Remedial Action Progress Report/ Plan Cover Sheet

CHAPTER 245
STORAGE TANK ACT

- ☐ **Site Characterization Report – Section 245.310(b)**
- ☐ **Site Characterization Report – Site-Specific Standard**
- ☐ **Site Characterization Report – Statewide Health or Background Standard**
- ☐ **Site Characterization Report PLUS – Statewide Health Standard**
- ☐ **Remedial Action Plan – Statewide Health or Background Standard**
- ☐ **Remedial Action Plan – Site-Specific Standard**
- ☒ **Remedial Action Progress Report**
- ☐ **Remedial Action Completion Report – Statewide Health or Background Standard**
- ☐ **Remedial Action Completion Report – Site-Specific Standard**
- ☐ **Post-Remediation Care Plan Report**
- ☐ **Environmental Covenant**

(check all that apply to the enclosed submission)

Leidos Engineering, LLC
6310 Allentown Boulevard / Harrisburg, PA 17112 / 717.901.8100 leidos.com/engineering

May 23, 2014

leidos

Ms. Pamela S. Trowbridge, P.G.
Pennsylvania Department of Environmental Protection
Environmental Cleanup and Brownfields Program
Southcentral Region
909 Elmerton Avenue
Harrisburg, PA 17110

Subject: **Remedial Action Progress Report**
Second Quarterly Groundwater Monitoring Event
Former York Naval Ordnance Plant, York, Pennsylvania
Former Building 45/50 Unleaded Gasoline UST Release-Tank 009
PADEP Facility I.D. No. 67-00823
USTIF Claim No. 2010-0106(M)
Leidos Project 305337.TM.300355.4000.0100

Dear Ms. Trowbridge:

On behalf of Harley-Davidson Motor Company Operations, Inc. (Harley-Davidson), Leidos Engineering, LLC (Leidos) is submitting this Remedial Action Progress Report (RAPR) to the Pennsylvania Department of Environmental Protection (PADEP) for the above-referenced site (**Figure 1**). This RAPR details the second round of quarterly groundwater monitoring performed in accordance with the recommendations presented in the September 9, 2013, Remedial Action Plan (RAP), approved by PADEP on November 22, 2013. The goal of the RAP was to comply with the Site-Specific Standards (SSSs) in soil and the Statewide Health Standards (SHSs) in groundwater to address unleaded gasoline constituents from the former Tank 009 release.

1.0 QUARTERLY GROUNDWATER MONITORING

1.1 Well Gauging

Gauging of monitoring wells MW-26, MW-77, MW-118 through MW-125, and MW-160 was performed by Leidos on March 25, 2014. No LNAPL was detected in any well gauged. Depth-to-groundwater measurements in the monitoring wells within the study area were subtracted from top-of-casing (TOC) elevations to calculate groundwater elevations (**Table 1**). A groundwater elevation contour map for wells gauged on March 25, 2014, is presented on **Figure 2**. The hydraulic gradient indicated by the wells is approximately 0.04 southwest from the area of the former dispenser for Tank 009. In general, the hydraulic gradient forms a trough that trends from MW-119 downgradient toward MW-160. The gradient and direction are consistent with previous measurements. Monitoring wells MW-26 and MW-77 were not used to complete the groundwater contour map because they are installed into bedrock and do not represent the groundwater flow system monitored by the Tank 009 wells.

1.2 Groundwater Sampling

On March 25, 2014, groundwater samples were collected by Leidos from monitoring wells MW-125 and MW-160. The wells were purged prior to sampling with a submersible pump at a relatively low purge rate (i.e., less than 0.25 gallons per minute [gpm]) to minimize the drawdown of the groundwater level in the wells. The pump was decontaminated before use at each well by washing with a Liqui-Nox®/potable water solution and a potable water rinse.

During purging, water quality field parameters (temperature, pH, conductivity, dissolved oxygen, and turbidity) were measured and recorded. Upon stabilization of the field parameters during purging, groundwater samples were collected directly from the dedicated pump discharge tubing into laboratory-provided 40 milliliter (ml) volatile organic analysis (VOA) vials containing preservative (i.e., hydrochloric acid). Additionally, a quality assurance/quality control (QA/QC) sample, consisting of a laboratory-provided trip blank, accompanied the groundwater samples.

Upon sample collection, labels were affixed to the sample containers, and they were placed into a cooler with ice and a chain-of-custody. The groundwater and QA/QC samples were submitted to TestAmerica for laboratory analysis of the PADEP Short List of Petroleum Products (unleaded gasoline) using United States Environmental Protection Agency (EPA) Method 8260B. The analytical results for the sample analyses are summarized in **Table 2** and on **Figure 3**. A copy of the laboratory analysis report is provided on the attached CD.

2.0 RESULTS

The following are the significant findings of the groundwater sample analytical results:

1. MW-125 had non-detectable concentrations for all analyzed parameters.

2. The concentration of benzene in MW-160 (340 micrograms per liter [µg/L]) exceeded the PADEP Nonresidential Used Aquifer MSC of 5 µg/L. All other analyzed compounds were either non-detect or were detected at concentrations below their respective MSCs.

3. The detected benzene concentration in MW-160 was higher than prior measurements. The elevation of the water table within the study area on March 25, 2014, was the highest recorded since monitoring began on June 27, 2012, potentially mobilizing unleaded gasoline compounds from the shallower soil.

4. The detected benzene concentration is well below the concentration of 15,000 µg/L used for fate-and-transport modeling in the December 2012 Supplemental Site Characterization Report (SCR). As a result, the predictions of the fate-and-transport modeling conducted during site characterization activities indicate the groundwater meets the SHS at the point of compliance (POC).

4.0 PLANNED FUTURE ACTIVITIES

The third round of quarterly groundwater monitoring is scheduled for June 2014. A RAPR will be submitted to PADEP following receipt of the analytical results.

Harley-Davidson and Leidos appreciate PADEP's continued support and assistance on this project. Please contact the undersigned at (717) 901-8843 if you have any questions.

Respectfully submitted,

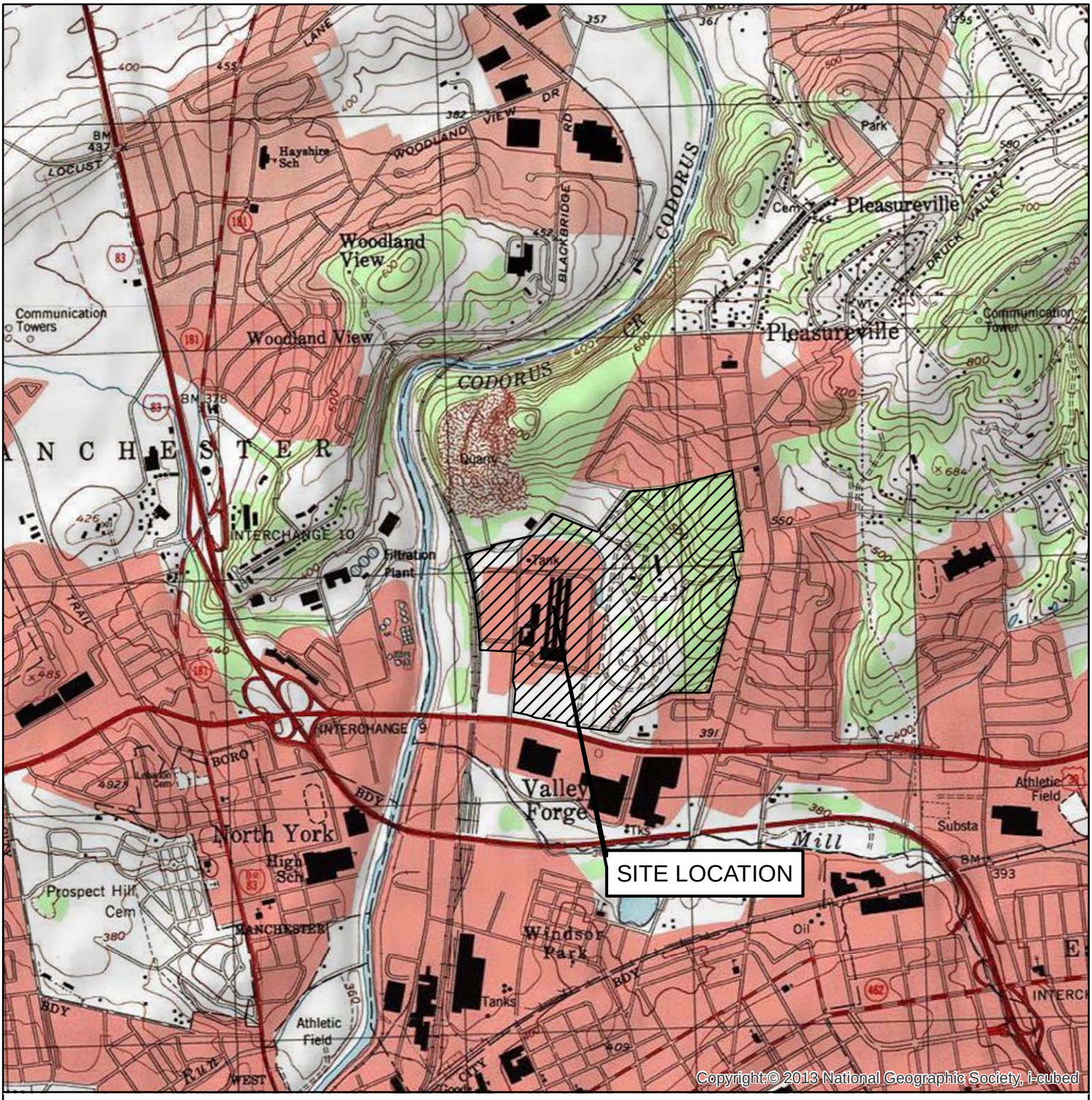
Leidos Engineering, LLC

Kent V. Littlefield, P.G.
Senior Hydrogeologist

Rodney G. Myers
Senior Project Manager

KVL:pr
Attachments
cc: Sharon R. Fisher, Harley-Davidson
Ralph T. Golia, P.G., AMO Environmental Decisions
Gregory Bowman, PADEP, Storage Tank Section
Blanda Nace, YCIDA
Bethany Smith, ICF International – USTIF

FIGURES



2,000 1,000 0 2,000 Feet

N

Pennsylvania

QUADRANGLE LOCATION

FORMER YORK NAVAL ORDNANCE PLANT

1425 EDEN ROAD, YORK, PENNSYLVANIA

Site Location Map

drawn JEB	checked EMW	approved RGM	figure no. 1
date 1/30/2014	date 1/30/2014	date 1/30/2014	
job no. 2603200245/2000/100		file no. Site_Map_20131231	

initials	date	revision

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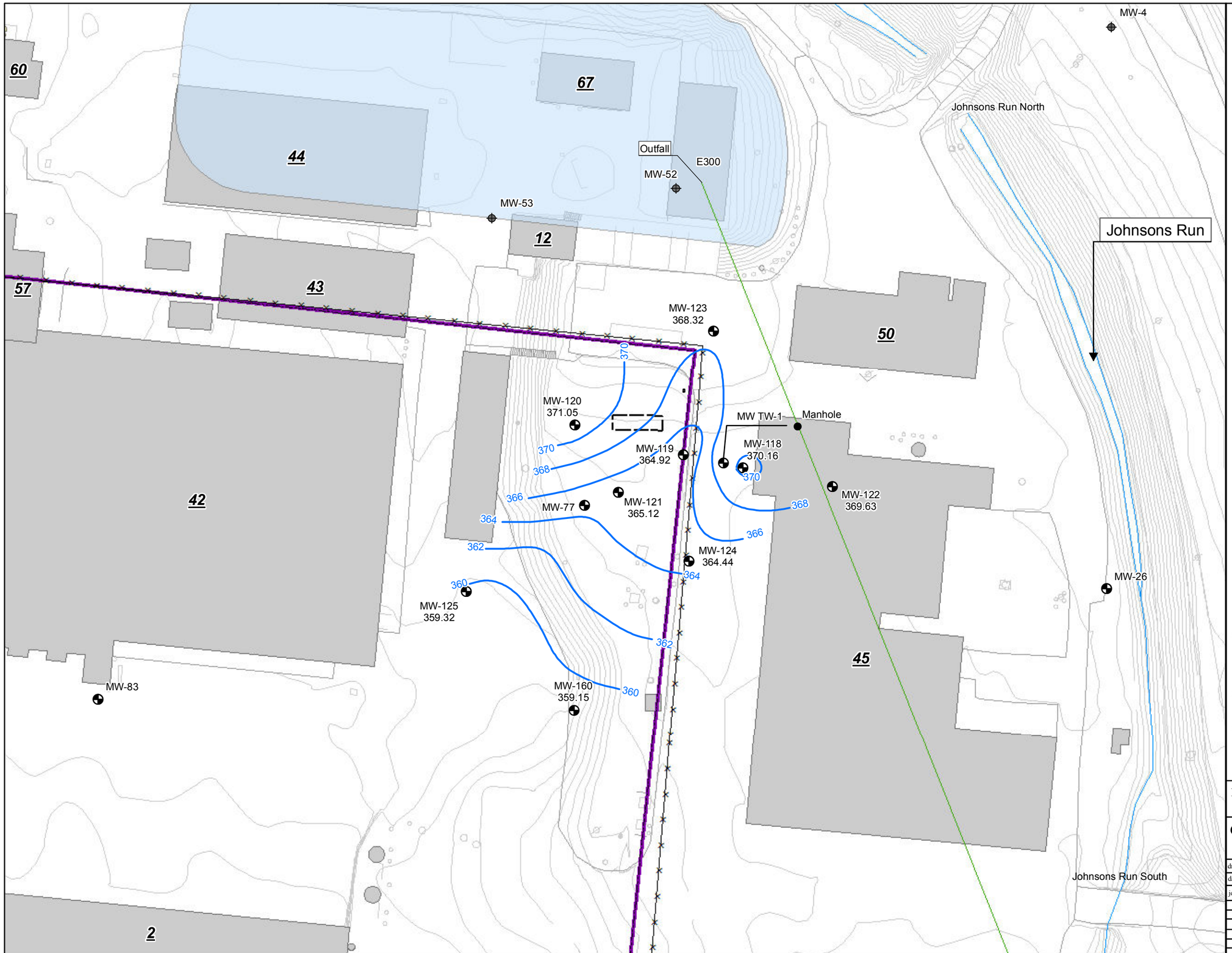
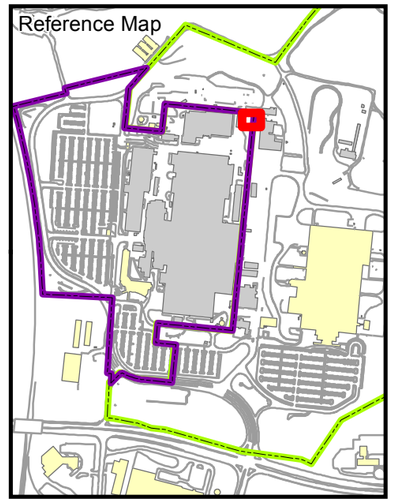


Legend

- Tank 009 (Removed July 2010)
- Existing Buildings
- Demolished Buildings
- Storm Water Detention Basin
- Roads and Curbs
- Fence Line
- Campus Boundary
- Approximate Stormwater Line
- Monitoring Well
- Abandoned Well
- 367.79 Groundwater Elevation
- Groundwater Elevation Contour



NOTES:

1. *Base data (Buildings, Building Boundaries, Roads and Curbs, underground utilities and Contour Lines, from NuTec Survey conducted in 2006).*
2. *Monitoring Wells, Soil Borings, and Underground Storage Tank Features from SAIC site measurements.*
3. *NM - Not Measured*

N

0 25 50 100 Feet

Harley-Davidson Motor Company Operations, Inc.
1425 Eden Rd York, Pa 17402

Groundwater Elevation Contour Map March 25, 2014

drawn JEB	checked	approved	figure no. 2
date 4/17/2014	date	date	
job no. 301425.TM.100044.4000.0100		file no. GWElevMap_20140416	

initials	date	revision

leidos

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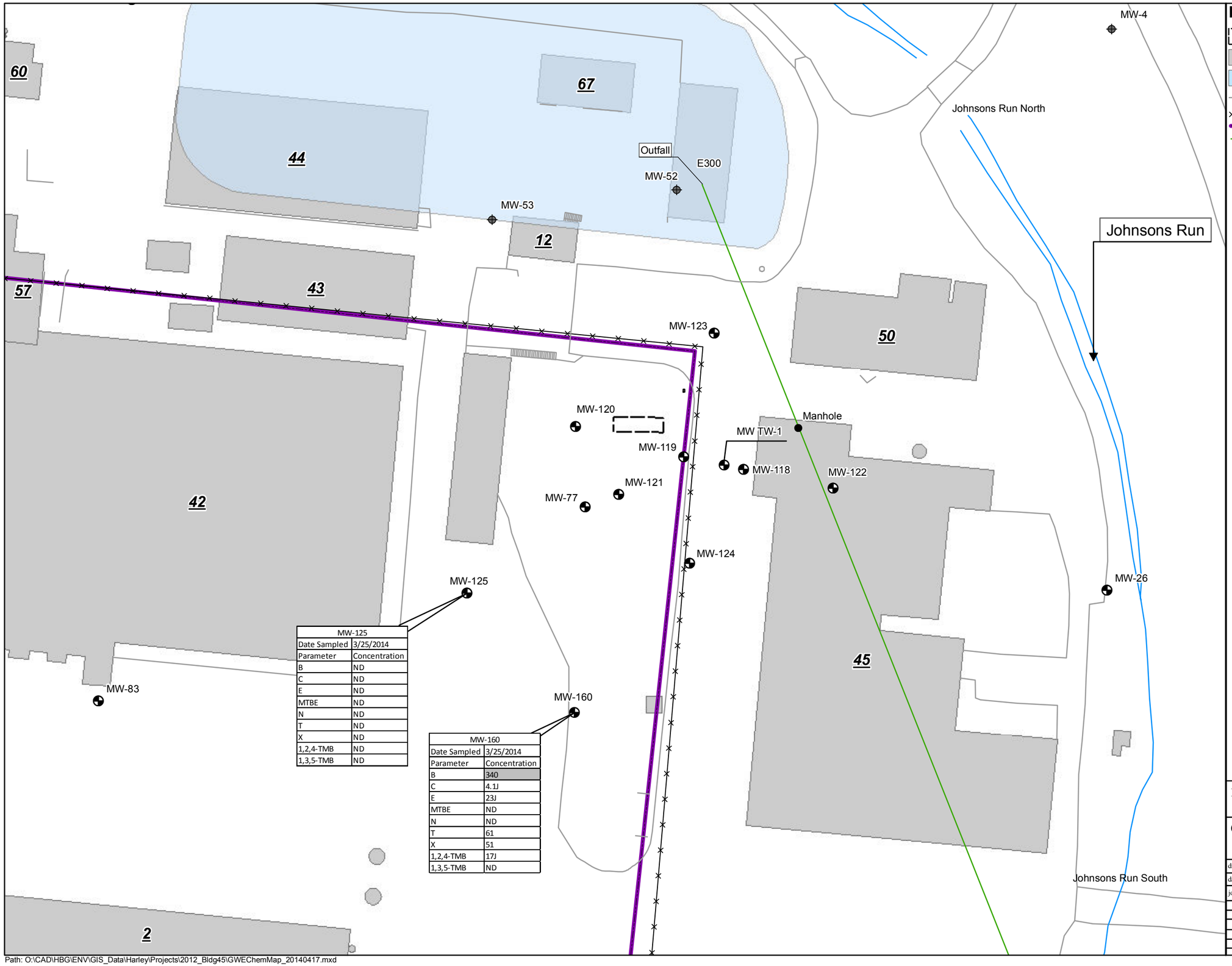

MW-125	
Date Sampled	3/25/2014
Parameter	Concentration
B	ND
C	ND
E	ND
MTBE	ND
N	ND
T	ND
X	ND
1,2,4-TMB	ND
1,3,5-TMB	ND

MW-160	
Date Sampled	3/25/2014
Parameter	Concentration
B	340
C	4.1J
E	23J
MTBE	ND
N	ND
T	61
X	51
1,2,4-TMB	17J
1,3,5-TMB	ND

Legend

- Tank 009 (Removed July 2010)
- Demolished Buildings
- Storm Water Detention Basin
- Roads and Curbs
- Fence Line
- Campus Boundary
- Approximate Stormwater Line
- Monitoring Well
- Abandoned Well

B: Benzene
T: Toluene
E: Ethylbenzene
X: Total Xylenes
MTBE: Methy Tertiary Butyl Ether
N: Naphthalene
C: Cumene
1,2,4-TMB: 1,2,4 - Trimethylbenzene
1,3,5-TMB: 1,3,5 - Trimethylbenzene

J: Laboratory reported concentration as an approximate value.
MSC: Medium Specific Concentration
ND: Not Detected
PADEP: Pennsylvania Department of Environmental Protection
All results reported in micrograms per liter (µg/L)

Bold/Shaded concentrations are greater than a PADEP Non-Residential MSC

SOURCE:
1. *Base data (Buildings, Building Boundaries, Roads and Curbs, underground utilities and Contour Lines, from NuTec Survey conducted in 2006).*
2. *Monitoring Wells, Soil Borings, and Underground Storage Tank Features from SAIC site measurements.*

N

0 25 50 100 Feet

Harley-Davidson Motor Company Operations, Inc.
1425 Eden Rd York, Pa 17402

Groundwater Quality Analytical Data March 25, 2014

drawn JEB	checked	approved	figure no. 3
date 4/17/2014	date	date	
job no. 301425.TM.100044.4000.0100			file no. GWEChemMap_20140417

initials	date	revision

leidos

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TABLES

Table 1
Monitoring Well Gauging Data and Groundwater Elevations
Building 45 UST Release Characterization
Harley-Davidson Motor Company Operations, Inc.
1425 Eden Road, York, York County, Pennsylvania
PADEP Facility ID No. 67-00823
SAIC Project Number 301425.TM.100044.4000.0100

Location	Monitoring Well Installation Date	TOC Elevation (Feet)	Well Diameter (inches)	Total Drilled Depth (fbg)	Screened Interval (fbg)	Top of Well Screen Elevation (feet)	Date	SWL (fbtoc)	SWL Elevation (feet)
MW-118	8/15/2011	377.44	2	25	8 - 23	369.11	6/27/2012	7.50	369.94
							7/2/2012	7.59	369.85
							7/5/2012	7.49	369.95
							7/10/2012	7.59	369.85
							7/20/2012	7.03	370.41
							7/25/2012	7.62	369.82
							8/1/2012	7.45	369.99
							8/6/2012	7.55	369.89
							8/17/2012	7.25	370.19
							8/24/2012	7.22	370.22
							8/30/2012	7.51	369.93
							9/12/2012	7.50	369.94
							10/8/2012	7.38	370.06
							12/18/2013	NM	NM
							3/25/2014	7.28	370.16
MW-119	8/17/2011	377.03	2	27	5 - 25	372.20	6/27/2012	16.28	360.75
							7/2/2012	16.75	360.28
							7/5/2012	16.72	360.31
							7/10/2012	17.33	359.70
							7/20/2012	17.30	359.73
							7/25/2012	16.84	360.19
							8/1/2012	16.60	360.43
							8/6/2012	16.67	360.36
							8/17/2012	16.38	360.65
							8/24/2012	16.65	360.38
							8/30/2012	16.54	360.49
							9/12/2012	16.43	360.60
							10/8/2012	14.99	362.04
							12/18/2013	14.46	362.57
							3/25/2014	12.11	364.92
MW-120	8/17/2011	377.63	2	40	6 - 39	371.30	6/27/2012	9.43	368.20
							7/2/2012	10.50	367.13
							7/5/2012	11.14	366.49
							7/10/2012	12.22	365.41
							7/20/2012	13.20	364.43
							7/25/2012	13.29	364.34
							8/1/2012	13.60	364.03
							8/6/2012	15.73	361.90
							8/17/2012	14.13	363.50
							8/24/2012	14.39	363.24
							8/30/2012	14.41	363.22
							9/12/2012	14.44	363.19
							10/8/2012	10.32	367.31
							12/18/2013	7.72	369.91
							3/25/2014	6.58	371.05
MW-121	8/18/2011	376.31	2	36	7 - 35	369.08	6/27/2012	16.61	359.70
							7/2/2012	17.19	359.12
							7/5/2012	17.38	358.93
							7/10/2012	17.94	358.37
							7/20/2012	15.63	360.68
							7/25/2012	17.71	358.60
							8/1/2012	17.47	358.84
							8/6/2012	17.47	358.84
							8/17/2012	17.17	359.14
							8/24/2012	17.50	358.81
							8/30/2012	17.34	358.97
							9/12/2012	17.07	359.24
							10/8/2012	14.72	361.59
							12/18/2013	14.54	361.77
							3/25/2014	11.19	365.12
MW-122	6/20/2012	377.61	2	30	7 - 30	370.61	6/27/2012	8.98	368.63
							7/2/2012	8.93	368.68
							7/5/2012	8.90	368.71
							7/10/2012	8.93	368.68
							7/20/2012	8.75	368.86
							7/25/2012	8.78	368.83
							8/1/2012	8.52	369.09
							8/6/2012	8.43	369.18
							8/17/2012	8.34	369.27
							8/24/2012	8.40	369.21
							8/30/2012	8.36	369.25
							9/12/2012	8.30	369.31
							10/8/2012	7.65	369.96
							12/18/2013	8.45	369.16
							3/25/2014	7.98	369.63

Table 1
Monitoring Well Gauging Data and Groundwater Elevations
Building 45 UST Release Characterization
Harley-Davidson Motor Company Operations, Inc.
1425 Eden Road, York, York County, Pennsylvania
PADEP Facility ID No. 67-00823
SAIC Project Number 301425.TM.100044.4000.0100

Location	Monitoring Well Installation Date	TOC Elevation (Feet)	Well Diameter (inches)	Total Drilled Depth (fbg)	Screened Interval (fbg)	Top of Well Screen Elevation (feet)	Date	SWL (fbtoc)	SWL Elevation (feet)
MW-123	6/20/2012	379.64	2	30	7 - 30	372.64	6/27/2012	12.18	367.46
							7/2/2012	12.37	367.27
							7/5/2012	12.33	367.31
							7/10/2012	12.54	367.10
							7/20/2012	12.53	367.11
							7/25/2012	12.55	367.09
							8/1/2012	12.37	367.27
							8/6/2012	12.44	367.20
							8/17/2012	12.28	367.36
							8/24/2012	12.46	367.18
							8/30/2012	12.47	367.17
							9/12/2012	12.47	367.17
							10/8/2012	11.85	367.79
							12/18/2013	12.58	367.06
							3/25/2014	11.32	368.32
MW-124	6/21/2012	376.37	2	34	8 - 34	368.37	6/27/2012	14.87	361.50
							7/2/2012	15.50	360.87
							7/5/2012	15.56	360.81
							7/10/2012	16.21	360.16
							7/20/2012	16.31	360.06
							7/25/2012	15.79	360.58
							8/1/2012	15.66	360.71
							8/6/2012	15.68	360.69
							8/17/2012	14.94	361.43
							8/24/2012	15.29	361.08
							8/30/2012	15.14	361.23
							9/12/2012	14.94	361.43
							10/8/2012	13.54	362.83
							12/18/2013	15.39	360.98
							3/25/2014	11.93	364.44
MW-125	6/21/2012	366.56	2	24	4 - 24	362.56	6/27/2012	11.37	355.19
							7/2/2012	11.59	354.97
							7/5/2012	11.89	354.67
							7/10/2012	12.32	354.24
							7/20/2012	11.31	355.25
							7/25/2012	11.31	355.25
							8/1/2012	10.78	355.78
							8/6/2012	10.21	356.35
							8/17/2012	10.58	355.98
							8/24/2012	11.14	355.42
							8/30/2012	10.86	355.70
							9/12/2012	NM	NM
							10/8/2012	6.21	360.35
							12/18/2013	7.62	358.94
							3/25/2014	7.24	359.32
MW-160	9/4/2012	374.71	2	38	7.5 - 37.5	367.21	9/12/2012	19.04	355.67
							10/8/2012	17.65	357.06
							12/18/2013	16.51	358.20
							3/25/2014	15.56	359.15
MW-26	5/20/1987	379.44	2	62	11 - 61	368.44	6/27/2012	25.02	354.42
							7/2/2012	25.32	354.12
							7/5/2012	25.56	353.88
							7/10/2012	26.04	353.40
							7/20/2012	25.11	354.33
							7/25/2012	25.31	354.13
							8/1/2012	24.68	354.76
							8/6/2012	24.28	355.16
							8/17/2012	24.25	355.19
							8/24/2012	24.86	354.58
							8/30/2012	24.71	354.73
							9/12/2012	NM	NM
							10/8/2012	23.68	355.76
							12/18/2013	22.75	356.69
							3/25/2014	20.91	358.53
MW-77	6/10/1998	379.48	2	67	40 - 65	339.48	6/27/2012	24.29	355.19
							7/2/2012	24.72	354.76
							7/5/2012	24.93	354.55
							7/10/2012	25.42	354.06
							7/20/2012	24.96	354.52
							7/25/2012	24.83	354.65
							8/1/2012	24.35	355.13
							8/6/2012	24.13	355.35
							8/17/2012	24.15	355.33
							8/24/2012	24.53	354.95
							8/30/2012	24.40	355.08
							9/12/2012	24.20	355.28
							10/8/2012	23.04	356.44
							12/18/2013	22.22	357.26
							3/25/2014	20.51	358.97

Notes:

fbtoc - feet below top of well casing
N/A - not applicable
NM - not measured
SWL - static water level

Table 2
Groundwater Sample Analytical Results
Building 45 UST Release Characterization
Harley-Davidson Motor Company Operations, Inc.
1425 Eden Road, York, York County, Pennsylvania
PADEP Facility ID No. 67-00823
SAIC Project Number 301425.TM.100044.4000.0100

Sample Location	Sample ID	Date Sample Collected	Date Sample Analyzed	Analysis Method 8260B								
				Benzene	Toluene	Ethylbenzene	Total Xylenes	Methyl Tertiary Butyl Ether (MTBE)	Naphthalene	Isopropylbenzene (Cumene)	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene
MW-77	HD-MW-77-01-0	6/24/2011	7/7/2011	**1,500**	56	80	74 J	**520**	NA	NA	NA	NA
	HD-MW-77-01-0	8/1/2012	8/7/2012	**2,000**	110	140	130 J	**540**	41 J	24 J	33 J	13 J
MW-118	HD-MW-118-01-0	8/25/2011	9/9/2011	**120 H**	560 H	630 H	1,900 H	<50 H	42 J H	130 H	**460 H**	**130 H**
	HD-MW-118-01-0	9/30/2011	10/11/2011	**120**	520	**1,000**	2,800	<100	**130**	88 J	**790**	**250**
	HD-MW-118-01-0	8/1/2012	8/15/2012	**39 J**	110	**600**	1,400	<50	22 JB	78	**600**	**210**
MW-119	HD-MW-119-01-0	8/25/2011	9/9/2011	**6,100 H**	**6,300 H**	510 J H	1,900 H	<630 H	**280 J H**	<630 H	**170 J H**	<630 H
	HD-MW-119-01-0	9/30/2011	10/11/2011	**11,000**	**18,000**	**2,600**	10,000	<500	**240 J**	<500	**1,300**	**480 J**
	HD-MW-119-01-0	8/1/2012	NS/FP	**NS/FP**	**NS/FP**	**NS/FP**	**NS/FP**	**NS/FP**	**NS/FP**	**NS/FP**	**NS/FP**	**NS/FP**
MW-120	HD-MW-120-01-0	8/25/2011	9/7/2011	2.2 J	0.94 J	<5.0	<15.0	14.0	<5.0	<5.0	<5.0	<5.0
	HD-MW-120-01-0	9/30/2011	10/11/2011	<5.0	<5.0	<5.0	<15.0	1.1 J	<5.0	<5.0	<5.0	<5.0
	HD-MW-120-01-0	8/1/2012	8/6/2012	**7.0**	<5.0	<5.0	<15.0	6.8	<5.0	<5.0	<5.0	<5.0
MW-121	HD-MW-121-01-0	8/25/2011	9/8/2011	**390**	**3,700 E**	**990**	3,600	**45 J**	26 J	120	**430**	**120**
	HD-MW-121-01-0	9/30/2011	10/11/2011	**430**	**4,900**	**1,000**	3,700	**56 J**	<250	45 J	**330**	**140 J**
	HD-MW-121-01-0	8/1/2012	8/7/2012	**480 J**	**6,900**	**1,900**	7,600	**35**	<500	89	**980**	**230**
MW-122	HD-MW-122-01-0	7/2/2012	7/6/2012	<5.0	<5.0	<5.0	<15.0	<5.0	<5.0	<5.0	<5.0	<5.0
	HD-MW-122-01-0	8/1/2012	8/15/2012	<5.0	<5.0	<5.0	<15.0	<5.0	1.1 JB	<5.0	<5.0	<5.0
MW-123	HD-MW-123-01-0	7/2/2012	7/6/2012	<5.0	<5.0	<5.0	<15.0	<5.0	<5.0	<5.0	<5.0	<5.0
	HD-MW-123-01-0	8/1/2012	8/15/2012	<5.0	<5.0	<5.0	<15.0	<5.0	2.8 JB	<5.0	<5.0	<5.0
MW-124	HD-MW-124-01-0	7/2/2012	7/6/2012	**1,400**	**4,000**	660	3,800	**39**	**1,600**	57	**550**	**240**
	HD-MW-124-01-0	8/1/2012	8/15/2012	**2,300**	**8,400**	**960**	9,500	**44 J**	**540 B**	36 J	**1,200**	**490**
MW-125	HD-MW-125-01-0	7/2/2012	7/6/2012	<5.0	<5.0	<5.0	<15.0	<5.0	<5.0	<5.0	<5.0	<5.0
	HD-MW-125-01-0	8/1/2012	8/6/2012	<5.0	<5.0	<5.0	<15.0	<5.0	<5.0	<5.0	<5.0	<5.0
	HD-MW-125-01-0	12/18/2013	12/27/2013	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0
	HD-MW-125-01-0	3/25/2014	4/7/2014	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0
MW-160	HD-MW-160-01-0	9/12/2012	9/21/2012	**180**	17	12	20	<5.0	4.3 J	1.2 J	3.4 J	<5.0
	HD-MW-160-01-0	12/18/2013	12/27/2013	**120**	5.8	6.3	<10	<5.0	<5.0	<5.0	<5.0	<5.0
	HD-MW-160-01-0	3/25/2014	4/8/2014	**340**	61	23 J	51	<25	<25	4.1 J	17 J	<25
PADEP Non-Residential Groundwater MSCs				5	1,000	700	10,000	20	100	3,500	62	53
PADEP Default Non-Residential Volatilization to Indoor Air Screening Values for Groundwater				5,900	NOC	45,000	NOC	640,000	NOC	NOC	12,000	10,000

Notes:
All results reported in micrograms per liter (µg/L)
E - Result exceeded calibration range
H - Sample was prepped or analyzed beyond the specified holding time
J - Result is less than the reporting limit (RL) but greater than or equal to the method detection limit (MDL) and the concentration is an approximate value
NS/FP - Not Sampled, Free Product observed.
MSCs - Medium Specific Concentrations
NOC - Not of concern, value above constituent water solubility
PADEP - Pennsylvania Department of Environmental Protection
QA/QC - Quality Assurance/Quality Control
Results that are bold/shaded are greater than PADEP nonresidential MSCs and/or indoor air screening values

APPENDIX A

Groundwater Sample Analytical Report (Provided on Accompanying CD)

Leidos Engineering, LLC
6310 Allentown Boulevard / Harrisburg, PA 17112 / 717.901.8100 leidos.com/engineering

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 180-31007-1

Job Description: Harley Davidson

For:
Leidos, Inc.
6310 Allentown Boulevard
Harrisburg, PA 17112

Attention: Mr. Rodney Myers

Approved for release.
Debra Bowen
Project Manager I
4/9/2014 12:18 PM

Designee for
Jill L Colussy, Project Manager I
301 Alpha Drive, Pittsburgh, PA, 15238
(412)963-2444
jill.colussy@testamericainc.com
04/09/2014

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of TestAmerica and its client. All questions regarding this report should be directed to the TestAmerica Project Manager or designee who has signed this report.

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CASE NARRATIVE

Client: Leidos, Inc.

Project: Harley Davidson

Report Number: 180-31007-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 03/26/2014; the samples arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 3.8º C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Sample HD-MW-160-01-0 (180-31007-2) [5X] was analyzed at a dilution due to the abundance of target analytes. The reporting limits have been adjusted accordingly.

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-31007-1

SDG No.:

Instrument ID: HP7 Analysis Batch Number: 99778

Lab Sample ID: IC 180-99778/3 Client Sample ID:

Date Analyzed: 03/14/14 09:40 Lab File ID: 7031404.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorodifluoromethane	1.96	Peak Integrated Incorrectly	zukowskim	03/14/14 10:31
Chloromethane	2.02	Peak Integrated Incorrectly	zukowskim	03/14/14 10:31
1,3-Butadiene	2.20	Peak Integrated Incorrectly	zukowskim	03/14/14 10:52
Bromomethane	2.50	Peak Integrated Incorrectly	zukowskim	03/14/14 10:32
Dichlorofluoromethane	2.92	Peak Integrated Incorrectly	zukowskim	03/14/14 10:32
Trichlorofluoromethane	2.97	Peak Integrated Incorrectly	zukowskim	03/14/14 10:32
Ethyl ether	3.38	Peak Integrated Incorrectly	zukowskim	03/14/14 10:52
1,1-Dichloroethene	3.59	Peak Integrated Incorrectly	zukowskim	03/14/14 10:32
1,1,2-Trichloro-1,2,2-trifluoroethane	3.72	Peak Integrated Incorrectly	zukowskim	03/14/14 10:32
Iodomethane	3.79	Peak Integrated Incorrectly	zukowskim	03/14/14 10:52
Acetone	3.82	Peak Integrated Incorrectly	zukowskim	03/16/14 22:47
Carbon disulfide	3.89	Peak Integrated Incorrectly	zukowskim	03/14/14 10:36
Allyl chloride	4.17	Peak Integrated Incorrectly	zukowskim	03/14/14 10:51
Methylene Chloride	4.39	Peak Integrated Incorrectly	zukowskim	03/14/14 10:37
trans-1,2-Dichloroethene	4.79	Peak Integrated Incorrectly	zukowskim	03/14/14 10:51
1,4-Dioxane	8.20	Peak Integrated Incorrectly	zukowskim	03/14/14 10:51
1,2-Dibromo-3-Chloropropane	13.98	Peak Integrated Incorrectly	zukowskim	03/14/14 10:51

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-31007-1

SDG No.:

Instrument ID: HP7 Analysis Batch Number: 99778

Lab Sample ID: IC 180-99778/4 Client Sample ID:

Date Analyzed: 03/14/14 10:13 Lab File ID: 7031405.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorodifluoromethane	1.95	Peak Integrated Incorrectly	zukowskim	03/14/14 10:54
Chloromethane	2.02	Peak Integrated Incorrectly	zukowskim	03/14/14 10:55
Vinyl chloride	2.16	Peak Integrated Incorrectly	zukowskim	03/14/14 10:55
Bromomethane	2.50	Peak Integrated Incorrectly	zukowskim	03/14/14 10:54
Chloroethane	2.60	Peak Integrated Incorrectly	zukowskim	03/14/14 10:55
Dichlorofluoromethane	2.88	Peak Integrated Incorrectly	zukowskim	03/14/14 10:55
Trichlorofluoromethane	2.94	Peak Integrated Incorrectly	zukowskim	03/14/14 10:59
Ethyl ether	3.36	Peak Integrated Incorrectly	zukowskim	03/14/14 11:37
Acrolein	3.53	Peak Integrated Incorrectly	zukowskim	03/14/14 11:36
1,1,2-Trichloro-1,2,2-trifluoroethane	3.72	Peak Integrated Incorrectly	zukowskim	03/14/14 10:54
Carbon disulfide	3.87	Peak Integrated Incorrectly	zukowskim	03/14/14 11:36
Allyl chloride	4.18	Peak Integrated Incorrectly	zukowskim	03/14/14 11:36
1,4-Dioxane	8.20	Peak Integrated Incorrectly	zukowskim	03/14/14 11:36

Lab Sample ID: ICIS 180-99778/5 Client Sample ID:

Date Analyzed: 03/14/14 10:41 Lab File ID: 7031406.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	2.03	Peak Integrated Incorrectly	zukowskim	03/14/14 11:46
Bromomethane	2.53	Peak Integrated Incorrectly	zukowskim	03/14/14 11:46
Trichlorofluoromethane	2.95	Peak Integrated Incorrectly	zukowskim	03/14/14 11:46
Acrolein	3.51	Peak Integrated Incorrectly	zukowskim	03/14/14 12:11
1,1,2-Trichloro-1,2,2-trifluoroethane	3.72	Peak Integrated Incorrectly	zukowskim	03/14/14 11:46
Carbon disulfide	3.89	Peak Integrated Incorrectly	zukowskim	03/14/14 11:47
Allyl chloride	4.15	Peak Integrated Incorrectly	zukowskim	03/14/14 12:11
1,4-Dioxane	8.20	Peak Integrated Incorrectly	zukowskim	03/14/14 12:10

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-31007-1

SDG No.:

Instrument ID: HP7 Analysis Batch Number: 99778

Lab Sample ID: IC 180-99778/6 Client Sample ID:

Date Analyzed: 03/14/14 11:08 Lab File ID: 7031407.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Bromomethane	2.52	Peak Integrated Incorrectly	zukowskim	03/14/14 13:00
Chloroethane	2.65	Peak Integrated Incorrectly	zukowskim	03/14/14 13:00
Dichlorofluoromethane	2.90	Peak Integrated Incorrectly	zukowskim	03/14/14 12:59
Ethyl ether	3.38	Peak Integrated Incorrectly	zukowskim	03/14/14 13:39
1,1,2-Trichloro-1,2,2-trifluoroethane	3.71	Peak Integrated Incorrectly	zukowskim	03/14/14 13:00
Carbon disulfide	3.86	Peak Integrated Incorrectly	zukowskim	03/14/14 13:01
Allyl chloride	4.17	Peak Integrated Incorrectly	zukowskim	03/14/14 13:39

Lab Sample ID: IC 180-99778/7 Client Sample ID:

Date Analyzed: 03/14/14 12:29 Lab File ID: 7031408.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Chloromethane	2.04	Peak Integrated Incorrectly	zukowskim	03/14/14 13:40
Bromomethane	2.52	Peak Integrated Incorrectly	zukowskim	03/14/14 13:40
Acrolein	3.52	Peak Integrated Incorrectly	zukowskim	03/14/14 13:41
Carbon disulfide	3.89	Peak Integrated Incorrectly	zukowskim	03/14/14 13:41
Allyl chloride	4.20	Peak Integrated Incorrectly	zukowskim	03/14/14 13:41

Lab Sample ID: IC 180-99778/8 Client Sample ID:

Date Analyzed: 03/14/14 13:41 Lab File ID: 7031409.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Carbon disulfide	3.84	Peak Integrated Incorrectly	zukowskim	03/16/14 22:26
Allyl chloride	4.14	Peak Integrated Incorrectly	zukowskim	03/16/14 22:26

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-31007-1

SDG No.:

Instrument ID: HP7 Analysis Batch Number: 99778

Lab Sample ID: IC 180-99778/2 Client Sample ID:

Date Analyzed: 03/14/14 17:39 Lab File ID: 7031417.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorodifluoromethane	1.95	Peak Integrated Incorrectly	zukowskim	03/16/14 22:26
1,3-Butadiene	2.18	Peak Integrated Incorrectly	zukowskim	03/16/14 22:29
Bromomethane	2.48	Peak Integrated Incorrectly	zukowskim	03/16/14 22:27
Chloroethane	2.60	Peak Integrated Incorrectly	zukowskim	03/16/14 22:27
Dichlorofluoromethane	2.92	Peak Integrated Incorrectly	zukowskim	03/16/14 22:27
Trichlorofluoromethane	2.93	Peak Integrated Incorrectly	zukowskim	03/16/14 22:27
Ethyl ether	3.38	Peak Integrated Incorrectly	zukowskim	03/16/14 22:29
1,1-Dichloroethene	3.62	Peak Integrated Incorrectly	zukowskim	03/16/14 22:27
1,1,2-Trichloro-1,2,2-trifluoroethane	3.73	Peak Integrated Incorrectly	zukowskim	03/16/14 22:27
Acetone	3.80	Peak Integrated Incorrectly	zukowskim	03/16/14 22:46
Iodomethane	3.85	Peak Integrated Incorrectly	zukowskim	03/16/14 22:29
Carbon disulfide	3.91	Peak Integrated Incorrectly	zukowskim	03/16/14 22:27
Allyl chloride	4.20	Peak Integrated Incorrectly	zukowskim	03/16/14 22:28
Methylene Chloride	4.39	Peak Integrated Incorrectly	zukowskim	03/16/14 22:28
trans-1,2-Dichloroethene	4.78	Peak Integrated Incorrectly	zukowskim	03/16/14 22:28
tert-Butyl alcohol	4.80	Peak Integrated Incorrectly	zukowskim	03/16/14 22:28
Hexane	5.20	Peak Integrated Incorrectly	zukowskim	03/16/14 22:29
1,2-Dibromo-3-Chloropropane	13.99	Peak Integrated Incorrectly	zukowskim	03/16/14 22:28

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-31007-1

SDG No.:

Instrument ID: HP7 Analysis Batch Number: 101826

Lab Sample ID: CCVIS 180-101826/2 Client Sample ID:

Date Analyzed: 04/06/14 23:32 Lab File ID: 70407002.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorofluoromethane	2.87	Peak Integrated Incorrectly	zukowskim	04/07/14 00:03
Trichlorofluoromethane	2.93	Peak Integrated Incorrectly	zukowskim	04/07/14 00:03
Acrolein	3.52	Peak Integrated Incorrectly	zukowskim	04/07/14 00:04
Carbon disulfide	3.80	Peak Integrated Incorrectly	zukowskim	04/07/14 00:03
Allyl chloride	4.12	Peak Integrated Incorrectly	zukowskim	04/07/14 00:04
tert-Butyl alcohol	4.95	Peak Integrated Incorrectly	zukowskim	04/07/14 00:04

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-31007-1

SDG No.:

Instrument ID: HP7 Analysis Batch Number: 102001

Lab Sample ID: CCVIS 180-102001/2 Client Sample ID:

Date Analyzed: 04/08/14 09:07 Lab File ID: 70408003.D GC Column: DB-624 ID: 0.18(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Dichlorofluoromethane	2.89	Peak Integrated Incorrectly	zukowskim	04/08/14 09:37
Ethyl ether	3.34	Peak Integrated Incorrectly	zukowskim	04/08/14 09:38
Carbon disulfide	3.82	Peak Integrated Incorrectly	zukowskim	04/08/14 09:37
Allyl chloride	4.14	Peak Integrated Incorrectly	zukowskim	04/08/14 09:37

SAMPLE SUMMARY

Client: Leidos, Inc. Job Number: 180-31007-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
180-31007-1	HD-MW-125-01-0	Water	03/25/2014 1123	03/26/2014 0915
180-31007-2	HD-MW-160-01-0	Water	03/25/2014 0933	03/26/2014 0915
180-31007-3	TRIP BLANK 1	Water	03/25/2014 1200	03/26/2014 0915

EXECUTIVE SUMMARY - Detections

Client: Leidos, Inc. Job Number: 180-31007-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
180-31007-2	**HD-MW-160-01-0**					
Benzene		340		25	ug/L	8260B
Toluene		61		25	ug/L	8260B
Ethylbenzene		23	J	25	ug/L	8260B
Xylenes, Total		51		50	ug/L	8260B
Isopropylbenzene		4.1	J	25	ug/L	8260B
1,2,4-Trimethylbenzene		17	J	25	ug/L	8260B

METHOD SUMMARY

Client: Leidos, Inc. Job Number: 180-31007-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Volatile Organic Compounds (GC/MS)	TAL PIT	SW846 8260B	
Purge and Trap	TAL PIT		SW846 5030B

Lab References:

TAL PIT = TestAmerica Pittsburgh

Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Leidos, Inc. Job Number: 180-31007-1

Method	Analyst	Analyst ID
SW846 8260B	Zukowski, Mike	MAZ

Client: Leidos, Inc. Job Number: 180-31007-1

Client Sample ID: **HD-MW-125-01-0**

Lab Sample ID: 180-31007-1 Date Sampled: 03/25/2014 1123
Client Matrix: Water Date Received: 03/26/2014 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	180-101826	Instrument ID:	HP7
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	70407017.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/07/2014 0653			Final Weight/Volume:	5 mL
Prep Date:	04/07/2014 0653				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Benzene	5.0	U	0.99	5.0
Toluene	5.0	U	0.85	5.0
Ethylbenzene	5.0	U	0.62	5.0
Xylenes, Total	10	U	2.0	10
Isopropylbenzene	5.0	U	0.53	5.0
Methyl tert-butyl ether	5.0	U	1.0	5.0
1,2,4-Trimethylbenzene	5.0	U	0.52	5.0
1,3,5-Trimethylbenzene	5.0	U	0.59	5.0
Naphthalene	5.0	U	0.47	5.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	94		62 - 123
Toluene-d8 (Surr)	82		80 - 120
4-Bromofluorobenzene (Surr)	95		75 - 120
Dibromofluoromethane (Surr)	110		80 - 120

Client: Leidos, Inc. Job Number: 180-31007-1

Client Sample ID: **HD-MW-160-01-0**

Lab Sample ID: 180-31007-2 Date Sampled: 03/25/2014 0933
Client Matrix: Water Date Received: 03/26/2014 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	180-102001	Instrument ID:	HP7
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	70408009.D
Dilution:	5.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/08/2014 1222			Final Weight/Volume:	5 mL
Prep Date:	04/08/2014 1222				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Benzene	340		4.9	25
Toluene	61		4.2	25
Ethylbenzene	23	J	3.1	25
Xylenes, Total	51		9.8	50
Isopropylbenzene	4.1	J	2.7	25
Methyl tert-butyl ether	25	U	5.1	25
1,2,4-Trimethylbenzene	17	J	2.6	25
1,3,5-Trimethylbenzene	25	U	3.0	25
Naphthalene	25	U	2.4	25

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	82		62 - 123
Toluene-d8 (Surr)	81		80 - 120
4-Bromofluorobenzene (Surr)	96		75 - 120
Dibromofluoromethane (Surr)	110		80 - 120

Client: Leidos, Inc. Job Number: 180-31007-1

Client Sample ID: **TRIP BLANK 1**

Lab Sample ID: 180-31007-3 Date Sampled: 03/25/2014 1200
Client Matrix: Water Date Received: 03/26/2014 0915

8260B Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B	Analysis Batch:	180-101826	Instrument ID:	HP7
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	70407019.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	04/07/2014 0747			Final Weight/Volume:	5 mL
Prep Date:	04/07/2014 0747				

Analyte	Result (ug/L)	Qualifier	MDL	RL
Benzene	5.0	U	0.99	5.0
Toluene	5.0	U	0.85	5.0
Ethylbenzene	5.0	U	0.62	5.0
Xylenes, Total	10	U	2.0	10
Isopropylbenzene	5.0	U	0.53	5.0
Methyl tert-butyl ether	5.0	U	1.0	5.0
1,2,4-Trimethylbenzene	5.0	U	0.52	5.0
1,3,5-Trimethylbenzene	5.0	U	0.59	5.0
Naphthalene	5.0	U	0.47	5.0

Surrogate	%Rec	Qualifier	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	96		62 - 123
Toluene-d8 (Surr)	80		80 - 120
4-Bromofluorobenzene (Surr)	93		75 - 120
Dibromofluoromethane (Surr)	114		80 - 120

Client: Leidos, Inc.

