%	40.830	935.700	901.100	0.000	86850.000	57830.000	59550.000
x		92.641%	43.590	984.100	962.900	0.000	90030.000	59210.000	60290.000
σ		3.136%	2.390	47.820	55.340	0.000	3072.000	2217.000	1638.000
%RSD		3.385	5.483	4.859	5.747	0.000	3.412	3.745	2.717

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:36:22	1674.000	13520.000	0.000	51270.000	146700.000	144800.000	78.296%	1011.000
2	12:36:41	1808.000	14440.000	0.000	50720.000	144200.000	145400.000	80.754%	981.900
3	12:37:01	1678.000	13560.000	0.000	50150.000	144700.000	143000.000	80.357%	990.900
x		1720.000	13840.000	0.000	50720.000	145200.000	144400.000	79.802%	994.700
σ		76.410	523.900	0.000	557.500	1325.000	1239.000	1.319%	15.070
%RSD		4.443	3.785	0.000	1.099	0.913	0.858	1.653	1.515

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:36:22	519.600	204.000	544.300	1059.000	2016.000	519.300	514.700	252.800
2	12:36:41	511.600	199.200	515.500	1022.000	1832.000	487.100	488.400	241.300
3	12:37:01	521.400	202.700	522.500	1020.000	1883.000	495.100	492.400	241.700
x		517.500	201.900	527.400	1034.000	1911.000	500.500	498.500	245.300
σ		5.206	2.494	15.040	21.860	94.820	16.800	14.180	6.521
%RSD		1.006	1.235	2.851	2.115	4.963	3.356	2.845	2.659

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:36:22	255.000	478.900	477.600	37.770	10.360	10.610	0.000	1130.000
2	12:36:41	241.000	465.100	465.800	37.930	9.626	10.370	0.000	1110.000
3	12:37:01	241.700	461.100	462.400	37.220	9.689	11.010	0.000	1102.000
x		245.900	468.400	468.600	37.640	9.892	10.660	0.000	1114.000
σ		7.870	9.332	7.968	0.371	0.407	0.321	0.000	14.080
%RSD		3.201	1.993	1.700	0.985	4.116	3.013	0.000	1.264

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:36:22	89.919%	1054.000	1067.000	84.510%	47.800	47.490	47.990	41.310
2	12:36:41	91.342%	1037.000	1053.000	85.728%	47.020	47.590	47.850	42.110
3	12:37:01	91.596%	1033.000	1055.000	85.489%	47.030	47.230	47.700	40.980
x		90.952%	1041.000	1059.000	85.242%	47.290	47.440	47.850	41.470
σ		0.904%	11.360	7.802	0.646%	0.446	0.186	0.146	0.581
%RSD		0.993	1.091	0.737	0.757	0.943	0.392	0.305	1.402

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:36:22	87.789%	1953.000	505.500	499.000	1859.000	1886.000	98.956%	99.753%
2	12:36:41	90.583%	1913.000	491.700	490.500	1837.000	1851.000	101.461%	102.293%
3	12:37:01	90.372%	1914.000	490.000	489.200	1828.000	1848.000	101.734%	102.752%
x		89.581%	1927.000	495.800	492.900	1841.000	1862.000	100.717%	101.599%
σ		1.556%	23.000	8.513	5.369	15.960	20.820	1.531%	1.615%
%RSD		1.737	1.194	1.717	1.089	0.867	1.118	1.520	1.590

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:36:22	54.090	54.460	21.920	21.860	22.270	84.072%
2	12:36:41	54.470	54.380	21.960	22.410	22.520	85.569%
3	12:37:01	53.400	53.960	22.100	22.410	22.300	86.688%
x		53.990	54.270	21.990	22.230	22.360	85.443%
σ		0.540	0.268	0.093	0.316	0.139	1.313%
%RSD		1.000	0.495	0.424	1.423	0.622	1.536

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:40:11	102.176%	42.900	995.500	935.700	0.000	86350.000	58280.000	57160.000
2	12:40:31	97.368%	39.900	951.400	950.600	0.000	84580.000	57120.000	56920.000
3	12:40:51	99.405%	41.980	940.600	951.100	0.000	85270.000	56360.000	56950.000
x		99.649%	41.600	962.500	945.800	0.000	85400.000	57260.000	57010.000
σ		2.413%	1.538	29.080	8.764	0.000	890.800	966.800	129.200
%RSD		2.422	3.698	3.022	0.927	0.000	1.043	1.689	0.227
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:40:11	1642.000	13330.000	0.000	49400.000	137900.000	139100.000	79.906%	1018.000
2	12:40:31	1626.000	13380.000	0.000	49170.000	137000.000	136800.000	78.229%	1018.000
3	12:40:51	1673.000	13250.000	0.000	49540.000	136900.000	136600.000	79.274%	983.400
x		1647.000	13320.000	0.000	49370.000	137200.000	137500.000	79.136%	1006.000
σ		23.900	66.550	0.000	187.700	536.400	1376.000	0.847%	19.780
%RSD		1.451	0.500	0.000	0.380	0.391	1.001	1.070	1.965
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:40:11	514.100	203.500	539.100	1050.000	1964.000	528.700	520.300	254.500
2	12:40:31	519.900	203.400	545.200	1067.000	1961.000	523.100	520.000	256.100
3	12:40:51	503.800	205.400	529.100	1026.000	1886.000	514.800	507.100	245.600
x		512.600	204.100	537.800	1048.000	1937.000	522.200	515.800	252.100
σ		8.115	1.131	8.098	20.680	44.080	7.027	7.524	5.655
%RSD		1.583	0.554	1.506	1.974	2.275	1.346	1.459	2.243
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:40:11	253.800	479.700	477.700	38.520	10.130	10.440	0.000	1135.000
2	12:40:31	250.400	489.800	480.000	40.590	9.498	10.020	0.000	1128.000
3	12:40:51	253.100	481.400	486.000	38.420	9.461	10.590	0.000	1116.000
x		252.400	483.600	481.200	39.180	9.697	10.350	0.000	1127.000
σ		1.818	5.409	4.274	1.226	0.378	0.298	0.000	9.617
%RSD		0.720	1.118	0.888	3.130	3.894	2.877	0.000	0.854
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:40:11	88.937%	1057.000	1082.000	83.313%	43.930	43.630	48.700	40.950
2	12:40:31	89.530%	1066.000	1084.000	83.834%	43.800	43.140	47.700	40.790
3	12:40:51	91.124%	1061.000	1105.000	84.465%	43.550	43.370	48.650	42.440
x		89.864%	1061.000	1090.000	83.871%	43.760	43.380	48.350	41.390
σ		1.131%	4.066	12.810	0.577%	0.191	0.246	0.566	0.910
%RSD		1.259	0.383	1.175	0.688	0.437	0.566	1.171	2.197
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:40:11	86.145%	1988.000	499.000	497.000	1847.000	1867.000	96.234%	96.886%
2	12:40:31	87.711%	1974.000	499.300	495.400	1856.000	1881.000	99.826%	99.721%
3	12:40:51	88.226%	1971.000	503.000	502.600	1871.000	1876.000	101.320%	101.795%
x		87.361%	1977.000	500.400	498.300	1858.000	1874.000	99.127%	99.467%
σ		1.084%	8.895	2.192	3.804	12.210	6.886	2.614%	2.464%
%RSD		1.240	0.450	0.438	0.763	0.657	0.367	2.637	2.477
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:40:11	52.900	53.120	21.630	21.590	21.630	83.306%		
2	12:40:31	54.660	55.180	21.730	21.840	22.010	83.251%		
3	12:40:51	54.220	55.130	22.070	22.030	22.210	85.766%		
x		53.930	54.480	21.810	21.820	21.950	84.107%		
σ		0.916	1.175	0.228	0.222	0.294	1.436%		
%RSD		1.698	2.158	1.046	1.017	1.341	1.708		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:44:00	98.644%	-0.054	28.500	29.900	0.000	26770.000	12760.000	12810.000
2	12:44:19	94.937%	-0.032	32.840	30.340	0.000	26520.000	13090.000	13360.000
3	12:44:38	96.703%	-0.022	31.810	31.260	0.000	27090.000	13360.000	13660.000
x		96.761%	-0.036	31.050	30.500	0.000	26790.000	13070.000	13280.000
σ		1.854%	0.016	2.266	0.695	0.000	289.600	300.500	432.700
%RSD		1.917	44.680	7.299	2.279	0.000	1.081	2.299	3.259

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:44:00	3.864	4600.000	0.000	2888.000	83120.000	84680.000	90.457%	1.057
2	12:44:19	3.728	4618.000	0.000	2995.000	89190.000	87660.000	88.159%	1.089
3	12:44:38	3.974	4644.000	0.000	3102.000	92410.000	92150.000	82.027%	0.909
x		3.855	4621.000	0.000	2995.000	88240.000	88160.000	86.881%	1.018
σ		0.123	21.760	0.000	107.200	4718.000	3760.000	4.358%	0.097
%RSD		3.197	0.471	0.000	3.578	5.347	4.265	5.016	9.482

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:44:00	1.462	2.557	5.783	12.420	600.100	0.272	0.816	0.696
2	12:44:19	1.369	2.468	5.695	10.250	571.400	0.280	0.482	0.734
3	12:44:38	1.357	2.652	5.823	13.330	575.600	0.258	0.551	0.805
x		1.396	2.559	5.767	12.000	582.400	0.270	0.616	0.745
σ		0.057	0.092	0.065	1.581	15.500	0.011	0.176	0.055
%RSD		4.112	3.602	1.133	13.170	2.662	4.213	28.590	7.381

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:44:00	0.883	3.704	3.577	-1.124	-0.290	0.715	0.000	185.600
2	12:44:19	0.801	3.689	3.698	-0.623	-0.263	0.582	0.000	185.100
3	12:44:38	0.725	4.118	4.097	-0.439	-0.175	0.636	0.000	185.100
x		0.803	3.837	3.791	-0.729	-0.243	0.644	0.000	185.300
σ		0.079	0.244	0.272	0.355	0.060	0.066	0.000	0.291
%RSD		9.867	6.350	7.179	48.670	24.820	10.300	0.000	0.157

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:44:00	89.646%	8.881	9.003	86.717%	-0.043	-0.035	-0.069	-0.053
2	12:44:19	90.554%	10.020	9.603	87.810%	-0.047	-0.040	-0.017	0.017
3	12:44:38	91.322%	9.105	9.418	88.500%	-0.041	-0.039	-0.102	-0.063
x		90.507%	9.336	9.341	87.676%	-0.044	-0.038	-0.063	-0.033
σ		0.839%	0.605	0.308	0.899%	0.003	0.003	0.043	0.044
%RSD		0.927	6.478	3.292	1.025	6.443	7.050	68.600	130.600

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:44:00	90.078%	1.570	4.843	4.815	25.130	25.390	98.101%	98.558%
2	12:44:19	92.133%	1.599	4.331	4.592	25.210	24.250	98.802%	101.109%
3	12:44:38	93.206%	1.328	3.678	3.756	24.760	24.390	101.831%	102.404%
x		91.806%	1.499	4.284	4.388	25.030	24.680	99.578%	100.690%
σ		1.589%	0.149	0.584	0.558	0.238	0.622	1.982%	1.957%
%RSD		1.731	9.926	13.630	12.720	0.952	2.521	1.990	1.944

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:44:00	0.068	0.077	0.058	0.047	0.061	90.467%
2	12:44:19	0.079	0.079	0.059	0.070	0.072	90.799%
3	12:44:38	0.069	0.083	0.073	0.061	0.066	92.017%
x		0.072	0.080	0.063	0.059	0.066	91.094%
σ		0.006	0.003	0.008	0.012	0.005	0.817%
%RSD		7.817	3.797	13.300	19.430	8.237	0.896

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:47:46	102.205%	-0.025	43.840	43.800	0.000	48530.000	16290.000	16490.000
2	12:48:05	93.902%	-0.032	47.830	42.730	0.000	50160.000	17360.000	16850.000
3	12:48:24	89.620%	0.004	44.990	46.260	0.000	51310.000	18040.000	17500.000
x		95.243%	-0.018	45.560	44.260	0.000	50000.000	17230.000	16950.000
σ		6.398%	0.019	2.055	1.808	0.000	1397.000	882.300	514.100
%RSD		6.718	106.900	4.511	4.085	0.000	2.795	5.120	3.034
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:47:46	0.835	4004.000	0.000	4133.000	87910.000	87590.000	86.085%	0.537
2	12:48:05	0.879	4092.000	0.000	4160.000	89800.000	88800.000	83.726%	0.543
3	12:48:24	0.960	4462.000	0.000	4395.000	94180.000	93390.000	79.273%	0.752
x		0.891	4186.000	0.000	4229.000	90630.000	89930.000	83.028%	0.611
σ		0.064	243.400	0.000	143.900	3218.000	3058.000	3.459%	0.122
%RSD		7.157	5.815	0.000	3.403	3.550	3.400	4.166	20.010
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:47:46	-0.801	5.554	2.314	15.000	621.300	0.226	0.751	0.457
2	12:48:05	-0.353	5.841	2.362	20.090	628.800	0.264	0.699	0.491
3	12:48:24	0.913	5.997	2.411	18.120	577.300	0.208	0.521	0.509
x		-0.081	5.797	2.362	17.730	609.100	0.233	0.657	0.486
σ		0.889	0.224	0.049	2.566	27.840	0.029	0.121	0.027
%RSD		1103.000	3.869	2.057	14.470	4.570	12.270	18.340	5.453
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:47:46	0.327	6.626	6.634	-0.185	0.090	0.791	0.000	197.600
2	12:48:05	0.404	6.638	5.923	0.190	0.091	0.813	0.000	197.200
3	12:48:24	0.381	6.468	6.539	0.168	-0.087	0.850	0.000	196.800
x		0.371	6.578	6.365	0.057	0.031	0.818	0.000	197.200
σ		0.040	0.095	0.386	0.210	0.103	0.030	0.000	0.417
%RSD		10.680	1.442	6.064	366.900	327.700	3.663	0.000	0.212
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:47:46	89.500%	5.324	5.059	86.646%	-0.048	-0.046	0.043	0.050
2	12:48:05	90.791%	5.470	5.625	86.950%	-0.044	-0.040	0.014	0.008
3	12:48:24	91.401%	5.589	5.807	87.119%	-0.052	-0.046	-0.063	-0.054
x		90.564%	5.461	5.497	86.905%	-0.048	-0.044	-0.002	0.001
σ		0.971%	0.133	0.390	0.240%	0.004	0.003	0.055	0.053
%RSD		1.072	2.435	7.089	0.276	8.400	7.825	2701.000	3629.000
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:47:46	89.740%	0.092	0.550	0.690	43.340	43.120	97.308%	98.437%
2	12:48:05	91.832%	0.172	0.683	0.685	42.600	43.760	101.753%	102.918%
3	12:48:24	92.037%	0.170	0.547	0.579	43.720	43.530	103.145%	104.674%
x		91.203%	0.145	0.593	0.651	43.220	43.470	100.735%	102.010%
σ		1.271%	0.045	0.078	0.063	0.569	0.324	3.049%	3.216%
%RSD		1.394	31.340	13.100	9.609	1.316	0.745	3.027	3.152
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:47:46	0.025	0.028	0.027	0.021	0.027	89.816%		
2	12:48:05	0.025	0.041	0.031	0.030	0.035	91.717%		
3	12:48:24	0.030	0.036	0.039	0.027	0.030	93.507%		
x		0.027	0.035	0.032	0.026	0.030	91.680%		
σ		0.003	0.006	0.006	0.005	0.004	1.846%		
%RSD		11.770	18.650	17.870	17.790	13.780	2.013		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:51:32	96.365%	-0.017	45.840	42.790	0.000	51350.000	16690.000	16670.000
2	12:51:52	93.380%	-0.037	48.710	50.790	0.000	56660.000	18370.000	18230.000
3	12:52:11	91.656%	-0.053	44.640	44.970	0.000	51440.000	17010.000	17410.000
x		93.800%	-0.036	46.400	46.190	0.000	53150.000	17360.000	17430.000
σ		2.383%	0.018	2.092	4.135	0.000	3038.000	894.700	781.800
%RSD		2.540	49.730	4.508	8.954	0.000	5.716	5.155	4.485
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:51:32	1.921	4137.000	0.000	4449.000	89990.000	90250.000	86.680%	0.380
2	12:51:52	2.110	4465.000	0.000	4813.000	97640.000	98300.000	79.748%	0.702
3	12:52:11	1.759	4037.000	0.000	4548.000	92890.000	91030.000	85.385%	0.711
x		1.930	4213.000	0.000	4603.000	93510.000	93190.000	83.937%	0.598
σ		0.176	224.200	0.000	188.100	3861.000	4444.000	3.686%	0.189
%RSD		9.107	5.322	0.000	4.087	4.129	4.768	4.391	31.550
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:51:32	1.879	5.616	22.280	10.820	587.300	0.580	0.865	0.545
2	12:51:52	1.797	5.901	23.700	13.430	581.700	0.568	0.962	0.520
3	12:52:11	0.967	5.740	22.510	10.670	588.900	0.517	0.724	0.571
x		1.547	5.752	22.830	11.640	586.000	0.555	0.851	0.545
σ		0.505	0.143	0.762	1.553	3.819	0.033	0.120	0.025
%RSD		32.620	2.489	3.336	13.340	0.652	5.997	14.070	4.627
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:51:32	0.426	5.137	5.187	0.019	0.020	1.631	0.000	199.700
2	12:51:52	0.506	5.608	5.156	-0.110	-0.001	1.547	0.000	199.800
3	12:52:11	0.493	5.093	4.995	-0.991	0.099	1.514	0.000	198.400
x		0.475	5.280	5.113	-0.360	0.039	1.564	0.000	199.300
σ		0.043	0.286	0.103	0.550	0.053	0.060	0.000	0.807
%RSD		9.077	5.410	2.019	152.500	133.800	3.860	0.000	0.405
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:51:32	88.224%	5.359	5.744	85.360%	-0.050	-0.045	-0.085	-0.088
2	12:51:52	89.098%	5.644	5.813	87.288%	-0.050	-0.042	0.008	-0.016
3	12:52:11	90.278%	5.846	6.257	87.098%	-0.050	-0.046	-0.077	-0.058
x		89.200%	5.616	5.938	86.582%	-0.050	-0.044	-0.051	-0.054
σ		1.031%	0.245	0.278	1.063%	0.000	0.002	0.051	0.036
%RSD		1.156	4.353	4.686	1.228	0.250	4.102	100.200	66.970
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:51:32	89.593%	-0.036	0.155	0.166	41.790	42.540	99.502%	99.711%
2	12:51:52	91.784%	-0.030	0.117	0.233	42.730	43.570	100.653%	102.362%
3	12:52:11	92.450%	-0.018	0.182	0.227	42.550	42.360	103.186%	104.229%
x		91.276%	-0.028	0.151	0.208	42.360	42.820	101.114%	102.101%
σ		1.494%	0.009	0.032	0.037	0.499	0.654	1.885%	2.270%
%RSD		1.637	32.530	21.470	17.810	1.177	1.526	1.864	2.224
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:51:32	0.015	0.013	0.049	0.038	0.041	91.557%		
2	12:51:52	0.029	0.023	0.023	0.027	0.026	92.893%		
3	12:52:11	0.016	0.026	0.037	0.020	0.035	94.011%		
x		0.020	0.021	0.036	0.029	0.034	92.820%		
σ		0.008	0.007	0.013	0.009	0.007	1.229%		
%RSD		40.200	34.700	36.300	30.920	21.820	1.324		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:55:19	100.051%	-0.014	47.150	43.800	0.000	54200.000	16480.000	16570.000
2	12:55:38	98.405%	-0.049	45.620	45.640	0.000	52920.000	16440.000	16680.000
3	12:55:57	92.433%	-0.064	45.710	45.550	0.000	54890.000	17020.000	16860.000
x		96.963%	-0.042	46.160	45.000	0.000	54000.000	16650.000	16710.000
σ		4.008%	0.025	0.859	1.037	0.000	999.300	323.300	145.000
%RSD		4.134	60.400	1.862	2.305	0.000	1.850	1.942	0.868
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:55:19	3.862	3696.000	0.000	5160.000	91980.000	92250.000	83.251%	0.792
2	12:55:38	3.977	3681.000	0.000	5055.000	87640.000	86120.000	86.985%	0.335
3	12:55:57	3.791	3848.000	0.000	4915.000	83880.000	86610.000	88.958%	0.673
x		3.877	3742.000	0.000	5043.000	87830.000	88320.000	86.398%	0.600
σ		0.094	92.350	0.000	122.800	4049.000	3404.000	2.898%	0.237
%RSD		2.426	2.468	0.000	2.435	4.610	3.854	3.354	39.470
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:55:19	2.371	6.936	0.639	39.500	678.000	0.249	0.847	0.784
2	12:55:38	1.846	6.736	0.634	28.420	575.400	0.220	0.768	0.635
3	12:55:57	1.784	6.607	0.683	26.380	557.100	0.226	0.353	0.711
x		2.000	6.760	0.652	31.430	603.500	0.232	0.656	0.710
σ		0.323	0.166	0.027	7.059	65.160	0.015	0.265	0.075
%RSD		16.120	2.453	4.114	22.460	10.800	6.614	40.430	10.530
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:55:19	0.637	4.277	3.810	-0.317	-0.437	0.978	0.000	188.400
2	12:55:38	0.517	4.518	4.576	0.431	-0.030	1.052	0.000	189.700
3	12:55:57	0.515	4.262	4.142	0.386	-0.329	0.945	0.000	189.700
x		0.556	4.352	4.176	0.167	-0.266	0.992	0.000	189.300
σ		0.070	0.144	0.384	0.420	0.211	0.055	0.000	0.753
%RSD		12.580	3.300	9.200	251.700	79.450	5.511	0.000	0.398
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:55:19	90.412%	10.350	10.850	87.545%	-0.042	-0.034	-0.056	-0.033
2	12:55:38	92.082%	10.970	11.090	89.421%	-0.047	-0.049	0.080	0.041
3	12:55:57	91.511%	10.860	11.500	88.084%	-0.042	-0.044	0.002	-0.017
x		91.335%	10.720	11.150	88.350%	-0.044	-0.042	0.009	-0.003
σ		0.849%	0.329	0.328	0.966%	0.003	0.007	0.069	0.039
%RSD		0.929	3.069	2.946	1.093	6.300	17.710	781.300	1402.000
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:55:19	90.223%	-0.178	-0.036	-0.045	37.820	38.040	97.537%	99.178%
2	12:55:38	93.417%	-0.089	-0.023	-0.018	38.090	38.260	101.257%	102.661%
3	12:55:57	93.919%	-0.085	-0.040	-0.019	38.700	38.240	102.600%	103.766%
x		92.519%	-0.117	-0.033	-0.027	38.200	38.180	100.465%	101.868%
σ		2.005%	0.053	0.009	0.015	0.450	0.123	2.623%	2.394%
%RSD		2.167	44.980	26.210	56.520	1.177	0.322	2.610	2.351
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	12:55:19	0.018	0.038	0.026	0.033	0.033	88.811%		
2	12:55:38	0.028	0.044	0.031	0.025	0.030	91.890%		
3	12:55:57	0.044	0.031	0.043	0.023	0.036	93.095%		
x		0.030	0.038	0.034	0.027	0.033	91.265%		
σ		0.013	0.006	0.009	0.006	0.003	2.210%		
%RSD		44.570	17.170	26.410	20.870	9.568	2.421		

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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	12:59:06	106.563%	-0.036	45.140	44.560	0.000	60970.000	19400.000	18810.000
2	12:59:25	95.122%	-0.022	45.930	46.500	0.000	61280.000	19980.000	20860.000
3	12:59:44	95.020%	-0.053	45.860	47.850	0.000	64320.000	20700.000	20350.000
x		98.902%	-0.037	45.640	46.300	0.000	62190.000	20030.000	20010.000
σ		6.635%	0.016	0.437	1.651	0.000	1850.000	652.800	1069.000
%RSD		6.709	42.610	0.956	3.566	0.000	2.975	3.259	5.343

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:59:06	58.980	2808.000	0.000	13320.000	73190.000	73210.000	86.772%	1.511
2	12:59:25	66.280	3018.000	0.000	14520.000	81050.000	79770.000	81.830%	1.204
3	12:59:44	64.320	3044.000	0.000	14550.000	80380.000	80990.000	81.482%	1.678
x		63.190	2957.000	0.000	14130.000	78210.000	77990.000	83.362%	1.465
σ		3.777	129.600	0.000	700.700	4359.000	4184.000	2.959%	0.241
%RSD		5.977	4.382	0.000	4.959	5.573	5.365	3.549	16.420

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:59:06	-2.353	4.199	11.980	119.500	629.200	0.306	1.485	1.110
2	12:59:25	0.050	4.759	12.870	125.000	637.800	0.285	1.388	1.099
3	12:59:44	0.640	4.569	12.580	125.200	611.500	0.294	1.283	1.185
x		-0.554	4.509	12.480	123.300	626.200	0.295	1.385	1.131
σ		1.585	0.285	0.454	3.214	13.450	0.011	0.101	0.047
%RSD		286.000	6.316	3.637	2.608	2.148	3.578	7.280	4.147

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:59:06	0.955	150.900	150.600	0.929	-0.449	0.905	0.000	153.900
2	12:59:25	0.979	153.300	152.800	-0.775	-0.031	0.740	0.000	153.800
3	12:59:44	0.982	155.400	154.900	-0.587	-0.229	0.582	0.000	153.600
x		0.972	153.200	152.700	-0.145	-0.236	0.742	0.000	153.800
σ		0.015	2.279	2.162	0.935	0.209	0.162	0.000	0.171
%RSD		1.525	1.487	1.415	646.800	88.410	21.790	0.000	0.111

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:59:06	89.215%	0.914	0.996	85.596%	-0.044	-0.042	-0.023	0.012
2	12:59:25	89.366%	1.227	1.234	85.352%	-0.046	-0.042	-0.060	-0.043
3	12:59:44	90.639%	1.098	1.212	86.625%	-0.042	-0.036	-0.064	-0.024
x		89.740%	1.080	1.147	85.858%	-0.044	-0.040	-0.049	-0.019
σ		0.782%	0.157	0.132	0.676%	0.002	0.003	0.022	0.028
%RSD		0.871	14.550	11.480	0.787	5.026	8.334	45.570	151.300

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	12:59:06	88.131%	-0.112	0.164	0.105	46.620	46.410	96.875%	97.601%
2	12:59:25	90.585%	-0.015	0.143	0.204	45.960	45.560	98.511%	98.766%
3	12:59:44	91.655%	0.009	0.163	0.172	46.450	45.710	101.210%	102.618%
x		90.124%	-0.039	0.157	0.160	46.340	45.890	98.865%	99.662%
σ		1.807%	0.064	0.012	0.051	0.341	0.451	2.189%	2.626%
%RSD		2.005	163.400	7.507	31.480	0.737	0.982	2.214	2.635

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	12:59:06	0.017	0.019	0.302	0.225	0.276	86.366%
2	12:59:25	0.020	0.023	0.307	0.269	0.285	88.297%
3	12:59:44	0.013	0.019	0.291	0.282	0.284	90.789%
x		0.017	0.020	0.300	0.259	0.281	88.484%
σ		0.003	0.002	0.008	0.030	0.005	2.217%
%RSD		19.740	10.730	2.640	11.670	1.752	2.506

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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	13:02:53	97.264%	-0.022	55.830	49.840	0.000	61060.000	19420.000	18780.000
2	13:03:12	92.515%	-0.026	49.130	50.990	0.000	56330.000	17890.000	18340.000
3	13:03:32	90.690%	-0.008	51.160	52.530	0.000	57550.000	17910.000	18270.000
x		93.490%	-0.019	52.040	51.120	0.000	58310.000	18410.000	18460.000
σ		3.394%	0.009	3.436	1.348	0.000	2455.000	876.800	277.200
%RSD		3.630	49.250	6.602	2.638	0.000	4.210	4.764	1.501

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:02:53	126.800	3844.000	0.000	6387.000	94200.000	92490.000	76.720%	3.177
2	13:03:12	125.000	3759.000	0.000	5997.000	85980.000	86330.000	86.410%	2.569
3	13:03:32	123.200	3709.000	0.000	5915.000	89970.000	86920.000	83.027%	3.011
x		125.000	3771.000	0.000	6100.000	90050.000	88580.000	82.052%	2.919
σ		1.789	68.010	0.000	252.100	4110.000	3401.000	4.918%	0.314
%RSD		1.431	1.804	0.000	4.133	4.564	3.839	5.994	10.760

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:02:53	1.113	5.528	20.650	413.100	1030.000	0.510	1.958	1.182
2	13:03:12	0.563	4.963	18.290	373.500	889.300	0.441	1.682	0.989
3	13:03:32	1.054	5.013	19.300	353.700	882.000	0.485	1.492	1.048
x		0.910	5.168	19.410	380.100	933.600	0.478	1.710	1.073
σ		0.302	0.313	1.181	30.240	83.190	0.035	0.234	0.099
%RSD		33.220	6.053	6.086	7.956	8.910	7.278	13.700	9.203

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:02:53	0.988	7.700	8.012	0.217	-0.044	1.093	0.000	191.000
2	13:03:12	0.793	6.980	7.504	-0.154	-0.534	0.624	0.000	186.700
3	13:03:32	0.883	7.196	7.507	0.716	-0.605	0.848	0.000	186.600
x		0.888	7.292	7.674	0.260	-0.395	0.855	0.000	188.100
σ		0.098	0.369	0.292	0.437	0.306	0.235	0.000	2.474
%RSD		11.000	5.065	3.811	168.300	77.450	27.440	0.000	1.315

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:02:53	89.708%	3.907	3.835	86.570%	-0.045	-0.042	0.036	0.022
2	13:03:12	91.400%	3.784	3.729	87.639%	-0.041	-0.041	0.012	0.023
3	13:03:32	90.695%	3.518	3.925	86.481%	-0.044	-0.047	0.001	-0.008
x		90.601%	3.736	3.830	86.897%	-0.044	-0.044	0.016	0.012
σ		0.850%	0.199	0.098	0.645%	0.002	0.003	0.018	0.018
%RSD		0.938	5.322	2.563	0.742	5.066	7.235	110.800	142.600

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:02:53	89.581%	-0.246	-0.116	-0.075	51.550	51.240	97.865%	99.879%
2	13:03:12	93.637%	-0.265	-0.113	-0.039	50.020	50.430	102.453%	104.532%
3	13:03:32	92.805%	-0.250	-0.080	-0.033	50.160	50.520	102.425%	104.263%
x		92.008%	-0.253	-0.103	-0.049	50.580	50.730	100.915%	102.891%
σ		2.142%	0.010	0.020	0.022	0.847	0.445	2.641%	2.612%
%RSD		2.328	3.983	19.520	45.900	1.674	0.876	2.617	2.539

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:02:53	0.019	0.023	0.393	0.375	0.379	91.626%
2	13:03:12	0.011	0.018	0.373	0.322	0.354	92.009%
3	13:03:32	0.025	0.024	0.384	0.327	0.355	92.960%
x		0.018	0.022	0.383	0.342	0.363	92.198%
σ		0.007	0.003	0.010	0.029	0.014	0.687%
%RSD		37.930	13.890	2.713	8.589	3.912	0.745

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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	13:06:40	99.040%	-0.059	52.880	54.390	0.000	52770.000	17350.000	17160.000
2	13:06:59	99.088%	-0.018	51.030	50.020	0.000	54650.000	17970.000	17480.000
3	13:07:19	98.483%	-0.008	50.500	49.520	0.000	51840.000	16650.000	16500.000
x		98.870%	-0.029	51.470	51.310	0.000	53080.000	17320.000	17040.000
σ		0.336%	0.027	1.249	2.679	0.000	1430.000	657.000	499.600
%RSD		0.340	94.080	2.426	5.222	0.000	2.694	3.792	2.931

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:06:40	19.700	4033.000	0.000	5482.000	83820.000	83760.000	81.406%	0.992
2	13:06:59	19.020	4063.000	0.000	5560.000	84990.000	83860.000	80.904%	0.939
3	13:07:19	17.660	3786.000	0.000	5109.000	79530.000	79410.000	86.812%	0.806
x		18.790	3961.000	0.000	5383.000	82780.000	82340.000	83.041%	0.912
σ		1.037	151.900	0.000	241.100	2875.000	2539.000	3.276%	0.096
%RSD		5.519	3.835	0.000	4.478	3.473	3.084	3.945	10.510

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:06:40	-0.657	2.608	28.230	88.200	647.400	0.383	1.225	0.669
2	13:06:59	0.813	2.603	28.760	87.070	595.700	0.333	1.112	0.571
3	13:07:19	-1.147	2.410	26.690	73.550	591.700	0.318	1.081	0.620
x		-0.330	2.540	27.890	82.940	611.600	0.345	1.139	0.620
σ		1.020	0.113	1.076	8.150	31.090	0.034	0.076	0.049
%RSD		309.000	4.446	3.856	9.827	5.084	9.756	6.643	7.909

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:06:40	0.532	11.690	11.260	-0.557	-0.302	0.421	0.000	195.100
2	13:06:59	0.481	11.870	12.230	0.506	-0.611	0.692	0.000	192.800
3	13:07:19	0.560	11.360	11.240	0.272	-0.520	0.423	0.000	193.400
x		0.524	11.640	11.580	0.074	-0.478	0.512	0.000	193.800
σ		0.040	0.259	0.566	0.558	0.158	0.156	0.000	1.180
%RSD		7.686	2.227	4.887	759.500	33.160	30.540	0.000	0.609

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:06:40	89.084%	1.011	0.902	86.986%	-0.049	-0.043	0.018	0.016
2	13:06:59	90.863%	0.832	0.984	87.143%	-0.054	-0.045	-0.053	-0.036
3	13:07:19	91.056%	0.923	1.032	87.213%	-0.048	-0.041	-0.007	-0.009
x		90.334%	0.922	0.973	87.114%	-0.050	-0.043	-0.014	-0.009
σ		1.087%	0.090	0.066	0.116%	0.003	0.002	0.036	0.026
%RSD		1.204	9.730	6.738	0.133	6.113	4.227	255.000	279.200

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:06:40	88.612%	-0.153	-0.213	-0.191	34.740	34.060	96.565%	97.161%
2	13:06:59	91.326%	-0.200	-0.225	-0.187	33.940	34.230	99.725%	100.484%
3	13:07:19	91.184%	-0.127	-0.217	-0.229	34.270	33.960	100.270%	101.047%
x		90.374%	-0.160	-0.218	-0.202	34.320	34.080	98.854%	99.564%
σ		1.527%	0.037	0.006	0.023	0.400	0.135	2.000%	2.100%
%RSD		1.690	23.050	2.607	11.250	1.166	0.395	2.024	2.109

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:06:40	0.012	0.013	0.192	0.198	0.191	85.063%
2	13:06:59	0.015	0.018	0.206	0.178	0.195	87.007%
3	13:07:19	0.013	0.018	0.202	0.191	0.194	88.075%
x		0.013	0.016	0.200	0.189	0.193	86.715%
σ		0.002	0.003	0.007	0.010	0.002	1.527%
%RSD		12.920	19.610	3.611	5.507	1.060	1.761

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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	13:10:17	99.798%	95.770	102.700	98.550	0.000	45020.000	45330.000	44630.000
2	13:10:36	100.925%	88.880	99.710	96.390	0.000	44740.000	44050.000	43960.000
3	13:10:55	92.332%	93.610	103.200	102.800	0.000	46630.000	46280.000	47760.000
x		97.685%	92.752%	101.873%	99.237%	0.000	90.927%	90.436%	90.907%
σ		4.670%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		4.781	3.802	1.852	3.275	0.000	2.248	2.479	4.465

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:10:17	450.000	4638.000	0.000	46030.000	47840.000	47530.000	97.999%	93.470
2	13:10:36	431.200	4664.000	0.000	46470.000	47700.000	48210.000	97.231%	94.710
3	13:10:55	482.700	5057.000	0.000	47830.000	48990.000	47940.000	97.299%	96.740
x		90.931%	95.731%	0.000	93.551%	96.354%	95.789%	97.510%	94.973%
σ		n/a	n/a	0.000	n/a	n/a	n/a	0.425%	n/a
%RSD		5.733	4.907	0.000	2.008	1.474	0.713	0.436	1.741

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:10:17	91.970	95.090	475.900	24210.000	23700.000	95.560	98.380	96.760
2	13:10:36	90.910	95.860	473.000	23800.000	23810.000	98.690	98.680	98.940
3	13:10:55	94.380	96.150	470.100	23970.000	23880.000	94.970	95.710	96.330
x		92.421%	95.698%	94.597%	95.977%	95.187%	96.406%	97.592%	97.345%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.927	0.573	0.614	0.872	0.376	2.073	1.676	1.441

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:10:17	98.550	95.040	93.150	95.630	96.720	98.010	0.000	93.620
2	13:10:36	98.490	95.140	95.610	94.950	97.920	96.450	0.000	94.230
3	13:10:55	98.240	97.030	96.980	96.920	98.820	96.740	0.000	95.100
x		98.427%	95.735%	95.250%	95.834%	97.822%	97.066%	0.000	94.317%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		0.166	1.168	2.039	1.043	1.075	0.852	0.000	0.793

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:10:17	94.705%	98.270	98.820	90.799%	96.550	98.420	99.500	99.650
2	13:10:36	97.083%	98.760	99.770	91.495%	98.630	98.930	101.700	101.700
3	13:10:55	96.671%	100.500	100.300	92.051%	99.240	100.300	100.800	101.300
x		96.153%	99.163%	99.620%	91.448%	98.140%	99.223%	100.671%	100.906%
σ		1.271%	n/a	n/a	0.628%	n/a	n/a	n/a	n/a
%RSD		1.322	1.155	0.738	0.686	1.440	0.989	1.099	1.094

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:10:17	88.758%	98.870	93.460	92.710	94.370	95.000	96.893%	96.876%
2	13:10:36	90.661%	99.340	94.180	93.370	96.340	96.020	100.786%	100.938%
3	13:10:55	91.370%	99.990	94.390	94.360	96.690	97.420	101.522%	102.195%
x		90.263%	99.401%	94.008%	93.479%	95.798%	96.146%	99.734%	100.003%
σ		1.351%	n/a	n/a	n/a	n/a	n/a	2.487%	2.780%
%RSD		1.496	0.565	0.520	0.886	1.304	1.263	2.494	2.780

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:10:17	101.700	102.400	101.700	102.200	103.000	91.619%
2	13:10:36	106.600	106.900	107.700	105.900	107.600	91.225%
3	13:10:55	106.200	106.800	106.800	108.100	108.700	93.133%
x		104.850%	105.343%	105.397%	105.402%	106.441%	91.992%
σ		n/a	n/a	n/a	n/a	n/a	1.007%
%RSD		2.625	2.445	3.056	2.842	2.830	1.095

CCB4 6/2/2015 1:16:45 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:17:04	110.689%	-0.034	0.512	0.681	0.000	2.773	0.469	0.891
2	13:17:23	110.562%	-0.047	0.651	0.610	0.000	2.147	0.119	0.379
3	13:17:42	110.802%	-0.061	0.597	0.877	0.000	2.152	0.302	0.323
x		110.685%	-0.047	0.586	0.722	0.000	2.357	0.297	0.531
σ		0.120%	0.014	0.070	0.138	0.000	0.360	0.175	0.313
%RSD		0.109	28.560	11.950	19.120	0.000	15.270	58.970	59.010
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:17:04	-0.414	-147.200	0.000	8.171	3.423	3.086	101.907%	-0.127
2	13:17:23	-0.347	-145.700	0.000	7.362	1.110	3.154	101.895%	-0.174
3	13:17:42	-0.350	-145.600	0.000	8.053	-1.149	1.591	99.360%	-0.160
x		-0.370	-146.200	0.000	7.862	1.128	2.610	101.054%	-0.153
σ		0.038	0.896	0.000	0.437	2.286	0.884	1.467%	0.024
%RSD		10.240	0.613	0.000	5.563	202.600	33.850	1.452	15.770
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:17:04	0.019	-0.031	-0.015	2.667	4.532	-0.003	-0.039	-0.046
2	13:17:23	0.044	-0.055	-0.026	-1.146	4.740	-0.004	-0.060	-0.028
3	13:17:42	-0.020	0.003	-0.028	2.342	5.225	-0.002	-0.059	-0.048
x		0.014	-0.028	-0.023	1.288	4.832	-0.003	-0.053	-0.041
σ		0.032	0.029	0.007	2.114	0.355	0.001	0.012	0.011
%RSD		223.900	104.300	30.040	164.100	7.352	27.850	22.710	28.040
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:17:04	-0.064	0.061	0.021	0.011	-0.500	0.336	0.000	-0.002
2	13:17:23	-0.030	0.074	0.075	0.032	0.105	0.064	0.000	-0.001
3	13:17:42	-0.042	0.020	-0.069	-0.046	-0.248	0.217	0.000	-0.006
x		-0.045	0.052	0.009	-0.001	-0.214	0.206	0.000	-0.003
σ		0.017	0.029	0.073	0.040	0.303	0.136	0.000	0.003
%RSD		37.860	55.280	784.600	3610.000	141.700	66.250	0.000	91.230
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:17:04	101.496%	0.465	0.495	101.133%	-0.040	-0.034	-0.014	-0.014
2	13:17:23	102.496%	0.740	0.635	100.697%	-0.043	-0.038	0.040	0.027
3	13:17:42	102.919%	0.562	0.717	101.928%	-0.044	-0.031	-0.103	-0.070
x		102.304%	0.589	0.616	101.253%	-0.043	-0.035	-0.025	-0.019
σ		0.731%	0.140	0.112	0.624%	0.002	0.004	0.072	0.049
%RSD		0.714	23.720	18.230	0.616	5.071	10.400	283.300	253.300
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:17:04	100.760%	-0.439	0.344	0.297	0.039	0.005	100.907%	99.834%
2	13:17:23	101.129%	-0.431	0.390	0.431	-0.011	0.012	101.477%	101.781%
3	13:17:42	102.555%	-0.385	0.380	0.397	0.013	0.001	104.375%	103.494%
x		101.481%	-0.419	0.371	0.375	0.014	0.006	102.253%	101.703%
σ		0.948%	0.029	0.025	0.069	0.025	0.006	1.860%	1.831%
%RSD		0.934	7.038	6.615	18.530	179.500	95.270	1.819	1.800
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:17:04	0.019	0.010	-0.004	-0.011	-0.003	104.177%		
2	13:17:23	0.008	0.012	-0.010	0.004	-0.003	103.464%		
3	13:17:42	0.008	0.014	-0.010	-0.004	-0.003	104.006%		
x		0.012	0.012	-0.008	-0.004	-0.003	103.882%		
σ		0.006	0.002	0.003	0.007	0.000	0.372%		
%RSD		51.760	20.410	38.770	199.800	7.475	0.358		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:20:54	100.234%	-0.039	43.730	45.120	0.000	54770.000	17450.000	17670.000
2	13:21:14	101.999%	-0.025	44.840	46.700	0.000	57790.000	17950.000	18270.000
3	13:21:34	100.956%	0.010	44.180	42.680	0.000	56910.000	17630.000	17310.000
x		101.063%	-0.018	44.250	44.830	0.000	56490.000	17680.000	17750.000
σ		0.887%	0.026	0.556	2.026	0.000	1554.000	252.000	481.200
%RSD		0.878	140.500	1.257	4.519	0.000	2.751	1.426	2.711