Job Number: 180-31007-1

Surrogate Recovery Report

8260B Volatile Organic Compounds (GC/MS)

Client Matrix: Water

Lab Sample ID	Client Sample ID	DBFM %Rec	DCA %Rec	TOL %Rec	BFB %Rec
180-31007-1	HD-MW-125-01-0	110	94	82	95
180-31007-2	HD-MW-160-01-0	110	82	81	96
180-31007-3	TRIP BLANK 1	114	96	80	93
MB 180-101826/3		116	88	84	100
MB 180-102001/3		117	89	84	98
LCS 180-101826/6		101	84	82	97
LCS 180-102001/7		107	91	86	102
180-31031-F-3 MS		105	89	85	102
180-31031-F-7 MS		110	93	88	106
180-31031-E-3 MSD		105	88	85	101
180-31031-G-7 MSD		102	95	86	98

Surrogate	Acceptance Limits
DBFM = Dibromofluoromethane (Surr)	80-120
DCA = 1,2-Dichloroethane-d4 (Surr)	62-123
TOL = Toluene-d8 (Surr)	80-120
BFB = 4-Bromofluorobenzene (Surr)	75-120

Client: Leidos, Inc. Job Number: 180-31007-1

Method Blank - Batch: 180-101826

Method: 8260B
Preparation: 5030B

Lab Sample ID:	MB 180-101826/3	Analysis Batch:	180-101826	Instrument ID:	HP7
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	70407005.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	04/07/2014 0111	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	04/07/2014 0111				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Benzene	5.0	U	0.99	5.0
Toluene	5.0	U	0.85	5.0
Ethylbenzene	5.0	U	0.62	5.0
Xylenes, Total	10	U	2.0	10
Isopropylbenzene	5.0	U	0.53	5.0
Methyl tert-butyl ether	5.0	U	1.0	5.0
1,2,4-Trimethylbenzene	5.0	U	0.52	5.0
1,3,5-Trimethylbenzene	5.0	U	0.59	5.0
Naphthalene	5.0	U	0.47	5.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	88	62 - 123
Toluene-d8 (Surr)	84	80 - 120
4-Bromofluorobenzene (Surr)	100	75 - 120
Dibromofluoromethane (Surr)	116	80 - 120

Lab Control Sample - Batch: 180-101826

Method: 8260B
Preparation: 5030B

Lab Sample ID:	LCS 180-101826/6	Analysis Batch:	180-101826	Instrument ID:	HP7
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	70407009.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	04/07/2014 0257	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	04/07/2014 0257				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Benzene	40.0	39.7	99	80 - 120	
Toluene	40.0	34.1	85	80 - 124	
Ethylbenzene	40.0	39.6	99	79 - 124	
Xylenes, Total	80.0	78.2	98	81 - 121	
Isopropylbenzene	40.0	36.0	90	73 - 130	
Methyl tert-butyl ether	40.0	38.9	97	53 - 122	
1,2,4-Trimethylbenzene	40.0	36.3	91	71 - 132	
1,3,5-Trimethylbenzene	40.0	36.4	91	75 - 135	
Naphthalene	40.0	27.0	67	10 - 144	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	84	62 - 123
Toluene-d8 (Surr)	82	80 - 120
4-Bromofluorobenzene (Surr)	97	75 - 120
Dibromofluoromethane (Surr)	101	80 - 120

Client: Leidos, Inc. Job Number: 180-31007-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 180-101826

Method: 8260B
Preparation: 5030B

MS Lab Sample ID:	180-31031-F-3 MS	Analysis Batch:	180-101826	Instrument ID:	HP7
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	70407010.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	04/07/2014 0330			Final Weight/Volume:	5 mL
Prep Date:	04/07/2014 0330				5 mL
Leach Date:	N/A				

MSD Lab Sample ID:	180-31031-E-3 MSD	Analysis Batch:	180-101826	Instrument ID:	HP7
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	70407011.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	04/07/2014 0401			Final Weight/Volume:	5 mL
Prep Date:	04/07/2014 0401				5 mL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Benzene	97	97	80 - 120	0	20		
Toluene	87	86	80 - 124	1	20		
Ethylbenzene	101	99	79 - 124	2	25		
Xylenes, Total	99	98	81 - 121	1	20		
Isopropylbenzene	90	90	73 - 130	1	20		
Methyl tert-butyl ether	99	96	53 - 122	3	20		
1,2,4-Trimethylbenzene	88	88	71 - 132	0	35		
1,3,5-Trimethylbenzene	87	88	75 - 135	0	20		
Naphthalene	193	215	10 - 144	11	35	F1	F1

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	89	88	62 - 123
Toluene-d8 (Surr)	85	85	80 - 120
4-Bromofluorobenzene (Surr)	102	101	75 - 120
Dibromofluoromethane (Surr)	105	105	80 - 120

Client: Leidos, Inc. Job Number: 180-31007-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 180-101826

Method: 8260B
Preparation: 5030B

MS Lab Sample ID:	180-31031-F-3 MS	Units: ug/L	MSD Lab Sample ID:	180-31031-E-3 MSD	
Client Matrix:	Water		Client Matrix:	Water	
Dilution:	1.0		Dilution:	1.0	
Analysis Date:	04/07/2014 0330		Analysis Date:	04/07/2014 0401	
Prep Date:	04/07/2014 0330		Prep Date:	04/07/2014 0401	
Leach Date:	N/A		Leach Date:	N/A	

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
Benzene	1.2	J	40.0	40.0	40.0		40.2	
Toluene	5.0	U	40.0	40.0	34.7		34.3	
Ethylbenzene	5.0	U	40.0	40.0	40.3		39.4	
Xylenes, Total	10	U	80.0	80.0	78.9		78.3	
Isopropylbenzene	5.0	U	40.0	40.0	36.1		35.9	
Methyl tert-butyl ether	5.0	U	40.0	40.0	39.4		38.4	
1,2,4-Trimethylbenzene	5.0	U	40.0	40.0	35.2		35.3	
1,3,5-Trimethylbenzene	5.0	U	40.0	40.0	34.9		35.0	
Naphthalene	5.0	U	40.0	40.0	77.2	F1	86.2	F1

Client: Leidos, Inc. Job Number: 180-31007-1

Method Blank - Batch: 180-102001

Method: 8260B
Preparation: 5030B

Lab Sample ID:	MB 180-102001/3	Analysis Batch:	180-102001	Instrument ID:	HP7
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	70408006.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	04/08/2014 1044	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	04/08/2014 1044				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Benzene	5.0	U	0.99	5.0
Toluene	5.0	U	0.85	5.0
Ethylbenzene	5.0	U	0.62	5.0
Xylenes, Total	10	U	2.0	10
Isopropylbenzene	5.0	U	0.53	5.0
Methyl tert-butyl ether	5.0	U	1.0	5.0
1,2,4-Trimethylbenzene	5.0	U	0.52	5.0
1,3,5-Trimethylbenzene	5.0	U	0.59	5.0
Naphthalene	5.0	U	0.47	5.0

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	89	62 - 123
Toluene-d8 (Surr)	84	80 - 120
4-Bromofluorobenzene (Surr)	98	75 - 120
Dibromofluoromethane (Surr)	117	80 - 120

Lab Control Sample - Batch: 180-102001

Method: 8260B
Preparation: 5030B

Lab Sample ID:	LCS 180-102001/7	Analysis Batch:	180-102001	Instrument ID:	HP7
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	70408014.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	04/08/2014 1449	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	04/08/2014 1449				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Benzene	40.0	40.2	100	80 - 120	
Toluene	40.0	35.3	88	80 - 124	
Ethylbenzene	40.0	40.9	102	79 - 124	
Xylenes, Total	80.0	80.6	101	81 - 121	
Isopropylbenzene	40.0	37.9	95	73 - 130	
Methyl tert-butyl ether	40.0	39.0	98	53 - 122	
1,2,4-Trimethylbenzene	40.0	37.2	93	71 - 132	
1,3,5-Trimethylbenzene	40.0	37.3	93	75 - 135	
Naphthalene	40.0	19.2	48	10 - 144	

Surrogate	% Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	91	62 - 123
Toluene-d8 (Surr)	86	80 - 120
4-Bromofluorobenzene (Surr)	102	75 - 120
Dibromofluoromethane (Surr)	107	80 - 120

Client: Leidos, Inc. Job Number: 180-31007-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 180-102001

Method: 8260B
Preparation: 5030B

MS Lab Sample ID:	180-31031-F-7 MS	Analysis Batch:	180-102001	Instrument ID:	HP7
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	70408015.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	04/08/2014 1522			Final Weight/Volume:	5 mL
Prep Date:	04/08/2014 1522				5 mL
Leach Date:	N/A				

MSD Lab Sample ID:	180-31031-G-7 MSD	Analysis Batch:	180-102001	Instrument ID:	HP7
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	70408016.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	5 mL
Analysis Date:	04/08/2014 1548			Final Weight/Volume:	5 mL
Prep Date:	04/08/2014 1548				5 mL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Benzene	103	98	80 - 120	6	20		
Toluene	90	90	80 - 124	0	20		
Ethylbenzene	104	102	79 - 124	2	25		
Xylenes, Total	103	98	81 - 121	5	20		
Isopropylbenzene	97	88	73 - 130	10	20		
Methyl tert-butyl ether	108	93	53 - 122	15	20		
1,2,4-Trimethylbenzene	94	90	71 - 132	4	35		
1,3,5-Trimethylbenzene	93	90	75 - 135	3	20		
Naphthalene	212	227	10 - 144	7	35	F1	F1

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
1,2-Dichloroethane-d4 (Surr)	93	95	62 - 123
Toluene-d8 (Surr)	88	86	80 - 120
4-Bromofluorobenzene (Surr)	106	98	75 - 120
Dibromofluoromethane (Surr)	110	102	80 - 120

Client: Leidos, Inc.

Job Number: 180-31007-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 180-102001

Method: 8260B
Preparation: 5030B

MS Lab Sample ID:	180-31031-F-7 MS	Units: ug/L	MSD Lab Sample ID:	180-31031-G-7 MSD	
Client Matrix:	Water		Client Matrix:	Water	
Dilution:	1.0		Dilution:	1.0	
Analysis Date:	04/08/2014 1522		Analysis Date:	04/08/2014 1548	
Prep Date:	04/08/2014 1522		Prep Date:	04/08/2014 1548	
Leach Date:	N/A		Leach Date:	N/A	

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
Benzene	5.0	U	40.0	40.0	41.3		39.1	
Toluene	5.0	U	40.0	40.0	35.9		35.9	
Ethylbenzene	5.0	U	40.0	40.0	41.7		41.0	
Xylenes, Total	10	U	80.0	80.0	82.4		78.3	
Isopropylbenzene	5.0	U	40.0	40.0	38.7		35.1	
Methyl tert-butyl ether	5.0	U	40.0	40.0	43.0		37.1	
1,2,4-Trimethylbenzene	5.0	U	40.0	40.0	37.5		36.2	
1,3,5-Trimethylbenzene	5.0	U	40.0	40.0	37.2		36.0	
Naphthalene	5.0	U	40.0	40.0	85.0	F1	90.9	F1

DATA REPORTING QUALIFIERS

Client: Leidos, Inc. Job Number: 180-31007-1

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

Client: Leidos, Inc. Job Number: 180-31007-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:180-101826					
LCS 180-101826/6	Lab Control Sample	T	Water	8260B	
MB 180-101826/3	Method Blank	T	Water	8260B	
180-31007-1	HD-MW-125-01-0	T	Water	8260B	
180-31007-3	TRIP BLANK 1	T	Water	8260B	
180-31031-F-3 MS	Matrix Spike	T	Water	8260B	
180-31031-E-3 MSD	Matrix Spike Duplicate	T	Water	8260B	
Analysis Batch:180-102001					
LCS 180-102001/7	Lab Control Sample	T	Water	8260B	
MB 180-102001/3	Method Blank	T	Water	8260B	
180-31007-2	HD-MW-160-01-0	T	Water	8260B	
180-31031-F-7 MS	Matrix Spike	T	Water	8260B	
180-31031-G-7 MSD	Matrix Spike Duplicate	T	Water	8260B	

Report Basis
T = Total

Client: Leidos, Inc. Job Number: 180-31007-1

Laboratory Chronicle

Lab ID: 180-31007-1 **Client ID:** HD-MW-125-01-0

Sample Date/Time: 03/25/2014 11:23 Received Date/Time: 03/26/2014 09:15

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	180-31007-A-1		180-101826		04/07/2014 06:53	1	TAL PIT	MAZ
A:8260B	180-31007-A-1		180-101826		04/07/2014 06:53	1	TAL PIT	MAZ

Lab ID: 180-31007-2 **Client ID:** HD-MW-160-01-0

Sample Date/Time: 03/25/2014 09:33 Received Date/Time: 03/26/2014 09:15

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	180-31007-B-2		180-102001		04/08/2014 12:22	5	TAL PIT	MAZ
A:8260B	180-31007-B-2		180-102001		04/08/2014 12:22	5	TAL PIT	MAZ

Lab ID: 180-31007-3 **Client ID:** TRIP BLANK 1

Sample Date/Time: 03/25/2014 12:00 Received Date/Time: 03/26/2014 09:15

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	180-31007-A-3		180-101826		04/07/2014 07:47	1	TAL PIT	MAZ
A:8260B	180-31007-A-3		180-101826		04/07/2014 07:47	1	TAL PIT	MAZ

Lab ID: MB **Client ID:** N/A

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	MB 180-101826/3		180-101826		04/07/2014 01:11	1	TAL PIT	MAZ
A:8260B	MB 180-101826/3		180-101826		04/07/2014 01:11	1	TAL PIT	MAZ
P:5030B	MB 180-102001/3		180-102001		04/08/2014 10:44	1	TAL PIT	MAZ
A:8260B	MB 180-102001/3		180-102001		04/08/2014 10:44	1	TAL PIT	MAZ

Lab ID: LCS **Client ID:** N/A

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	LCS 180-101826/6		180-101826		04/07/2014 02:57	1	TAL PIT	MAZ
A:8260B	LCS 180-101826/6		180-101826		04/07/2014 02:57	1	TAL PIT	MAZ
P:5030B	LCS 180-102001/7		180-102001		04/08/2014 14:49	1	TAL PIT	MAZ
A:8260B	LCS 180-102001/7		180-102001		04/08/2014 14:49	1	TAL PIT	MAZ

Client: Leidos, Inc. Job Number: 180-31007-1

Laboratory Chronicle

Lab ID: MS **Client ID:** N/A

Sample Date/Time: 03/25/2014 12:55 Received Date/Time: 03/26/2014 14:20

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	180-31031-F-3 MS		180-101826		04/07/2014 03:30	1	TAL PIT	MAZ
A:8260B	180-31031-F-3 MS		180-101826		04/07/2014 03:30	1	TAL PIT	MAZ
P:5030B	180-31031-F-7 MS		180-102001		04/08/2014 15:22	1	TAL PIT	MAZ
A:8260B	180-31031-F-7 MS		180-102001		04/08/2014 15:22	1	TAL PIT	MAZ

Lab ID: MSD **Client ID:** N/A

Sample Date/Time: 03/25/2014 12:55 Received Date/Time: 03/26/2014 14:20

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	180-31031-E-3 MSD		180-101826		04/07/2014 04:01	1	TAL PIT	MAZ
A:8260B	180-31031-E-3 MSD		180-101826		04/07/2014 04:01	1	TAL PIT	MAZ
P:5030B	180-31031-G-7 MSD		180-102001		04/08/2014 15:48	1	TAL PIT	MAZ
A:8260B	180-31031-G-7 MSD		180-102001		04/08/2014 15:48	1	TAL PIT	MAZ

Lab References:
TAL PIT = TestAmerica Pittsburgh

Lab Name: TestAmerica Pittsburgh Job No.: 180-31007-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
VOA8260INT_00008	04/07/14	03/07/14	Methanol, Lot 49909	10 mL	VOA8260INTRES_00074	1 mL	1,4-Dichlorobenzene-d4	25 ug/mL
							Chlorobenzene-d5	25 ug/mL
							Dioxane-d8 (IS)	500 ug/mL
							Fluorobenzene (IS)	25 ug/mL
							TBA-d9 (IS)	500 ug/mL
.VOA8260INTRES_00074	02/01/18		Restek, Lot A093504		(Purchased Reagent)		1,4-Dichlorobenzene-d4	250 ug/mL
							Chlorobenzene-d5	250 ug/mL
							Dioxane-d8 (IS)	5000 ug/mL
							Fluorobenzene (IS)	250 ug/mL
							TBA-d9 (IS)	5000 ug/mL
VOA8260SURR_00012	04/07/14	03/07/14	Methanol, Lot 49909	100 mL	VOA8260SURRES_00039	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_00039	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_00013	05/01/14	04/01/14	Methanol, Lot 49909	100 mL	VOA8260SURRES_00044	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_00044	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
VOA8260VOA2ND_00060	04/14/14	04/07/14	Methanol, Lot 49909	8 mL	VOA8260VOA2ND_00059	1 mL	1,2,4-Trimethylbenzene	25 ug/mL
							1,3,5-Trimethylbenzene	25 ug/mL
							Benzene	25 ug/mL
							Ethylbenzene	25 ug/mL
							Isopropylbenzene	25 ug/mL
							Methyl tert-butyl ether	25 ug/mL
							Naphthalene	25 ug/mL
							Toluene	25 ug/mL
							Xylenes, Total	50 ug/mL
.VOA8260VOA2ND_00059	05/01/14	04/01/14	Methanol, Lot 49909	10 mL	VOA8260MEGA2_00018	1 mL	1,2,4-Trimethylbenzene	200 ug/mL
							1,3,5-Trimethylbenzene	200 ug/mL
							Benzene	200 ug/mL
							Ethylbenzene	200 ug/mL
							Isopropylbenzene	200 ug/mL
							Methyl tert-butyl ether	200 ug/mL
							Naphthalene	200 ug/mL
							Toluene	200 ug/mL
							Xylenes, Total	400 ug/mL
..VOA8260MEGA2_00018	02/01/16		Restek, Lot A093733		(Purchased Reagent)		1,2,4-Trimethylbenzene	2000 ug/mL
							1,3,5-Trimethylbenzene	2000 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-31007-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzene	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Isopropylbenzene	2000 ug/mL
							Methyl tert-butyl ether	2000 ug/mL
							Naphthalene	2000 ug/mL
							Toluene	2000 ug/mL
							Xylenes, Total	4000 ug/mL
VOA8260VOAPRI_00056	03/21/14	03/14/14	Methanol, Lot 49909	8 mL	VOA8260GAS1ST_00040	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_00054	1 mL	2-Butanone (MEK)	25 ug/mL
							2-Hexanone	25 ug/mL
							4-Methyl-2-pentanone (MIBK)	25 ug/mL
							Acetone	25 ug/mL
							1,1,1,2-Tetrachloroethane	25 ug/mL
							1,1,1-Trichloroethane	25 ug/mL
							1,1,2,2-Tetrachloroethane	25 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	25 ug/mL
							1,1,2-Trichloroethane	25 ug/mL
							1,1-Dichloroethane	25 ug/mL
							1,1-Dichloroethene	25 ug/mL
							1,1-Dichloropropene	25 ug/mL
							1,2,3-Trichlorobenzene	25 ug/mL
							1,2,3-Trichloropropane	25 ug/mL
							1,2,4-Trichlorobenzene	25 ug/mL
							1,2,4-Trimethylbenzene	25 ug/mL
							1,2-Dibromo-3-Chloropropane	25 ug/mL
							1,2-Dichlorobenzene	25 ug/mL
							1,2-Dichloroethane	25 ug/mL
							1,2-Dichloropropane	25 ug/mL
							1,3,5-Trimethylbenzene	25 ug/mL
							1,3-Dichlorobenzene	25 ug/mL
							1,3-Dichloropropane	25 ug/mL
							1,4-Dichlorobenzene	25 ug/mL
							1,4-Dioxane	500 ug/mL
							2,2-Dichloropropane	25 ug/mL
							2-Chlorotoluene	25 ug/mL
							2-Methyl-2-propanol	250 ug/mL
							3-Chloro-1-propene	25 ug/mL
							4-Chlorotoluene	25 ug/mL
							4-Isopropyltoluene	25 ug/mL
							Acrylonitrile	250 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-31007-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzene	25 ug/mL
							Bromobenzene	25 ug/mL
							Bromoform	25 ug/mL
							Carbon disulfide	25 ug/mL
							Carbon tetrachloride	25 ug/mL
							Chlorobenzene	25 ug/mL
							Chlorobromomethane	25 ug/mL
							Chlorodibromomethane	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
							Dibromomethane	25 ug/mL
							Dichlorobromomethane	25 ug/mL
							Ethyl ether	25 ug/mL
							Ethyl methacrylate	25 ug/mL
							Ethylbenzene	25 ug/mL
							Ethylene Dibromide	25 ug/mL
							Hexachlorobutadiene	25 ug/mL
							Hexane	25 ug/mL
							Iodomethane	25 ug/mL
							Isobutyl alcohol	625 ug/mL
							Isopropylbenzene	25 ug/mL
							m-Xylene & p-Xylene	25 ug/mL
							Methyl acetate	125 ug/mL
							Methyl tert-butyl ether	25 ug/mL
							Methylcyclohexane	25 ug/mL
							Methylene Chloride	25 ug/mL
							n-Butylbenzene	25 ug/mL
							n-Heptane	25 ug/mL
							N-Propylbenzene	25 ug/mL
							Naphthalene	25 ug/mL
							o-Xylene	25 ug/mL
							sec-Butylbenzene	25 ug/mL
							Styrene	25 ug/mL
							tert-Butylbenzene	25 ug/mL
							Tetrachloroethene	25 ug/mL
							Tetrahydrofuran	50 ug/mL
							Toluene	25 ug/mL
							trans-1,2-Dichloroethene	25 ug/mL
							trans-1,3-Dichloropropene	25 ug/mL
							trans-1,4-Dichloro-2-butene	25 ug/mL
							Trichloroethene	25 ug/mL
.VOA8260GAS1ST_00040	02/01/15		Restek, Lot A093341		(Purchased Reagent)		Bromomethane	2000 ug/mL
							Butadiene	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Dichlorodifluoromethane	2000 ug/mL

Lab Name: TestAmerica Pittsburgh Job No.: 180-31007-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dichlorofluoromethane	2000 ug/mL
							Trichlorofluoromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
.VOA8260VOAPRI_00054	04/06/14	03/06/14	Methanol, Lot 49909	10 mL	VOA8260KET1ST_00012	0.2 mL	2-Butanone (MEK)	200 ug/mL
							2-Hexanone	200 ug/mL
							4-Methyl-2-pentanone (MIBK)	200 ug/mL
							Acetone	200 ug/mL
					VOA8260MEGA1_00013	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-Dichlorobenzene	200 ug/mL
							1,2-Dichloroethane	200 ug/mL
							1,2-Dichloropropane	200 ug/mL
							1,3,5-Trimethylbenzene	200 ug/mL
							1,3-Dichlorobenzene	200 ug/mL
							1,3-Dichloropropane	200 ug/mL
							1,4-Dichlorobenzene	200 ug/mL
							1,4-Dioxane	4000 ug/mL
							2,2-Dichloropropane	200 ug/mL
							2-Chlorotoluene	200 ug/mL
							2-Methyl-2-propanol	2000 ug/mL
							3-Chloro-1-propene	200 ug/mL
							4-Chlorotoluene	200 ug/mL
							4-Isopropyltoluene	200 ug/mL
							Acrylonitrile	2000 ug/mL
							Benzene	200 ug/mL
							Bromobenzene	200 ug/mL
							Bromoform	200 ug/mL
							Carbon disulfide	200 ug/mL
							Carbon tetrachloride	200 ug/mL
							Chlorobenzene	200 ug/mL
							Chlorobromomethane	200 ug/mL
							Chlorodibromomethane	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

Lab Name: TestAmerica Pittsburgh Job No.: 180-31007-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dibromomethane	200 ug/mL
							Dichlorobromomethane	200 ug/mL
							Ethyl ether	200 ug/mL
							Ethyl methacrylate	200 ug/mL
							Ethylbenzene	200 ug/mL
							Ethylene Dibromide	200 ug/mL
							Hexachlorobutadiene	200 ug/mL
							Hexane	200 ug/mL
							Iodomethane	200 ug/mL
							Isobutyl alcohol	5000 ug/mL
							Isopropylbenzene	200 ug/mL
							m-Xylene & p-Xylene	200 ug/mL
							Methyl acetate	1000 ug/mL
							Methyl tert-butyl ether	200 ug/mL
							Methylcyclohexane	200 ug/mL
							Methylene Chloride	200 ug/mL
							n-Butylbenzene	200 ug/mL
							n-Heptane	200 ug/mL
							N-Propylbenzene	200 ug/mL
							Naphthalene	200 ug/mL
							o-Xylene	200 ug/mL
							sec-Butylbenzene	200 ug/mL
							Styrene	200 ug/mL
							tert-Butylbenzene	200 ug/mL
							Tetrachloroethene	200 ug/mL
							Tetrahydrofuran	400 ug/mL
							Toluene	200 ug/mL
							trans-1,2-Dichloroethene	200 ug/mL
							trans-1,3-Dichloropropene	200 ug/mL
							trans-1,4-Dichloro-2-butene	200 ug/mL
							Trichloroethene	200 ug/mL
..VOA8260KET1ST_00012	02/01/16		Restek, Lot A093365		(Purchased Reagent)		2-Butanone (MEK)	10000 ug/mL
							2-Hexanone	10000 ug/mL
							4-Methyl-2-pentanone (MIBK)	10000 ug/mL
							Acetone	10000 ug/mL
..VOA8260MEGA1_00013	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

Lab Name: TestAmerica Pittsburgh Job No.: 180-31007-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							1,2-Dibromo-3-Chloropropane	2000 ug/mL
							1,2-Dichlorobenzene	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL
							1,2-Dichloropropane	2000 ug/mL
							1,3,5-Trimethylbenzene	2000 ug/mL
							1,3-Dichlorobenzene	2000 ug/mL
							1,3-Dichloropropane	2000 ug/mL
							1,4-Dichlorobenzene	2000 ug/mL
							1,4-Dioxane	40000 ug/mL
							2,2-Dichloropropane	2000 ug/mL
							2-Chlorotoluene	2000 ug/mL
							2-Methyl-2-propanol	20000 ug/mL
							3-Chloro-1-propene	2000 ug/mL
							4-Chlorotoluene	2000 ug/mL
							4-Isopropyltoluene	2000 ug/mL
							Acrylonitrile	20000 ug/mL
							Benzene	2000 ug/mL
							Bromobenzene	2000 ug/mL
							Bromoform	2000 ug/mL
							Carbon disulfide	2000 ug/mL
							Carbon tetrachloride	2000 ug/mL
							Chlorobenzene	2000 ug/mL
							Chlorobromomethane	2000 ug/mL
							Chlorodibromomethane	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
							Dibromomethane	2000 ug/mL
							Dichlorobromomethane	2000 ug/mL
							Ethyl ether	2000 ug/mL
							Ethyl methacrylate	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Ethylene Dibromide	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

Lab Name: TestAmerica Pittsburgh Job No.: 180-31007-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							o-Xylene	2000 ug/mL
							sec-Butylbenzene	2000 ug/mL
							Styrene	2000 ug/mL
							tert-Butylbenzene	2000 ug/mL
							Tetrachloroethene	2000 ug/mL
							Tetrahydrofuran	4000 ug/mL
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL
							trans-1,4-Dichloro-2-butene	2000 ug/mL
							Trichloroethene	2000 ug/mL
VOA8260VOAPRI_00060	04/14/14	04/07/14	Methanol, Lot 49909	8 mL	VOA8260VOAPRI_00059	1 mL	1,2,4-Trimethylbenzene	25 ug/mL
							1,3,5-Trimethylbenzene	25 ug/mL
							Benzene	25 ug/mL
							Ethylbenzene	25 ug/mL
							Isopropylbenzene	25 ug/mL
							Methyl tert-butyl ether	25 ug/mL
							Naphthalene	25 ug/mL
							Toluene	25 ug/mL
							Xylenes, Total	50 ug/mL
.VOA8260VOAPRI_00059	05/01/14	04/01/14	Methanol, Lot 49909	10 mL	VOA8260MEGA1_00012	1 mL	1,2,4-Trimethylbenzene	200 ug/mL
							1,3,5-Trimethylbenzene	200 ug/mL
							Benzene	200 ug/mL
							Ethylbenzene	200 ug/mL
							Isopropylbenzene	200 ug/mL
							Methyl tert-butyl ether	200 ug/mL
							Naphthalene	200 ug/mL
							Toluene	200 ug/mL
							Xylenes, Total	400 ug/mL
..VOA8260MEGA1_00012	02/01/16	Restek, Lot A093581			(Purchased Reagent)		1,2,4-Trimethylbenzene	2000 ug/mL
							1,3,5-Trimethylbenzene	2000 ug/mL
							Benzene	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Isopropylbenzene	2000 ug/mL
							Methyl tert-butyl ether	2000 ug/mL
							Naphthalene	2000 ug/mL
							Toluene	2000 ug/mL
							Xylenes, Total	4000 ug/mL
VOAACRPRI_00001	04/05/14	03/05/14	Methanol, Lot 49909	100 mL	VOAACRORES_00038	0.125 mL	Acrolein	25 ug/mL
.VOAACRORES_00038	04/30/14	Restek, Lot A0100019			(Purchased Reagent)		Acrolein	20000 ug/mL
VOAVAPRI_00001	04/05/14	03/05/14	Methanol, Lot 49909	20 mL	VOA8260VARES_00024	0.125 mL	Vinyl acetate	25 ug/mL
.VOA8260VARES_00024	05/31/14	Restek, Lot A096198			(Purchased Reagent)		Vinyl acetate	4000 ug/mL

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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. : 567645 **Lot No.:** A093341

Description : 8260 List 1 / Std #3 Gases

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

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

Expiration Date : February 2015 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Dichlorodifluoromethane (CFC-12) **CAS #** 75-71-8 **Purity** 99%	2,000.0 µg/mL	+/- 13.8716 +/- 25.2661 +/- 28.2336	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	Chloromethane (methyl chloride) **CAS #** 74-87-3 **Purity** 99%	1,999.8 µg/mL	+/- 13.9993 +/- 25.3348 +/- 28.2945	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	Vinyl chloride **CAS #** 75-01-4 **Purity** 99%	2,000.1 µg/mL	+/- 13.9625 +/- 25.3168 +/- 28.2792	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	1,3-Butadiene **CAS #** 106-99-0 **Purity** 99%	2,000.0 µg/mL	+/- 13.3773 +/- 24.9981 +/- 27.9940	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
5	Bromomethane (methyl bromide) **CAS #** 74-83-9 **Purity** 99%	2,000.1 µg/mL	+/- 14.2856 +/- 25.4963 +/- 28.4399	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
6	Chloroethane (ethyl chloride) **CAS #** 75-00-3 **Purity** 99%	2,000.0 µg/mL	+/- 13.2200 +/- 24.9143 +/- 27.9191	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
7	Dichlorofluoromethane (CFC-21) **CAS #** 75-43-4 **Purity** 99%	2,000.0 µg/mL	+/- 13.5174 +/- 25.0735 +/- 28.0614	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
8	Trichlorofluoromethane (CFC-11) **CAS #** 75-69-4 **Purity** 99%	1,999.9 µg/mL	+/- 13.1170 +/- 24.8590 +/- 27.8696	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

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

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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%

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Catalog No. : 567642 **Lot No.:** A093365

Description : 8260 List 1 / Std #2 Ketones

8260 List 1 / Std #2 Ketones 10,000 ug/ml, P&T Methanol/Water (90:10), 1 ml/ampul

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

Expiration Date : February 2016 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Acetone	10,000.0 µg/mL	+/- 58.1378	µg/mL	Gravimetric
	CAS # 67-64-1		+/- 798.6896	µg/mL	Unstressed
	Purity 99%		+/- 799.0807	µg/mL	Stressed
2	2-Butanone (MEK)	10,000.0 µg/mL	+/- 58.1378	µg/mL	Gravimetric
	CAS # 78-93-3		+/- 798.6896	µg/mL	Unstressed
	Purity 99%		+/- 799.0807	µg/mL	Stressed
3	4-Methyl-2-pentanone (MIBK)	10,000.0 µg/mL	+/- 58.1378	µg/mL	Gravimetric
	CAS # 108-10-1		+/- 798.6896	µg/mL	Unstressed
	Purity 99%		+/- 799.0807	µg/mL	Stressed
4	2-Hexanone	10,000.0 µg/mL	+/- 58.1378	µg/mL	Gravimetric
	CAS # 591-78-6		+/- 798.6896	µg/mL	Unstressed
	Purity 99%		+/- 799.0807	µg/mL	Stressed

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

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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)

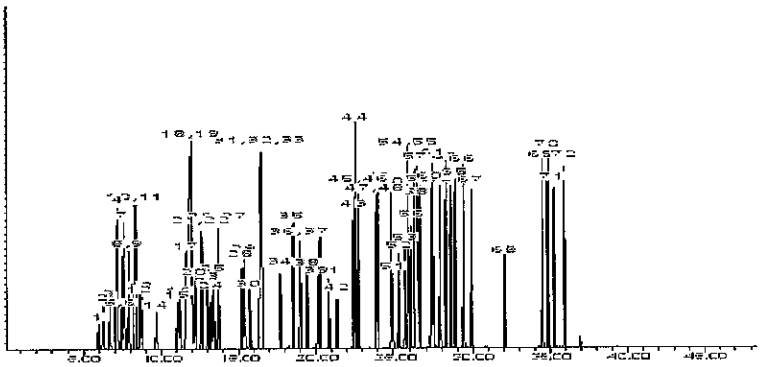
Carrier Gas:
helium-constant pressure 30 psi

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

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Certificate #3222.02

Certificate of Analysis

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

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

Catalog No. : 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)

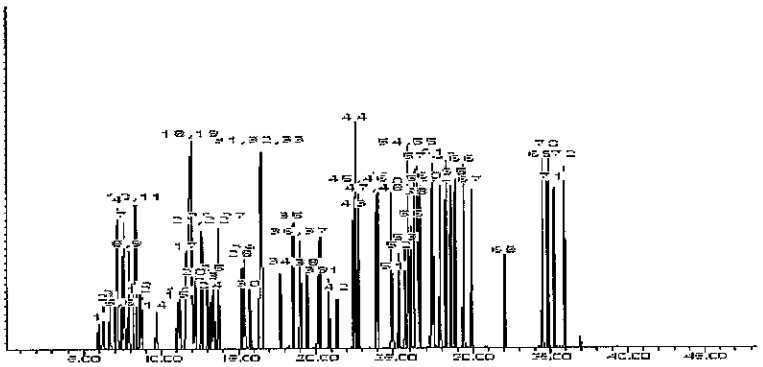
Carrier Gas:
helium-constant pressure 30 psi

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

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Testing Laboratory
Certificate #3222.02

Certificate of Analysis

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

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

Catalog No. : 567641.sec **Lot No.:** A093733

Description : 8260 List 1 / Std #1 MegaMix

8260 List 1 / Std #1 MegaMix 1,000-50,000 µg/ml, P&T Methanol, 1 ml/ampul

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

Expiration Date : February 2016 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)		
1	Diethyl ether (ethyl ether) **CAS #** 60-29-7.SEC **Purity** 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
2	1,1,2-Trichlorotrifluoroethane (CFC-113) **CAS #** 76-13-1.SEC **Purity** 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
3	1,1-Dichloroethene **CAS #** 75-35-4.SEC **Purity** 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
4	tert-Butanol (TBA) **CAS #** 75-65-0.SEC **Purity** 99%	20,000.0 µg/mL	+/- 116.2756 +/- 442.5291 +/- 444.3332	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
5	Iodomethane (methyl iodide) **CAS #** 74-88-4.SEC **Purity** 97%	2,000.0 µg/mL	+/- 11.6284 +/- 44.2540 +/- 44.4344	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
6	Allyl chloride (3-chloropropene) **CAS #** 107-05-1.SEC **Purity** 98%	2,000.0 µg/mL	+/- 11.6281 +/- 44.2527 +/- 44.4331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
7	Methyl acetate **CAS #** 79-20-9.SEC **Purity** 99%	10,000.0 µg/mL	+/- 58.1378 +/- 221.2646 +/- 222.1666	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
8	Carbon disulfide **CAS #** 75-15-0.SEC **Purity** 98%	2,000.0 µg/mL	+/- 11.6281 +/- 44.2527 +/- 44.4331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
9	Methylene chloride (dichloromethane) **CAS #** 75-09-2.SEC **Purity** 99%	2,000.0 µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

10	Acrylonitrile	20,000.0	µg/mL	+/-	116.2756	µg/mL	Gravimetric
	CAS # 107-13-1.SEC			+/-	442.5291	µg/mL	Unstressed
	Purity 99%			+/-	444.3332	µg/mL	Stressed
11	Methyl-tert-butyl ether (MTBE)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 1634-04-4.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
12	cis-1,2-Dichloroethene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 156-59-2.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
13	n-Hexane (C6)	2,000.1	µg/mL	+/-	11.6286	µg/mL	Gravimetric
	CAS # 110-54-3.SEC			+/-	44.2549	µg/mL	Unstressed
	Purity 98%			+/-	44.4353	µg/mL	Stressed
14	1,1-Dichloroethane	2,000.0	µg/mL	+/-	11.6284	µg/mL	Gravimetric
	CAS # 75-34-3.SEC			+/-	44.2540	µg/mL	Unstressed
	Purity 97%			+/-	44.4344	µg/mL	Stressed
15	2,2-Dichloropropane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 594-20-7.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
16	trans-1,2-Dichloroethene	2,000.0	µg/mL	+/-	11.6284	µg/mL	Gravimetric
	CAS # 156-60-5.SEC			+/-	44.2540	µg/mL	Unstressed
	Purity 97%			+/-	44.4344	µg/mL	Stressed
17	Chloroform	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 67-66-3.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
18	Isobutanol (2-Methyl-1-propanol)	50,000.0	µg/mL	+/-	290.6891	µg/mL	Gravimetric
	CAS # 78-83-1.SEC			+/-	1,106.3228	µg/mL	Unstressed
	Purity 99%			+/-	1,110.8331	µg/mL	Stressed
19	Bromochloromethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 74-97-5.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
20	Tetrahydrofuran	4,000.0	µg/mL	+/-	23.2563	µg/mL	Gravimetric
	CAS # 109-99-9.SEC			+/-	88.5061	µg/mL	Unstressed
	Purity 99%			+/-	88.8670	µg/mL	Stressed
21	1,1,1-Trichloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 71-55-6.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
22	Cyclohexane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 110-82-7.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
23	1,1-Dichloropropene	2,010.5	µg/mL	+/-	11.6890	µg/mL	Gravimetric
	CAS # 563-58-6.SEC			+/-	44.4847	µg/mL	Unstressed
	Purity 98%			+/-	44.6661	µg/mL	Stressed
24	Carbon tetrachloride	2,000.1	µg/mL	+/-	11.6286	µg/mL	Gravimetric
	CAS # 56-23-5.SEC			+/-	44.2549	µg/mL	Unstressed
	Purity 98%			+/-	44.4353	µg/mL	Stressed
25	n-Heptane (C7)	2,000.1	µg/mL	+/-	11.6288	µg/mL	Gravimetric
	CAS # 142-82-5.SEC			+/-	44.2553	µg/mL	Unstressed
	Purity 99%			+/-	44.4357	µg/mL	Stressed
26	Benzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 71-43-2.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
27	1,2-Dichloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 107-06-2.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
28	Trichloroethene	2,000.1	µg/mL	+/-	11.6286	µg/mL	Gravimetric
	CAS # 79-01-6.SEC			+/-	44.2549	µg/mL	Unstressed
	Purity 98%			+/-	44.4353	µg/mL	Stressed

29	Methylcyclohexane **CAS #** 108-87-2.SEC **Purity** 99%	2,000.0	µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
30	1,2-Dichloropropane **CAS #** 78-87-5.SEC **Purity** 99%	2,000.0	µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
31	1,4-Dioxane **CAS #** 123-91-1.SEC **Purity** 99%	40,000.0	µg/mL	+/- 232.5513 +/- 885.0582 +/- 888.6665	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
32	Dibromomethane **CAS #** 74-95-3.SEC **Purity** 99%	2,000.0	µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
33	Bromodichloromethane **CAS #** 75-27-4.SEC **Purity** 97%	2,000.1	µg/mL	+/- 11.6290 +/- 44.2562 +/- 44.4366	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
34	cis-1,3-Dichloropropene **CAS #** 10061-01-5.SEC **Purity** 99%	2,000.0	µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
35	Toluene **CAS #** 108-88-3.SEC **Purity** 99%	2,000.0	µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
36	Ethyl methacrylate **CAS #** 97-63-2.SEC **Purity** 99%	2,000.0	µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
37	trans-1,3-Dichloropropene **CAS #** 10061-02-6.SEC **Purity** 98%	2,000.0	µg/mL	+/- 11.6281 +/- 44.2527 +/- 44.4331	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
38	1,1,2-Trichloroethane **CAS #** 79-00-5.SEC **Purity** 99%	2,000.0	µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
39	1,3-Dichloropropane **CAS #** 142-28-9.SEC **Purity** 99%	2,000.0	µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
40	Tetrachloroethene **CAS #** 127-18-4.SEC **Purity** 99%	2,000.0	µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
41	Dibromochloromethane **CAS #** 124-48-1.SEC **Purity** 97%	2,000.1	µg/mL	+/- 11.6290 +/- 44.2562 +/- 44.4366	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
42	1,2-Dibromoethane (EDB) **CAS #** 106-93-4.SEC **Purity** 99%	2,000.0	µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
43	Chlorobenzene **CAS #** 108-90-7.SEC **Purity** 99%	2,000.0	µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
44	1,1,1,2-Tetrachloroethane **CAS #** 630-20-6.SEC **Purity** 99%	2,000.0	µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
45	m-Xylene **CAS #** 108-38-3.SEC **Purity** 99%	1,000.0	µg/mL	+/- 5.8141 +/- 22.1265 +/- 22.2167	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
46	p-Xylene **CAS #** 106-42-3.SEC **Purity** 99%	1,000.0	µg/mL	+/- 5.8141 +/- 22.1265 +/- 22.2167	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed
47	o-Xylene **CAS #** 95-47-6.SEC **Purity** 99%	2,000.0	µg/mL	+/- 11.6282 +/- 44.2531 +/- 44.4335	µg/mL µg/mL µg/mL	Gravimetric Unstressed Stressed

48	Ethylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 100-41-4.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
49	Styrene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 100-42-5.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
50	Isopropylbenzene (cumene)	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 98-82-8.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
51	Bromoform	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 75-25-2.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
52	1,1,2,2-Tetrachloroethane	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 79-34-5.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
53	1,2,3-Trichloropropane	2,000.0	µg/mL	+/-	11.6281	µg/mL	Gravimetric
	CAS # 96-18-4.SEC			+/-	44.2527	µg/mL	Unstressed
	Purity 98%			+/-	44.4331	µg/mL	Stressed
54	trans-1,4-Dichloro-2-butene	2,000.0	µg/mL	+/-	11.6284	µg/mL	Gravimetric
	CAS # 110-57-6.SEC			+/-	44.2540	µg/mL	Unstressed
	Purity 97%			+/-	44.4344	µg/mL	Stressed
55	n-Propylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 103-65-1.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
56	Bromobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 108-86-1.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
57	1,3,5-Trimethylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 108-67-8.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
58	2-Chlorotoluene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 95-49-8.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
59	4-Chlorotoluene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 106-43-4.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
60	tert-Butylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 98-06-6.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
61	1,2,4-Trimethylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 95-63-6.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
62	sec-Butylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 135-98-8.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
63	4-Isopropyltoluene (p-cymene)	2,000.1	µg/mL	+/-	11.6285	µg/mL	Gravimetric
	CAS # 99-87-6.SEC			+/-	44.2545	µg/mL	Unstressed
	Purity 96%			+/-	44.4349	µg/mL	Stressed
64	1,3-Dichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 541-73-1.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
65	1,4-Dichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 106-46-7.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
66	n-Butylbenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 104-51-8.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed

67	1,2-Dichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 95-50-1.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
68	1,2-Dibromo-3-chloropropane	2,000.0	µg/mL	+/-	11.6284	µg/mL	Gravimetric
	CAS # 96-12-8.SEC			+/-	44.2540	µg/mL	Unstressed
	Purity 97%			+/-	44.4344	µg/mL	Stressed
69	1,2,4-Trichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 120-82-1.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
70	Hexachlorobutadiene	2,000.0	µg/mL	+/-	11.6284	µg/mL	Gravimetric
	CAS # 87-68-3.SEC			+/-	44.2540	µg/mL	Unstressed
	Purity 97%			+/-	44.4344	µg/mL	Stressed
71	Naphthalene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 91-20-3.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed
72	1,2,3-Trichlorobenzene	2,000.0	µg/mL	+/-	11.6282	µg/mL	Gravimetric
	CAS # 87-61-6.SEC			+/-	44.2531	µg/mL	Unstressed
	Purity 99%			+/-	44.4335	µg/mL	Stressed

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

Column:
60m x .25mm x 1.4um
Rtx-502.2 (cat.#10916)

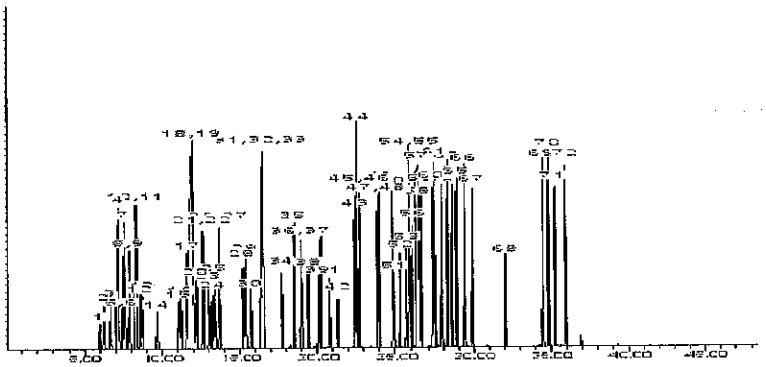
Carrier Gas:
helium-constant pressure 30 psi

Temp. Program:
40°C (hold 6 min.) to 240°C
@ 6°C/min. (hold 10 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
MSD



Jennifer L. Pollino - QC Analyst

Date Passed: 01-Mar-2013 **Balance:** 1127510105

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

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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%

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

Catalog No. : 567650 **Lot No.:** 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%

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FOR LABORATORY USE ONLY-READ SDS PRIOR TO USE.

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

Catalog No. : 567646 **Lot No.:** A099480

Description : 8260 List 1 / Std #6 Vinyl Acetate

8260 List 1 / Std #6 Vinyl Acetate 4000 ug/ml, P&T Methanol, 1 ml/ampul

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

Expiration Date : May 31, 2014 **Storage:** 0°C or colder

CERTIFIED VALUES

Elution Order	Compound	Grav. Conc. (weight/volume)	Expanded Uncertainty (95% C.L.; K=2)	
1	Vinyl acetate	3,994.0 µg/mL	+/- 23.4390 µg/mL	Gravimetric
	CAS # 108-05-4 (Lot 131011JLM)		+/- 318.1798 µg/mL	Unstressed
	Purity 99%		+/- 318.3364 µg/mL	Stressed

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

Tech Tips:

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

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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.:** A0100019

Description : 8260 List 1/Std #5 Acrolein High

8260 List 1/Std #5 Acrolein High 20,000 µg/ml, Water, 1 ml/ampul

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

Expiration Date : April 30, 2014 **Storage:** 10°C or colder

CERTIFIED VALUES

Elution Order	Compound		Grav. Conc. (weight/volume)		Expanded Uncertainty (95% C.L.; K=2)		
1	Acrolein		20,000.7	µg/mL	+/- 117.1083	µg/mL	Gravimetric
	CAS # 107-02-8	(Lot 130830JLM)			+/- 641.2843	µg/mL	Unstressed
	Purity 99%				+/- 745.4228	µg/mL	Stressed

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

Certification Summary

Client: Leidos, Inc.
Project/Site: Harley Davidson

TestAmerica Job ID: 180-31007-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Pittsburgh	Arkansas DEQ	State Program	6	88-0690
TestAmerica Pittsburgh	California	NELAP	9	4224CA
TestAmerica Pittsburgh	Connecticut	State Program	1	PH-0688
TestAmerica Pittsburgh	Florida	NELAP	4	E871008
TestAmerica Pittsburgh	Illinois	NELAP	5	002602
TestAmerica Pittsburgh	Kansas	NELAP	7	E-10350
TestAmerica Pittsburgh	Louisiana	NELAP	6	04041
TestAmerica Pittsburgh	New Hampshire	NELAP	1	203011
TestAmerica Pittsburgh	New Jersey	NELAP	2	PA005
TestAmerica Pittsburgh	New York	NELAP	2	11182
TestAmerica Pittsburgh	North Carolina DENR	State Program	4	434
TestAmerica Pittsburgh	Pennsylvania	NELAP	3	02-00416
TestAmerica Pittsburgh	South Carolina	State Program	4	89014
TestAmerica Pittsburgh	Texas	NELAP	6	T104704528
TestAmerica Pittsburgh	US Fish & Wildlife	Federal		LE94312A-1
TestAmerica Pittsburgh	USDA	Federal		P330-10-00139
TestAmerica Pittsburgh	USDA	Federal		P-Soil-01
TestAmerica Pittsburgh	Utah	NELAP	8	STLP
TestAmerica Pittsburgh	Virginia	NELAP	3	460189
TestAmerica Pittsburgh	West Virginia DEP	State Program	3	142
TestAmerica Pittsburgh	Wisconsin	State Program	5	998027800

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method 8260B

Volatile Organic Compounds (GC/MS) by Method 8260B

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-31007-1

SDG No.:

Matrix: Water Level: Low

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

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
HD-MW-125-01-0	180-31007-1	110	94	82	95
HD-MW-160-01-0	180-31007-2	110	82	81	96
TRIP BLANK 1	180-31007-3	114	96	80	93
	MB 180-101826/3	116	88	84	100
	MB 180-102001/3	117	89	84	98
	LCS 180-101826/6	101	84	82	97
	LCS 180-102001/7	107	91	86	102
	180-31031-F-3 MS	105	89	85	102
	180-31031-F-7 MS	110	93	88	106
	180-31031-E-3 MSD	105	88	85	101
	180-31031-G-7 MSD	102	95	86	98

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	80-120
DCA = 1,2-Dichloroethane-d4 (Surr)	62-123
TOL = Toluene-d8 (Surr)	80-120
BFB = 4-Bromofluorobenzene (Surr)	75-120

Column to be used to flag recovery values

FORM II 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-31007-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 70407009.D

Lab ID: LCS 180-101826/6 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Benzene	40.0	39.7	99	80-120	
Toluene	40.0	34.1	85	80-124	
Ethylbenzene	40.0	39.6	99	79-124	
Xylenes, Total	80.0	78.2	98	81-121	
Isopropylbenzene	40.0	36.0	90	73-130	
Methyl tert-butyl ether	40.0	38.9	97	53-122	
1,2,4-Trimethylbenzene	40.0	36.3	91	71-132	
1,3,5-Trimethylbenzene	40.0	36.4	91	75-135	
Naphthalene	40.0	27.0	67	10-144	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-31007-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 70408014.D

Lab ID: LCS 180-102001/7 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Benzene	40.0	40.2	100	80-120	
Toluene	40.0	35.3	88	80-124	
Ethylbenzene	40.0	40.9	102	79-124	
Xylenes, Total	80.0	80.6	101	81-121	
Isopropylbenzene	40.0	37.9	95	73-130	
Methyl tert-butyl ether	40.0	39.0	98	53-122	
1,2,4-Trimethylbenzene	40.0	37.2	93	71-132	
1,3,5-Trimethylbenzene	40.0	37.3	93	75-135	
Naphthalene	40.0	19.2	48	10-144	

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-31007-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 70407010.D

Lab ID: 180-31031-F-3 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Benzene	40.0	1.2 J	40.0	97	80-120	
Toluene	40.0	5.0 U	34.7	87	80-124	
Ethylbenzene	40.0	5.0 U	40.3	101	79-124	
Xylenes, Total	80.0	10 U	78.9	99	81-121	
Isopropylbenzene	40.0	5.0 U	36.1	90	73-130	
Methyl tert-butyl ether	40.0	5.0 U	39.4	99	53-122	
1,2,4-Trimethylbenzene	40.0	5.0 U	35.2	88	71-132	
1,3,5-Trimethylbenzene	40.0	5.0 U	34.9	87	75-135	
Naphthalene	40.0	5.0 U	77.2	193	10-144	F1

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-31007-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 70408015.D

Lab ID: 180-31031-F-7 MS Client ID:

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Benzene	40.0	5.0 U	41.3	103	80-120	
Toluene	40.0	5.0 U	35.9	90	80-124	
Ethylbenzene	40.0	5.0 U	41.7	104	79-124	
Xylenes, Total	80.0	10 U	82.4	103	81-121	
Isopropylbenzene	40.0	5.0 U	38.7	97	73-130	
Methyl tert-butyl ether	40.0	5.0 U	43.0	108	53-122	
1,2,4-Trimethylbenzene	40.0	5.0 U	37.5	94	71-132	
1,3,5-Trimethylbenzene	40.0	5.0 U	37.2	93	75-135	
Naphthalene	40.0	5.0 U	85.0	212	10-144	F1

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-31007-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 70407011.D

Lab ID: 180-31031-E-3 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Benzene	40.0	40.2	97	0	20	80-120	
Toluene	40.0	34.3	86	1	20	80-124	
Ethylbenzene	40.0	39.4	99	2	25	79-124	
Xylenes, Total	80.0	78.3	98	1	20	81-121	
Isopropylbenzene	40.0	35.9	90	1	20	73-130	
Methyl tert-butyl ether	40.0	38.4	96	3	20	53-122	
1,2,4-Trimethylbenzene	40.0	35.3	88	0	35	71-132	
1,3,5-Trimethylbenzene	40.0	35.0	88	0	20	75-135	
Naphthalene	40.0	86.2	215	11	35	10-144	F1

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Pittsburgh Job No.: 180-31007-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 70408016.D

Lab ID: 180-31031-G-7 MSD Client ID:

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Benzene	40.0	39.1	98	6	20	80-120	
Toluene	40.0	35.9	90	0	20	80-124	
Ethylbenzene	40.0	41.0	102	2	25	79-124	
Xylenes, Total	80.0	78.3	98	5	20	81-121	
Isopropylbenzene	40.0	35.1	88	10	20	73-130	
Methyl tert-butyl ether	40.0	37.1	93	15	20	53-122	
1,2,4-Trimethylbenzene	40.0	36.2	90	4	35	71-132	
1,3,5-Trimethylbenzene	40.0	36.0	90	3	20	75-135	
Naphthalene	40.0	90.9	227	7	35	10-144	F1

Column to be used to flag recovery and RPD values

FORM III 8260B

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-31007-1

SDG No.:

Lab File ID: 70407005.D Lab Sample ID: MB 180-101826/3

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

Instrument ID: HP7 Date Analyzed: 04/07/2014 01:11

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

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 180-101826/6	70407009.D	04/07/2014 02:57
	180-31031-F-3 MS	70407010.D	04/07/2014 03:30
	180-31031-E-3 MSD	70407011.D	04/07/2014 04:01
HD-MW-125-01-0	180-31007-1	70407017.D	04/07/2014 06:53
TRIP BLANK 1	180-31007-3	70407019.D	04/07/2014 07:47

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Pittsburgh Job No.: 180-31007-1

SDG No.:

Lab File ID: 70408006.D Lab Sample ID: MB 180-102001/3

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

Instrument ID: HP7 Date Analyzed: 04/08/2014 10:44

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

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
HD-MW-160-01-0	180-31007-2	70408009.D	04/08/2014 12:22
	LCS 180-102001/7	70408014.D	04/08/2014 14:49
	180-31031-F-7 MS	70408015.D	04/08/2014 15:22
	180-31031-G-7 MSD	70408016.D	04/08/2014 15:48

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-31007-1

SDG No.:

Lab File ID: 7031401.D BFB Injection Date: 03/14/2014

Instrument ID: HP7 BFB Injection Time: 07:40

Analysis Batch No.: 99778

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	25.2	
75	30.0 - 60.0 % of mass 95	49.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	8.1	
173	Less than 2.0 % of mass 174	0.6	(0.7)1
174	50.0 - 120.00 % of mass 95	86.8	
175	5.0 - 9.0 % of mass 174	7.2	(8.3)1
176	95.0 - 101.0 % of mass 174	85.9	(98.9)1
177	5.0 - 9.0 % of mass 176	6.8	(7.9)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
	IC 180-99778/3	7031404.D	03/14/2014	09:40
	IC 180-99778/4	7031405.D	03/14/2014	10:13
	ICIS 180-99778/5	7031406.D	03/14/2014	10:41
	IC 180-99778/6	7031407.D	03/14/2014	11:08
	IC 180-99778/7	7031408.D	03/14/2014	12:29
	IC 180-99778/8	7031409.D	03/14/2014	13:41
	IC 180-99778/2	7031417.D	03/14/2014	17:39

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-31007-1

SDG No.:

Lab File ID: 70407001.D BFB Injection Date: 04/06/2014

Instrument ID: HP7 BFB Injection Time: 22:48

Analysis Batch No.: 101826

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	23.0	
75	30.0 - 60.0 % of mass 95	45.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.1	
173	Less than 2.0 % of mass 174	0.6	(0.7)1
174	50.0 - 120.00 % of mass 95	88.0	
175	5.0 - 9.0 % of mass 174	7.0	(7.9)1
176	95.0 - 101.0 % of mass 174	87.3	(99.2)1
177	5.0 - 9.0 % of mass 176	6.0	(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 180-101826/2	70407002.D	04/06/2014	23:32
	MB 180-101826/3	70407005.D	04/07/2014	01:11
	LCS 180-101826/6	70407009.D	04/07/2014	02:57
	180-31031-F-3 MS	70407010.D	04/07/2014	03:30
	180-31031-E-3 MSD	70407011.D	04/07/2014	04:01
HD-MW-125-01-0	180-31007-1	70407017.D	04/07/2014	06:53
TRIP BLANK 1	180-31007-3	70407019.D	04/07/2014	07:47

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-31007-1

SDG No.:

Lab File ID: 70408001.D BFB Injection Date: 04/08/2014

Instrument ID: HP7 BFB Injection Time: 07:42

Analysis Batch No.: 102001

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	23.5	
75	30.0 - 60.0 % of mass 95	46.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.7	
173	Less than 2.0 % of mass 174	0.6	(0.7)1
174	50.0 - 120.00 % of mass 95	86.4	
175	5.0 - 9.0 % of mass 174	7.4	(8.5)1
176	95.0 - 101.0 % of mass 174	86.4	(99.9)1
177	5.0 - 9.0 % of mass 176	6.6	(7.6)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 180-102001/2	70408003.D	04/08/2014	09:07
	MB 180-102001/3	70408006.D	04/08/2014	10:44
HD-MW-160-01-0	180-31007-2	70408009.D	04/08/2014	12:22
	LCS 180-102001/7	70408014.D	04/08/2014	14:49
	180-31031-F-7 MS	70408015.D	04/08/2014	15:22
	180-31031-G-7 MSD	70408016.D	04/08/2014	15:48

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-31007-1

SDG No.:

Sample No.: CCVIS 180-101826/2 Date Analyzed: 04/06/2014 23:32

Instrument ID: HP7 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 70407002.D Heated Purge: (Y/N) N

Calibration ID: 14381

		TBA		FB		14DD8	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		689516	4.84	1960397	7.40	50279	8.14
UPPER LIMIT		1379032	5.34	3920794	7.90	100558	8.64
LOWER LIMIT		344758	4.34	980199	6.90	25140	7.64
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-101826/3		777214	4.59	2378073	7.41	77410	8.14
LCS 180-101826/6		681052	4.80	2213189	7.40	68218	8.14
180-31031-F-3 MS		720157	4.86	2246966	7.40	54259	8.13
180-31031-E-3 MSD		724572	4.86	2272087	7.40	65947	8.14
180-31007-1	HD-MW-125-01-0	1116843	4.59	2289415	7.42	64995	8.14
180-31007-3	TRIP BLANK 1	1087113	4.59	2219894	7.42	72344	8.15

TBA = TBA-d9 (IS)
FB = Fluorobenzene (IS)
14DD8 = Dioxane-d8 (IS)

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 8260B

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-31007-1

SDG No.:

Sample No.: CCVIS 180-101826/2 Date Analyzed: 04/06/2014 23:32

Instrument ID: HP7 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 70407002.D Heated Purge: (Y/N) N

Calibration ID: 14381

		CBZ		DCB			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		505154	10.46	662899	12.79		
UPPER LIMIT		1010308	10.96	1325798	13.29		
LOWER LIMIT		252577	9.96	331450	12.29		
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-101826/3		605064	10.47	842472	12.79		
LCS 180-101826/6		583271	10.46	747001	12.79		
180-31031-F-3 MS		583478	10.46	777696	12.79		
180-31031-E-3 MSD		597418	10.47	786750	12.79		
180-31007-1	HD-MW-125-01-0	559687	10.47	733089	12.79		
180-31007-3	TRIP BLANK 1	562290	10.47	727065	12.79		

CBZ = Chlorobenzene-d5
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 8260B

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-31007-1

SDG No.:

Sample No.: CCVIS 180-102001/2 Date Analyzed: 04/08/2014 09:07

Instrument ID: HP7 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 70408003.D Heated Purge: (Y/N) N

Calibration ID: 14381

		TBA		FB		14DD8	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		594149	4.80	1892292	7.40	51216	8.14
UPPER LIMIT		1188298	5.30	3784584	7.90	102432	8.64
LOWER LIMIT		297075	4.30	946146	6.90	25608	7.64
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-102001/3		768685	4.60	2167870	7.42	63051	8.14
180-31007-2	HD-MW-160-01-0	710526	4.61	2160260	7.42	67862	8.14
LCS 180-102001/7		567192	4.75	1919712	7.41	56892	8.14
180-31031-F-7 MS		654188	4.84	1813890	7.40	51854	8.14
180-31031-G-7 MSD		687185	4.85	2290953	7.40	80321	8.14

TBA = TBA-d9 (IS)
FB = Fluorobenzene (IS)
14DD8 = Dioxane-d8 (IS)

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 8260B

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

Lab Name: TestAmerica Pittsburgh Job No.: 180-31007-1

SDG No.:

Sample No.: CCVIS 180-102001/2 Date Analyzed: 04/08/2014 09:07

Instrument ID: HP7 GC Column: DB-624 ID: 0.18(mm)

Lab File ID (Standard): 70408003.D Heated Purge: (Y/N) N

Calibration ID: 14381

		CBZ		DCB			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		504940	10.47	660705	12.79		
UPPER LIMIT		1009880	10.97	1321410	13.29		
LOWER LIMIT		252470	9.97	330353	12.29		
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 180-102001/3		552970	10.47	798713	12.79		
180-31007-2	HD-MW-160-01-0	555147	10.47	797833	12.79		
LCS 180-102001/7		501001	10.47	650696	12.79		
180-31031-F-7 MS		479816	10.47	642215	12.79		
180-31031-G-7 MSD		612725	10.46	749044	12.79		

CBZ = Chlorobenzene-d5
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 8260B

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-31007-1

SDG No.:

Client Sample ID: HD-MW-125-01-0 | Lab Sample ID: 180-31007-1

Matrix: Water | Lab File ID: 70407017.D

Analysis Method: 8260B | Date Collected: 03/25/2014 11:23

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2014 06:53

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.: 101826 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	5.0	U	5.0	0.99
108-88-3	Toluene	5.0	U	5.0	0.85
100-41-4	Ethylbenzene	5.0	U	5.0	0.62
1330-20-7	Xylenes, Total	10	U	10	2.0
98-82-8	Isopropylbenzene	5.0	U	5.0	0.53
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	1.0
95-63-6	1,2,4-Trimethylbenzene	5.0	U	5.0	0.52
108-67-8	1,3,5-Trimethylbenzene	5.0	U	5.0	0.59
91-20-3	Naphthalene	5.0	U	5.0	0.47

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	94		62-123
2037-26-5	Toluene-d8 (Surr)	82		80-120
460-00-4	4-Bromofluorobenzene (Surr)	95		75-120
1868-53-7	Dibromofluoromethane (Surr)	110		80-120

TestAmerica Pittsburgh

VOLATILE REPORT SW-846 Method

Data file : \\pitsvr06\d\chem\hp7.i\7040714d.b\70407017.D
Lab Smp Id: 180-31007-A-1 Client Smp ID: HD-MW-125-01-0
Inj Date : 07-APR-2014 06:53 MS Autotune Date: 29-AUG-2013 09:08
Operator : 430936 Inst ID: hp7.i
Smp Info : 180-31007-A-1
Misc Info : 7040714d.b,T8260bh2o.m,list1.sub
Comment :
Method : \\pitsvr06\d\chem\hp7.i\7040714d.b\T8260bh2o.m
Meth Date : 08-Apr-2014 08:41 zukowskim Quant Type: ISTD
Cal Date : 14-MAR-2014 09:40 Cal File: 7031404.D
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: btex.sub
Target Version: 4.14
Processing Host: PITPC-530

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ng)	
* 46 Fluorobenzene (IS)	96	7.416	7.397	(1.000)	2289415	250.000		
* 69 Chlorobenzene-d5	119	10.470	10.463	(1.000)	559687	250.000		
* 92 1,4-Dichlorobenzene-d4	152	12.788	12.787	(1.000)	733089	250.000		
* 176 Dioxane-d8 (IS)	96	8.140	8.139	(1.000)	64995	5000.00		
* 177 TBA-d9 (IS)	65	4.593	4.842	(1.000)	1116843	5000.00		(H)
$ 39 Dibromofluoromethane (Surr)	113	6.692	6.673	(0.902)	661159	274.623	274.6	
$ 43 1,2-Dichloroethane-d4	65	7.057	7.032	(0.952)	654763	236.129	236.1	
$ 59 Toluene-d8	98	9.040	9.033	(0.863)	1786683	205.126	205.1	
$ 80 Bromofluorobenzene (Surr)	95	11.632	11.631	(1.111)	750441	237.703	237.7	
20 Methyl tert-butyl ether	73	Compound Not Detected.						
42 Benzene	78	7.124	7.087	(0.961)	47376	4.62657	4.626	
60 Toluene	91	9.107	9.100	(0.870)	15612	1.60723	1.607	
72 Ethylbenzene	106	Compound Not Detected.						
73 m,p-XYLENE	106	Compound Not Detected.						
74 Xylene-o	106	Compound Not Detected.						
78 Isopropylbenzene	105	Compound Not Detected.						
86 1,3,5-Trimethylbenzene	105	Compound Not Detected.						
88 1,2,4-Trimethylbenzene	105	Compound Not Detected.						
99 Naphthalene	128	Compound Not Detected.						
M 75 Xylenes (total)	106	Compound Not Detected.						

QC Flag Legend

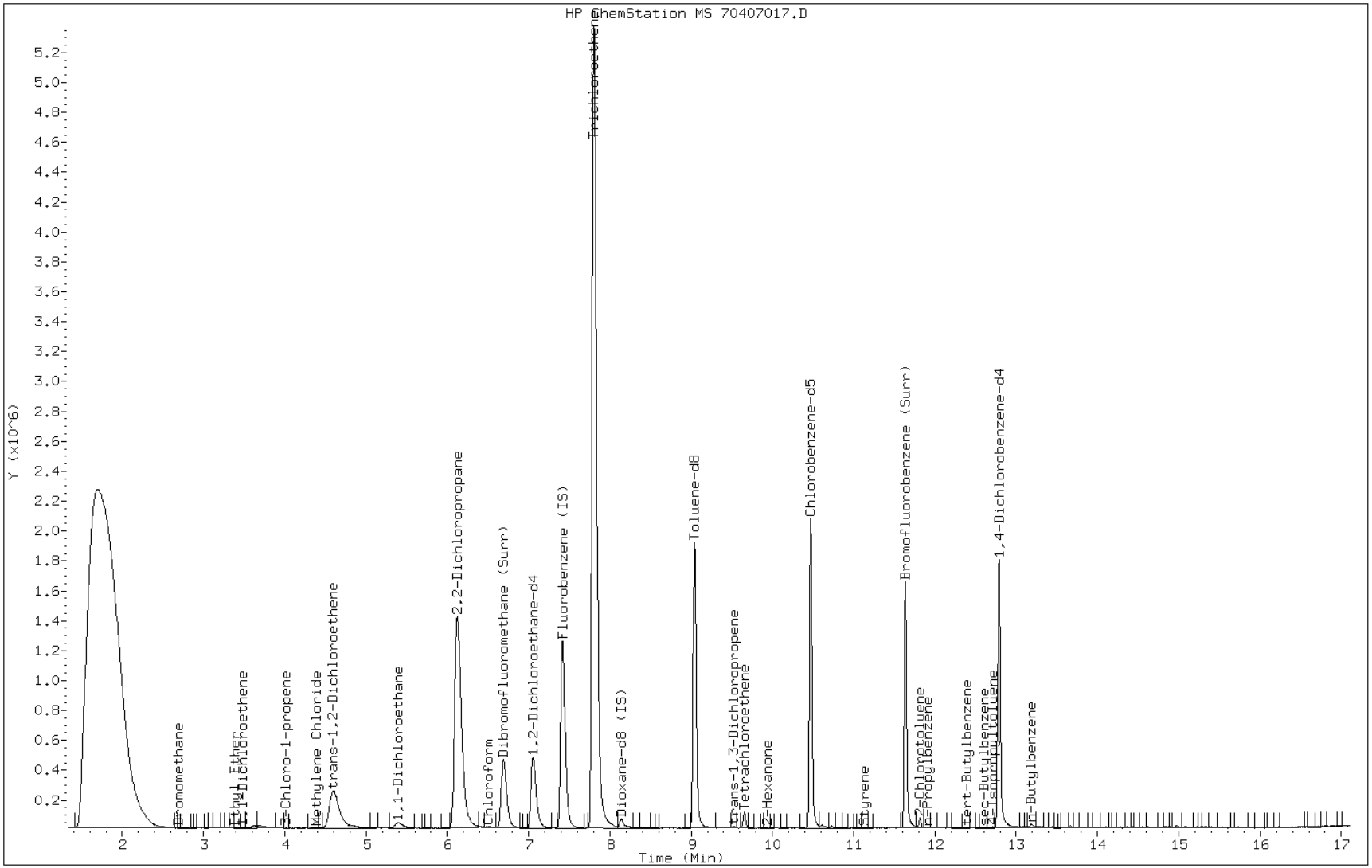
H - Operator selected an alternate compound hit.

Data File: 70407017.D

Date: 07-APR-2014 06:53

Client ID: HD-MW-125-01-0 Instrument: hp7.i

Sample Info: 180-31007-A-1 Operator: 430936



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-31007-1

SDG No.:

Client Sample ID: HD-MW-160-01-0 | Lab Sample ID: 180-31007-2

Matrix: Water | Lab File ID: 70408009.D

Analysis Method: 8260B | Date Collected: 03/25/2014 09:33

Sample wt/vol: 5(mL) | Date Analyzed: 04/08/2014 12:22

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.: 102001 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	340		25	4.9
108-88-3	Toluene	61		25	4.2
100-41-4	Ethylbenzene	23	J	25	3.1
1330-20-7	Xylenes, Total	51		50	9.8
98-82-8	Isopropylbenzene	4.1	J	25	2.7
1634-04-4	Methyl tert-butyl ether	25	U	25	5.1
95-63-6	1,2,4-Trimethylbenzene	17	J	25	2.6
108-67-8	1,3,5-Trimethylbenzene	25	U	25	3.0
91-20-3	Naphthalene	25	U	25	2.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	82		62-123
2037-26-5	Toluene-d8 (Surr)	81		80-120
460-00-4	4-Bromofluorobenzene (Surr)	96		75-120
1868-53-7	Dibromofluoromethane (Surr)	110		80-120

TestAmerica Pittsburgh

VOLATILE REPORT SW-846 Method

Data file : \\pitsvr06\d\chem\hp7.i\7040814d.b\70408009.D
Lab Smp Id: 180-31007-B-2 Client Smp ID: HD-MW-160-01-0
Inj Date : 08-APR-2014 12:22 MS Autotune Date: 29-AUG-2013 09:08
Operator : 430936 Inst ID: hp7.i
Smp Info : 180-31007-B-2, 5x
Misc Info : 7040814d.b,T8260bh2o.m,btex.sub
Comment :
Method : \\pitsvr06\d\chem\hp7.i\7040814d.b\T8260bh2o.m
Meth Date : 08-Apr-2014 09:59 hp7.i Quant Type: ISTD
Cal Date : 14-MAR-2014 09:40 Cal File: 7031404.D
Als bottle: 1
Dil Factor: 5.00000
Integrator: HP RTE Compound Sublist: btex.sub
Target Version: 4.14
Processing Host: PITPC-530

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

		QUANT SIG					CONCENTRATIONS ON-COLUMN	FINAL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)	
*	46 Fluorobenzene (IS)	96	7.417	7.401	(1.000)	2160260	250.000		
*	69 Chlorobenzene-d5	119	10.471	10.467	(1.000)	555147	250.000		
*	92 1,4-Dichlorobenzene-d4	152	12.789	12.791	(1.000)	797833	250.000		
*	176 Dioxane-d8 (IS)	96	8.141	8.137	(1.000)	67862	5000.00		
*	177 TBA-d9 (IS)	65	4.607	4.804	(1.000)	710526	5000.00		(H)
$	39 Dibromofluoromethane (Surr)	113	6.693	6.677	(0.902)	623943	274.659	274.6	
$	43 1,2-Dichloroethane-d4	65	7.058	7.042	(0.952)	538689	205.884	205.9	
$	59 Toluene-d8	98	9.041	9.032	(0.863)	1755546	203.200	203.2	
$	80 Bromofluorobenzene (Surr)	95	11.633	11.635	(1.111)	751503	239.986	240.0	
	20 Methyl tert-butyl ether	73	Compound Not Detected.						
	42 Benzene	78	7.107	7.091	(0.958)	3258406	337.229	1686	
	60 Toluene	91	9.108	9.099	(0.870)	585042	60.7218	303.6	
	72 Ethylbenzene	106	10.611	10.607	(1.013)	75337	22.6199	113.1(Q)	
	73 m,p-XYLENE	106	10.727	10.717	(1.024)	156250	36.9404	184.7	
	74 Xylene-o	106	11.116	11.112	(1.062)	65149	14.2805	71.40(Q)	
	78 Isopropylbenzene	105	11.481	11.477	(1.096)	45633	4.08311	20.42	
	86 1,3,5-Trimethylbenzene	105	12.065	12.061	(0.943)	21013	2.14590	10.73	
	88 1,2,4-Trimethylbenzene	105	12.442	12.438	(0.973)	163468	16.7409	83.70	
	99 Naphthalene	128	Compound Not Detected.						
M	75 Xylenes (total)	106				221399	51.2209	256.1	

QC Flag Legend

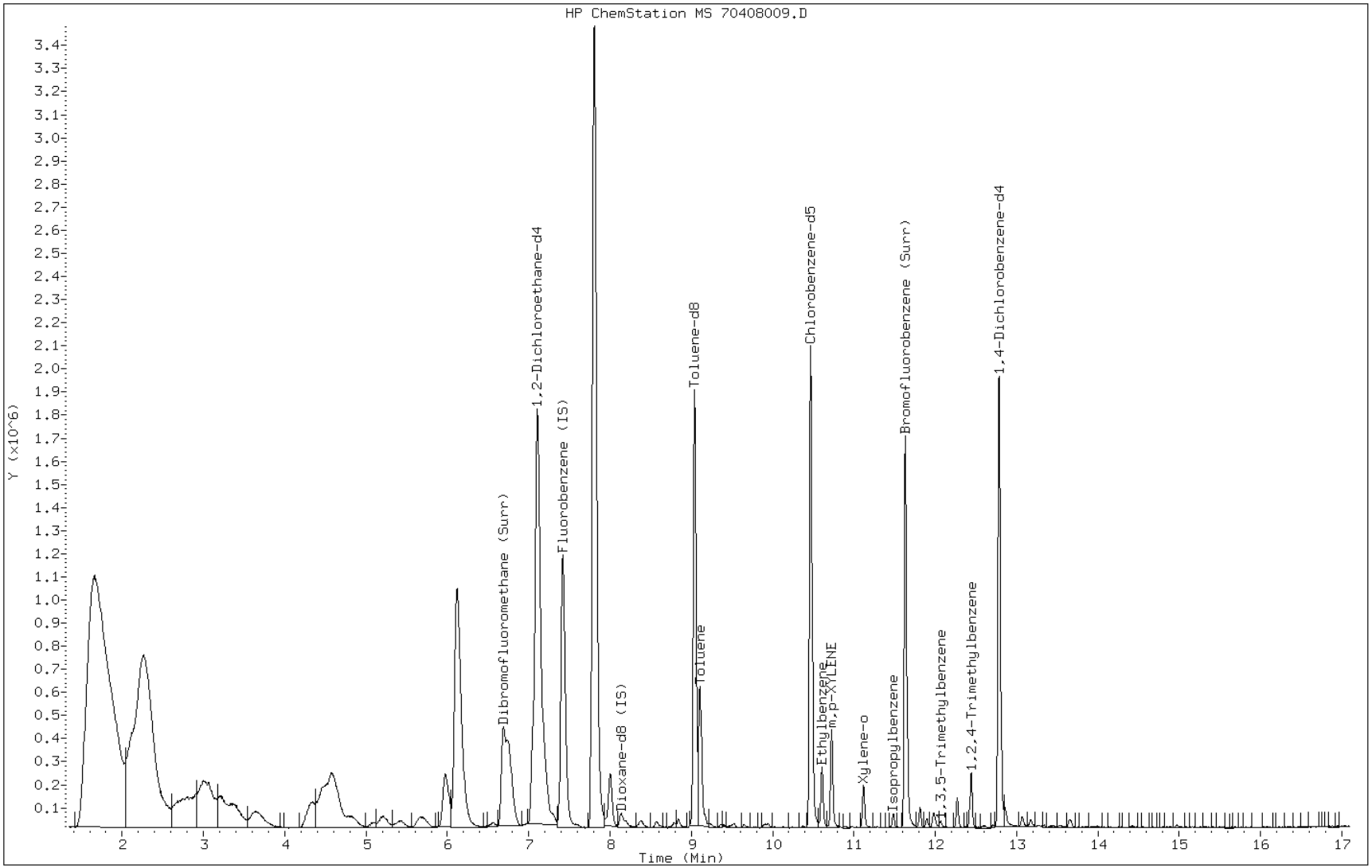
Q - Qualifier signal failed the ratio test.
H - Operator selected an alternate compound hit.