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:20:54	41.890	3914.000	0.000	6276.000	88790.000	89240.000	90.730%	1.621
2	13:21:14	46.140	4083.000	0.000	6423.000	90040.000	88990.000	89.265%	1.126
3	13:21:34	44.060	3924.000	0.000	6238.000	89230.000	89890.000	86.518%	1.306
x		44.030	3974.000	0.000	6312.000	89360.000	89370.000	88.838%	1.351
σ		2.123	94.840	0.000	97.880	632.100	463.800	2.138%	0.251
%RSD		4.821	2.387	0.000	1.551	0.707	0.519	2.407	18.550

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:20:54	-1.040	15.280	9.044	215.900	821.000	0.379	1.021	0.783
2	13:21:14	-0.395	15.450	8.655	210.500	790.500	0.343	0.855	0.821
3	13:21:34	0.256	15.680	9.249	224.900	795.900	0.371	1.121	0.847
x		-0.393	15.470	8.983	217.100	802.500	0.364	0.999	0.817
σ		0.648	0.201	0.302	7.259	16.270	0.019	0.134	0.032
%RSD		164.900	1.299	3.362	3.343	2.027	5.253	13.420	3.945

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:20:54	0.709	7.012	7.663	0.310	-0.300	0.752	0.000	242.000
2	13:21:14	0.791	7.105	7.522	-0.009	-0.088	0.756	0.000	242.100
3	13:21:34	0.691	7.317	7.529	0.830	-0.035	0.796	0.000	247.000
x		0.730	7.145	7.571	0.377	-0.141	0.768	0.000	243.700
σ		0.053	0.156	0.079	0.423	0.141	0.024	0.000	2.867
%RSD		7.316	2.188	1.046	112.200	99.780	3.180	0.000	1.177

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:20:54	91.581%	0.998	1.104	88.614%	-0.031	-0.038	-0.059	-0.044
2	13:21:14	92.841%	1.296	1.406	89.021%	-0.033	-0.033	-0.018	-0.023
3	13:21:34	92.657%	1.467	1.440	88.833%	-0.035	-0.033	-0.069	-0.051
x		92.360%	1.254	1.317	88.823%	-0.033	-0.035	-0.049	-0.039
σ		0.681%	0.237	0.185	0.203%	0.002	0.003	0.027	0.014
%RSD		0.737	18.920	14.040	0.229	5.701	7.511	55.310	36.860

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:20:54	90.746%	-0.022	2.130	2.148	58.190	59.050	97.723%	98.010%
2	13:21:14	92.801%	-0.058	2.028	2.160	59.390	58.620	100.618%	101.437%
3	13:21:34	93.068%	-0.009	1.749	1.877	58.110	58.570	102.074%	103.589%
x		92.205%	-0.029	1.969	2.062	58.570	58.750	100.138%	101.012%
σ		1.271%	0.025	0.197	0.160	0.718	0.265	2.215%	2.814%
%RSD		1.378	86.720	10.020	7.763	1.226	0.452	2.212	2.785

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:20:54	0.048	0.045	0.159	0.174	0.168	87.838%
2	13:21:14	0.042	0.051	0.215	0.163	0.183	87.467%
3	13:21:34	0.040	0.046	0.191	0.198	0.189	89.869%
x		0.043	0.047	0.188	0.178	0.180	88.391%
σ		0.004	0.003	0.028	0.018	0.011	1.293%
%RSD		10.160	7.241	14.800	10.090	6.126	1.463

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:24:44	101.793%	-0.050	30.270	31.060	0.000	15980.000	5184.000	5260.000
2	13:25:03	106.975%	-0.046	30.210	30.680	0.000	15400.000	5206.000	5011.000
3	13:25:22	101.466%	-0.030	29.050	29.940	0.000	15710.000	5208.000	5272.000
x		103.411%	-0.042	29.840	30.560	0.000	15690.000	5199.000	5181.000
σ		3.090%	0.011	0.689	0.572	0.000	291.700	13.240	147.400
%RSD		2.988	25.400	2.309	1.873	0.000	1.859	0.255	2.845

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:24:44	43.130	1683.000	0.000	6934.000	54550.000	53890.000	92.912%	0.907
2	13:25:03	40.260	1578.000	0.000	6936.000	54350.000	53960.000	88.741%	0.863
3	13:25:22	43.520	1701.000	0.000	7122.000	56750.000	57510.000	86.381%	0.865
x		42.300	1654.000	0.000	6997.000	55220.000	55120.000	89.345%	0.878
σ		1.779	66.200	0.000	108.000	1330.000	2071.000	3.308%	0.025
%RSD		4.206	4.002	0.000	1.543	2.408	3.756	3.702	2.806

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:24:44	1.377	22.920	348.600	121.100	498.800	1.109	1.921	1.199
2	13:25:03	-0.549	23.230	353.900	124.800	501.700	1.100	2.083	1.368
3	13:25:22	-1.272	23.830	360.200	125.400	491.700	1.140	1.898	1.263
x		-0.148	23.330	354.300	123.700	497.400	1.116	1.968	1.277
σ		1.369	0.465	5.824	2.335	5.119	0.021	0.101	0.085
%RSD		925.700	1.993	1.644	1.887	1.029	1.872	5.132	6.684

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:24:44	1.293	3.920	4.245	0.119	-0.728	0.483	0.000	136.300
2	13:25:03	1.452	4.116	4.444	0.246	-0.260	0.650	0.000	137.200
3	13:25:22	1.290	4.240	4.325	-0.035	-0.208	0.525	0.000	136.900
x		1.345	4.092	4.338	0.110	-0.399	0.553	0.000	136.800
σ		0.093	0.161	0.100	0.141	0.286	0.087	0.000	0.461
%RSD		6.880	3.943	2.303	128.100	71.770	15.800	0.000	0.337

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:24:44	91.690%	2.945	2.798	90.586%	-0.040	-0.038	-0.053	-0.045
2	13:25:03	94.079%	3.088	3.049	91.165%	-0.038	-0.032	-0.031	-0.009
3	13:25:22	93.430%	3.160	3.108	90.109%	-0.034	-0.036	-0.013	-0.015
x		93.066%	3.064	2.985	90.620%	-0.038	-0.036	-0.032	-0.023
σ		1.235%	0.110	0.165	0.529%	0.003	0.003	0.020	0.019
%RSD		1.327	3.574	5.520	0.583	8.965	8.089	62.340	83.660

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:24:44	94.101%	-0.200	0.407	0.430	29.580	29.760	98.864%	98.961%
2	13:25:03	94.520%	-0.140	0.406	0.459	28.800	29.870	101.395%	101.987%
3	13:25:22	95.814%	-0.229	0.367	0.395	28.920	29.360	101.510%	102.874%
x		94.812%	-0.190	0.394	0.428	29.100	29.670	100.590%	101.274%
σ		0.893%	0.045	0.023	0.032	0.421	0.270	1.496%	2.052%
%RSD		0.942	23.810	5.771	7.482	1.448	0.911	1.487	2.026

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:24:44	0.021	0.024	0.355	0.307	0.343	88.636%
2	13:25:03	0.023	0.030	0.334	0.350	0.346	90.450%
3	13:25:22	0.031	0.026	0.392	0.319	0.360	91.088%
x		0.025	0.027	0.360	0.325	0.350	90.058%
σ		0.005	0.003	0.029	0.022	0.009	1.272%
%RSD		20.880	10.800	8.150	6.838	2.668	1.412

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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	13:31:29	111.666%	-0.039	0.196	0.289	0.000	1.409	-0.048	-0.165
2	13:31:49	113.632%	-0.048	0.074	0.369	0.000	0.898	-0.694	-0.267
3	13:32:08	109.518%	-0.033	0.496	0.305	0.000	0.974	-0.255	-0.380
x		111.606%	-0.040	0.255	0.321	0.000	1.094	-0.332	-0.271
σ		2.058%	0.007	0.217	0.042	0.000	0.276	0.330	0.107
%RSD		1.844	18.410	85.150	13.190	0.000	25.260	99.190	39.690

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:31:29	-0.028	-146.200	0.000	2.887	15.370	13.500	106.280%	-0.200
2	13:31:49	-0.072	-144.900	0.000	2.635	15.700	12.870	104.287%	-0.095
3	13:32:08	-0.085	-143.500	0.000	2.644	20.490	13.590	103.245%	-0.210
x		-0.061	-144.900	0.000	2.722	17.190	13.320	104.604%	-0.168
σ		0.030	1.330	0.000	0.143	2.866	0.394	1.542%	0.063
%RSD		48.620	0.918	0.000	5.263	16.670	2.961	1.474	37.750

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:31:29	0.011	-0.014	-0.015	-1.167	0.770	-0.003	-0.024	-0.005
2	13:31:49	-0.048	-0.032	-0.025	-2.388	-0.341	-0.003	-0.017	-0.004
3	13:32:08	0.011	-0.112	-0.023	-5.350	-0.295	-0.002	-0.030	-0.017
x		-0.008	-0.053	-0.021	-2.968	0.045	-0.003	-0.024	-0.009
σ		0.034	0.052	0.005	2.151	0.629	0.000	0.006	0.007
%RSD		410.100	98.560	24.680	72.470	1401.000	16.680	27.330	86.850

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:31:29	0.002	1.097	0.908	-0.149	-0.264	-0.084	0.000	0.002
2	13:31:49	0.014	0.952	0.848	-0.111	-0.393	-0.026	0.000	0.005
3	13:32:08	-0.022	1.044	0.946	-0.185	-0.441	-0.148	0.000	0.007
x		-0.002	1.031	0.900	-0.148	-0.366	-0.086	0.000	0.005
σ		0.018	0.073	0.049	0.037	0.091	0.061	0.000	0.002
%RSD		909.600	7.115	5.496	25.020	24.980	70.840	0.000	47.000

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:31:29	100.635%	-0.092	-0.094	100.760%	-0.054	-0.040	0.064	0.034
2	13:31:49	103.387%	-0.095	0.009	100.716%	-0.052	-0.041	-0.021	-0.011
3	13:32:08	103.030%	-0.062	0.027	101.786%	-0.049	-0.043	-0.011	-0.013
x		102.351%	-0.083	-0.020	101.087%	-0.052	-0.041	0.011	0.003
σ		1.496%	0.019	0.065	0.605%	0.002	0.001	0.047	0.027
%RSD		1.462	22.330	333.200	0.599	4.720	3.241	434.900	791.200

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:31:29	100.476%	-0.586	-0.447	-0.446	0.021	0.071	100.566%	99.804%
2	13:31:49	101.557%	-0.549	-0.459	-0.445	0.032	0.037	102.535%	103.222%
3	13:32:08	103.628%	-0.550	-0.466	-0.466	0.062	0.022	102.969%	103.933%
x		101.887%	-0.562	-0.458	-0.452	0.038	0.043	102.024%	102.320%
σ		1.601%	0.021	0.010	0.012	0.021	0.025	1.281%	2.207%
%RSD		1.572	3.812	2.086	2.603	55.710	57.240	1.255	2.157

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:31:29	-0.002	0.004	-0.007	-0.012	-0.008	104.545%
2	13:31:49	-0.001	0.001	-0.011	-0.005	-0.005	103.860%
3	13:32:08	-0.003	-0.001	-0.008	-0.008	-0.008	103.861%
x		-0.002	0.001	-0.009	-0.009	-0.007	104.089%
σ		0.001	0.003	0.002	0.004	0.002	0.395%
%RSD		45.770	195.200	22.810	43.030	26.490	0.379

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:35:18	100.825%	42.000	912.500	860.600	0.000	42040.000	42090.000	40400.000
2	13:35:38	94.735%	43.420	991.200	936.200	0.000	41690.000	43500.000	43620.000
3	13:35:57	95.034%	42.890	929.600	911.300	0.000	41580.000	40700.000	40390.000
x		96.865%	42.770	944.400	902.700	0.000	41770.000	42090.000	41470.000
σ		3.433%	0.716	41.390	38.530	0.000	239.100	1396.000	1862.000
%RSD		3.544	1.674	4.383	4.268	0.000	0.573	3.315	4.491
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:35:18	1560.000	8812.000	0.000	44190.000	45910.000	45700.000	84.126%	947.500
2	13:35:38	1704.000	9191.000	0.000	47580.000	50240.000	49940.000	78.522%	1022.000
3	13:35:57	1677.000	9014.000	0.000	43810.000	47160.000	46250.000	83.644%	935.400
x		1647.000	9006.000	0.000	45190.000	47770.000	47300.000	82.097%	968.300
σ		76.310	190.000	0.000	2073.000	2230.000	2305.000	3.106%	46.950
%RSD		4.633	2.109	0.000	4.587	4.668	4.874	3.783	4.849
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:35:18	493.200	189.700	484.300	979.900	1284.000	504.100	495.400	243.300
2	13:35:38	531.600	206.400	501.600	1034.000	1369.000	517.500	506.500	254.500
3	13:35:57	488.900	188.600	477.000	961.400	1230.000	500.500	492.700	239.400
x		504.600	194.900	487.700	991.800	1294.000	507.400	498.200	245.700
σ		23.510	9.988	12.660	37.850	70.510	8.992	7.325	7.855
%RSD		4.660	5.124	2.595	3.816	5.448	1.772	1.470	3.197
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:35:18	242.800	477.200	474.400	37.580	9.114	10.130	0.000	915.100
2	13:35:38	251.000	490.700	482.900	37.050	9.102	10.090	0.000	899.800
3	13:35:57	242.100	472.600	476.800	35.760	9.199	10.770	0.000	903.600
x		245.300	480.200	478.000	36.800	9.138	10.330	0.000	906.200
σ		4.927	9.402	4.346	0.935	0.053	0.382	0.000	7.955
%RSD		2.009	1.958	0.909	2.539	0.583	3.695	0.000	0.878
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:35:18	89.459%	993.000	1018.000	85.899%	46.840	46.280	46.820	39.780
2	13:35:38	91.014%	996.200	1007.000	86.182%	46.590	46.730	46.030	39.120
3	13:35:57	90.044%	1003.000	1028.000	85.188%	46.900	46.680	47.400	41.330
x		90.172%	997.400	1018.000	85.756%	46.780	46.560	46.750	40.080
σ		0.786%	5.205	10.490	0.512%	0.161	0.246	0.687	1.138
%RSD		0.871	0.522	1.031	0.597	0.345	0.529	1.470	2.839
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:35:18	87.542%	1898.000	484.600	481.900	1745.000	1752.000	95.869%	95.947%
2	13:35:38	89.394%	1889.000	485.300	484.000	1757.000	1768.000	97.936%	98.289%
3	13:35:57	90.137%	1874.000	485.600	484.200	1739.000	1753.000	100.288%	99.861%
x		89.024%	1887.000	485.200	483.400	1747.000	1758.000	98.031%	98.032%
σ		1.336%	12.220	0.539	1.260	9.065	9.129	2.211%	1.970%
%RSD		1.501	0.648	0.111	0.261	0.519	0.519	2.256	2.009
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:35:18	50.810	51.060	20.670	20.650	21.080	82.249%		
2	13:35:38	51.520	51.660	21.070	21.220	21.350	83.616%		
3	13:35:57	51.510	51.790	20.960	21.070	21.260	85.086%		
x		51.280	51.500	20.900	20.980	21.230	83.650%		
σ		0.408	0.393	0.207	0.297	0.139	1.419%		
%RSD		0.796	0.763	0.990	1.416	0.657	1.696		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:39:08	109.486%	-0.010	20.270	19.730	0.000	39700.000	8217.000	8319.000
2	13:39:27	103.835%	-0.031	19.050	18.580	0.000	39460.000	8159.000	8207.000
3	13:39:46	93.411%	-0.016	20.930	19.150	0.000	42200.000	8785.000	8695.000
x		102.244%	-0.019	20.090	19.160	0.000	40450.000	8387.000	8407.000
σ		8.154%	0.011	0.952	0.575	0.000	1520.000	346.200	255.800
%RSD		7.975	57.260	4.740	3.001	0.000	3.758	4.127	3.042

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:39:08	53.010	2643.000	0.000	3012.000	47240.000	46780.000	89.896%	1.425
2	13:39:27	51.670	2650.000	0.000	2991.000	48590.000	48690.000	88.471%	1.572
3	13:39:46	54.200	2759.000	0.000	3165.000	49380.000	48740.000	88.151%	1.429
x		52.960	2684.000	0.000	3056.000	48400.000	48070.000	88.839%	1.475
σ		1.265	65.390	0.000	94.810	1081.000	1116.000	0.929%	0.084
%RSD		2.388	2.436	0.000	3.103	2.233	2.322	1.045	5.694

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:39:08	-0.835	1.317	36.800	177.200	521.700	0.380	1.029	2.856
2	13:39:27	-0.526	1.285	37.990	183.200	502.500	0.367	0.891	2.937
3	13:39:46	2.278	1.268	37.440	182.400	493.200	0.348	0.788	2.862
x		0.306	1.290	37.410	180.900	505.800	0.365	0.903	2.885
σ		1.715	0.025	0.594	3.267	14.500	0.016	0.121	0.045
%RSD		561.000	1.926	1.588	1.806	2.867	4.402	13.440	1.563

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:39:08	2.647	6.579	6.240	0.106	-0.194	0.512	0.000	146.900
2	13:39:27	2.667	6.543	6.265	0.192	-0.127	0.527	0.000	147.600
3	13:39:46	2.824	5.923	6.373	-0.202	-0.306	0.228	0.000	147.300
x		2.713	6.348	6.293	0.032	-0.209	0.422	0.000	147.300
σ		0.097	0.368	0.071	0.207	0.090	0.169	0.000	0.335
%RSD		3.562	5.804	1.122	647.900	43.290	39.980	0.000	0.227

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:39:08	90.924%	7.093	6.948	89.151%	-0.041	-0.042	0.098	0.056
2	13:39:27	91.222%	7.790	7.552	88.020%	-0.039	-0.038	-0.008	-0.003
3	13:39:46	91.552%	6.982	7.317	89.190%	-0.045	-0.043	-0.044	-0.038
x		91.232%	7.289	7.272	88.787%	-0.042	-0.041	0.015	0.005
σ		0.314%	0.438	0.304	0.664%	0.003	0.003	0.074	0.048
%RSD		0.345	6.009	4.184	0.748	7.044	6.689	475.600	1020.000

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:39:08	89.568%	1.294	0.039	0.097	40.790	41.190	96.706%	96.985%
2	13:39:27	92.372%	1.130	0.094	0.033	39.660	41.200	98.195%	98.596%
3	13:39:46	92.105%	1.061	0.047	0.069	41.630	41.660	100.134%	100.284%
x		91.348%	1.162	0.060	0.066	40.690	41.350	98.345%	98.622%
σ		1.547%	0.120	0.030	0.032	0.992	0.266	1.719%	1.649%
%RSD		1.694	10.300	49.260	48.580	2.438	0.643	1.748	1.673

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:39:08	0.248	0.265	0.956	0.803	0.900	85.833%
2	13:39:27	0.189	0.199	0.956	0.869	0.893	87.813%
3	13:39:46	0.148	0.154	0.940	0.804	0.883	90.222%
x		0.195	0.206	0.950	0.825	0.892	87.956%
σ		0.050	0.056	0.009	0.038	0.008	2.198%
%RSD		25.770	27.090	0.981	4.576	0.933	2.499

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:42:56	111.816%	-0.052	4.375	4.554	0.000	8356.000	1690.000	1703.000
2	13:43:15	105.595%	-0.041	4.307	4.340	0.000	8543.000	1712.000	1690.000
3	13:43:34	104.506%	-0.050	4.357	4.426	0.000	8473.000	1704.000	1687.000
x		107.306%	-0.048	4.346	4.440	0.000	8457.000	1702.000	1693.000
σ		3.944%	0.006	0.035	0.108	0.000	94.400	10.870	8.426
%RSD		3.675	12.160	0.809	2.426	0.000	1.116	0.639	0.498

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:42:56	11.420	431.200	0.000	599.500	9279.000	8758.000	100.102%	0.200
2	13:43:15	10.700	439.800	0.000	620.300	9801.000	9026.000	95.184%	0.210
3	13:43:34	11.010	433.800	0.000	595.500	9762.000	9044.000	94.893%	0.224
x		11.040	434.900	0.000	605.100	9614.000	8943.000	96.727%	0.211
σ		0.363	4.396	0.000	13.310	290.400	160.100	2.927%	0.012
%RSD		3.282	1.011	0.000	2.200	3.021	1.790	3.026	5.599

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:42:56	-0.085	0.221	6.914	30.070	102.200	0.065	0.252	0.492
2	13:43:15	0.408	0.241	7.591	34.510	100.800	0.062	0.137	0.554
3	13:43:34	0.341	0.291	7.475	31.340	103.100	0.068	0.130	0.574
x		0.221	0.251	7.327	31.980	102.100	0.065	0.173	0.540
σ		0.268	0.036	0.362	2.286	1.163	0.003	0.069	0.043
%RSD		120.900	14.330	4.941	7.148	1.139	4.402	39.730	7.996

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:42:56	0.509	2.109	2.148	-0.053	-0.550	0.078	0.000	29.120
2	13:43:15	0.586	2.235	2.287	0.020	-0.638	0.240	0.000	29.430
3	13:43:34	0.539	2.322	2.428	-0.075	-0.371	0.119	0.000	29.410
x		0.545	2.222	2.288	-0.036	-0.520	0.146	0.000	29.320
σ		0.039	0.107	0.140	0.050	0.136	0.084	0.000	0.177
%RSD		7.112	4.818	6.122	139.300	26.230	57.730	0.000	0.603

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:42:56	95.517%	1.411	1.365	96.330%	-0.041	-0.044	0.112	0.085
2	13:43:15	96.525%	1.672	1.717	96.893%	-0.042	-0.044	0.009	0.005
3	13:43:34	97.004%	1.557	1.680	96.724%	-0.047	-0.046	-0.018	-0.020
x		96.349%	1.547	1.587	96.649%	-0.043	-0.045	0.034	0.024
σ		0.759%	0.131	0.194	0.289%	0.003	0.001	0.069	0.055
%RSD		0.788	8.484	12.210	0.299	7.130	1.526	199.200	232.500

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:42:56	96.211%	-0.233	-0.384	-0.391	8.231	8.538	98.236%	98.799%
2	13:43:15	97.996%	-0.255	-0.398	-0.385	8.158	8.072	100.208%	101.428%
3	13:43:34	98.835%	-0.234	-0.385	-0.401	8.218	8.203	103.264%	103.414%
x		97.681%	-0.241	-0.389	-0.392	8.202	8.271	100.569%	101.213%
σ		1.340%	0.012	0.008	0.008	0.039	0.240	2.533%	2.315%
%RSD		1.372	5.039	2.005	2.098	0.474	2.905	2.519	2.287

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:42:56	0.023	0.028	0.188	0.155	0.170	98.788%
2	13:43:15	0.032	0.026	0.212	0.166	0.187	97.878%
3	13:43:34	0.014	0.029	0.175	0.166	0.172	98.556%
x		0.023	0.028	0.192	0.162	0.176	98.407%
σ		0.009	0.002	0.019	0.006	0.009	0.473%
%RSD		38.470	6.559	9.788	3.808	5.206	0.481

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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	13:46:42	93.993%	40.050	900.100	937.500	0.000	82850.000	49650.000	48970.000
2	13:47:01	95.412%	42.250	924.900	960.200	0.000	87440.000	52130.000	50270.000
3	13:47:21	89.611%	40.940	885.400	910.300	0.000	83280.000	50180.000	51520.000
x		93.006%	41.080	903.400	936.000	0.000	84520.000	50650.000	50250.000
σ		3.024%	1.106	19.970	24.990	0.000	2536.000	1305.000	1274.000
%RSD		3.251	2.691	2.211	2.670	0.000	3.000	2.576	2.535
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:46:42	1767.000	11990.000	0.000	46610.000	93580.000	93960.000	88.491%	940.300
2	13:47:01	1800.000	12570.000	0.000	49190.000	99800.000	98200.000	81.754%	960.300
3	13:47:21	1804.000	12300.000	0.000	50280.000	101900.000	99600.000	80.717%	991.100
x		1790.000	12290.000	0.000	48690.000	98430.000	97250.000	83.654%	963.900
σ		20.040	288.700	0.000	1882.000	4330.000	2934.000	4.221%	25.620
%RSD		1.119	2.349	0.000	3.865	4.399	3.017	5.045	2.658
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:46:42	475.700	182.100	490.200	1126.000	1727.000	467.500	451.000	225.300
2	13:47:01	481.600	190.500	513.000	1186.000	1768.000	479.100	476.900	234.400
3	13:47:21	495.600	194.700	520.100	1194.000	1819.000	486.600	484.300	237.700
x		484.300	189.100	507.800	1169.000	1771.000	477.700	470.700	232.500
σ		10.210	6.440	15.600	37.050	46.180	9.606	17.470	6.426
%RSD		2.108	3.405	3.072	3.170	2.607	2.011	3.712	2.764
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:46:42	228.300	440.500	440.100	36.260	9.261	10.100	0.000	1057.000
2	13:47:01	240.000	470.000	462.900	37.770	9.299	10.840	0.000	1062.000
3	13:47:21	238.200	469.800	465.900	37.690	8.494	10.570	0.000	1061.000
x		235.500	460.100	456.300	37.240	9.018	10.500	0.000	1060.000
σ		6.303	16.980	14.070	0.847	0.454	0.375	0.000	2.921
%RSD		2.676	3.691	3.083	2.275	5.039	3.567	0.000	0.276
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:46:42	89.199%	1011.000	1031.000	84.618%	46.860	46.740	46.400	40.180
2	13:47:01	90.412%	1015.000	1044.000	85.616%	47.480	47.280	47.650	40.600
3	13:47:21	91.139%	1028.000	1049.000	85.584%	47.080	46.860	47.720	41.150
x		90.250%	1018.000	1041.000	85.272%	47.140	46.960	47.260	40.640
σ		0.980%	8.686	9.377	0.567%	0.316	0.282	0.741	0.487
%RSD		1.086	0.853	0.901	0.665	0.670	0.601	1.567	1.199
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:46:42	89.656%	1886.000	482.900	482.300	1821.000	1825.000	98.311%	100.117%
2	13:47:01	90.672%	1891.000	487.000	487.000	1815.000	1840.000	101.704%	103.803%
3	13:47:21	92.298%	1861.000	484.000	481.500	1805.000	1834.000	102.955%	104.080%
x		90.875%	1879.000	484.600	483.600	1813.000	1833.000	100.990%	102.667%
σ		1.333%	15.780	2.142	2.980	8.456	7.668	2.403%	2.212%
%RSD		1.467	0.840	0.442	0.616	0.466	0.418	2.379	2.155
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:46:42	49.030	49.730	21.590	21.280	21.410	91.024%		
2	13:47:01	51.410	52.120	22.030	21.600	22.120	91.118%		
3	13:47:21	51.520	52.580	22.240	22.110	22.410	91.151%		
x		50.650	51.480	21.950	21.660	21.980	91.098%		
σ		1.404	1.530	0.333	0.422	0.517	0.066%		
%RSD		2.773	2.972	1.518	1.949	2.354	0.072		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:50:29	96.265%	38.730	921.900	929.600	0.000	80210.000	47440.000	48170.000
2	13:50:48	98.864%	40.810	914.100	864.300	0.000	78600.000	47150.000	46660.000
3	13:51:07	93.728%	40.400	906.200	948.900	0.000	81000.000	47430.000	48970.000
x		96.286%	39.980	914.100	914.200	0.000	79940.000	47340.000	47930.000
σ		2.568%	1.106	7.832	44.320	0.000	1225.000	162.700	1170.000
%RSD		2.667	2.765	0.857	4.848	0.000	1.533	0.344	2.441

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:50:29	1785.000	11900.000	0.000	45870.000	93780.000	93730.000	88.358%	882.000
2	13:50:48	1740.000	11490.000	0.000	45810.000	92090.000	93220.000	84.048%	912.600
3	13:51:07	1822.000	12240.000	0.000	46510.000	96860.000	94800.000	85.677%	905.100
x		1782.000	11880.000	0.000	46060.000	94240.000	93920.000	86.028%	899.900
σ		40.760	379.300	0.000	386.800	2422.000	807.900	2.176%	15.970
%RSD		2.287	3.193	0.000	0.840	2.570	0.860	2.530	1.775

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:50:29	477.700	188.400	482.200	1153.000	1752.000	461.900	454.700	228.400
2	13:50:48	473.600	185.900	496.000	1210.000	1752.000	484.400	478.500	236.300
3	13:51:07	467.100	183.800	491.200	1144.000	1687.000	456.400	448.000	223.900
x		472.800	186.000	489.800	1169.000	1730.000	467.600	460.400	229.500
σ		5.337	2.275	7.028	35.990	37.800	14.820	16.010	6.234
%RSD		1.129	1.223	1.435	3.078	2.184	3.169	3.477	2.716

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:50:29	226.700	438.700	441.500	35.200	9.145	9.059	0.000	1057.000
2	13:50:48	237.400	451.900	455.400	36.100	8.529	9.733	0.000	1046.000
3	13:51:07	228.800	448.700	446.700	37.560	9.088	9.558	0.000	1054.000
x		231.000	446.400	447.900	36.290	8.921	9.450	0.000	1052.000
σ		5.704	6.898	7.046	1.193	0.341	0.350	0.000	5.595
%RSD		2.470	1.545	1.573	3.288	3.817	3.698	0.000	0.532

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:50:29	89.431%	1014.000	1037.000	84.695%	46.470	46.690	48.030	40.400
2	13:50:48	90.947%	1025.000	1048.000	85.772%	46.290	46.260	46.280	41.800
3	13:51:07	90.425%	1034.000	1049.000	85.222%	46.940	47.410	47.200	40.800
x		90.268%	1024.000	1045.000	85.230%	46.570	46.790	47.170	41.000
σ		0.770%	9.814	6.712	0.538%	0.336	0.583	0.876	0.721
%RSD		0.853	0.958	0.643	0.632	0.722	1.247	1.856	1.759

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:50:29	88.766%	1899.000	484.400	481.500	1800.000	1821.000	97.529%	99.441%
2	13:50:48	89.657%	1894.000	490.900	488.600	1799.000	1822.000	100.586%	102.105%
3	13:51:07	90.999%	1866.000	481.500	482.500	1794.000	1816.000	102.595%	103.635%
x		89.807%	1886.000	485.600	484.200	1798.000	1820.000	100.236%	101.727%
σ		1.124%	17.790	4.821	3.853	3.443	3.568	2.551%	2.122%
%RSD		1.251	0.943	0.993	0.796	0.192	0.196	2.545	2.086

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:50:29	50.360	50.680	21.210	21.230	21.500	88.718%
2	13:50:48	51.740	52.130	21.820	22.500	22.260	88.539%
3	13:51:07	51.640	52.820	22.210	22.210	22.420	90.266%
x		51.250	51.880	21.750	21.980	22.060	89.174%
σ		0.768	1.089	0.502	0.667	0.488	0.950%
%RSD		1.499	2.100	2.308	3.035	2.214	1.065

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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	13:54:16	98.298%	44.900	990.700	980.200	0.000	82610.000	52350.000	50500.000
2	13:54:35	97.892%	43.380	980.800	962.100	0.000	83270.000	49990.000	51060.000
3	13:54:54	94.269%	43.820	959.500	923.500	0.000	82530.000	49630.000	50390.000
x		96.820%	44.030	977.000	955.300	0.000	82800.000	50650.000	50650.000
σ		2.218%	0.786	15.970	29.000	0.000	408.900	1477.000	355.200
%RSD		2.291	1.785	1.635	3.036	0.000	0.494	2.916	0.701
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:54:16	1770.000	12330.000	0.000	50690.000	100100.000	98170.000	79.713%	1020.000
2	13:54:35	1776.000	12080.000	0.000	49950.000	99700.000	100700.000	78.368%	1039.000
3	13:54:54	1788.000	12310.000	0.000	49840.000	98740.000	99470.000	78.978%	1060.000
x		1778.000	12240.000	0.000	50160.000	99520.000	99440.000	79.020%	1040.000
σ		8.759	141.400	0.000	460.700	700.900	1255.000	0.673%	20.020
%RSD		0.493	1.156	0.000	0.919	0.704	1.262	0.852	1.926
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:54:16	516.400	206.700	547.800	1202.000	1845.000	528.500	520.700	255.600
2	13:54:35	531.700	207.100	546.000	1207.000	1852.000	531.800	522.100	259.200
3	13:54:54	527.000	204.600	554.400	1214.000	1833.000	529.100	522.500	258.900
x		525.000	206.200	549.400	1208.000	1843.000	529.800	521.800	257.900
σ		7.827	1.356	4.441	6.138	9.952	1.796	0.949	2.006
%RSD		1.491	0.658	0.808	0.508	0.540	0.339	0.182	0.778
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:54:16	254.700	494.200	488.800	39.960	9.904	11.510	0.000	1097.000
2	13:54:35	261.000	496.300	493.400	39.660	9.584	10.090	0.000	1097.000
3	13:54:54	257.300	494.200	494.600	40.170	9.614	11.260	0.000	1094.000
x		257.700	494.900	492.300	39.930	9.701	10.950	0.000	1096.000
σ		3.189	1.201	3.044	0.259	0.177	0.757	0.000	1.701
%RSD		1.238	0.243	0.618	0.649	1.822	6.908	0.000	0.155
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:54:16	89.469%	1071.000	1085.000	84.207%	44.210	43.970	49.240	42.250
2	13:54:35	89.879%	1067.000	1089.000	84.820%	44.150	44.110	48.600	42.510
3	13:54:54	90.485%	1083.000	1099.000	84.011%	44.680	44.290	50.070	43.160
x		89.944%	1074.000	1091.000	84.346%	44.350	44.120	49.310	42.640
σ		0.511%	8.402	6.877	0.422%	0.291	0.160	0.737	0.465
%RSD		0.568	0.782	0.630	0.500	0.655	0.362	1.495	1.090
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:54:16	87.591%	1974.000	500.400	497.000	1880.000	1899.000	97.504%	97.861%
2	13:54:35	88.843%	1969.000	503.600	496.000	1881.000	1908.000	99.361%	100.172%
3	13:54:54	89.730%	1964.000	506.900	502.800	1889.000	1913.000	100.633%	102.194%
x		88.722%	1969.000	503.600	498.600	1883.000	1907.000	99.166%	100.076%
σ		1.075%	4.855	3.249	3.688	4.727	7.436	1.573%	2.168%
%RSD		1.211	0.247	0.645	0.740	0.251	0.390	1.587	2.167
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	13:54:16	53.690	54.000	22.780	22.440	22.790	86.828%		
2	13:54:35	54.600	55.330	23.460	23.400	23.440	86.309%		
3	13:54:54	54.900	55.910	23.350	23.260	23.370	87.900%		
x		54.390	55.080	23.200	23.040	23.200	87.013%		
σ		0.631	0.976	0.363	0.517	0.359	0.811%		
%RSD		1.160	1.771	1.564	2.244	1.545	0.932		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:58:03	102.192%	-0.020	26.800	23.180	0.000	37990.000	9361.000	9331.000
2	13:58:22	95.176%	-0.048	25.800	24.820	0.000	39410.000	9880.000	9932.000
3	13:58:41	97.248%	0.009	25.080	22.050	0.000	38480.000	9504.000	9480.000
x		98.206%	-0.020	25.890	23.350	0.000	38630.000	9582.000	9581.000
σ		3.605%	0.028	0.863	1.392	0.000	721.300	267.900	312.800
%RSD		3.671	142.200	3.335	5.961	0.000	1.867	2.796	3.264

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:58:03	204.000	2253.000	0.000	5312.000	36320.000	36760.000	88.552%	3.678
2	13:58:22	225.000	2497.000	0.000	5686.000	39280.000	38880.000	82.015%	4.008
3	13:58:41	209.000	2295.000	0.000	5698.000	40300.000	40160.000	78.790%	4.113
x		212.600	2349.000	0.000	5565.000	38630.000	38600.000	83.119%	3.933
σ		10.950	130.300	0.000	219.800	2069.000	1715.000	4.974%	0.227
%RSD		5.148	5.550	0.000	3.950	5.355	4.443	5.984	5.769

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:58:03	2.658	1.462	111.300	461.200	705.200	0.842	1.348	4.079
2	13:58:22	2.567	1.385	116.600	467.000	701.200	0.784	1.265	3.825
3	13:58:41	2.894	1.375	120.100	484.900	742.100	0.814	1.412	4.074
x		2.706	1.407	116.000	471.000	716.200	0.813	1.342	3.993
σ		0.169	0.048	4.400	12.380	22.520	0.029	0.074	0.146
%RSD		6.244	3.391	3.793	2.628	3.145	3.539	5.523	3.646

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:58:03	3.799	11.360	11.570	1.154	-0.421	0.774	0.000	108.700
2	13:58:22	4.022	12.100	11.540	0.413	-0.291	0.921	0.000	109.000
3	13:58:41	4.028	12.230	12.170	1.054	-0.063	1.108	0.000	109.500
x		3.950	11.890	11.760	0.874	-0.258	0.935	0.000	109.100
σ		0.131	0.469	0.358	0.402	0.182	0.168	0.000	0.384
%RSD		3.304	3.945	3.040	46.050	70.310	17.940	0.000	0.352

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:58:03	92.771%	7.726	7.948	90.380%	-0.041	-0.026	0.018	0.036
2	13:58:22	92.503%	8.337	8.640	89.458%	-0.043	-0.027	-0.051	0.027
3	13:58:41	93.384%	8.141	8.203	89.988%	-0.045	-0.038	-0.016	-0.005
x		92.886%	8.068	8.263	89.942%	-0.043	-0.031	-0.016	0.020
σ		0.452%	0.312	0.350	0.463%	0.002	0.007	0.035	0.022
%RSD		0.486	3.867	4.235	0.515	4.082	21.370	210.300	110.400

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	13:58:03	92.279%	1.627	5.539	5.380	39.020	40.120	99.640%	99.632%
2	13:58:22	93.863%	1.576	4.866	5.082	39.300	39.760	101.781%	102.636%
3	13:58:41	94.707%	1.369	4.285	4.120	40.400	39.740	103.265%	104.381%
x		93.616%	1.524	4.897	4.861	39.570	39.870	101.562%	102.216%
σ		1.232%	0.136	0.628	0.658	0.731	0.213	1.822%	2.402%
%RSD		1.317	8.951	12.820	13.540	1.847	0.534	1.794	2.350

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	13:58:03	0.084	0.076	3.799	3.504	3.659	92.871%
2	13:58:22	0.082	0.084	3.940	3.525	3.714	93.875%
3	13:58:41	0.078	0.078	3.838	3.458	3.661	96.041%
x		0.081	0.079	3.859	3.496	3.678	94.262%
σ		0.003	0.004	0.073	0.034	0.031	1.620%
%RSD		4.036	5.127	1.897	0.974	0.847	1.718

CCV 1594026 6/2/2015 2:01:39 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:01:39	101.064%	95.540	102.800	98.820	0.000	45290.000	44470.000	45330.000
2	14:01:58	95.391%	102.600	115.900	105.800	0.000	49170.000	49790.000	47650.000
3	14:02:17	99.509%	93.640	104.600	103.300	0.000	45620.000	44940.000	44630.000
x		98.655%	97.253%	107.777%	102.641%	0.000	93.389%	92.802%	91.738%
σ		2.932%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		2.972	4.843	6.615	3.447	0.000	4.611	6.343	3.442

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:01:39	453.200	4881.000	0.000	47390.000	47740.000	47860.000	100.997%	96.500
2	14:01:58	471.700	5047.000	0.000	50640.000	50150.000	48560.000	97.016%	96.090
3	14:02:17	456.500	4707.000	0.000	48920.000	49640.000	49440.000	95.123%	98.280
x		92.091%	97.564%	0.000	97.963%	98.358%	97.237%	97.712%	96.956%
σ		n/a	n/a	0.000	n/a	n/a	n/a	2.998%	n/a
%RSD		2.140	3.486	0.000	3.318	2.577	1.631	3.068	1.198

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:01:39	96.200	96.200	482.400	23710.000	23660.000	95.260	96.500	96.620
2	14:01:58	97.290	98.030	488.700	24720.000	23760.000	96.660	100.000	97.550
3	14:02:17	99.890	100.400	504.800	24850.000	24800.000	100.900	102.000	100.300
x		97.793%	98.222%	98.396%	97.703%	96.296%	97.621%	99.488%	98.140%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.937	2.166	2.345	2.539	2.604	3.038	2.777	1.923

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:01:39	94.050	91.680	93.030	95.710	99.640	100.100	0.000	94.600
2	14:01:58	97.760	95.400	95.890	97.150	97.990	96.780	0.000	95.650
3	14:02:17	99.890	96.690	97.700	97.020	98.800	98.210	0.000	95.450
x		97.233%	94.589%	95.538%	96.626%	98.810%	98.378%	0.000	95.235%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		3.040	2.749	2.463	0.826	0.834	1.718	0.000	0.588

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:01:39	95.492%	100.400	100.700	91.198%	96.150	97.480	97.020	94.670
2	14:01:58	97.029%	101.700	102.900	93.157%	96.700	97.380	96.620	96.450
3	14:02:17	98.425%	103.500	104.500	93.038%	96.510	95.650	96.970	95.940
x		96.982%	101.850%	102.697%	92.464%	96.454%	96.838%	96.870%	95.688%
σ		1.467%	n/a	n/a	1.098%	n/a	n/a	n/a	n/a
%RSD		1.513	1.560	1.846	1.187	0.291	1.060	0.223	0.960

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:01:39	93.420%	94.880	90.790	89.320	91.850	95.440	96.306%	96.530%
2	14:01:58	94.444%	97.030	92.320	91.120	94.490	95.270	98.608%	99.055%
3	14:02:17	97.449%	94.960	90.800	90.610	93.990	92.500	100.375%	99.653%
x		95.105%	95.624%	91.303%	90.350%	93.442%	94.403%	98.430%	98.413%
σ		2.094%	n/a	n/a	n/a	n/a	n/a	2.040%	1.658%
%RSD		2.202	1.278	0.964	1.025	1.498	1.746	2.073	1.685

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:01:39	97.850	98.450	98.780	98.120	98.950	93.456%
2	14:01:58	103.200	103.500	103.900	104.700	104.800	92.664%
3	14:02:17	105.800	107.600	106.100	106.300	106.700	90.882%
x		102.280%	103.199%	102.918%	103.011%	103.484%	92.334%
σ		n/a	n/a	n/a	n/a	n/a	1.319%
%RSD		3.962	4.450	3.645	4.188	3.900	1.428

CCB5 6/2/2015 2:08:07 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:08:26	113.801%	-0.048	1.487	1.771	0.000	3.311	1.236	0.839
2	14:08:45	107.238%	-0.037	1.508	1.503	0.000	2.960	0.602	0.755
3	14:09:05	111.821%	-0.034	1.181	1.234	0.000	2.638	0.505	0.434
x		110.954%	-0.040	1.392	1.503	0.000	2.969	0.781	0.676
σ		3.366%	0.007	0.183	0.268	0.000	0.337	0.397	0.214
%RSD		3.034	18.300	13.160	17.860	0.000	11.350	50.850	31.650