Data File: 70408009.D

Date: 08-APR-2014 12:22

Client ID: HD-MW-160-01-0 Instrument: hp7.i

Sample Info: 180-31007-B-2, 5x Operator: 430936



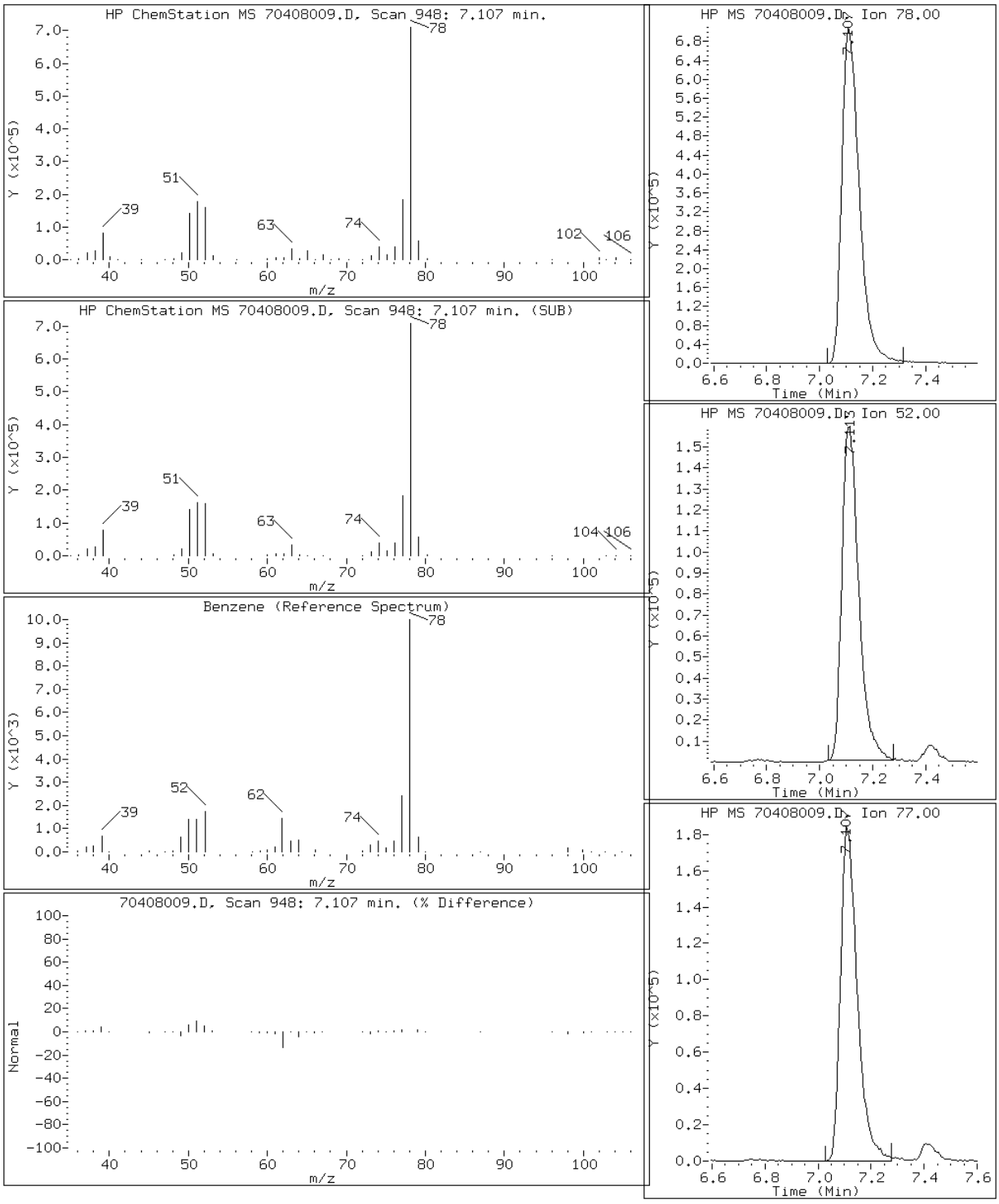
Data File: 70408009.D

Date: 08-APR-2014 12:22

Client ID: HD-MW-160-01-0 Instrument: hp7.i

Sample Info: 180-31007-B-2, 5x Operator: 430936

42 Benzene



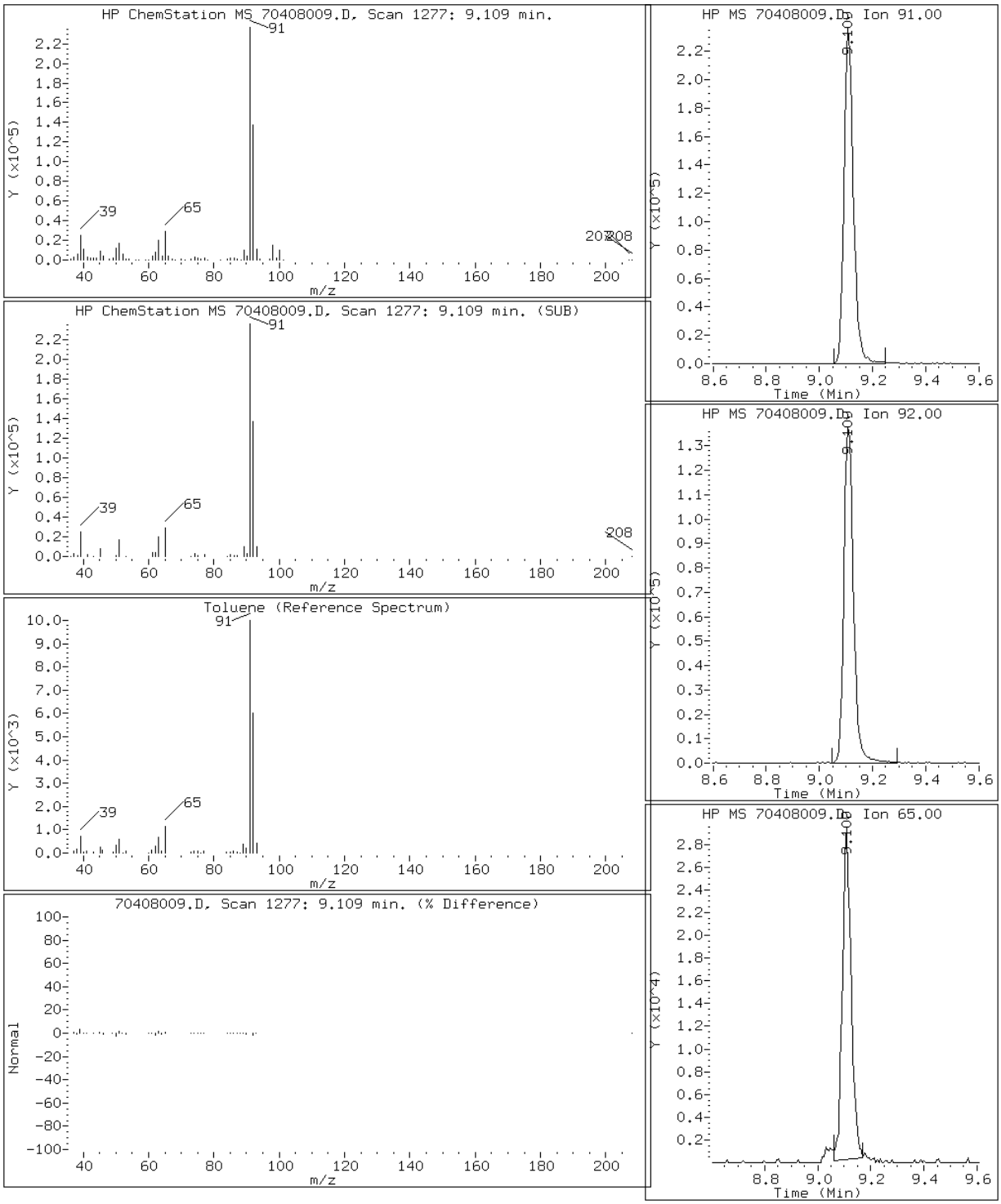
Data File: 70408009.D

Date: 08-APR-2014 12:22

Client ID: HD-MW-160-01-0 Instrument: hp7.i

Sample Info: 180-31007-B-2, 5x Operator: 430936

60 Toluene



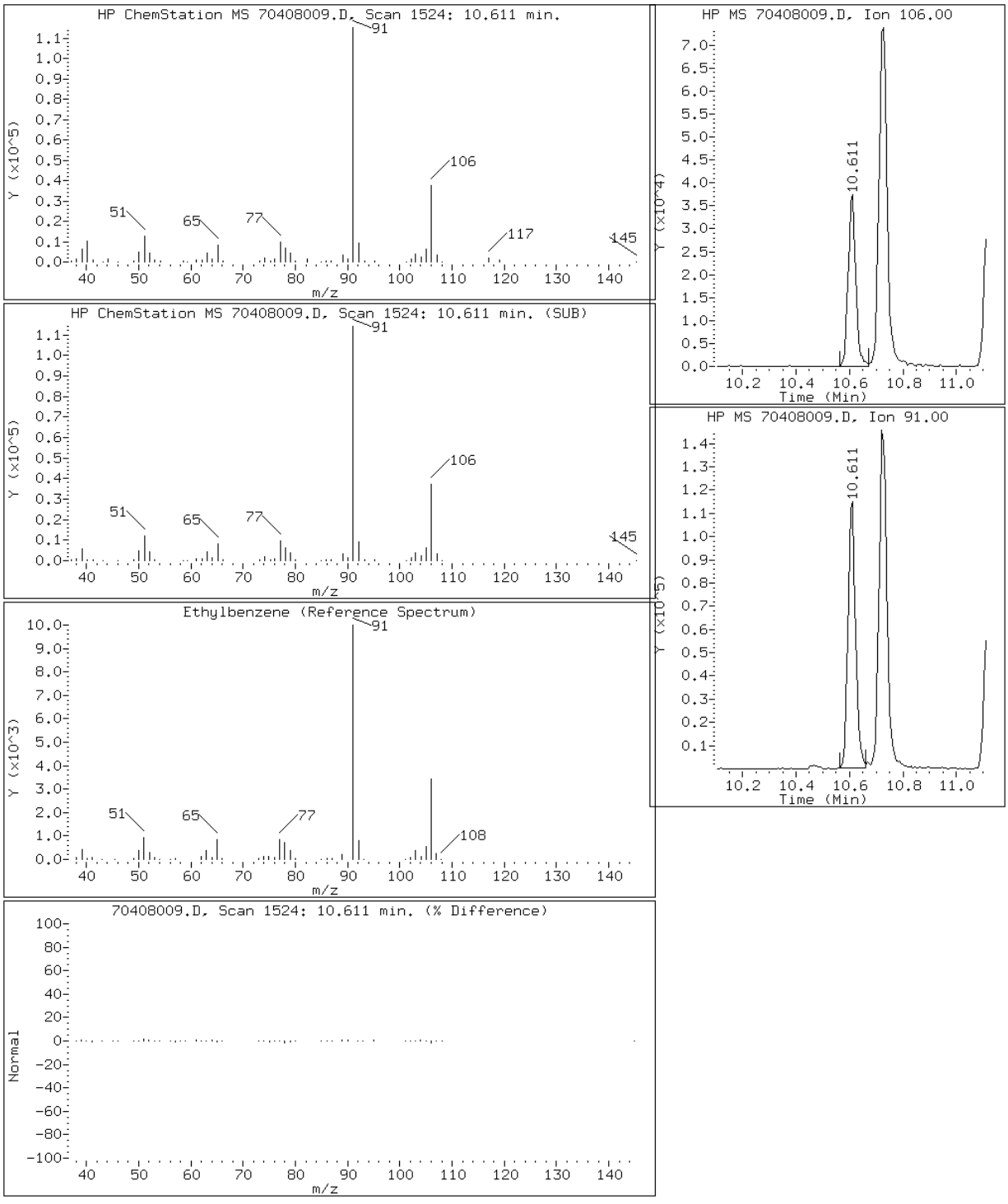
Data File: 70408009.D

Date: 08-APR-2014 12:22

Client ID: HD-MW-160-01-0 Instrument: hp7.i

Sample Info: 180-31007-B-2, 5x Operator: 430936

72 Ethylbenzene



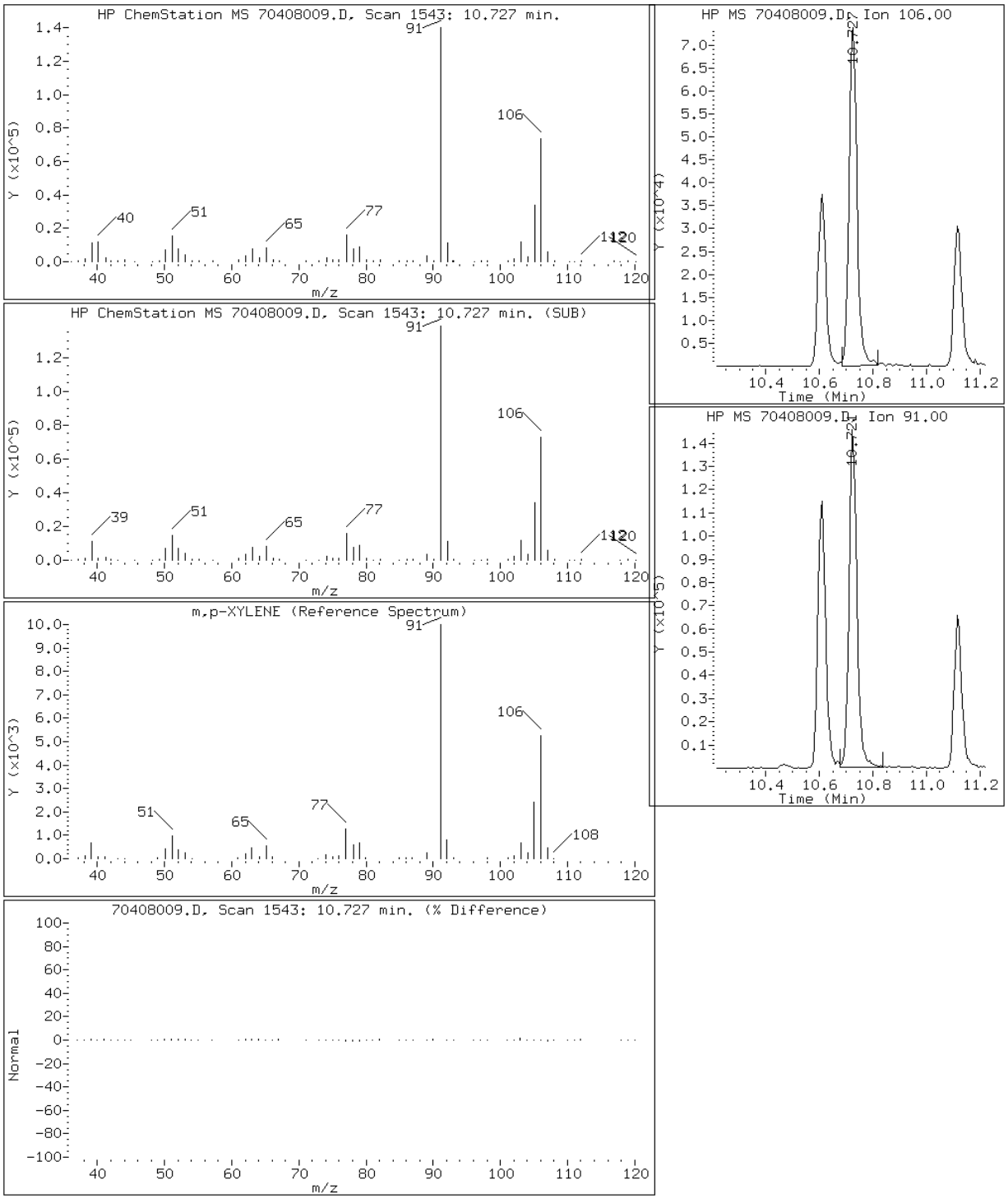
Data File: 70408009.D

Date: 08-APR-2014 12:22

Client ID: HD-MW-160-01-0 Instrument: hp7.i

Sample Info: 180-31007-B-2, 5x Operator: 430936

73 m,p-XYLENE



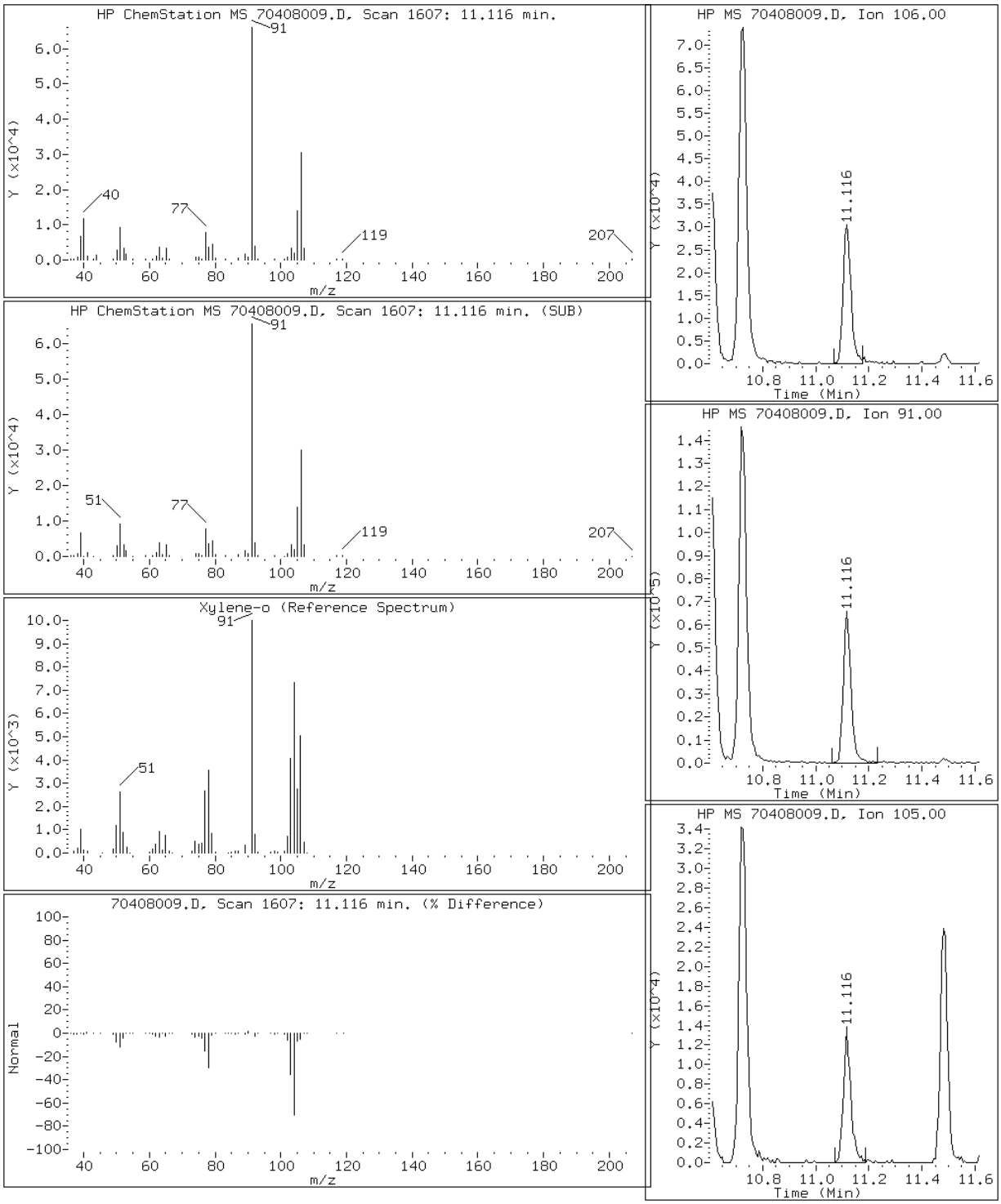
Data File: 70408009.D

Date: 08-APR-2014 12:22

Client ID: HD-MW-160-01-0 Instrument: hp7.i

Sample Info: 180-31007-B-2, 5x Operator: 430936

74 Xylene-o



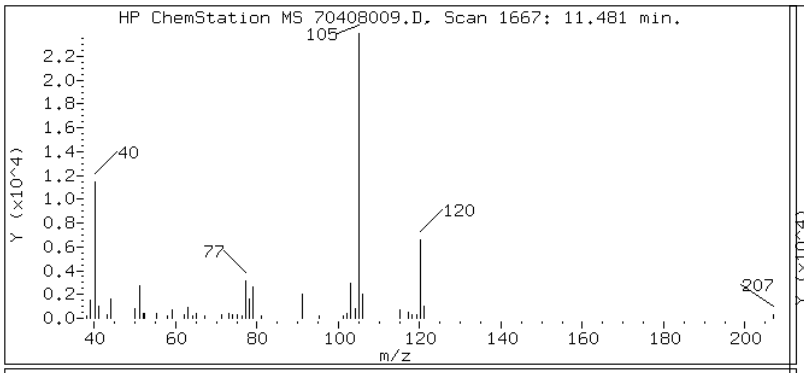
Data File: 70408009.D

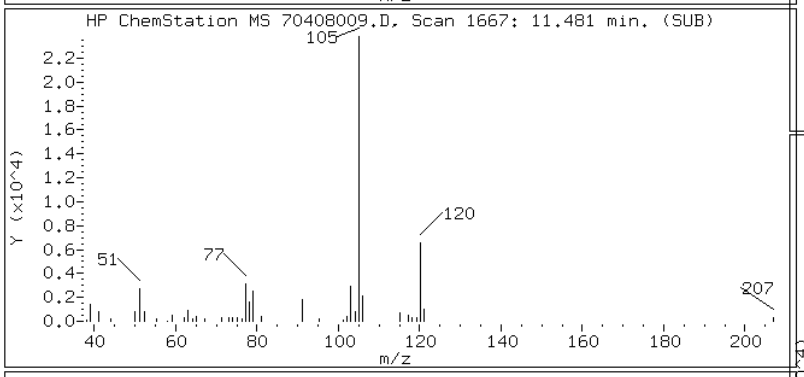
Date: 08-APR-2014 12:22

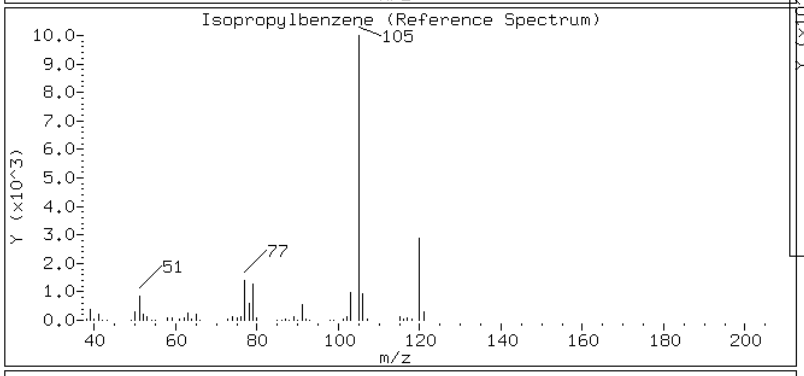
Client ID: HD-MW-160-01-0 Instrument: hp7.i

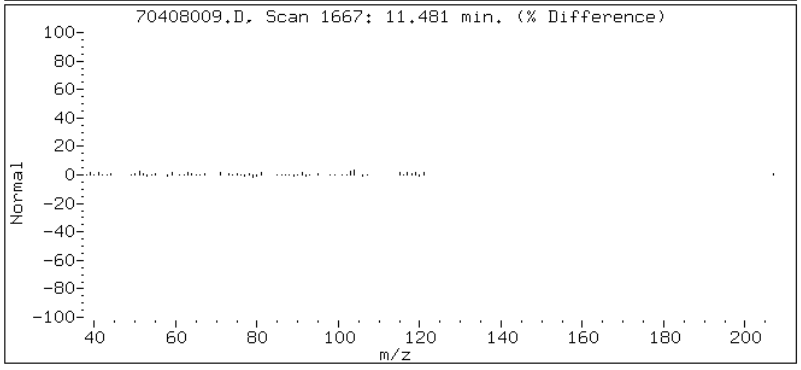
Sample Info: 180-31007-B-2, 5x Operator: 430936

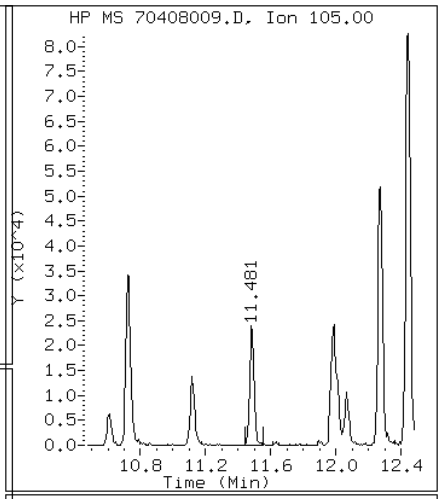
78 Isopropylbenzene

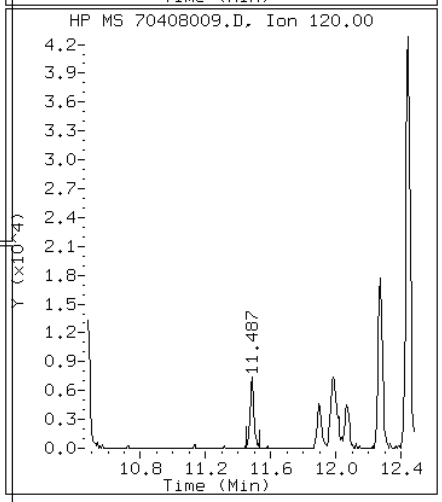












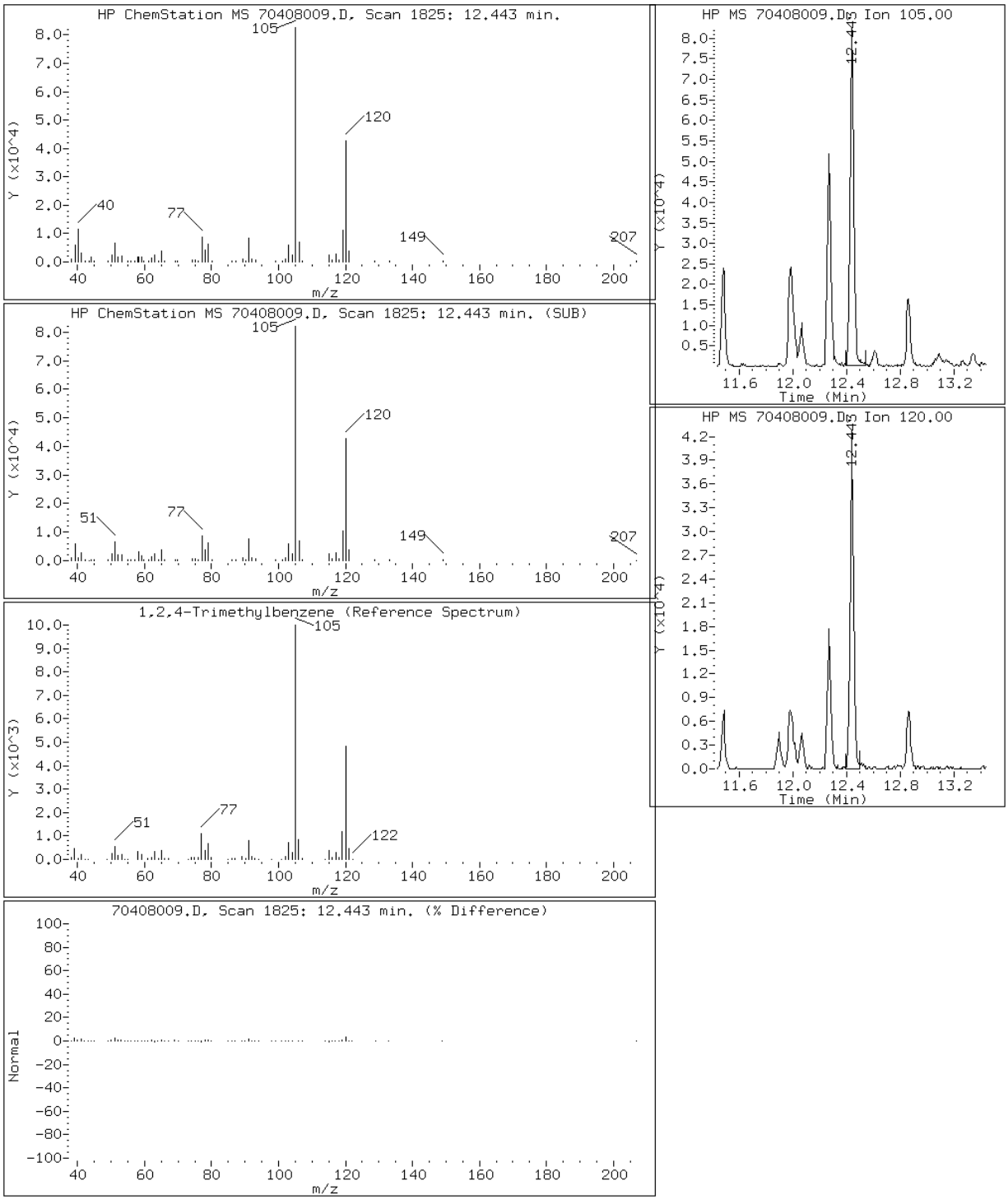
Data File: 70408009.D

Date: 08-APR-2014 12:22

Client ID: HD-MW-160-01-0 Instrument: hp7.i

Sample Info: 180-31007-B-2, 5x Operator: 430936

88 1,2,4-Trimethylbenzene



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh Job No.: 180-31007-1

SDG No.:

Client Sample ID: TRIP BLANK 1 Lab Sample ID: 180-31007-3

Matrix: Water Lab File ID: 70407019.D

Analysis Method: 8260B Date Collected: 03/25/2014 12:00

Sample wt/vol: 5(mL) Date Analyzed: 04/07/2014 07:47

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.: 101826 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	5.0	U	5.0	0.99
108-88-3	Toluene	5.0	U	5.0	0.85
100-41-4	Ethylbenzene	5.0	U	5.0	0.62
1330-20-7	Xylenes, Total	10	U	10	2.0
98-82-8	Isopropylbenzene	5.0	U	5.0	0.53
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	1.0
95-63-6	1,2,4-Trimethylbenzene	5.0	U	5.0	0.52
108-67-8	1,3,5-Trimethylbenzene	5.0	U	5.0	0.59
91-20-3	Naphthalene	5.0	U	5.0	0.47

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		62-123
2037-26-5	Toluene-d8 (Surr)	80		80-120
460-00-4	4-Bromofluorobenzene (Surr)	93		75-120
1868-53-7	Dibromofluoromethane (Surr)	114		80-120

TestAmerica Pittsburgh

VOLATILE REPORT SW-846 Method

Data file : \\pitsvr06\d\chem\hp7.i\7040714d.b\70407019.D
Lab Smp Id: 180-31007-A-3 Client Smp ID: TRIP BLANK 1
Inj Date : 07-APR-2014 07:47 MS Autotune Date: 29-AUG-2013 09:08
Operator : 430936 Inst ID: hp7.i
Smp Info : 180-31007-A-3
Misc Info : 7040714d.b,T8260bh2o.m,list1.sub
Comment :
Method : \\pitsvr06\d\chem\hp7.i\7040714d.b\T8260bh2o.m
Meth Date : 08-Apr-2014 08:41 zukowskim Quant Type: ISTD
Cal Date : 14-MAR-2014 09:40 Cal File: 7031404.D
Als bottle: 8
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: btex.sub
Target Version: 4.14
Processing Host: PITPC-530

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ng)
* 46 Fluorobenzene (IS)	96	7.416	7.397	(1.000)	2219894	250.000	
* 69 Chlorobenzene-d5	119	10.470	10.463	(1.000)	562290	250.000	
* 92 1,4-Dichlorobenzene-d4	152	12.788	12.787	(1.000)	727065	250.000	
* 176 Dioxane-d8 (IS)	96	8.146	8.139	(1.000)	72344	5000.00	
* 177 TBA-d9 (IS)	65	4.587	4.842	(1.000)	1087113	5000.00	(H)
$ 39 Dibromofluoromethane (Surr)	113	6.686	6.673	(0.902)	668147	286.217	286.2
$ 43 1,2-Dichloroethane-d4	65	7.057	7.032	(0.952)	642709	239.041	239.0
$ 59 Toluene-d8	98	9.040	9.033	(0.863)	1744416	199.346	199.3(R)
$ 80 Bromofluorobenzene (Surr)	95	11.632	11.631	(1.111)	733971	231.410	231.4
20 Methyl tert-butyl ether	73	Compound Not Detected.					
42 Benzene	78	Compound Not Detected.					
60 Toluene	91	Compound Not Detected.					
72 Ethylbenzene	106	Compound Not Detected.					
73 m,p-XYLENE	106	Compound Not Detected.					
74 Xylene-o	106	Compound Not Detected.					
78 Isopropylbenzene	105	Compound Not Detected.					
86 1,3,5-Trimethylbenzene	105	Compound Not Detected.					
88 1,2,4-Trimethylbenzene	105	Compound Not Detected.					
99 Naphthalene	128	Compound Not Detected.					
M 75 Xylenes (total)	106	Compound Not Detected.					

QC Flag Legend

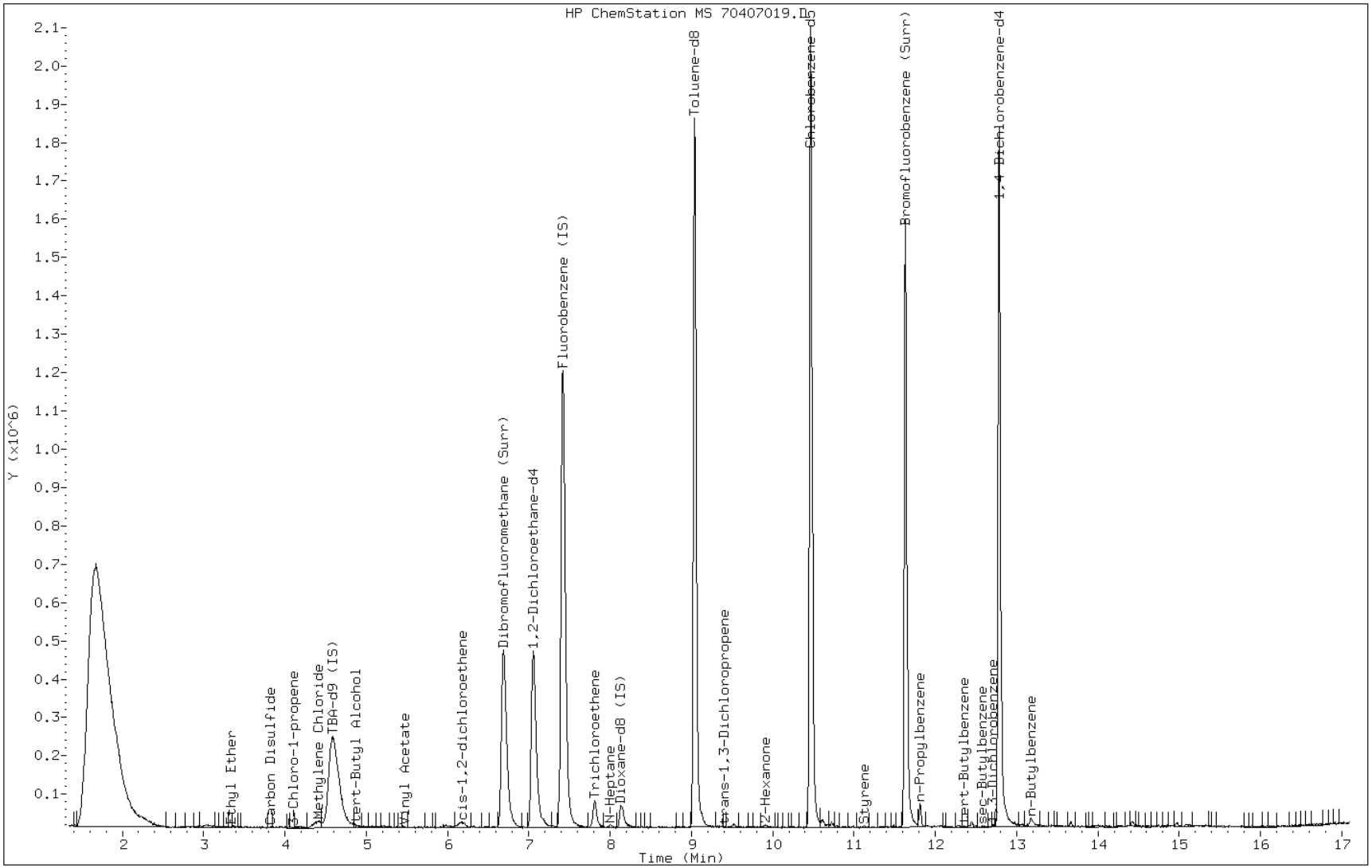
R - Spike/Surrogate failed recovery limits.
H - Operator selected an alternate compound hit.

Data File: 70407019.D

Date: 07-APR-2014 07:47

Client ID: TRIP BLANK 1 Instrument: hp7.i

Sample Info: 180-31007-A-3 Operator: 430936



FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-31007-1 Analy Batch No.: 99778

SDG No.:

Instrument ID: HP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/14/2014 09:40 Calibration End Date: 03/14/2014 17:39 Calibration ID: 14381

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-99778/2	7031417.D
Level 2	IC 180-99778/3	7031404.D
Level 3	IC 180-99778/4	7031405.D
Level 4	ICIS 180-99778/5	7031406.D
Level 5	IC 180-99778/6	7031407.D
Level 6	IC 180-99778/7	7031408.D
Level 7	IC 180-99778/8	7031409.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2921 0.3229	0.3874 0.3081	0.3685	0.3572	0.3452	Ave		0.3402				10.0		15.0			
Chloromethane	0.7705 0.6563	0.8722 0.5755	0.8028	0.7608	0.7292	Ave		0.7382			0.1000	13.2		15.0			
Vinyl chloride	0.4655 0.3913	0.5404 0.3580	0.4899	0.4611	0.4430	Ave		0.4499				13.5		15.0			
1,3-Butadiene	0.4902 0.3922	0.5734 +++++	0.4875	0.4615	0.4506	Ave		0.4759				12.5		15.0			
Bromomethane	0.1380 0.1008	0.1369 0.0968	0.1221	0.1099	0.1117	Ave		0.1166				14.1		15.0			
Chloroethane	0.1155 0.0952	0.1109 0.0873	0.1070	0.0946	0.1017	Ave		0.1017				9.9		15.0			
Dichlorofluoromethane	0.2757 0.2616	0.2593 0.1781	0.2374	0.2245	0.2185	Ave		0.2364				14.0		15.0			
Trichlorofluoromethane	0.2123 0.2821	0.2446 +++++	0.2292	0.2266	0.2043	Ave		0.2332				11.9		15.0			
Ethyl ether	0.3136 0.2232	0.2538 +++++	0.2244	0.2268	0.2229	Ave		0.2441				14.8		15.0			
Acrolein	0.0328 0.0298	0.0317 0.0286	0.0317	0.0326	0.0299	Ave		0.0310				5.2		15.0			
1,1-Dichloroethene	0.3056 0.2683	0.3332 0.2492	0.3012	0.3070	0.2916	Ave		0.2937				9.4		15.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.2795 0.2728	0.3570 0.2576	0.3324	0.3102	0.3125	Ave		0.3031				11.6		15.0			
Iodomethane	0.5725 0.4320	0.5758 0.4121	0.5091	0.4739	0.4756	Ave		0.4930				12.9		15.0			
Acetone	0.1025 0.0535	0.0768 0.0648	0.0693	0.0726	0.0700	Qua	-0.191	20.508	-13.67						0.9943		0.9900

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-31007-1 Analy Batch No.: 99778

SDG No.:

Instrument ID: HP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/14/2014 09:40 Calibration End Date: 03/14/2014 17:39 Calibration ID: 14381

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon disulfide	0.9438 0.8205	1.1114 0.7435	0.9912	0.9329	0.9147	Ave		0.9226				12.8		15.0			
Allyl chloride	0.2907 0.2453	0.2778 +++++	0.2842	0.2702	0.2598	Ave		0.2713				6.2		15.0			
Methyl acetate	0.2543 0.1431	0.1937 0.1407	0.1636	0.1725	0.1681	Qua	-0.463	6.8328	0.1209						0.9991		0.9900
Methylene Chloride	0.4382 +++++	0.3908 +++++	0.3366	0.3249	0.3133	Ave		0.3608				14.6		15.0			
trans-1,2-Dichloroethene	0.3652 0.3021	0.3761 0.2905	0.3310	0.3389	0.3341	Ave		0.3340				9.2		15.0			
Acrylonitrile	0.1278 0.0756	0.0925 0.0722	0.0841	0.0881	0.0861	Qua	-0.591	12.475	0.4345						0.9996		0.9900
tert-Butyl alcohol	1.3002 1.2205	1.1716 1.3061	1.0899	1.2636	1.2157	Ave		1.2240				6.2		15.0			
Methyl tert-butyl ether	0.8463 0.5787	0.7058 0.5585	0.6297	0.6655	0.6471	Ave		0.6617				14.4		15.0			
Hexane	0.4076 0.5326	0.6611 0.4979	0.6112	0.6054	0.5915	Qua	-0.013	1.6715	0.1389						0.9997		0.9900
1,1-Dichloroethane	0.7338 0.5739	0.7297 0.5294	0.6759	0.6667	0.6371	Ave		0.6495			0.1000	11.7		15.0			
Vinyl acetate	0.5990 +++++	0.4506 +++++	0.4352	0.5342	0.5408	Ave		0.5120				13.3		15.0			
2,2-Dichloropropane	0.4200 0.3583	0.4626 0.3289	0.4339	0.4045	0.3988	Ave		0.4010				11.3		15.0			
cis-1,2-Dichloroethene	0.4054 0.3106	0.3760 0.2921	0.3493	0.3488	0.3411	Ave		0.3462				10.9		15.0			
2-Butanone (MEK)	0.1241 0.0790	0.0845 0.0919	0.0808	0.0923	0.0926	Qua	-0.088	13.650	-5.554						0.9977		0.9900
Bromochloromethane	0.1825 0.1327	0.1584 0.1286	0.1475	0.1505	0.1463	Ave		0.1495				11.9		15.0			
Chloroform	0.5920 0.4294	0.5709 0.3908	0.5143	0.5086	0.4915	Ave		0.4996				14.3		15.0			
1,1,1-Trichloroethane	0.4519 0.3816	0.4928 0.3486	0.4505	0.4358	0.4287	Ave		0.4271				11.2		15.0			
Cyclohexane	0.5951 0.5823	0.7671 0.5215	0.6962	0.6786	0.6596	Ave		0.6429				12.8		15.0			
Tetrahydrofuran	0.0790 0.0787	0.1010 0.0748	0.0931	0.0879	0.0868	Ave		0.0859				10.7		15.0			
1,1-Dichloropropene	0.3749 0.3196	0.3922 0.2901	0.3697	0.3617	0.3593	Ave		0.3525				10.0		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-31007-1 Analy Batch No.: 99778

SDG No.:

Instrument ID: HP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/14/2014 09:40 Calibration End Date: 03/14/2014 17:39 Calibration ID: 14381

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Carbon tetrachloride	0.3602 0.3231	0.3798 0.3006	0.3625	0.3540	0.3491	Ave		0.3471				7.7		15.0			
Benzene	1.3180 0.8669	1.2287 +++++	1.1292	1.1045	1.0617	Ave		1.1182				13.8		15.0			
1,2-Dichloroethane	0.4473 +++++	0.3704 +++++	0.3316	0.3368	0.3328	Ave		0.3638				13.6		15.0			
Isobutyl alcohol	0.0069 0.0105	0.0135 0.0094	0.0130	0.0127	0.0121	Qua	-0.046	76.148	26.574						0.9996		0.9900
Trichloroethene	0.3160 0.2658	0.3231 0.2469	0.3079	0.3030	0.2955	Ave		0.2940				9.4		15.0			
Methylcyclohexane	0.3967 0.4745	0.6193 0.4171	0.5818	0.5686	0.5491	Qua	-0.001	1.6536	0.3589						0.9998		0.9900
n-Heptane	0.4522 0.3903	0.5439 0.3378	0.4856	0.4741	0.4579	Ave		0.4488				14.9		15.0			
1,2-Dichloropropane	0.3598 0.2676	0.3270 0.2397	0.2915	0.3000	0.2945	Ave		0.2971				13.1		15.0			
Dibromomethane	0.1798 0.1272	0.1490 0.1269	0.1355	0.1429	0.1381	Ave		0.1428				12.7		15.0			
1,4-Dioxane	1.5993 1.1099	1.1426 1.0201	0.7882	0.9794	1.0928	Qua	0.0656	0.8166	0.0291						0.9982		0.9900
Dichlorobromomethane	0.4052 0.3063	0.3797 0.2844	0.3575	0.3580	0.3497	Ave		0.3487				11.9		15.0			
cis-1,3-Dichloropropene	0.4583 0.3613	0.4404 0.3268	0.4102	0.4266	0.4169	Ave		0.4058				11.4		15.0			
4-Methyl-2-pentanone (MIBK)	1.0793 0.7100	0.8201 +++++	0.7722	0.8509	0.8203	Ave		0.8421				15.0		15.0			
Toluene	4.9836 +++++	4.7340 +++++	4.2006	4.0529	3.7231	Ave		4.3389				11.8		15.0			
trans-1,3-Dichloropropene	1.4420 1.0500	1.3062 0.9088	1.2183	1.2648	1.2100	Ave		1.2000				14.5		15.0			
Ethyl methacrylate	1.1923 0.8031	0.9483 +++++	0.8920	0.9830	0.9319	Ave		0.9584				13.6		15.0			
1,1,2-Trichloroethane	1.0205 0.6276	0.8119 0.5761	0.7174	0.7550	0.7182	Qua	-0.049	1.4153	0.1181						0.9997		0.9900
Tetrachloroethene	0.9440 0.8191	1.0906 0.7075	0.9688	0.9918	0.9286	Ave		0.9215				13.5		15.0			
1,3-Dichloropropane	1.6230 0.9868	1.3220 0.8484	1.1419	1.2122	1.1519	Qua	-0.017	0.7821	0.0946						0.9998		0.9900
2-Hexanone	0.6207 0.4272	0.5018 0.4711	0.5356	0.6067	0.5808	Ave		0.5349				13.5		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-31007-1 Analy Batch No.: 99778

SDG No.:

Instrument ID: HP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/14/2014 09:40 Calibration End Date: 03/14/2014 17:39 Calibration ID: 14381

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Chlorodibromomethane	1.0345 0.7672	0.9153 0.7035	0.8499	0.9056	0.8638	Ave		0.8628				12.4		15.0			
1,2-Dibromoethane	0.9497 0.6390	0.8261 +++++	0.7326	0.7715	0.7425	Ave		0.7769				13.4		15.0			
Chlorobenzene	2.9969 1.9924	2.9260 +++++	2.6512	2.5956	2.4081	Ave		2.5950			0.3000	14.1		15.0			
1,1,1,2-Tetrachloroethane	1.1563 0.8984	1.0908 0.7633	1.0128	1.0464	0.9855	Ave		0.9934				13.1		15.0			
Ethylbenzene	1.5469 1.2375	1.6661 +++++	1.5589	1.5461	1.4436	Ave		1.4999				9.8		15.0			
m-Xylene & p-Xylene	1.9516 1.5728	2.0894 +++++	1.9888	1.9887	1.8375	Ave		1.9048				9.5		15.0			
o-Xylene	2.2516 1.6121	2.2941 +++++	2.1401	2.0875	1.9413	Ave		2.0545				12.2		15.0			
Styrene	3.7109 +++++	3.5276 +++++	3.0954	3.0060	2.7586	Ave		3.2197				12.1		15.0			
Bromoform	0.6304 0.5077	0.5303 0.4836	0.4978	0.5593	0.5353	Ave		0.5349			0.1000	9.2		15.0			
Isopropylbenzene	5.0862 +++++	5.9260 +++++	5.1635	4.7223	4.2667	Ave		5.0329				12.2		15.0			
1,1,2,2-Tetrachloroethane	1.0073 0.6024	0.8052 0.5414	0.6906	0.7489	0.6997	Qua	-0.044	1.4077	0.1695		0.3000				0.9996		0.9900
Bromobenzene	1.1620 0.8093	1.0507 +++++	0.9795	0.9609	0.9184	Ave		0.9802				12.2		15.0			
1,2,3-Trichloropropane	0.2280 0.1452	0.1635 0.1469	0.1479	0.1551	0.1559	Qua	-0.049	7.0275	-0.200						0.9998		0.9900
trans-1,4-Dichloro-2-butene	0.1388 0.1508	0.1356 0.1479	0.1376	0.1513	0.1489	Ave		0.1444				4.7		15.0			
2-Chlorotoluene	0.9382 0.8170	0.9993 0.6764	0.9613	0.9367	0.9078	Ave		0.8910				12.4		15.0			
1,3,5-Trimethylbenzene	3.1560 +++++	3.4668 +++++	3.1379	2.9049	2.6762	Ave		3.0684				9.7		15.0			
N-Propylbenzene	1.5477 1.2580	1.7752 +++++	1.6559	1.5996	1.5121	Ave		1.5581				11.1		15.0			
4-Chlorotoluene	0.9595 0.7786	0.9826 0.6223	0.9283	0.9158	0.8834	Ave		0.8672				14.6		15.0			
tert-Butylbenzene	2.4612 2.0267	3.1697 +++++	2.9159	2.7300	2.5563	Ave		2.6433				14.9		15.0			
1,2,4-Trimethylbenzene	3.2635 +++++	3.4791 +++++	3.0680	2.8379	2.6501	Ave		3.0597				10.8		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-31007-1 Analy Batch No.: 99778

SDG No.:

Instrument ID: HP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/14/2014 09:40 Calibration End Date: 03/14/2014 17:39 Calibration ID: 14381

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
sec-Butylbenzene	3.6113 +++++	4.8421 +++++	4.2738	3.8503	3.5693	Ave		4.0294				13.2		15.0			
1,3-Dichlorobenzene	1.7762 1.2443	1.7876 +++++	1.6342	1.5925	1.5282	Ave		1.5938				12.5		15.0			
4-Isopropyltoluene	2.9618 +++++	3.6967 +++++	3.2546	2.9774	2.7891	Ave		3.1359				11.3		15.0			
1,4-Dichlorobenzene	1.5421 1.1523	1.5500 +++++	1.4537	1.4281	1.3858	Ave		1.4187				10.3		15.0			
n-Butylbenzene	2.4046 2.0268	3.6566 1.3942	3.2636	3.0030	2.7924	Qua	0.1582	0.0094	0.0967						0.9969		0.9900
1,2-Dichlorobenzene	1.4932 0.9633	1.2919 +++++	1.1800	1.1879	1.1546	Ave		1.2118				14.4		15.0			
1,2-Dibromo-3-Chloropropane	0.0550 0.0453	0.0416 0.0797	0.0365	0.0462	0.0555	Qua	-0.043	24.784	-30.40						0.9953		0.9900
1,2,4-Trichlorobenzene	0.4083 0.3232	0.5130 0.4284	0.2755	0.3317	0.4164	Qua	-0.087	3.4217	-0.486						0.9943		0.9900
Hexachlorobutadiene	0.3422 0.2867	0.5815 0.3597	0.3357	0.3504	0.3901	Qua	-0.176	3.8445	-0.532						0.9932		0.9900
Naphthalene	0.5056 0.4374	0.6505 0.6097	0.3272	0.3830	0.5290	Qua	-0.041	2.5606	-0.297						0.9949		0.9900
1,2,3-Trichlorobenzene	0.4072 0.2349	0.4935 0.2974	0.2194	0.2049	0.2603	Qua	-0.132	5.0742	-1.090						0.9965		0.9900
Dibromofluoromethane (Surr)	0.3153 0.2351	0.2868 0.2295	0.2593	0.2603	0.2540	Ave		0.2629				11.3		15.0			
1,2-Dichloroethane-d4 (Surr)	0.3633 0.2669	0.3279 0.2561	0.3009	0.3071	0.2973	Ave		0.3028				11.9		15.0			
Toluene-d8 (Surr)	4.3703 +++++	4.2992 +++++	3.7909	3.6339	3.3589	Ave		3.8906				11.2		15.0			
4-Bromofluorobenzene (Surr)	1.5832 1.1435	1.5646 +++++	1.3902	1.4320	1.3476	Ave		1.4102				11.4		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-31007-1 Analy Batch No.: 99778

SDG No.:

Instrument ID: HP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/14/2014 09:40 Calibration End Date: 03/14/2014 17:39 Calibration ID: 14381

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 180-99778/2	7031417.D
Level 2	IC 180-99778/3	7031404.D
Level 3	IC 180-99778/4	7031405.D
Level 4	ICIS 180-99778/5	7031406.D
Level 5	IC 180-99778/6	7031407.D
Level 6	IC 180-99778/7	7031408.D
Level 7	IC 180-99778/8	7031409.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	64827 1931913	174071 3590601	420063	668355	814798	25.0 625	50.0 1250	125	200	250
Chloromethane	FB	Ave	170982 3926208	391881 6706262	915181	1423671	1721470	25.0 625	50.0 1250	125	200	250
Vinyl chloride	FB	Ave	103306 2341054	242826 4172101	558433	862930	1045868	25.0 625	50.0 1250	125	200	250
1,3-Butadiene	FB	Ave	108786 2346132	257639 +++++	555765	863577	1063789	25.0 625	50.0 +++++	125	200	250
Bromomethane	FB	Ave	30618 603119	61525 1127898	139189	205638	263743	25.0 625	50.0 1250	125	200	250
Chloroethane	FB	Ave	25636 569313	49842 1017086	121922	177037	240076	25.0 625	50.0 1250	125	200	250
Dichlorofluoromethane	FB	Ave	61180 1565135	116524 2075529	270599	420090	515845	25.0 625	50.0 1250	125	200	250
Trichlorofluoromethane	FB	Ave	47107 1687771	109918 +++++	261318	423992	482215	25.0 625	50.0 +++++	125	200	250
Ethyl ether	FB	Ave	69603 1335019	114052 +++++	255748	424411	526198	25.0 625	50.0 +++++	125	200	250
Acrolein	FB	Ave	145578 320385	177859 333088	216657	267015	282249	500 1125	625 1250	750	875	1000
1,1-Dichloroethene	FB	Ave	67815 1605334	149728 2904136	343325	574469	688278	25.0 625	50.0 1250	125	200	250
1,1,2-Trichloro-1,2,2-trifluoroetha ne	FB	Ave	62022 1632027	160400 3001398	378879	580526	737632	25.0 625	50.0 1250	125	200	250
Iodomethane	FB	Ave	127043 2584396	258716 4801998	580330	886760	1122634	25.0 625	50.0 1250	125	200	250
Acetone	FB	Qua	22739 319785	34504 755309	78972	135844	165323	25.0 625	50.0 1250	125	200	250
Carbon disulfide	FB	Ave	209446 4908815	499397 8663696	1129838	1745741	2159301	25.0 625	50.0 1250	125	200	250

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-31007-1 Analy Batch No.: 99778

SDG No.:

Instrument ID: HP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/14/2014 09:40 Calibration End Date: 03/14/2014 17:39 Calibration ID: 14381

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Allyl chloride	FB	Ave	64514 1467431	124811 +++++	323942	505681	613396	25.0 625	50.0 +++++	125	200	250
Methyl acetate	FB	Qua	282146 4279802	435143 8196692	932293	1613554	1984022	125 3125	250 6250	625	1000	1250
Methylene Chloride	FB	Ave	97254 +++++	175594 +++++	383647	608065	739573	25.0 +++++	50.0 +++++	125	200	250
trans-1,2-Dichloroethene	FB	Ave	81039 1807421	169009 3385221	377315	634248	788628	25.0 625	50.0 1250	125	200	250
Acrylonitrile	FB	Qua	283516 4525549	415766 8410246	958403	1648061	2033535	250 6250	500 12500	1250	2000	2500
tert-Butyl alcohol	TBA	Ave	60712 785178	55859 1984890	140278	258298	315188	250 6250	500 12500	1250	2000	2500
Methyl tert-butyl ether	FB	Ave	187818 3462331	317110 6508596	717781	1245367	1527647	25.0 625	50.0 1250	125	200	250
Hexane	FB	Qua	90446 3186565	297031 5801590	696710	1132905	1396234	25.0 625	50.0 1250	125	200	250
1,1-Dichloroethane	FB	Ave	162839 3433437	327847 6169720	770419	1247574	1503844	25.0 625	50.0 1250	125	200	250
Vinyl acetate	FB	Ave	132942 +++++	202442 +++++	496139	999698	1276649	25.0 +++++	50.0 +++++	125	200	250
2,2-Dichloropropane	FB	Ave	93219 2143538	207878 3832129	494654	756870	941433	25.0 625	50.0 1250	125	200	250
cis-1,2-Dichloroethene	FB	Ave	89970 1858486	168927 3404388	398200	652724	805274	25.0 625	50.0 1250	125	200	250
2-Butanone (MEK)	FB	Qua	27546 472489	37956 1071164	92055	172742	218665	25.0 625	50.0 1250	125	200	250
Bromochloromethane	FB	Ave	40502 793637	71176 1498813	168089	281614	345324	25.0 625	50.0 1250	125	200	250
Chloroform	FB	Ave	131374 2568713	256506 4554288	586292	951784	1160160	25.0 625	50.0 1250	125	200	250
1,1,1-Trichloroethane	FB	Ave	100298 2282693	221408 4061758	513564	815472	1012062	25.0 625	50.0 1250	125	200	250
Cyclohexane	FB	Ave	132074 3483884	344685 6076835	793562	1269810	1556953	25.0 625	50.0 1250	125	200	250
Tetrahydrofuran	FB	Ave	35069 941689	90740 1742554	212287	329102	409914	50.0 1250	100 2500	250	400	500
1,1-Dichloropropene	FB	Ave	83203 1912143	176228 3380599	421473	676830	848095	25.0 625	50.0 1250	125	200	250
Carbon tetrachloride	FB	Ave	79947 1933232	170668 3502541	413180	662533	824169	25.0 625	50.0 1250	125	200	250
Benzene	FB	Ave	292500 5186495	552100 +++++	1287191	2066942	2506265	25.0 625	50.0 +++++	125	200	250

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-31007-1 Analy Batch No.: 99778

SDG No.:

Instrument ID: HP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/14/2014 09:40 Calibration End Date: 03/14/2014 17:39 Calibration ID: 14381

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,2-Dichloroethane	FB	Ave	99269 +++++	166419 +++++	377997	630223	785547	25.0 +++++	50.0 +++++	125	200	250
Isobutyl alcohol	FB	Qua	38486 1567648	151092 2724867	370513	595002	713463	625 15625	1250 31250	3125	5000	6250
Trichloroethene	FB	Ave	70129 1590425	145158 2877493	350990	567031	697573	25.0 625	50.0 1250	125	200	250
Methylcyclohexane	FB	Qua	88042 2838757	278259 4860600	663252	1063967	1296168	25.0 625	50.0 1250	125	200	250
n-Heptane	FB	Ave	100353 2335037	244403 3936266	553540	887110	1080854	25.0 625	50.0 1250	125	200	250
1,2-Dichloropropane	FB	Ave	79848 1600706	146934 2793060	332288	561398	695125	25.0 625	50.0 1250	125	200	250
Dibromomethane	FB	Ave	39904 760696	66927 1478480	154508	267494	326076	25.0 625	50.0 1250	125	200	250
1,4-Dioxane	14DD8	Qua	7528 120417	9914 328958	20062	39637	57962	500 12500	1000 25000	2500	4000	5000
Dichlorobromomethane	FB	Ave	89931 1832759	170588 3314400	407524	669944	825550	25.0 625	50.0 1250	125	200	250
cis-1,3-Dichloropropene	FB	Ave	101704 2161346	197861 3808334	467593	798255	984231	25.0 625	50.0 1250	125	200	250
4-Methyl-2-pentanone (MIBK)	CBZ	Ave	60610 1099220	91450 +++++	222599	401665	504786	25.0 625	50.0 +++++	125	200	250
Toluene	CBZ	Ave	279865 +++++	527901 +++++	1210904	1913219	2290969	25.0 +++++	50.0 +++++	125	200	250
trans-1,3-Dichloropropene	CBZ	Ave	80977 1625592	145655 2926940	351199	597049	744564	25.0 625	50.0 1250	125	200	250
Ethyl methacrylate	CBZ	Ave	66953 1243240	105747 +++++	257151	464011	573467	25.0 625	50.0 +++++	125	200	250
1,1,2-Trichloroethane	CBZ	Qua	57308 971579	90533 1855424	206792	356413	441939	25.0 625	50.0 1250	125	200	250
Tetrachloroethene	CBZ	Ave	53012 1268024	121610 2278559	279278	468211	571415	25.0 625	50.0 1250	125	200	250
1,3-Dichloropropane	CBZ	Qua	91145 1527773	147424 2732422	329178	572228	708834	25.0 625	50.0 1250	125	200	250
2-Hexanone	CBZ	Ave	34857 661364	55956 1517318	154404	286418	357366	25.0 625	50.0 1250	125	200	250
Chlorodibromomethane	CBZ	Ave	58095 1187776	102063 2265724	245004	427489	531502	25.0 625	50.0 1250	125	200	250
1,2-Dibromoethane	CBZ	Ave	53330 989231	92123 +++++	211191	364194	456913	25.0 625	50.0 +++++	125	200	250
Chlorobenzene	CBZ	Ave	168295 3084555	326289 +++++	764264	1225269	1481781	25.0 625	50.0 +++++	125	200	250

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-31007-1 Analy Batch No.: 99778

SDG No.:

Instrument ID: HP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/14/2014 09:40 Calibration End Date: 03/14/2014 17:39 Calibration ID: 14381

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,1,1,2-Tetrachloroethane	CBZ	Ave	64935 1390779	121643 2458284	291954	493966	606428	25.0 625	50.0 1250	125	200	250
Ethylbenzene	CBZ	Ave	86870 1915773	185796 +++++	449377	729844	888324	25.0 625	50.0 +++++	125	200	250
m-Xylene & p-Xylene	CBZ	Ave	109597 2434917	232989 +++++	573324	938775	1130705	25.0 625	50.0 +++++	125	200	250
o-Xylene	CBZ	Ave	126442 2495806	255819 +++++	616933	985428	1194559	25.0 625	50.0 +++++	125	200	250
Styrene	CBZ	Ave	208393 +++++	393372 +++++	892312	1419021	1697496	25.0 +++++	50.0 +++++	125	200	250
Bromoform	CBZ	Ave	35401 785981	59131 1557534	143499	264000	329416	25.0 625	50.0 1250	125	200	250
Isopropylbenzene	CBZ	Ave	285623 +++++	660827 +++++	1488468	2229186	2625449	25.0 +++++	50.0 +++++	125	200	250
1,1,2,2-Tetrachloroethane	CBZ	Qua	56569 932593	89795 1743587	199091	353533	430562	25.0 625	50.0 1250	125	200	250
Bromobenzene	DCB	Ave	85656 1524144	158217 +++++	366946	592207	724090	25.0 625	50.0 +++++	125	200	250
1,2,3-Trichloropropane	DCB	Qua	16807 273350	24622 571053	55398	95592	122903	25.0 625	50.0 1250	125	200	250
trans-1,4-Dichloro-2-butene	DCB	Ave	10228 284005	20426 575034	51554	93222	117363	25.0 625	50.0 1250	125	200	250
2-Chlorotoluene	DCB	Ave	69162 1538534	150479 2629667	360112	577259	715707	25.0 625	50.0 1250	125	200	250
1,3,5-Trimethylbenzene	DCB	Ave	232642 +++++	522036 +++++	1175516	1790254	2109968	25.0 +++++	50.0 +++++	125	200	250
N-Propylbenzene	DCB	Ave	114087 2369093	267312 +++++	620349	985787	1192147	25.0 625	50.0 +++++	125	200	250
4-Chlorotoluene	DCB	Ave	70727 1466334	147960 2419448	347761	564391	696451	25.0 625	50.0 1250	125	200	250
tert-Butylbenzene	DCB	Ave	181423 3816668	477287 +++++	1092351	1682489	2015457	25.0 625	50.0 +++++	125	200	250
1,2,4-Trimethylbenzene	DCB	Ave	240566 +++++	523877 +++++	1149353	1748969	2089384	25.0 +++++	50.0 +++++	125	200	250
sec-Butylbenzene	DCB	Ave	266207 +++++	729126 +++++	1601055	2372885	2814098	25.0 +++++	50.0 +++++	125	200	250
1,3-Dichlorobenzene	DCB	Ave	130934 2343233	269174 +++++	612198	981430	1204833	25.0 625	50.0 +++++	125	200	250
4-Isopropyltoluene	DCB	Ave	218328 +++++	556647 +++++	1219239	1834942	2198978	25.0 +++++	50.0 +++++	125	200	250
1,4-Dichlorobenzene	DCB	Ave	113674 2170030	233393 +++++	544576	880146	1092559	25.0 625	50.0 +++++	125	200	250

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Pittsburgh Job No.: 180-31007-1 Analy Batch No.: 99778

SDG No.:

Instrument ID: HP7 GC Column: DB-624 ID: 0.18(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/14/2014 09:40 Calibration End Date: 03/14/2014 17:39 Calibration ID: 14381

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
n-Butylbenzene	DCB	Qua	177253 3816880	550616 5420165	1222593	1850707	2201612	25.0 625	50.0 1250	125	200	250
1,2-Dichlorobenzene	DCB	Ave	110072 1814054	194528 +++++	442044	732100	910332	25.0 625	50.0 +++++	125	200	250
1,2-Dibromo-3-Chloropropane	DCB	Qua	4051 85234	6267 309999	13660	28495	43795	25.0 625	50.0 1250	125	200	250
1,2,4-Trichlorobenzene	DCB	Qua	30100 608708	77242 1665543	103210	204444	328309	25.0 625	50.0 1250	125	200	250
Hexachlorobutadiene	DCB	Qua	25228 539962	87566 1398181	125765	215924	307573	25.0 625	50.0 1250	125	200	250
Naphthalene	DCB	Qua	37268 823753	97953 2370174	122565	236066	417080	25.0 625	50.0 1250	125	200	250
1,2,3-Trichlorobenzene	DCB	Qua	30016 442411	74304 1156298	82196	126297	205223	25.0 625	50.0 1250	125	200	250
Dibromofluoromethane (Surr)	FB	Ave	69982 1406363	128863 2673834	295588	487137	599563	25.0 625	50.0 1250	125	200	250
1,2-Dichloroethane-d4 (Surr)	FB	Ave	80636 1596897	147346 2984021	343050	574680	701701	25.0 625	50.0 1250	125	200	250
Toluene-d8 (Surr)	CBZ	Ave	245424 +++++	479411 +++++	1092816	1715396	2066869	25.0 +++++	50.0 +++++	125	200	250
4-Bromofluorobenzene (Surr)	CBZ	Ave	88908 1770255	174471 +++++	400755	676012	829231	25.0 625	50.0 +++++	125	200	250

Curve Type Legend:

Ave = Average ISTD
Qua = Quadratic ISTD

TestAmerica Pittsburgh

VOLATILE REPORT SW-846 Method

Data file : \\pitsvr06\d\chem\hp7.i\7031414d.b\7031417.D
Lab Smp Id: IC Client Smp ID: IC 5
Inj Date : 14-MAR-2014 17:39 MS Autotune Date: 29-AUG-2013 09:08
Operator : 430936 Inst ID: hp7.i
Smp Info : IC, vtsd5
Misc Info : 7031414d.b,T8260bh2o.m,list1.sub
Comment :
Method : \\pitsvr06\d\chem\hp7.i\7031414d.b\T8260bh2o.m
Meth Date : 17-Mar-2014 03:24 zukowskim Quant Type: ISTD
Cal Date : 14-MAR-2014 09:40 Cal File: 7031404.D
Als bottle: 7 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: list1.sub
Target Version: 4.14
Processing Host: PITPC-530

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

		QUANT SIG					AMOUNTS	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng)	ON-COL (ng)
*	46 Fluorobenzene (IS)	96	7.411	7.410	(1.000)	2219244	250.000	
*	69 Chlorobenzene-d5	119	10.465	10.470	(1.000)	561567	250.000	
*	92 1,4-Dichlorobenzene-d4	152	12.789	12.788	(1.000)	737141	250.000	
*	176 Dioxane-d8 (IS)	96	8.147	8.140	(1.000)	47070	5000.00	
*	177 TBA-d9 (IS)	65	4.710	4.715	(1.000)	933886	5000.00	
$	39 Dibromofluoromethane (Surr)	113	6.687	6.680	(0.902)	69982	25.0000	29.99
$	43 1,2-Dichloroethane-d4	65	7.052	7.057	(0.952)	80636	25.0000	30.00
$	59 Toluene-d8	98	9.042	9.041	(0.864)	245424	25.0000	28.08
$	80 Bromofluorobenzene (Surr)	95	11.633	11.633	(1.112)	88908	25.0000	28.07
	1 Dichlorodifluoromethane	85	1.948	1.960	(0.263)	64827	25.0000	21.47(QM)
	2 Chloromethane	50	2.046	2.020	(0.276)	170982	25.0000	26.09
	3 Vinyl Chloride	62	2.161	2.166	(0.292)	103306	25.0000	25.87
	4 Bromomethane	94	2.484	2.495	(0.335)	30618	25.0000	29.58(M)
	5 Chloroethane	64	2.599	2.610	(0.351)	25636	25.0000	28.39(M)
	7 Dichlorofluoromethane	67	2.922	2.921	(0.394)	61180	25.0000	29.15(M)
	10 1,1,2-trichloro-1,2,2-trifluor	101	3.725	3.718	(0.503)	62022	25.0000	23.05(QM)
	166 Trichlorofluoromethane	101	2.934	2.970	(0.396)	47107	25.0000	22.76(M)
	12 1,1-Dichloroethene	96	3.615	3.590	(0.488)	67815	25.0000	26.01(QM)
	15 Carbon Disulfide	76	3.913	3.888	(0.528)	209446	25.0000	25.57(M)
	13 Acetone	43	3.804	3.822	(0.513)	22739	25.0000	4.463(QM)
	18 Methylene Chloride	84	4.388	4.387	(0.592)	97254	25.0000	30.37(QM)
	19 trans-1,2-Dichloroethene	96	4.783	4.788	(0.645)	81039	25.0000	27.33(QM)
	20 Methyl tert-butyl ether	73	4.868	4.861	(0.657)	187818	25.0000	31.98
	24 1,1-Dichloroethane	63	5.379	5.372	(0.726)	162839	25.0000	28.24
	27 2,2-Dichloropropane	77	6.115	6.096	(0.825)	93219	25.0000	26.19
	28 cis-1,2-dichloroethene	96	6.115	6.115	(0.825)	89970	25.0000	29.28
M	29 1,2-Dichloroethene (total)	96				171009	50.0000	56.61
	30 Bromochloromethane	128	6.401	6.388	(0.864)	40502	25.0000	30.52

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
31 2-Butanone	43	6.213	6.200	(0.838)	27546	25.0000	20.23
37 Chloroform	83	6.511	6.504	(0.879)	131374	25.0000	29.62
38 1,1,1-Trichloroethane	97	6.699	6.686	(0.904)	100298	25.0000	26.45
40 1,1-Dichloropropene	75	6.870	6.881	(0.927)	83203	25.0000	26.59
41 Carbon Tetrachloride	117	6.876	6.875	(0.928)	79947	25.0000	25.95
42 Benzene	78	7.101	7.101	(0.958)	292500	25.0000	29.47
45 1,2-Dichloroethane	62	7.137	7.131	(0.963)	99269	25.0000	30.74
47 Trichloroethene	130	7.813	7.794	(1.054)	70129	25.0000	26.87
49 1,2-Dichloropropane	63	8.032	8.037	(1.084)	79848	25.0000	30.27(Q)
50 Dibromomethane	93	8.153	8.153	(1.100)	39904	25.0000	31.48
53 Bromodichloromethane	83	8.324	8.317	(1.123)	89931	25.0000	29.05
57 cis-1,3-Dichloropropene	75	8.774	8.779	(1.184)	101704	25.0000	28.23
58 4-Methyl-2-Pentanone	43	8.938	8.938	(0.854)	60610	25.0000	32.04(Q)
60 Toluene	91	9.108	9.108	(0.870)	279865	25.0000	28.72
61 trans-1,3-Dichloropropene	75	9.327	9.333	(0.891)	80977	25.0000	30.04
63 1,3-Dichloropropane	76	9.674	9.674	(0.924)	91145	25.0000	28.14
64 1,1,2-Trichloroethane	97	9.510	9.510	(0.909)	57308	25.0000	24.08
65 Tetrachloroethene	164	9.650	9.649	(0.922)	53012	25.0000	25.61
66 2-Hexanone	43	9.772	9.771	(0.934)	34857	25.0000	29.01
67 Dibromochloromethane	129	9.899	9.898	(0.946)	58095	25.0000	29.97
68 1,2-Dibromoethane	107	10.015	10.015	(0.957)	53330	25.0000	30.56
70 Chlorobenzene	112	10.502	10.495	(1.003)	168295	25.0000	28.87
71 1,1,1,2-Tetrachloroethane	131	10.575	10.580	(1.010)	64935	25.0000	29.10(Q)
72 Ethylbenzene	106	10.605	10.605	(1.013)	86870	25.0000	25.78
73 m,p-XYLENE	106	10.727	10.720	(1.025)	109597	25.0000	25.61
74 Xylene-o	106	11.116	11.116	(1.062)	126442	25.0000	27.40
76 Styrene	104	11.134	11.128	(1.064)	208393	25.0000	28.81
77 Bromoform	173	11.323	11.316	(1.082)	35401	25.0000	29.46
78 Isopropylbenzene	105	11.481	11.481	(1.097)	285623	25.0000	25.26
79 Bromobenzene	156	11.791	11.791	(0.922)	85656	25.0000	29.64
81 n-Propylbenzene	120	12.065	12.065	(0.943)	114087	25.0000	24.83(Q)
82 2-Chlorotoluene	126	11.974	11.979	(0.936)	69162	25.0000	26.33
83 1,1,2,2-Tetrachloroethane	83	11.773	11.773	(1.125)	56569	25.0000	24.79
84 1,2,3-Trichloropropane	110	11.828	11.821	(0.925)	16807	25.0000	27.71(Q)
85 4-Chlorotoluene	126	12.083	12.089	(0.945)	70727	25.0000	27.66
86 1,3,5-Trimethylbenzene	105	12.065	12.065	(0.943)	232642	25.0000	25.71
87 tert-Butylbenzene	119	12.387	12.387	(0.969)	181423	25.0000	23.28
88 1,2,4-Trimethylbenzene	105	12.436	12.436	(0.972)	240566	25.0000	26.66
89 sec-Butylbenzene	105	12.606	12.606	(0.986)	266207	25.0000	22.41
90 4-Isopropyltoluene	119	12.752	12.752	(0.997)	218328	25.0000	23.61
91 1,3-Dichlorobenzene	146	12.728	12.722	(0.995)	130934	25.0000	27.86
94 n-Butylbenzene	91	13.166	13.166	(1.029)	177253	25.0000	41.52
93 1,4-Dichlorobenzene	146	12.813	12.813	(1.002)	113674	25.0000	27.18
95 1,2-Dichlorobenzene	146	13.190	13.190	(1.031)	110072	25.0000	30.80
96 1,2-Dibromo-3-chloropropane	157	13.993	13.981	(1.094)	4051	25.0000	22.99(M)
97 1,2,4-Trichlorobenzene	180	14.815	14.808	(1.158)	30100	25.0000	13.08
98 Hexachlorobutadiene	225	14.973	14.973	(1.171)	25228	25.0000	-11.29
99 Naphthalene	128	15.064	15.064	(1.178)	37268	25.0000	21.85
100 1,2,3-Trichlorobenzene	180	15.320	15.307	(1.198)	30016	25.0000	18.10
156 Methyl Acetate	43	4.339	4.314	(0.585)	282146	125.000	101.8
157 Cyclohexane	56	6.748	6.741	(0.911)	132074	25.0000	23.14
158 Methyl Cyclohexane	83	7.995	7.995	(1.079)	88042	25.0000	16.30
32 Vinyl Acetate	43	5.501	5.513	(0.742)	132942	25.0000	29.25
52 1,4-Dioxane	88	8.202	8.202	(1.007)	7528	500.000	984.9

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
21	tert-Butyl Alcohol	59	4.795	4.825	(1.018)	60712	250.000	265.6(QM)
16	3-Chloro-1-propene	76	4.199	4.168	(0.567)	64514	25.0000	26.78(QM)
11	Acrolein	56	3.548	3.505	(0.479)	145578	500.000	529.0
22	Acrylonitrile	53	4.807	4.819	(0.649)	283516	250.000	252.3
8	Ethyl Ether	59	3.384	3.377	(0.457)	69603	25.0000	32.12(M)
62	Ethyl methacrylate	69	9.425	9.424	(0.901)	66953	25.0000	31.10
23	Hexane	57	5.197	5.178	(0.701)	90446	25.0000	13.93(M)
14	Iodomethane	142	3.846	3.791	(0.519)	127043	25.0000	29.03(M)
44	Isobutanol	41	7.411	7.411	(1.000)	38486	625.000	320.7
155	N-Heptane	41	8.019	7.994	(1.082)	100353	25.0000	25.19
35	Tetrahydrofuran	42	6.760	6.747	(0.912)	35069	50.0000	45.99
164	trans-1,4-Dichloro-2-butene	53	11.846	11.833	(0.926)	10228	25.0000	24.02
169	Butadiene	39	2.179	2.197	(0.294)	108786	25.0000	25.75(QM)
M 75	Xylenes (total)	106				236039	50.0000	53.01

QC Flag Legend

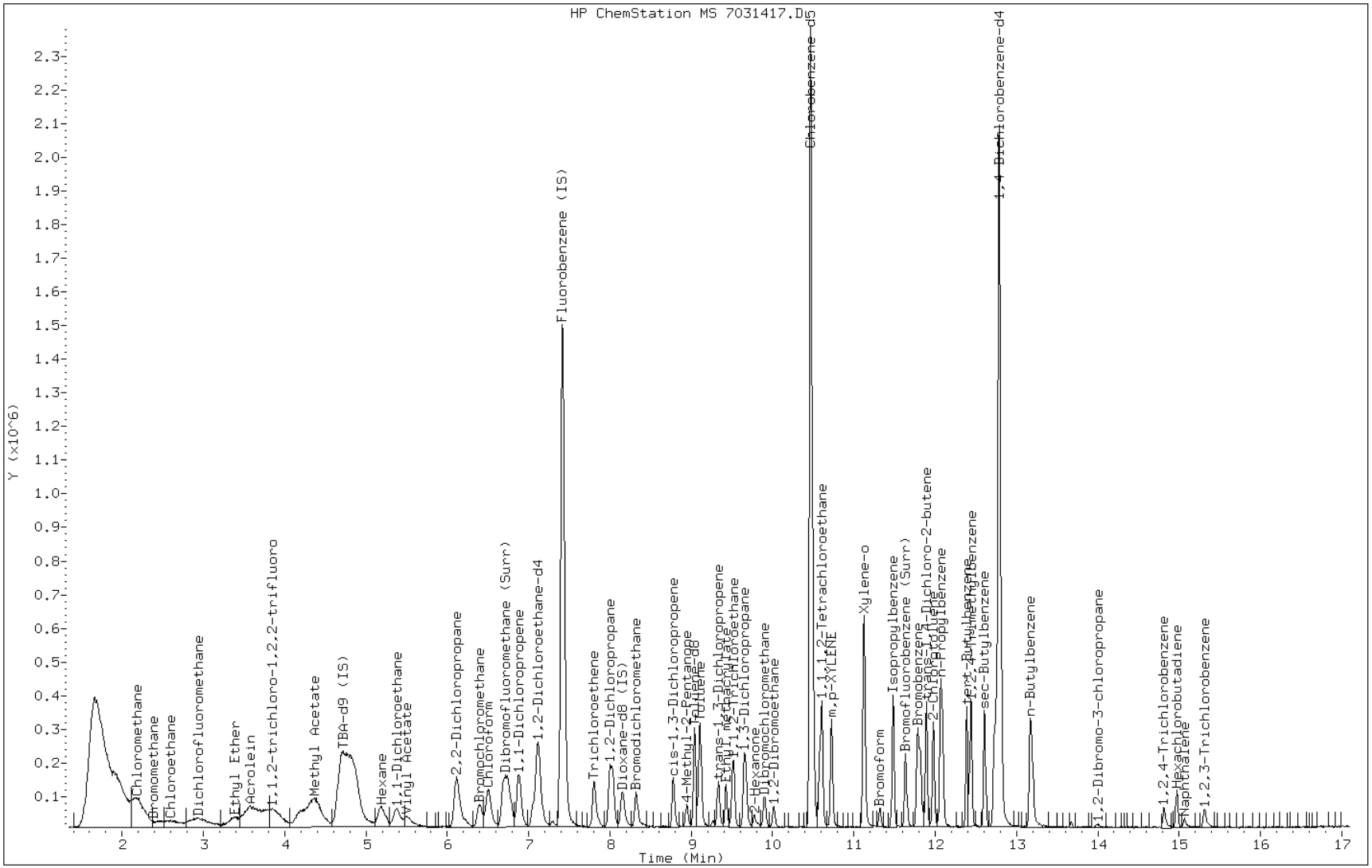
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: 7031417.D

Date: 14-MAR-2014 17:39

Client ID: IC 5 Instrument: hp7.i

Sample Info: IC, vtsd5 Operator: 430936



Manual Integration Report

Data File: 7031417.D
Inj. Date and Time: 14-MAR-2014 17:39
Instrument ID: hp7.i
Client ID: IC 5
Compound: 1 Dichlorodifluoromethane
CAS #: 75-71-8
Report Date: 03/17/2014

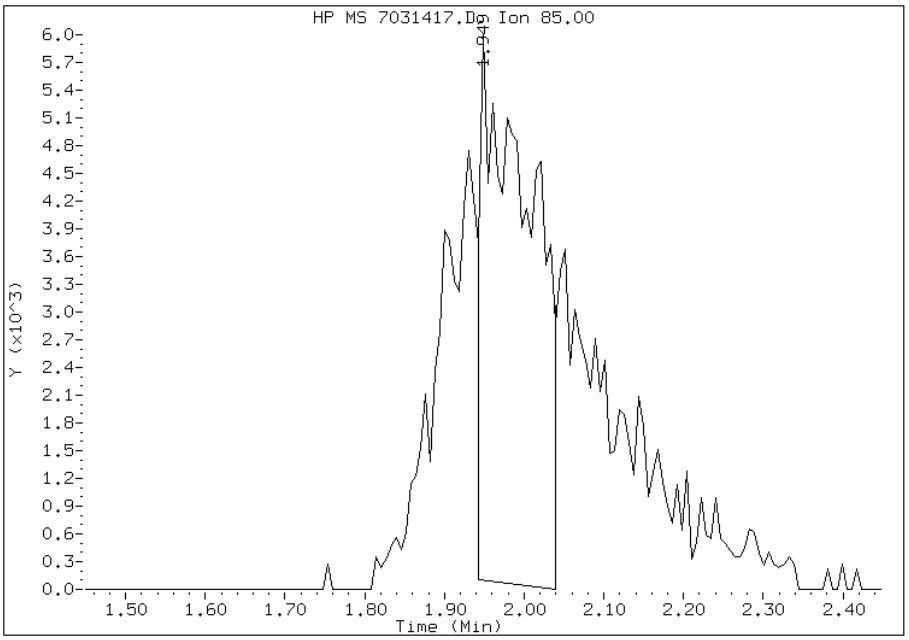
Processing Integration Results

RT: 1.95

Response: 26723

Amount: 9

Conc: 9



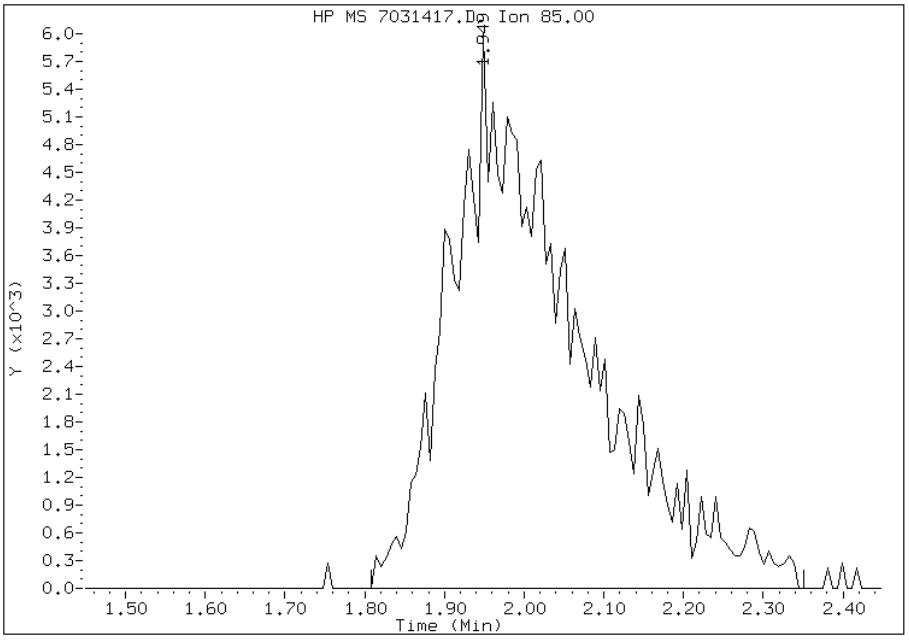
Manual Integration Results

RT: 1.95

Response: 64827

Amount: 21

Conc: 21



Manually Integrated By: zukowskim
Modification Date: 16-Mar-2014 22:26
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031417.D
Inj. Date and Time: 14-MAR-2014 17:39
Instrument ID: hp7.i
Client ID: IC 5
Compound: 169 Butadiene
CAS #: 106-99-0
Report Date: 03/17/2014

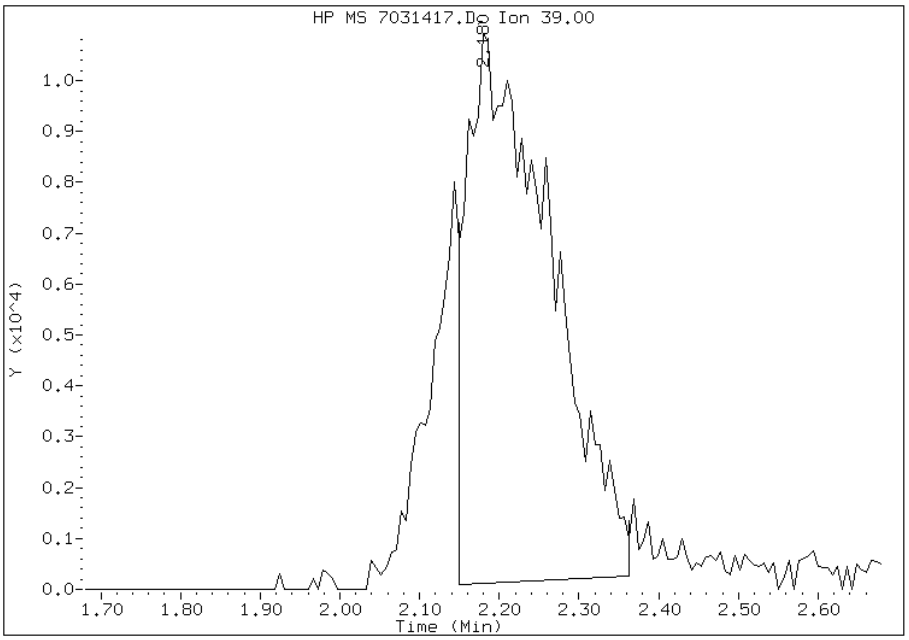
Processing Integration Results

RT: 2.18

Response: 80217

Amount: 20

Conc: 20



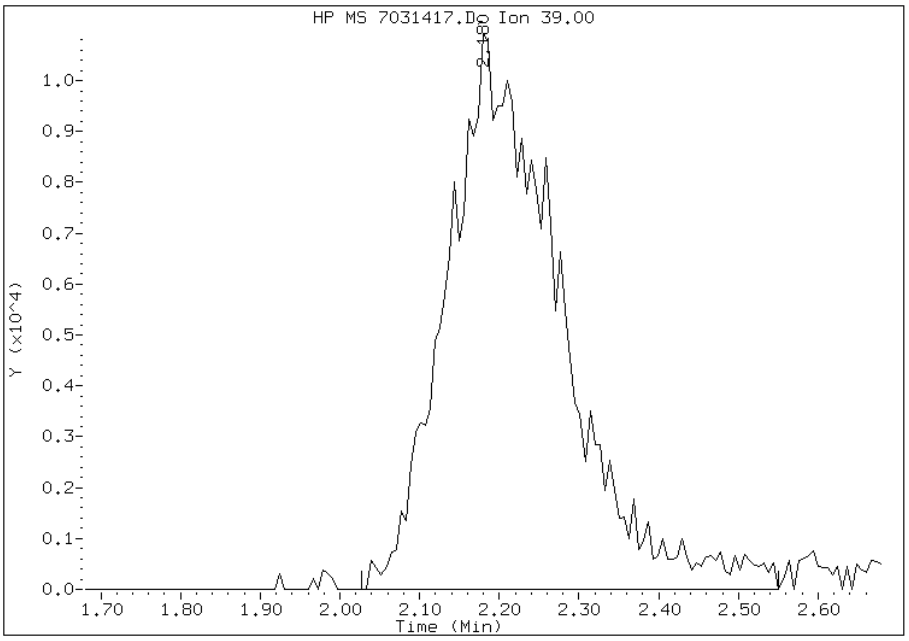
Manual Integration Results

RT: 2.18

Response: 108786

Amount: 26

Conc: 26



Manually Integrated By: zukowskim
Modification Date: 16-Mar-2014 22:29
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031417.D
Inj. Date and Time: 14-MAR-2014 17:39
Instrument ID: hp7.i
Client ID: IC 5
Compound: 4 Bromomethane
CAS #: 74-83-9
Report Date: 03/17/2014

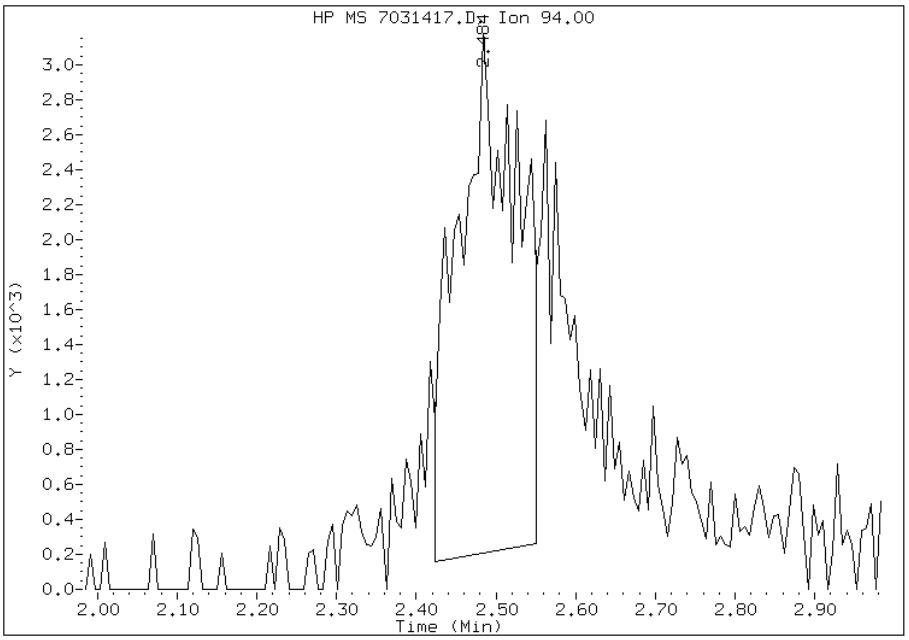
Processing Integration Results

RT: 2.48

Response: 15840

Amount: 17

Conc: 17



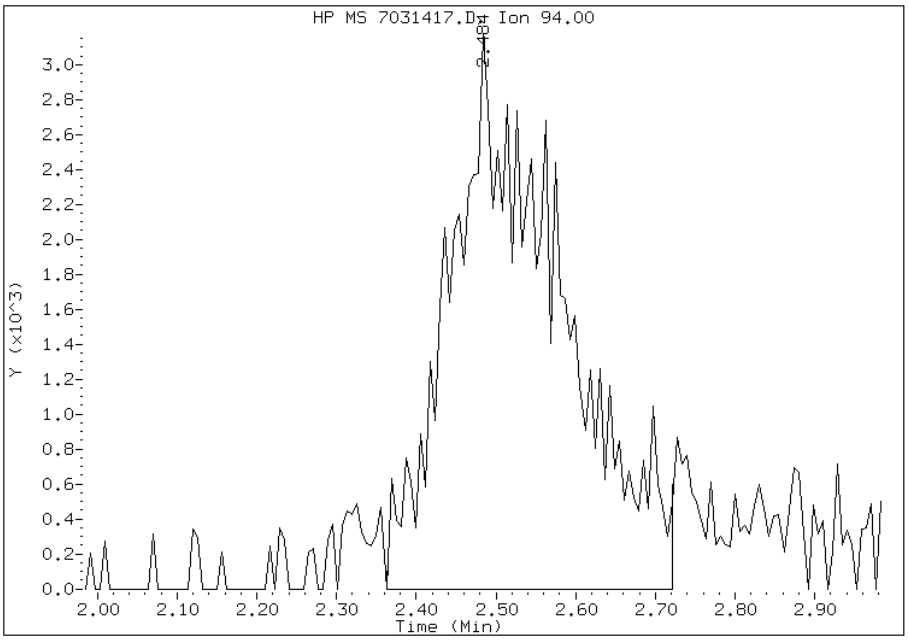
Manual Integration Results

RT: 2.48

Response: 30618

Amount: 30

Conc: 30



Manually Integrated By: zukowskim
Modification Date: 16-Mar-2014 22:27
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031417.D
Inj. Date and Time: 14-MAR-2014 17:39
Instrument ID: hp7.i
Client ID: IC 5
Compound: 5 Chloroethane
CAS #: 75-00-3
Report Date: 03/17/2014

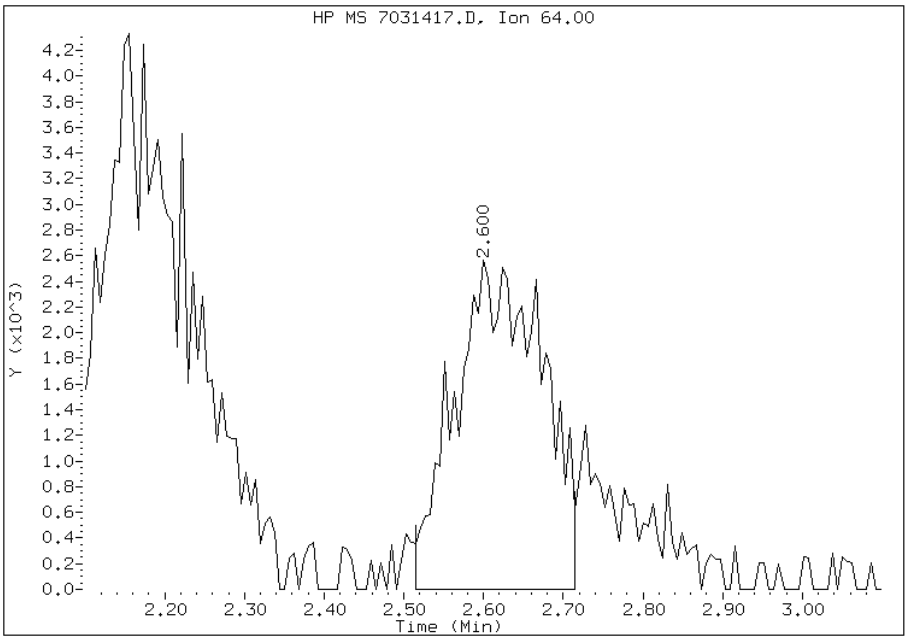
Processing Integration Results

RT: 2.60

Response: 19881

Amount: 23

Conc: 23



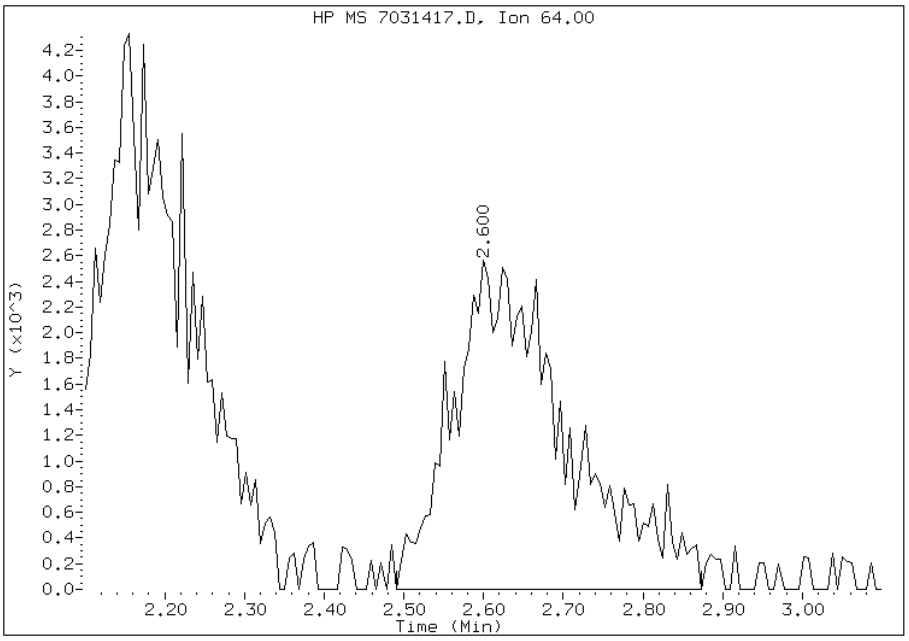
Manual Integration Results

RT: 2.60

Response: 25636

Amount: 28

Conc: 28



Manually Integrated By: zukowskim
Modification Date: 16-Mar-2014 22:27
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031417.D
Inj. Date and Time: 14-MAR-2014 17:39
Instrument ID: hp7.i
Client ID: IC 5
Compound: 7 Dichlorofluoromethane
CAS #: 75-43-4
Report Date: 03/17/2014

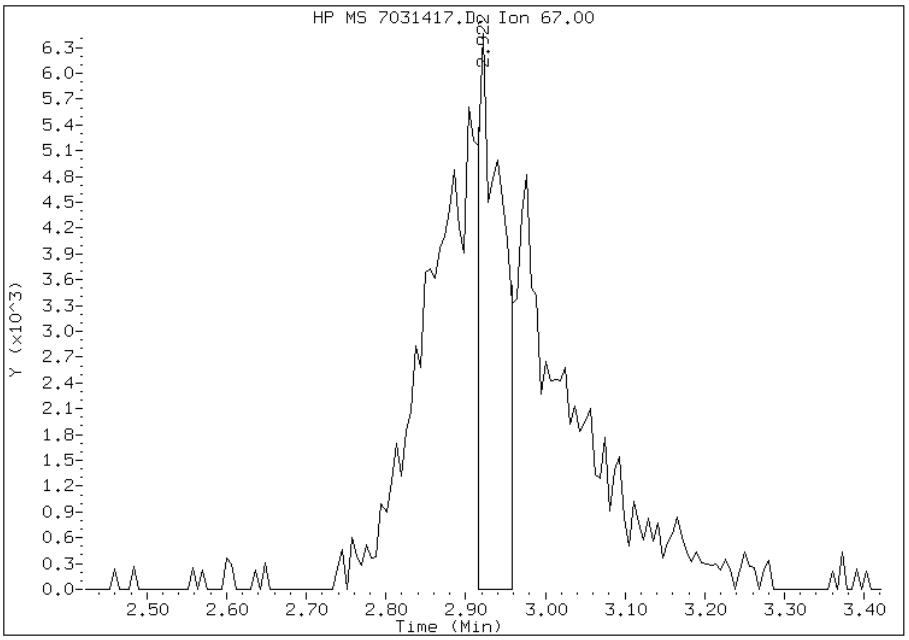
Processing Integration Results

RT: 2.92

Response: 13784

Amount: 8

Conc: 8



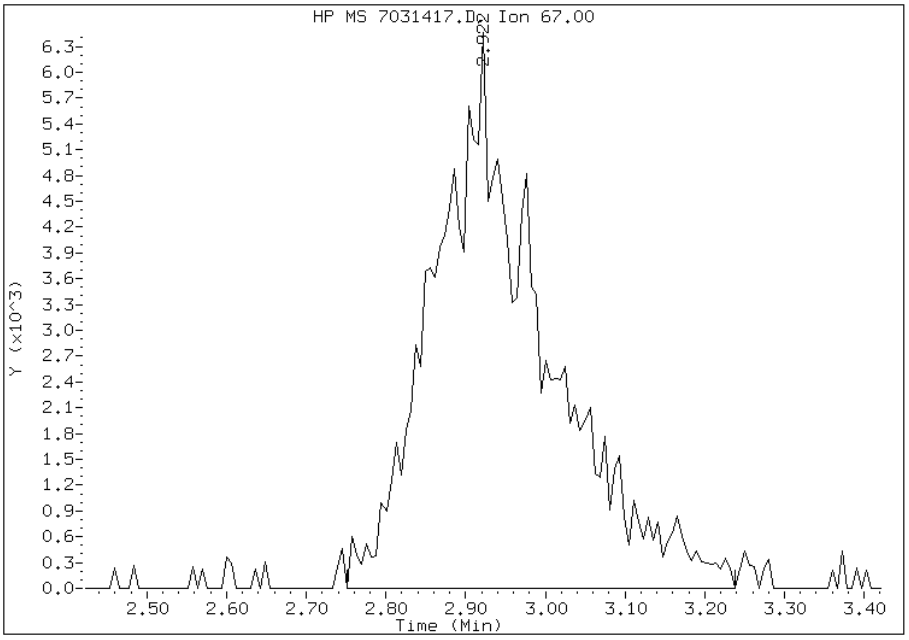
Manual Integration Results

RT: 2.92

Response: 61180

Amount: 29

Conc: 29



Manually Integrated By: zukowskim
Modification Date: 16-Mar-2014 22:27
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031417.D
Inj. Date and Time: 14-MAR-2014 17:39
Instrument ID: hp7.i
Client ID: IC 5
Compound: 166 Trichlorofluoromethane
CAS #: 75-69-4
Report Date: 03/17/2014

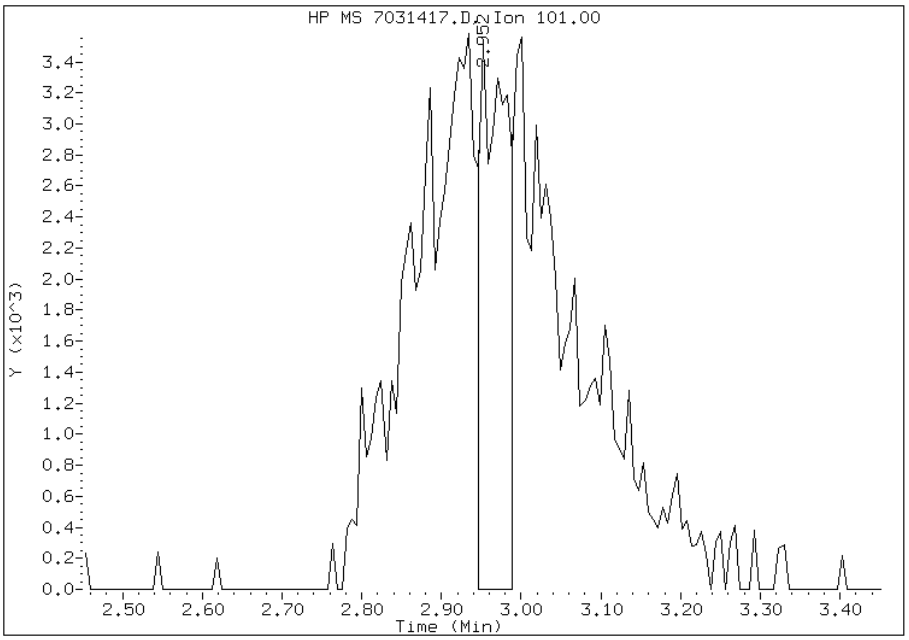
Processing Integration Results

RT: 2.95

Response: 8882

Amount: 5

Conc: 5



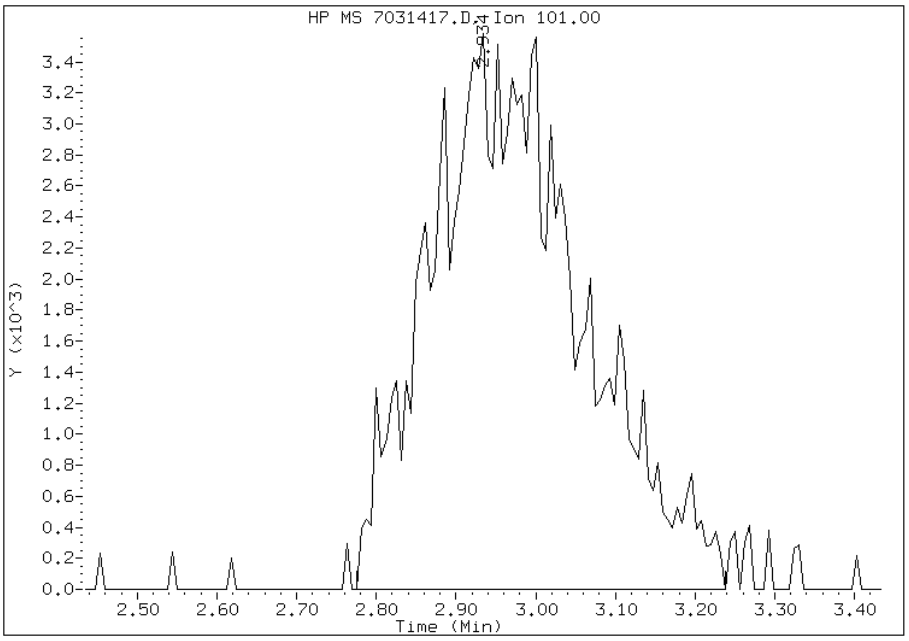
Manual Integration Results

RT: 2.93

Response: 47107

Amount: 23

Conc: 23



Manually Integrated By: zukowskim
Modification Date: 16-Mar-2014 22:27
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031417.D
Inj. Date and Time: 14-MAR-2014 17:39
Instrument ID: hp7.i
Client ID: IC 5
Compound: 8 Ethyl Ether
CAS #: 60-29-7
Report Date: 03/17/2014

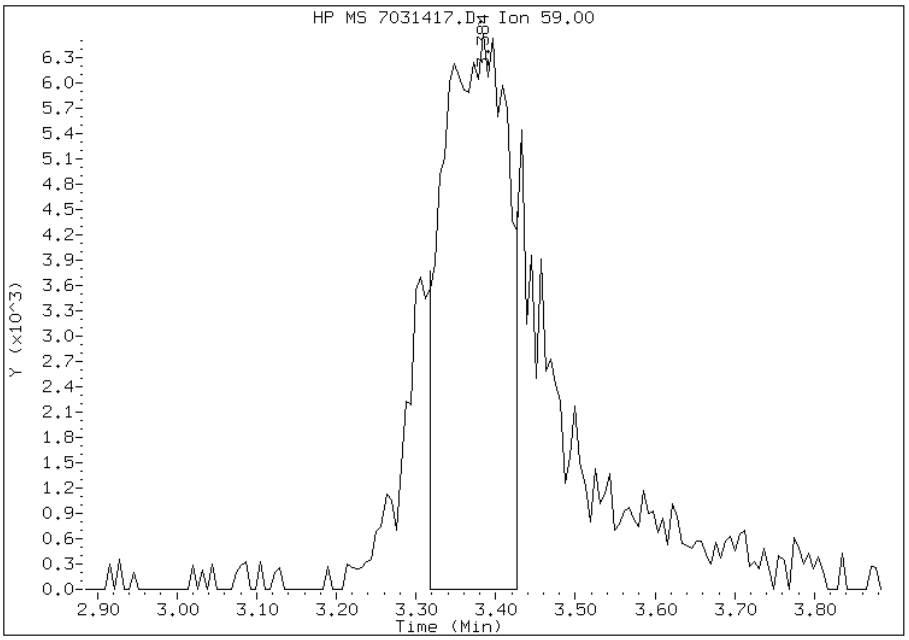
Processing Integration Results

RT: 3.38

Response: 38277

Amount: 20

Conc: 20



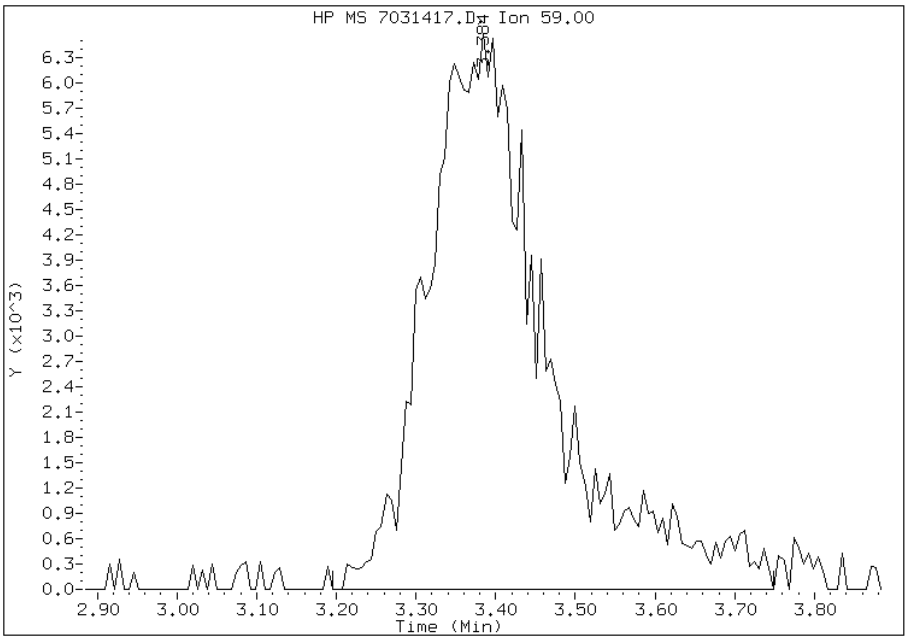
Manual Integration Results

RT: 3.38

Response: 69603

Amount: 32

Conc: 32



Manually Integrated By: zukowskim
Modification Date: 16-Mar-2014 22:29
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031417.D
Inj. Date and Time: 14-MAR-2014 17:39
Instrument ID: hp7.i
Client ID: IC 5
Compound: 12 1,1-Dichloroethene
CAS #: 75-35-4
Report Date: 03/17/2014