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:08:26	-0.420	-148.800	0.000	11.470	3.226	2.063	104.896%	-0.142
2	14:08:45	-0.414	-147.300	0.000	11.770	10.140	1.490	103.887%	-0.094
3	14:09:05	-0.347	-147.700	0.000	10.540	2.304	3.145	101.171%	-0.102
x		-0.394	-147.900	0.000	11.260	5.221	2.232	103.318%	-0.113
σ		0.040	0.803	0.000	0.641	4.280	0.840	1.927%	0.025
%RSD		10.220	0.543	0.000	5.693	81.970	37.650	1.865	22.490

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:08:26	-0.012	-0.040	-0.006	0.849	7.093	0.005	-0.064	-0.045
2	14:08:45	0.030	-0.013	-0.008	2.779	6.438	0.000	-0.061	-0.050
3	14:09:05	-0.025	-0.029	-0.023	2.104	5.186	-0.003	-0.063	-0.043
x		-0.002	-0.027	-0.012	1.911	6.239	0.001	-0.063	-0.046
σ		0.029	0.014	0.009	0.980	0.969	0.004	0.002	0.004
%RSD		1217.000	49.150	71.480	51.270	15.530	511.000	2.759	7.705

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:08:26	-0.058	0.006	0.028	-0.116	0.092	0.281	0.000	-0.001
2	14:08:45	-0.049	0.103	0.028	0.035	-0.057	0.480	0.000	-0.004
3	14:09:05	-0.036	0.064	-0.062	0.173	0.098	0.522	0.000	-0.000
x		-0.048	0.058	-0.002	0.031	0.044	0.427	0.000	-0.002
σ		0.011	0.049	0.052	0.144	0.088	0.129	0.000	0.002
%RSD		23.650	84.480	3168.000	467.000	199.600	30.130	0.000	137.400

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:08:26	98.971%	1.032	1.293	99.115%	-0.039	-0.041	0.014	0.015
2	14:08:45	100.716%	1.410	1.538	98.647%	-0.040	-0.028	0.066	0.045
3	14:09:05	101.228%	1.553	1.648	99.636%	-0.046	-0.039	-0.091	-0.060
x		100.305%	1.331	1.493	99.133%	-0.041	-0.036	-0.004	-0.000
σ		1.183%	0.269	0.182	0.495%	0.004	0.007	0.080	0.054
%RSD		1.180	20.220	12.170	0.499	9.660	19.440	2152.000	19780.000

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:08:26	96.659%	-0.284	0.649	0.580	-0.003	0.037	93.777%	93.057%
2	14:08:45	97.919%	-0.257	0.685	0.645	0.003	0.017	96.847%	95.888%
3	14:09:05	99.167%	-0.216	0.729	0.702	-0.004	0.024	99.051%	97.707%
x		97.915%	-0.252	0.688	0.642	-0.002	0.026	96.558%	95.550%
σ		1.254%	0.034	0.040	0.061	0.004	0.010	2.649%	2.343%
%RSD		1.281	13.620	5.885	9.540	228.400	39.440	2.743	2.453

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:08:26	0.025	0.023	-0.005	-0.010	-0.002	98.225%
2	14:08:45	0.027	0.031	-0.008	-0.004	-0.005	97.596%
3	14:09:05	0.020	0.026	-0.005	-0.006	-0.003	96.891%
x		0.024	0.026	-0.006	-0.007	-0.003	97.571%
σ		0.003	0.004	0.002	0.003	0.001	0.667%
%RSD		13.990	15.610	29.530	48.930	39.180	0.684

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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	14:12:16	105.803%	-0.022	22.670	22.350	0.000	35680.000	6985.000	7070.000
2	14:12:35	99.584%	-0.039	21.410	22.380	0.000	34680.000	6990.000	6943.000
3	14:12:55	101.528%	-0.015	22.350	22.780	0.000	34020.000	6778.000	6854.000
x		102.305%	-0.025	22.140	22.510	0.000	34800.000	6918.000	6956.000
σ		3.181%	0.012	0.656	0.242	0.000	836.100	120.800	108.800
%RSD		3.110	48.680	2.963	1.075	0.000	2.403	1.746	1.564
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:12:16	245.200	2489.000	0.000	5969.000	34970.000	34760.000	85.335%	4.645
2	14:12:35	231.100	2422.000	0.000	5872.000	35170.000	34490.000	87.176%	4.382
3	14:12:55	236.900	2413.000	0.000	5582.000	33710.000	33570.000	89.236%	3.996
x		237.700	2441.000	0.000	5808.000	34620.000	34280.000	87.249%	4.341
σ		7.132	41.240	0.000	201.300	795.000	623.000	1.951%	0.326
%RSD		3.000	1.689	0.000	3.465	2.297	1.818	2.237	7.515
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:12:16	-0.277	1.693	119.800	504.900	741.900	0.685	1.326	6.114
2	14:12:35	1.942	1.643	118.300	507.300	710.500	0.730	1.282	6.008
3	14:12:55	3.976	1.486	113.000	469.800	649.700	0.634	1.409	5.927
x		1.880	1.607	117.000	494.000	700.700	0.683	1.339	6.016
σ		2.127	0.108	3.573	21.020	46.890	0.048	0.064	0.093
%RSD		113.100	6.698	3.053	4.254	6.691	7.019	4.798	1.553
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:12:16	6.283	13.010	12.860	0.834	-0.426	0.493	0.000	96.050
2	14:12:35	6.090	12.650	12.690	0.495	-0.167	0.527	0.000	97.160
3	14:12:55	5.591	12.750	13.110	0.567	-0.508	0.833	0.000	97.150
x		5.988	12.800	12.880	0.632	-0.367	0.618	0.000	96.790
σ		0.357	0.191	0.212	0.179	0.178	0.188	0.000	0.635
%RSD		5.964	1.491	1.646	28.270	48.490	30.370	0.000	0.656
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:12:16	93.791%	1.972	1.971	90.713%	-0.040	-0.035	0.075	0.040
2	14:12:35	93.064%	2.102	2.283	89.675%	-0.040	-0.037	0.034	0.018
3	14:12:55	94.015%	2.431	2.367	91.165%	-0.040	-0.031	0.088	0.101
x		93.623%	2.168	2.207	90.518%	-0.040	-0.034	0.066	0.053
σ		0.497%	0.236	0.209	0.764%	0.000	0.003	0.028	0.043
%RSD		0.531	10.900	9.449	0.844	1.155	7.976	43.070	81.460
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:12:16	92.699%	0.209	2.444	2.383	39.060	38.970	97.231%	98.572%
2	14:12:35	94.098%	0.254	2.412	2.414	39.160	38.960	100.334%	100.718%
3	14:12:55	95.876%	0.279	2.014	2.077	37.540	38.440	101.819%	102.672%
x		94.224%	0.247	2.290	2.291	38.580	38.790	99.795%	100.654%
σ		1.592%	0.035	0.240	0.186	0.909	0.304	2.341%	2.051%
%RSD		1.690	14.280	10.470	8.119	2.355	0.785	2.346	2.037
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:12:16	0.018	0.036	2.625	2.486	2.567	92.033%		
2	14:12:35	0.035	0.030	2.717	2.381	2.575	95.354%		
3	14:12:55	0.027	0.026	2.799	2.526	2.681	94.993%		
x		0.027	0.031	2.714	2.465	2.608	94.127%		
σ		0.009	0.005	0.087	0.075	0.064	1.822%		
%RSD		32.260	17.180	3.208	3.038	2.452	1.936		

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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	14:16:04	105.734%	-0.041	65.890	63.790	0.000	47930.000	10570.000	10530.000
2	14:16:24	108.804%	-0.032	63.320	59.570	0.000	48580.000	10610.000	10520.000
3	14:16:43	99.894%	-0.029	68.090	63.360	0.000	47010.000	9980.000	10410.000
x		104.811%	-0.034	65.770	62.240	0.000	47840.000	10380.000	10490.000
σ		4.527%	0.006	2.390	2.322	0.000	791.700	350.200	63.580
%RSD		4.319	17.860	3.634	3.730	0.000	1.655	3.373	0.606
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:16:04	214.600	3040.000	0.000	9750.000	54200.000	52360.000	90.418%	5.215
2	14:16:24	220.000	3135.000	0.000	10050.000	56130.000	56560.000	83.701%	7.586
3	14:16:43	217.200	3047.000	0.000	9409.000	53010.000	52860.000	89.262%	6.005
x		217.300	3074.000	0.000	9737.000	54440.000	53930.000	87.793%	6.269
σ		2.715	52.920	0.000	321.600	1576.000	2293.000	3.591%	1.207
%RSD		1.250	1.722	0.000	3.302	2.894	4.252	4.091	19.260
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:16:04	2.993	1.672	77.880	413.500	761.200	0.757	1.363	3.811
2	14:16:24	2.479	1.814	81.860	440.300	792.300	0.731	1.472	3.960
3	14:16:43	0.186	1.596	76.530	408.700	734.200	0.702	1.483	3.741
x		1.886	1.694	78.750	420.800	762.600	0.730	1.439	3.837
σ		1.494	0.111	2.769	17.040	29.090	0.027	0.066	0.112
%RSD		79.220	6.545	3.516	4.048	3.815	3.717	4.594	2.910
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:16:04	3.814	16.920	16.920	0.407	-0.066	0.832	0.000	123.700
2	14:16:24	3.678	18.300	18.230	0.183	-0.058	0.901	0.000	125.000
3	14:16:43	3.740	16.940	16.220	0.497	-0.393	0.781	0.000	124.900
x		3.744	17.390	17.120	0.362	-0.172	0.838	0.000	124.500
σ		0.068	0.789	1.023	0.162	0.191	0.060	0.000	0.734
%RSD		1.817	4.539	5.973	44.640	111.000	7.131	0.000	0.589
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:16:04	93.833%	9.907	10.150	90.828%	-0.026	-0.030	-0.014	0.018
2	14:16:24	94.785%	9.885	9.958	91.503%	-0.037	-0.024	0.009	0.031
3	14:16:43	94.485%	10.400	10.190	91.472%	-0.033	-0.030	0.012	0.035
x		94.368%	10.060	10.100	91.268%	-0.032	-0.028	0.002	0.028
σ		0.486%	0.289	0.123	0.381%	0.006	0.003	0.014	0.009
%RSD		0.515	2.873	1.218	0.418	17.840	11.750	591.900	30.800
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:16:04	92.573%	0.071	0.891	0.870	30.570	31.580	98.569%	100.000%
2	14:16:24	93.855%	0.098	0.891	0.845	31.500	31.680	101.725%	102.106%
3	14:16:43	94.668%	0.144	0.910	0.882	31.810	32.210	102.133%	103.600%
x		93.699%	0.104	0.897	0.866	31.290	31.820	100.809%	101.902%
σ		1.056%	0.037	0.011	0.019	0.644	0.340	1.951%	1.809%
%RSD		1.127	35.240	1.252	2.172	2.058	1.069	1.935	1.775
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:16:04	0.012	0.019	2.629	2.468	2.563	90.361%		
2	14:16:24	0.017	0.019	2.662	2.441	2.558	91.298%		
3	14:16:43	0.019	0.022	2.626	2.485	2.536	93.626%		
x		0.016	0.020	2.639	2.465	2.552	91.762%		
σ		0.003	0.002	0.020	0.022	0.014	1.681%		
%RSD		20.210	8.752	0.752	0.908	0.567	1.832		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:19:52	104.292%	-0.041	44.390	40.520	0.000	46660.000	13460.000	13530.000
2	14:20:11	98.463%	-0.024	36.800	35.680	0.000	43830.000	12580.000	12950.000
3	14:20:30	105.645%	-0.060	34.430	37.320	0.000	45850.000	13120.000	13050.000
x		102.800%	-0.041	38.540	37.840	0.000	45450.000	13050.000	13180.000
σ		3.817%	0.018	5.206	2.461	0.000	1460.000	443.100	311.200
%RSD		3.713	43.810	13.510	6.503	0.000	3.213	3.394	2.362

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:19:52	97.460	3846.000	0.000	7781.000	82620.000	82220.000	89.755%	2.762
2	14:20:11	93.500	3834.000	0.000	7507.000	82080.000	80940.000	89.839%	3.399
3	14:20:30	93.700	3811.000	0.000	7885.000	86320.000	86480.000	80.337%	3.246
x		94.890	3830.000	0.000	7724.000	83670.000	83210.000	86.644%	3.136
σ		2.230	17.740	0.000	195.000	2308.000	2901.000	5.462%	0.333
%RSD		2.351	0.463	0.000	2.525	2.758	3.486	6.304	10.610

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:19:52	-0.928	7.513	17.170	198.900	729.700	0.405	2.134	1.306
2	14:20:11	0.723	7.860	17.970	213.100	751.300	0.372	2.445	1.244
3	14:20:30	0.522	8.269	19.440	235.100	807.700	0.460	2.597	1.466
x		0.105	7.881	18.190	215.700	762.900	0.412	2.392	1.338
σ		0.901	0.379	1.151	18.230	40.310	0.044	0.236	0.115
%RSD		854.800	4.805	6.325	8.453	5.284	10.770	9.869	8.557

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:19:52	1.363	5.629	6.061	0.053	-0.508	0.817	0.000	193.300
2	14:20:11	1.157	5.924	6.145	0.555	0.006	0.734	0.000	195.000
3	14:20:30	1.461	6.186	6.594	-0.260	-0.348	0.728	0.000	197.000
x		1.327	5.913	6.267	0.116	-0.284	0.759	0.000	195.100
σ		0.155	0.279	0.287	0.411	0.263	0.050	0.000	1.861
%RSD		11.670	4.712	4.579	353.900	92.670	6.541	0.000	0.954

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:19:52	91.616%	1.611	1.626	89.712%	-0.038	-0.031	0.509	0.531
2	14:20:11	91.993%	1.676	1.806	88.000%	-0.038	-0.028	0.461	0.412
3	14:20:30	93.353%	1.853	1.862	89.506%	-0.040	-0.034	0.475	0.505
x		92.321%	1.713	1.764	89.073%	-0.039	-0.031	0.482	0.483
σ		0.913%	0.125	0.123	0.935%	0.001	0.003	0.025	0.063
%RSD		0.989	7.314	6.989	1.049	3.688	10.030	5.114	12.970

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:19:52	90.923%	-0.056	0.363	0.319	49.550	50.130	97.950%	98.120%
2	14:20:11	92.321%	-0.037	0.336	0.287	49.750	50.160	99.435%	99.689%
3	14:20:30	93.118%	-0.024	0.322	0.390	50.050	50.300	101.793%	101.369%
x		92.120%	-0.039	0.340	0.332	49.780	50.200	99.726%	99.726%
σ		1.111%	0.016	0.021	0.053	0.251	0.092	1.938%	1.625%
%RSD		1.206	41.460	6.087	15.830	0.504	0.183	1.943	1.629

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:19:52	0.012	0.030	0.335	0.271	0.299	86.715%
2	14:20:11	0.019	0.019	0.309	0.272	0.290	89.446%
3	14:20:30	0.022	0.020	0.325	0.296	0.316	89.861%
x		0.017	0.023	0.323	0.279	0.301	88.674%
σ		0.005	0.007	0.013	0.014	0.013	1.709%
%RSD		29.510	28.650	4.080	5.035	4.377	1.927

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:23:42	104.522%	-0.016	13.360	12.480	0.000	31640.000	15460.000	14950.000
2	14:24:01	95.217%	-0.043	12.720	13.080	0.000	31270.000	14720.000	15520.000
3	14:24:21	99.941%	-0.029	11.790	13.280	0.000	30390.000	14460.000	14500.000
x		99.893%	-0.029	12.620	12.950	0.000	31100.000	14880.000	14990.000
σ		4.653%	0.013	0.789	0.415	0.000	640.700	517.800	510.700
%RSD		4.658	45.210	6.253	3.205	0.000	2.060	3.479	3.406

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:23:42	110.200	3391.000	0.000	2251.000	72150.000	72380.000	82.551%	2.797
2	14:24:01	114.200	3388.000	0.000	2157.000	66630.000	65780.000	89.438%	3.628
3	14:24:21	103.300	3161.000	0.000	2172.000	67820.000	68210.000	86.869%	3.256
x		109.200	3313.000	0.000	2193.000	68870.000	68790.000	86.286%	3.227
σ		5.522	131.900	0.000	50.520	2902.000	3336.000	3.480%	0.417
%RSD		5.056	3.980	0.000	2.303	4.214	4.850	4.034	12.910

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:23:42	0.347	2.306	16.140	182.500	695.400	0.317	0.675	2.046
2	14:24:01	-0.957	2.000	14.840	157.500	593.100	0.259	0.671	2.021
3	14:24:21	1.384	2.098	15.240	165.600	603.900	0.278	0.557	1.983
x		0.258	2.135	15.410	168.500	630.800	0.285	0.634	2.017
σ		1.173	0.157	0.666	12.790	56.190	0.029	0.067	0.032
%RSD		455.100	7.331	4.323	7.590	8.908	10.330	10.620	1.582

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:23:42	2.044	5.353	5.130	-0.048	-0.549	0.378	0.000	116.500
2	14:24:01	2.021	5.543	5.356	0.136	-0.589	0.513	0.000	115.300
3	14:24:21	1.875	5.503	6.021	-0.440	-0.134	0.564	0.000	117.500
x		1.980	5.466	5.502	-0.118	-0.424	0.485	0.000	116.400
σ		0.092	0.100	0.463	0.294	0.252	0.096	0.000	1.121
%RSD		4.649	1.826	8.417	250.300	59.430	19.720	0.000	0.963

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:23:42	91.638%	0.562	0.579	88.435%	-0.046	-0.041	0.044	0.025
2	14:24:01	92.451%	0.653	0.621	88.359%	-0.045	-0.043	0.035	0.021
3	14:24:21	92.566%	0.730	0.789	88.972%	-0.051	-0.032	0.029	0.014
x		92.218%	0.648	0.663	88.589%	-0.047	-0.039	0.036	0.020
σ		0.506%	0.084	0.111	0.334%	0.004	0.006	0.007	0.006
%RSD		0.549	12.940	16.790	0.377	7.848	14.910	20.890	28.530

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:23:42	90.007%	-0.216	-0.021	-0.036	32.750	33.090	97.436%	97.433%
2	14:24:01	91.827%	-0.189	-0.033	-0.019	33.490	33.560	100.119%	100.318%
3	14:24:21	92.634%	-0.184	-0.029	-0.057	33.020	32.920	101.134%	102.051%
x		91.489%	-0.196	-0.028	-0.037	33.090	33.190	99.563%	99.934%
σ		1.346%	0.017	0.006	0.019	0.372	0.332	1.911%	2.333%
%RSD		1.471	8.872	22.090	50.210	1.125	1.001	1.919	2.334

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:23:42	0.002	0.009	0.910	0.854	0.851	86.347%
2	14:24:01	0.016	0.011	0.916	0.813	0.880	89.349%
3	14:24:21	0.015	0.010	0.923	0.805	0.856	91.518%
x		0.011	0.010	0.916	0.824	0.862	89.071%
σ		0.008	0.001	0.006	0.026	0.016	2.597%
%RSD		71.050	11.250	0.704	3.193	1.846	2.915

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:27:32	99.580%	-0.029	118.300	115.800	0.000	65270.000	10250.000	10360.000
2	14:27:51	97.647%	-0.038	115.800	108.400	0.000	62440.000	9688.000	10020.000
3	14:28:11	99.923%	-0.039	113.100	111.900	0.000	64140.000	9807.000	9800.000
x		99.050%	-0.035	115.700	112.000	0.000	63950.000	9916.000	10060.000
σ		1.227%	0.006	2.598	3.664	0.000	1424.000	297.400	284.400
%RSD		1.239	16.120	2.245	3.271	0.000	2.226	3.000	2.827

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:27:32	5.803	3126.000	0.000	17130.000	66970.000	66020.000	80.455%	3.985
2	14:27:51	5.952	3083.000	0.000	16440.000	63600.000	63440.000	81.586%	4.337
3	14:28:11	6.022	3248.000	0.000	16770.000	65040.000	65670.000	78.444%	3.800
x		5.926	3152.000	0.000	16780.000	65200.000	65040.000	80.161%	4.041
σ		0.112	85.700	0.000	348.300	1691.000	1400.000	1.592%	0.273
%RSD		1.886	2.719	0.000	2.075	2.594	2.152	1.985	6.761

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:27:32	1.607	1.419	38.650	86.870	534.500	0.683	1.557	2.356
2	14:27:51	-0.351	1.639	39.010	88.810	533.400	0.739	1.682	2.254
3	14:28:11	-0.032	1.308	38.990	79.080	465.000	0.715	1.526	2.349
x		0.408	1.455	38.880	84.920	511.000	0.712	1.588	2.320
σ		1.051	0.169	0.202	5.151	39.860	0.028	0.083	0.057
%RSD		257.600	11.600	0.519	6.066	7.800	3.960	5.195	2.453

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:27:32	1.900	26.330	25.700	0.706	-0.256	0.698	0.000	144.900
2	14:27:51	2.020	25.950	25.210	0.642	-0.523	0.753	0.000	144.900
3	14:28:11	2.011	26.170	25.390	0.732	-0.448	0.983	0.000	145.900
x		1.977	26.150	25.430	0.693	-0.409	0.811	0.000	145.300
σ		0.067	0.191	0.247	0.046	0.138	0.151	0.000	0.564
%RSD		3.387	0.730	0.973	6.665	33.650	18.610	0.000	0.388

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:27:32	91.863%	21.720	22.700	89.079%	-0.036	-0.032	-0.070	-0.023
2	14:27:51	92.218%	22.340	22.250	89.008%	-0.033	-0.024	-0.013	0.006
3	14:28:11	92.394%	22.150	22.110	88.385%	-0.033	-0.034	-0.029	-0.006
x		92.158%	22.070	22.350	88.824%	-0.034	-0.030	-0.037	-0.008
σ		0.270%	0.318	0.313	0.382%	0.001	0.005	0.029	0.014
%RSD		0.293	1.438	1.401	0.430	3.754	18.240	78.980	188.600

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:27:32	91.337%	-0.001	0.349	0.328	18.810	18.920	98.889%	99.007%
2	14:27:51	93.251%	0.088	0.295	0.378	18.650	19.180	101.091%	101.417%
3	14:28:11	92.289%	0.087	0.309	0.345	19.370	19.360	102.208%	102.941%
x		92.292%	0.058	0.318	0.351	18.940	19.150	100.729%	101.122%
σ		0.957%	0.051	0.028	0.025	0.376	0.223	1.689%	1.984%
%RSD		1.037	88.100	8.853	7.200	1.986	1.166	1.677	1.962

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:27:32	0.008	0.011	1.030	0.978	0.998	91.150%
2	14:27:51	-0.001	0.010	1.039	0.966	1.013	91.950%
3	14:28:11	0.013	0.006	1.092	1.016	1.047	92.394%
x		0.007	0.009	1.054	0.987	1.019	91.831%
σ		0.007	0.003	0.033	0.026	0.025	0.630%
%RSD		105.300	31.710	3.168	2.653	2.453	0.686

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:31:21	100.259%	-0.020	22.950	21.620	0.000	35860.000	7319.000	7284.000
2	14:31:41	104.993%	-0.012	21.540	20.810	0.000	32710.000	6882.000	6841.000
3	14:32:00	104.580%	-0.016	21.190	22.070	0.000	34940.000	6905.000	7167.000
x		103.277%	-0.016	21.900	21.500	0.000	34510.000	7035.000	7097.000
σ		2.622%	0.004	0.934	0.637	0.000	1621.000	246.000	229.700
%RSD		2.539	22.770	4.263	2.960	0.000	4.697	3.497	3.236

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:31:21	475.900	2820.000	0.000	5734.000	34850.000	34620.000	91.094%	7.491
2	14:31:41	446.200	2606.000	0.000	5411.000	34520.000	34390.000	90.870%	8.031
3	14:32:00	473.200	2751.000	0.000	5781.000	37200.000	37450.000	82.764%	8.404
x		465.100	2726.000	0.000	5642.000	35520.000	35490.000	88.243%	7.975
σ		16.440	109.400	0.000	201.400	1458.000	1701.000	4.746%	0.459
%RSD		3.534	4.013	0.000	3.569	4.103	4.795	5.378	5.755

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:31:21	1.543	2.011	118.200	821.700	1035.000	0.914	1.707	3.842
2	14:31:41	1.531	2.189	120.100	840.600	1039.000	0.804	1.747	4.149
3	14:32:00	2.762	2.147	126.600	881.900	1091.000	0.847	1.703	4.139
x		1.945	2.116	121.600	848.100	1055.000	0.855	1.719	4.043
σ		0.707	0.093	4.379	30.820	31.090	0.055	0.024	0.174
%RSD		36.360	4.390	3.601	3.634	2.948	6.468	1.412	4.309

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:31:21	3.613	10.890	11.030	-0.145	-0.679	0.482	0.000	101.300
2	14:31:41	4.352	11.030	10.860	0.505	-0.451	0.467	0.000	101.800
3	14:32:00	3.917	12.390	11.880	0.826	0.033	0.709	0.000	102.100
x		3.961	11.440	11.260	0.395	-0.366	0.553	0.000	101.700
σ		0.371	0.830	0.545	0.495	0.364	0.135	0.000	0.428
%RSD		9.378	7.252	4.842	125.200	99.430	24.480	0.000	0.420

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:31:21	90.576%	1.598	1.647	88.272%	-0.043	-0.040	0.168	0.118
2	14:31:41	92.049%	1.818	1.818	88.177%	-0.046	-0.042	0.020	0.018
3	14:32:00	91.727%	1.760	1.785	88.040%	-0.051	-0.039	0.159	0.099
x		91.451%	1.725	1.750	88.163%	-0.047	-0.040	0.116	0.078
σ		0.775%	0.114	0.091	0.117%	0.004	0.002	0.083	0.053
%RSD		0.847	6.597	5.198	0.133	8.904	4.508	71.540	68.150

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:31:21	89.169%	-0.233	-0.076	-0.033	41.910	42.270	96.133%	96.763%
2	14:31:41	90.837%	-0.188	-0.143	-0.111	42.010	41.290	97.000%	97.632%
3	14:32:00	91.650%	-0.152	-0.089	-0.068	41.660	41.380	98.542%	99.387%
x		90.552%	-0.191	-0.103	-0.071	41.860	41.650	97.225%	97.927%
σ		1.265%	0.041	0.036	0.039	0.180	0.544	1.221%	1.337%
%RSD		1.397	21.170	34.930	54.980	0.430	1.307	1.255	1.365

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:31:21	0.005	0.016	2.888	2.584	2.754	89.468%
2	14:31:41	0.020	0.015	2.920	2.797	2.877	88.267%
3	14:32:00	0.018	0.020	3.040	2.783	2.942	87.985%
x		0.014	0.017	2.950	2.721	2.857	88.573%
σ		0.008	0.003	0.080	0.119	0.095	0.788%
%RSD		54.800	15.570	2.724	4.365	3.338	0.889

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:35:11	109.246%	-0.056	42.940	41.680	0.000	53330.000	15280.000	15600.000
2	14:35:30	103.107%	-0.050	40.280	38.710	0.000	55450.000	15690.000	16360.000
3	14:35:50	103.298%	-0.030	40.250	39.100	0.000	54300.000	15950.000	16260.000
x		105.217%	-0.045	41.150	39.830	0.000	54360.000	15640.000	16080.000
σ		3.490%	0.013	1.546	1.616	0.000	1058.000	337.800	415.500
%RSD		3.317	29.540	3.757	4.057	0.000	1.946	2.160	2.584
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:35:11	23.140	3579.000	0.000	4954.000	81700.000	82180.000	88.924%	0.607
2	14:35:30	24.840	3730.000	0.000	5336.000	89060.000	89320.000	81.631%	1.119
3	14:35:50	23.470	3548.000	0.000	5345.000	89170.000	89380.000	81.030%	1.202
x		23.820	3619.000	0.000	5212.000	86650.000	86960.000	83.862%	0.976
σ		0.906	97.260	0.000	223.500	4280.000	4142.000	4.394%	0.323
%RSD		3.806	2.688	0.000	4.289	4.940	4.763	5.240	33.040
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:35:11	0.229	6.479	13.030	54.470	664.300	0.248	0.770	0.763
2	14:35:30	-1.933	6.944	13.710	64.730	687.800	0.249	0.534	0.831
3	14:35:50	-2.441	6.962	14.180	66.260	696.300	0.254	0.829	0.828
x		-1.382	6.795	13.640	61.820	682.800	0.250	0.711	0.808
σ		1.418	0.274	0.576	6.412	16.600	0.003	0.156	0.039
%RSD		102.600	4.029	4.224	10.370	2.431	1.092	21.940	4.776
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:35:11	0.689	2.502	2.847	-0.260	0.036	0.887	0.000	182.500
2	14:35:30	0.710	2.818	3.338	-1.034	0.234	0.715	0.000	183.500
3	14:35:50	0.791	2.838	2.849	0.314	0.472	0.736	0.000	184.900
x		0.730	2.719	3.011	-0.327	0.247	0.779	0.000	183.700
σ		0.054	0.188	0.283	0.676	0.219	0.094	0.000	1.216
%RSD		7.372	6.925	9.402	207.000	88.360	12.000	0.000	0.662
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:35:11	90.087%	10.190	10.580	87.144%	-0.047	-0.043	0.156	0.090
2	14:35:30	90.132%	10.580	10.680	86.170%	-0.038	-0.035	0.035	0.050
3	14:35:50	91.152%	10.200	10.860	86.752%	-0.048	-0.042	0.037	0.026
x		90.457%	10.320	10.710	86.689%	-0.044	-0.040	0.076	0.056
σ		0.603%	0.224	0.145	0.490%	0.005	0.005	0.069	0.032
%RSD		0.666	2.172	1.351	0.565	11.610	11.570	90.970	58.290
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:35:11	88.420%	-0.294	-0.220	-0.255	39.510	39.610	95.039%	95.120%
2	14:35:30	89.366%	-0.300	-0.197	-0.192	40.050	40.640	97.355%	97.651%
3	14:35:50	90.773%	-0.218	-0.236	-0.225	39.680	40.470	98.661%	98.742%
x		89.520%	-0.271	-0.218	-0.224	39.750	40.240	97.018%	97.171%
σ		1.184%	0.046	0.020	0.031	0.276	0.555	1.834%	1.858%
%RSD		1.323	16.870	8.968	14.030	0.695	1.378	1.891	1.912
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:35:11	0.012	0.013	0.105	0.103	0.099	85.162%		
2	14:35:30	0.008	0.013	0.119	0.102	0.112	85.420%		
3	14:35:50	0.004	0.013	0.085	0.093	0.101	88.275%		
x		0.008	0.013	0.103	0.099	0.104	86.286%		
σ		0.004	0.000	0.017	0.005	0.007	1.728%		
%RSD		47.850	2.381	16.690	5.383	6.460	2.002		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:38:59	101.284%	0.029	22.180	22.650	0.000	35110.000	7452.000	7443.000
2	14:39:18	103.254%	0.028	22.370	22.010	0.000	36120.000	7588.000	7490.000
3	14:39:37	101.299%	0.005	21.910	22.120	0.000	36200.000	7494.000	7635.000
x		101.946%	0.021	22.160	22.260	0.000	35810.000	7511.000	7523.000
σ		1.133%	0.013	0.229	0.341	0.000	609.500	69.680	100.200
%RSD		1.111	64.020	1.035	1.534	0.000	1.702	0.928	1.332

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:38:59	467.100	2580.000	0.000	5711.000	36810.000	37040.000	89.643%	6.213
2	14:39:18	490.700	2581.000	0.000	5649.000	38630.000	38450.000	83.588%	5.857
3	14:39:37	492.000	2707.000	0.000	5802.000	39490.000	39970.000	80.031%	6.117
x		483.300	2622.000	0.000	5721.000	38310.000	38490.000	84.421%	6.062
σ		14.060	73.010	0.000	77.100	1370.000	1464.000	4.860%	0.185
%RSD		2.908	2.784	0.000	1.348	3.577	3.804	5.757	3.043

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:38:59	4.261	2.243	256.900	882.500	1111.000	2.048	2.311	9.014
2	14:39:18	2.910	2.220	269.300	933.300	1170.000	2.225	2.609	9.182
3	14:39:37	1.317	2.415	283.300	973.900	1181.000	2.297	2.628	9.269
x		2.829	2.293	269.800	929.900	1154.000	2.190	2.516	9.155
σ		1.474	0.106	13.200	45.780	37.320	0.129	0.178	0.130
%RSD		52.100	4.628	4.892	4.923	3.234	5.866	7.068	1.415

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:38:59	8.702	27.250	27.680	1.131	-0.493	0.590	0.000	101.900
2	14:39:18	9.078	27.600	26.980	1.059	-0.077	0.465	0.000	104.000
3	14:39:37	9.719	29.030	27.870	0.838	-0.174	0.736	0.000	104.400
x		9.166	27.960	27.510	1.009	-0.248	0.597	0.000	103.500
σ		0.514	0.940	0.471	0.153	0.218	0.136	0.000	1.347
%RSD		5.608	3.361	1.713	15.110	87.760	22.730	0.000	1.302

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:38:59	92.384%	1.273	1.261	88.514%	-0.045	-0.038	0.113	0.120
2	14:39:18	93.899%	1.450	1.542	88.893%	-0.042	-0.045	0.161	0.221
3	14:39:37	94.065%	1.541	1.465	88.589%	-0.049	-0.037	0.247	0.184
x		93.449%	1.422	1.423	88.665%	-0.045	-0.040	0.174	0.175
σ		0.926%	0.136	0.145	0.200%	0.003	0.005	0.068	0.051
%RSD		0.991	9.593	10.210	0.226	7.648	11.330	39.170	29.300

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:38:59	90.846%	-0.204	-0.077	-0.073	52.970	53.590	96.523%	96.922%
2	14:39:18	92.190%	-0.163	-0.060	-0.075	53.240	54.020	99.835%	101.401%
3	14:39:37	92.957%	-0.137	-0.026	0.033	52.590	53.790	101.182%	102.572%
x		91.997%	-0.168	-0.054	-0.038	52.930	53.800	99.180%	100.298%
σ		1.069%	0.034	0.026	0.062	0.322	0.213	2.398%	2.982%
%RSD		1.161	19.950	48.240	160.300	0.609	0.396	2.417	2.973

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:38:59	0.007	0.017	21.350	19.880	20.560	89.252%
2	14:39:18	0.023	0.015	21.760	20.380	21.180	90.024%
3	14:39:37	0.010	0.015	21.860	20.840	21.370	91.970%
x		0.013	0.016	21.660	20.370	21.040	90.415%
σ		0.009	0.001	0.273	0.480	0.422	1.401%
%RSD		66.660	5.402	1.259	2.359	2.008	1.549

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:42:46	104.582%	-0.026	42.170	41.590	0.000	50270.000	15570.000	15550.000
2	14:43:05	94.586%	-0.043	43.290	43.870	0.000	54610.000	16640.000	17220.000
3	14:43:24	101.004%	-0.039	40.750	41.170	0.000	53920.000	16700.000	16660.000
x		100.057%	-0.036	42.070	42.210	0.000	52930.000	16310.000	16480.000
σ		5.065%	0.009	1.270	1.455	0.000	2335.000	635.400	850.700
%RSD		5.062	24.020	3.019	3.448	0.000	4.412	3.897	5.162

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:42:46	27.370	3606.000	0.000	4902.000	83600.000	84470.000	86.785%	0.861
2	14:43:05	28.120	3877.000	0.000	5314.000	93040.000	91460.000	82.743%	1.057
3	14:43:24	27.940	3826.000	0.000	5264.000	90070.000	90950.000	81.111%	0.980
x		27.810	3770.000	0.000	5160.000	88900.000	88960.000	83.546%	0.966
σ		0.393	144.400	0.000	225.000	4825.000	3895.000	2.921%	0.099
%RSD		1.413	3.830	0.000	4.361	5.427	4.379	3.496	10.200

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:42:46	-0.679	5.280	19.900	67.530	669.300	0.293	0.862	0.951
2	14:43:05	0.602	5.599	20.080	69.570	628.700	0.304	0.521	1.002
3	14:43:24	-0.509	5.635	20.500	69.330	654.500	0.297	0.824	1.010
x		-0.195	5.505	20.160	68.810	650.800	0.298	0.736	0.988
σ		0.696	0.196	0.308	1.113	20.540	0.005	0.187	0.032
%RSD		355.900	3.553	1.527	1.617	3.157	1.806	25.370	3.228

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:42:46	0.840	4.015	4.623	0.530	0.267	0.789	0.000	190.200
2	14:43:05	0.830	4.154	3.829	-0.195	-0.006	1.316	0.000	188.600
3	14:43:24	0.912	4.161	4.284	-0.425	0.026	0.694	0.000	190.600
x		0.861	4.110	4.246	-0.030	0.096	0.933	0.000	189.800
σ		0.045	0.082	0.398	0.498	0.149	0.335	0.000	1.087
%RSD		5.185	2.006	9.382	1645.000	155.800	35.900	0.000	0.573

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:42:46	90.691%	9.399	9.450	87.945%	-0.026	-0.035	-0.005	0.027
2	14:43:05	92.164%	9.650	9.411	88.786%	-0.039	-0.032	-0.039	-0.056
3	14:43:24	91.981%	9.376	9.903	88.736%	-0.036	-0.039	0.004	-0.010
x		91.612%	9.475	9.588	88.489%	-0.034	-0.035	-0.013	-0.013
σ		0.803%	0.152	0.273	0.472%	0.007	0.004	0.023	0.042
%RSD		0.877	1.608	2.851	0.533	19.960	10.210	170.500	319.300

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:42:46	89.935%	-0.263	-0.272	-0.290	39.700	40.640	97.703%	98.772%
2	14:43:05	91.732%	-0.301	-0.250	-0.217	39.580	40.060	100.786%	101.289%
3	14:43:24	92.789%	-0.251	-0.262	-0.226	40.400	40.560	101.449%	101.955%
x		91.486%	-0.272	-0.262	-0.244	39.900	40.420	99.979%	100.672%
σ		1.443%	0.026	0.011	0.040	0.441	0.311	1.999%	1.679%
%RSD		1.577	9.482	4.192	16.310	1.106	0.769	2.000	1.667

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:42:46	0.010	0.011	0.298	0.261	0.271	88.470%
2	14:43:05	0.013	0.010	0.260	0.273	0.243	91.578%
3	14:43:24	0.012	0.010	0.250	0.270	0.254	91.522%
x		0.012	0.010	0.269	0.268	0.256	90.523%
σ		0.002	0.000	0.025	0.006	0.014	1.778%
%RSD		12.670	2.519	9.438	2.297	5.431	1.964

180-44321-B-12-A 6/2/2015 2:46:14 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:46:34	97.631%	-0.023	20.650	19.310	0.000	43870.000	8874.000	8708.000
2	14:46:53	93.217%	-0.048	22.240	19.860	0.000	43540.000	9347.000	9627.000
3	14:47:12	94.054%	-0.043	21.380	20.330	0.000	43450.000	9163.000	9186.000
x		94.967%	-0.038	21.420	19.830	0.000	43620.000	9128.000	9173.000
σ		2.345%	0.013	0.797	0.510	0.000	221.800	238.400	459.500
%RSD		2.469	33.930	3.721	2.570	0.000	0.509	2.612	5.009

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:46:34	67.830	2876.000	0.000	2615.000	50440.000	50010.000	90.552%	1.492
2	14:46:53	76.200	3109.000	0.000	2757.000	53710.000	54420.000	85.866%	1.832
3	14:47:12	69.370	2952.000	0.000	2677.000	51630.000	49890.000	90.300%	1.269
x		71.130	2979.000	0.000	2683.000	51930.000	51440.000	88.906%	1.531
σ		4.452	119.000	0.000	71.090	1655.000	2580.000	2.635%	0.283
%RSD		6.259	3.993	0.000	2.650	3.187	5.016	2.964	18.500

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:46:34	1.363	1.374	30.630	214.100	537.000	0.325	0.946	2.566
2	14:46:53	2.427	1.372	31.440	215.500	549.800	0.321	0.994	2.726
3	14:47:12	1.418	1.199	29.350	206.300	486.900	0.329	0.620	2.498
x		1.736	1.315	30.470	212.000	524.600	0.325	0.853	2.597
σ		0.599	0.100	1.054	4.985	33.260	0.004	0.204	0.117
%RSD		34.500	7.635	3.459	2.352	6.340	1.240	23.870	4.496

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:46:34	2.623	6.241	6.202	0.107	-0.105	0.270	0.000	156.400
2	14:46:53	2.601	6.465	5.981	-0.224	-0.504	0.521	0.000	156.100
3	14:47:12	2.518	6.354	6.595	0.161	-0.144	0.267	0.000	155.600
x		2.581	6.353	6.259	0.015	-0.251	0.353	0.000	156.000
σ		0.055	0.112	0.311	0.208	0.220	0.146	0.000	0.379
%RSD		2.148	1.767	4.966	1427.000	87.580	41.280	0.000	0.243

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:46:34	91.612%	0.659	0.825	89.705%	-0.051	-0.045	-0.037	-0.031
2	14:46:53	93.918%	0.838	0.924	89.872%	-0.043	-0.046	-0.054	-0.040
3	14:47:12	93.921%	0.821	0.890	91.098%	-0.051	-0.047	0.026	0.014
x		93.150%	0.772	0.880	90.225%	-0.048	-0.046	-0.022	-0.019
σ		1.332%	0.099	0.051	0.761%	0.005	0.001	0.042	0.029
%RSD		1.430	12.810	5.753	0.843	10.090	2.679	195.500	152.800

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:46:34	92.531%	-0.305	-0.117	-0.108	40.850	41.900	97.927%	98.553%
2	14:46:53	94.234%	-0.314	-0.127	-0.162	42.130	42.930	99.781%	101.378%
3	14:47:12	95.062%	-0.207	-0.087	-0.109	43.320	42.830	101.619%	103.232%
x		93.942%	-0.275	-0.110	-0.126	42.100	42.550	99.776%	101.054%
σ		1.290%	0.059	0.021	0.031	1.236	0.571	1.846%	2.357%
%RSD		1.373	21.550	18.850	24.380	2.935	1.342	1.850	2.332

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:46:34	0.007	0.010	0.824	0.787	0.821	92.001%
2	14:46:53	0.007	0.011	0.831	0.785	0.827	93.134%
3	14:47:12	0.006	0.018	0.859	0.774	0.837	94.481%
x		0.007	0.013	0.838	0.782	0.828	93.205%
σ		0.001	0.004	0.019	0.007	0.008	1.242%
%RSD		11.950	33.500	2.239	0.954	1.000	1.332

CCV 1594026 6/2/2015 2:50:10 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:50:10	99.896%	97.400	100.700	100.800	0.000	47230.000	46770.000	45920.000
2	14:50:29	96.845%	96.150	102.300	91.830	0.000	45190.000	45440.000	44390.000
3	14:50:49	91.638%	91.150	107.400	102.300	0.000	46950.000	46650.000	46990.000
x		96.126%	94.901%	103.436%	98.329%	0.000	92.912%	92.573%	91.536%
σ		4.176%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		4.344	3.485	3.374	5.769	0.000	2.384	1.598	2.852

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:50:10	449.000	4867.000	0.000	49860.000	50180.000	49160.000	91.467%	97.490
2	14:50:29	453.400	4928.000	0.000	48770.000	50200.000	49860.000	92.406%	105.100
3	14:50:49	470.000	5170.000	0.000	50200.000	50890.000	51480.000	93.704%	100.200
x		91.488%	99.763%	0.000	99.221%	100.844%	100.329%	92.526%	100.930%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.124%	n/a
%RSD		2.421	3.208	0.000	1.503	0.799	2.377	1.214	3.834

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:50:10	98.550	100.300	498.200	25370.000	24770.000	101.200	102.200	99.840
2	14:50:29	104.300	104.400	512.900	25820.000	24800.000	101.400	103.900	99.090
3	14:50:49	97.830	102.000	498.300	24950.000	24310.000	99.930	99.520	95.990
x		100.228%	102.256%	100.625%	101.523%	98.499%	100.839%	101.854%	98.305%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		3.536	2.005	1.678	1.725	1.112	0.783	2.158	2.078

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:50:10	100.600	95.860	93.430	95.370	97.650	96.550	0.000	91.500
2	14:50:29	99.780	94.530	95.530	95.480	96.610	95.760	0.000	91.940
3	14:50:49	97.880	95.200	95.150	96.230	95.840	98.300	0.000	92.070
x		99.420%	95.196%	94.707%	95.695%	96.702%	96.869%	0.000	91.836%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.401	0.698	1.184	0.492	0.935	1.343	0.000	0.324

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:50:10	97.149%	94.170	94.960	93.547%	93.940	94.680	93.870	95.730
2	14:50:29	98.468%	95.450	96.820	93.016%	96.200	95.190	97.070	97.070
3	14:50:49	99.288%	95.490	97.140	94.335%	96.080	96.370	96.820	97.480
x		98.302%	95.034%	96.308%	93.632%	95.408%	95.414%	95.919%	96.757%
σ		1.079%	n/a	n/a	0.664%	n/a	n/a	n/a	n/a
%RSD		1.098	0.788	1.225	0.709	1.330	0.908	1.855	0.946

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:50:10	91.488%	95.170	89.770	89.600	91.570	92.230	97.186%	97.741%
2	14:50:29	92.631%	96.380	90.280	90.190	93.100	94.240	101.037%	100.276%
3	14:50:49	93.511%	95.760	91.420	91.650	95.040	94.710	101.964%	103.247%
x		92.543%	95.771%	90.490%	90.479%	93.237%	93.726%	100.062%	100.421%
σ		1.014%	n/a	n/a	n/a	n/a	n/a	2.533%	2.756%
%RSD		1.096	0.633	0.933	1.164	1.861	1.406	2.532	2.745

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	14:50:10	94.550	95.520	95.600	95.090	95.290	96.148%
2	14:50:29	98.470	99.740	99.310	99.690	100.300	95.132%
3	14:50:49	102.200	103.000	103.000	103.200	103.800	94.278%
x		98.418%	99.419%	99.306%	99.327%	99.791%	95.186%
σ		n/a	n/a	n/a	n/a	n/a	0.936%
%RSD		3.905	3.772	3.737	4.101	4.271	0.984

CCB6 6/2/2015 2:56:38 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:56:58	110.790%	-0.025	0.335	0.202	0.000	2.562	0.410	0.475
2	14:57:17	113.862%	-0.052	0.040	0.151	0.000	2.302	0.183	-0.026
3	14:57:36	115.224%	-0.044	0.242	0.161	0.000	2.178	0.132	0.232
x		113.292%	-0.041	0.206	0.171	0.000	2.347	0.242	0.227
σ		2.271%	0.014	0.151	0.027	0.000	0.196	0.148	0.251
%RSD		2.005	34.540	73.320	15.840	0.000	8.345	61.230	110.500
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:56:58	-0.387	-147.600	0.000	6.784	12.550	3.297	110.485%	-0.180
2	14:57:17	-0.473	-148.100	0.000	7.812	9.416	2.178	109.627%	-0.201
3	14:57:36	-0.392	-147.300	0.000	6.526	0.861	1.548	107.761%	-0.189
x		-0.417	-147.600	0.000	7.041	7.610	2.341	109.291%	-0.190
σ		0.049	0.396	0.000	0.680	6.052	0.886	1.393%	0.011
%RSD		11.670	0.268	0.000	9.661	79.520	37.840	1.274	5.651
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:56:58	-0.012	-0.044	-0.022	0.159	5.892	-0.002	-0.037	-0.031
2	14:57:17	0.010	-0.019	-0.025	2.657	5.593	-0.005	-0.031	-0.018
3	14:57:36	-0.045	-0.015	-0.020	2.322	5.199	-0.003	-0.043	-0.000
x		-0.016	-0.026	-0.022	1.712	5.561	-0.003	-0.037	-0.016
σ		0.028	0.016	0.003	1.356	0.348	0.001	0.006	0.015
%RSD		175.900	61.000	12.790	79.180	6.257	45.250	16.610	94.090
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:56:58	-0.013	0.026	0.026	-0.072	0.116	0.241	0.000	-0.007
2	14:57:17	0.017	0.049	0.005	0.051	-0.024	0.425	0.000	-0.001
3	14:57:36	-0.030	0.023	0.069	-0.009	0.213	0.165	0.000	-0.001
x		-0.009	0.032	0.033	-0.010	0.102	0.277	0.000	-0.003
σ		0.024	0.014	0.033	0.061	0.119	0.133	0.000	0.004
%RSD		272.300	42.950	97.340	614.600	117.300	48.140	0.000	116.600
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:56:58	101.480%	0.358	0.489	101.245%	-0.048	-0.038	0.013	0.012
2	14:57:17	102.764%	0.648	0.649	101.443%	-0.043	-0.042	0.063	0.039
3	14:57:36	102.930%	0.644	0.681	101.493%	-0.043	-0.033	0.002	0.017
x		102.391%	0.550	0.606	101.393%	-0.045	-0.038	0.026	0.023
σ		0.794%	0.166	0.103	0.131%	0.003	0.004	0.033	0.015
%RSD		0.775	30.260	17.000	0.130	6.307	11.310	125.300	64.120
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	14:56:58	99.295%	-0.450	0.319	0.384	-0.010	0.013	96.310%	96.056%
2	14:57:17	101.666%	-0.357	0.387	0.346	0.002	0.016	98.843%	97.779%
3	14:57:36	101.498%	-0.418	0.403	0.429	0.014	0.023	98.894%	99.387%
x		100.820%	-0.408	0.370	0.386	0.002	0.017	98.015%	97.741%
σ		1.323%	0.047	0.045	0.041	0.012	0.005	1.477%	1.666%
%RSD		1.313	11.580	12.070	10.650	619.300	31.020	1.507	1.704
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	14:56:58	0.014	0.010	-0.009	-0.009	-0.009	99.240%		
2	14:57:17	0.018	0.017	-0.004	-0.006	-0.003	99.207%		
3	14:57:36	0.019	0.022	-0.001	-0.007	-0.001	98.249%		
x		0.017	0.016	-0.004	-0.007	-0.005	98.899%		
σ		0.002	0.006	0.004	0.002	0.004	0.563%		
%RSD		13.690	39.040	98.410	20.570	83.700	0.570		

180-44321-B-13-A 6/2/2015 3:00:29 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:00:48	104.110%	0.074	17.380	19.430	0.000	89100.000	15760.000	15240.000
2	15:01:07	101.060%	0.040	17.730	18.450	0.000	91150.000	16040.000	15640.000
3	15:01:27	106.411%	0.068	19.920	19.840	0.000	93070.000	16140.000	16130.000
x		103.861%	0.061	18.340	19.240	0.000	91110.000	15980.000	15670.000
σ		2.684%	0.018	1.378	0.716	0.000	1988.000	195.000	444.100
%RSD		2.585	30.090	7.511	3.722	0.000	2.182	1.221	2.834
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:00:48	355.900	4029.000	0.000	2923.000	103000.000	102800.000	95.362%	4.039
2	15:01:07	392.200	4285.000	0.000	3076.000	110400.000	111300.000	85.759%	4.953
3	15:01:27	378.700	4096.000	0.000	3207.000	113200.000	113200.000	83.972%	4.687
x		375.600	4137.000	0.000	3069.000	108900.000	109100.000	88.364%	4.560
σ		18.350	133.100	0.000	141.900	5291.000	5506.000	6.126%	0.471
%RSD		4.886	3.219	0.000	4.624	4.860	5.047	6.932	10.320
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:00:48	2.861	1.976	455.200	1390.000	2029.000	2.916	2.134	8.799
2	15:01:07	2.985	2.130	493.500	1482.000	2118.000	3.177	2.137	9.201
3	15:01:27	3.225	1.921	489.800	1480.000	2120.000	3.271	2.519	9.845
x		3.024	2.009	479.500	1451.000	2089.000	3.121	2.263	9.282
σ		0.185	0.108	21.120	53.070	51.940	0.184	0.221	0.527
%RSD		6.119	5.389	4.405	3.658	2.486	5.885	9.772	5.681
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:00:48	8.568	35.280	35.320	0.486	0.561	1.223	0.000	147.500
2	15:01:07	9.300	37.120	36.500	0.738	0.433	1.335	0.000	148.200
3	15:01:27	9.458	38.590	38.490	2.089	0.542	1.377	0.000	148.900
x		9.109	36.990	36.770	1.104	0.512	1.312	0.000	148.200
σ		0.475	1.657	1.602	0.862	0.069	0.079	0.000	0.710
%RSD		5.214	4.479	4.356	78.050	13.470	6.060	0.000	0.479
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:00:48	93.242%	0.468	0.484	87.239%	-0.036	-0.031	0.090	0.120
2	15:01:07	94.865%	0.648	0.604	87.365%	-0.050	-0.038	0.202	0.205
3	15:01:27	96.440%	0.626	0.679	89.342%	-0.037	-0.044	0.144	0.191
x		94.849%	0.581	0.589	87.982%	-0.041	-0.038	0.146	0.172
σ		1.599%	0.098	0.098	1.179%	0.008	0.006	0.056	0.046
%RSD		1.686	16.930	16.700	1.341	19.240	16.570	38.460	26.650
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:00:48	88.995%	-0.102	2.248	2.165	70.510	71.070	94.050%	94.750%
2	15:01:07	91.147%	-0.046	2.059	2.299	70.630	71.830	98.049%	98.325%
3	15:01:27	92.128%	-0.049	1.965	1.939	70.650	71.280	99.937%	101.067%
x		90.757%	-0.066	2.091	2.134	70.600	71.390	97.345%	98.047%
σ		1.603%	0.031	0.145	0.182	0.074	0.394	3.006%	3.168%
%RSD		1.766	47.530	6.919	8.520	0.105	0.552	3.088	3.231
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:00:48	0.028	0.038	16.060	14.830	15.390	86.716%		
2	15:01:07	0.027	0.033	16.580	15.280	15.920	86.875%		
3	15:01:27	0.026	0.029	16.820	15.150	15.980	88.771%		
x		0.027	0.033	16.490	15.090	15.760	87.454%		
σ		0.001	0.005	0.392	0.230	0.327	1.143%		
%RSD		4.074	14.840	2.376	1.526	2.073	1.307		

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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	15:04:35	103.574%	-0.055	37.840	36.430	0.000	41190.000	10980.000	10780.000
2	15:04:56	108.474%	-0.023	33.850	34.220	0.000	43600.000	11110.000	11270.000
3	15:05:15	103.821%	-0.016	33.610	34.410	0.000	43500.000	11160.000	11520.000
x		105.290%	-0.031	35.100	35.020	0.000	42770.000	11080.000	11190.000
σ		2.760%	0.021	2.372	1.223	0.000	1362.000	93.070	377.000
%RSD		2.622	66.180	6.758	3.493	0.000	3.184	0.840	3.369
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:04:35	139.700	2666.000	0.000	6165.000	50130.000	50250.000	93.467%	2.799
2	15:04:56	147.200	2769.000	0.000	6628.000	54010.000	52880.000	84.588%	3.061
3	15:05:15	149.900	2801.000	0.000	6546.000	53110.000	53050.000	85.032%	3.058
x		145.600	2746.000	0.000	6446.000	52420.000	52060.000	87.696%	2.973
σ		5.271	70.280	0.000	246.900	2033.000	1570.000	5.003%	0.150
%RSD		3.620	2.560	0.000	3.831	3.878	3.017	5.705	5.057
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:04:35	0.962	2.011	125.500	309.900	641.000	0.822	1.516	3.049
2	15:04:56	3.410	1.923	136.800	344.400	660.300	0.886	1.534	3.343
3	15:05:15	1.787	1.997	133.300	335.500	644.700	0.843	1.565	3.410
x		2.053	1.977	131.900	330.000	648.700	0.850	1.538	3.267
σ		1.245	0.047	5.809	17.910	10.230	0.032	0.025	0.192
%RSD		60.650	2.391	4.404	5.427	1.576	3.806	1.603	5.877
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:04:35	2.917	9.424	9.523	0.715	-0.016	0.863	0.000	119.200
2	15:04:56	3.261	9.898	10.130	0.512	0.439	0.674	0.000	120.800
3	15:05:15	3.263	10.250	10.880	0.521	0.143	0.816	0.000	119.700
x		3.147	9.857	10.180	0.582	0.189	0.785	0.000	119.900
σ		0.199	0.414	0.682	0.115	0.231	0.098	0.000	0.824
%RSD		6.327	4.200	6.697	19.680	122.300	12.530	0.000	0.687
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:04:35	93.225%	4.048	4.219	91.399%	-0.047	-0.037	0.106	0.076
2	15:04:56	94.256%	4.413	4.508	91.135%	-0.037	-0.028	0.030	0.034
3	15:05:15	95.077%	4.290	4.367	90.909%	-0.042	-0.039	0.011	0.011
x		94.186%	4.250	4.365	91.148%	-0.042	-0.035	0.049	0.040
σ		0.928%	0.186	0.144	0.245%	0.005	0.006	0.050	0.033
%RSD		0.985	4.374	3.308	0.269	11.770	17.760	102.600	80.760
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:04:35	90.980%	-0.228	0.448	0.522	38.470	38.310	97.088%	97.802%
2	15:04:56	93.507%	-0.165	0.453	0.456	37.890	38.840	100.563%	100.844%
3	15:05:15	95.070%	-0.201	0.426	0.472	37.970	37.790	101.022%	101.761%
x		93.186%	-0.198	0.442	0.483	38.110	38.310	99.558%	100.136%
σ		2.064%	0.032	0.015	0.035	0.317	0.522	2.151%	2.072%
%RSD		2.215	16.050	3.349	7.150	0.832	1.363	2.161	2.069
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:04:35	0.016	0.014	1.941	1.778	1.843	89.866%		
2	15:04:56	0.018	0.018	1.964	1.867	1.918	89.848%		
3	15:05:15	0.016	0.013	1.998	1.862	1.938	90.721%		
x		0.017	0.015	1.967	1.835	1.899	90.145%		
σ		0.001	0.003	0.029	0.050	0.050	0.499%		
%RSD		8.464	17.020	1.459	2.715	2.611	0.553		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:08:24	104.256%	1.646	80.790	72.550	0.000	51220.000	24380.000	24210.000
2	15:08:43	101.911%	1.729	70.890	72.050	0.000	52840.000	24980.000	24930.000
3	15:09:03	100.600%	1.717	69.830	67.460	0.000	48530.000	23450.000	23280.000
x		102.255%	1.697	73.840	70.690	0.000	50870.000	24270.000	24140.000
σ		1.852%	0.045	6.042	2.808	0.000	2176.000	772.800	830.000
%RSD		1.811	2.639	8.182	3.972	0.000	4.278	3.184	3.439

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:08:24	5362.000	6466.000	0.000	10960.000	127200.000	126800.000	87.326%	14.600
2	15:08:43	5486.000	6688.000	0.000	10970.000	127900.000	130500.000	85.933%	14.060
3	15:09:03	5200.000	6176.000	0.000	10250.000	122100.000	121700.000	87.834%	14.000
x		5349.000	6444.000	0.000	10730.000	125800.000	126300.000	87.031%	14.220
σ		143.200	257.000	0.000	409.200	3186.000	4441.000	0.984%	0.332
%RSD		2.677	3.988	0.000	3.815	2.534	3.516	1.131	2.331

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:08:24	22.300	15.650	3232.000	4326.000	4906.000	37.390	24.060	179.700
2	15:08:43	23.100	15.750	3198.000	4252.000	4947.000	37.590	23.450	181.000
3	15:09:03	23.650	14.920	3129.000	4215.000	4827.000	37.810	23.430	177.900
x		23.020	15.440	3186.000	4264.000	4893.000	37.600	23.650	179.500
σ		0.675	0.453	52.170	56.610	60.830	0.211	0.358	1.530
%RSD		2.934	2.931	1.637	1.328	1.243	0.561	1.512	0.852

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:08:24	178.500	412.600	399.800	2.447	-0.797	1.213	0.000	158.100
2	15:08:43	177.900	416.100	412.600	2.657	-1.132	1.521	0.000	157.300
3	15:09:03	177.000	410.900	405.000	3.001	-0.945	1.229	0.000	158.300
x		177.800	413.200	405.800	2.702	-0.958	1.321	0.000	157.900
σ		0.757	2.646	6.427	0.279	0.168	0.173	0.000	0.517
%RSD		0.426	0.640	1.584	10.330	17.530	13.120	0.000	0.327

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:08:24	135.254%	2.376	2.440	89.742%	0.049	0.031	10.380	9.859
2	15:08:43	136.960%	2.353	2.640	90.024%	0.035	0.033	10.530	10.110
3	15:09:03	137.906%	2.538	2.713	90.468%	0.021	0.035	10.130	10.300
x		136.706%	2.422	2.598	90.078%	0.035	0.033	10.340	10.090
σ		1.344%	0.101	0.141	0.366%	0.014	0.002	0.202	0.222
%RSD		0.983	4.167	5.436	0.406	40.090	6.222	1.948	2.202

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:08:24	92.958%	-0.049	0.538	0.576	518.400	523.700	104.157%	104.922%
2	15:08:43	94.858%	-0.054	0.525	0.548	520.300	524.700	107.380%	108.435%
3	15:09:03	96.105%	-0.059	0.545	0.597	518.800	519.900	110.082%	109.643%
x		94.640%	-0.054	0.536	0.574	519.200	522.700	107.206%	107.667%
σ		1.584%	0.005	0.010	0.024	0.997	2.544	2.966%	2.452%
%RSD		1.674	9.863	1.836	4.269	0.192	0.487	2.767	2.278

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:08:24	0.097	0.105	367.200	341.100	357.300	91.652%
2	15:08:43	0.108	0.120	379.200	350.100	367.400	92.464%
3	15:09:03	0.104	0.121	383.100	354.500	370.700	92.983%
x		0.103	0.115	376.500	348.600	365.200	92.367%
σ		0.005	0.009	8.270	6.844	6.971	0.671%
%RSD		5.063	7.418	2.196	1.964	1.909	0.726

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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	15:12:12	109.512%	0.004	22.150	22.040	0.000	33840.000	6830.000	6736.000
2	15:12:31	105.592%	-0.031	23.360	21.930	0.000	35910.000	7202.000	6997.000
3	15:12:50	100.621%	-0.040	23.080	21.780	0.000	34610.000	7022.000	6940.000
x		105.241%	-0.022	22.860	21.920	0.000	34790.000	7018.000	6891.000
σ		4.456%	0.023	0.637	0.131	0.000	1047.000	186.100	137.300
%RSD		4.234	102.400	2.787	0.596	0.000	3.011	2.652	1.992

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:12:12	237.000	2318.000	0.000	5815.000	33560.000	33250.000	92.030%	4.221
2	15:12:31	247.400	2498.000	0.000	6151.000	35820.000	35160.000	86.675%	4.855
3	15:12:50	246.300	2425.000	0.000	5883.000	33820.000	34240.000	91.289%	3.888
x		243.500	2414.000	0.000	5949.000	34400.000	34220.000	89.998%	4.321
σ		5.734	90.520	0.000	177.700	1235.000	956.800	2.901%	0.492
%RSD		2.354	3.750	0.000	2.987	3.591	2.796	3.224	11.370

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:12:12	2.271	1.410	122.200	509.000	730.600	0.775	1.399	3.657
2	15:12:31	1.765	1.632	128.200	532.200	745.500	0.732	1.466	3.863
3	15:12:50	1.573	1.421	121.600	498.500	688.700	0.714	1.170	3.521
x		1.870	1.488	124.000	513.200	721.600	0.740	1.345	3.681
σ		0.361	0.125	3.647	17.220	29.450	0.031	0.156	0.172
%RSD		19.290	8.399	2.941	3.356	4.081	4.240	11.570	4.675

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:12:12	3.454	10.490	11.510	0.176	-0.253	0.475	0.000	96.620
2	15:12:31	3.929	11.500	11.280	0.596	-0.265	0.582	0.000	97.470
3	15:12:50	3.558	11.350	10.930	0.185	-0.395	0.639	0.000	98.660
x		3.647	11.110	11.240	0.319	-0.304	0.565	0.000	97.580
σ		0.250	0.548	0.294	0.240	0.078	0.083	0.000	1.023
%RSD		6.846	4.929	2.613	75.340	25.800	14.710	0.000	1.048

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:12:12	95.731%	1.426	1.529	93.651%	-0.046	-0.040	0.034	0.066
2	15:12:31	96.710%	1.468	1.706	93.019%	-0.049	-0.044	-0.082	-0.041
3	15:12:50	95.952%	1.487	1.690	92.136%	-0.048	-0.045	0.079	0.085
x		96.131%	1.460	1.642	92.935%	-0.048	-0.043	0.010	0.037
σ		0.514%	0.031	0.098	0.761%	0.001	0.003	0.083	0.068
%RSD		0.534	2.128	5.973	0.819	2.568	6.976	809.300	185.300

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:12:12	95.233%	-0.312	-0.013	-0.061	39.250	39.990	102.345%	103.232%
2	15:12:31	97.157%	-0.234	-0.029	-0.049	39.970	39.530	103.648%	105.031%
3	15:12:50	95.877%	-0.266	-0.050	-0.028	40.300	39.550	105.507%	105.333%
x		96.089%	-0.271	-0.031	-0.046	39.840	39.690	103.834%	104.532%
σ		0.979%	0.040	0.019	0.016	0.535	0.259	1.589%	1.136%
%RSD		1.019	14.640	60.050	35.640	1.342	0.652	1.531	1.087

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:12:12	0.007	0.010	2.616	2.414	2.514	93.718%
2	15:12:31	0.007	0.004	2.646	2.465	2.557	95.251%
3	15:12:50	0.008	0.016	2.498	2.372	2.477	98.195%
x		0.007	0.010	2.586	2.417	2.516	95.721%
σ		0.000	0.006	0.078	0.047	0.040	2.275%
%RSD		5.453	57.760	3.012	1.932	1.591	2.377

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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	15:16:00	109.619%	-0.015	40.280	40.850	0.000	52850.000	15550.000	15670.000
2	15:16:19	103.331%	-0.031	43.290	42.660	0.000	50850.000	15970.000	16120.000
3	15:16:39	92.692%	-0.048	45.180	42.400	0.000	54240.000	16300.000	16060.000
x		101.881%	-0.031	42.920	41.970	0.000	52650.000	15940.000	15950.000
σ		8.556%	0.016	2.475	0.978	0.000	1702.000	378.700	249.000
%RSD		8.398	52.670	5.766	2.330	0.000	3.232	2.375	1.561

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:16:00	18.600	3637.000	0.000	5034.000	84510.000	84360.000	94.020%	0.969
2	15:16:19	19.760	3605.000	0.000	4834.000	81960.000	81770.000	93.398%	0.809
3	15:16:39	20.200	3786.000	0.000	5080.000	85300.000	85090.000	91.630%	0.790
x		19.520	3676.000	0.000	4983.000	83920.000	83740.000	93.016%	0.856
σ		0.828	96.640	0.000	130.900	1746.000	1741.000	1.240%	0.098
%RSD		4.241	2.629	0.000	2.627	2.080	2.080	1.333	11.500

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:16:00	1.604	4.951	18.290	49.930	614.700	0.281	0.557	0.978
2	15:16:19	-2.407	5.205	18.480	45.810	588.200	0.263	0.626	0.955
3	15:16:39	1.132	5.061	19.220	48.300	579.700	0.246	0.502	1.034
x		0.110	5.072	18.660	48.010	594.200	0.264	0.562	0.989
σ		2.192	0.127	0.490	2.076	18.250	0.017	0.062	0.041
%RSD		1995.000	2.510	2.626	4.324	3.071	6.638	11.070	4.115

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:16:00	0.851	3.773	4.118	-0.555	0.099	0.785	0.000	185.500
2	15:16:19	1.018	4.370	3.837	-0.072	0.007	1.110	0.000	184.600
3	15:16:39	0.813	4.054	3.860	0.018	-0.207	1.234	0.000	187.400
x		0.894	4.066	3.938	-0.203	-0.034	1.043	0.000	185.800
σ		0.109	0.299	0.156	0.308	0.157	0.232	0.000	1.427
%RSD		12.190	7.348	3.969	151.700	467.600	22.270	0.000	0.768

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:16:00	93.294%	8.893	9.050	90.398%	-0.047	-0.042	0.045	0.011
2	15:16:19	95.007%	8.936	9.318	90.644%	-0.048	-0.047	0.028	0.045
3	15:16:39	94.184%	9.421	9.382	91.229%	-0.045	-0.039	-0.069	-0.061
x		94.162%	9.083	9.250	90.757%	-0.047	-0.043	0.001	-0.002
σ		0.857%	0.293	0.176	0.427%	0.002	0.004	0.061	0.054
%RSD		0.910	3.227	1.903	0.471	3.399	9.603	4595.000	3146.000

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:16:00	93.316%	-0.344	-0.215	-0.183	38.620	40.130	98.047%	100.105%
2	15:16:19	92.960%	-0.363	-0.183	-0.141	40.100	40.050	101.157%	102.706%
3	15:16:39	95.746%	-0.322	-0.179	-0.145	40.350	40.090	101.842%	103.802%
x		94.007%	-0.343	-0.192	-0.156	39.690	40.090	100.349%	102.204%
σ		1.516%	0.021	0.019	0.023	0.934	0.041	2.022%	1.899%
%RSD		1.613	6.011	10.050	14.700	2.352	0.102	2.015	1.858

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:16:00	0.010	0.013	0.279	0.257	0.276	88.203%
2	15:16:19	0.009	0.010	0.282	0.265	0.279	90.016%
3	15:16:39	0.011	0.012	0.282	0.272	0.284	92.351%
x		0.010	0.012	0.281	0.265	0.280	90.190%
σ		0.001	0.002	0.002	0.008	0.004	2.079%
%RSD		10.390	15.110	0.636	2.897	1.458	2.305

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:19:48	103.053%	-0.040	51.630	48.820	0.000	72270.000	19560.000	19380.000
2	15:20:08	102.328%	-0.055	49.330	46.530	0.000	73250.000	19580.000	20010.000
3	15:20:27	97.345%	-0.054	45.600	47.910	0.000	71540.000	19150.000	19010.000
x		100.909%	-0.050	48.850	47.760	0.000	72350.000	19430.000	19470.000
σ		3.107%	0.008	3.043	1.149	0.000	855.600	243.400	504.700
%RSD		3.079	16.210	6.228	2.407	0.000	1.182	1.253	2.592

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:19:48	6.101	3326.000	0.000	12170.000	83040.000	84370.000	91.823%	0.580
2	15:20:08	6.438	3277.000	0.000	12380.000	87210.000	86210.000	88.099%	0.287
3	15:20:27	6.084	3314.000	0.000	12340.000	86830.000	87470.000	89.605%	0.318
x		6.208	3306.000	0.000	12300.000	85690.000	86020.000	89.842%	0.395
σ		0.200	25.980	0.000	113.700	2305.000	1555.000	1.873%	0.161
%RSD		3.214	0.786	0.000	0.925	2.690	1.808	2.085	40.660

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:19:48	0.002	6.001	1.795	21.200	607.000	0.274	1.034	4.843
2	15:20:08	1.052	5.975	1.805	20.210	592.400	0.283	0.854	4.995
3	15:20:27	1.315	6.312	1.841	19.790	576.900	0.275	0.747	4.813
x		0.790	6.096	1.813	20.400	592.100	0.277	0.879	4.883
σ		0.695	0.188	0.024	0.719	15.060	0.005	0.145	0.097
%RSD		88.010	3.077	1.331	3.524	2.543	1.748	16.520	1.993

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:19:48	4.570	52.570	53.330	-0.050	0.039	0.794	0.000	180.500
2	15:20:08	4.699	56.120	55.830	-0.130	-0.219	0.909	0.000	182.600
3	15:20:27	4.510	53.970	53.850	-0.239	-0.241	0.904	0.000	181.900
x		4.593	54.220	54.340	-0.140	-0.140	0.869	0.000	181.700
σ		0.096	1.788	1.319	0.095	0.156	0.065	0.000	1.044
%RSD		2.097	3.298	2.428	67.750	110.900	7.482	0.000	0.575

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:19:48	92.984%	0.705	0.716	89.162%	-0.054	-0.037	-0.046	-0.032
2	15:20:08	93.189%	0.858	0.862	90.178%	-0.047	-0.044	0.082	0.065
3	15:20:27	94.346%	0.817	0.909	88.680%	-0.041	-0.031	-0.036	-0.024
x		93.506%	0.794	0.829	89.340%	-0.047	-0.037	-0.000	0.003
σ		0.734%	0.079	0.100	0.765%	0.006	0.006	0.072	0.054
%RSD		0.785	9.979	12.100	0.856	13.030	17.450	172500.000	1649.000

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:19:48	91.139%	-0.259	-0.168	-0.076	60.390	61.020	98.810%	98.892%
2	15:20:08	92.681%	-0.279	-0.135	-0.114	60.670	61.390	100.049%	101.262%
3	15:20:27	94.175%	-0.235	-0.182	-0.131	59.840	60.540	102.514%	102.561%
x		92.665%	-0.258	-0.162	-0.107	60.300	60.980	100.458%	100.905%
σ		1.518%	0.022	0.024	0.028	0.425	0.428	1.886%	1.860%
%RSD		1.638	8.589	14.870	26.290	0.705	0.702	1.877	1.844

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:19:48	-0.002	0.006	2.145	1.917	2.056	86.044%
2	15:20:08	0.003	0.007	2.189	2.020	2.112	88.001%
3	15:20:27	0.012	0.004	1.980	2.006	1.989	89.854%
x		0.005	0.006	2.104	1.981	2.052	87.966%
σ		0.007	0.002	0.110	0.056	0.061	1.905%
%RSD		156.600	28.520	5.230	2.839	2.994	2.166

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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	15:23:37	98.577%	-0.034	51.380	52.040	0.000	45430.000	16640.000	16290.000
2	15:23:56	103.687%	-0.050	51.370	45.480	0.000	43810.000	15990.000	16120.000
3	15:24:15	98.541%	-0.054	51.110	50.470	0.000	44230.000	16170.000	16510.000
x		100.268%	-0.046	51.290	49.330	0.000	44490.000	16270.000	16300.000
σ		2.961%	0.011	0.153	3.426	0.000	842.900	332.700	199.100
%RSD		2.953	23.420	0.298	6.945	0.000	1.895	2.045	1.221
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:23:37	1.488	4751.000	0.000	11750.000	116500.000	118000.000	85.133%	0.614
2	15:23:56	1.858	4646.000	0.000	11600.000	120300.000	121400.000	80.529%	0.528
3	15:24:15	1.709	4618.000	0.000	11720.000	121400.000	119700.000	81.451%	0.666
x		1.685	4672.000	0.000	11690.000	119400.000	119700.000	82.371%	0.603
σ		0.186	69.790	0.000	77.750	2547.000	1729.000	2.436%	0.070
%RSD		11.030	1.494	0.000	0.665	2.132	1.445	2.957	11.540
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:23:37	-1.886	15.240	38.610	28.930	837.100	0.466	19.290	19.590
2	15:23:56	0.154	15.190	40.040	26.830	839.300	0.490	19.650	20.520
3	15:24:15	-0.911	15.260	38.930	24.390	791.500	0.454	18.460	20.030
x		-0.881	15.230	39.190	26.720	822.600	0.470	19.130	20.050
σ		1.021	0.036	0.752	2.270	27.010	0.018	0.610	0.467
%RSD		115.800	0.240	1.920	8.496	3.284	3.932	3.189	2.332
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:23:37	19.520	73.190	72.960	-0.056	0.055	0.709	0.000	281.100
2	15:23:56	20.030	76.110	74.410	-0.596	-0.035	0.456	0.000	283.700
3	15:24:15	20.230	74.740	75.120	-0.794	-0.525	0.666	0.000	283.300
x		19.920	74.680	74.160	-0.482	-0.168	0.610	0.000	282.700
σ		0.368	1.462	1.101	0.382	0.312	0.136	0.000	1.407
%RSD		1.845	1.958	1.485	79.310	185.600	22.190	0.000	0.498
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:23:37	92.492%	0.122	0.179	88.912%	-0.022	-0.013	0.003	0.011
2	15:23:56	93.944%	0.149	0.180	89.375%	-0.010	-0.017	-0.076	-0.027
3	15:24:15	94.330%	0.138	0.182	89.159%	-0.028	-0.023	-0.033	-0.041
x		93.589%	0.136	0.180	89.149%	-0.020	-0.018	-0.035	-0.019
σ		0.969%	0.013	0.001	0.232%	0.009	0.005	0.040	0.027
%RSD		1.036	9.796	0.804	0.260	45.400	27.980	112.200	142.100
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:23:37	92.708%	-0.012	-0.352	-0.290	59.700	61.210	98.953%	100.745%
2	15:23:56	94.214%	0.039	-0.337	-0.296	59.550	60.540	101.689%	103.061%
3	15:24:15	94.667%	0.066	-0.296	-0.268	59.720	60.830	103.642%	103.640%
x		93.863%	0.031	-0.328	-0.285	59.650	60.860	101.428%	102.482%
σ		1.026%	0.040	0.029	0.015	0.094	0.341	2.356%	1.532%
%RSD		1.093	129.700	8.862	5.295	0.157	0.560	2.322	1.495
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:23:37	0.021	0.015	3.949	3.679	3.740	89.946%		
2	15:23:56	0.006	0.013	4.003	3.724	3.758	90.505%		
3	15:24:15	0.013	0.017	3.898	3.508	3.734	90.775%		
x		0.014	0.015	3.950	3.637	3.744	90.409%		
σ		0.007	0.002	0.053	0.114	0.012	0.423%		
%RSD		53.230	11.630	1.334	3.129	0.332	0.468		

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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	15:27:25	109.363%	-0.065	30.710	30.670	0.000	53170.000	15380.000	15670.000
2	15:27:44	101.405%	-0.050	33.380	31.540	0.000	56780.000	16540.000	16050.000
3	15:28:04	105.576%	-0.051	32.910	31.590	0.000	53200.000	15030.000	15410.000
x		105.448%	-0.055	32.330	31.270	0.000	54380.000	15650.000	15710.000
σ		3.981%	0.009	1.428	0.517	0.000	2072.000	787.500	320.400
%RSD		3.775	15.760	4.417	1.654	0.000	3.810	5.031	2.039
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:27:25	1.797	3959.000	0.000	9134.000	135200.000	136500.000	87.684%	0.453
2	15:27:44	1.709	3959.000	0.000	9528.000	141800.000	141300.000	85.288%	0.388
3	15:28:04	1.634	3817.000	0.000	8607.000	135700.000	127600.000	92.639%	0.339
x		1.713	3912.000	0.000	9090.000	137500.000	135100.000	88.537%	0.394
σ		0.082	82.210	0.000	462.400	3696.000	6981.000	3.749%	0.057
%RSD		4.780	2.102	0.000	5.087	2.687	5.166	4.235	14.560
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:27:25	-1.075	2.274	66.450	33.940	1027.000	7.091	9.385	7.037
2	15:27:44	-1.701	2.356	67.430	36.170	1003.000	7.144	9.362	7.149
3	15:28:04	-0.574	1.998	62.270	24.760	934.100	6.558	8.225	6.670
x		-1.117	2.209	65.380	31.630	988.100	6.931	8.990	6.952
σ		0.565	0.188	2.738	6.047	48.390	0.324	0.663	0.251
%RSD		50.570	8.500	4.188	19.120	4.897	4.676	7.378	3.609
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:27:25	7.122	28.960	30.310	0.976	-0.073	0.894	0.000	251.800
2	15:27:44	6.816	29.410	30.320	-0.383	0.251	1.007	0.000	255.700
3	15:28:04	7.163	28.750	28.660	0.021	-0.340	0.353	0.000	255.100
x		7.034	29.040	29.760	0.205	-0.054	0.751	0.000	254.200
σ		0.189	0.336	0.952	0.698	0.296	0.349	0.000	2.095
%RSD		2.690	1.156	3.197	341.100	548.800	46.510	0.000	0.824
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:27:25	93.243%	0.120	0.077	89.194%	-0.040	-0.026	0.036	0.042
2	15:27:44	93.416%	0.140	0.239	88.997%	-0.021	-0.025	0.061	0.035
3	15:28:04	94.126%	0.252	0.226	89.163%	-0.027	-0.014	0.055	0.041
x		93.595%	0.171	0.180	89.118%	-0.029	-0.022	0.051	0.040
σ		0.468%	0.071	0.090	0.106%	0.010	0.006	0.013	0.004
%RSD		0.500	41.800	49.810	0.119	33.520	29.940	26.050	9.552
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:27:25	91.480%	-0.408	-0.328	-0.295	60.760	59.780	97.486%	97.103%
2	15:27:44	92.955%	-0.381	-0.319	-0.318	59.150	59.970	99.103%	99.719%
3	15:28:04	92.283%	-0.353	-0.282	-0.262	59.670	60.750	99.524%	100.010%
x		92.240%	-0.381	-0.310	-0.292	59.860	60.170	98.705%	98.944%
σ		0.738%	0.028	0.025	0.028	0.822	0.516	1.076%	1.601%
%RSD		0.801	7.245	7.951	9.585	1.374	0.858	1.090	1.618
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:27:25	0.019	0.020	0.542	0.489	0.534	87.983%		
2	15:27:44	0.018	0.027	0.606	0.562	0.568	86.668%		
3	15:28:04	0.023	0.022	0.583	0.550	0.569	86.401%		
x		0.020	0.023	0.577	0.534	0.557	87.017%		
σ		0.003	0.003	0.033	0.039	0.020	0.847%		
%RSD		13.250	14.860	5.640	7.307	3.518	0.974		

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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	15:34:12	119.323%	-0.053	-0.147	-0.148	0.000	1.867	-0.328	-0.266
2	15:34:32	115.260%	-0.027	-0.070	-0.048	0.000	1.348	-0.509	-0.691
3	15:34:51	110.302%	-0.061	-0.228	0.005	0.000	1.287	-0.625	-0.504
x		114.962%	-0.047	-0.149	-0.064	0.000	1.501	-0.487	-0.487
σ		4.518%	0.018	0.079	0.078	0.000	0.318	0.150	0.213
%RSD		3.930	38.240	53.170	122.200	0.000	21.210	30.770	43.820

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:34:12	-0.073	-150.000	0.000	8.637	19.170	12.620	103.680%	-0.187
2	15:34:32	-0.014	-148.000	0.000	7.711	8.984	13.830	103.627%	-0.152
3	15:34:51	-0.074	-146.800	0.000	8.041	20.630	15.170	102.594%	-0.221
x		-0.054	-148.300	0.000	8.129	16.260	13.870	103.300%	-0.187
σ		0.035	1.608	0.000	0.469	6.343	1.272	0.612%	0.035
%RSD		64.820	1.084	0.000	5.774	39.010	9.167	0.593	18.530

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:34:12	-0.035	-0.005	-0.024	4.064	3.584	-0.004	0.001	0.009
2	15:34:32	0.026	-0.006	-0.016	0.954	3.532	-0.003	-0.041	-0.028
3	15:34:51	0.005	-0.015	-0.022	-1.061	1.346	-0.004	-0.058	-0.006
x		-0.001	-0.009	-0.020	1.319	2.821	-0.003	-0.032	-0.008
σ		0.031	0.005	0.004	2.582	1.277	0.000	0.030	0.018
%RSD		2774.000	61.340	21.030	195.700	45.280	12.020	93.530	229.600

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:34:12	-0.019	0.949	0.850	-0.058	-0.206	0.036	0.000	0.006
2	15:34:32	0.002	0.738	1.118	-0.103	-0.226	0.057	0.000	0.005
3	15:34:51	0.024	0.920	0.962	-0.134	-0.066	-0.110	0.000	0.005
x		0.002	0.869	0.976	-0.098	-0.166	-0.006	0.000	0.005
σ		0.021	0.114	0.135	0.038	0.087	0.091	0.000	0.000
%RSD		877.700	13.160	13.810	38.890	52.380	1639.000	0.000	3.335

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:34:12	102.176%	-0.200	-0.124	99.905%	-0.050	-0.040	0.027	0.023
2	15:34:32	103.416%	-0.111	-0.127	100.505%	-0.046	-0.048	0.024	0.014
3	15:34:51	104.066%	-0.153	-0.134	101.740%	-0.042	-0.044	-0.023	-0.017
x		103.219%	-0.155	-0.128	100.717%	-0.046	-0.044	0.009	0.007
σ		0.961%	0.045	0.005	0.936%	0.004	0.004	0.028	0.021
%RSD		0.931	28.940	4.087	0.929	8.356	8.655	305.300	309.100

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:34:12	98.994%	-0.594	-0.497	-0.501	0.002	0.020	96.955%	96.569%
2	15:34:32	100.667%	-0.602	-0.498	-0.484	0.046	0.009	99.522%	99.911%
3	15:34:51	103.121%	-0.577	-0.507	-0.490	0.062	0.069	103.158%	101.912%
x		100.927%	-0.591	-0.501	-0.492	0.037	0.032	99.879%	99.464%
σ		2.076%	0.013	0.005	0.009	0.031	0.032	3.117%	2.700%
%RSD		2.057	2.203	1.082	1.818	83.750	97.950	3.121	2.714

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:34:12	-0.001	-0.001	-0.008	-0.012	-0.008	103.200%
2	15:34:32	-0.002	-0.001	-0.001	-0.015	-0.007	101.897%
3	15:34:51	-0.002	0.002	-0.007	-0.003	-0.004	102.660%
x		-0.002	-0.000	-0.005	-0.010	-0.006	102.586%
σ		0.001	0.001	0.004	0.006	0.002	0.655%
%RSD		32.440	2149.000	67.360	59.060	34.780	0.638