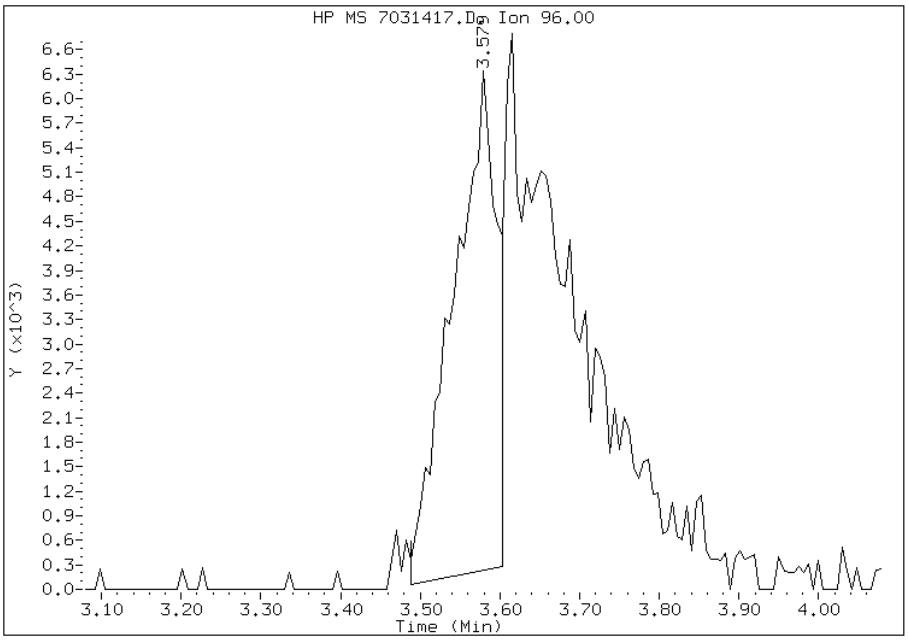
Processing Integration Results

RT: 3.58

Response: 23763

Amount: 10

Conc: 10



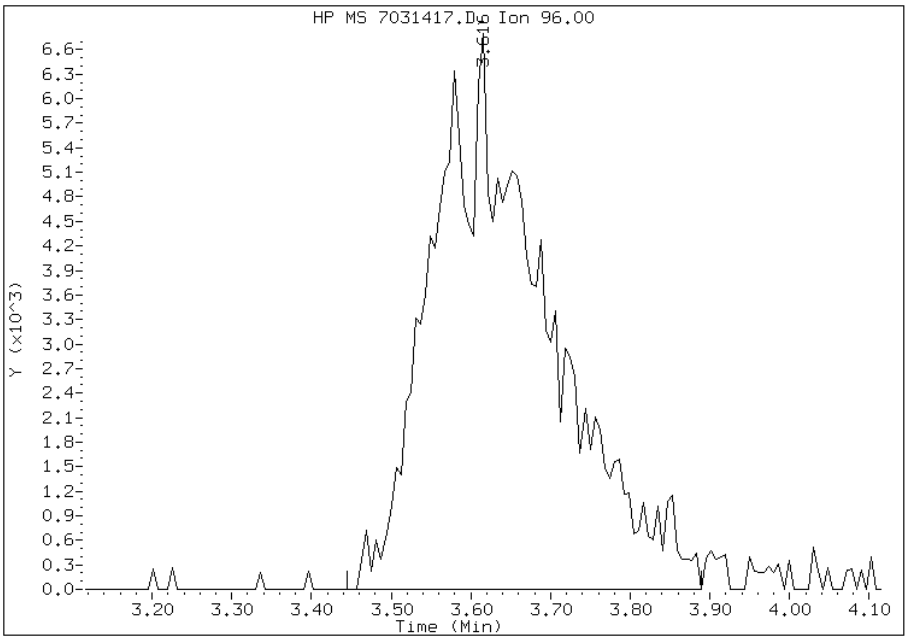
Manual Integration Results

RT: 3.62

Response: 67815

Amount: 26

Conc: 26



Manually Integrated By: zukowskim
Modification Date: 16-Mar-2014 22:27
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031417.D
Inj. Date and Time: 14-MAR-2014 17:39
Instrument ID: hp7.i
Client ID: IC 5
Compound: 10 1,1,2-trichloro-1,2,2-trifluoro
CAS #: 76-13-1
Report Date: 03/17/2014

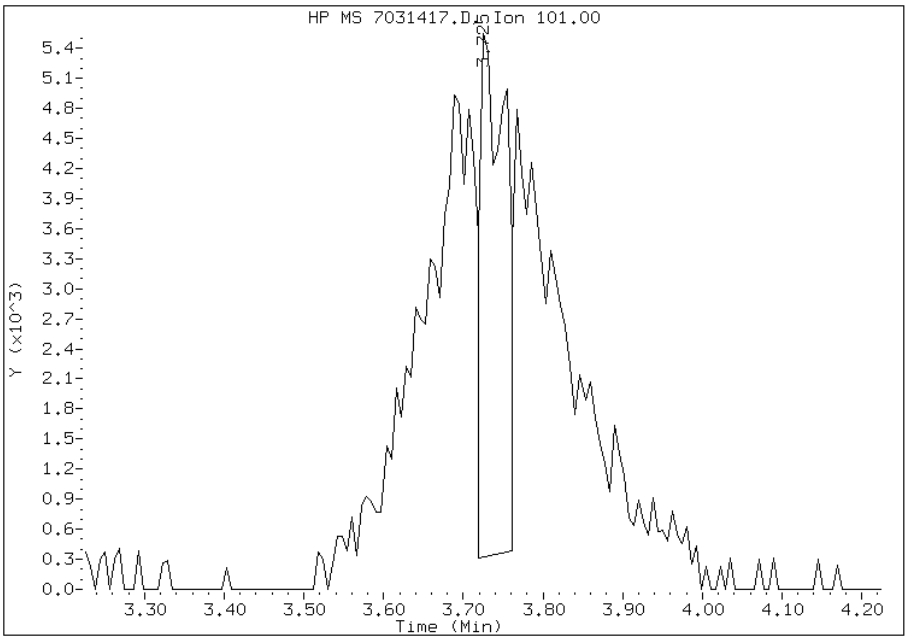
Processing Integration Results

RT: 3.73

Response: 11070

Amount: 5

Conc: 5



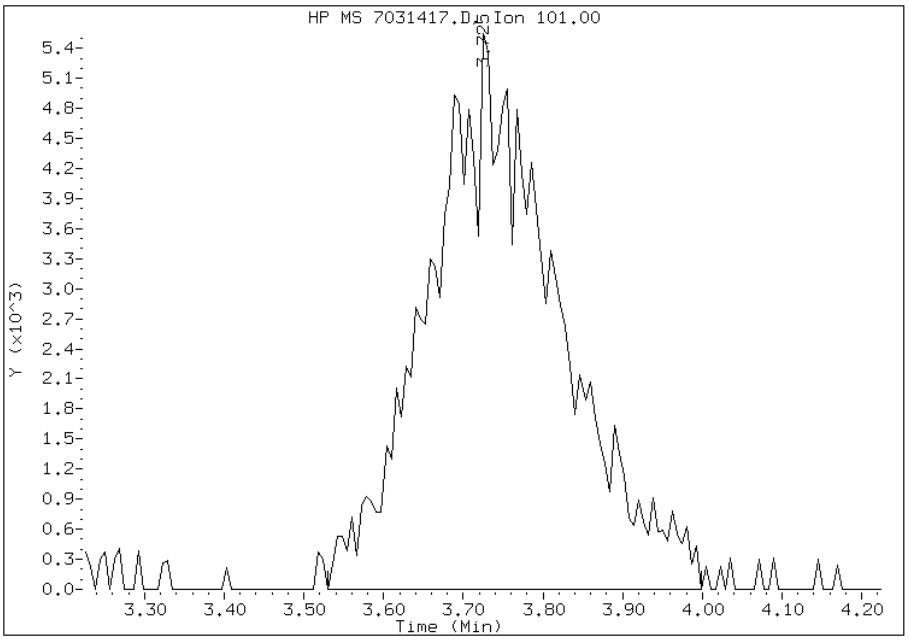
Manual Integration Results

RT: 3.73

Response: 62022

Amount: 23

Conc: 23



Manually Integrated By: zukowskim
Modification Date: 16-Mar-2014 22:27
Manual Integration Reason: Peak Integrated Incorrectly

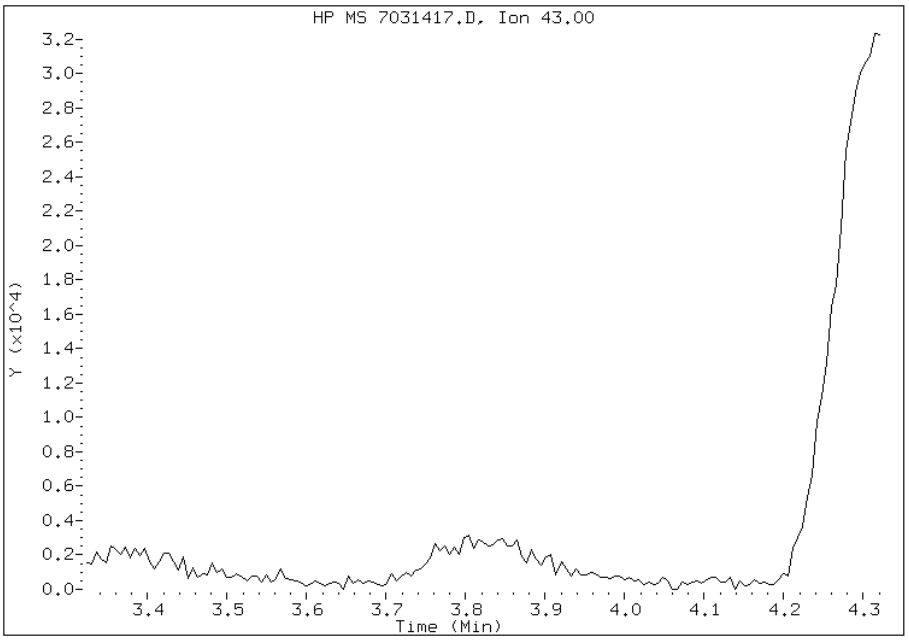
Manual Integration Report

Data File: 7031417.D
Inj. Date and Time: 14-MAR-2014 17:39
Instrument ID: hp7.i
Client ID: IC 5
Compound: 13 Acetone
CAS #: 67-64-1
Report Date: 03/17/2014

Processing Integration Results

Not Detected

Expected RT: 3.82



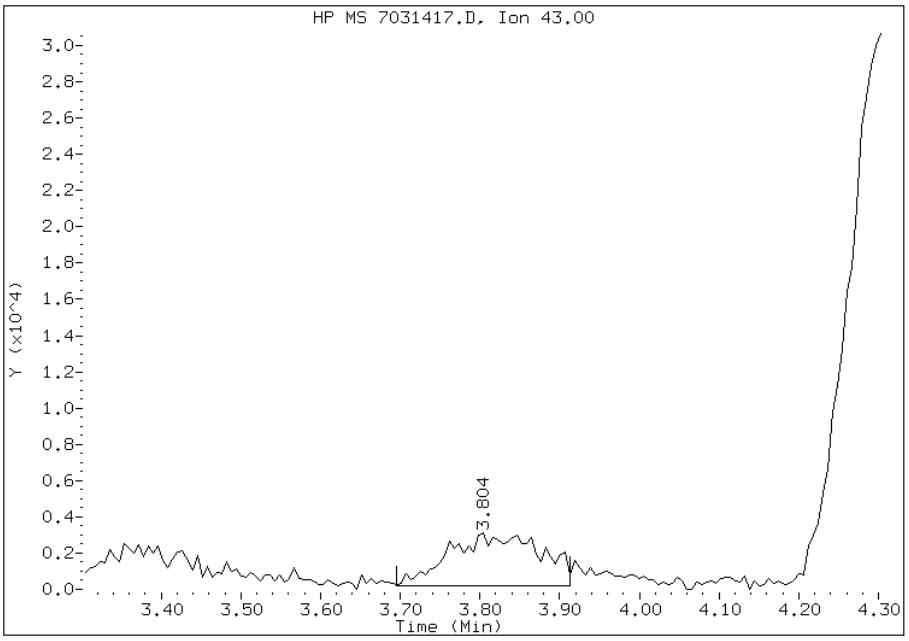
Manual Integration Results

RT: 3.80

Response: 22739

Amount: 4

Conc: 4



Manually Integrated By: zukowskim
Modification Date: 16-Mar-2014 22:46
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031417.D
Inj. Date and Time: 14-MAR-2014 17:39
Instrument ID: hp7.i
Client ID: IC 5
Compound: 14 Iodomethane
CAS #: 74-88-4
Report Date: 03/17/2014

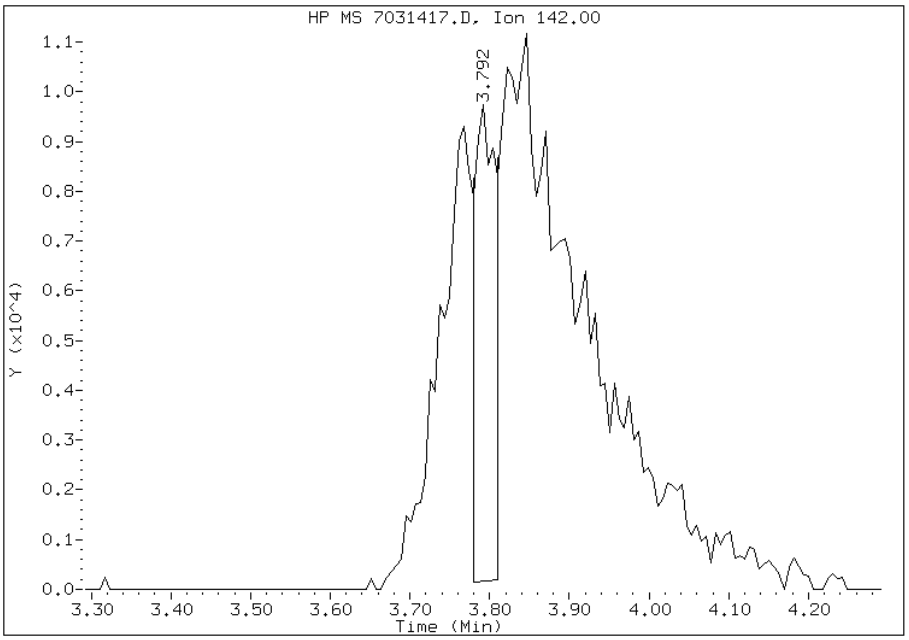
Processing Integration Results

RT: 3.79

Response: 15932

Amount: 4

Conc: 4



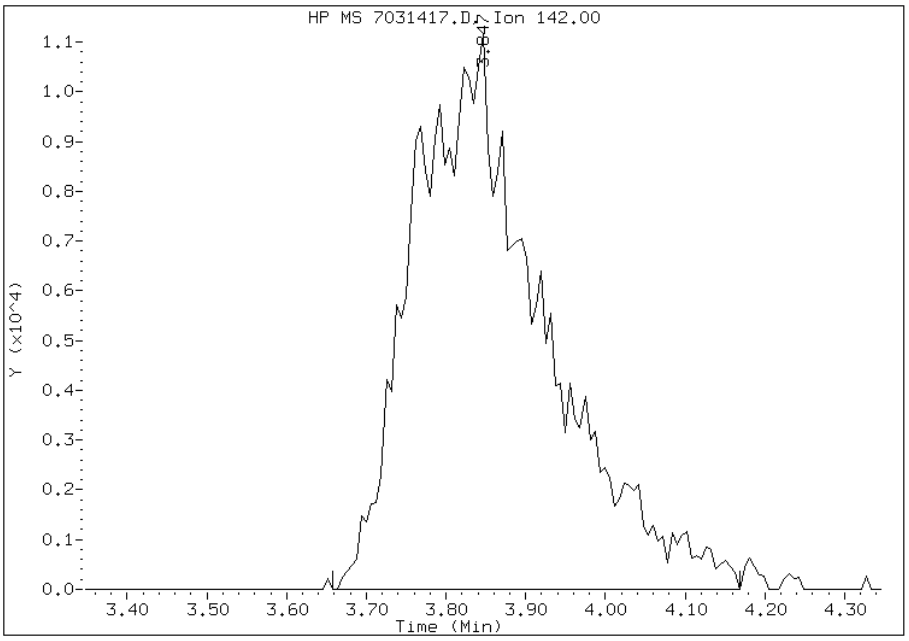
Manual Integration Results

RT: 3.85

Response: 127043

Amount: 29

Conc: 29



Manually Integrated By: zukowskim
Modification Date: 16-Mar-2014 22:29
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031417.D
Inj. Date and Time: 14-MAR-2014 17:39
Instrument ID: hp7.i
Client ID: IC 5
Compound: 15 Carbon Disulfide
CAS #: 75-15-0
Report Date: 03/17/2014

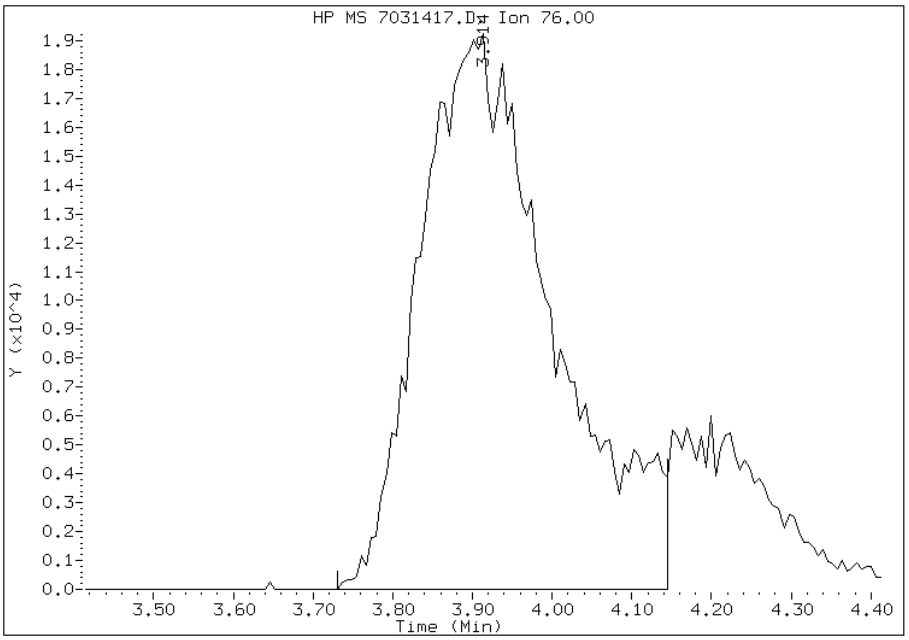
Processing Integration Results

RT: 3.91

Response: 225217

Amount: 27

Conc: 27



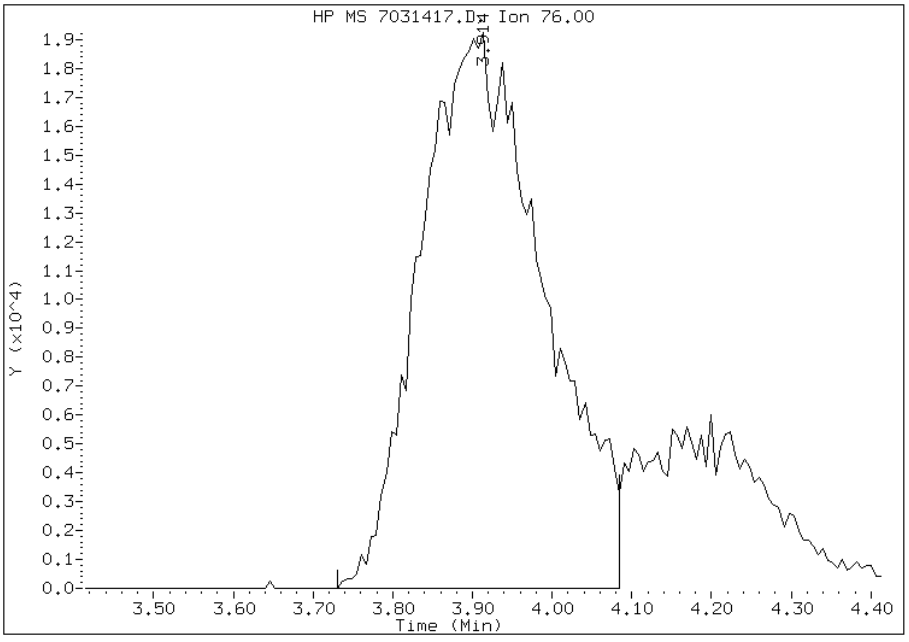
Manual Integration Results

RT: 3.91

Response: 209446

Amount: 26

Conc: 26



Manually Integrated By: zukowskim
Modification Date: 16-Mar-2014 22:27
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031417.D
Inj. Date and Time: 14-MAR-2014 17:39
Instrument ID: hp7.i
Client ID: IC 5
Compound: 16 3-Chloro-1-propene
CAS #: 107-05-1
Report Date: 03/17/2014

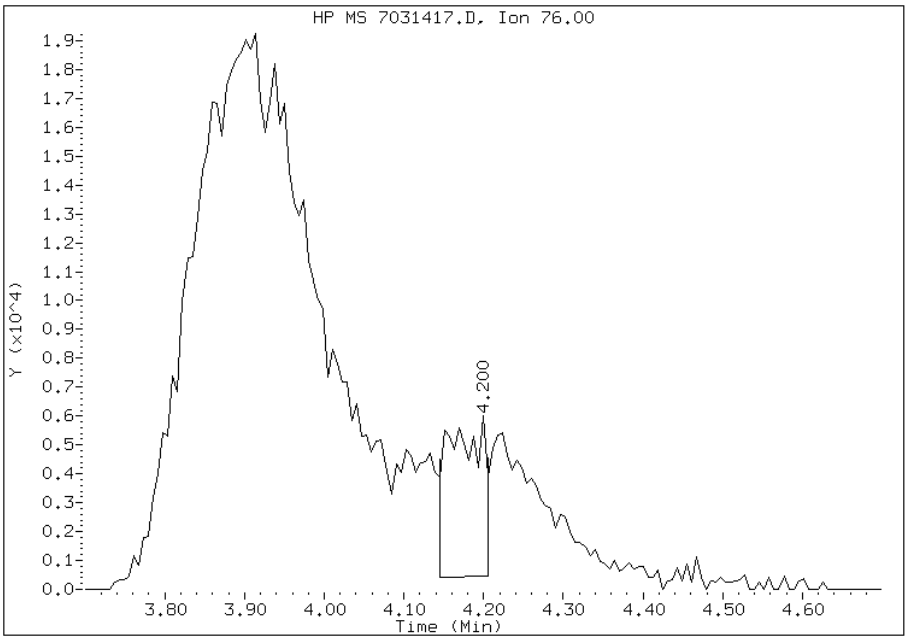
Processing Integration Results

RT: 4.20

Response: 16734

Amount: 8

Conc: 8



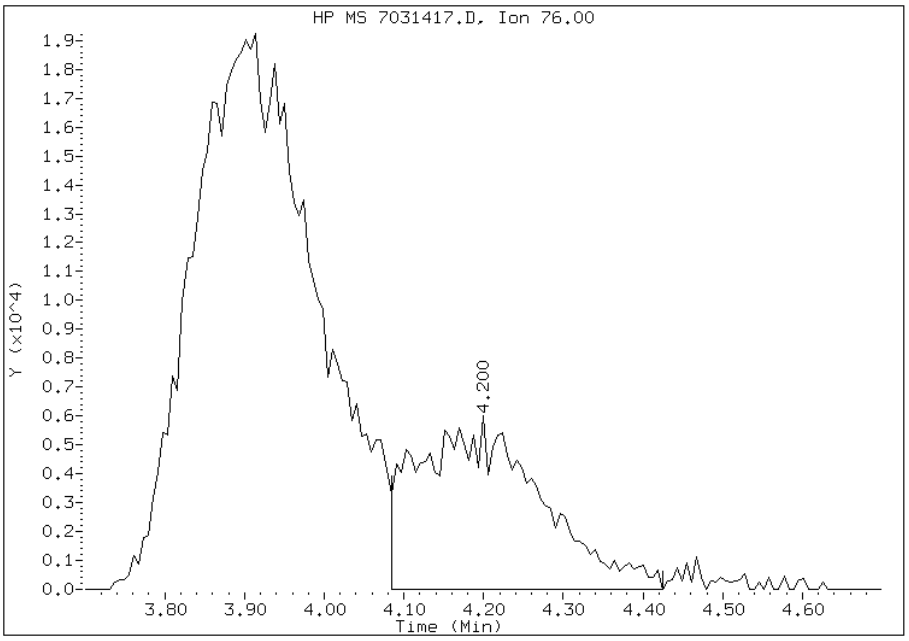
Manual Integration Results

RT: 4.20

Response: 64514

Amount: 27

Conc: 27



Manually Integrated By: zukowskim
Modification Date: 16-Mar-2014 22:28
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031417.D
Inj. Date and Time: 14-MAR-2014 17:39
Instrument ID: hp7.i
Client ID: IC 5
Compound: 18 Methylene Chloride
CAS #: 75-09-2
Report Date: 03/17/2014

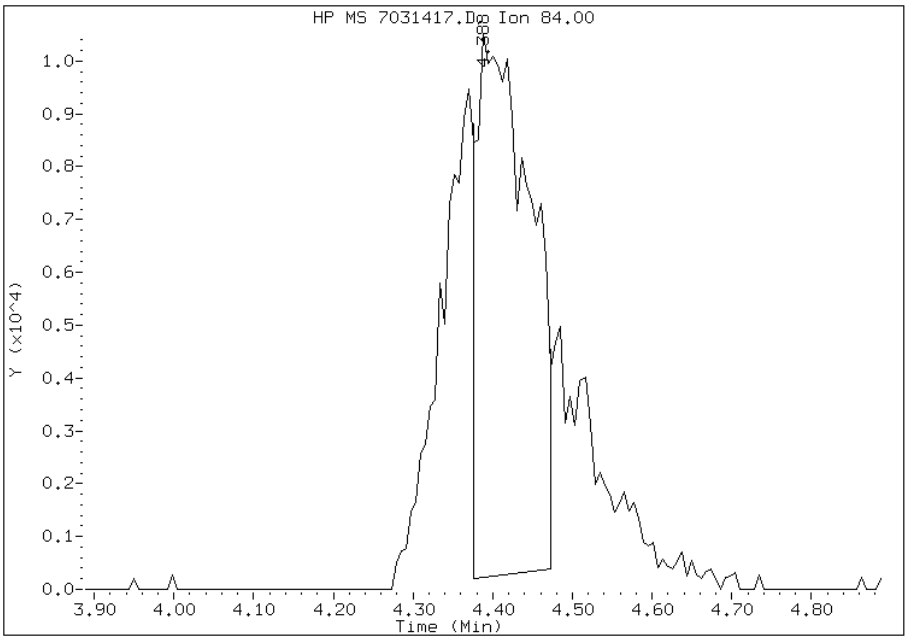
Processing Integration Results

RT: 4.39

Response: 46699

Amount: 17

Conc: 17



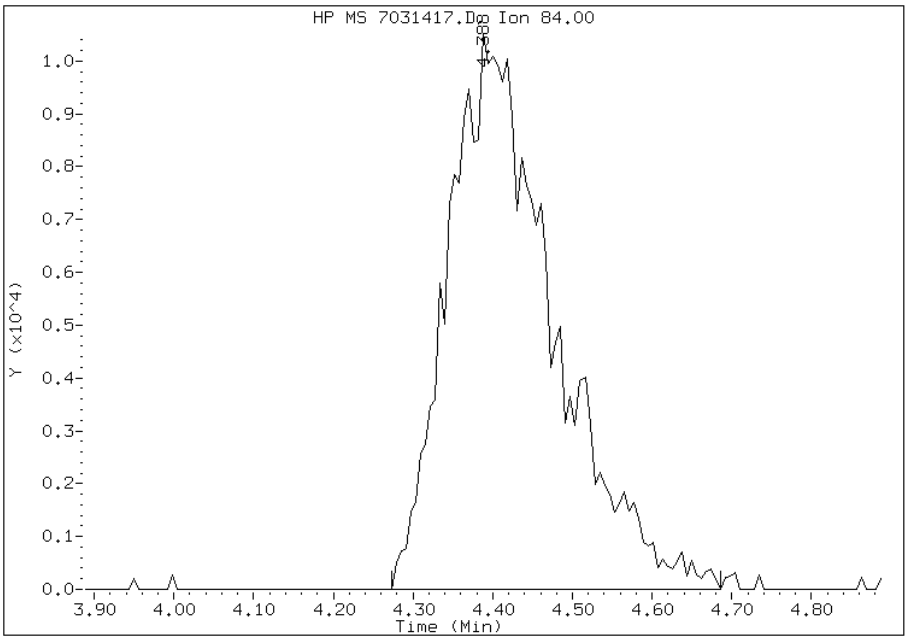
Manual Integration Results

RT: 4.39

Response: 97254

Amount: 30

Conc: 30



Manually Integrated By: zukowskim
Modification Date: 16-Mar-2014 22:28
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031417.D
Inj. Date and Time: 14-MAR-2014 17:39
Instrument ID: hp7.i
Client ID: IC 5
Compound: 19 trans-1,2-Dichloroethene
CAS #: 156-60-5
Report Date: 03/17/2014

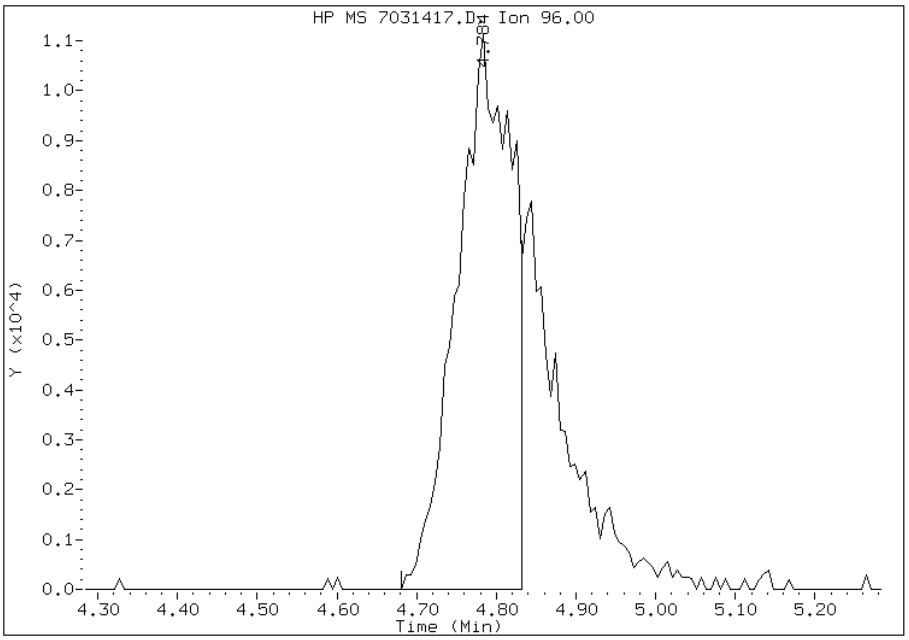
Processing Integration Results

RT: 4.78

Response: 54493

Amount: 19

Conc: 19



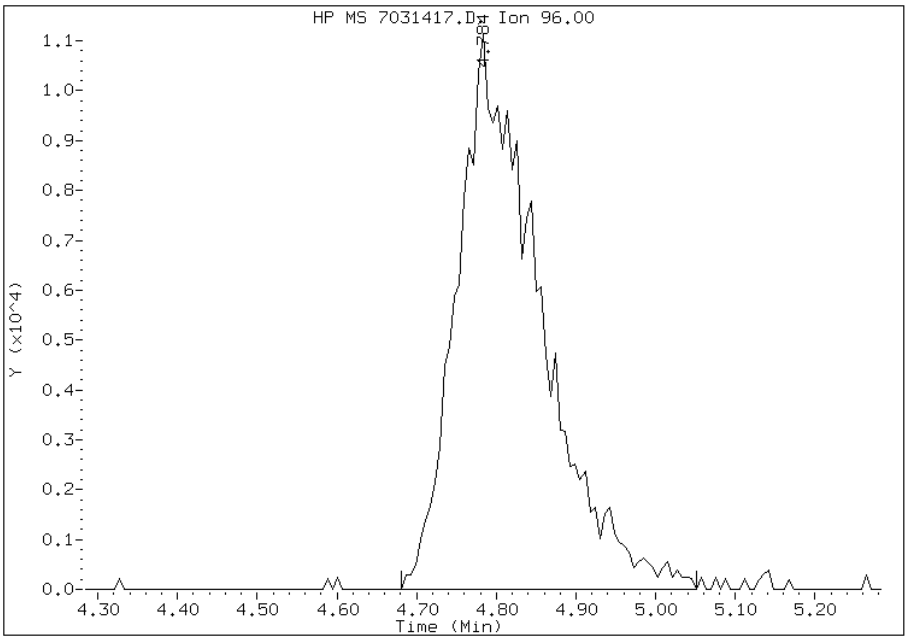
Manual Integration Results

RT: 4.78

Response: 81039

Amount: 27

Conc: 27



Manually Integrated By: zukowskim
Modification Date: 16-Mar-2014 22:28
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031417.D
Inj. Date and Time: 14-MAR-2014 17:39
Instrument ID: hp7.i
Client ID: IC 5
Compound: 21 tert-Butyl Alcohol
CAS #: 75-65-0
Report Date: 03/17/2014

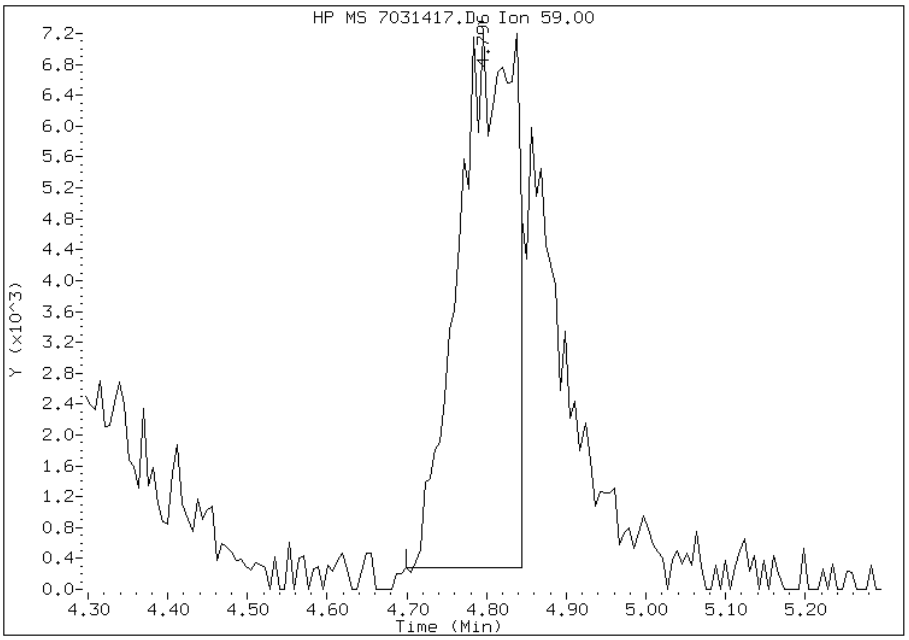
Processing Integration Results

RT: 4.80

Response: 35191

Amount: 164

Conc: 164



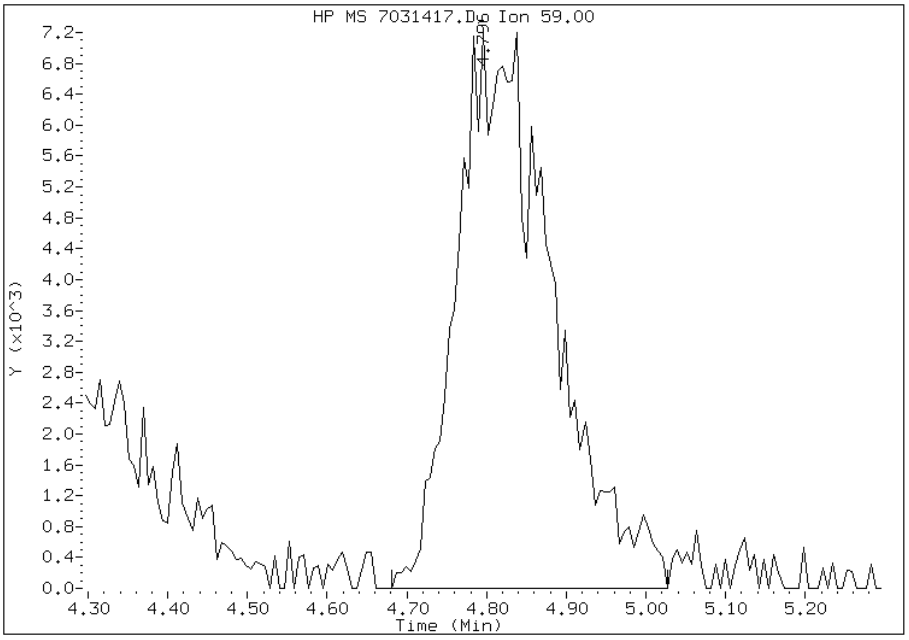
Manual Integration Results

RT: 4.80

Response: 60712

Amount: 266

Conc: 266



Manually Integrated By: zukowskim
Modification Date: 16-Mar-2014 22:28
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031417.D
Inj. Date and Time: 14-MAR-2014 17:39
Instrument ID: hp7.i
Client ID: IC 5
Compound: 23 Hexane
CAS #: 110-54-3
Report Date: 03/17/2014

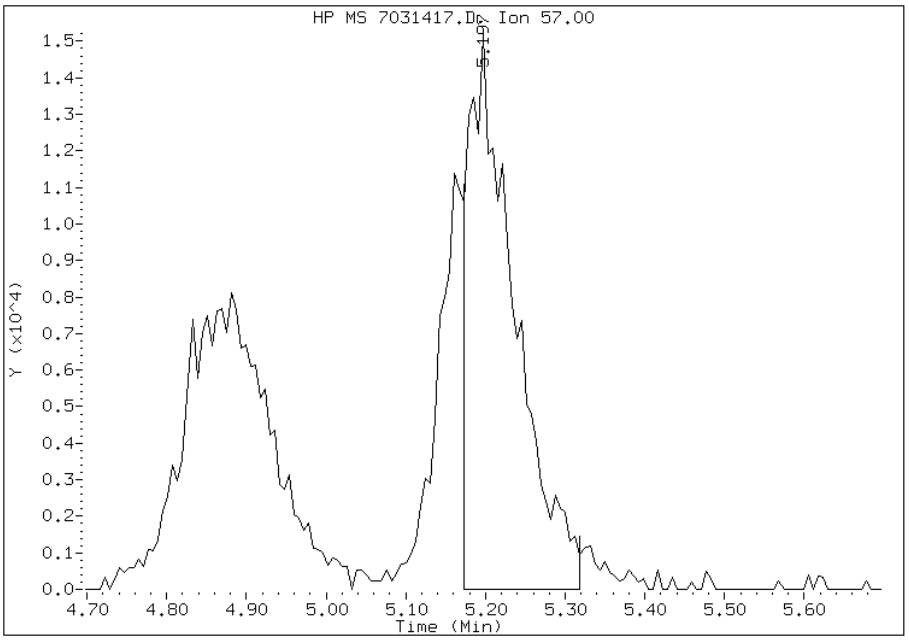
Processing Integration Results

RT: 5.20

Response: 63581

Amount: 13

Conc: 13



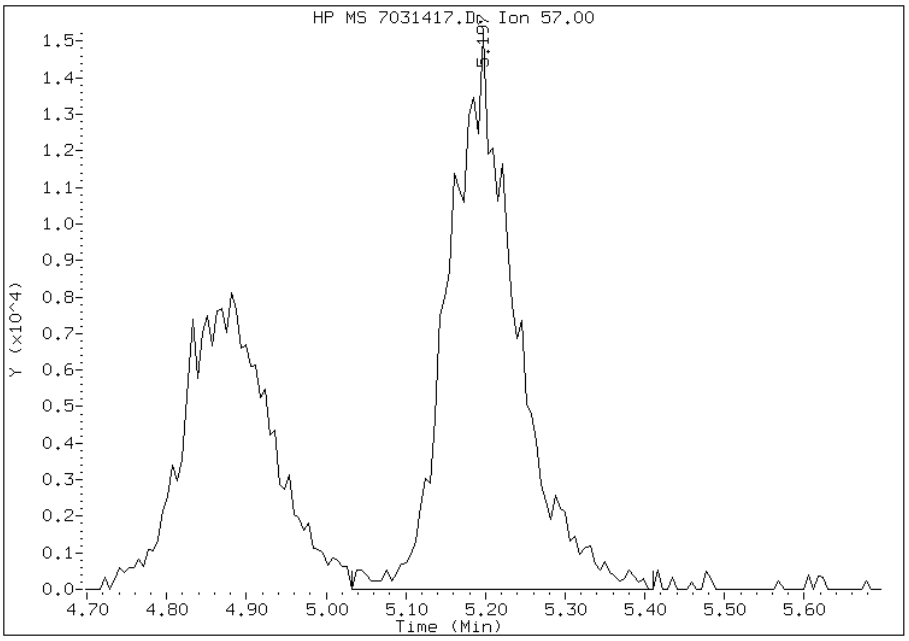
Manual Integration Results

RT: 5.20

Response: 90446

Amount: 14

Conc: 14



Manually Integrated By: zukowskim
Modification Date: 16-Mar-2014 22:29
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031417.D
Inj. Date and Time: 14-MAR-2014 17:39
Instrument ID: hp7.i
Client ID: IC 5
Compound: 96 1,2-Dibromo-3-chloropropane
CAS #: 96-12-8
Report Date: 03/17/2014

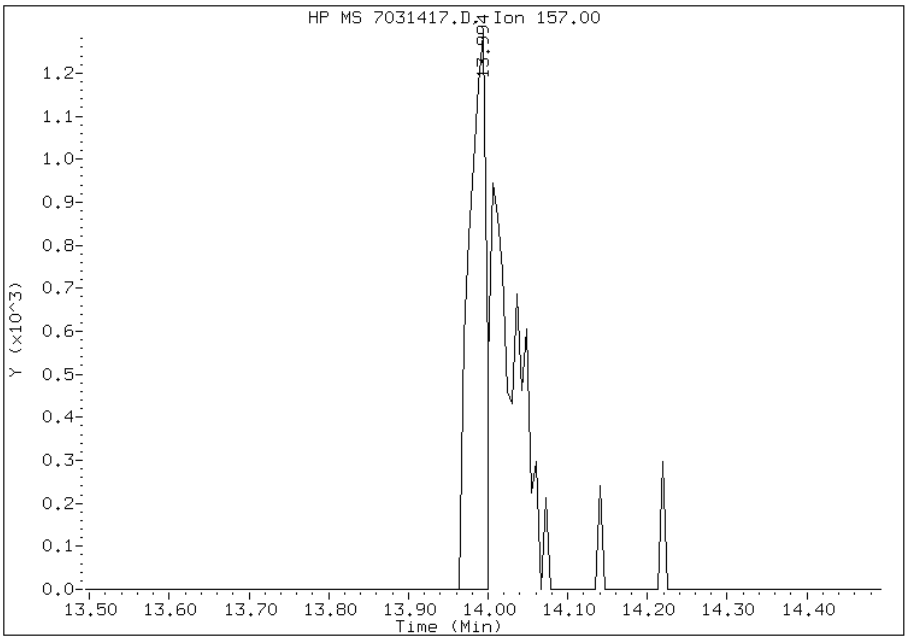
Processing Integration Results

RT: 13.99

Response: 1964

Amount: 14

Conc: 14



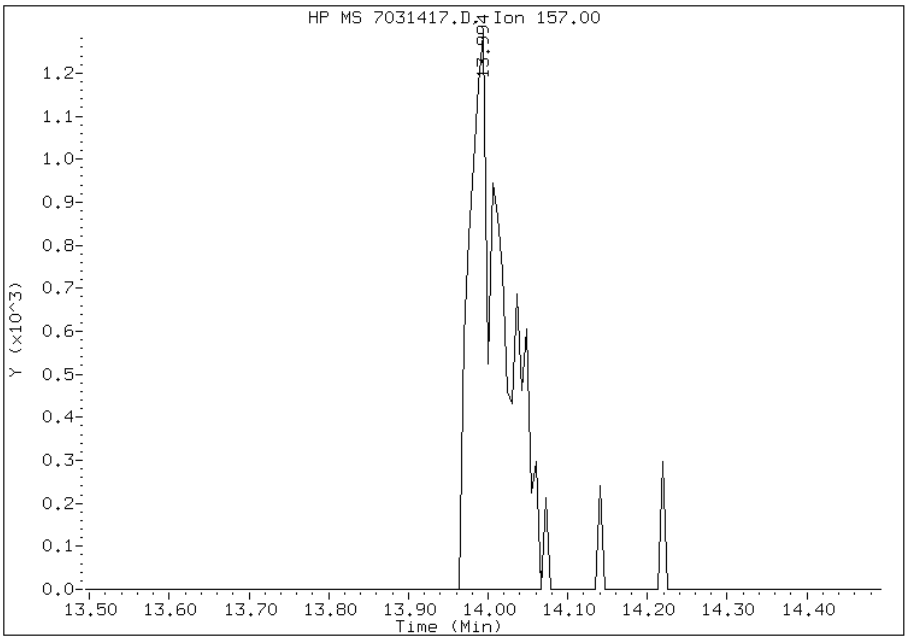
Manual Integration Results

RT: 13.99

Response: 4051

Amount: 23

Conc: 23



Manually Integrated By: zukowskim
Modification Date: 16-Mar-2014 22:28
Manual Integration Reason: Peak Integrated Incorrectly

TestAmerica Pittsburgh

VOLATILE REPORT SW-846 Method

Data file : \\pitsvr06\d\chem\hp7.i\7031414d.b\7031404.D
Lab Smp Id: IC Client Smp ID: IC vstd10
Inj Date : 14-MAR-2014 09:40 MS Autotune Date: 29-AUG-2013 09:08
Operator : 430936 Inst ID: hp7.i
Smp Info : IC, vstd10
Misc Info : 7031414d.b,T8260bh2o.m,list1.sub
Comment :
Method : \\pitsvr06\d\chem\hp7.i\7031414d.b\T8260bh2o.m
Meth Date : 17-Mar-2014 03:24 zukowskim Quant Type: ISTD
Cal Date : 14-MAR-2014 09:40 Cal File: 7031404.D
Als bottle: 3 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: list1.sub
Target Version: 4.14
Processing Host: PITPC-530

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
*	46 Fluorobenzene (IS)	96	7.410	7.410	(1.000)	2246604	250.000	
*	69 Chlorobenzene-d5	119	10.470	10.470	(1.000)	557562	250.000	
*	92 1,4-Dichlorobenzene-d4	152	12.788	12.788	(1.000)	752901	250.000	
*	176 Dioxane-d8 (IS)	96	8.140	8.140	(1.000)	43384	5000.00	
*	177 TBA-d9 (IS)	65	4.715	4.715	(1.000)	476760	5000.00	
$	39 Dibromofluoromethane (Surr)	113	6.680	6.680	(0.901)	128863	50.0000	54.54
$	43 1,2-Dichloroethane-d4	65	7.057	7.057	(0.952)	147346	50.0000	54.15
$	59 Toluene-d8	98	9.041	9.041	(0.863)	479411	50.0000	55.25
$	80 Bromofluorobenzene (Surr)	95	11.632	11.633	(1.111)	174471	50.0000	55.47
	1 Dichlorodifluoromethane	85	1.960	1.960	(0.264)	174071	50.0000	56.94(M)
	2 Chloromethane	50	2.020	2.020	(0.273)	391881	50.0000	59.08(M)
	3 Vinyl Chloride	62	2.166	2.166	(0.292)	242826	50.0000	60.06
	4 Bromomethane	94	2.495	2.495	(0.337)	61525	50.0000	58.72(M)
	5 Chloroethane	64	2.610	2.610	(0.352)	49842	50.0000	54.52
	7 Dichlorofluoromethane	67	2.921	2.921	(0.394)	116524	50.0000	54.84(M)
	10 1,1,2-trichloro-1,2,2-trifluor	101	3.718	3.718	(0.502)	160400	50.0000	58.88(M)
	166 Trichlorofluoromethane	101	2.969	2.970	(0.401)	109918	50.0000	52.45(M)
	12 1,1-Dichloroethene	96	3.590	3.590	(0.484)	149728	50.0000	56.72(M)
	15 Carbon Disulfide	76	3.888	3.888	(0.525)	499397	50.0000	60.24(M)
	13 Acetone	43	3.821	3.822	(0.516)	34504	50.0000	30.22(M)
	18 Methylene Chloride	84	4.387	4.387	(0.592)	175594	50.0000	54.16(M)
	19 trans-1,2-Dichloroethene	96	4.788	4.788	(0.646)	169009	50.0000	56.31(M)
	20 Methyl tert-butyl ether	73	4.861	4.861	(0.656)	317110	50.0000	53.33
	24 1,1-Dichloroethane	63	5.372	5.372	(0.725)	327847	50.0000	56.17
	27 2,2-Dichloropropane	77	6.096	6.096	(0.823)	207878	50.0000	57.68
	28 cis-1,2-dichloroethene	96	6.115	6.115	(0.825)	168927	50.0000	54.30
M	29 1,2-Dichloroethene (total)	96				337936	100.000	110.6
	30 Bromochloromethane	128	6.388	6.388	(0.862)	71176	50.0000	52.98