LCS 180-142542/2-A 6/2/2015 3:37:41 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:38:00	99.777%	41.640	898.300	877.700	0.000	39850.000	39160.000	40610.000
2	15:38:20	105.357%	41.730	946.100	865.600	0.000	40430.000	40990.000	40080.000
3	15:38:39	97.970%	42.410	920.900	900.200	0.000	41000.000	41290.000	42430.000
x		101.034%	41.930	921.800	881.200	0.000	40430.000	40480.000	41040.000
σ		3.851%	0.423	23.900	17.550	0.000	575.600	1154.000	1234.000
%RSD		3.811	1.010	2.592	1.992	0.000	1.424	2.851	3.008
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:38:00	1609.000	8950.000	0.000	45860.000	48430.000	47420.000	85.414%	969.300
2	15:38:20	1523.000	8173.000	0.000	43100.000	45440.000	45240.000	88.103%	899.800
3	15:38:39	1672.000	9007.000	0.000	46210.000	50130.000	50000.000	82.490%	969.600
x		1601.000	8710.000	0.000	45060.000	48000.000	47550.000	85.336%	946.200
σ		75.080	465.600	0.000	1707.000	2373.000	2383.000	2.807%	40.190
%RSD		4.688	5.345	0.000	3.788	4.944	5.012	3.289	4.247
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:38:00	488.100	191.900	467.800	934.200	1234.000	479.400	468.900	235.200
2	15:38:20	460.600	183.000	446.500	920.500	1188.000	466.200	473.600	235.600
3	15:38:39	503.900	199.400	476.500	980.200	1275.000	488.900	479.000	239.100
x		484.200	191.400	463.600	945.000	1232.000	478.200	473.800	236.600
σ		21.920	8.252	15.450	31.280	43.350	11.360	5.015	2.170
%RSD		4.527	4.310	3.333	3.310	3.519	2.375	1.058	0.917
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:38:00	235.800	458.400	460.500	35.980	9.233	9.793	0.000	891.200
2	15:38:20	233.700	455.700	457.300	36.530	9.134	9.664	0.000	895.200
3	15:38:39	241.600	466.400	462.400	35.550	9.357	10.030	0.000	887.500
x		237.000	460.100	460.000	36.020	9.241	9.830	0.000	891.300
σ		4.119	5.556	2.547	0.493	0.111	0.188	0.000	3.879
%RSD		1.738	1.208	0.554	1.369	1.205	1.912	0.000	0.435
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:38:00	91.679%	982.300	992.700	86.980%	46.100	45.930	46.240	41.290
2	15:38:20	93.489%	978.300	1002.000	89.132%	45.670	46.140	47.150	41.150
3	15:38:39	93.771%	994.200	1002.000	88.269%	46.280	46.720	46.640	40.500
x		92.980%	984.900	998.600	88.127%	46.020	46.260	46.680	40.980
σ		1.135%	8.274	5.162	1.083%	0.312	0.408	0.452	0.420
%RSD		1.221	0.840	0.517	1.229	0.677	0.881	0.969	1.025
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:38:00	90.606%	1861.000	478.200	470.900	1746.000	1774.000	97.395%	98.528%
2	15:38:20	91.343%	1854.000	479.300	479.600	1764.000	1778.000	101.067%	102.414%
3	15:38:39	93.072%	1842.000	476.200	472.900	1739.000	1761.000	102.338%	101.980%
x		91.674%	1853.000	477.900	474.500	1750.000	1771.000	100.267%	100.974%
σ		1.266%	9.560	1.583	4.568	12.870	9.017	2.567%	2.130%
%RSD		1.381	0.516	0.331	0.963	0.736	0.509	2.560	2.109
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:38:00	48.760	49.310	20.100	20.340	20.180	90.254%		
2	15:38:20	50.300	51.250	20.960	20.480	20.900	89.677%		
3	15:38:39	50.020	50.690	20.970	20.900	21.050	90.523%		
x		49.690	50.420	20.680	20.570	20.710	90.151%		
σ		0.817	0.995	0.499	0.290	0.463	0.433%		
%RSD		1.643	1.973	2.415	1.407	2.237	0.480		

CCV 1594026 6/2/2015 3:41:37 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:41:37	106.708%	98.730	106.500	103.200	0.000	47840.000	46160.000	45560.000
2	15:41:56	105.918%	96.840	105.700	102.100	0.000	46560.000	45690.000	45670.000
3	15:42:16	103.823%	99.370	104.600	101.300	0.000	47000.000	45990.000	45470.000
x		105.483%	98.314%	105.611%	102.169%	0.000	94.269%	91.900%	91.134%
σ		1.491%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		1.414	1.338	0.916	0.933	0.000	1.385	0.517	0.210

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:41:37	445.200	4773.000	0.000	49070.000	50280.000	49290.000	97.160%	99.840
2	15:41:56	455.000	4820.000	0.000	49300.000	49360.000	49880.000	96.334%	100.100
3	15:42:16	457.900	4955.000	0.000	49130.000	50550.000	49960.000	94.159%	104.000
x		90.543%	96.987%	0.000	98.336%	100.128%	99.424%	95.884%	101.333%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.550%	n/a
%RSD		1.470	1.953	0.000	0.241	1.244	0.738	1.616	2.310

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:41:37	99.890	99.850	492.800	25300.000	25050.000	100.400	102.100	98.100
2	15:41:56	97.360	99.620	489.700	24890.000	24470.000	100.300	100.700	99.650
3	15:42:16	99.810	103.100	496.300	25260.000	25090.000	102.700	103.100	100.400
x		99.019%	100.846%	98.593%	100.591%	99.485%	101.143%	101.985%	99.368%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		1.449	1.912	0.671	0.892	1.397	1.340	1.168	1.164

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:41:37	97.800	93.060	92.780	91.990	93.490	92.550	0.000	91.080
2	15:41:56	99.750	93.460	94.120	96.080	96.150	97.220	0.000	92.800
3	15:42:16	101.600	95.480	95.010	95.380	96.170	95.090	0.000	92.560
x		99.705%	93.999%	93.970%	94.482%	95.272%	94.957%	0.000	92.148%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.891	1.378	1.193	2.315	1.620	2.464	0.000	1.014

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:41:37	99.190%	101.700	101.200	95.015%	92.850	93.900	94.700	95.430
2	15:41:56	99.801%	104.000	105.400	94.793%	95.410	96.090	96.420	97.210
3	15:42:16	101.095%	104.700	105.300	95.393%	95.580	96.310	97.300	97.520
x		100.029%	103.469%	103.947%	95.067%	94.611%	95.431%	96.137%	96.718%
σ		0.973%	n/a	n/a	0.303%	n/a	n/a	n/a	n/a
%RSD		0.972	1.532	2.308	0.319	1.615	1.396	1.378	1.163

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:41:37	90.486%	97.050	90.010	89.450	95.140	93.490	94.715%	94.275%
2	15:41:56	92.055%	97.940	90.870	89.860	94.770	95.770	98.277%	97.735%
3	15:42:16	92.377%	99.400	91.640	91.410	96.250	94.900	98.515%	98.730%
x		91.639%	98.127%	90.839%	90.242%	95.387%	94.719%	97.169%	96.913%
σ		1.012%	n/a	n/a	n/a	n/a	n/a	2.129%	2.339%
%RSD		1.104	1.211	0.899	1.145	0.810	1.211	2.191	2.413

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:41:37	95.520	94.910	94.780	95.600	95.400	93.336%
2	15:41:56	100.800	101.600	101.000	100.700	101.500	91.297%
3	15:42:16	103.200	104.300	103.700	103.500	104.500	89.881%
x		99.857%	100.270%	99.826%	99.933%	100.477%	91.505%
σ		n/a	n/a	n/a	n/a	n/a	1.737%
%RSD		3.952	4.828	4.579	4.015	4.622	1.898

CCB7 6/2/2015 3:48:02 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	15:48:21	119.669%	-0.058	0.203	0.440	0.000	2.763	0.572	0.801
2	15:48:41	117.589%	-0.053	0.250	0.617	0.000	2.355	0.285	0.523
3	15:49:00	120.211%	-0.053	0.077	0.382	0.000	2.158	0.407	0.248
x		119.156%	-0.055	0.177	0.480	0.000	2.425	0.421	0.524
σ		1.384%	0.003	0.090	0.123	0.000	0.309	0.144	0.276
%RSD		1.162	4.622	50.770	25.540	0.000	12.730	34.250	52.680

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:48:21	-0.378	-149.400	0.000	13.040	-0.275	3.461	108.979%	-0.146
2	15:48:41	-0.305	-147.700	0.000	13.110	-0.165	1.574	105.338%	-0.085
3	15:49:00	-0.444	-147.500	0.000	13.120	7.796	2.450	103.908%	-0.071
x		-0.376	-148.200	0.000	13.090	2.452	2.495	106.075%	-0.101
σ		0.069	0.996	0.000	0.046	4.628	0.944	2.614%	0.040
%RSD		18.440	0.672	0.000	0.353	188.800	37.850	2.465	39.230

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:48:21	-0.062	-0.040	-0.006	2.784	7.416	0.004	-0.039	-0.018
2	15:48:41	0.012	-0.011	-0.016	2.763	8.517	0.001	-0.072	-0.018
3	15:49:00	0.034	-0.050	-0.016	3.011	6.494	-0.002	-0.044	-0.000
x		-0.005	-0.034	-0.013	2.852	7.476	0.001	-0.052	-0.012
σ		0.050	0.020	0.006	0.137	1.013	0.003	0.018	0.010
%RSD		930.400	59.700	44.010	4.814	13.550	264.400	34.030	83.850

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:48:21	0.003	0.111	0.023	0.026	0.116	0.247	0.000	0.003
2	15:48:41	-0.008	0.032	0.073	0.001	0.276	0.388	0.000	0.002
3	15:49:00	-0.041	0.141	0.071	0.052	0.174	0.566	0.000	0.000
x		-0.015	0.095	0.056	0.026	0.189	0.400	0.000	0.002
σ		0.023	0.056	0.028	0.026	0.081	0.160	0.000	0.001
%RSD		151.600	59.310	50.480	98.440	42.730	40.030	0.000	82.560

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:48:21	100.968%	0.787	0.930	100.675%	-0.039	-0.038	0.076	0.048
2	15:48:41	103.021%	1.201	1.187	101.341%	-0.043	-0.032	0.002	-0.002
3	15:49:00	103.319%	1.239	1.145	101.778%	-0.040	-0.039	0.001	0.001
x		102.436%	1.075	1.087	101.265%	-0.041	-0.037	0.026	0.015
σ		1.280%	0.251	0.138	0.555%	0.002	0.004	0.043	0.028
%RSD		1.250	23.290	12.710	0.548	5.367	10.950	165.400	183.300

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:48:21	97.926%	-0.327	0.324	0.330	0.023	0.021	93.944%	93.441%
2	15:48:41	100.397%	-0.267	0.383	0.305	0.022	0.009	96.082%	95.488%
3	15:49:00	100.934%	-0.257	0.336	0.377	-0.011	0.009	97.824%	98.415%
x		99.752%	-0.284	0.348	0.337	0.011	0.013	95.950%	95.781%
σ		1.604%	0.038	0.032	0.036	0.019	0.007	1.944%	2.500%
%RSD		1.608	13.490	9.071	10.810	168.000	54.090	2.026	2.610

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:48:21	0.021	0.025	0.007	-0.004	0.002	98.646%
2	15:48:41	0.021	0.033	0.004	-0.001	-0.001	98.257%
3	15:49:00	0.021	0.027	-0.001	-0.006	-0.000	99.398%
x		0.021	0.028	0.003	-0.004	0.000	98.767%
σ		0.000	0.004	0.004	0.002	0.001	0.580%
%RSD		1.012	13.280	116.900	64.470	3733.000	0.588

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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	15:52:12	107.312%	-0.032	46.460	44.600	0.000	36530.000	11770.000	11980.000
2	15:52:31	103.380%	-0.050	44.450	42.460	0.000	34940.000	11340.000	11150.000
3	15:52:50	105.552%	-0.041	40.670	41.480	0.000	33000.000	10520.000	10790.000
x		105.415%	-0.041	43.860	42.850	0.000	34820.000	11210.000	11310.000
σ		1.969%	0.009	2.938	1.599	0.000	1766.000	635.900	611.300
%RSD		1.868	22.110	6.699	3.731	0.000	5.073	5.672	5.405
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:52:12	2.582	4718.000	0.000	5269.000	110100.000	109000.000	86.087%	0.675
2	15:52:31	2.162	4390.000	0.000	4655.000	99450.000	100500.000	92.825%	0.480
3	15:52:50	2.330	4271.000	0.000	4664.000	98560.000	97140.000	89.472%	0.427
x		2.358	4460.000	0.000	4863.000	102700.000	102200.000	89.462%	0.527
σ		0.211	231.400	0.000	351.800	6419.000	6106.000	3.369%	0.131
%RSD		8.961	5.189	0.000	7.233	6.250	5.974	3.766	24.780
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:52:12	-1.053	6.535	4.638	24.030	813.800	0.321	11.900	27.310
2	15:52:31	0.991	5.806	4.259	13.830	689.300	0.305	11.790	26.660
3	15:52:50	-1.155	6.067	4.517	19.350	732.600	0.314	12.050	27.210
x		-0.406	6.136	4.471	19.070	745.200	0.313	11.910	27.060
σ		1.211	0.370	0.194	5.108	63.230	0.008	0.130	0.347
%RSD		298.300	6.021	4.328	26.790	8.485	2.519	1.092	1.283
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:52:12	27.220	30.670	31.760	-0.554	-0.120	0.789	0.000	181.100
2	15:52:31	27.150	30.850	30.010	-0.072	0.008	0.692	0.000	179.900
3	15:52:50	28.050	30.800	30.740	0.868	-0.186	1.044	0.000	180.000
x		27.470	30.770	30.840	0.081	-0.099	0.842	0.000	180.300
σ		0.500	0.091	0.879	0.723	0.099	0.182	0.000	0.640
%RSD		1.819	0.294	2.851	894.700	99.440	21.600	0.000	0.355
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:52:12	92.101%	1.722	1.705	89.256%	-0.038	-0.027	0.064	0.065
2	15:52:31	93.612%	1.959	1.820	89.691%	-0.042	-0.044	-0.049	-0.036
3	15:52:50	93.117%	2.013	1.915	89.170%	-0.036	-0.036	-0.015	-0.009
x		92.943%	1.898	1.813	89.372%	-0.039	-0.035	0.000	0.007
σ		0.770%	0.155	0.105	0.279%	0.003	0.008	0.058	0.052
%RSD		0.829	8.159	5.787	0.312	8.977	23.730	68890.000	784.800
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:52:12	90.366%	0.245	1.937	1.999	37.340	37.950	95.943%	96.568%
2	15:52:31	91.661%	0.219	1.938	1.868	38.950	39.030	97.464%	98.586%
3	15:52:50	92.534%	0.196	1.686	1.644	40.020	38.890	99.064%	100.191%
x		91.520%	0.220	1.853	1.837	38.770	38.620	97.490%	98.448%
σ		1.091%	0.025	0.145	0.179	1.348	0.587	1.561%	1.816%
%RSD		1.192	11.200	7.836	9.763	3.477	1.520	1.601	1.844
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:52:12	0.019	0.047	3.721	3.542	3.581	84.938%		
2	15:52:31	0.037	0.029	3.874	3.509	3.694	86.676%		
3	15:52:50	0.040	0.024	3.839	3.436	3.613	87.388%		
x		0.032	0.033	3.811	3.496	3.629	86.334%		
σ		0.012	0.012	0.080	0.054	0.058	1.260%		
%RSD		36.310	35.610	2.097	1.555	1.602	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	15:55:59	104.854%	-0.046	44.190	41.740	0.000	60480.000	17720.000	17850.000
2	15:56:19	100.892%	-0.045	39.810	41.000	0.000	64560.000	18110.000	18080.000
3	15:56:38	102.366%	-0.040	39.420	38.840	0.000	60220.000	17580.000	17540.000
x		102.704%	-0.044	41.140	40.520	0.000	61760.000	17800.000	17820.000
σ		2.003%	0.003	2.649	1.508	0.000	2433.000	274.800	273.600
%RSD		1.950	6.862	6.439	3.721	0.000	3.940	1.543	1.535
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:55:59	3.017	3849.000	0.000	5955.000	85180.000	87270.000	97.488%	0.496
2	15:56:19	2.311	3966.000	0.000	6034.000	87330.000	86180.000	97.210%	0.560
3	15:56:38	2.134	3843.000	0.000	6105.000	88520.000	86460.000	93.115%	0.426
x		2.487	3886.000	0.000	6031.000	87010.000	86630.000	95.938%	0.494
σ		0.467	69.350	0.000	74.700	1690.000	564.700	2.449%	0.067
%RSD		18.770	1.785	0.000	1.239	1.942	0.652	2.552	13.540
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:55:59	-0.357	10.860	3.015	21.740	667.900	0.279	27.320	30.490
2	15:56:19	-0.301	10.690	3.037	17.350	625.400	0.260	26.310	29.480
3	15:56:38	-1.342	10.650	3.047	17.150	642.700	0.218	26.950	30.800
x		-0.667	10.730	3.033	18.750	645.300	0.252	26.860	30.250
σ		0.585	0.111	0.017	2.596	21.410	0.031	0.512	0.690
%RSD		87.790	1.035	0.548	13.850	3.317	12.420	1.907	2.280
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:55:59	29.520	162.700	163.200	-0.609	-0.087	0.969	0.000	225.500
2	15:56:19	29.800	161.400	163.100	-0.796	-0.390	0.707	0.000	224.800
3	15:56:38	30.220	162.500	165.200	0.553	0.054	0.774	0.000	225.400
x		29.850	162.200	163.900	-0.284	-0.141	0.817	0.000	225.300
σ		0.348	0.710	1.131	0.731	0.227	0.136	0.000	0.406
%RSD		1.167	0.438	0.690	257.400	160.400	16.650	0.000	0.180
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:55:59	92.564%	1.204	1.094	89.567%	-0.029	-0.040	0.125	0.089
2	15:56:19	92.807%	1.250	1.339	89.678%	-0.035	-0.038	0.022	0.031
3	15:56:38	94.335%	1.369	1.348	89.440%	-0.034	-0.038	0.034	0.009
x		93.235%	1.274	1.260	89.562%	-0.032	-0.039	0.060	0.043
σ		0.960%	0.085	0.144	0.119%	0.003	0.001	0.057	0.041
%RSD		1.029	6.662	11.460	0.133	9.707	3.219	93.860	94.970
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:55:59	90.306%	0.095	0.428	0.458	57.100	57.130	95.080%	95.940%
2	15:56:19	92.881%	0.077	0.445	0.373	56.980	57.040	98.523%	97.627%
3	15:56:38	93.249%	0.041	0.429	0.347	57.460	57.590	100.208%	100.381%
x		92.145%	0.071	0.434	0.393	57.180	57.250	97.937%	97.983%
σ		1.603%	0.028	0.010	0.058	0.249	0.293	2.614%	2.242%
%RSD		1.740	39.110	2.251	14.840	0.435	0.513	2.669	2.288
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	15:55:59	0.022	0.021	4.119	3.716	3.872	86.944%		
2	15:56:19	0.015	0.023	4.243	3.858	4.053	88.852%		
3	15:56:38	0.007	0.020	4.173	3.776	4.003	89.804%		
x		0.014	0.021	4.178	3.783	3.976	88.533%		
σ		0.008	0.002	0.062	0.072	0.094	1.456%		
%RSD		52.850	9.081	1.487	1.895	2.361	1.645		

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Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:59:47	116.221%	-0.027	57.940	58.460	0.000	22510.000	7786.000	7864.000
2	16:00:06	111.236%	-0.065	52.730	54.390	0.000	22360.000	7760.000	7638.000
3	16:00:25	103.282%	-0.030	60.270	59.620	0.000	23730.000	8650.000	8492.000
x		110.246%	-0.041	56.980	57.490	0.000	22870.000	8065.000	7998.000
σ		6.526%	0.021	3.859	2.745	0.000	752.400	506.400	442.300
%RSD		5.919	52.230	6.772	4.774	0.000	3.290	6.279	5.531

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:59:47	117.100	4319.000	0.000	2632.000	94290.000	94140.000	93.559%	2.461
2	16:00:06	112.100	4263.000	0.000	2581.000	93490.000	93550.000	92.406%	2.687
3	16:00:25	120.400	4551.000	0.000	2914.000	104400.000	101500.000	86.086%	2.490
x		116.500	4378.000	0.000	2709.000	97390.000	96410.000	90.684%	2.546
σ		4.178	152.600	0.000	179.200	6072.000	4440.000	4.023%	0.123
%RSD		3.585	3.485	0.000	6.616	6.234	4.606	4.437	4.833

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:59:47	-2.431	2.109	250.800	369.000	1104.000	0.948	2.213	0.985
2	16:00:06	-1.858	2.223	261.200	379.200	1055.000	0.888	2.088	0.952
3	16:00:25	1.672	2.204	269.400	398.100	1063.000	0.865	2.137	0.924
x		-0.873	2.179	260.400	382.100	1074.000	0.901	2.146	0.954
σ		2.222	0.061	9.324	14.750	26.460	0.043	0.063	0.030
%RSD		254.600	2.790	3.580	3.861	2.463	4.752	2.923	3.158

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:59:47	1.033	9.757	10.410	0.270	-0.586	0.543	0.000	165.400
2	16:00:06	1.091	10.460	10.500	0.665	-0.374	0.359	0.000	166.700
3	16:00:25	1.116	10.430	11.120	0.516	-0.418	0.527	0.000	164.700
x		1.080	10.210	10.680	0.484	-0.459	0.476	0.000	165.600
σ		0.043	0.397	0.389	0.200	0.112	0.102	0.000	1.023
%RSD		3.977	3.885	3.646	41.340	24.290	21.360	0.000	0.618

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:59:47	94.608%	0.509	0.531	90.248%	-0.036	-0.045	0.044	0.040
2	16:00:06	95.201%	0.742	0.671	90.833%	-0.041	-0.040	0.027	0.031
3	16:00:25	96.362%	0.683	0.691	91.752%	-0.036	-0.029	0.031	0.026
x		95.390%	0.645	0.631	90.944%	-0.038	-0.038	0.034	0.032
σ		0.893%	0.122	0.087	0.758%	0.003	0.008	0.009	0.007
%RSD		0.936	18.840	13.820	0.834	6.891	21.430	26.130	21.170

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	15:59:47	91.886%	-0.198	-0.009	0.018	35.960	36.010	97.673%	97.835%
2	16:00:06	94.170%	-0.189	-0.014	0.087	36.050	36.200	99.921%	100.448%
3	16:00:25	94.974%	-0.180	0.040	0.059	37.100	37.260	101.090%	101.043%
x		93.677%	-0.189	0.006	0.055	36.370	36.490	99.561%	99.775%
σ		1.602%	0.009	0.030	0.035	0.637	0.671	1.736%	1.706%
%RSD		1.710	4.694	528.700	63.620	1.750	1.838	1.744	1.710

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	15:59:47	0.007	0.014	0.542	0.441	0.500	89.473%
2	16:00:06	0.010	0.013	0.588	0.467	0.528	90.166%
3	16:00:25	0.005	0.015	0.526	0.514	0.518	91.571%
x		0.007	0.014	0.552	0.474	0.515	90.403%
σ		0.003	0.001	0.032	0.037	0.014	1.069%
%RSD		34.810	6.309	5.805	7.831	2.791	1.182

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:03:35	112.233%	-0.052	11.700	10.960	0.000	4626.000	1551.000	1535.000
2	16:03:54	117.512%	-0.053	11.370	11.100	0.000	4549.000	1566.000	1552.000
3	16:04:13	104.351%	-0.055	11.510	10.010	0.000	4566.000	1582.000	1629.000
x		111.366%	-0.053	11.520	10.690	0.000	4580.000	1566.000	1572.000
σ		6.623%	0.002	0.163	0.594	0.000	40.680	15.330	49.750
%RSD		5.947	3.076	1.416	5.555	0.000	0.888	0.979	3.165
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:03:35	21.990	739.900	0.000	539.500	19350.000	18360.000	102.177%	0.297
2	16:03:54	22.420	721.000	0.000	520.300	18840.000	18920.000	98.817%	0.460
3	16:04:13	23.660	769.000	0.000	554.700	19920.000	19310.000	99.528%	0.395
x		22.690	743.300	0.000	538.200	19370.000	18870.000	100.174%	0.384
σ		0.866	24.180	0.000	17.230	540.700	478.200	1.770%	0.082
%RSD		3.818	3.253	0.000	3.202	2.791	2.535	1.767	21.390
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:03:35	0.381	0.459	50.050	79.650	216.400	0.167	0.417	0.166
2	16:03:54	-0.222	0.395	51.330	78.810	227.000	0.169	0.464	0.195
3	16:04:13	0.650	0.403	51.090	77.930	219.700	0.185	0.399	0.146
x		0.270	0.419	50.820	78.800	221.000	0.173	0.427	0.169
σ		0.447	0.035	0.677	0.863	5.433	0.010	0.033	0.025
%RSD		165.700	8.258	1.333	1.095	2.458	5.698	7.804	14.740
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:03:35	0.210	2.801	2.669	-0.042	-0.360	-0.130	0.000	32.790
2	16:03:54	0.222	2.702	2.613	0.073	-0.344	0.077	0.000	32.830
3	16:04:13	0.222	2.815	2.529	-0.452	-0.335	0.153	0.000	32.920
x		0.218	2.773	2.604	-0.140	-0.346	0.033	0.000	32.840
σ		0.007	0.062	0.070	0.276	0.013	0.147	0.000	0.068
%RSD		3.356	2.224	2.703	197.200	3.718	438.500	0.000	0.208
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:03:35	98.865%	0.051	0.085	97.799%	-0.048	-0.046	0.079	0.072
2	16:03:54	100.764%	0.124	0.185	98.182%	-0.051	-0.041	0.034	0.014
3	16:04:13	99.827%	0.163	0.204	98.928%	-0.040	-0.037	0.012	0.009
x		99.819%	0.113	0.158	98.303%	-0.046	-0.041	0.041	0.032
σ		0.950%	0.057	0.064	0.574%	0.006	0.004	0.034	0.035
%RSD		0.951	50.200	40.600	0.584	12.300	10.070	81.670	110.800
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:03:35	97.163%	-0.528	-0.447	-0.406	7.304	7.342	98.508%	98.723%
2	16:03:54	98.563%	-0.507	-0.437	-0.457	8.023	7.466	101.477%	101.132%
3	16:04:13	101.885%	-0.507	-0.411	-0.410	6.876	7.371	103.380%	103.160%
x		99.204%	-0.514	-0.432	-0.424	7.401	7.393	101.122%	101.005%
σ		2.426%	0.012	0.019	0.029	0.580	0.065	2.456%	2.221%
%RSD		2.445	2.341	4.323	6.788	7.831	0.874	2.428	2.199
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:03:35	0.005	0.009	0.113	0.082	0.097	98.309%		
2	16:03:54	0.000	-0.001	0.117	0.076	0.098	98.037%		
3	16:04:13	0.005	0.003	0.109	0.099	0.104	97.742%		
x		0.003	0.004	0.113	0.086	0.100	98.030%		
σ		0.003	0.005	0.004	0.012	0.004	0.284%		
%RSD		84.060	130.500	3.682	14.160	3.772	0.289		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:07:23	100.423%	43.440	934.400	898.500	0.000	60900.000	47580.000	47290.000
2	16:07:42	101.496%	42.110	972.600	941.300	0.000	61210.000	48360.000	48920.000
3	16:08:01	97.577%	41.300	956.800	946.900	0.000	65590.000	49470.000	50150.000
x		99.832%	42.280	954.600	928.900	0.000	62570.000	48470.000	48790.000
σ		2.025%	1.081	19.230	26.490	0.000	2618.000	948.200	1438.000
%RSD		2.029	2.556	2.014	2.852	0.000	4.185	1.956	2.947
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:07:23	1978.000	13380.000	0.000	45660.000	141200.000	140800.000	93.517%	922.100
2	16:07:42	1967.000	13540.000	0.000	46590.000	140100.000	140800.000	91.089%	915.800
3	16:08:01	2052.000	13990.000	0.000	49710.000	159700.000	149800.000	85.696%	970.000
x		1999.000	13640.000	0.000	47320.000	147000.000	143800.000	90.101%	936.000
σ		46.050	319.000	0.000	2124.000	11010.000	5229.000	4.003%	29.630
%RSD		2.303	2.339	0.000	4.489	7.488	3.637	4.443	3.166
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:07:23	478.700	184.600	719.500	1641.000	2568.000	461.400	451.400	217.800
2	16:07:42	467.800	183.800	722.100	1611.000	2475.000	454.900	444.200	224.000
3	16:08:01	498.800	189.300	751.800	1721.000	2587.000	468.700	468.200	230.200
x		481.800	185.900	731.100	1657.000	2543.000	461.600	454.600	224.000
σ		15.750	2.957	17.920	57.030	59.770	6.903	12.280	6.162
%RSD		3.269	1.591	2.451	3.441	2.350	1.495	2.702	2.751
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:07:23	219.400	423.300	423.000	34.700	8.683	10.530	0.000	1057.000
2	16:07:42	223.000	434.400	437.200	34.630	8.215	9.293	0.000	1054.000
3	16:08:01	228.500	442.500	448.500	33.740	8.660	9.953	0.000	1047.000
x		223.600	433.400	436.200	34.360	8.520	9.926	0.000	1053.000
σ		4.593	9.666	12.770	0.538	0.264	0.621	0.000	4.931
%RSD		2.054	2.230	2.928	1.567	3.094	6.253	0.000	0.468
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:07:23	94.605%	994.800	1021.000	87.750%	45.880	45.790	47.850	39.160
2	16:07:42	94.800%	1005.000	1021.000	88.464%	45.270	45.990	46.400	40.780
3	16:08:01	95.707%	996.600	1026.000	87.750%	46.220	46.130	46.580	39.880
x		95.037%	998.800	1023.000	87.988%	45.790	45.970	46.940	39.940
σ		0.588%	5.514	2.769	0.412%	0.484	0.171	0.792	0.813
%RSD		0.618	0.552	0.271	0.469	1.057	0.371	1.688	2.036
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:07:23	91.435%	1895.000	477.100	472.100	1792.000	1807.000	98.877%	99.941%
2	16:07:42	92.062%	1885.000	484.000	479.500	1802.000	1816.000	102.143%	103.642%
3	16:08:01	93.406%	1873.000	478.800	475.400	1784.000	1805.000	103.183%	104.627%
x		92.301%	1885.000	480.000	475.700	1792.000	1810.000	101.401%	102.737%
σ		1.007%	10.900	3.614	3.677	9.178	6.030	2.247%	2.470%
%RSD		1.091	0.578	0.753	0.773	0.512	0.333	2.216	2.405
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:07:23	49.150	49.540	21.090	20.930	21.080	89.442%		
2	16:07:42	50.160	50.880	21.340	21.450	21.660	89.742%		
3	16:08:01	51.580	52.050	22.040	21.580	21.990	89.973%		
x		50.300	50.830	21.490	21.320	21.580	89.719%		
σ		1.223	1.254	0.491	0.344	0.460	0.266%		
%RSD		2.432	2.468	2.283	1.612	2.133	0.297		

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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	16:11:10	110.791%	41.460	962.400	944.600	0.000	64750.000	49400.000	48910.000
2	16:11:30	103.955%	42.950	1038.000	960.400	0.000	62790.000	48030.000	48880.000
3	16:11:49	102.611%	41.870	985.800	949.200	0.000	60390.000	46970.000	47770.000
x		105.786%	42.090	995.400	951.400	0.000	62640.000	48130.000	48520.000
σ		4.386%	0.770	38.700	8.103	0.000	2187.000	1221.000	650.800
%RSD		4.146	1.829	3.888	0.852	0.000	3.492	2.537	1.341

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:11:10	1816.000	13620.000	0.000	48990.000	157200.000	150200.000	85.278%	959.600
2	16:11:30	1808.000	13380.000	0.000	46610.000	150200.000	141600.000	89.571%	911.600
3	16:11:49	1825.000	13330.000	0.000	45190.000	148900.000	141600.000	88.557%	915.900
x		1816.000	13450.000	0.000	46930.000	152100.000	144400.000	87.802%	929.000
σ		8.410	153.300	0.000	1918.000	4451.000	4974.000	2.244%	26.560
%RSD		0.463	1.140	0.000	4.086	2.926	3.444	2.556	2.859

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:11:10	491.700	190.300	746.900	1311.000	2359.000	493.500	474.800	237.200
2	16:11:30	474.500	183.400	711.400	1263.000	2149.000	470.500	465.400	229.700
3	16:11:49	468.100	184.100	715.900	1255.000	2247.000	467.300	457.000	226.600
x		478.100	185.900	724.700	1276.000	2252.000	477.100	465.700	231.200
σ		12.210	3.764	19.330	30.630	105.100	14.270	8.884	5.452
%RSD		2.553	2.024	2.668	2.399	4.666	2.991	1.908	2.358

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:11:10	235.900	459.000	458.900	36.780	9.589	10.550	0.000	1076.000
2	16:11:30	230.400	446.000	447.000	34.780	9.408	10.060	0.000	1065.000
3	16:11:49	231.000	446.600	450.100	36.420	9.264	10.150	0.000	1071.000
x		232.400	450.500	452.000	35.990	9.420	10.260	0.000	1071.000
σ		3.025	7.350	6.196	1.066	0.163	0.264	0.000	5.593
%RSD		1.301	1.632	1.371	2.963	1.726	2.571	0.000	0.522

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:11:10	93.027%	1020.000	1032.000	86.931%	46.600	46.450	47.410	40.240
2	16:11:30	95.180%	1013.000	1031.000	88.293%	46.080	46.480	46.430	41.210
3	16:11:49	95.008%	1016.000	1047.000	87.794%	47.130	46.270	46.970	40.770
x		94.405%	1016.000	1037.000	87.672%	46.600	46.400	46.940	40.740
σ		1.197%	3.639	8.766	0.689%	0.527	0.115	0.494	0.486
%RSD		1.268	0.358	0.846	0.786	1.131	0.247	1.051	1.193

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:11:10	89.369%	1914.000	488.900	484.900	1807.000	1832.000	98.757%	99.004%
2	16:11:30	91.161%	1917.000	490.600	490.300	1832.000	1845.000	99.469%	100.723%
3	16:11:49	91.671%	1900.000	492.400	489.800	1825.000	1850.000	101.597%	102.226%
x		90.734%	1911.000	490.600	488.300	1821.000	1842.000	99.941%	100.651%
σ		1.209%	9.196	1.748	2.947	13.090	9.457	1.478%	1.612%
%RSD		1.332	0.481	0.356	0.603	0.719	0.513	1.478	1.601

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:11:10	50.340	50.510	20.630	20.890	20.880	87.546%
2	16:11:30	51.200	51.670	21.760	21.580	21.660	88.261%
3	16:11:49	52.200	52.540	21.370	21.430	21.680	88.492%
x		51.250	51.570	21.250	21.300	21.410	88.100%
σ		0.934	1.016	0.577	0.362	0.459	0.493%
%RSD		1.822	1.971	2.713	1.701	2.144	0.560

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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	16:14:58	104.254%	45.550	1031.000	997.300	0.000	61440.000	48430.000	48800.000
2	16:15:17	103.176%	45.480	1081.000	967.100	0.000	64800.000	49970.000	49290.000
3	16:15:37	101.779%	44.230	1039.000	980.800	0.000	64980.000	50790.000	50660.000
x		103.069%	45.090	1051.000	981.700	0.000	63740.000	49730.000	49580.000
σ		1.241%	0.742	26.710	15.150	0.000	1995.000	1198.000	963.600
%RSD		1.204	1.646	2.542	1.543	0.000	3.130	2.410	1.944

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:14:58	1799.000	13680.000	0.000	47040.000	146000.000	140200.000	92.141%	990.000
2	16:15:17	1753.000	13270.000	0.000	47600.000	149000.000	142100.000	89.984%	964.400
3	16:15:37	1805.000	13620.000	0.000	49080.000	151700.000	143400.000	89.545%	967.800
x		1786.000	13520.000	0.000	47900.000	148900.000	141900.000	90.557%	974.100
σ		28.700	223.400	0.000	1056.000	2879.000	1615.000	1.390%	13.910
%RSD		1.607	1.652	0.000	2.204	1.934	1.138	1.535	1.428

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:14:58	513.000	194.500	728.700	1330.000	2285.000	496.000	481.300	233.700
2	16:15:17	499.800	196.600	738.100	1345.000	2293.000	490.700	488.900	243.700
3	16:15:37	502.400	196.700	730.000	1341.000	2281.000	482.900	478.000	236.900
x		505.100	195.900	732.300	1339.000	2287.000	489.900	482.800	238.100
σ		7.006	1.260	5.089	8.106	6.029	6.586	5.588	5.113
%RSD		1.387	0.643	0.695	0.606	0.264	1.345	1.158	2.147

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:14:58	236.400	460.400	464.800	37.660	9.121	11.110	0.000	1124.000
2	16:15:17	245.100	462.700	462.900	36.700	10.040	10.170	0.000	1117.000
3	16:15:37	239.200	469.300	470.900	39.180	10.040	10.220	0.000	1111.000
x		240.200	464.100	466.200	37.850	9.734	10.500	0.000	1117.000
σ		4.462	4.645	4.205	1.250	0.530	0.529	0.000	6.567
%RSD		1.857	1.001	0.902	3.302	5.450	5.038	0.000	0.588

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:14:58	92.064%	1074.000	1099.000	86.209%	45.080	44.820	48.140	42.150
2	16:15:17	94.220%	1074.000	1101.000	86.600%	45.520	45.400	49.860	42.820
3	16:15:37	93.441%	1087.000	1114.000	87.364%	45.250	45.610	48.920	41.860
x		93.241%	1078.000	1105.000	86.724%	45.280	45.280	48.970	42.280
σ		1.091%	7.561	7.883	0.588%	0.218	0.409	0.862	0.494
%RSD		1.171	0.701	0.714	0.677	0.482	0.903	1.759	1.167

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:14:58	89.437%	2010.000	498.900	493.300	1905.000	1929.000	95.923%	97.489%
2	16:15:17	91.254%	2005.000	508.600	505.700	1918.000	1932.000	99.537%	100.448%
3	16:15:37	92.182%	2000.000	509.600	503.000	1909.000	1931.000	101.114%	102.150%
x		90.958%	2005.000	505.700	500.600	1910.000	1931.000	98.858%	100.029%
σ		1.396%	4.736	5.912	6.529	6.955	1.074	2.661%	2.358%
%RSD		1.535	0.236	1.169	1.304	0.364	0.056	2.692	2.358

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:14:58	54.000	54.760	22.260	22.360	22.550	85.073%
2	16:15:17	55.070	56.450	22.960	23.220	23.120	86.034%
3	16:15:37	55.430	56.030	22.970	23.130	23.030	88.768%
x		54.830	55.750	22.730	22.900	22.900	86.625%
σ		0.742	0.882	0.409	0.472	0.309	1.917%
%RSD		1.353	1.583	1.797	2.061	1.350	2.213

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:18:47	100.798%	-0.015	56.220	53.810	0.000	58300.000	18170.000	17820.000
2	16:19:06	100.744%	-0.034	49.480	48.150	0.000	54120.000	17490.000	17210.000
3	16:19:25	100.251%	-0.044	51.720	49.820	0.000	54880.000	17230.000	17350.000
x		100.597%	-0.031	52.470	50.590	0.000	55770.000	17630.000	17460.000
σ		0.301%	0.015	3.432	2.908	0.000	2223.000	487.900	316.800
%RSD		0.299	48.670	6.540	5.748	0.000	3.986	2.767	1.815
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:18:47	33.990	5204.000	0.000	7109.000	119300.000	118400.000	85.880%	1.275
2	16:19:06	31.860	5010.000	0.000	6924.000	115000.000	117600.000	85.927%	1.538
3	16:19:25	32.420	5093.000	0.000	6978.000	117600.000	117400.000	85.835%	1.247
x		32.760	5102.000	0.000	7004.000	117300.000	117800.000	85.881%	1.353
σ		1.102	97.340	0.000	94.720	2122.000	518.700	0.046%	0.160
%RSD		3.364	1.908	0.000	1.352	1.809	0.440	0.054	11.850
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:18:47	2.567	5.106	60.860	75.430	837.500	0.575	1.475	0.637
2	16:19:06	2.385	5.609	62.940	82.500	829.200	0.616	1.609	0.626
3	16:19:25	0.579	5.075	61.340	76.940	833.400	0.539	1.608	0.757
x		1.844	5.263	61.710	78.290	833.400	0.577	1.564	0.673
σ		1.099	0.300	1.090	3.725	4.174	0.039	0.077	0.073
%RSD		59.610	5.696	1.766	4.758	0.501	6.686	4.924	10.850
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:18:47	0.509	82.310	83.400	-0.580	-0.055	0.781	0.000	256.200
2	16:19:06	0.633	83.320	83.670	-0.529	0.194	0.751	0.000	257.700
3	16:19:25	0.522	83.610	81.740	0.521	-0.038	0.946	0.000	255.300
x		0.555	83.080	82.940	-0.196	0.033	0.826	0.000	256.400
σ		0.068	0.683	1.044	0.621	0.139	0.105	0.000	1.200
%RSD		12.230	0.822	1.258	317.500	416.700	12.710	0.000	0.468
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:18:47	92.780%	7.458	7.800	89.850%	-0.040	-0.043	-0.004	-0.026
2	16:19:06	93.993%	8.202	8.543	89.446%	-0.048	-0.038	-0.049	-0.020
3	16:19:25	94.349%	7.508	8.043	89.422%	-0.045	-0.036	-0.010	-0.015
x		93.707%	7.722	8.129	89.573%	-0.044	-0.039	-0.021	-0.020
σ		0.823%	0.416	0.379	0.241%	0.004	0.004	0.024	0.005
%RSD		0.878	5.384	4.660	0.269	8.904	9.073	115.300	26.710
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:18:47	92.691%	1.615	4.827	4.974	50.030	49.630	98.570%	99.927%
2	16:19:06	94.578%	1.405	4.369	4.259	49.170	50.610	102.547%	102.559%
3	16:19:25	94.550%	1.209	3.746	3.790	48.920	50.660	102.003%	103.655%
x		93.940%	1.409	4.314	4.341	49.370	50.300	101.040%	102.047%
σ		1.082%	0.203	0.542	0.596	0.579	0.581	2.156%	1.916%
%RSD		1.151	14.420	12.580	13.730	1.174	1.154	2.134	1.878
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:18:47	0.112	0.100	0.131	0.095	0.130	89.436%		
2	16:19:06	0.094	0.100	0.117	0.103	0.125	90.601%		
3	16:19:25	0.095	0.114	0.112	0.126	0.119	91.923%		
x		0.100	0.105	0.120	0.108	0.125	90.653%		
σ		0.010	0.008	0.010	0.016	0.006	1.245%		
%RSD		10.250	7.892	8.328	14.920	4.471	1.373		

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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	16:22:35	104.377%	-0.031	48.790	49.100	0.000	39420.000	14600.000	14670.000
2	16:22:54	101.128%	-0.010	51.670	47.990	0.000	38800.000	14590.000	15130.000
3	16:23:14	104.144%	-0.036	48.920	48.490	0.000	42100.000	16120.000	16270.000
x		103.216%	-0.026	49.790	48.530	0.000	40110.000	15100.000	15360.000
σ		1.812%	0.014	1.628	0.554	0.000	1757.000	878.800	824.500
%RSD		1.756	52.730	3.269	1.142	0.000	4.381	5.818	5.369

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:22:35	26.550	4346.000	0.000	4363.000	103100.000	104200.000	93.551%	1.105
2	16:22:54	26.290	4326.000	0.000	4254.000	101700.000	101600.000	93.710%	1.166
3	16:23:14	28.180	4566.000	0.000	4652.000	112900.000	111500.000	85.917%	0.968
x		27.010	4413.000	0.000	4423.000	105900.000	105800.000	91.059%	1.079
σ		1.025	132.800	0.000	205.600	6143.000	5158.000	4.454%	0.101
%RSD		3.797	3.009	0.000	4.648	5.801	4.878	4.891	9.386

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:22:35	-1.831	7.338	15.890	83.800	810.700	0.415	1.462	0.535
2	16:22:54	0.729	7.475	15.640	80.450	798.300	0.473	1.246	0.584
3	16:23:14	-0.747	7.839	16.750	92.300	851.300	0.443	1.117	0.648
x		-0.616	7.551	16.090	85.510	820.100	0.444	1.275	0.589
σ		1.285	0.259	0.584	6.108	27.730	0.029	0.175	0.057
%RSD		208.400	3.429	3.628	7.143	3.382	6.465	13.700	9.600

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:22:35	0.580	12.090	12.800	0.402	-0.387	0.515	0.000	208.300
2	16:22:54	0.629	12.340	12.490	0.050	-0.150	0.810	0.000	209.400
3	16:23:14	0.671	13.610	12.860	-0.428	-0.185	0.551	0.000	208.400
x		0.627	12.680	12.720	0.008	-0.241	0.625	0.000	208.700
σ		0.046	0.814	0.201	0.417	0.128	0.161	0.000	0.602
%RSD		7.348	6.422	1.577	5128.000	53.180	25.740	0.000	0.289

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:22:35	91.468%	2.956	2.994	87.713%	-0.051	-0.042	-0.010	0.015
2	16:22:54	92.582%	3.584	3.656	87.575%	-0.043	-0.040	-0.036	-0.023
3	16:23:14	93.988%	3.395	3.503	89.248%	-0.048	-0.041	-0.096	-0.078
x		92.680%	3.311	3.384	88.179%	-0.048	-0.041	-0.047	-0.029
σ		1.262%	0.322	0.347	0.929%	0.004	0.001	0.044	0.046
%RSD		1.362	9.727	10.240	1.053	8.409	2.777	93.870	161.300

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:22:35	89.901%	0.173	0.959	1.047	54.510	55.480	95.496%	95.722%
2	16:22:54	91.951%	0.173	1.025	0.973	53.720	55.340	98.129%	98.227%
3	16:23:14	92.723%	0.294	0.877	0.940	53.640	54.780	99.446%	99.125%
x		91.525%	0.213	0.953	0.987	53.950	55.200	97.690%	97.691%
σ		1.459%	0.070	0.074	0.055	0.479	0.374	2.012%	1.764%
%RSD		1.594	32.740	7.784	5.536	0.887	0.677	2.059	1.806

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:22:35	0.035	0.041	0.182	0.149	0.168	85.984%
2	16:22:54	0.030	0.041	0.186	0.185	0.178	85.600%
3	16:23:14	0.045	0.036	0.183	0.169	0.174	87.727%
x		0.036	0.039	0.184	0.168	0.173	86.437%
σ		0.008	0.003	0.002	0.018	0.005	1.134%
%RSD		21.230	7.984	1.114	10.700	2.760	1.312

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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	16:26:24	105.271%	-0.060	60.690	58.350	0.000	35370.000	16830.000	16530.000
2	16:26:43	108.784%	-0.001	61.910	59.400	0.000	34650.000	16370.000	16260.000
3	16:27:02	106.436%	-0.032	61.730	62.700	0.000	35810.000	16560.000	16610.000
x		106.830%	-0.031	61.440	60.150	0.000	35270.000	16590.000	16470.000
σ		1.789%	0.030	0.658	2.274	0.000	585.000	230.200	185.000
%RSD		1.675	96.290	1.071	3.780	0.000	1.658	1.388	1.123
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:26:24	80.490	3904.000	0.000	6385.000	88550.000	88900.000	95.149%	2.367
2	16:26:43	79.580	3923.000	0.000	6517.000	88650.000	87730.000	94.372%	2.426
3	16:27:02	82.470	3977.000	0.000	6446.000	90380.000	88050.000	92.513%	2.217
x		80.850	3935.000	0.000	6449.000	89190.000	88230.000	94.011%	2.337
σ		1.475	37.690	0.000	65.810	1029.000	606.600	1.354%	0.108
%RSD		1.824	0.958	0.000	1.020	1.154	0.688	1.441	4.622
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:26:24	1.794	1.953	294.000	311.100	965.300	0.717	1.579	0.908
2	16:26:43	-2.043	1.766	302.100	315.000	912.500	0.711	1.588	0.859
3	16:27:02	0.542	1.698	300.600	306.700	878.200	0.676	1.469	0.850
x		0.098	1.806	298.900	310.900	918.600	0.701	1.545	0.872
σ		1.957	0.132	4.289	4.180	43.890	0.022	0.066	0.031
%RSD		2003.000	7.310	1.435	1.344	4.777	3.123	4.298	3.607
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:26:24	0.783	71.190	71.420	0.563	-0.365	0.225	0.000	227.000
2	16:26:43	0.818	71.670	73.440	-0.266	-0.127	0.273	0.000	229.700
3	16:27:02	0.936	73.470	73.610	0.428	-0.581	0.249	0.000	227.300
x		0.846	72.110	72.820	0.242	-0.358	0.249	0.000	228.000
σ		0.080	1.202	1.219	0.445	0.227	0.024	0.000	1.494
%RSD		9.473	1.667	1.674	184.200	63.600	9.595	0.000	0.655
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:26:24	94.494%	1.259	1.311	89.978%	-0.040	-0.046	0.050	0.035
2	16:26:43	94.296%	1.757	1.751	90.329%	-0.046	-0.035	0.010	-0.000
3	16:27:02	95.819%	1.867	1.796	90.759%	-0.039	-0.038	0.016	-0.001
x		94.869%	1.628	1.619	90.355%	-0.042	-0.040	0.026	0.011
σ		0.828%	0.324	0.268	0.391%	0.004	0.006	0.022	0.021
%RSD		0.873	19.880	16.560	0.433	8.515	14.970	84.660	179.100
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:26:24	91.891%	-0.047	0.240	0.268	51.750	52.430	97.311%	98.045%
2	16:26:43	93.505%	-0.008	0.211	0.308	52.050	52.560	99.020%	100.415%
3	16:27:02	94.468%	0.028	0.213	0.380	52.650	52.740	101.065%	101.668%
x		93.288%	-0.009	0.221	0.318	52.150	52.580	99.132%	100.043%
σ		1.302%	0.037	0.016	0.057	0.458	0.158	1.880%	1.840%
%RSD		1.396	404.500	7.153	17.860	0.879	0.300	1.896	1.839
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:26:24	0.034	0.037	0.380	0.329	0.371	87.347%		
2	16:26:43	0.043	0.040	0.376	0.322	0.331	88.718%		
3	16:27:02	0.042	0.031	0.313	0.319	0.332	90.662%		
x		0.040	0.036	0.356	0.323	0.345	88.909%		
σ		0.005	0.005	0.037	0.005	0.023	1.666%		
%RSD		12.510	13.300	10.500	1.530	6.671	1.873		

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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	16:30:00	101.866%	99.620	112.900	106.600	0.000	49390.000	48450.000	47520.000
2	16:30:20	106.559%	98.190	104.400	104.700	0.000	48010.000	47010.000	46270.000
3	16:30:39	103.884%	98.510	111.200	105.300	0.000	48670.000	47670.000	47180.000
x		104.103%	98.774%	109.523%	105.558%	0.000	97.388%	95.417%	93.977%
σ		2.354%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		2.261	0.757	4.118	0.927	0.000	1.417	1.515	1.371

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:30:00	462.400	4984.000	0.000	51030.000	49580.000	49230.000	96.847%	100.000
2	16:30:20	459.700	4936.000	0.000	50060.000	50220.000	50200.000	95.958%	101.900
3	16:30:39	466.000	5107.000	0.000	51210.000	50700.000	50030.000	93.708%	103.100
x		92.538%	100.185%	0.000	101.538%	100.330%	99.643%	95.504%	101.673%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.618%	n/a
%RSD		0.685	1.761	0.000	1.221	1.125	1.044	1.694	1.491

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:30:00	99.300	100.800	485.100	24750.000	23940.000	95.350	100.000	98.400
2	16:30:20	95.980	98.870	490.000	24820.000	24540.000	98.560	100.700	98.410
3	16:30:39	100.500	101.200	495.000	24720.000	24830.000	101.700	101.400	100.900
x		98.608%	100.289%	98.009%	99.056%	97.734%	98.547%	100.719%	99.249%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		2.393	1.245	1.010	0.212	1.862	3.237	0.678	1.472

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:30:00	97.140	93.910	91.950	95.610	96.500	96.250	0.000	91.950
2	16:30:20	98.700	94.090	93.210	96.360	94.080	95.160	0.000	92.120
3	16:30:39	98.430	96.340	97.800	97.540	95.440	96.080	0.000	92.920
x		98.093%	94.779%	94.320%	96.500%	95.342%	95.829%	0.000	92.332%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		0.851	1.427	3.269	1.007	1.276	0.613	0.000	0.564

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:30:00	99.012%	95.800	96.870	94.792%	94.620	94.570	96.240	96.360
2	16:30:20	100.829%	97.840	99.330	94.704%	96.170	96.210	95.540	97.670
3	16:30:39	101.440%	97.130	99.330	96.516%	95.140	95.570	97.880	96.610
x		100.427%	96.923%	98.509%	95.337%	95.310%	95.451%	96.551%	96.882%
σ		1.263%	n/a	n/a	1.022%	n/a	n/a	n/a	n/a
%RSD		1.257	1.066	1.445	1.072	0.824	0.868	1.244	0.715

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:30:00	91.175%	94.930	90.320	90.560	93.300	93.150	95.733%	96.071%
2	16:30:20	92.167%	97.200	92.370	91.770	96.250	96.130	98.536%	99.281%
3	16:30:39	94.085%	96.600	91.640	90.830	97.720	96.680	99.734%	100.495%
x		92.476%	96.243%	91.447%	91.052%	95.756%	95.318%	98.001%	98.616%
σ		1.479%	n/a	n/a	n/a	n/a	n/a	2.053%	2.286%
%RSD		1.600	1.226	1.135	0.697	2.349	1.996	2.095	2.318

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:30:00	95.120	95.600	95.770	95.510	95.710	93.009%
2	16:30:20	99.340	100.400	99.880	101.000	100.800	93.029%
3	16:30:39	101.800	102.700	102.800	102.700	103.200	92.574%
x		98.769%	99.579%	99.472%	99.736%	99.907%	92.871%
σ		n/a	n/a	n/a	n/a	n/a	0.257%
%RSD		3.440	3.651	3.530	3.773	3.835	0.277

CCB8 6/2/2015 4:36:29 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	16:36:49	111.314%	-0.061	1.000	0.916	0.000	3.128	0.514	0.875
2	16:37:08	110.975%	-0.039	0.470	0.994	0.000	2.590	0.266	0.664
3	16:37:27	110.946%	-0.047	0.879	0.960	0.000	2.714	0.777	0.222
x		111.079%	-0.049	0.783	0.957	0.000	2.811	0.519	0.587
σ		0.205%	0.011	0.278	0.039	0.000	0.282	0.256	0.333
%RSD		0.184	23.010	35.500	4.101	0.000	10.030	49.320	56.770

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:36:49	-0.305	-146.600	0.000	13.060	5.823	2.537	114.219%	-0.161
2	16:37:08	-0.397	-146.800	0.000	14.420	4.028	3.105	109.758%	-0.191
3	16:37:27	-0.317	-145.500	0.000	13.880	-0.275	3.070	109.396%	-0.103
x		-0.340	-146.300	0.000	13.790	3.192	2.904	111.124%	-0.151
σ		0.050	0.706	0.000	0.685	3.133	0.318	2.686%	0.045
%RSD		14.710	0.483	0.000	4.970	98.170	10.970	2.417	29.600

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:36:49	0.011	-0.029	-0.017	2.205	7.400	0.000	-0.050	-0.030
2	16:37:08	0.007	-0.010	-0.006	5.679	5.721	0.007	-0.038	-0.027
3	16:37:27	-0.021	-0.008	-0.023	4.095	7.804	0.004	-0.065	-0.002
x		-0.001	-0.016	-0.015	3.993	6.975	0.004	-0.051	-0.020
σ		0.017	0.012	0.009	1.739	1.104	0.004	0.013	0.015
%RSD		2054.000	74.300	56.800	43.560	15.830	96.050	25.650	77.970

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:36:49	0.004	0.059	0.015	-0.011	0.322	0.186	0.000	0.009
2	16:37:08	0.003	0.060	0.160	0.107	0.166	0.591	0.000	-0.001
3	16:37:27	-0.009	0.013	0.030	0.068	0.164	0.310	0.000	-0.003
x		-0.001	0.044	0.068	0.055	0.217	0.363	0.000	0.002
σ		0.007	0.027	0.080	0.060	0.090	0.208	0.000	0.007
%RSD		920.700	60.740	116.700	109.300	41.640	57.260	0.000	403.500

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:36:49	104.916%	0.605	0.686	104.188%	-0.047	-0.031	0.090	0.074
2	16:37:08	106.680%	0.919	0.961	104.826%	-0.038	-0.036	0.048	0.043
3	16:37:27	107.101%	1.044	0.969	105.432%	-0.040	-0.041	0.126	0.077
x		106.232%	0.856	0.872	104.815%	-0.041	-0.036	0.088	0.065
σ		1.159%	0.226	0.161	0.622%	0.005	0.005	0.039	0.019
%RSD		1.091	26.420	18.510	0.594	10.910	13.290	44.530	29.560

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:36:49	101.690%	-0.374	0.513	0.441	-0.004	-0.002	97.300%	97.538%
2	16:37:08	103.519%	-0.335	0.532	0.588	0.032	0.008	100.384%	100.416%
3	16:37:27	103.409%	-0.325	0.627	0.480	0.007	0.008	101.880%	100.692%
x		102.873%	-0.345	0.557	0.503	0.012	0.005	99.854%	99.549%
σ		1.026%	0.026	0.061	0.076	0.019	0.006	2.336%	1.747%
%RSD		0.997	7.574	10.930	15.140	157.700	130.300	2.339	1.755

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:36:49	0.011	0.019	0.004	-0.011	0.000	101.947%
2	16:37:08	0.030	0.020	-0.004	-0.006	-0.004	101.198%
3	16:37:27	0.008	0.023	-0.007	-0.008	-0.005	100.457%
x		0.016	0.021	-0.002	-0.008	-0.003	101.200%
σ		0.012	0.002	0.006	0.002	0.003	0.745%
%RSD		75.800	11.730	268.500	28.350	92.690	0.736

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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	16:40:40	101.603%	-0.020	8047.000	7232.000	0.000	151200.000	43380.000	42410.000
2	16:40:59	104.883%	-0.050	6933.000	7473.000	0.000	149300.000	43510.000	43890.000
3	16:41:19	97.735%	-0.039	7578.000	7117.000	0.000	142000.000	40630.000	41070.000
x		101.407%	-0.036	7519.000	7274.000	0.000	147500.000	42510.000	42460.000
σ		3.578%	0.015	559.300	181.800	0.000	4828.000	1626.000	1413.000
%RSD		3.529	41.370	7.439	2.500	0.000	3.273	3.826	3.328

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:40:40	15.220	3970.000	0.000	10600.000	91280.000	91570.000	94.073%	0.918
2	16:40:59	16.480	4028.000	0.000	11390.000	100200.000	100100.000	84.065%	1.164
3	16:41:19	22.160	3828.000	0.000	10790.000	94270.000	93700.000	89.394%	0.883
x		17.950	3942.000	0.000	10920.000	95250.000	95140.000	89.178%	0.988
σ		3.700	102.800	0.000	411.600	4544.000	4458.000	5.008%	0.154
%RSD		20.610	2.608	0.000	3.768	4.770	4.686	5.615	15.540

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:40:40	2.110	1.379	2996.000	4149.000	4494.000	1.317	160.700	1.173
2	16:40:59	2.295	1.437	3200.000	4475.000	4909.000	1.418	175.400	1.313
3	16:41:19	-0.476	1.627	3119.000	4311.000	4836.000	1.400	164.800	1.334
x		1.310	1.481	3105.000	4312.000	4746.000	1.378	166.900	1.274
σ		1.549	0.130	102.600	162.800	221.900	0.054	7.584	0.087
%RSD		118.300	8.756	3.303	3.776	4.675	3.920	4.543	6.869

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:40:40	0.795	6.460	5.921	-0.109	-0.200	1.047	0.000	132.700
2	16:40:59	0.784	7.007	6.528	-0.138	0.074	1.257	0.000	134.300
3	16:41:19	0.815	6.529	6.031	-0.390	0.274	1.109	0.000	132.700
x		0.798	6.666	6.160	-0.212	0.049	1.138	0.000	133.200
σ		0.016	0.298	0.323	0.155	0.238	0.108	0.000	0.927
%RSD		1.965	4.473	5.248	72.900	482.100	9.481	0.000	0.696

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:40:40	93.046%	0.736	0.790	89.154%	-0.041	-0.035	0.093	0.066
2	16:40:59	93.514%	1.006	1.010	89.472%	-0.039	-0.046	0.010	0.016
3	16:41:19	92.892%	1.084	1.135	87.943%	-0.043	-0.044	-0.056	0.005
x		93.151%	0.942	0.978	88.857%	-0.041	-0.042	0.016	0.029
σ		0.324%	0.182	0.175	0.807%	0.002	0.006	0.074	0.033
%RSD		0.348	19.350	17.840	0.908	5.423	13.690	477.800	112.100

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:40:40	89.680%	0.054	2.350	2.420	57.140	58.120	95.301%	96.637%
2	16:40:59	90.680%	0.093	2.342	2.422	57.480	57.640	99.606%	99.171%
3	16:41:19	92.851%	0.052	1.964	1.895	57.910	57.610	99.192%	100.173%
x		91.070%	0.066	2.219	2.246	57.510	57.790	98.033%	98.661%
σ		1.621%	0.023	0.221	0.303	0.381	0.286	2.375%	1.823%
%RSD		1.780	35.290	9.955	13.510	0.663	0.495	2.423	1.847

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	16:40:40	0.024	0.036	0.667	0.619	0.648	83.863%
2	16:40:59	0.021	0.029	0.658	0.591	0.653	86.009%
3	16:41:19	0.027	0.024	0.708	0.559	0.635	87.896%
x		0.024	0.029	0.677	0.590	0.645	85.923%
σ		0.003	0.006	0.027	0.030	0.009	2.018%
%RSD		14.140	20.690	3.947	5.084	1.439	2.348

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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	16:44:29	103.653%	-0.031	29.360	28.400	0.000	17490.000	46130.000	45390.000
2	16:44:48	112.152%	-0.029	26.890	26.370	0.000	17080.000	45130.000	44510.000
3	16:45:07	109.635%	-0.047	26.090	25.990	0.000	16930.000	44470.000	45040.000
x		108.480%	-0.036	27.450	26.920	0.000	17170.000	45240.000	44980.000
σ		4.366%	0.010	1.705	1.298	0.000	291.900	838.900	444.000
%RSD		4.025	26.990	6.213	4.823	0.000	1.700	1.854	0.987
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:44:29	34.230	5274.000	0.000	2310.000	154200.000	149700.000	94.426%	1.230
2	16:44:48	33.440	5063.000	0.000	2316.000	161200.000	152700.000	90.474%	1.489
3	16:45:07	35.840	5245.000	0.000	2275.000	159400.000	153700.000	91.632%	1.389
x		34.500	5194.000	0.000	2300.000	158200.000	152000.000	92.177%	1.369
σ		1.222	114.200	0.000	22.110	3626.000	2050.000	2.031%	0.131
%RSD		3.542	2.198	0.000	0.961	2.292	1.348	2.204	9.540
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:44:29	1.013	3.110	158.600	484.000	1544.000	0.982	3.321	0.502
2	16:44:48	1.771	2.919	166.600	490.500	1533.000	0.961	3.324	0.457
3	16:45:07	-0.432	3.097	163.200	481.900	1515.000	0.955	3.071	0.463
x		0.784	3.042	162.800	485.500	1531.000	0.966	3.238	0.474
σ		1.119	0.107	3.997	4.509	14.180	0.014	0.145	0.024
%RSD		142.700	3.506	2.455	0.929	0.926	1.468	4.480	5.099
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:44:29	0.991	11.940	11.930	0.537	-0.106	0.417	0.000	1070.000
2	16:44:48	1.001	12.340	12.130	0.678	-0.272	0.690	0.000	1065.000
3	16:45:07	0.979	12.890	12.740	0.998	-0.092	0.574	0.000	1068.000
x		0.990	12.390	12.270	0.738	-0.157	0.560	0.000	1068.000
σ		0.011	0.474	0.425	0.236	0.100	0.137	0.000	2.328
%RSD		1.137	3.822	3.462	31.990	63.920	24.470	0.000	0.218
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:44:29	95.105%	0.829	0.756	90.681%	-0.047	-0.043	0.043	0.022
2	16:44:48	96.920%	0.906	0.908	92.768%	-0.052	-0.044	0.026	0.014
3	16:45:07	97.818%	0.785	0.941	91.837%	-0.048	-0.036	-0.072	-0.055
x		96.615%	0.840	0.868	91.762%	-0.049	-0.041	-0.001	-0.006
σ		1.382%	0.061	0.099	1.045%	0.002	0.004	0.062	0.042
%RSD		1.430	7.302	11.400	1.139	4.905	10.450	4657.000	660.100
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:44:29	91.746%	-0.130	0.442	0.585	45.510	45.180	98.529%	100.104%
2	16:44:48	95.144%	-0.224	0.435	0.478	44.050	44.460	102.560%	102.370%
3	16:45:07	95.701%	-0.118	0.380	0.559	45.580	45.040	103.014%	104.402%
x		94.197%	-0.157	0.419	0.540	45.050	44.890	101.368%	102.292%
σ		2.141%	0.059	0.034	0.056	0.860	0.383	2.469%	2.150%
%RSD		2.273	37.240	8.146	10.290	1.909	0.853	2.435	2.102
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:44:29	0.004	0.011	0.403	0.405	0.421	86.535%		
2	16:44:48	0.010	0.017	0.438	0.384	0.419	88.755%		
3	16:45:07	0.005	0.013	0.438	0.393	0.435	89.223%		
x		0.007	0.014	0.426	0.394	0.425	88.171%		
σ		0.003	0.003	0.020	0.010	0.009	1.436%		
%RSD		46.730	21.800	4.686	2.640	2.020	1.629		

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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	16:48:17	109.806%	-0.024	229.200	230.200	0.000	42420.000	12870.000	12960.000
2	16:48:36	101.883%	-0.035	243.100	238.700	0.000	44200.000	13480.000	13760.000
3	16:48:55	94.093%	-0.011	241.800	233.600	0.000	46450.000	13680.000	13770.000
x		101.927%	-0.023	238.000	234.200	0.000	44360.000	13340.000	13500.000
σ		7.857%	0.012	7.697	4.288	0.000	2023.000	421.900	465.200
%RSD		7.708	51.290	3.233	1.831	0.000	4.561	3.162	3.446
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:48:17	11.160	4037.000	0.000	7501.000	111000.000	110000.000	93.312%	0.655
2	16:48:36	12.200	4242.000	0.000	7717.000	114500.000	114000.000	94.440%	0.632
3	16:48:55	12.310	4493.000	0.000	7808.000	116100.000	113800.000	93.884%	0.842
x		11.890	4257.000	0.000	7676.000	113900.000	112600.000	93.879%	0.710
σ		0.638	228.200	0.000	157.600	2634.000	2274.000	0.564%	0.115
%RSD		5.365	5.361	0.000	2.053	2.313	2.019	0.601	16.200
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:48:17	-2.057	52.980	17.440	53.540	860.700	2.176	15.700	0.975
2	16:48:36	-1.117	54.830	17.460	51.000	823.800	2.080	15.530	0.856
3	16:48:55	1.669	55.000	17.300	50.010	775.800	2.094	15.420	0.967
x		-0.502	54.270	17.400	51.520	820.100	2.117	15.550	0.933
σ		1.938	1.116	0.086	1.822	42.610	0.052	0.146	0.066
%RSD		386.400	2.056	0.494	3.537	5.195	2.435	0.937	7.113
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:48:17	0.952	5.080	5.082	-0.501	0.553	0.809	0.000	222.700
2	16:48:36	1.025	5.252	5.416	-0.062	0.220	0.661	0.000	222.200
3	16:48:55	1.040	5.394	4.983	-1.503	0.666	0.812	0.000	224.200
x		1.006	5.242	5.160	-0.689	0.480	0.760	0.000	223.000
σ		0.047	0.158	0.227	0.739	0.232	0.087	0.000	1.050
%RSD		4.696	3.007	4.395	107.300	48.320	11.380	0.000	0.471
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:48:17	96.290%	0.510	0.595	93.167%	-0.042	-0.038	0.302	0.242
2	16:48:36	97.383%	0.797	0.870	92.631%	-0.033	-0.033	0.118	0.108
3	16:48:55	95.933%	0.715	0.902	91.985%	-0.041	-0.040	0.121	0.105
x		96.535%	0.674	0.789	92.594%	-0.039	-0.037	0.180	0.152
σ		0.756%	0.148	0.168	0.592%	0.005	0.004	0.105	0.078
%RSD		0.783	21.960	21.340	0.639	12.140	9.816	58.200	51.360
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:48:17	94.151%	-0.247	0.026	0.034	61.700	62.050	99.763%	99.824%
2	16:48:36	96.074%	-0.227	-0.003	0.024	60.620	61.300	102.639%	102.506%
3	16:48:55	96.302%	-0.184	-0.057	0.013	61.610	60.980	102.979%	102.842%
x		95.509%	-0.219	-0.011	0.024	61.310	61.440	101.794%	101.724%
σ		1.182%	0.033	0.042	0.010	0.601	0.548	1.767%	1.654%
%RSD		1.238	14.840	377.100	44.320	0.980	0.892	1.736	1.626
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:48:17	0.021	0.019	0.089	0.052	0.073	90.897%		
2	16:48:36	0.021	0.023	0.073	0.046	0.062	92.221%		
3	16:48:55	0.020	0.018	0.076	0.044	0.069	91.838%		
x		0.021	0.020	0.079	0.047	0.068	91.652%		
σ		0.001	0.003	0.009	0.004	0.006	0.681%		
%RSD		2.674	14.300	11.110	8.273	8.126	0.743		

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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	16:58:52	115.442%	0.982	25.170	25.210	0.000	467.900	461.000	467.600
2	16:59:12	122.907%	0.842	23.500	22.740	0.000	444.700	442.600	455.100
3	16:59:31	116.594%	1.044	24.000	23.760	0.000	470.400	459.000	465.800
x		118.314%	95.585%	121.117%	119.526%	0.000	92.191%	90.836%	92.565%
σ		4.019%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		3.397	10.810	3.537	5.188	0.000	3.075	2.223	1.455
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:58:52	29.380	343.100	0.000	520.300	494.400	477.200	114.081%	4.885
2	16:59:12	28.120	335.800	0.000	511.600	498.300	485.200	113.048%	4.895
3	16:59:31	28.420	351.300	0.000	533.600	553.600	483.700	109.118%	4.729
x		95.462%	68.675%	0.000	104.369%	103.084%	96.407%	112.082%	96.725%
σ		n/a	n/a	0.000	n/a	n/a	n/a	2.619%	n/a
%RSD		2.294	2.258	0.000	2.115	6.418	0.882	2.336	1.919
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:58:52	1.000	1.962	4.973	55.830	57.790	0.524	0.972	2.106
2	16:59:12	0.969	2.040	4.948	55.550	61.010	0.514	1.118	2.037
3	16:59:31	1.069	2.111	5.098	58.670	63.300	0.532	0.981	2.145
x		101.229%	101.871%	100.127%	113.366%	121.406%	104.634%	102.351%	104.801%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		5.048	3.664	1.597	3.050	4.562	1.704	8.000	2.622
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:58:52	2.327	5.812	6.292	1.098	5.260	5.384	0.000	4.936
2	16:59:12	2.088	6.153	6.157	1.080	4.846	5.328	0.000	4.902
3	16:59:31	2.247	6.384	6.479	1.166	5.275	5.518	0.000	4.874
x		111.045%	122.329%	126.190%	111.463%	102.539%	108.206%	0.000	98.077%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		5.464	4.707	2.559	4.067	4.749	1.805	0.000	0.627
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:58:52	105.403%	4.189	4.108	100.422%	1.039	1.090	0.833	1.074
2	16:59:12	106.741%	4.207	3.978	100.401%	1.060	1.003	1.072	1.155
3	16:59:31	107.053%	4.290	4.121	102.256%	1.077	1.068	1.058	1.140
x		106.399%	84.573%	81.387%	101.026%	105.890%	105.388%	98.739%	112.312%
σ		0.876%	n/a	n/a	1.065%	n/a	n/a	n/a	n/a
%RSD		0.824	1.283	1.942	1.055	1.806	4.285	13.570	3.812
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	16:58:52	99.248%	3.870	1.603	1.582	9.981	9.741	94.656%	93.568%
2	16:59:12	100.661%	3.883	1.612	1.616	9.912	10.500	97.049%	96.778%
3	16:59:31	102.144%	3.883	1.661	1.688	9.990	10.590	99.110%	98.785%
x		100.684%	77.572%	81.247%	81.438%	99.610%	102.769%	96.938%	96.377%
σ		1.448%	n/a	n/a	n/a	n/a	n/a	2.229%	2.631%
%RSD		1.439	0.188	1.918	3.320	0.426	4.542	2.300	2.730
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	16:58:52	1.092	1.045	1.043	1.090	1.038	92.720%		
2	16:59:12	1.085	1.052	1.045	1.019	1.050	94.823%		
3	16:59:31	1.048	1.056	1.072	1.148	1.125	95.642%		
x		107.489%	105.105%	105.314%	108.565%	107.098%	94.395%		
σ		n/a	n/a	n/a	n/a	n/a	1.507%		
%RSD		2.229	0.517	1.579	5.981	4.403	1.597		

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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	17:02:42	111.197%	0.011	3.469	4.123	0.000	978.700	12790.000	12660.000
2	17:03:01	109.670%	-0.011	3.715	3.903	0.000	943.300	12190.000	12170.000
3	17:03:21	112.855%	0.032	4.035	4.301	0.000	907.100	12350.000	12260.000
x		111.241%	0.010	3.740	4.109	0.000	943.000	12440.000	12360.000
σ		1.593%	0.021	0.284	0.199	0.000	35.810	310.200	262.200
%RSD		1.432	204.000	7.585	4.848	0.000	3.797	2.493	2.120

Run	Time	27Al	28Si	37Cl	39K	43Ca	44Ca	45Sc	47Ti
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:02:42	19.960	790.000	0.000	2916.000	26450.000	25340.000	105.892%	-0.063
2	17:03:01	19.880	778.700	0.000	2819.000	25520.000	25120.000	106.248%	-0.064
3	17:03:21	18.590	740.800	0.000	2808.000	25840.000	25410.000	104.940%	-0.119
x		19.480	769.800	0.000	2848.000	25940.000	25290.000	105.693%	-0.082
σ		0.771	25.750	0.000	59.400	474.700	149.400	0.676%	0.032
%RSD		3.960	3.345	0.000	2.086	1.830	0.591	0.640	39.040

Run	Time	51V	52Cr	55Mn	56Fe	57Fe	59Co	60Ni	63Cu
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:02:42	0.099	0.071	2818.000	26490.000	25750.000	20.420	4.446	11.030
2	17:03:01	0.174	0.108	2850.000	26690.000	26020.000	21.010	4.409	11.050
3	17:03:21	-0.197	0.114	2878.000	27300.000	26850.000	21.230	4.530	11.260
x		0.026	0.097	2849.000	26830.000	26210.000	20.890	4.462	11.110
σ		0.196	0.024	30.400	420.700	574.500	0.420	0.062	0.128
%RSD		766.000	24.110	1.067	1.568	2.192	2.008	1.389	1.154

Run	Time	65Cu	66Zn	68Zn	75As	78Se	82Se	83Kr	88Sr
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:02:42	11.200	413.400	411.600	-0.100	0.074	1.039	0.000	110.700
2	17:03:01	11.440	416.300	413.800	0.079	0.314	0.643	0.000	113.300
3	17:03:21	11.580	421.600	421.800	-0.159	0.206	0.564	0.000	113.100
x		11.410	417.100	415.700	-0.060	0.198	0.749	0.000	112.400
σ		0.193	4.164	5.381	0.124	0.120	0.255	0.000	1.441
%RSD		1.694	0.998	1.294	206.200	60.590	34.020	0.000	1.282

Run	Time	89Y	95Mo	98Mo	103Rh	107Ag	109Ag	111Cd	114Cd
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:02:42	0.000	0.282	0.326	98.986%	-0.034	-0.033	0.440	0.318
2	17:03:01	0.000	0.442	0.510	99.207%	-0.035	-0.039	0.363	0.315
3	17:03:21	0.000	0.510	0.397	101.045%	-0.046	-0.043	0.289	0.330
x		0.000	0.411	0.411	99.746%	-0.038	-0.038	0.364	0.321
σ		0.000	0.117	0.093	1.130%	0.007	0.005	0.075	0.008
%RSD		0.000	28.510	22.640	1.133	18.340	13.330	20.650	2.534

Run	Time	115In	118Sn	121Sb	123Sb	135Ba	137Ba	159Tb	165Ho
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:02:42	98.378%	-0.306	-0.432	-0.440	3.478	3.597	97.670%	96.861%
2	17:03:01	98.491%	-0.260	-0.431	-0.415	3.375	3.689	100.036%	99.759%
3	17:03:21	100.327%	-0.237	-0.433	-0.429	3.519	3.606	100.676%	101.676%
x		99.065%	-0.268	-0.432	-0.428	3.457	3.631	99.461%	99.432%
σ		1.094%	0.035	0.001	0.013	0.075	0.051	1.583%	2.424%
%RSD		1.104	13.090	0.195	2.973	2.155	1.393	1.592	2.438

Run	Time	203Tl	205Tl	206Pb	207Pb	208Pb	209Bi
		ppb	ppb	ppb	ppb	ppb	ppb
1	17:02:42	0.022	0.031	-0.001	-0.005	-0.000	106.410%
2	17:03:01	0.026	0.032	0.002	-0.009	-0.002	100.634%
3	17:03:21	0.022	0.036	0.002	-0.006	-0.002	98.669%
x		0.023	0.033	0.001	-0.007	-0.001	101.904%
σ		0.002	0.003	0.002	0.002	0.001	4.024%
%RSD		10.510	8.752	149.800	29.540	85.120	3.948

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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	17:06:30	115.691%	-0.053	2.192	2.565	0.000	197.300	2570.000	2526.000
2	17:06:50	115.096%	-0.022	2.741	2.740	0.000	195.300	2584.000	2481.000
3	17:07:09	118.450%	-0.049	2.390	2.394	0.000	190.500	2453.000	2422.000
x		116.412%	-0.041	2.441	2.566	0.000	194.400	2536.000	2476.000
σ		1.790%	0.017	0.278	0.173	0.000	3.508	71.800	52.500
%RSD		1.537	39.910	11.380	6.745	0.000	1.805	2.831	2.120
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:06:30	4.037	39.730	0.000	582.000	5205.000	4614.000	112.367%	-0.171
2	17:06:50	3.948	46.670	0.000	588.000	5031.000	4822.000	109.748%	-0.234
3	17:07:09	4.165	35.250	0.000	562.900	5116.000	4677.000	110.371%	-0.158
x		4.050	40.550	0.000	577.600	5117.000	4705.000	110.829%	-0.188
σ		0.109	5.752	0.000	13.110	87.220	106.600	1.368%	0.041
%RSD		2.694	14.180	0.000	2.269	1.704	2.266	1.235	21.790
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:06:30	0.017	0.038	552.700	5357.000	5160.000	3.985	0.818	2.152
2	17:06:50	0.134	0.037	566.800	5392.000	5225.000	4.063	0.847	2.229
3	17:07:09	-0.013	0.005	567.900	5407.000	5233.000	4.221	0.947	2.173
x		0.046	0.026	562.500	5385.000	5206.000	4.090	0.870	2.184
σ		0.078	0.019	8.497	25.720	40.170	0.120	0.068	0.040
%RSD		168.900	71.080	1.511	0.478	0.772	2.942	7.776	1.823
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:06:30	2.244	83.140	82.330	-0.086	-0.304	0.206	0.000	21.720
2	17:06:50	2.289	84.740	84.990	-0.072	-0.045	0.156	0.000	22.270
3	17:07:09	2.342	84.540	87.240	0.003	0.004	0.439	0.000	22.450
x		2.292	84.140	84.850	-0.052	-0.115	0.267	0.000	22.150
σ		0.049	0.873	2.458	0.048	0.166	0.151	0.000	0.377
%RSD		2.134	1.037	2.896	92.460	144.100	56.600	0.000	1.700
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:06:30	0.000	0.041	0.052	102.028%	-0.049	-0.042	0.112	0.103
2	17:06:50	0.000	0.084	0.201	102.370%	-0.050	-0.046	0.049	0.052
3	17:07:09	0.000	0.222	0.256	102.373%	-0.035	-0.041	0.100	0.048
x		0.000	0.116	0.170	102.257%	-0.045	-0.043	0.087	0.068
σ		0.000	0.095	0.106	0.198%	0.009	0.003	0.033	0.031
%RSD		0.000	81.840	62.340	0.194	19.780	6.533	38.100	45.340
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:06:30	99.954%	-0.491	-0.459	-0.441	0.696	0.768	96.397%	95.347%
2	17:06:50	102.375%	-0.432	-0.444	-0.431	0.714	0.747	99.443%	98.257%
3	17:07:09	102.924%	-0.420	-0.457	-0.440	0.720	0.708	100.761%	99.824%
x		101.751%	-0.448	-0.454	-0.437	0.710	0.741	98.867%	97.810%
σ		1.580%	0.038	0.008	0.006	0.013	0.031	2.239%	2.272%
%RSD		1.553	8.416	1.779	1.318	1.761	4.152	2.264	2.323
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:06:30	0.010	0.007	-0.005	-0.002	-0.003	100.445%		
2	17:06:50	0.001	0.008	0.002	0.000	0.001	98.516%		
3	17:07:09	0.006	0.006	-0.005	-0.001	0.001	98.282%		
x		0.006	0.007	-0.003	-0.001	-0.000	99.081%		
σ		0.004	0.001	0.004	0.001	0.002	1.187%		
%RSD		77.940	20.450	161.000	122.800	438.600	1.199		

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User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:10:18	115.988%	4.503	103.700	96.270	0.000	5359.000	16920.000	16590.000
2	17:10:38	116.563%	4.536	105.200	96.890	0.000	5328.000	16930.000	16840.000
3	17:10:57	111.086%	4.341	103.800	96.740	0.000	5446.000	17470.000	16990.000
x		114.545%	4.460	104.200	96.640	0.000	5378.000	17110.000	16810.000
σ		3.010%	0.105	0.818	0.323	0.000	61.430	314.700	200.200
%RSD		2.628	2.343	0.785	0.335	0.000	1.142	1.840	1.191
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:10:18	180.000	1676.000	0.000	7302.000	30350.000	29130.000	107.548%	89.880
2	17:10:38	180.100	1694.000	0.000	7278.000	29400.000	28880.000	109.313%	88.240
3	17:10:57	183.900	1706.000	0.000	7488.000	30040.000	29600.000	107.252%	92.420
x		181.300	1692.000	0.000	7356.000	29930.000	29200.000	108.038%	90.180
σ		2.201	14.810	0.000	115.000	485.500	368.400	1.115%	2.107
%RSD		1.214	0.875	0.000	1.563	1.622	1.262	1.032	2.336
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:10:18	45.230	18.700	2834.000	26940.000	26170.000	67.320	54.340	34.840
2	17:10:38	43.350	18.160	2771.000	25880.000	25210.000	65.280	51.200	33.570
3	17:10:57	45.520	18.580	2820.000	26520.000	25700.000	66.760	52.990	35.490
x		44.700	18.480	2809.000	26450.000	25690.000	66.450	52.850	34.630
σ		1.178	0.286	33.030	536.400	480.900	1.057	1.575	0.978
%RSD		2.636	1.547	1.176	2.028	1.872	1.590	2.981	2.824
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:10:18	35.570	446.200	445.000	3.377	0.759	1.424	0.000	200.000
2	17:10:38	34.840	447.400	446.700	3.561	1.230	1.576	0.000	200.100
3	17:10:57	34.770	455.800	458.700	3.499	0.814	1.923	0.000	202.300
x		35.060	449.800	450.100	3.479	0.935	1.641	0.000	200.800
σ		0.442	5.260	7.495	0.094	0.258	0.256	0.000	1.262
%RSD		1.260	1.169	1.665	2.701	27.550	15.590	0.000	0.629
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:10:18	0.000	88.990	89.050	97.754%	4.527	4.618	4.942	4.693
2	17:10:38	0.000	91.810	91.250	99.040%	4.488	4.565	4.763	4.678
3	17:10:57	0.000	91.720	91.960	100.007%	4.421	4.457	4.987	4.393
x		0.000	90.840	90.750	98.933%	4.478	4.547	4.897	4.588
σ		0.000	1.604	1.518	1.130%	0.053	0.082	0.118	0.169
%RSD		0.000	1.766	1.673	1.142	1.187	1.809	2.416	3.679
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:10:18	95.420%	176.500	46.890	46.560	183.000	183.600	95.150%	95.290%
2	17:10:38	99.544%	175.100	46.100	45.700	181.000	181.600	97.770%	98.317%
3	17:10:57	100.435%	173.900	45.790	46.340	178.100	180.800	100.645%	100.390%
x		98.466%	175.200	46.260	46.200	180.700	182.000	97.855%	97.999%
σ		2.675%	1.296	0.564	0.448	2.424	1.413	2.748%	2.565%
%RSD		2.717	0.740	1.220	0.970	1.341	0.776	2.809	2.617
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:10:18	4.329	4.377	1.883	1.907	1.811	96.074%		
2	17:10:38	4.625	4.587	1.906	1.882	1.898	94.567%		
3	17:10:57	4.666	4.727	1.943	1.976	1.947	95.032%		
x		4.540	4.563	1.911	1.922	1.885	95.224%		
σ		0.184	0.176	0.030	0.049	0.069	0.771%		
%RSD		4.050	3.864	1.571	2.545	3.659	0.810		