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
31 2-Butanone	43	6.200	6.200	(0.837)	37956	50.0000	35.34
37 Chloroform	83	6.504	6.504	(0.878)	256506	50.0000	57.13
38 1,1,1-Trichloroethane	97	6.686	6.686	(0.902)	221408	50.0000	57.68
40 1,1-Dichloropropene	75	6.881	6.881	(0.929)	176228	50.0000	55.63
41 Carbon Tetrachloride	117	6.875	6.875	(0.928)	170668	50.0000	54.72
42 Benzene	78	7.100	7.101	(0.958)	552100	50.0000	54.94
45 1,2-Dichloroethane	62	7.130	7.131	(0.962)	166419	50.0000	50.91
47 Trichloroethene	130	7.794	7.794	(1.052)	145158	50.0000	54.94
49 1,2-Dichloropropane	63	8.037	8.037	(1.085)	146934	50.0000	55.02
50 Dibromomethane	93	8.153	8.153	(1.100)	66927	50.0000	52.16
53 Bromodichloromethane	83	8.317	8.317	(1.122)	170588	50.0000	54.44
57 cis-1,3-Dichloropropene	75	8.779	8.779	(1.185)	197861	50.0000	54.26
58 4-Methyl-2-Pentanone	43	8.937	8.938	(0.854)	91450	50.0000	48.69
60 Toluene	91	9.108	9.108	(0.870)	527901	50.0000	54.55
61 trans-1,3-Dichloropropene	75	9.333	9.333	(0.891)	145655	50.0000	54.42
63 1,3-Dichloropropane	76	9.673	9.674	(0.924)	147424	50.0000	49.13
64 1,1,2-Trichloroethane	97	9.509	9.510	(0.908)	90533	50.0000	45.90
65 Tetrachloroethene	164	9.649	9.649	(0.922)	121610	50.0000	59.17
66 2-Hexanone	43	9.771	9.771	(0.933)	55956	50.0000	46.91
67 Dibromochloromethane	129	9.898	9.898	(0.945)	102063	50.0000	53.04
68 1,2-Dibromoethane	107	10.014	10.015	(0.956)	92123	50.0000	53.17
70 Chlorobenzene	112	10.495	10.495	(1.002)	326289	50.0000	56.38
71 1,1,1,2-Tetrachloroethane	131	10.580	10.580	(1.010)	121643	50.0000	54.91
72 Ethylbenzene	106	10.604	10.605	(1.013)	185796	50.0000	55.54
73 m,p-XYLENE	106	10.720	10.720	(1.024)	232989	50.0000	54.84
74 Xylene-o	106	11.115	11.116	(1.062)	255819	50.0000	55.83
76 Styrene	104	11.127	11.128	(1.063)	393372	50.0000	54.78
77 Bromoform	173	11.316	11.316	(1.081)	59131	50.0000	49.56
78 Isopropylbenzene	105	11.480	11.481	(1.096)	660827	50.0000	58.87
79 Bromobenzene	156	11.790	11.791	(0.922)	158217	50.0000	53.60
81 n-Propylbenzene	120	12.064	12.065	(0.943)	267312	50.0000	56.97
82 2-Chlorotoluene	126	11.979	11.979	(0.937)	150479	50.0000	56.08
83 1,1,2,2-Tetrachloroethane	83	11.772	11.773	(1.124)	89795	50.0000	46.68
84 1,2,3-Trichloropropane	110	11.821	11.821	(0.924)	24622	50.0000	45.08
85 4-Chlorotoluene	126	12.089	12.089	(0.945)	147960	50.0000	56.65
86 1,3,5-Trimethylbenzene	105	12.064	12.065	(0.943)	522036	50.0000	56.49
87 tert-Butylbenzene	119	12.387	12.387	(0.969)	477287	50.0000	59.96
88 1,2,4-Trimethylbenzene	105	12.435	12.436	(0.972)	523877	50.0000	56.85
89 sec-Butylbenzene	105	12.606	12.606	(0.986)	729126	50.0000	60.08
90 4-Isopropyltoluene	119	12.752	12.752	(0.997)	556647	50.0000	58.94
91 1,3-Dichlorobenzene	146	12.721	12.722	(0.995)	269174	50.0000	56.08
94 n-Butylbenzene	91	13.165	13.166	(1.029)	550616	50.0000	54.20
93 1,4-Dichlorobenzene	146	12.812	12.813	(1.002)	233393	50.0000	54.63
95 1,2-Dichlorobenzene	146	13.190	13.190	(1.031)	194528	50.0000	53.30
96 1,2-Dibromo-3-chloropropane	157	13.980	13.981	(1.093)	6267	50.0000	40.21(M)
97 1,2,4-Trichlorobenzene	180	14.808	14.808	(1.158)	77242	50.0000	64.84
98 Hexachlorobutadiene	225	14.972	14.973	(1.171)	87566	50.0000	65.96
99 Naphthalene	128	15.063	15.064	(1.178)	97953	50.0000	71.70
100 1,2,3-Trichlorobenzene	180	15.307	15.307	(1.197)	74304	50.0000	89.44
156 Methyl Acetate	43	4.314	4.314	(0.582)	435143	250.000	216.1
157 Cyclohexane	56	6.741	6.741	(0.910)	344685	50.0000	59.66
158 Methyl Cyclohexane	83	7.994	7.995	(1.079)	278259	50.0000	52.34
32 Vinyl Acetate	43	5.512	5.513	(0.744)	202442	50.0000	44.00
52 1,4-Dioxane	88	8.201	8.202	(1.007)	9914	1000.00	1269(M)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	21 tert-Butyl Alcohol	59	4.825	4.825	(1.023)	55859	500.000	478.6
	16 3-Chloro-1-propene	76	4.168	4.168	(0.562)	124811	50.0000	51.19(M)
	11 Acrolein	56	3.505	3.505	(0.473)	177859	625.000	638.5
	22 Acrylonitrile	53	4.819	4.819	(0.650)	415766	500.000	433.0
	8 Ethyl Ether	59	3.377	3.377	(0.456)	114052	50.0000	51.99(M)
	62 Ethyl methacrylate	69	9.424	9.424	(0.900)	105747	50.0000	49.47
	23 Hexane	57	5.178	5.178	(0.699)	297031	50.0000	52.69
	14 Iodomethane	142	3.791	3.791	(0.512)	258716	50.0000	58.40(M)
	44 Isobutanol	41	7.410	7.411	(1.000)	151092	1250.00	1299
	155 N-Heptane	41	7.994	7.994	(1.079)	244403	50.0000	60.60
	35 Tetrahydrofuran	42	6.747	6.747	(0.911)	90740	100.000	117.5
	164 trans-1,4-Dichloro-2-butene	53	11.833	11.833	(0.925)	20426	50.0000	46.97
	169 Butadiene	39	2.197	2.197	(0.296)	257639	50.0000	60.24(M)
M	75 Xylenes (total)	106				488808	100.000	110.7

QC Flag Legend

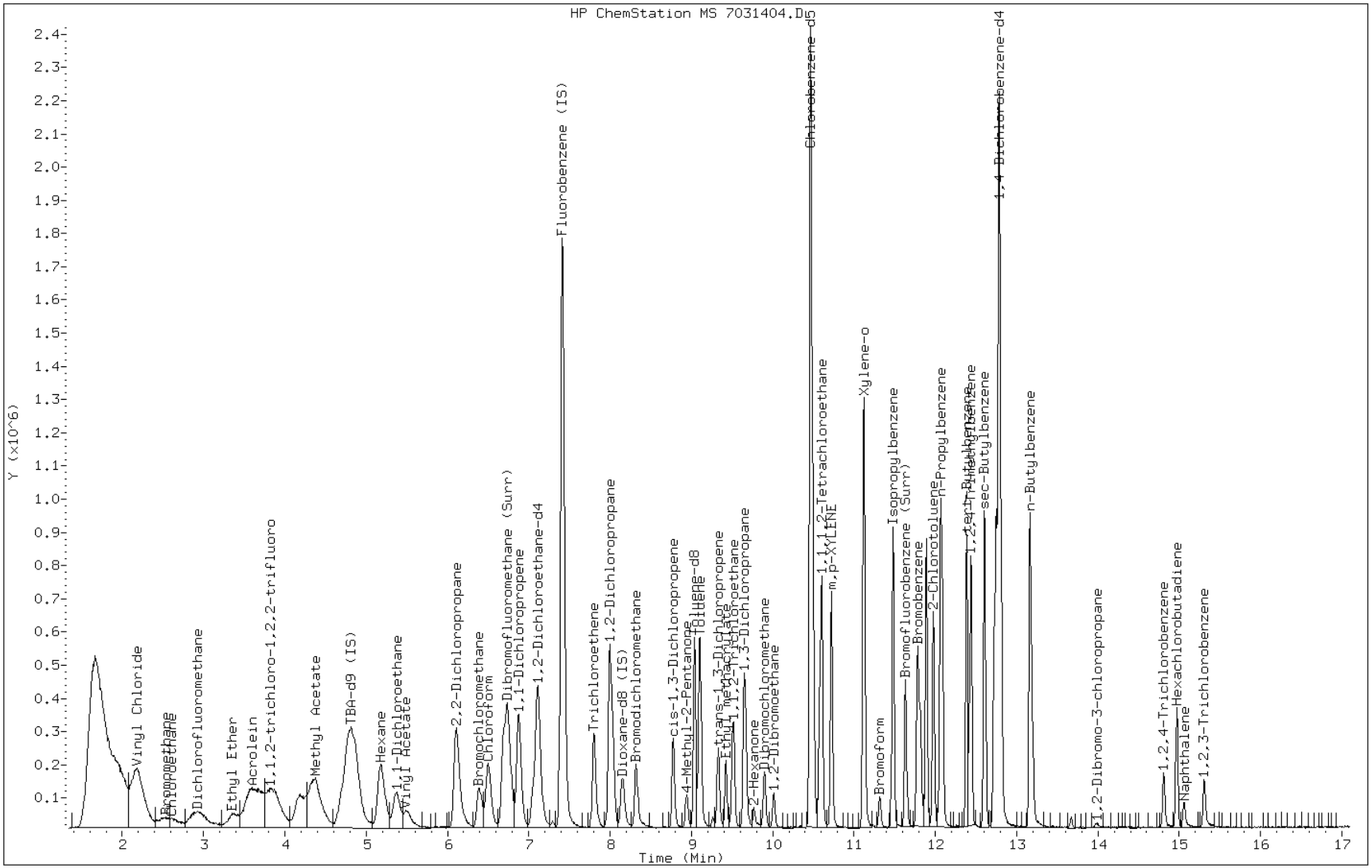
M - Compound response manually integrated.

Data File: 7031404.D

Date: 14-MAR-2014 09:40

Client ID: IC vstd10 Instrument: hp7.i

Sample Info: IC, vstd10 Operator: 430936



Manual Integration Report

Data File: 7031404.D
Inj. Date and Time: 14-MAR-2014 09:40
Instrument ID: hp7.i
Client ID: IC vstd10
Compound: 1 Dichlorodifluoromethane
CAS #: 75-71-8
Report Date: 03/17/2014

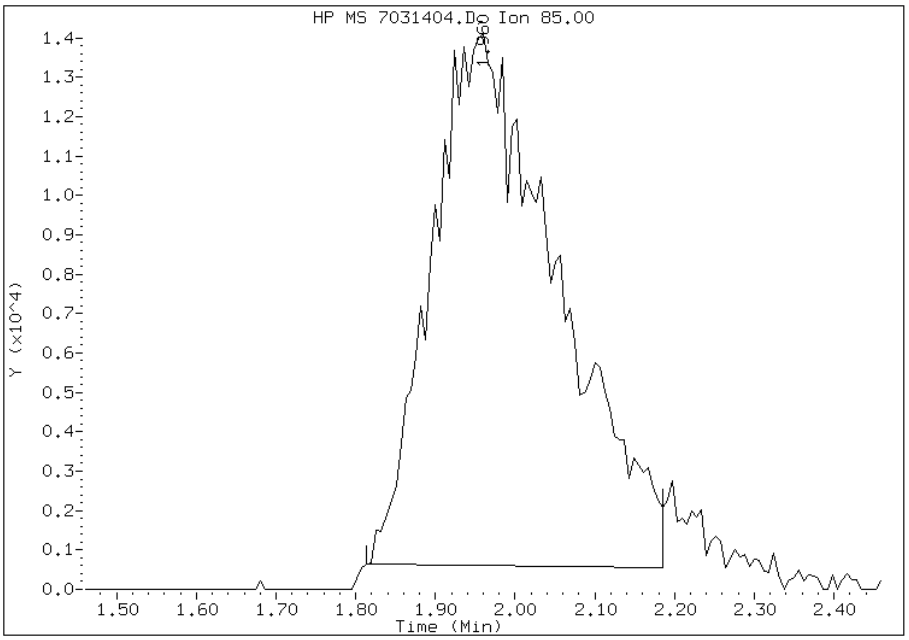
Processing Integration Results

RT: 1.96

Response: 149472

Amount: 24

Conc: 24



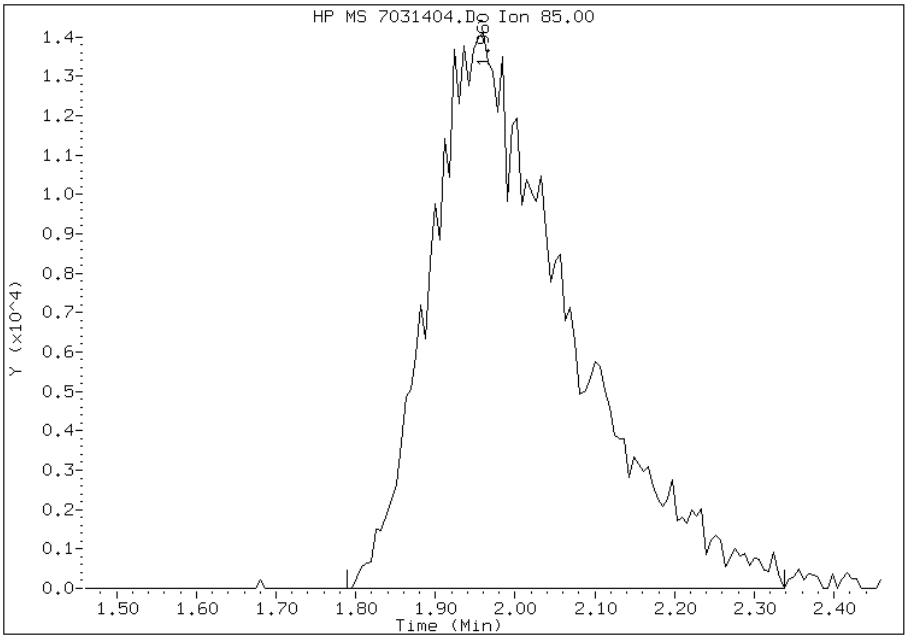
Manual Integration Results

RT: 1.96

Response: 174071

Amount: 57

Conc: 57



Manually Integrated By: zukowskim
Modification Date: 14-Mar-2014 10:31
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031404.D
Inj. Date and Time: 14-MAR-2014 09:40
Instrument ID: hp7.i
Client ID: IC vstd10
Compound: 2 Chloromethane
CAS #: 74-87-3
Report Date: 03/17/2014

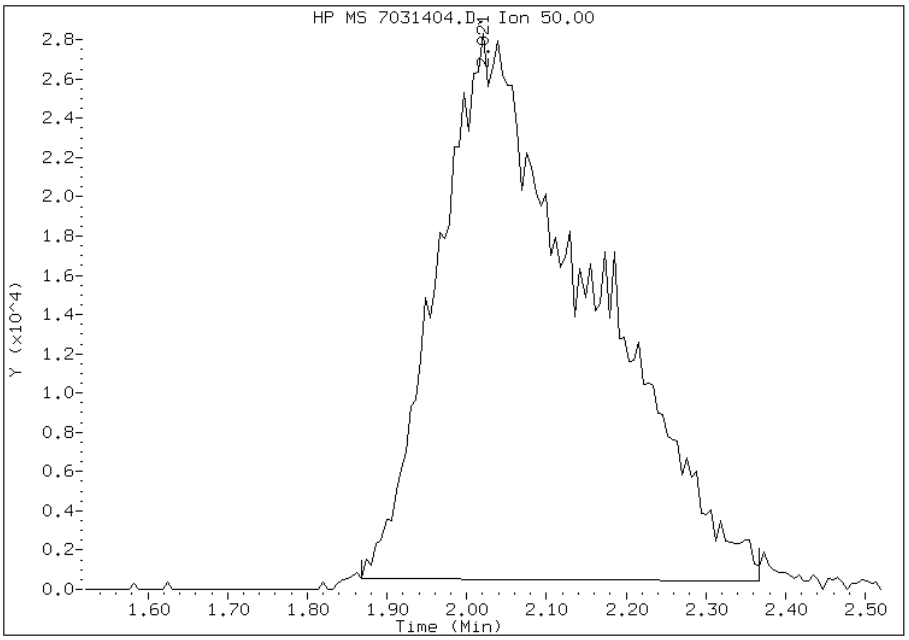
Processing Integration Results

RT: 2.02

Response: 372282

Amount: 37

Conc: 37



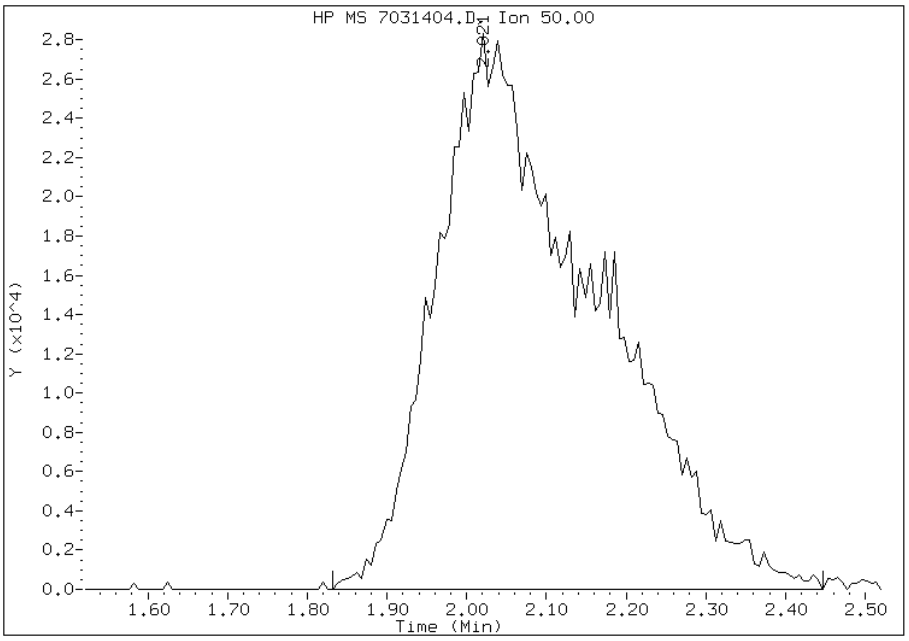
Manual Integration Results

RT: 2.02

Response: 391881

Amount: 59

Conc: 59



Manually Integrated By: zukowskim
Modification Date: 14-Mar-2014 10:31
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031404.D
Inj. Date and Time: 14-MAR-2014 09:40
Instrument ID: hp7.i
Client ID: IC vstd10
Compound: 169 Butadiene
CAS #: 106-99-0
Report Date: 03/17/2014

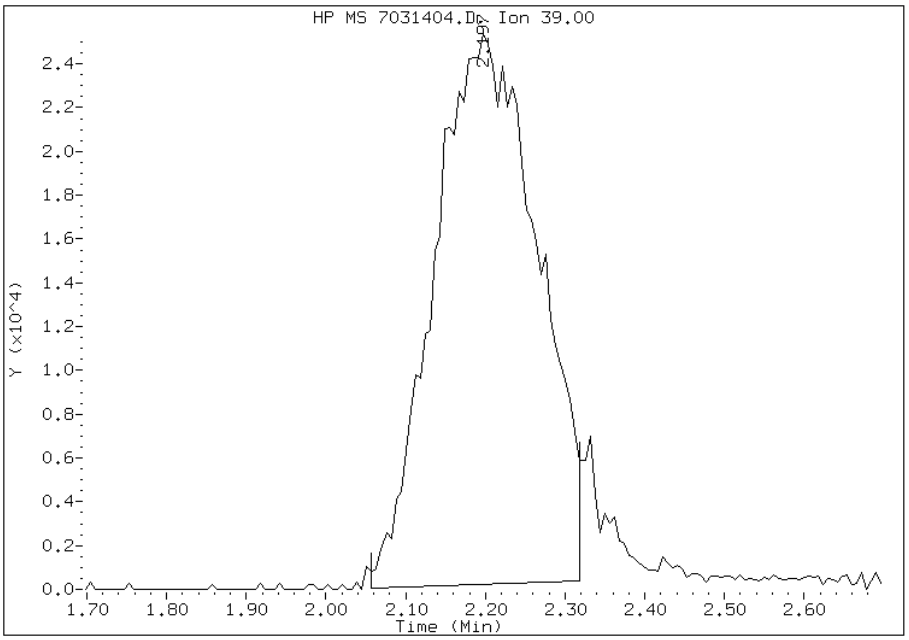
Processing Integration Results

RT: 2.20

Response: 229679

Amount: 33

Conc: 33



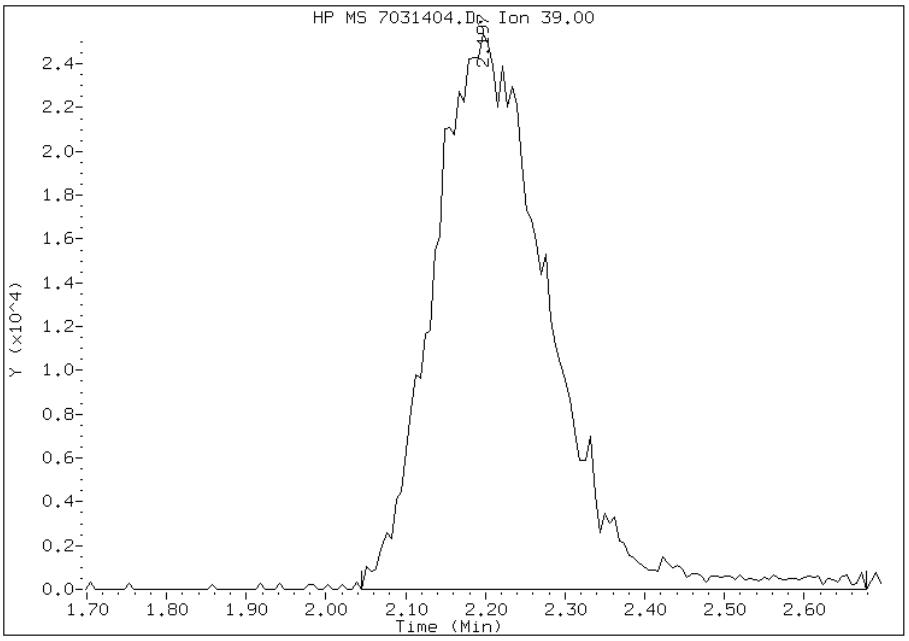
Manual Integration Results

RT: 2.20

Response: 257639

Amount: 60

Conc: 60



Manually Integrated By: zukowskim
Modification Date: 14-Mar-2014 10:52
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031404.D
Inj. Date and Time: 14-MAR-2014 09:40
Instrument ID: hp7.i
Client ID: IC vstd10
Compound: 4 Bromomethane
CAS #: 74-83-9
Report Date: 03/17/2014

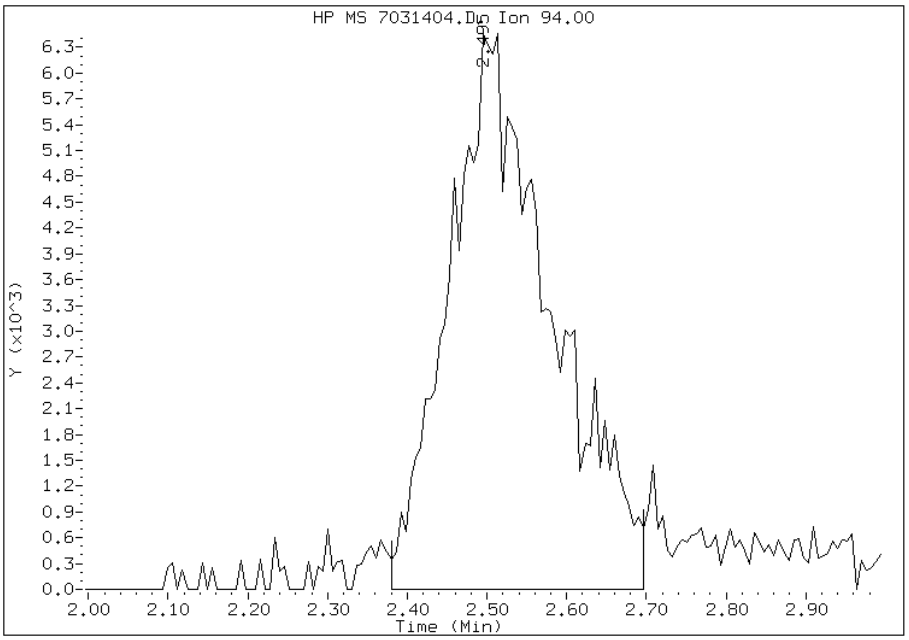
Processing Integration Results

RT: 2.50

Response: 58349

Amount: 41

Conc: 41



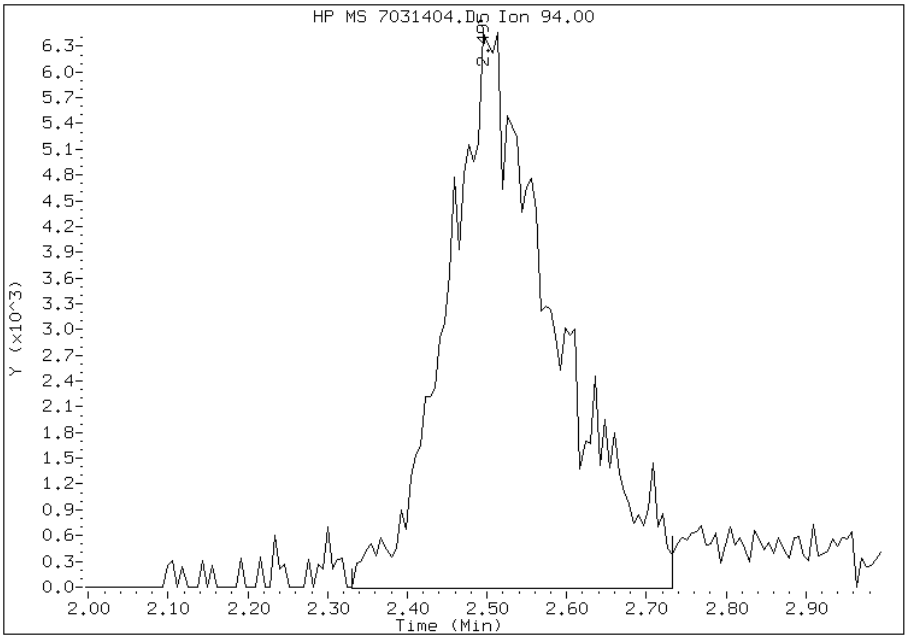
Manual Integration Results

RT: 2.50

Response: 61525

Amount: 59

Conc: 59



Manually Integrated By: zukowskim
Modification Date: 14-Mar-2014 10:32
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031404.D
Inj. Date and Time: 14-MAR-2014 09:40
Instrument ID: hp7.i
Client ID: IC vstd10
Compound: 7 Dichlorofluoromethane
CAS #: 75-43-4
Report Date: 03/17/2014

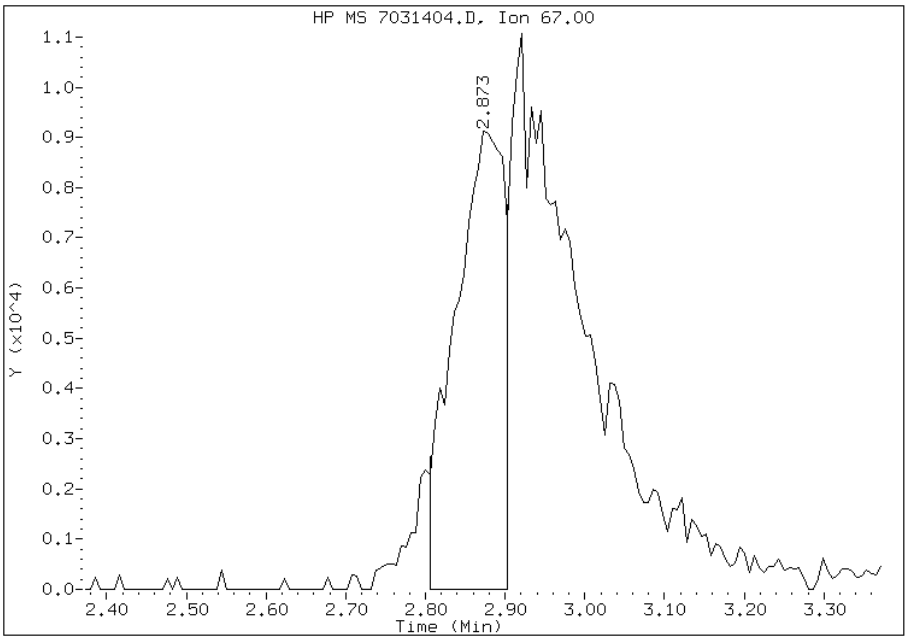
Processing Integration Results

RT: 2.87

Response: 40512

Amount: 18

Conc: 18



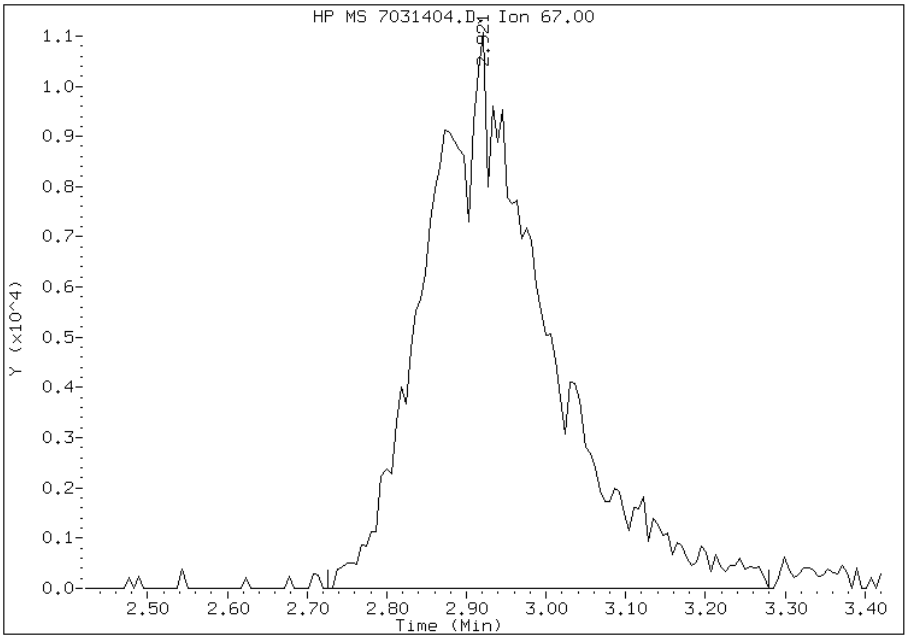
Manual Integration Results

RT: 2.92

Response: 116524

Amount: 55

Conc: 55



Manually Integrated By: zukowskim
Modification Date: 14-Mar-2014 10:32
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031404.D
Inj. Date and Time: 14-MAR-2014 09:40
Instrument ID: hp7.i
Client ID: IC vstd10
Compound: 166 Trichlorofluoromethane
CAS #: 75-69-4
Report Date: 03/17/2014

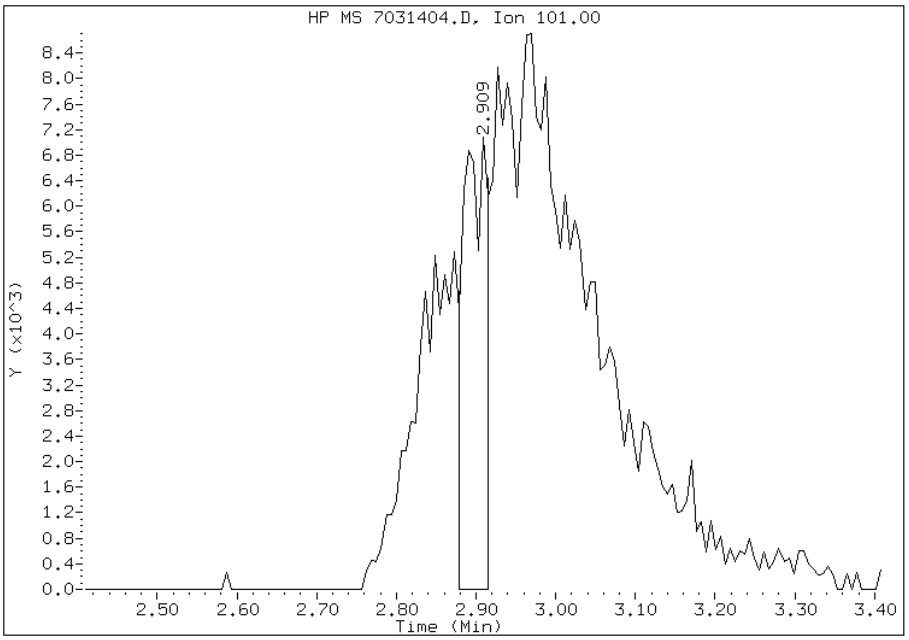
Processing Integration Results

RT: 2.91

Response: 15604

Amount: 6

Conc: 6



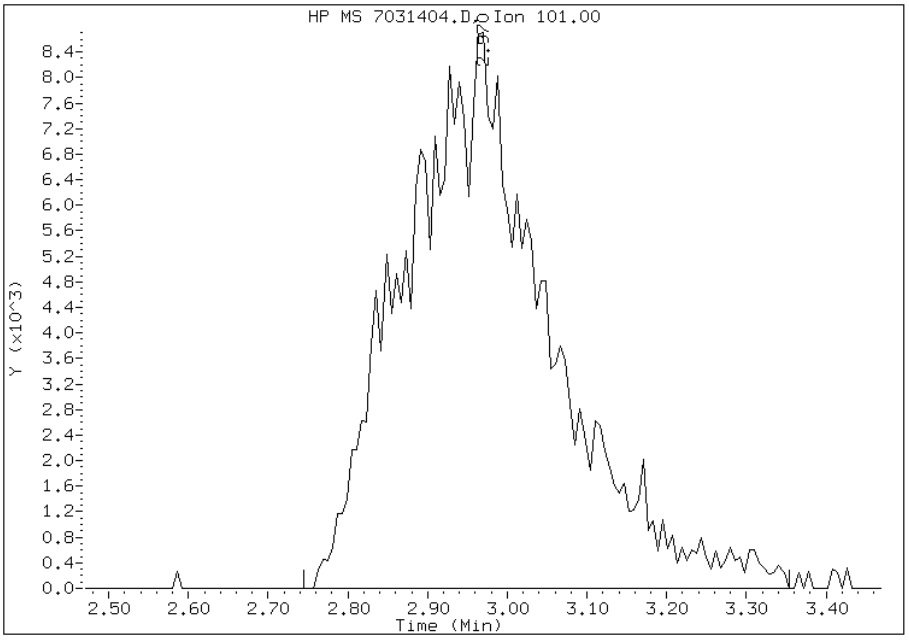
Manual Integration Results

RT: 2.97

Response: 109918

Amount: 52

Conc: 52



Manually Integrated By: zukowskim
Modification Date: 14-Mar-2014 10:32
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031404.D
Inj. Date and Time: 14-MAR-2014 09:40
Instrument ID: hp7.i
Client ID: IC vstd10
Compound: 8 Ethyl Ether
CAS #: 60-29-7
Report Date: 03/17/2014

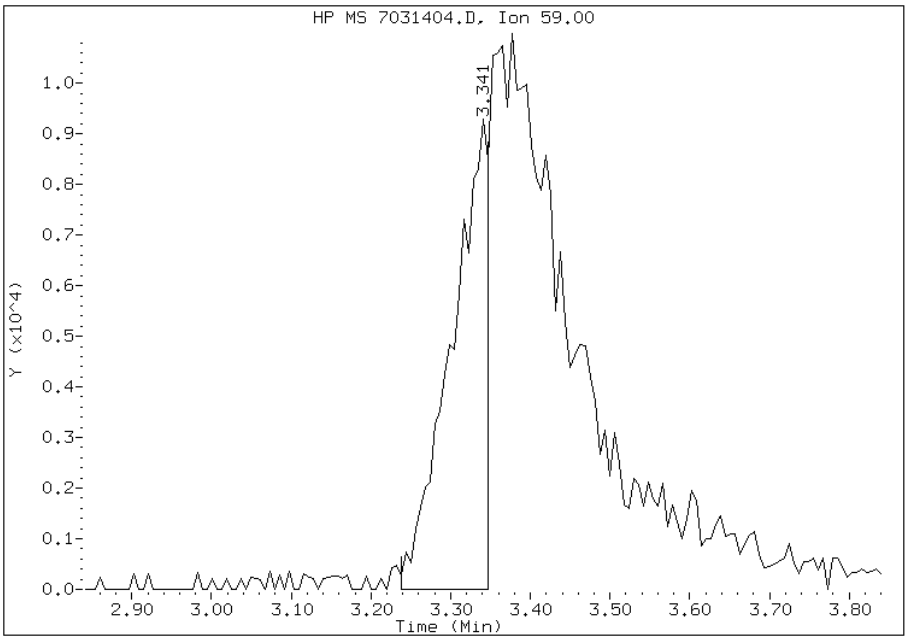
Processing Integration Results

RT: 3.34

Response: 30344

Amount: 19

Conc: 19



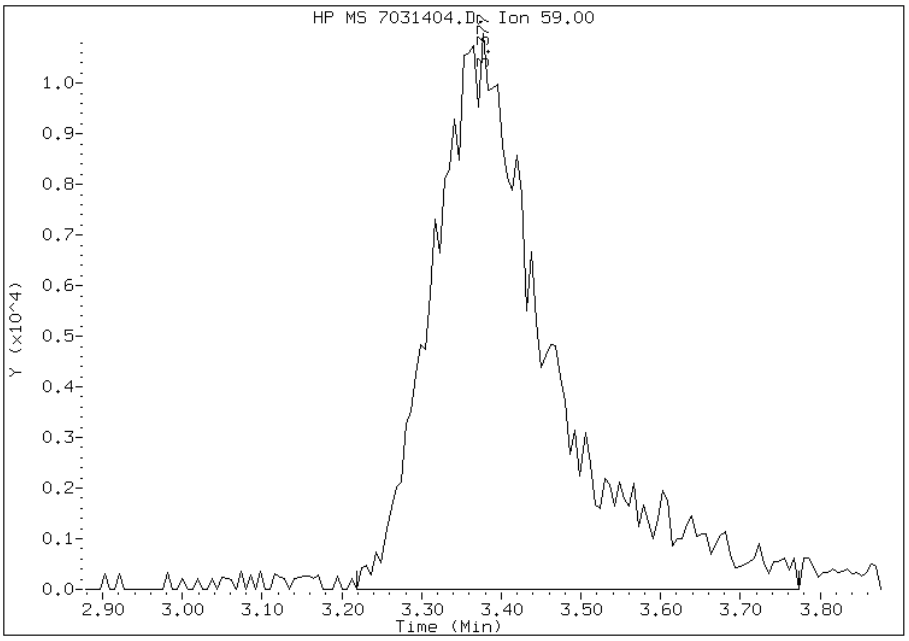
Manual Integration Results

RT: 3.38

Response: 114052

Amount: 52

Conc: 52



Manually Integrated By: zukowskim
Modification Date: 14-Mar-2014 10:52
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031404.D
Inj. Date and Time: 14-MAR-2014 09:40
Instrument ID: hp7.i
Client ID: IC vstd10
Compound: 12 1,1-Dichloroethene
CAS #: 75-35-4
Report Date: 03/17/2014

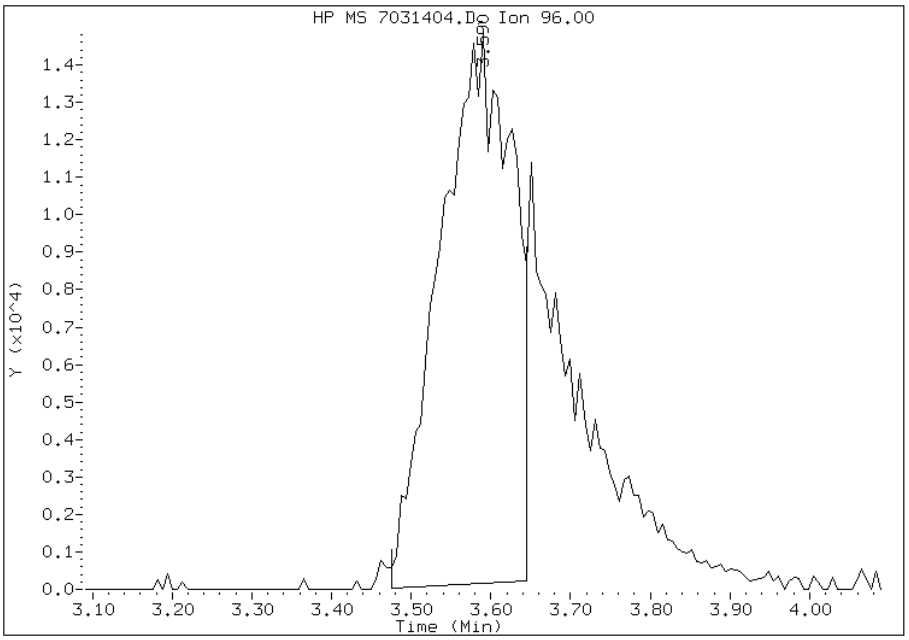
Processing Integration Results

RT: 3.59

Response: 95351

Amount: 25

Conc: 25



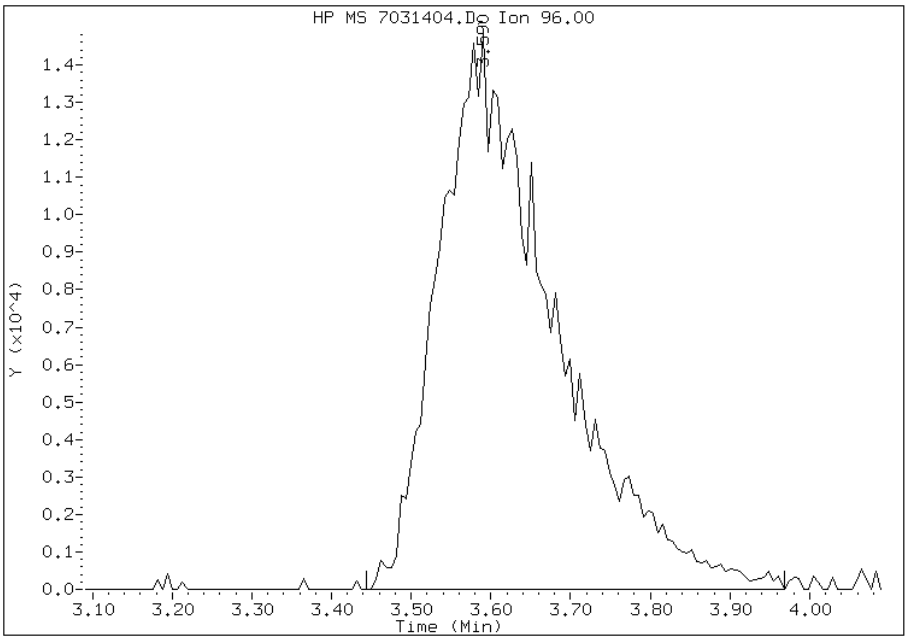
Manual Integration Results

RT: 3.59

Response: 149728

Amount: 57

Conc: 57



Manually Integrated By: zukowskim
Modification Date: 14-Mar-2014 10:32
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031404.D
Inj. Date and Time: 14-MAR-2014 09:40
Instrument ID: hp7.i
Client ID: IC vstd10
Compound: 10 1,1,2-trichloro-1,2,2-trifluoro
CAS #: 76-13-1
Report Date: 03/17/2014

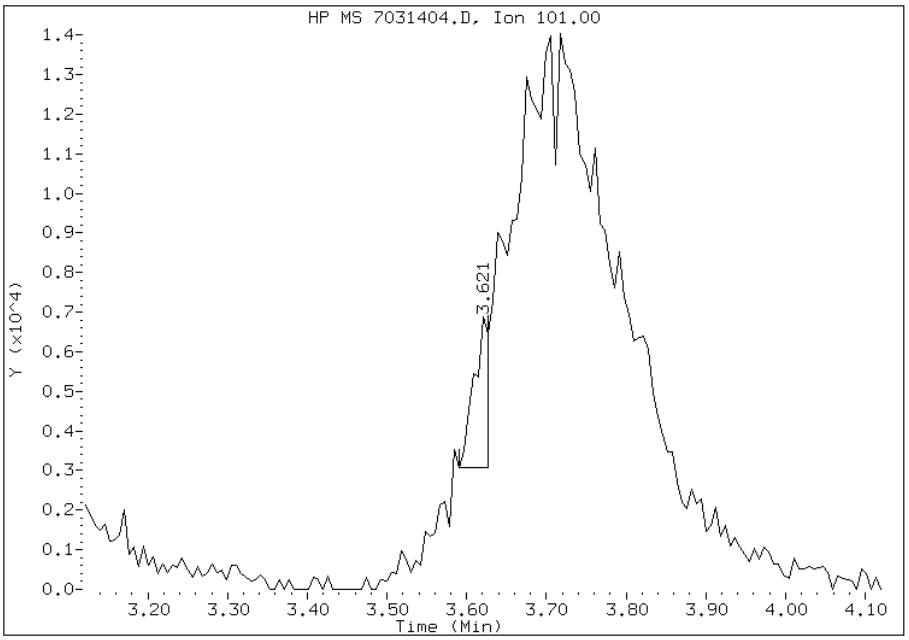
Processing Integration Results

RT: 3.62

Response: 5001

Amount: 2

Conc: 2



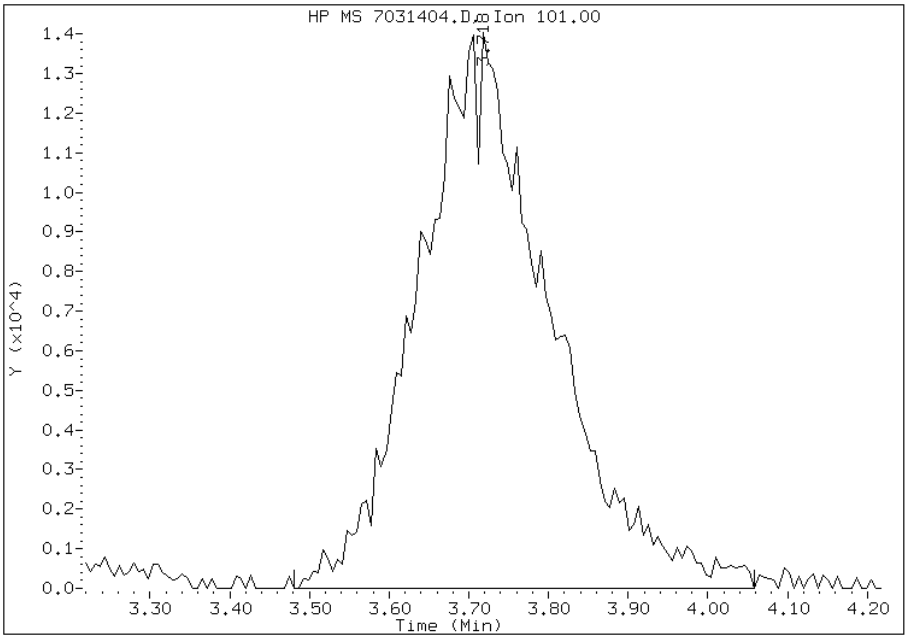
Manual Integration Results

RT: 3.72

Response: 160400

Amount: 59

Conc: 59



Manually Integrated By: zukowskim
Modification Date: 14-Mar-2014 10:32
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031404.D
Inj. Date and Time: 14-MAR-2014 09:40
Instrument ID: hp7.i
Client ID: IC vstd10
Compound: 14 Iodomethane
CAS #: 74-88-4
Report Date: 03/17/2014