180-44258-B-1-C MSD @10 6/2/2015 5:13:47 PM

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:14:06	116.850%	4.712	99.980	95.650	0.000	5367.000	17010.000	16810.000
2	17:14:25	116.888%	4.519	106.600	101.900	0.000	5522.000	17380.000	17020.000
3	17:14:45	109.856%	4.934	106.100	100.500	0.000	5528.000	17740.000	17550.000
x		114.531%	4.722	104.200	99.320	0.000	5472.000	17380.000	17130.000
σ		4.049%	0.208	3.691	3.256	0.000	91.280	369.000	382.000
%RSD		3.535	4.400	3.541	3.279	0.000	1.668	2.123	2.231
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:14:06	183.400	1707.000	0.000	7378.000	29640.000	29490.000	107.501%	89.740
2	17:14:25	184.000	1735.000	0.000	7629.000	30710.000	30080.000	106.072%	90.870
3	17:14:45	185.100	1730.000	0.000	7538.000	30320.000	30480.000	108.203%	91.650
x		184.200	1724.000	0.000	7515.000	30220.000	30010.000	107.258%	90.750
σ		0.857	15.050	0.000	127.000	543.200	497.200	1.086%	0.961
%RSD		0.465	0.873	0.000	1.690	1.797	1.656	1.012	1.059
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:14:06	46.000	18.800	2869.000	26790.000	26110.000	68.810	53.790	34.800
2	17:14:25	46.540	18.590	2894.000	27190.000	26350.000	66.880	54.380	35.690
3	17:14:45	46.450	18.910	2817.000	26660.000	26100.000	67.060	53.120	34.680
x		46.330	18.770	2860.000	26880.000	26190.000	67.580	53.770	35.060
σ		0.291	0.160	39.190	279.000	138.700	1.065	0.630	0.552
%RSD		0.628	0.852	1.370	1.038	0.530	1.575	1.171	1.576
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:14:06	35.370	453.300	454.600	3.509	1.053	1.636	0.000	202.000
2	17:14:25	36.860	464.300	464.600	3.619	0.829	1.708	0.000	205.100
3	17:14:45	35.570	459.100	459.300	3.788	1.408	1.549	0.000	204.100
x		35.930	458.900	459.500	3.639	1.097	1.631	0.000	203.800
σ		0.806	5.480	4.981	0.140	0.292	0.080	0.000	1.576
%RSD		2.242	1.194	1.084	3.850	26.640	4.876	0.000	0.773
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:14:06	0.000	94.750	93.690	99.596%	4.551	4.484	4.914	4.416
2	17:14:25	0.000	94.880	95.750	101.965%	4.528	4.517	4.866	4.432
3	17:14:45	0.000	96.180	96.830	102.404%	4.505	4.778	4.803	4.425
x		0.000	95.270	95.420	101.322%	4.528	4.593	4.861	4.424
σ		0.000	0.794	1.595	1.511%	0.023	0.161	0.056	0.008
%RSD		0.000	0.834	1.672	1.491	0.508	3.506	1.144	0.178
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:14:06	97.822%	180.300	47.180	47.170	182.900	187.300	98.155%	98.246%
2	17:14:25	100.787%	180.100	46.790	47.560	183.900	183.200	101.058%	101.748%
3	17:14:45	102.073%	182.200	47.270	47.680	184.600	185.400	104.298%	103.504%
x		100.227%	180.900	47.080	47.470	183.800	185.300	101.171%	101.166%
σ		2.180%	1.200	0.252	0.265	0.845	2.073	3.073%	2.677%
%RSD		2.175	0.663	0.535	0.559	0.460	1.119	3.037	2.646
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:14:06	4.624	4.437	1.798	1.873	1.871	97.634%		
2	17:14:25	4.749	4.767	1.939	1.968	1.927	96.122%		
3	17:14:45	4.881	4.899	1.929	1.977	1.978	96.669%		
x		4.752	4.701	1.889	1.939	1.925	96.808%		
σ		0.128	0.238	0.079	0.058	0.054	0.766%		
%RSD		2.700	5.061	4.161	2.972	2.794	0.791		

CCV 1594026 6/2/2015 5:17:42 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:17:42	111.333%	100.700	105.200	106.600	0.000	47170.000	45720.000	46110.000
2	17:18:02	108.234%	101.100	111.400	102.900	0.000	49790.000	48660.000	47800.000
3	17:18:21	106.623%	101.000	110.000	104.700	0.000	48290.000	47940.000	48300.000
x		108.730%	100.961%	108.869%	104.732%	0.000	96.837%	94.877%	94.807%
σ		2.394%	n/a	n/a	n/a	0.000	n/a	n/a	n/a
%RSD		2.201	0.201	2.967	1.762	0.000	2.713	3.233	2.422
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:17:42	465.000	5048.000	0.000	48860.000	48320.000	48940.000	107.885%	97.800
2	17:18:02	478.900	5229.000	0.000	50790.000	49720.000	49740.000	107.625%	99.340
3	17:18:21	462.500	5125.000	0.000	52100.000	51650.000	49960.000	105.519%	98.050
x		93.759%	102.676%	0.000	101.167%	99.794%	99.097%	107.009%	98.396%
σ		n/a	n/a	0.000	n/a	n/a	n/a	1.297%	n/a
%RSD		1.885	1.767	0.000	3.226	3.352	1.082	1.212	0.841
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:17:42	96.380	97.630	503.200	24800.000	24660.000	98.980	100.600	97.390
2	17:18:02	96.820	97.880	495.500	24630.000	23930.000	97.610	100.200	96.470
3	17:18:21	100.500	101.400	497.300	25030.000	24550.000	97.730	99.810	99.120
x		97.911%	98.977%	99.735%	99.280%	97.512%	98.107%	100.201%	97.659%
σ		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
%RSD		2.335	2.137	0.804	0.803	1.596	0.774	0.416	1.381
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:17:42	97.450	90.620	90.370	94.720	95.740	95.650	0.000	91.840
2	17:18:02	95.150	90.730	90.390	94.000	96.150	97.030	0.000	92.890
3	17:18:21	96.990	92.960	92.250	95.820	96.370	94.710	0.000	92.760
x		96.529%	91.436%	91.003%	94.844%	96.087%	95.796%	0.000	92.497%
σ		n/a	n/a	n/a	n/a	n/a	n/a	0.000	n/a
%RSD		1.261	1.442	1.187	0.965	0.332	1.219	0.000	0.619
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:17:42	101.785%	96.620	97.690	96.109%	94.370	94.780	95.880	98.010
2	17:18:02	102.889%	99.400	99.790	96.860%	95.830	96.990	98.440	97.390
3	17:18:21	103.542%	98.580	99.030	97.232%	96.320	97.470	97.750	98.920
x		102.739%	98.201%	98.837%	96.734%	95.507%	96.414%	97.358%	98.103%
σ		0.888%	n/a	n/a	0.572%	n/a	n/a	n/a	n/a
%RSD		0.865	1.453	1.074	0.591	1.061	1.491	1.356	0.785
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:17:42	87.900%	99.280	91.800	90.660	96.080	96.040	92.051%	90.657%
2	17:18:02	90.562%	100.100	90.860	91.030	95.770	97.040	93.366%	92.805%
3	17:18:21	90.210%	101.200	92.240	92.330	97.070	97.900	94.224%	94.522%
x		89.557%	100.177%	91.633%	91.339%	96.308%	96.992%	93.214%	92.661%
σ		1.446%	n/a	n/a	n/a	n/a	n/a	1.094%	1.936%
%RSD		1.614	0.950	0.768	0.957	0.706	0.958	1.174	2.090
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:17:42	92.750	92.370	91.850	91.010	91.970	89.738%		
2	17:18:02	96.300	96.610	97.000	96.910	97.390	88.935%		
3	17:18:21	98.970	98.880	99.400	99.650	99.840	87.312%		
x		96.008%	95.952%	96.085%	95.858%	96.401%	88.662%		
σ		n/a	n/a	n/a	n/a	n/a	1.236%		
%RSD		3.249	3.446	4.013	4.602	4.178	1.394		

CCB9 6/2/2015 5:24:11 PM QC Status: PASS (Initial: PASS)

User Pre-dilution: 1.000

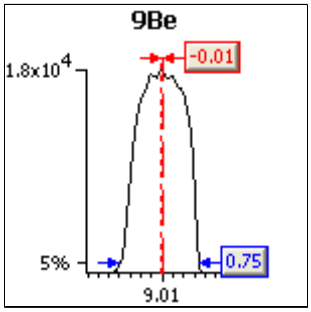
Run	Time	6Li	9Be	10B	11B	13C	23Na	25Mg	26Mg
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:24:30	112.676%	-0.044	2.044	2.027	0.000	3.485	1.045	0.993
2	17:24:49	117.098%	-0.053	1.641	1.836	0.000	3.092	0.392	0.479
3	17:25:09	118.215%	-0.053	1.880	1.809	0.000	2.906	0.238	0.536
x		115.996%	-0.050	1.855	1.890	0.000	3.161	0.558	0.670
σ		2.929%	0.006	0.203	0.119	0.000	0.296	0.428	0.282
%RSD		2.525	11.060	10.930	6.275	0.000	9.357	76.730	42.080
Run	**Time**	**27Al**	**28Si**	**37Cl**	**39K**	**43Ca**	**44Ca**	**45Sc**	**47Ti**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:24:30	-0.311	-149.100	0.000	17.270	7.745	2.074	115.789%	-0.194
2	17:24:49	-0.364	-148.300	0.000	16.860	6.943	2.734	112.961%	-0.107
3	17:25:09	-0.302	-148.100	0.000	16.950	1.796	2.383	111.022%	-0.202
x		-0.326	-148.500	0.000	17.030	5.495	2.397	113.257%	-0.168
σ		0.033	0.522	0.000	0.212	3.228	0.330	2.397%	0.053
%RSD		10.270	0.351	0.000	1.243	58.750	13.770	2.116	31.410
Run	**Time**	**51V**	**52Cr**	**55Mn**	**56Fe**	**57Fe**	**59Co**	**60Ni**	**63Cu**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:24:30	0.017	0.009	0.009	9.960	10.880	-0.003	-0.031	-0.035
2	17:24:49	-0.042	-0.019	0.015	10.430	10.740	0.002	-0.075	-0.015
3	17:25:09	0.002	-0.034	0.003	9.458	9.072	-0.005	-0.084	-0.026
x		-0.008	-0.015	0.009	9.948	10.230	-0.002	-0.063	-0.025
σ		0.031	0.022	0.006	0.484	1.007	0.004	0.029	0.010
%RSD		402.600	147.200	64.610	4.870	9.846	163.200	45.290	38.550
Run	**Time**	**65Cu**	**66Zn**	**68Zn**	**75As**	**78Se**	**82Se**	**83Kr**	**88Sr**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:24:30	-0.004	0.089	0.018	-0.111	0.041	0.080	0.000	0.004
2	17:24:49	0.014	0.039	0.101	0.011	0.324	0.432	0.000	0.002
3	17:25:09	0.020	0.079	0.040	-0.030	0.453	0.336	0.000	0.002
x		0.010	0.069	0.053	-0.043	0.272	0.283	0.000	0.003
σ		0.013	0.027	0.043	0.062	0.211	0.182	0.000	0.001
%RSD		126.400	38.430	80.880	143.000	77.300	64.390	0.000	54.150
Run	**Time**	**89Y**	**95Mo**	**98Mo**	**103Rh**	**107Ag**	**109Ag**	**111Cd**	**114Cd**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:24:30	102.205%	0.793	0.711	100.540%	-0.044	-0.045	0.064	0.047
2	17:24:49	104.588%	0.872	1.078	102.836%	-0.043	-0.036	0.060	0.044
3	17:25:09	105.118%	0.934	1.055	102.620%	-0.048	-0.028	0.126	0.084
x		103.970%	0.866	0.948	101.999%	-0.045	-0.036	0.083	0.058
σ		1.552%	0.071	0.206	1.267%	0.003	0.008	0.037	0.022
%RSD		1.492	8.182	21.690	1.243	6.071	22.840	44.420	38.290
Run	**Time**	**115In**	**118Sn**	**121Sb**	**123Sb**	**135Ba**	**137Ba**	**159Tb**	**165Ho**
		ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
1	17:24:30	96.975%	-0.223	0.461	0.460	-0.017	0.014	90.986%	90.364%
2	17:24:49	99.603%	-0.169	0.566	0.492	0.003	0.009	92.862%	91.870%
3	17:25:09	101.187%	-0.184	0.492	0.500	0.002	0.013	95.176%	94.596%
x		99.255%	-0.192	0.506	0.484	-0.004	0.012	93.008%	92.277%
σ		2.127%	0.028	0.054	0.021	0.011	0.002	2.099%	2.145%
%RSD		2.143	14.650	10.630	4.432	296.600	19.160	2.257	2.325
Run	**Time**	**203Tl**	**205Tl**	**206Pb**	**207Pb**	**208Pb**	**209Bi**		
		ppb	ppb	ppb	ppb	ppb	ppb		
1	17:24:30	0.022	0.024	-0.004	-0.002	-0.000	94.671%		
2	17:24:49	0.032	0.020	-0.010	0.006	-0.000	94.083%		
3	17:25:09	0.019	0.022	-0.010	-0.007	-0.004	95.150%		
x		0.024	0.022	-0.008	-0.001	-0.002	94.635%		
σ		0.007	0.002	0.003	0.007	0.002	0.534%		
%RSD		27.880	7.630	42.440	745.000	137.400	0.565		

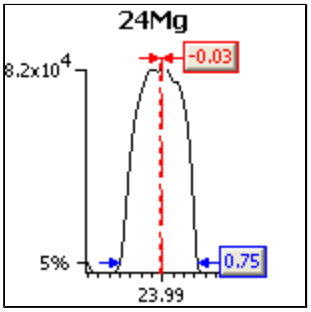
Performance Report

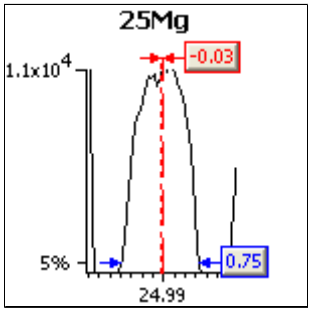
Sample details
Sample name : ITUNE
Acquired at : 6/2/2015 7:51:22 AM
Report name : EPA ILMO5.2/6020A 2.1 [3/15/2013 11:49:53 AM]

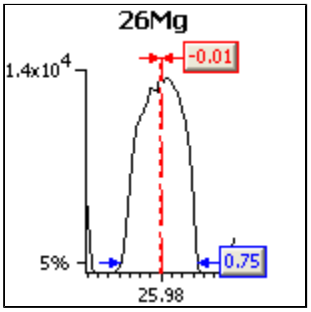
Mass Calibration verification

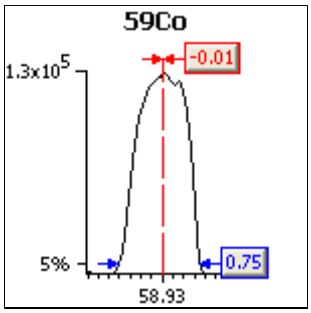
Acquisition parameters
Sweeps : 25
Dwell : 2.0 mSecs
Point spacing : 0.02 amu
Peak width measured at 5% of the peak maximum

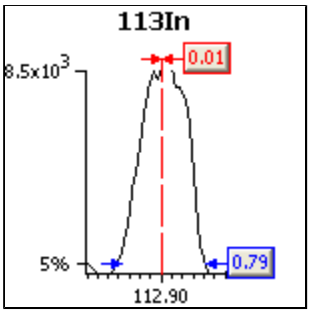


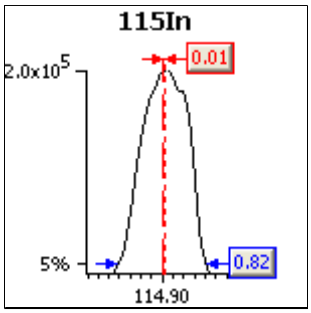


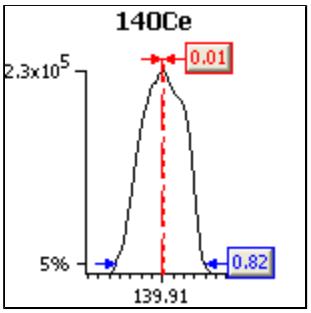


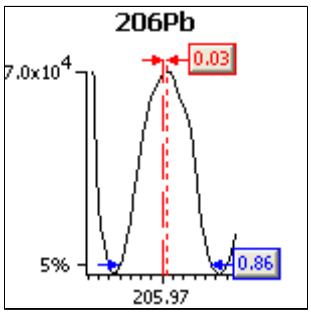


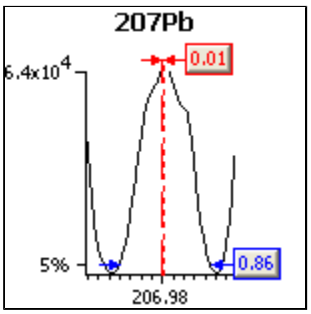


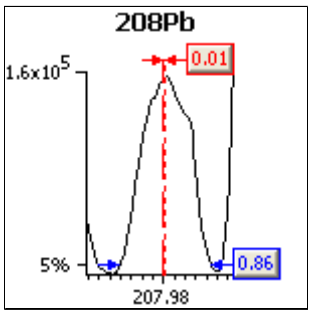












Analyte	Limits			Results	
	Max. width	Min. width	Max. error	Peak width	Peak error
9Be	0.90	0.45	0.10	0.75	-0.01
24Mg	0.90	0.45	0.10	0.75	-0.03
25Mg	0.90	0.45	0.10	0.75	-0.03
26Mg	0.90	0.45	0.10	0.75	-0.01
59Co	0.90	0.45	0.10	0.75	-0.01
113In	0.90	0.45	0.10	0.79	0.01
115In	0.90	0.45	0.10	0.82	0.01
140Ce	0.90	0.45	0.10	0.82	0.01
206Pb	0.90	0.45	0.10	0.86	0.03
207Pb	0.90	0.45	0.10	0.86	0.01
208Pb	0.90	0.45	0.10	0.86	0.01

Sample details
Sample name : ITUNE
Acquired at : 6/2/2015 7:51:22 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	7:52:09 AM	0	17076	80050	10592	12275	464139	125520	3
2	7:53:35 AM	0	16864	78627	10204	12110	455287	124140	3
3	7:55:00 AM	0	17123	79430	10346	12036	456847	123156	5
4	7:56:25 AM	0	17252	81320	10897	12570	454626	123618	19
5	7:57:50 AM	0	17139	80554	10727	12633	455508	123950	13
x		0	17091	79996	10553	12325	457282	124077	9
σ		0.06	142.26	1032.54	280.63	268.08	3917.25	889.28	7.26
%RSD		69.722	0.832	1.291	2.659	2.175	0.857	0.717	82.538

Run	Time	138Ba++	101Bkg	113In	115In	138Ba	140Ce	156Ce O	206Pb
Dwell (mSecs)		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Limits	%RSD	-	-	5.0%	5.0%	-	5.0%	-	5.0%
	Countrate	-	-	>200	>5000	-	>10000	-	>500
1	7:52:09 AM	34	0	9313	209367	1665	240122	3291	74912
2	7:53:35 AM	33	0	9182	209309	1583	239512	3246	74326
3	7:55:00 AM	55	0	9140	208557	2286	238962	3269	73757
4	7:56:25 AM	99	0	9444	208628	4232	238856	3194	75023
5	7:57:50 AM	99	0	9393	209974	3995	239080	3277	75083
x		64	0	9295	209167	2752	239307	3255	74620
σ		33.12	0.06	131.31	586.23	1275.06	519.76	37.88	568.54
%RSD		51.865	69.722	1.413	0.280	46.331	0.217	1.164	0.762

Run	Time	207Pb	208Pb	220Bkg
Dwell (mSecs)		0.0	0.0	0.0
Limits	%RSD	5.0%	5.0%	-
	Countrate	>500	>500	<2500
1	7:52:09 AM	68241	160547	0
2	7:53:35 AM	68368	161200	0
3	7:55:00 AM	67694	159605	0
4	7:56:25 AM	67958	161544	0
5	7:57:50 AM	68684	161749	0
x		68189	160929	0
σ		380.10	869.39	0.07
%RSD		0.557	0.540	136.931

Ratio results

Run	Time	156Ce O/140Ce
Ratio limits		<0.0500
1	7:52:09 AM	0
2	7:53:35 AM	0

3	7:55:00 AM	0
4	7:56:25 AM	0
5	7:57:50 AM	0
x		0.0136
σ		0.00
%RSD		1.0547

Result : The performance report passed.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Batch Number: 142539 Batch Start Date: 05/22/15 11:15 Batch Analyst: Baikadi, Ashwin

Batch Method: 3005A Batch End Date: 05/22/15 15:15

Lab Sample ID	Client Sample I	Method Chain	Basis	InitialAmount	FinalAmount	MTAPITTICPMS 00020	MTAPITTMSA 00024	MTAPITTMSC 00030	
MB 180-142539/1		3005A, 6020A		50 mL	50 mL				
LCS 180-142539/2		3005A, 6020A		50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	
180-44321-B-1	HD-COD-SW-6-0/ 1-0	3005A, 6020A	T	50 mL	50 mL				
180-44321-B-1 MS	HD-COD-SW-6-0/ 1-0	3005A, 6020A	T	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	
180-44321-B-1 MSD	HD-COD-SW-6-0/ 1-0	3005A, 6020A	T	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	
180-44321-B-2	HD-COD-SW-7-0/ 1-0	3005A, 6020A	T	50 mL	50 mL				
180-44321-B-3	HD-COD-SW-8-0/ 1-0	3005A, 6020A	T	50 mL	50 mL				
180-44321-B-4	HD-COD-SW-9-0/ 1-0	3005A, 6020A	T	50 mL	50 mL				
180-44321-B-5	HD-COD-SW-10-0 /1-0	3005A, 6020A	T	50 mL	50 mL				
180-44321-B-6	HD-COD-SW-11-0 /1-0	3005A, 6020A	T	50 mL	50 mL				
180-44321-B-7	HD-COD-SW-12-0 /1-0	3005A, 6020A	T	50 mL	50 mL				
180-44321-B-8	HD-COD-SW-13-0 /1-0	3005A, 6020A	T	50 mL	50 mL				
180-44321-B-9	HD-COD-SW-15-0 /1-0	3005A, 6020A	T	50 mL	50 mL				
180-44321-B-10	HD-COD-SW-16-0 /1-0	3005A, 6020A	T	50 mL	50 mL				
180-44321-B-11	HD-COD-SW-17-0 /1-0	3005A, 6020A	T	50 mL	50 mL				
180-44321-B-12	HD-COD-SW-20-0 /1-0	3005A, 6020A	T	50 mL	50 mL				
180-44321-B-13	HD-COD-SW-26-0 /1-0	3005A, 6020A	T	50 mL	50 mL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Batch Number: 142539 Batch Start Date: 05/22/15 11:15 Batch Analyst: Baikadi, Ashwin

Batch Method: 3005A Batch End Date: 05/22/15 15:15

Lab Sample ID	Client Sample I	Method Chain	Basis	InitialAmount	FinalAmount	MTAPITTICPMS 00020	MTAPITTMSA 00024	MTAPITTMSC 00030	
180-44321-B-14	HD-COD-SW-27-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-44321-B-15	HD-COD-SW-28-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-44321-B-16	HD-COD-SW-29-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-44321-B-18	HD-QC2-0/1-1	3005A, 6020A	T	50 mL	50 mL				
180-44321-B-19	HD-CW-9-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-44321-B-20	HD-CW-13-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-44321-B-21	HD-CW-15A-0/1-0	3005A, 6020A	T	50 mL	50 mL				

Batch Notes	
Batch Comment	Metals A3
First End time	15:15
Lot # of hydrochloric acid	2.5 ml 1533280
Lot # of Nitric Acid	1.0 ml 1513887
Hot Block ID	#1
Oven, Bath or Block Temperature 1	95
Pipette ID	L1201611U
Analyst ID - Spike Witness Analyst	AB
First Start time	11:15
Thermometer ID	IP1-14 CF=0.0 D2
Digestion Tube/Cup ID	1408268
Uncorrected Temperature	95 Celsius

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Batch Number: 142542 Batch Start Date: 05/22/15 11:15 Batch Analyst: Baikadi, Ashwin

Batch Method: 3005A Batch End Date: 05/22/15 15:15

Lab Sample ID	Client Sample I	Method Chain	Basis	InitialAmount	FinalAmount	MTAPITTICPMS 00020	MTAPITTMSA 00024	MTAPITTMSC 00030	
MB 180-142542/1		3005A, 6020A		50 mL	50 mL				
LCS 180-142542/2		3005A, 6020A		50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	
180-44321-B-2 2	HD-CW-17-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-44321-B-2 3	HD-CW-20-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-44321-B-2 4	HD-MW-95-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-44321-B-2 4 MS	HD-MW-95-0/1-0	3005A, 6020A	T	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	
180-44321-B-2 4 MSD	HD-MW-95-0/1-0	3005A, 6020A	T	50 mL	50 mL	0.5 mL	0.5 mL	0.5 mL	
180-44321-B-2 5	HD-MW-96S-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-44321-B-2 6	HD-MW-96D-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-44321-B-2 7	HD-MW-97-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-44321-B-2 8	HD-CW-18-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-44321-B-2 9	HD-MW-50D-0/1-0	3005A, 6020A	T	50 mL	50 mL				
180-44321-B-3 0	HD-MW-51S-0/1-0	3005A, 6020A	T	50 mL	50 mL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

METALS BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Batch Number: 142542 Batch Start Date: 05/22/15 11:15 Batch Analyst: Baikadi, Ashwin

Batch Method: 3005A Batch End Date: 05/22/15 15:15

Batch Notes	
Batch Comment	Metals A3
First End time	15:15
Lot # of hydrochloric acid	2.5 ml 1533280
Lot # of Nitric Acid	1.0 ml 1513887
Hot Block ID	#1
Oven, Bath or Block Temperature 1	95
Pipette ID	L1201611U
Analyst ID - Spike Witness Analyst	AB
First Start time	11:15
Thermometer ID	IP1-14 CF=0.0 D2
Digestion Tube/Cup ID	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: 180-44321-1

SDG No.:

Project: Harley Davidson

Client Sample ID	Lab Sample ID
HD-COD-SW-6-0/1-0	180-44321-1
HD-COD-SW-7-0/1-0	180-44321-2
HD-COD-SW-8-0/1-0	180-44321-3
HD-COD-SW-9-0/1-0	180-44321-4
HD-COD-SW-10-0/1-0	180-44321-5
HD-COD-SW-11-0/1-0	180-44321-6
HD-COD-SW-12-0/1-0	180-44321-7
HD-COD-SW-13-0/1-0	180-44321-8
HD-COD-SW-15-0/1-0	180-44321-9
HD-COD-SW-16-0/1-0	180-44321-10
HD-COD-SW-17-0/1-0	180-44321-11
HD-COD-SW-20-0/1-0	180-44321-12
HD-COD-SW-26-0/1-0	180-44321-13
HD-COD-SW-27-0/1-0	180-44321-14
HD-COD-SW-28-0/1-0	180-44321-15
HD-COD-SW-29-0/1-0	180-44321-16
HD-QC2-0/1-1	180-44321-18
HD-CW-9-0/1-0	180-44321-19
HD-CW-13-0/1-0	180-44321-20
HD-CW-15A-0/1-0	180-44321-21
HD-CW-17-0/1-0	180-44321-22
HD-CW-20-0/1-0	180-44321-23
HD-MW-95-0/1-0	180-44321-24
HD-MW-96S-0/1-0	180-44321-25
HD-MW-96D-0/1-0	180-44321-26
HD-MW-97-0/1-0	180-44321-27
HD-CW-18-0/1-0	180-44321-28
HD-MW-50D-0/1-0	180-44321-29
HD-MW-51S-0/1-0	180-44321-30

Comments:

1B-IN

INORGANIC ANALYSIS DATA SHEET

GENERAL CHEMISTRY

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

Lab Sample ID: 180-44321-1

Lab Name: TestAmerica Pittsburgh

Job No.: 180-44321-1

SDG ID.:

Matrix: Water

Date Sampled: 05/20/2015 10:45

Reporting Basis WET

Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	140	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	140	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN

INORGANIC ANALYSIS DATA SHEET

GENERAL CHEMISTRY

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

Lab Sample ID: 180-44321-2

Lab Name: TestAmerica Pittsburgh

Job No.: 180-44321-1

SDG ID.:

Matrix: Water

Date Sampled: 05/20/2015 13:35

Reporting Basis WET

Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	100	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	100	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN

INORGANIC ANALYSIS DATA SHEET

GENERAL CHEMISTRY

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

Lab Sample ID: 180-44321-3

Lab Name: TestAmerica Pittsburgh

Job No.: 180-44321-1

SDG ID.:

Matrix: Water

Date Sampled: 05/20/2015 09:10

Reporting Basis WET

Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	99	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	99	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN

INORGANIC ANALYSIS DATA SHEET

GENERAL CHEMISTRY

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

Lab Sample ID: 180-44321-4

Lab Name: TestAmerica Pittsburgh

Job No.: 180-44321-1

SDG ID.:

Matrix: Water

Date Sampled: 05/20/2015 11:50

Reporting Basis WET

Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	170	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	170	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN

INORGANIC ANALYSIS DATA SHEET

GENERAL CHEMISTRY

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

Lab Sample ID: 180-44321-5

Lab Name: TestAmerica Pittsburgh

Job No.: 180-44321-1

SDG ID.:

Matrix: Water

Date Sampled: 05/20/2015 09:45

Reporting Basis WET

Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	190	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	190	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN

INORGANIC ANALYSIS DATA SHEET

GENERAL CHEMISTRY

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

Lab Sample ID: 180-44321-6

Lab Name: TestAmerica Pittsburgh

Job No.: 180-44321-1

SDG ID.:

Matrix: Water

Date Sampled: 05/20/2015 12:15

Reporting Basis WET

Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	190	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	190	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN

INORGANIC ANALYSIS DATA SHEET

GENERAL CHEMISTRY

Client Sample ID: HD-COD-SW-12-0/1-0 Lab Sample ID: 180-44321-7

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG ID.:

Matrix: Water Date Sampled: 05/20/2015 12:30

Reporting Basis WET Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	160	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	160	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN

INORGANIC ANALYSIS DATA SHEET

GENERAL CHEMISTRY

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

Lab Sample ID: 180-44321-8

Lab Name: TestAmerica Pittsburgh

Job No.: 180-44321-1

SDG ID.:

Matrix: Water

Date Sampled: 05/20/2015 09:35

Reporting Basis WET

Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	83	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	83	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN

INORGANIC ANALYSIS DATA SHEET

GENERAL CHEMISTRY

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

Lab Sample ID: 180-44321-9

Lab Name: TestAmerica Pittsburgh

Job No.: 180-44321-1

SDG ID.:

Matrix: Water

Date Sampled: 05/20/2015 12:40

Reporting Basis WET

Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	190	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	190	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN

INORGANIC ANALYSIS DATA SHEET

GENERAL CHEMISTRY

Client Sample ID: HD-COD-SW-16-0/1-0 Lab Sample ID: 180-44321-10

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG ID.:

Matrix: Water Date Sampled: 05/20/2015 10:10

Reporting Basis WET Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	100	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	100	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN

INORGANIC ANALYSIS DATA SHEET

GENERAL CHEMISTRY

Client Sample ID: HD-COD-SW-17-0/1-0 Lab Sample ID: 180-44321-11

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG ID.:

Matrix: Water Date Sampled: 05/20/2015 10:25

Reporting Basis WET Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	230	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	230	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN

INORGANIC ANALYSIS DATA SHEET

GENERAL CHEMISTRY

Client Sample ID: HD-COD-SW-20-0/1-0 Lab Sample ID: 180-44321-12

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG ID.:

Matrix: Water Date Sampled: 05/20/2015 10:50

Reporting Basis WET Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	140	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	140	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN

INORGANIC ANALYSIS DATA SHEET

GENERAL CHEMISTRY

Client Sample ID: HD-COD-SW-26-0/1-0 Lab Sample ID: 180-44321-13

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG ID.:

Matrix: Water Date Sampled: 05/20/2015 13:15

Reporting Basis WET Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	260	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	260	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN

INORGANIC ANALYSIS DATA SHEET

GENERAL CHEMISTRY

Client Sample ID: HD-COD-SW-27-0/1-0 Lab Sample ID: 180-44321-14

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG ID.:

Matrix: Water Date Sampled: 05/20/2015 12:50

Reporting Basis WET Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	150	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	150	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN

INORGANIC ANALYSIS DATA SHEET

GENERAL CHEMISTRY

Client Sample ID: HD-COD-SW-28-0/1-0 Lab Sample ID: 180-44321-15

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG ID.:

Matrix: Water Date Sampled: 05/20/2015 12:05

Reporting Basis WET Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	160	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	160	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN

INORGANIC ANALYSIS DATA SHEET

GENERAL CHEMISTRY

Client Sample ID: HD-COD-SW-29-0/1-0 Lab Sample ID: 180-44321-16

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG ID.:

Matrix: Water Date Sampled: 05/20/2015 08:47

Reporting Basis WET Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	99	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	99	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN

INORGANIC ANALYSIS DATA SHEET

GENERAL CHEMISTRY

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

Lab Sample ID: 180-44321-18

Lab Name: TestAmerica Pittsburgh

Job No.: 180-44321-1

SDG ID.:

Matrix: Water

Date Sampled: 05/20/2015 08:00

Reporting Basis WET

Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	250	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	250	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN

INORGANIC ANALYSIS DATA SHEET

GENERAL CHEMISTRY

Client Sample ID: HD-CW-9-0/1-0 Lab Sample ID: 180-44321-19

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG ID.:

Matrix: Water Date Sampled: 05/20/2015 10:10

Reporting Basis WET Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	210	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	210	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN

INORGANIC ANALYSIS DATA SHEET

GENERAL CHEMISTRY

Client Sample ID: HD-CW-13-0/1-0 Lab Sample ID: 180-44321-20

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG ID.:

Matrix: Water Date Sampled: 05/20/2015 10:15

Reporting Basis WET Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	290	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	290	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN

INORGANIC ANALYSIS DATA SHEET

GENERAL CHEMISTRY

Client Sample ID: HD-CW-15A-0/1-0 Lab Sample ID: 180-44321-21

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG ID.:

Matrix: Water Date Sampled: 05/20/2015 10:25

Reporting Basis WET Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	200	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	200	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN

INORGANIC ANALYSIS DATA SHEET

GENERAL CHEMISTRY

Client Sample ID: HD-CW-17-0/1-0 Lab Sample ID: 180-44321-22

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG ID.:

Matrix: Water Date Sampled: 05/20/2015 10:35

Reporting Basis WET Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	230	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	230	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN

INORGANIC ANALYSIS DATA SHEET

GENERAL CHEMISTRY

Client Sample ID: HD-CW-20-0/1-0 Lab Sample ID: 180-44321-23

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG ID.:

Matrix: Water Date Sampled: 05/20/2015 10:45

Reporting Basis WET Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	230	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	230	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN

INORGANIC ANALYSIS DATA SHEET

GENERAL CHEMISTRY

Client Sample ID: HD-MW-95-0/1-0 Lab Sample ID: 180-44321-24

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG ID.:

Matrix: Water Date Sampled: 05/20/2015 09:25

Reporting Basis WET Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	260	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	260	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN

INORGANIC ANALYSIS DATA SHEET

GENERAL CHEMISTRY

Client Sample ID: HD-MW-96S-0/1-0 Lab Sample ID: 180-44321-25

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG ID.:

Matrix: Water Date Sampled: 05/20/2015 11:30

Reporting Basis WET Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	310	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	310	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN

INORGANIC ANALYSIS DATA SHEET

GENERAL CHEMISTRY

Client Sample ID: HD-MW-96D-0/1-0 Lab Sample ID: 180-44321-26

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG ID.:

Matrix: Water Date Sampled: 05/20/2015 10:50

Reporting Basis WET Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	270	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	270	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN

INORGANIC ANALYSIS DATA SHEET

GENERAL CHEMISTRY

Client Sample ID: HD-MW-97-0/1-0 Lab Sample ID: 180-44321-27

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG ID.:

Matrix: Water Date Sampled: 05/20/2015 12:50

Reporting Basis WET Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	230	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	230	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN

INORGANIC ANALYSIS DATA SHEET

GENERAL CHEMISTRY

Client Sample ID: HD-CW-18-0/1-0 Lab Sample ID: 180-44321-28

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG ID.:

Matrix: Water Date Sampled: 05/20/2015 14:00

Reporting Basis WET Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	290	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	290	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN

INORGANIC ANALYSIS DATA SHEET

GENERAL CHEMISTRY

Client Sample ID: HD-MW-50D-0/1-0 Lab Sample ID: 180-44321-29

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG ID.:

Matrix: Water Date Sampled: 05/20/2015 10:07

Reporting Basis WET Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	340	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	340	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: HD-MW-51S-0/1-0
Lab Sample ID: 180-44321-30
Lab Name: TestAmerica Pittsburgh
Job No.: 180-44321-1
SDG ID.:
Matrix: Water
Date Sampled: 05/20/2015 12:31
Reporting Basis WET
Date Received: 05/21/2015 09:00

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Total Alkalinity as CaCO3 to pH 4.5	200	5.0	0.41	mg/L		B	1	SM 2320B
	Bicarbonate Alkalinity as CaCO3	200	5.0	0.41	mg/L		B	1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	0.41	mg/L	U		1	SM 2320B

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Analyst: CLL Batch Start Date: 06/01/2015

Reporting Units: mg/L Analytical Batch No.: 143418

Sample	QC Type	Time	Analyte	Result	Spike Amoun	(%) Recovery	Limits	Qual	Reagent
13	CCV	08:16	Total Alkalinity as CaCO3 to pH 4.5	133	125	106	80-120		WALK125PPMCCV_00085
14	CCB	08:16	Total Alkalinity as CaCO3 to pH 4.5	1.98				J	
			Bicarbonate Alkalinity as CaCO3	1.98				J	
			Carbonate Alkalinity as CaCO3	5.0				U	
25	CCV	08:16	Total Alkalinity as CaCO3 to pH 4.5	131	125	105	80-120		WALK125PPMCCV_00085
26	CCB	08:16	Total Alkalinity as CaCO3 to pH 4.5	3.96				J	
			Bicarbonate Alkalinity as CaCO3	3.96				J	
			Carbonate Alkalinity as CaCO3	5.0				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Analyst: CLL Batch Start Date: 06/01/2015

Reporting Units: mg/L Analytical Batch No.: 143420

Sample	QC Type	Time	Analyte	Result	Spike Amoun	(%) Recovery	Limits	Qual	Reagent
13	CCV	08:17	Total Alkalinity as CaCO3 to pH 4.5	133	125	106	80-120		WALK125PPMCCV_00085
14	CCB	08:17	Total Alkalinity as CaCO3 to pH 4.5	1.98				J	
			Bicarbonate Alkalinity as CaCO3	1.98				J	
			Carbonate Alkalinity as CaCO3	5.0				U	
20	CCV	08:17	Total Alkalinity as CaCO3 to pH 4.5	133	125	106	80-120		WALK125PPMCCV_00085
			Bicarbonate Alkalinity as CaCO3	5.0				U	
			Carbonate Alkalinity as CaCO3	127					
21	CCB	08:17	Total Alkalinity as CaCO3 to pH 4.5	1.98				J	
			Bicarbonate Alkalinity as CaCO3	1.98				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.: 180-44321-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 143418	Date: 06/01/2015 08:16						
SM 2320B	MB 180-143418/2	Total Alkalinity as CaCO3 to pH 4.5	1.98	J	mg/L	5.0	1
SM 2320B	MB 180-143418/2	Bicarbonate Alkalinity as CaCO3	1.98	J	mg/L	5.0	1
SM 2320B	MB 180-143418/2	Carbonate Alkalinity as CaCO3	5.0	U	mg/L	5.0	1
Batch ID: 143420	Date: 06/01/2015 08:17						
SM 2320B	MB 180-143420/2	Total Alkalinity as CaCO3 to pH 4.5	1.98	J	mg/L	5.0	1
SM 2320B	MB 180-143420/2	Bicarbonate Alkalinity as CaCO3	1.98	J	mg/L	5.0	1
SM 2320B	MB 180-143420/2	Carbonate Alkalinity as CaCO3	5.0	U	mg/L	5.0	1

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limi	Qual
Batch ID: 143418 Date: 06/01/2015 08:16								
SM 2320B	HD-COD-SW-6-0/1-0	180-44321-1	Total Alkalinity as CaCO3 to pH 4.5	140	mg/L			
SM 2320B	HD-COD-SW-6-0/1-0	180-44321-1 DU	Total Alkalinity as CaCO3 to pH 4.5	145	mg/L	1	20	
SM 2320B	HD-COD-SW-6-0/1-0	180-44321-1	Bicarbonate Alkalinity as CaCO3	140	mg/L			
SM 2320B	HD-COD-SW-6-0/1-0	180-44321-1 DU	Bicarbonate Alkalinity as CaCO3	145	mg/L	1	20	
SM 2320B	HD-COD-SW-6-0/1-0	180-44321-1	Carbonate Alkalinity as CaCO3	5.0	mg/L			U
SM 2320B	HD-COD-SW-6-0/1-0	180-44321-1 DU	Carbonate Alkalinity as CaCO3	5.0	mg/L	NC	20	U
Batch ID: 143418 Date: 06/01/2015 08:16								
SM 2320B	HD-COD-SW-26-0/1-0	180-44321-13	Total Alkalinity as CaCO3 to pH 4.5	260	mg/L			
SM 2320B	HD-COD-SW-26-0/1-0	180-44321-13 DU	Total Alkalinity as CaCO3 to pH 4.5	265	mg/L	2	20	
SM 2320B	HD-COD-SW-26-0/1-0	180-44321-13	Bicarbonate Alkalinity as CaCO3	260	mg/L			
SM 2320B	HD-COD-SW-26-0/1-0	180-44321-13 DU	Bicarbonate Alkalinity as CaCO3	265	mg/L	2	20	
SM 2320B	HD-COD-SW-26-0/1-0	180-44321-13	Carbonate Alkalinity as CaCO3	5.0	mg/L			U
SM 2320B	HD-COD-SW-26-0/1-0	180-44321-13 DU	Carbonate Alkalinity as CaCO3	5.0	mg/L	NC	20	U
Batch ID: 143420 Date: 06/01/2015 08:17								
SM 2320B	HD-MW-95-0/1-0	180-44321-24	Total Alkalinity as CaCO3 to pH 4.5	260	mg/L			
SM 2320B	HD-MW-95-0/1-0	180-44321-24 DU	Total Alkalinity as CaCO3 to pH 4.5	257	mg/L	2	20	
SM 2320B	HD-MW-95-0/1-0	180-44321-24	Bicarbonate Alkalinity as CaCO3	260	mg/L			
SM 2320B	HD-MW-95-0/1-0	180-44321-24 DU	Bicarbonate Alkalinity as CaCO3	257	mg/L	2	20	
SM 2320B	HD-MW-95-0/1-0	180-44321-24	Carbonate Alkalinity as CaCO3	5.0	mg/L			U
SM 2320B	HD-MW-95-0/1-0	180-44321-24 DU	Carbonate Alkalinity as CaCO3	5.0	mg/L	NC	20	U
Batch ID: 143420 Date: 06/01/2015 08:17								
SM 2320B	HD-MW-51S-0/1-0	180-44321-30	Total Alkalinity as CaCO3 to pH 4.5	200	mg/L			
SM 2320B	HD-MW-51S-0/1-0	180-44321-30 DU	Total Alkalinity as CaCO3 to pH 4.5	198	mg/L	1	20	
SM 2320B	HD-MW-51S-0/1-0	180-44321-30	Bicarbonate Alkalinity as CaCO3	200	mg/L			
SM 2320B	HD-MW-51S-0/1-0	180-44321-30 DU	Bicarbonate Alkalinity as CaCO3	198	mg/L	1	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limi	Qual
SM 2320B	HD-MW-51S-0/1-0	180-44321-30	Carbonate Alkalinity as CaCO3	5.0	mg/L			U
SM 2320B	HD-MW-51S-0/1-0	180-44321-30 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.: 180-44321-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limi	Q
Batch ID: 143418		Date: 06/01/2015 08:16									
						LCS Source: WALK250PPMPi_00094					
SM 2320B	LCS 180-143418/1	Total Alkalinity as CaCO3 to pH 4.5	263		mg/L	250	105	80-120			
Batch ID: 143420		Date: 06/01/2015 08:17									
						LCS Source: WALK250PPMPi_00094					
SM 2320B	LCS 180-143420/1	Total Alkalinity as CaCO3 to pH 4.5	261		mg/L	250	105	80-120			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job Number: 180-44321-1

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: 180-44321-1

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.: 180-44321-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2320B

Start Date: 06/01/2015 08:16 End Date: 06/01/2015 08:16

Lab Sample Id	D/F	Typ	Time	Analytes																												
				Alk	BALKCC	CarAlk																											
LCS 180-143418/1	1	T	08:16	X																												
MB 180-143418/2	1	T	08:16	X	X	X																										
180-44321-1	1	T	08:16	X	X	X																										
180-44321-1 DU	1	T	08:16	X	X	X																										
180-44321-2	1	T	08:16	X	X	X																										
180-44321-3	1	T	08:16	X	X	X																										
180-44321-4	1	T	08:16	X	X	X																										
180-44321-5	1	T	08:16	X	X	X																										
180-44321-6	1	T	08:16	X	X	X																										
180-44321-7	1	T	08:16	X	X	X																										
180-44321-8	1	T	08:16	X	X	X																										
180-44321-9	1	T	08:16	X	X	X																										
CCV 180-143418/13	1		08:16	X																												
CCB 180-143418/14	1		08:16	X	X	X																										
180-44321-10	1	T	08:16	X	X	X																										
180-44321-11	1	T	08:16	X	X	X																										
180-44321-12	1	T	08:16	X	X	X																										
180-44321-13	1	T	08:16	X	X	X																										
180-44321-13 DU	1	T	08:16	X	X	X																										
180-44321-14	1	T	08:16	X	X	X																										
180-44321-15	1	T	08:16	X	X	X																										
180-44321-16	1	T	08:16	X	X	X																										
180-44321-18	1	T	08:16	X	X	X																										
180-44321-19	1	T	08:16	X	X	X																										
CCV 180-143418/25	1		08:16	X																												
CCB 180-143418/26	1		08:16	X	X	X																										
ZZZZZZ			08:16																													

Prep Types:
T = Total/NA

FORM XIII-IN

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Instrument ID: NOEQUIP Analysis Method: SM 2320B

Start Date: 06/01/2015 08:17 End Date: 06/01/2015 08:17

Lab Sample Id	D/F	Typ	Time	Analytes																										
				Alk	BALKCC	CarAlk																								
LCS 180-143420/1	1	T	08:17	X																										
MB 180-143420/2	1	T	08:17	X	X	X																								
180-44321-20	1	T	08:17	X	X	X																								
180-44321-21	1	T	08:17	X	X	X																								
180-44321-22	1	T	08:17	X	X	X																								
180-44321-23	1	T	08:17	X	X	X																								
180-44321-24	1	T	08:17	X	X	X																								
180-44321-24 DU	1	T	08:17	X	X	X																								
180-44321-25	1	T	08:17	X	X	X																								
180-44321-26	1	T	08:17	X	X	X																								
180-44321-27	1	T	08:17	X	X	X																								
180-44321-28	1	T	08:17	X	X	X																								
CCV 180-143420/13	1		08:17	X																										
CCB 180-143420/14	1		08:17	X	X	X																								
180-44321-29	1	T	08:17	X	X	X																								
180-44321-30	1	T	08:17	X	X	X																								
180-44321-30 DU	1	T	08:17	X	X	X																								
ZZZZZZ			08:17																											
ZZZZZZ			08:17																											
CCV 180-143420/20	1		08:17	X	X	X																								
CCB 180-143420/21	1		08:17	X	X	X																								

Prep Types:
T = Total/NA

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Lab#060115AKA

PITTSBURGH
ALKALINITY LOGSHEET
Method 2320B
NB-2015-024

Analyst: CLSchuyler
Reviewed By: See DCL
pH Meter ID: Accumet XL S/N#94102132
pH 4 Start: 4.02

Date: 6-1-15
Date: sub-1-15
AD Batch: 14348-14342D
pH 4 End: 4.05

Job Number(s): 44321-44354

Calculations:

$$\text{Alkalinity as } CaCO_3 \text{ mg/L} = \frac{(\text{mL of } H_2SO_4)\,(N)(50{,}000)}{\text{mL of Sample}}$$

Alkalinity Relationships:

P = Phenolphthalein Alkalinity (pH 8.3)

T = Total Alkalinity

OH^- = Hydroxide Alkalinity as $CaCO_3$

$CO_3^{\,2}$ = Carbonate Alkalinity as $CaCO_3$

HCO_3 = Bicarbonate Concentration as $CaCO_3$

Results	OH^-	$CO_3^{\,2}$	HCO_3
P = 0	0	0	T
P < ½T	0	2P	T-2P

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

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	10.10	50	6.1	13.3	.0198	263.34				
MB	5.49		0	0.1		1.98				
180-44321-1	7.78		0	7.2		142.56				
1X	7.80		0	7.3		144.54				
2	7.83		0	5.1		100.98				
3	7.62		0	5.0		99				
4	7.71		0	8.7		172.26				
5	8.17		0	9.8		194.04				
6	8.20		0	9.7		192.06				
7	7.80		0	8.1		160.38				
8	7.63		0	4.2		83.16				
9	7.38		0	9.5		188.1				
CCV	10.55		3.5	6.7		132.66				
CCB	5.43		0	0.1		1.98				
180-44321-10	7.63		0	5.2		102.96				
11	7.39		0	11.6		229.68				
12	7.95		0	7.3		144.54				
13	7.35		0	13.2		261.36				
13X	7.37		0	13.4		265.32				
14	7.67		0	7.5		148.5				
15	7.74		0	8.1		160.38				
16	7.60		0	5.0		99				
18	7.49		0	12.4		245.52				
19	7.52		0	10.6		209.88				
CCV	10.58		3.5	6.6		130.68				
CCB	5.47		0	0.2		3.96				

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Pittsburgh
ALKALINITY LOGSHEET
Method 2320B
NB-2015-024

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	6.2	13.2	.0198	261.36				
MB	5.39		0	0.1		1.98				
180-44321-20	7.37		0	14.5		287.1				
21	7.49		0	10.0		198				
22	7.52		0	11.4		225.72				
23	7.63		0	11.5		227.7				
24	7.44		0	13.2		261.36				
24X	7.41		0	13.0		257.4				
25	7.38		0	15.9		314.82				
26	7.46		0	13.5		267.3				
27	7.60		0	11.8		233.64				
28	7.58		0	14.6		289.08				
CCV	10.61		3.4	6.7		132.66				
CCB	5.45		0	0.1		1.98				
180-44321-29	7.44		0	17.0		336.6				
-30	7.36		0	9.9		196.02				
-30X	7.33		0	10.0		CAV 196 198				
180-44354-1	7.64		0	7.7		152.46				
-2	6.28		0	20.8		411.84				
CCV	10.70		3.5	6.7		132.66				
CCB	5.39		0	0.1		1.98				

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Lab#060115-AKA

PITTSBURGH
ALKALINITY LOGSHEET
Method 2320B
NB-2015-024

Analyst: CLSchuyler **Date:** 6-1-15
Reviewed By: See DCL **Date:** sub-1-5
pH Meter ID: Accumet XL S/N# 9410213 **AD Batch:** 14348-14342D
pH 4 Start: 4.02 **pH 4 End:** 4.05

Job Number(s): 44321-44354

Calculations:

$$\text{Alkalinity as } CaCO_3 \text{ mg/L} = \frac{(\text{mL of } H_2SO_4)\ (N)(50{,}000)}{\text{mL of Sample}}$$

Alkalinity Relationships:

P = Phenolphthalein Alkalinity (pH 8.3)

T = Total Alkalinity

OH^- = Hydroxide Alkalinity as $CaCO_3$

$CO_3^{\ 2}$ = Carbonate Alkalinity as $CaCO_3$

HCO_3 = Bicarbonate Concentration as $CaCO_3$

Results	OH^-	$CO_3^{\ 2}$	HCO_3
P = 0	0	0	T
P < ½T	0	2P	T-2P

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

CLSchuyler

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Pittsburgh
ALKALINITY LOGSHEET
Method 2320B
NB-2015-024

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	10.10	50	6.1	13.3	.0198	263.34				
MB	5.49		0	0.1		1.98				
180-44321-1	7.78		0	7.2		142.56				
1X	7.80		0	7.3		144.54				
2	7.83		0	5.1		100.98				
3	7.62		0	5.0		99				
4	7.71		0	8.7		172.26				
5	8.17		0	9.8		194.04				
6	8.20		0	9.7		192.06				
7	7.80		0	8.1		160.38				
8	7.63		0	4.2		83.16				
9	7.38		0	9.5		188.1				
CCV	10.55		3.5	6.7		132.66				
CCB	5.43		0	0.1		1.98				
180-44321-10	7.63		0	5.2		102.96				
11	7.39		0	11.6		229.68				
12	7.95		0	7.3		144.54				
13	7.35		0	13.2		261.36				
13X	7.37		0	13.4		265.32				
14	7.67		0	7.5		148.5				
15	7.74		0	8.1		160.38				
16	7.60		0	5.0		99				
18	7.49		0	12.4		245.52				
19	7.52		0	10.6		209.88				
CCV	10.58		3.5	6.6		130.68				
CCB	5.47		0	0.2		3.96				

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Pittsburgh
ALKALINITY LOGSHEET
Method 2320B
NB-2015-024

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	6.2	13.2	.0198	261.36				
MB	5.39		0	0.1		1.98				
180-44321-20	7.37		0	14.5		287.1				
21	7.49		0	10.0		198				
22	7.52		0	11.4		225.72				
23	7.63		0	11.5		227.7				
24	7.44		0	13.2		261.36				
24X	7.41		0	13.0		257.4				
25	7.38		0	15.9		314.82				
26	7.46		0	13.5		267.3				
27	7.60		0	11.8		233.64				
28	7.58		0	14.6		289.08				
CCV	10.61		3.4	6.7		132.66				
CCB	5.45		0	0.1		1.98				
180-44321-29	7.44		0	17.0		336.6				
-30	7.36		0	9.9		196.02				
-30X	7.33		0	10.0		CAV 196 198				
180-44354-1	7.64		0	7.7		152.46				
-2	6.28		0	20.8		411.84				
CCV	10.70		3.5	6.7		132.66				
CCB	5.39		0	0.1		1.98				

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Batch Number: 143418 Batch Start Date: 06/01/15 08:16 Batch Analyst: Loheyde, Cheryl

Batch Method: SM 2320B Batch End Date:

Lab Sample ID	Client Sample I	Method Chain	Basis	InitialAmount	Initial pH	BuretStart1	BuretStop1	TitrantVolume1	BuretStart2
LCS 180-143418/1		SM 2320B		50 mL	10.70 SU	0 mL	6.1 mL	6.1 mL	0 mL
MB 180-143418/2		SM 2320B		50 mL	5.49 SU	0 mL	0 mL	0 mL	0 mL
180-44321-A-1	HD-COD-SW-6-0/1-0	SM 2320B	T	50 mL	7.78 SU	0 mL	0 mL	0 mL	0 mL
180-44321-A-1 DU	HD-COD-SW-6-0/1-0	SM 2320B	T	50 mL	7.80 SU	0 mL	0 mL	0 mL	0 mL
180-44321-A-2	HD-COD-SW-7-0/1-0	SM 2320B	T	50 mL	7.83 SU	0 mL	0 mL	0 mL	0 mL
180-44321-A-3	HD-COD-SW-8-0/1-0	SM 2320B	T	50 mL	7.62 SU	0 mL	0 mL	0 mL	0 mL
180-44321-A-4	HD-COD-SW-9-0/1-0	SM 2320B	T	50 mL	7.71 SU	0 mL	0 mL	0 mL	0 mL
180-44321-A-5	HD-COD-SW-10-0/1-0	SM 2320B	T	50 mL	8.17 SU	0 mL	0 mL	0 mL	0 mL
180-44321-A-6	HD-COD-SW-11-0/1-0	SM 2320B	T	50 mL	8.20 SU	0 mL	0 mL	0 mL	0 mL
180-44321-A-7	HD-COD-SW-12-0/1-0	SM 2320B	T	50 mL	7.80 SU	0 mL	0 mL	0 mL	0 mL
180-44321-A-8	HD-COD-SW-13-0/1-0	SM 2320B	T	50 mL	7.63 SU	0 mL	0 mL	0 mL	0 mL
180-44321-A-9	HD-COD-SW-15-0/1-0	SM 2320B	T	50 mL	7.38 SU	0 mL	0 mL	0 mL	0 mL
CCV 180-143418/13		SM 2320B		50 mL	10.55 SU	0 mL	3.5 mL	3.5 mL	0 mL
CCB 180-143418/14		SM 2320B		50 mL	5.43 SU	0 mL	0 mL	0 mL	0 mL
180-44321-A-10	HD-COD-SW-16-0/1-0	SM 2320B	T	50 mL	7.63 SU	0 mL	0 mL	0 mL	0 mL
180-44321-A-11	HD-COD-SW-17-0/1-0	SM 2320B	T	50 mL	7.39 SU	0 mL	0 mL	0 mL	0 mL
180-44321-A-12	HD-COD-SW-20-0/1-0	SM 2320B	T	50 mL	7.95 SU	0 mL	0 mL	0 mL	0 mL

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Batch Number: 143418 Batch Start Date: 06/01/15 08:16 Batch Analyst: Loheyde, Cheryl

Batch Method: SM 2320B Batch End Date:

Lab Sample ID	Client Sample I	Method Chain	Basis	InitialAmount	Initial pH	BuretStart1	BuretStop1	TitrantVolume1	BuretStart2
180-44321-A-13	HD-COD-SW-26-0/1-0	SM 2320B	T	50 mL	7.35 SU	0 mL	0 mL	0 mL	0 mL
180-44321-A-13 DU	HD-COD-SW-26-0/1-0	SM 2320B	T	50 mL	7.37 SU	0 mL	0 mL	0 mL	0 mL
180-44321-A-14	HD-COD-SW-27-0/1-0	SM 2320B	T	50 mL	7.67 SU	0 mL	0 mL	0 mL	0 mL
180-44321-A-15	HD-COD-SW-28-0/1-0	SM 2320B	T	50 mL	7.74 SU	0 mL	0 mL	0 mL	0 mL
180-44321-A-16	HD-COD-SW-29-0/1-0	SM 2320B	T	50 mL	7.60 SU	0 mL	0 mL	0 mL	0 mL
180-44321-A-18	HD-QC2-0/1-1	SM 2320B	T	50 mL	7.49 SU	0 mL	0 mL	0 mL	0 mL
180-44321-A-19	HD-CW-9-0/1-0	SM 2320B	T	50 mL	7.52 SU	0 mL	0 mL	0 mL	0 mL
CCV 180-143418/25		SM 2320B		50 mL	10.58 SU	0 mL	3.5 mL	3.5 mL	0 mL
CCB 180-143418/26		SM 2320B		50 mL	5.47 SU	0 mL	0 mL	0 mL	0 mL

Lab Sample ID	Client Sample I	Method Chain	Basis	BuretStop2	TitrantVolume2	CalcMsg	carb	hydr	bCarb
LCS 180-143418/1		SM 2320B		7.2 mL	7.2 mL	Case 2	241.56 mg/L	0 mg/L	21.78 mg/L
MB 180-143418/2		SM 2320B		0.1 mL	0.1 mL	Case 1	0 mg/L	0 mg/L	1.98 mg/L
180-44321-A-1	HD-COD-SW-6-0/1-0	SM 2320B	T	7.2 mL	7.2 mL	Case 1	0 mg/L	0 mg/L	142.56 mg/L
180-44321-A-1 DU	HD-COD-SW-6-0/1-0	SM 2320B	T	7.3 mL	7.3 mL	Case 1	0 mg/L	0 mg/L	144.54 mg/L
180-44321-A-2	HD-COD-SW-7-0/1-0	SM 2320B	T	5.1 mL	5.1 mL	Case 1	0 mg/L	0 mg/L	100.98 mg/L
180-44321-A-3	HD-COD-SW-8-0/1-0	SM 2320B	T	5.0 mL	5 mL	Case 1	0 mg/L	0 mg/L	99 mg/L
180-44321-A-4	HD-COD-SW-9-0/1-0	SM 2320B	T	8.7 mL	8.7 mL	Case 1	0 mg/L	0 mg/L	172.26 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.: 180-44321-1

SDG No.:

Batch Number: 143418 Batch Start Date: 06/01/15 08:16 Batch Analyst: Loheyde, Cheryl

Batch Method: SM 2320B Batch End Date:

Lab Sample ID	Client Sample I	Method Chain	Basis	BuretStop2	TitrantVolume2	CalcMsg	carb	hydr	bCarb
180-44321-A-5	HD-COD-SW-10-0/1-0	SM 2320B	T	9.8 mL	9.8 mL	Case 1	0 mg/L	0 mg/L	194.04 mg/L
180-44321-A-6	HD-COD-SW-11-0/1-0	SM 2320B	T	9.7 mL	9.7 mL	Case 1	0 mg/L	0 mg/L	192.06 mg/L
180-44321-A-7	HD-COD-SW-12-0/1-0	SM 2320B	T	8.1 mL	8.1 mL	Case 1	0 mg/L	0 mg/L	160.38 mg/L
180-44321-A-8	HD-COD-SW-13-0/1-0	SM 2320B	T	4.2 mL	4.2 mL	Case 1	0 mg/L	0 mg/L	83.16 mg/L
180-44321-A-9	HD-COD-SW-15-0/1-0	SM 2320B	T	9.5 mL	9.5 mL	Case 1	0 mg/L	0 mg/L	188.1 mg/L
CCV 180-143418/13		SM 2320B		3.2 mL	3.2 mL	Case 4	126.72 mg/L	5.94 mg/L	0 mg/L
CCB 180-143418/14		SM 2320B		0.1 mL	0.1 mL	Case 1	0 mg/L	0 mg/L	1.98 mg/L
180-44321-A-10	HD-COD-SW-16-0/1-0	SM 2320B	T	5.2 mL	5.2 mL	Case 1	0 mg/L	0 mg/L	102.96 mg/L
180-44321-A-11	HD-COD-SW-17-0/1-0	SM 2320B	T	11.6 mL	11.6 mL	Case 1	0 mg/L	0 mg/L	229.68 mg/L
180-44321-A-12	HD-COD-SW-20-0/1-0	SM 2320B	T	7.3 mL	7.3 mL	Case 1	0 mg/L	0 mg/L	144.54 mg/L
180-44321-A-13	HD-COD-SW-26-0/1-0	SM 2320B	T	13.2 mL	13.2 mL	Case 1	0 mg/L	0 mg/L	261.36 mg/L
180-44321-A-13 DU	HD-COD-SW-26-0/1-0	SM 2320B	T	13.4 mL	13.4 mL	Case 1	0 mg/L	0 mg/L	265.32 mg/L
180-44321-A-14	HD-COD-SW-27-0/1-0	SM 2320B	T	7.5 mL	7.5 mL	Case 1	0 mg/L	0 mg/L	148.5 mg/L
180-44321-A-15	HD-COD-SW-28-0/1-0	SM 2320B	T	8.1 mL	8.1 mL	Case 1	0 mg/L	0 mg/L	160.38 mg/L
180-44321-A-16	HD-COD-SW-29-0/1-0	SM 2320B	T	5.0 mL	5 mL	Case 1	0 mg/L	0 mg/L	99 mg/L
180-44321-A-18	HD-QC2-0/1-1	SM 2320B	T	12.4 mL	12.4 mL	Case 1	0 mg/L	0 mg/L	245.52 mg/L
180-44321-A-19	HD-CW-9-0/1-0	SM 2320B	T	10.6 mL	10.6 mL	Case 1	0 mg/L	0 mg/L	209.88 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.: 180-44321-1

SDG No.:

Batch Number: 143418 Batch Start Date: 06/01/15 08:16 Batch Analyst: Loheyde, Cheryl

Batch Method: SM 2320B Batch End Date:

Lab Sample ID	Client Sample I	Method Chain	Basis	BuretStop2	TitrantVolume2	CalcMsg	carb	hydr	bCarb
CCV 180-143418/25		SM 2320B		3.1 mL	3.1 mL	Case 4	122.76 mg/L	7.919999999999 99 mg/L	0 mg/L
CCB 180-143418/26		SM 2320B		0.2 mL	0.2 mL	Case 1	0 mg/L	0 mg/L	3.96 mg/L

Lab Sample ID	Client Sample I	Method Chain	Basis	pAlk	tAlk	FinalAmount	WALK125PPMCCV 00085	WALK250PPMPi 00094	
LCS 180-143418/1		SM 2320B		120.78 mg/L	263.34 mg/L	50 mL		50 mL	
MB 180-143418/2		SM 2320B		0 mg/L	1.98 mg/L	50 mL			
180-44321-A-1	HD-COD-SW-6-0/ 1-0	SM 2320B	T	0 mg/L	142.56 mg/L	50 mL			
180-44321-A-1 DU	HD-COD-SW-6-0/ 1-0	SM 2320B	T	0 mg/L	144.54 mg/L	50 mL			
180-44321-A-2	HD-COD-SW-7-0/ 1-0	SM 2320B	T	0 mg/L	100.98 mg/L	50 mL			
180-44321-A-3	HD-COD-SW-8-0/ 1-0	SM 2320B	T	0 mg/L	99 mg/L	50 mL			
180-44321-A-4	HD-COD-SW-9-0/ 1-0	SM 2320B	T	0 mg/L	172.26 mg/L	50 mL			
180-44321-A-5	HD-COD-SW-10-0 /1-0	SM 2320B	T	0 mg/L	194.04 mg/L	50 mL			
180-44321-A-6	HD-COD-SW-11-0 /1-0	SM 2320B	T	0 mg/L	192.06 mg/L	50 mL			
180-44321-A-7	HD-COD-SW-12-0 /1-0	SM 2320B	T	0 mg/L	160.38 mg/L	50 mL			
180-44321-A-8	HD-COD-SW-13-0 /1-0	SM 2320B	T	0 mg/L	83.16 mg/L	50 mL			
180-44321-A-9	HD-COD-SW-15-0 /1-0	SM 2320B	T	0 mg/L	188.1 mg/L	50 mL			
CCV 180-143418/13		SM 2320B		69.3 mg/L	132.66 mg/L	50 mL	50 mL		

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Batch Number: 143418 Batch Start Date: 06/01/15 08:16 Batch Analyst: Loheyde, Cheryl

Batch Method: SM 2320B Batch End Date:

Lab Sample ID	Client Sample I	Method Chain	Basis	pAlk	tAlk	FinalAmount	WALK125PPMCCV 00085	WALK250PPMPi 00094	
CCB 180-143418/14		SM 2320B		0 mg/L	1.98 mg/L	50 mL			
180-44321-A-10	HD-COD-SW-16-0/1-0	SM 2320B	T	0 mg/L	102.96 mg/L	50 mL			
180-44321-A-11	HD-COD-SW-17-0/1-0	SM 2320B	T	0 mg/L	229.68 mg/L	50 mL			
180-44321-A-12	HD-COD-SW-20-0/1-0	SM 2320B	T	0 mg/L	144.54 mg/L	50 mL			
180-44321-A-13	HD-COD-SW-26-0/1-0	SM 2320B	T	0 mg/L	261.36 mg/L	50 mL			
180-44321-A-13 DU	HD-COD-SW-26-0/1-0	SM 2320B	T	0 mg/L	265.32 mg/L	50 mL			
180-44321-A-14	HD-COD-SW-27-0/1-0	SM 2320B	T	0 mg/L	148.5 mg/L	50 mL			
180-44321-A-15	HD-COD-SW-28-0/1-0	SM 2320B	T	0 mg/L	160.38 mg/L	50 mL			
180-44321-A-16	HD-COD-SW-29-0/1-0	SM 2320B	T	0 mg/L	99 mg/L	50 mL			
180-44321-A-18	HD-QC2-0/1-1	SM 2320B	T	0 mg/L	245.52 mg/L	50 mL			
180-44321-A-19	HD-CW-9-0/1-0	SM 2320B	T	0 mg/L	209.88 mg/L	50 mL			
CCV 180-143418/25		SM 2320B		69.3 mg/L	130.68 mg/L	50 mL	50 mL		
CCB 180-143418/26		SM 2320B		0 mg/L	3.96 mg/L	50 mL			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Batch Number: 143418 Batch Start Date: 06/01/15 08:16 Batch Analyst: Loheyde, Cheryl

Batch Method: SM 2320B Batch End Date:

Batch Notes	
Batch Comment	PH 4 START: 4.02 PH 4 END: 4.05
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	1594371
Sulfuric Acid Vendor	RICCA
Nominal Amount Used	50 mL
Normality of First Titrant	.0198 N

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Batch Number: 143420 Batch Start Date: 06/01/15 08:17 Batch Analyst: Loheyde, Cheryl

Batch Method: SM 2320B Batch End Date:

Lab Sample ID	Client Sample I	Method Chain	Basis	InitialAmount	Initial pH	BuretStart1	BuretStop1	TitrantVolume1	BuretStart2
LCS 180-143420/1		SM 2320B		50 mL	10.77 SU	0 mL	6.2 mL	6.2 mL	0 mL
MB 180-143420/2		SM 2320B		50 mL	5.39 SU	0 mL	0 mL	0 mL	0 mL
180-44321-A-20	HD-CW-13-0/1-0	SM 2320B	T	50 mL	7.37 SU	0 mL	0 mL	0 mL	0 mL
180-44321-A-21	HD-CW-15A-0/1-0	SM 2320B	T	50 mL	7.49 SU	0 mL	0 mL	0 mL	0 mL
180-44321-A-22	HD-CW-17-0/1-0	SM 2320B	T	50 mL	7.52 SU	0 mL	0 mL	0 mL	0 mL
180-44321-A-23	HD-CW-20-0/1-0	SM 2320B	T	50 mL	7.63 SU	0 mL	0 mL	0 mL	0 mL
180-44321-A-24	HD-MW-95-0/1-0	SM 2320B	T	50 mL	7.44 SU	0 mL	0 mL	0 mL	0 mL
180-44321-A-24 DU	HD-MW-95-0/1-0	SM 2320B	T	50 mL	7.41 SU	0 mL	0 mL	0 mL	0 mL
180-44321-A-25	HD-MW-96S-0/1-0	SM 2320B	T	50 mL	7.38 SU	0 mL	0 mL	0 mL	0 mL
180-44321-A-26	HD-MW-96D-0/1-0	SM 2320B	T	50 mL	7.46 SU	0 mL	0 mL	0 mL	0 mL
180-44321-A-27	HD-MW-97-0/1-0	SM 2320B	T	50 mL	7.60 SU	0 mL	0 mL	0 mL	0 mL
180-44321-A-28	HD-CW-18-0/1-0	SM 2320B	T	50 mL	7.58 SU	0 mL	0 mL	0 mL	0 mL
CCV 180-143420/13		SM 2320B		50 mL	10.61 SU	0 mL	3.4 mL	3.4 mL	0 mL
CCB 180-143420/14		SM 2320B		50 mL	5.45 SU	0 mL	0 mL	0 mL	0 mL
180-44321-A-29	HD-MW-50D-0/1-0	SM 2320B	T	50 mL	7.44 SU	0 mL	0 mL	0 mL	0 mL
180-44321-A-30	HD-MW-51S-0/1-0	SM 2320B	T	50 mL	7.36 SU	0 mL	0 mL	0 mL	0 mL
180-44321-A-30 DU	HD-MW-51S-0/1-0	SM 2320B	T	50 mL	7.33 SU	0 mL	0 mL	0 mL	0 mL

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Batch Number: 143420 Batch Start Date: 06/01/15 08:17 Batch Analyst: Loheyde, Cheryl

Batch Method: SM 2320B Batch End Date:

Lab Sample ID	Client Sample I	Method Chain	Basis	InitialAmount	Initial pH	BuretStart1	BuretStop1	TitrantVolume1	BuretStart2
CCV 180-143420/20		SM 2320B		50 mL	10.70 SU	0 mL	3.5 mL	3.5 mL	0 mL
CCB 180-143420/21		SM 2320B		50 mL	5.39 SU	0 mL	0 mL	0 mL	0 mL

Lab Sample ID	Client Sample I	Method Chain	Basis	BuretStop2	TitrantVolume2	CalcMsg	carb	hydr	bCarb
LCS 180-143420/1		SM 2320B		7.0 mL	7 mL	Case 2	245.52 mg/L	0 mg/L	15.84 mg/L
MB 180-143420/2		SM 2320B		0.1 mL	0.1 mL	Case 1	0 mg/L	0 mg/L	1.98 mg/L
180-44321-A-20	HD-CW-13-0/1-0	SM 2320B	T	14.5 mL	14.5 mL	Case 1	0 mg/L	0 mg/L	287.1 mg/L
180-44321-A-21	HD-CW-15A-0/1-0	SM 2320B	T	10.0 mL	10 mL	Case 1	0 mg/L	0 mg/L	198 mg/L
180-44321-A-22	HD-CW-17-0/1-0	SM 2320B	T	11.4 mL	11.4 mL	Case 1	0 mg/L	0 mg/L	225.72 mg/L
180-44321-A-23	HD-CW-20-0/1-0	SM 2320B	T	11.5 mL	11.5 mL	Case 1	0 mg/L	0 mg/L	227.7 mg/L
180-44321-A-24	HD-MW-95-0/1-0	SM 2320B	T	13.2 mL	13.2 mL	Case 1	0 mg/L	0 mg/L	261.36 mg/L
180-44321-A-24 DU	HD-MW-95-0/1-0	SM 2320B	T	13.0 mL	13 mL	Case 1	0 mg/L	0 mg/L	257.4 mg/L
180-44321-A-25	HD-MW-96S-0/1-0	SM 2320B	T	15.9 mL	15.9 mL	Case 1	0 mg/L	0 mg/L	314.82 mg/L
180-44321-A-26	HD-MW-96D-0/1-0	SM 2320B	T	13.5 mL	13.5 mL	Case 1	0 mg/L	0 mg/L	267.3 mg/L
180-44321-A-27	HD-MW-97-0/1-0	SM 2320B	T	11.8 mL	11.8 mL	Case 1	0 mg/L	0 mg/L	233.64 mg/L
180-44321-A-28	HD-CW-18-0/1-0	SM 2320B	T	14.6 mL	14.6 mL	Case 1	0 mg/L	0 mg/L	289.08 mg/L
CCV 180-143420/13		SM 2320B		3.3 mL	3.3 mL	Case 4	130.68 mg/L	1.97999999999999 mg/L	0 mg/L
CCB 180-143420/14		SM 2320B		0.1 mL	0.1 mL	Case 1	0 mg/L	0 mg/L	1.98 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.: 180-44321-1

SDG No.:

Batch Number: 143420 Batch Start Date: 06/01/15 08:17 Batch Analyst: Loheyde, Cheryl

Batch Method: SM 2320B Batch End Date:

Lab Sample ID	Client Sample I	Method Chain	Basis	BuretStop2	TitrantVolume2	CalcMsg	carb	hydr	bCarb
180-44321-A-29	HD-MW-50D-0/1-0	SM 2320B	T	17.0 mL	17 mL	Case 1	0 mg/L	0 mg/L	336.6 mg/L
180-44321-A-30	HD-MW-51S-0/1-0	SM 2320B	T	9.9 mL	9.9 mL	Case 1	0 mg/L	0 mg/L	196.02 mg/L
180-44321-A-30 DU	HD-MW-51S-0/1-0	SM 2320B	T	10.0 mL	10 mL	Case 1	0 mg/L	0 mg/L	198 mg/L
CCV 180-143420/20		SM 2320B		3.2 mL	3.2 mL	Case 4	126.72 mg/L	5.94 mg/L	0 mg/L
CCB 180-143420/21		SM 2320B		0.1 mL	0.1 mL	Case 1	0 mg/L	0 mg/L	1.98 mg/L

Lab Sample ID	Client Sample I	Method Chain	Basis	pAlk	tAlk	FinalAmount	WALK125PPMCCV 00085	WALK250PPMPi 00094	
LCS 180-143420/1		SM 2320B		122.76 mg/L	261.36 mg/L	50 mL		50 mL	
MB 180-143420/2		SM 2320B		0 mg/L	1.98 mg/L	50 mL			
180-44321-A-20	HD-CW-13-0/1-0	SM 2320B	T	0 mg/L	287.1 mg/L	50 mL			
180-44321-A-21	HD-CW-15A-0/1-0	SM 2320B	T	0 mg/L	198 mg/L	50 mL			
180-44321-A-22	HD-CW-17-0/1-0	SM 2320B	T	0 mg/L	225.72 mg/L	50 mL			
180-44321-A-23	HD-CW-20-0/1-0	SM 2320B	T	0 mg/L	227.7 mg/L	50 mL			
180-44321-A-24	HD-MW-95-0/1-0	SM 2320B	T	0 mg/L	261.36 mg/L	50 mL			
180-44321-A-24 DU	HD-MW-95-0/1-0	SM 2320B	T	0 mg/L	257.4 mg/L	50 mL			
180-44321-A-25	HD-MW-96S-0/1-0	SM 2320B	T	0 mg/L	314.82 mg/L	50 mL			
180-44321-A-26	HD-MW-96D-0/1-0	SM 2320B	T	0 mg/L	267.3 mg/L	50 mL			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Batch Number: 143420 Batch Start Date: 06/01/15 08:17 Batch Analyst: Loheyde, Cheryl

Batch Method: SM 2320B Batch End Date:

Lab Sample ID	Client Sample I	Method Chain	Basis	pAlk	tAlk	FinalAmount	WALK125PPMCCV 00085	WALK250PPMPi 00094	
180-44321-A-27	HD-MW-97-0/1-0	SM 2320B	T	0 mg/L	233.64 mg/L	50 mL			
180-44321-A-28	HD-CW-18-0/1-0	SM 2320B	T	0 mg/L	289.08 mg/L	50 mL			
CCV 180-143420/13		SM 2320B		67.32 mg/L	132.66 mg/L	50 mL	50 mL		
CCB 180-143420/14		SM 2320B		0 mg/L	1.98 mg/L	50 mL			
180-44321-A-29	HD-MW-50D-0/1-0	SM 2320B	T	0 mg/L	336.6 mg/L	50 mL			
180-44321-A-30	HD-MW-51S-0/1-0	SM 2320B	T	0 mg/L	196.02 mg/L	50 mL			
180-44321-A-30 DU	HD-MW-51S-0/1-0	SM 2320B	T	0 mg/L	198 mg/L	50 mL			
CCV 180-143420/20		SM 2320B		69.3 mg/L	132.66 mg/L	50 mL	50 mL		
CCB 180-143420/21		SM 2320B		0 mg/L	1.98 mg/L	50 mL			

Batch Notes	
Batch Comment	PH 4 START: 4.02 PH 4 END: 4.05
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	1594371
Sulfuric Acid Vendor	RICCA
Nominal Amount Used	50 mL
Normality of First Titrant	.0198 N

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-44321-1

SDG No.:

Batch Number: 143420 Batch Start Date: 06/01/15 08:17 Batch Analyst: Loheyde, Cheryl

Batch Method: SM 2320B Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents

TestAmerica Pittsburgh
301 Alpha Drive
Pittsburgh, PA 15238
phone 412.963.7058 fax 412.963.2470

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Jennifer S. Reese	Site Contact: Jennifer S. Reese	DateSubmitted: 5/20/2015	COC No: TAP2015052002
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. 19012.16.0005
Harrisburg, PA 17110	Calendar (C) or Work Days (W) _____			
(717) 901-8180 Phone	TAT if different from Below: Standard			Container No. 2
(717) 657-1611 FAX	■ 2 weeks			SDG No.
Project Name: Restart Event 4	☐ 1 week			
Site: Harley-Davidson, York PA	☐ 5 days			
Quote # 18000557	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	VOCs (8260C)	Alkalinity (Carb/Bicarb), SO4, CL, NO3 2320B/300.0	Total Na, Ca, K, and Mg (SW846 6020A)	Specific Notes:
HD-COD-SW-6-0/1-0	5/20/15	10:45	Surface Water	Water	5	X	X	X	
HD-COD-SW-7-0/1-0	5/20/15	13:35	Surface Water	Water	5	X	X	X	
HD-COD-SW-8-0/1-0	5/20/15	9:10	Surface Water	Water	5	X	X	X	
HD-COD-SW-9-0/1-0	5/20/15	11:50	Surface Water	Water	5	X	X	X	
HD-COD-SW-10-0/1-0	5/20/15	9:45	Surface Water	Water	5	X	X	X	
HD-COD-SW-11-0/1-0	5/20/15	12:15	Surface Water	Water	5	X	X	X	
HD-COD-SW-12-0/1-0	5/20/15	12:30	Surface Water	Water	5	X	X	X	
HD-COD-SW-13-0/1-0	5/20/15	9:35	Surface Water	Water	5	X	X	X	
HD-COD-SW-15-0/1-0	5/20/15	12:40	Surface Water	Water	5	X	X	X	
HD-COD-SW-16-0/1-0	5/20/15	10:10	Surface Water	Water	5	X	X	X	
HD-COD-SW-17-0/1-0	5/20/15	10:25	Surface Water	Water	5	X	X	X	
HD-COD-SW-20-0/1-0	5/20/15	10:50	Surface Water	Water	5	X	X	X	
HD-COD-SW-26-0/1-0	5/20/15	13:15	Surface Water	Water	5	X	X	X	
HD-COD-SW-27-0/1-0	5/20/15	12:50	Surface Water	Water	5	X	X	X	
HD-COD-SW-28-0/1-0	5/20/15	12:05	Surface Water	Water	5	X	X	X	
HD-COD-SW-29-0/1-0	5/20/15	8:47	Surface Water	Water	5	X	X	X	
HD-QC3-0/1-2	5/20/15	12:00	Trip Blank	Water	3 (VOA)	X	1 (2320B)		
HD-QC2-0/1-1	5/20/15	8:00	Surface Water	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	

180-44321 Chain of Custody

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: 5/20/15 1431	Received by:	Company: TAKOP	Date/Time: 5/20/15 1431
Relinquished by:	Company: TA	Date/Time: 5/20/15 1620	Received by:	Company: TAL	Date/Time: 5-21-15 9:00
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

TestAmerica Pittsburgh
301 Alpha Drive
Pittsburgh, PA 15238
phone 412.963.7058 fax 412.963.2470

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Jennifer S. Reese	Site Contact: Jennifer S. Reese	DateSubmitted: 5/20/2015	COC No: TAP2015052001
Groundwater Sciences Corporation	Tel/Fax: 717-901-8181 / (717) 657-1611	Lab Contact: Carrie Gamber	Carrier: FEDEX	of 1 COCs
2601 Market Place St. Suite 310	Analysis Turnaround Time			Job No. 40012.16.0005
Harrisburg, PA 17110	Calendar (C) or Work Days (W) _____			
(717) 901-8180 Phone	TAT if different from Below: Standard			Container No.
(717) 657-1611 FAX	■ 2 weeks			SDG No.
Project Name: Restart Event 4	☐ 1 week			
Site: Harley-Davidson, York PA	☐ 5 days			
Quote # 18000557	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	VOCs (8260C)	Alkalinity (Carb/Bicarb), SO4, CL, NO3 2320B/300.0	Total Na, Ca, K, and Mg (SW846 6020A)	Sample Specific Notes:
HD-CW-9-0/1-0	5/20/15	10:10	Groundwater	Water	5	X	X	X	
HD-CW-13-0/1-0	5/20/15	10:15	Groundwater	Water	5	X	X	X	
HD-CW-15A-0/1-0	5/20/15	10:25	Groundwater	Water	5	X	X	X	
HD-CW-17-0/1-0	5/20/15	10:35	Groundwater	Water	5	X	X	X	
HD-CW-20-0/1-0	5/20/15	10:45	Groundwater	Water	5	X	X	X	
HD-MW-95-0/1-0	5/20/15	9:25	Groundwater	Water	5	X	X	X	
HD-MW-96S-0/1-0	5/20/15	11:30	Groundwater	Water	5	X	X	X	
HD-MW-96D-0/1-0	5/20/15	10:50	Groundwater	Water	5	X	X	X	
HD-MW-97-0/1-0	5/20/15	12:50	Groundwater	Water	5	X	X	X	
HD-CW-18-0/1-0	5/20/15	14:00	Groundwater	Water	5	X	X	X	
HD-MW-50D-0/1-0	5/20/15	10:07	Groundwater	Water	5	X	X	X	
HD-MW-51S-0/1-0	5/20/15	12:31	Groundwater	Water	5	X	X	X	
HD-QC4-0/1-2	5/20/15	12:01	Groundwater	Water	2	X			
HD-MW-95-0/1-0 MS	5/20/15	9:25	Groundwater	Water	5	X	X	X	
HD-MW-95-0/1-0 MSD	5/20/15	9:25	Groundwater	Water	5	X	X	X	
HD-QC1-0/1-4	5/20/15	8:20	Field Blank	Water	3	X			
HD-QC3-0/1-3 KS	5/20/15	8:15	Rinse Blank	Water	3	X			
					15	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: 5/20/15 1431	Received by:	Company: TAKOP	Date/Time: 5/20/15 1431
Relinquished by:	Company: TA	Date/Time: 5/20/15 1620	Received by: Debbie Watson	Company: TA	Date/Time: 5-21-15
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time: 9:00

180-44321 Waybill
(610) 337-9992
AVE
PA 19406
SHIP DATE: 20MAY15
ACTWGT: 49.0 LB
CAD: 8490299/INET3610
BILL RECIPIENT
SAMPLE RECEIPT
TEST AMERICA - PITTSBURGH
301 ALPHA DR
PITTSBURGH PA 15238
(412) 963-7058
INV:
PO:
REF:
DEPT
FedEx
Express
MPS#
0263
2 of 3
7736 4985 0101
Mstr# 7736 4985 0009
THU - 21 MAY AA
STANDARD OVERNIGHT
0201
EV AGCA
15238
PA-US PIT
Uncorrected temp
Thermometer ID
CF
Initials
PT-WI-SR-001 effective 7/26/13
°C

ORIGIN ID:KPDA (610) 337-9992
SAMPLE RECEIPT
TEST AMERICA
1008 WEST 9TH AVE
KING OF PRUSSIA, PA 19406
UNITED STATES US

SHIP DATE: 20MAY15
ACTWGT: 27.0 LB
CAD: 8490299/INET3610

BILL RECIPIENT

TO SAMPLE RECEIPT
TEST AMERICA - PITTSBURGH
301 ALPHA DR
PITTSBURGH PA 15238
(412) 963-7058
INV:
PO:
REF:
DEPT:

Uncorrected temp 21.6 °C
Thermometer ID
CF 0 Initials AG
PT-WI-SR-001 effective 7/26/13

FedEx Express

MPS# 3 of 3
0263 7736 4984 9737
Mstr# 7736 4985 0009
0201

THU - 21 MAY AA
STANDARD OVERNIGHT

TV AGCA

15238
PA-US PIT

537J3/CB18/EE4B

J1612150223010uv

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1 of 3
TRK# 0201 7736 4985 0009
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STANDARD OVERNIGHT

EV AGCA

15238
PA-US PIT

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Login Sample Receipt Checklist

Client: Groundwater Sciences Corporation

Job Number: 180-44321-1

Login Number: 44321
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	