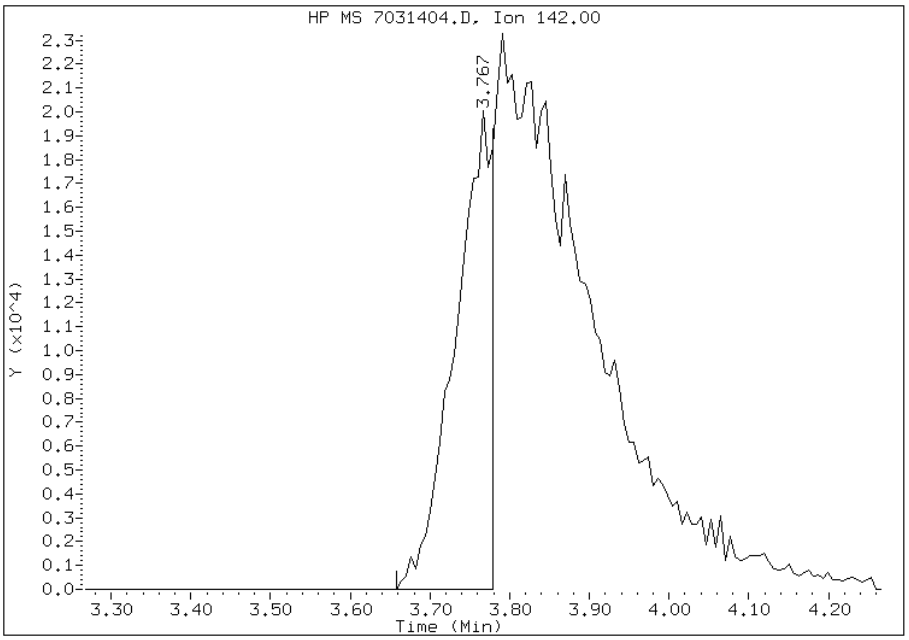
Processing Integration Results

RT: 3.77

Response: 65881

Amount: 16

Conc: 16



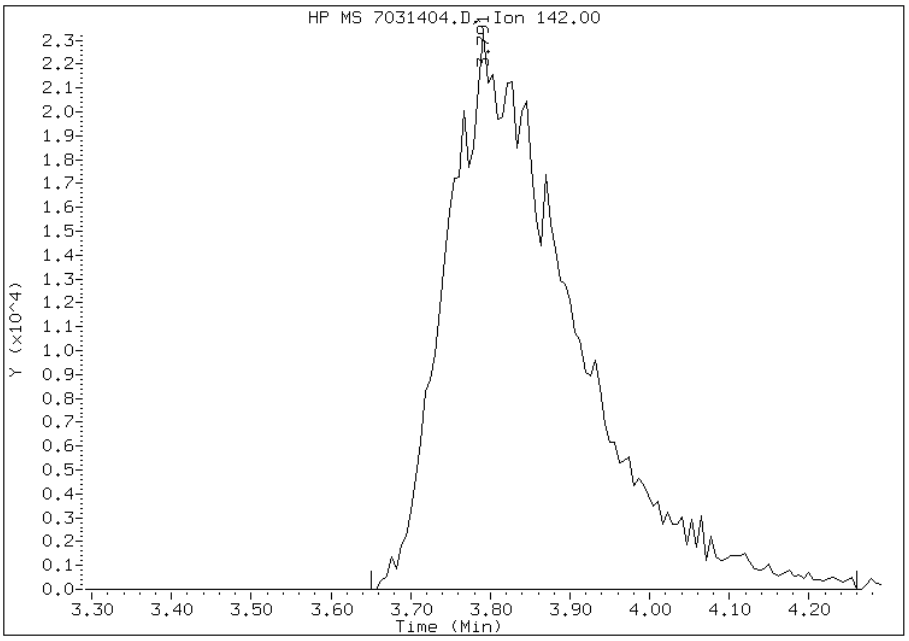
Manual Integration Results

RT: 3.79

Response: 258716

Amount: 58

Conc: 58



Manually Integrated By: zukowskim
Modification Date: 14-Mar-2014 10:52
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031404.D
Inj. Date and Time: 14-MAR-2014 09:40
Instrument ID: hp7.i
Client ID: IC vstd10
Compound: 13 Acetone
CAS #: 67-64-1
Report Date: 03/17/2014

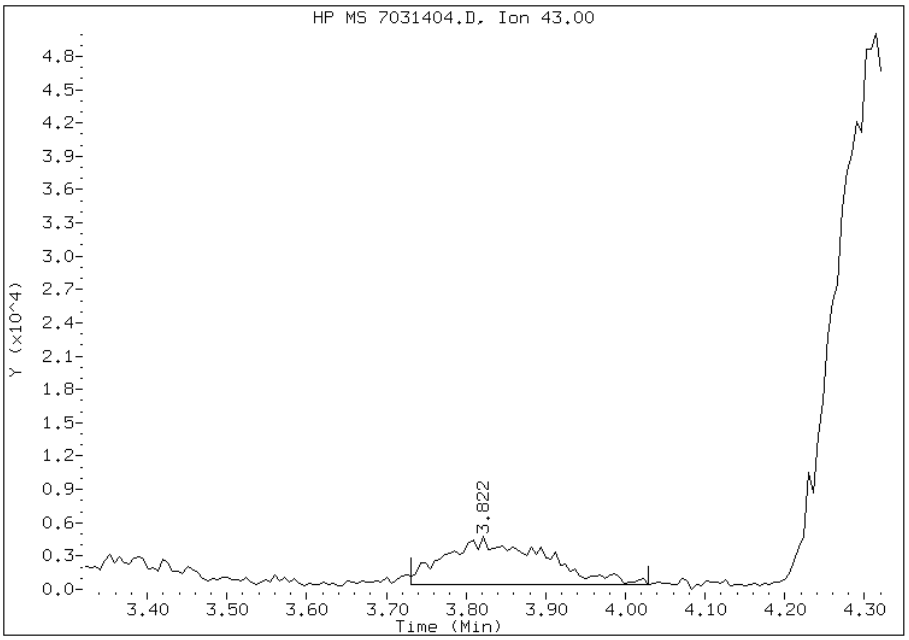
Processing Integration Results

RT: 3.82

Response: 37130

Amount: 36

Conc: 36



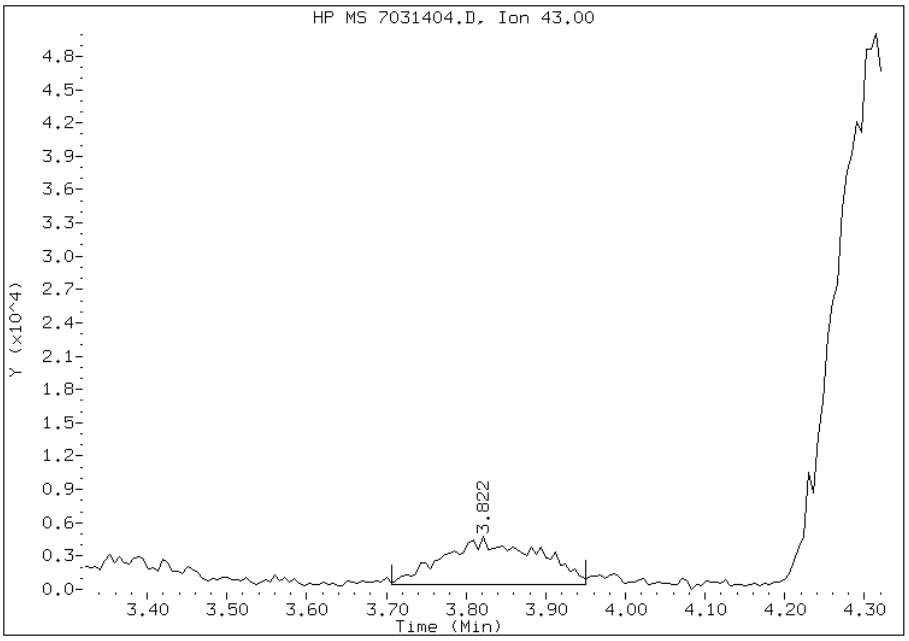
Manual Integration Results

RT: 3.82

Response: 34504

Amount: 30

Conc: 30



Manually Integrated By: zukowskim
Modification Date: 16-Mar-2014 22:47
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031404.D
Inj. Date and Time: 14-MAR-2014 09:40
Instrument ID: hp7.i
Client ID: IC vstd10
Compound: 15 Carbon Disulfide
CAS #: 75-15-0
Report Date: 03/17/2014

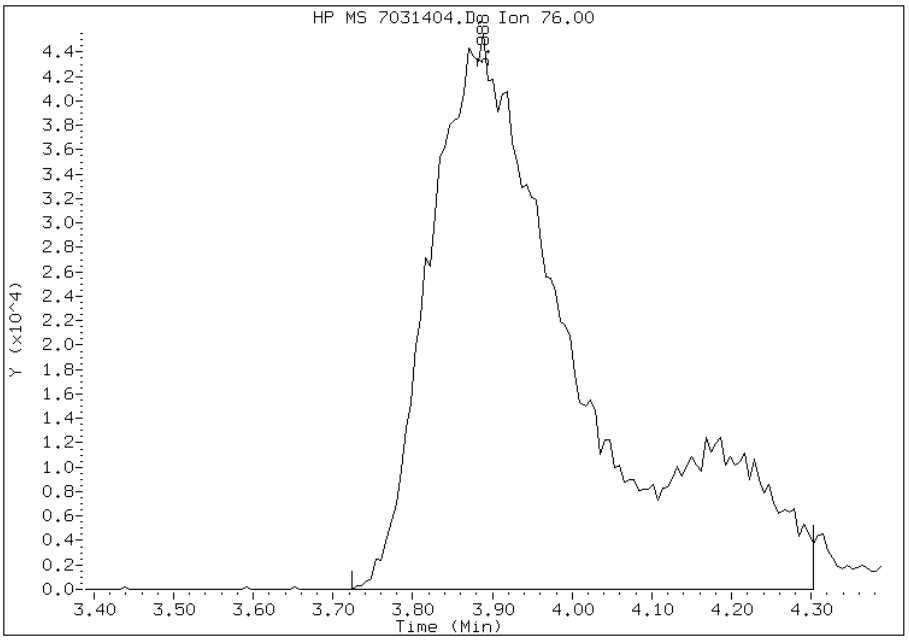
Processing Integration Results

RT: 3.89

Response: 602222

Amount: 40

Conc: 40



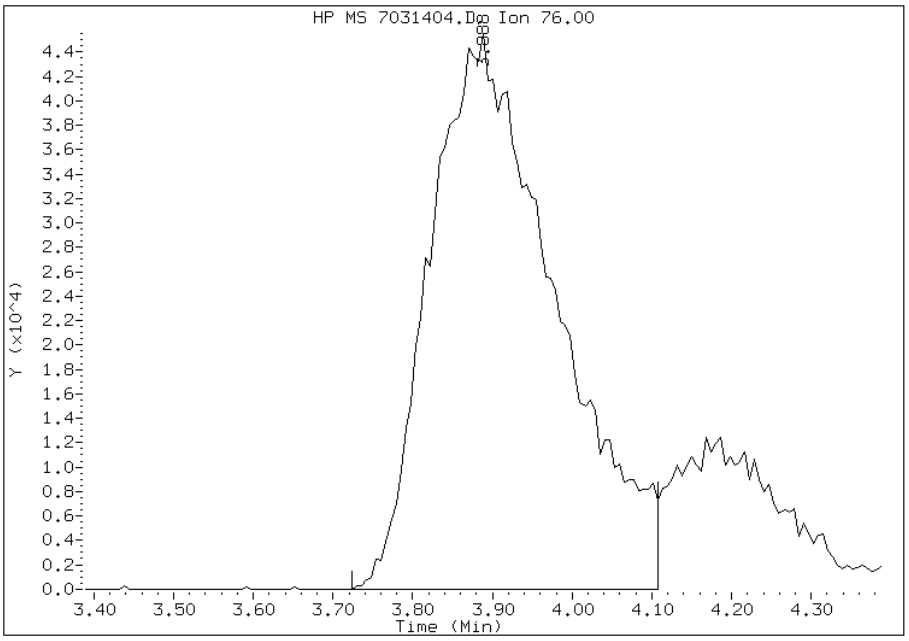
Manual Integration Results

RT: 3.89

Response: 499397

Amount: 60

Conc: 60



Manually Integrated By: zukowskim
Modification Date: 14-Mar-2014 10:36
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031404.D
Inj. Date and Time: 14-MAR-2014 09:40
Instrument ID: hp7.i
Client ID: IC vstd10
Compound: 16 3-Chloro-1-propene
CAS #: 107-05-1
Report Date: 03/17/2014

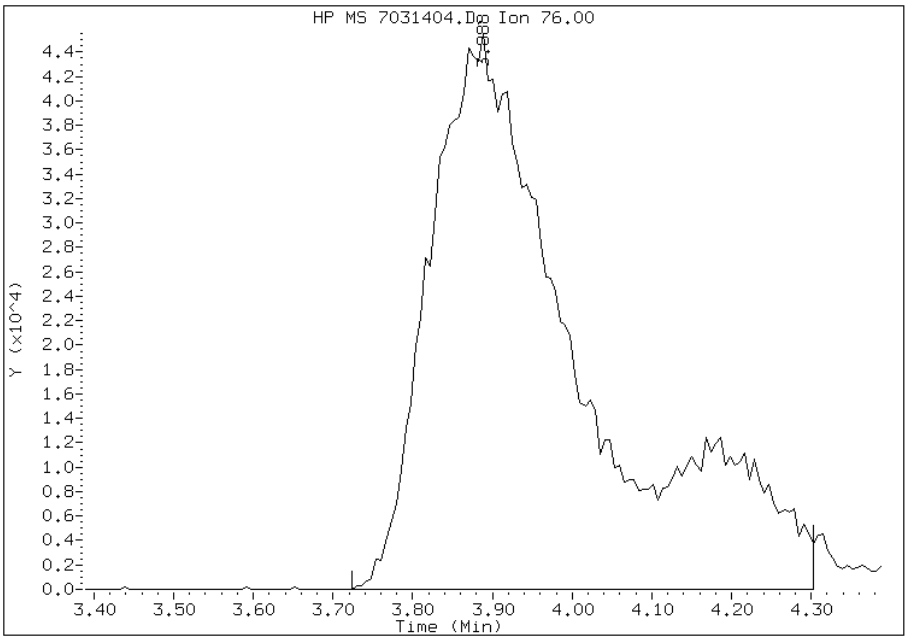
Processing Integration Results

RT: 3.89

Response: 602222

Amount: 76

Conc: 76



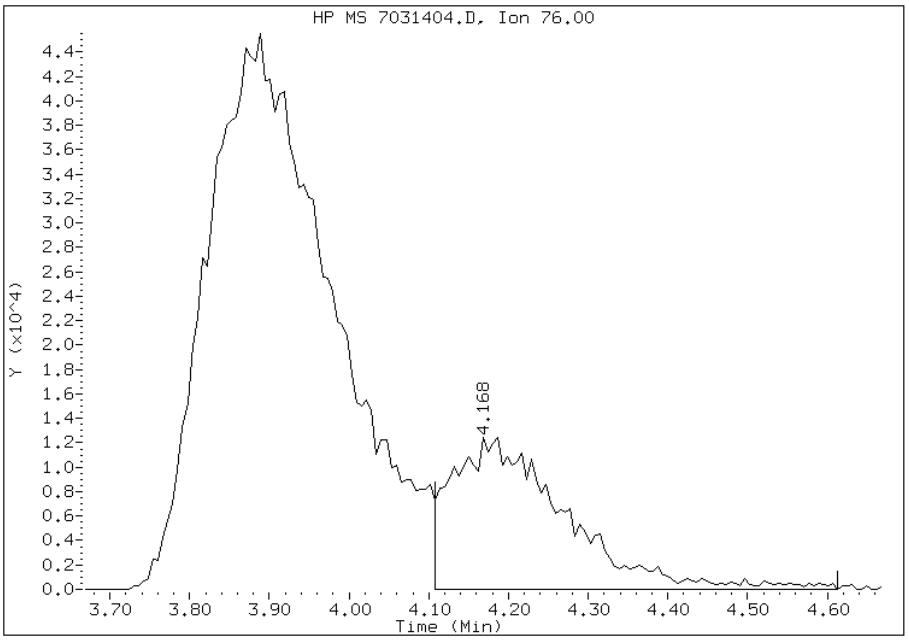
Manual Integration Results

RT: 4.17

Response: 124811

Amount: 51

Conc: 51



Manually Integrated By: zukowskim
Modification Date: 14-Mar-2014 10:51
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031404.D
Inj. Date and Time: 14-MAR-2014 09:40
Instrument ID: hp7.i
Client ID: IC vstd10
Compound: 18 Methylene Chloride
CAS #: 75-09-2
Report Date: 03/17/2014

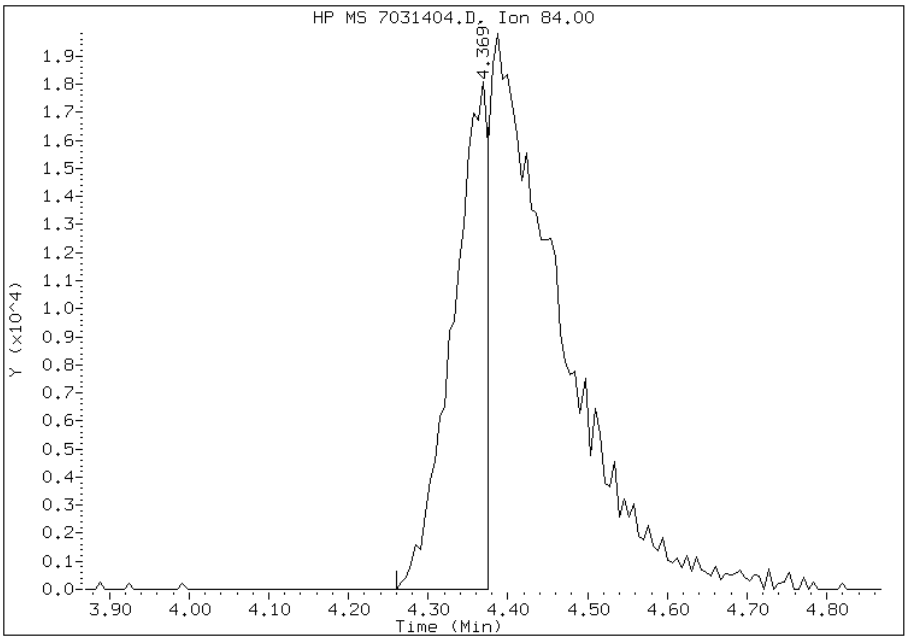
Processing Integration Results

RT: 4.37

Response: 56557

Amount: 22

Conc: 22



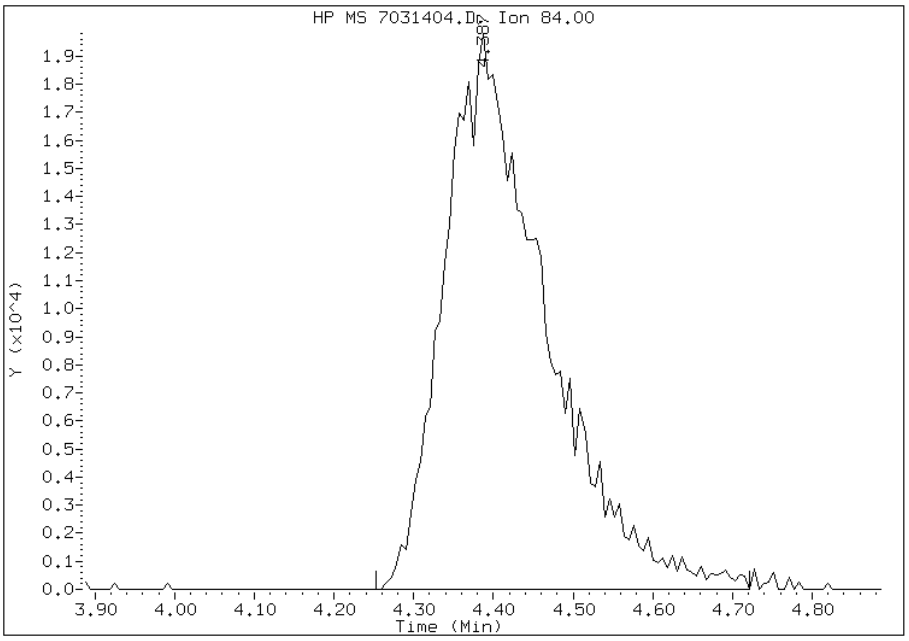
Manual Integration Results

RT: 4.39

Response: 175594

Amount: 54

Conc: 54



Manually Integrated By: zukowskim
Modification Date: 14-Mar-2014 10:37
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031404.D
Inj. Date and Time: 14-MAR-2014 09:40
Instrument ID: hp7.i
Client ID: IC vstd10
Compound: 19 trans-1,2-Dichloroethene
CAS #: 156-60-5
Report Date: 03/17/2014

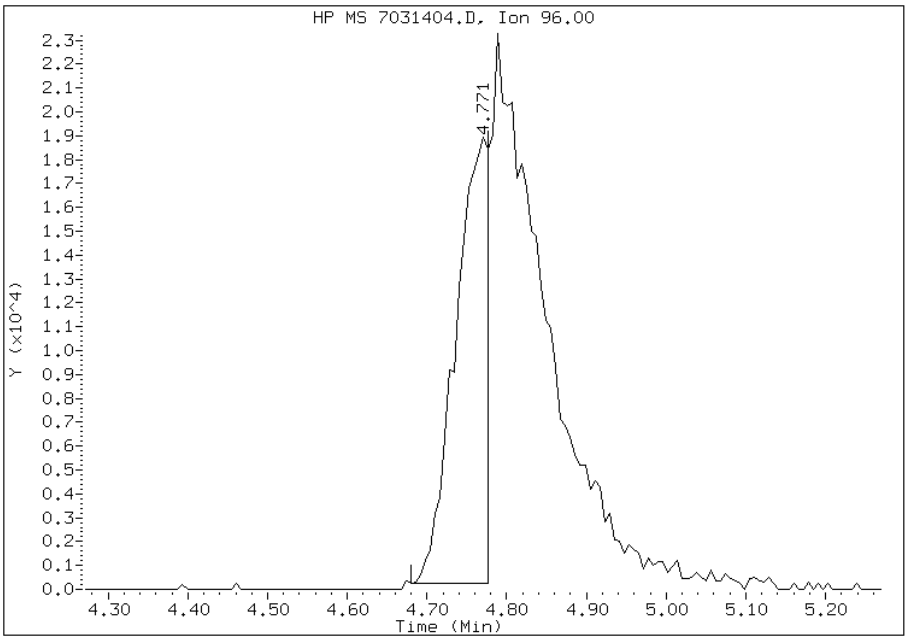
Processing Integration Results

RT: 4.77

Response: 54179

Amount: 18

Conc: 18



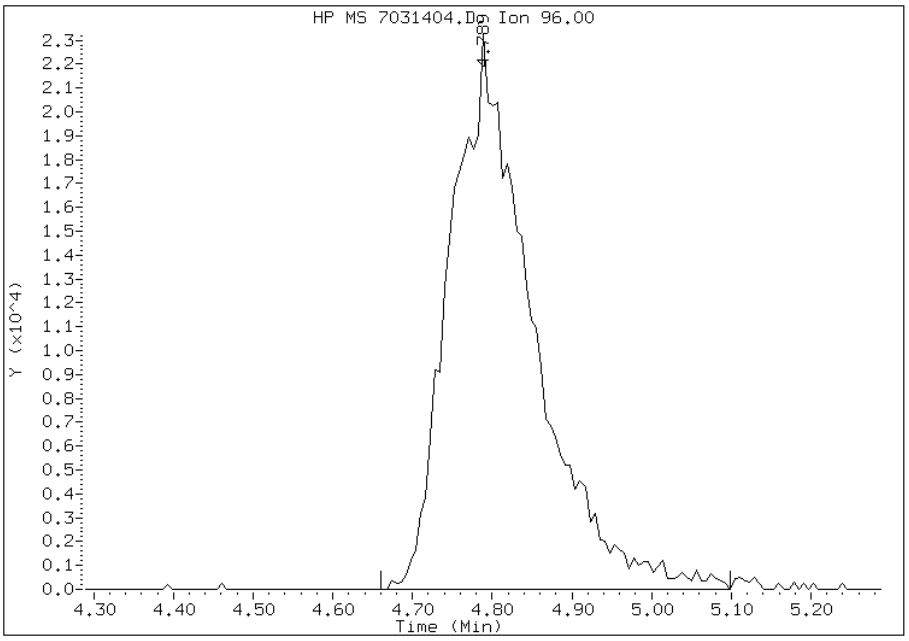
Manual Integration Results

RT: 4.79

Response: 169009

Amount: 56

Conc: 56



Manually Integrated By: zukowskim
Modification Date: 14-Mar-2014 10:51
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031404.D
Inj. Date and Time: 14-MAR-2014 09:40
Instrument ID: hp7.i
Client ID: IC vstd10
Compound: 52 1,4-Dioxane
CAS #: 123-91-1
Report Date: 03/17/2014

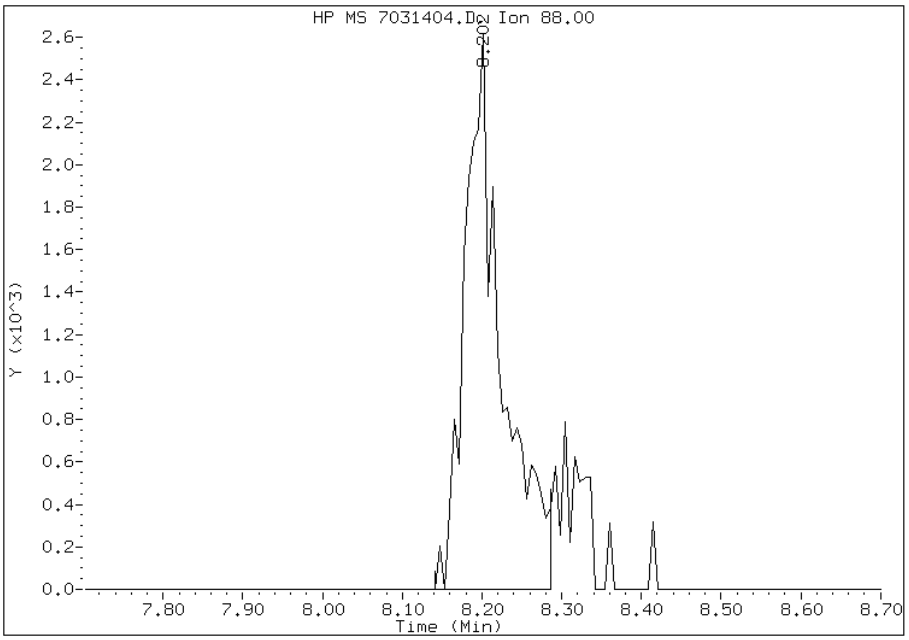
Processing Integration Results

RT: 8.20

Response: 8518

Amount: 708

Conc: 708



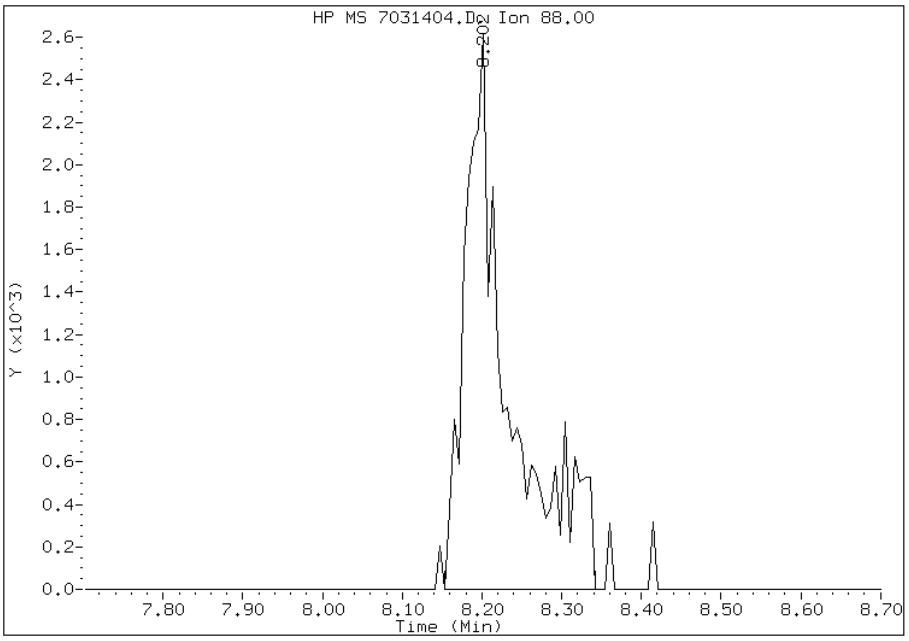
Manual Integration Results

RT: 8.20

Response: 9914

Amount: 1269

Conc: 1269



Manually Integrated By: zukowskim
Modification Date: 14-Mar-2014 10:51
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031404.D
Inj. Date and Time: 14-MAR-2014 09:40
Instrument ID: hp7.i
Client ID: IC vstd10
Compound: 96 1,2-Dibromo-3-chloropropane
CAS #: 96-12-8
Report Date: 03/17/2014

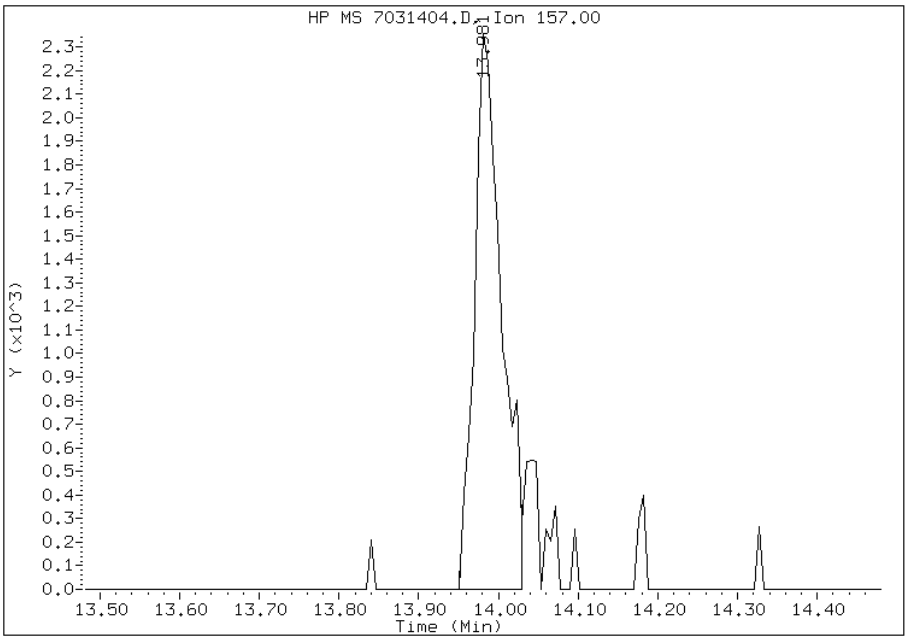
Processing Integration Results

RT: 13.98

Response: 5674

Amount: 39

Conc: 39



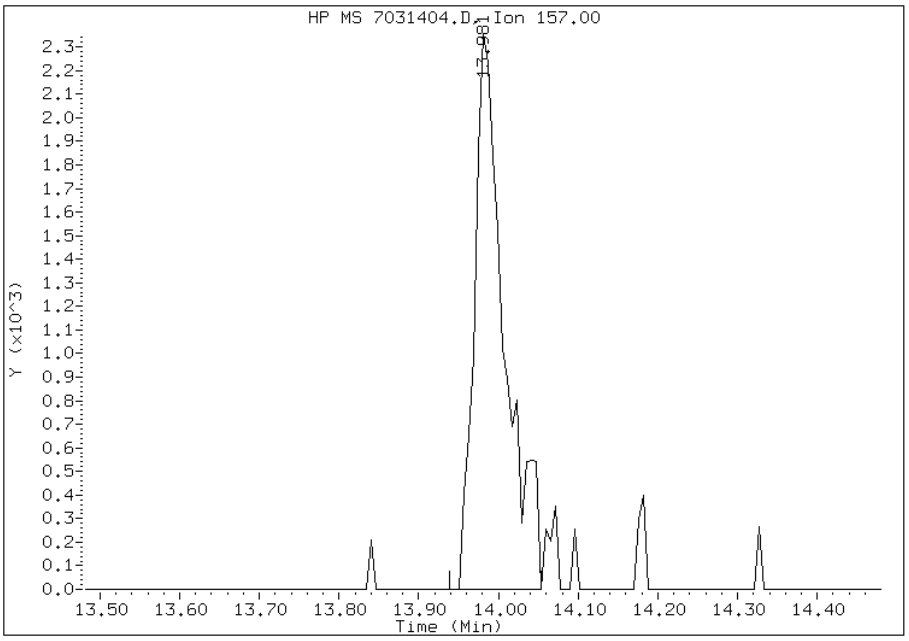
Manual Integration Results

RT: 13.98

Response: 6267

Amount: 40

Conc: 40



Manually Integrated By: zukowskim
Modification Date: 14-Mar-2014 10:51
Manual Integration Reason: Peak Integrated Incorrectly

TestAmerica Pittsburgh

VOLATILE REPORT SW-846 Method

Data file : \\pitsvr06\d\chem\hp7.i\7031414d.b\7031405.D
Lab Smp Id: IC Client Smp ID: IC vstd25
Inj Date : 14-MAR-2014 10:13 MS Autotune Date: 29-AUG-2013 09:08
Operator : 430936 Inst ID: hp7.i
Smp Info : IC, vstd25
Misc Info : 7031414d.b,T8260bh2o.m,list1.sub
Comment :
Method : \\pitsvr06\d\chem\hp7.i\7031414d.b\T8260bh2o.m
Meth Date : 17-Mar-2014 03:24 zukowskim Quant Type: ISTD
Cal Date : 14-MAR-2014 09:40 Cal File: 7031404.D
Als bottle: 4 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: list1.sub
Target Version: 4.14
Processing Host: PITPC-530

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
*	46 Fluorobenzene (IS)	96	7.408	7.410	(1.000)	2279842	250.000	
*	69 Chlorobenzene-d5	119	10.468	10.470	(1.000)	576540	250.000	
*	92 1,4-Dichlorobenzene-d4	152	12.786	12.788	(1.000)	749241	250.000	
*	176 Dioxane-d8 (IS)	96	8.138	8.140	(1.000)	50907	5000.00	
*	177 TBA-d9 (IS)	65	4.719	4.715	(1.000)	514835	5000.00	
$	39 Dibromofluoromethane (Surr)	113	6.678	6.680	(0.901)	295588	125.000	123.3
$	43 1,2-Dichloroethane-d4	65	7.043	7.057	(0.951)	343050	125.000	124.2
$	59 Toluene-d8	98	9.038	9.041	(0.863)	1092816	125.000	121.8
$	80 Bromofluorobenzene (Surr)	95	11.630	11.633	(1.111)	400755	125.000	123.2
	1 Dichlorodifluoromethane	85	1.945	1.960	(0.263)	420063	125.000	135.4(M)
	2 Chloromethane	50	2.024	2.020	(0.273)	915181	125.000	136.0(M)
	3 Vinyl Chloride	62	2.164	2.166	(0.292)	558433	125.000	136.1(M)
	4 Bromomethane	94	2.499	2.495	(0.337)	139189	125.000	130.9(QM)
	5 Chloroethane	64	2.596	2.610	(0.350)	121922	125.000	131.4(M)
	7 Dichlorofluoromethane	67	2.882	2.921	(0.389)	270599	125.000	125.5(M)
	10 1,1,2-trichloro-1,2,2-trifluor	101	3.721	3.718	(0.502)	378879	125.000	137.1(QM)
	166 Trichlorofluoromethane	101	2.943	2.970	(0.397)	261318	125.000	122.9(M)
	12 1,1-Dichloroethene	96	3.594	3.590	(0.485)	343325	125.000	128.2
	15 Carbon Disulfide	76	3.874	3.888	(0.523)	1129838	125.000	134.3(M)
	13 Acetone	43	3.801	3.822	(0.513)	78972	125.000	125.8
	18 Methylene Chloride	84	4.378	4.387	(0.591)	383647	125.000	116.6(Q)
	19 trans-1,2-Dichloroethene	96	4.780	4.788	(0.645)	377315	125.000	123.9
	20 Methyl tert-butyl ether	73	4.865	4.861	(0.657)	717781	125.000	119.0
	24 1,1-Dichloroethane	63	5.370	5.372	(0.725)	770419	125.000	130.1
	27 2,2-Dichloropropane	77	6.106	6.096	(0.824)	494654	125.000	135.3
	28 cis-1,2-dichloroethene	96	6.106	6.115	(0.824)	398200	125.000	126.1
M	29 1,2-Dichloroethene (total)	96				775515	250.000	250.0
	30 Bromochloromethane	128	6.386	6.388	(0.862)	168089	125.000	123.3

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
31 2-Butanone	43	6.185	6.200	(0.835)	92055	125.000	113.6
37 Chloroform	83	6.502	6.504	(0.878)	586292	125.000	128.7
38 1,1,1-Trichloroethane	97	6.684	6.686	(0.902)	513564	125.000	131.8
40 1,1-Dichloropropene	75	6.873	6.881	(0.928)	421473	125.000	131.1
41 Carbon Tetrachloride	117	6.873	6.875	(0.928)	413180	125.000	130.5
42 Benzene	78	7.098	7.101	(0.958)	1287191	125.000	126.2
45 1,2-Dichloroethane	62	7.134	7.131	(0.963)	377997	125.000	113.9
47 Trichloroethene	130	7.791	7.794	(1.052)	350990	125.000	130.9
49 1,2-Dichloropropane	63	8.029	8.037	(1.084)	332288	125.000	122.6
50 Dibromomethane	93	8.156	8.153	(1.101)	154508	125.000	118.7
53 Bromodichloromethane	83	8.321	8.317	(1.123)	407524	125.000	128.2
57 cis-1,3-Dichloropropene	75	8.771	8.779	(1.184)	467593	125.000	126.4
58 4-Methyl-2-Pentanone	43	8.941	8.938	(0.854)	222599	125.000	114.6
60 Toluene	91	9.105	9.108	(0.870)	1210904	125.000	121.0
61 trans-1,3-Dichloropropene	75	9.330	9.333	(0.891)	351199	125.000	126.9
63 1,3-Dichloropropane	76	9.671	9.674	(0.924)	329178	125.000	115.1
64 1,1,2-Trichloroethane	97	9.507	9.510	(0.908)	206792	125.000	118.4
65 Tetrachloroethene	164	9.647	9.649	(0.922)	279278	125.000	131.4
66 2-Hexanone	43	9.762	9.771	(0.933)	154404	125.000	125.2
67 Dibromochloromethane	129	9.896	9.898	(0.945)	245004	125.000	123.1
68 1,2-Dibromoethane	107	10.012	10.015	(0.956)	211191	125.000	117.9
70 Chlorobenzene	112	10.498	10.495	(1.003)	764264	125.000	127.7
71 1,1,1,2-Tetrachloroethane	131	10.578	10.580	(1.010)	291954	125.000	127.4
72 Ethylbenzene	106	10.608	10.605	(1.013)	449377	125.000	129.9(Q)
73 m,p-XYLENE	106	10.717	10.720	(1.024)	573324	125.000	130.5
74 Xylene-o	106	11.113	11.116	(1.062)	616933	125.000	130.2
76 Styrene	104	11.125	11.128	(1.063)	892312	125.000	120.2
77 Bromoform	173	11.314	11.316	(1.081)	143499	125.000	116.3
78 Isopropylbenzene	105	11.478	11.481	(1.096)	1488468	125.000	128.2
79 Bromobenzene	156	11.788	11.791	(0.922)	366946	125.000	124.9
81 n-Propylbenzene	120	12.062	12.065	(0.943)	620349	125.000	132.8
82 2-Chlorotoluene	126	11.977	11.979	(0.937)	360112	125.000	134.9
83 1,1,2,2-Tetrachloroethane	83	11.770	11.773	(1.124)	199091	125.000	115.5
84 1,2,3-Trichloropropane	110	11.819	11.821	(0.924)	55398	125.000	117.3(Q)
85 4-Chlorotoluene	126	12.086	12.089	(0.945)	347761	125.000	133.8(Q)
86 1,3,5-Trimethylbenzene	105	12.062	12.065	(0.943)	1175516	125.000	127.8
87 tert-Butylbenzene	119	12.390	12.387	(0.969)	1092351	125.000	137.9
88 1,2,4-Trimethylbenzene	105	12.433	12.436	(0.972)	1149353	125.000	125.3
89 sec-Butylbenzene	105	12.603	12.606	(0.986)	1601055	125.000	132.6
90 4-Isopropyltoluene	119	12.749	12.752	(0.997)	1219239	125.000	129.7
91 1,3-Dichlorobenzene	146	12.725	12.722	(0.995)	612198	125.000	128.2
94 n-Butylbenzene	91	13.163	13.166	(1.029)	1222593	125.000	107.7
93 1,4-Dichlorobenzene	146	12.816	12.813	(1.002)	544576	125.000	128.1
95 1,2-Dichlorobenzene	146	13.187	13.190	(1.031)	442044	125.000	121.7
96 1,2-Dibromo-3-chloropropane	157	13.978	13.981	(1.093)	13660	125.000	99.60
97 1,2,4-Trichlorobenzene	180	14.806	14.808	(1.158)	103210	125.000	93.89
98 Hexachlorobutadiene	225	14.970	14.973	(1.171)	125765	125.000	113.6
99 Naphthalene	128	15.055	15.064	(1.177)	122565	125.000	92.41
100 1,2,3-Trichlorobenzene	180	15.310	15.307	(1.197)	82196	125.000	102.8
156 Methyl Acetate	43	4.324	4.314	(0.584)	932293	625.000	587.7
157 Cyclohexane	56	6.745	6.741	(0.910)	793562	125.000	135.4
158 Methyl Cyclohexane	83	7.992	7.995	(1.079)	663252	125.000	127.6
32 Vinyl Acetate	43	5.504	5.513	(0.743)	496139	125.000	106.3
52 1,4-Dioxane	88	8.199	8.202	(1.007)	20062	2500.00	1960(M)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
21	tert-Butyl Alcohol	59	4.835	4.825	(1.024)	140278	1250.00	1113(Q)
16	3-Chloro-1-propene	76	4.178	4.168	(0.564)	323942	125.000	130.9(M)
11	Acrolein	56	3.527	3.505	(0.476)	216657	750.000	766.4(QM)
22	Acrylonitrile	53	4.804	4.819	(0.649)	958403	1250.00	1182
8	Ethyl Ether	59	3.356	3.377	(0.453)	255748	125.000	114.9(QM)
62	Ethyl methacrylate	69	9.422	9.424	(0.900)	257151	125.000	116.3
23	Hexane	57	5.181	5.178	(0.699)	696710	125.000	127.8
14	Iodomethane	142	3.788	3.791	(0.511)	580330	125.000	129.1
44	Isobutanol	41	7.408	7.411	(1.000)	370513	3125.00	3258
155	N-Heptane	41	7.998	7.994	(1.080)	553540	125.000	135.2
35	Tetrahydrofuran	42	6.739	6.747	(0.910)	212287	250.000	271.0
164	trans-1,4-Dichloro-2-butene	53	11.831	11.833	(0.925)	51554	125.000	119.1
169	Butadiene	39	2.201	2.197	(0.297)	555765	125.000	128.0
M 75	Xylenes (total)	106				1190257	250.000	260.7

QC Flag Legend

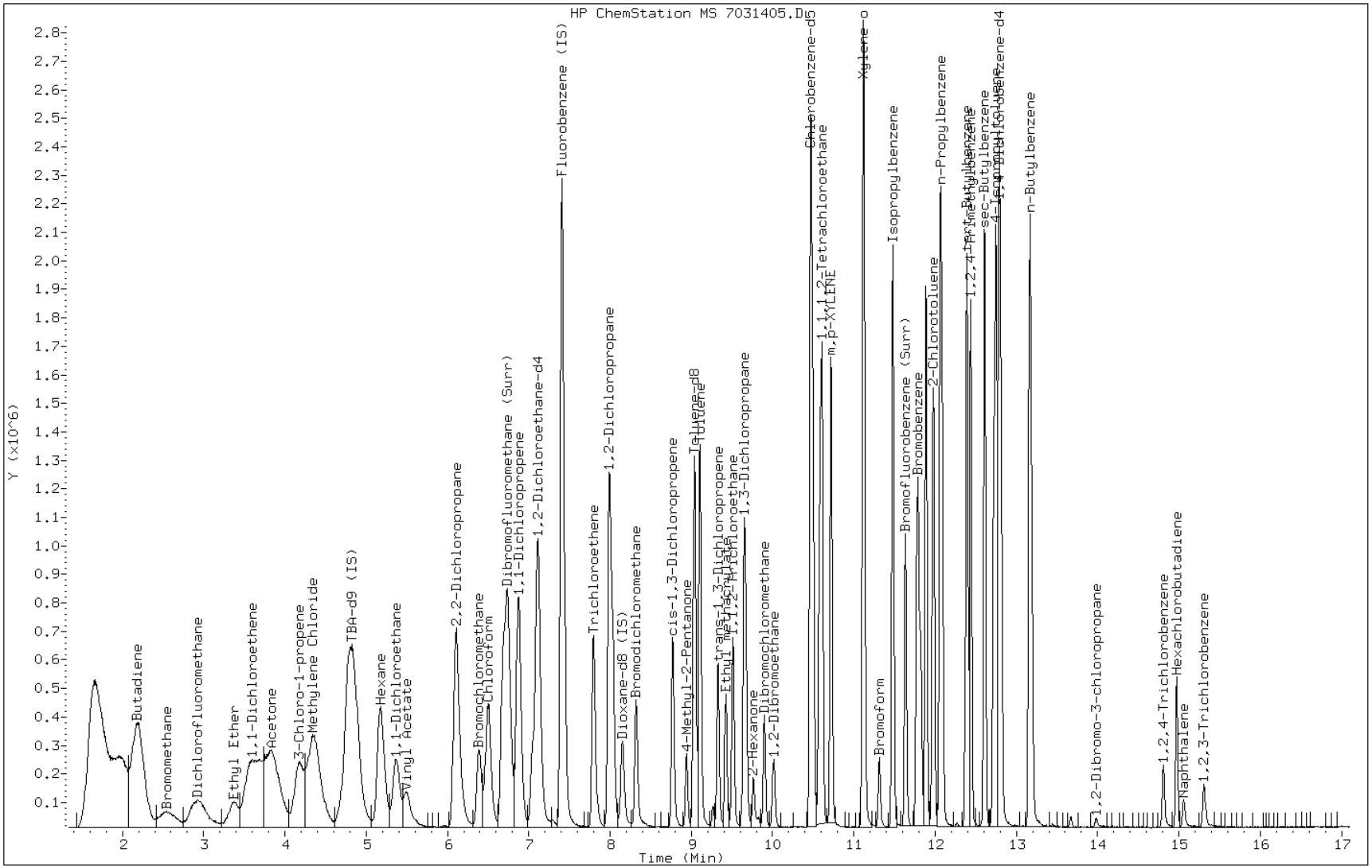
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: 7031405.D

Date: 14-MAR-2014 10:13

Client ID: IC vstd25 Instrument: hp7.i

Sample Info: IC, vstd25 Operator: 430936



Manual Integration Report

Data File: 7031405.D
Inj. Date and Time: 14-MAR-2014 10:13
Instrument ID: hp7.i
Client ID: IC vstd25
Compound: 1 Dichlorodifluoromethane
CAS #: 75-71-8
Report Date: 03/17/2014

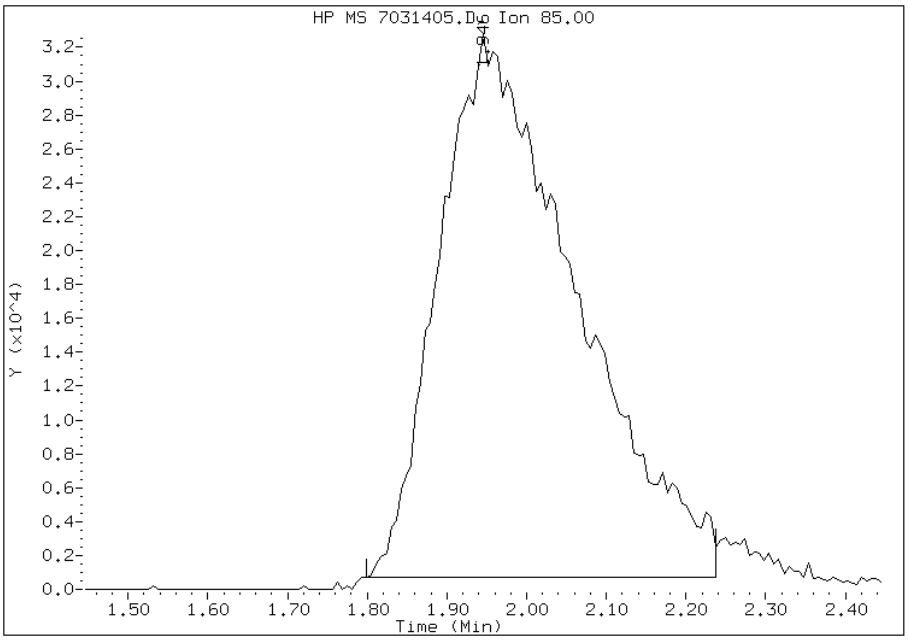
Processing Integration Results

RT: 1.95

Response: 383327

Amount: 116

Conc: 116



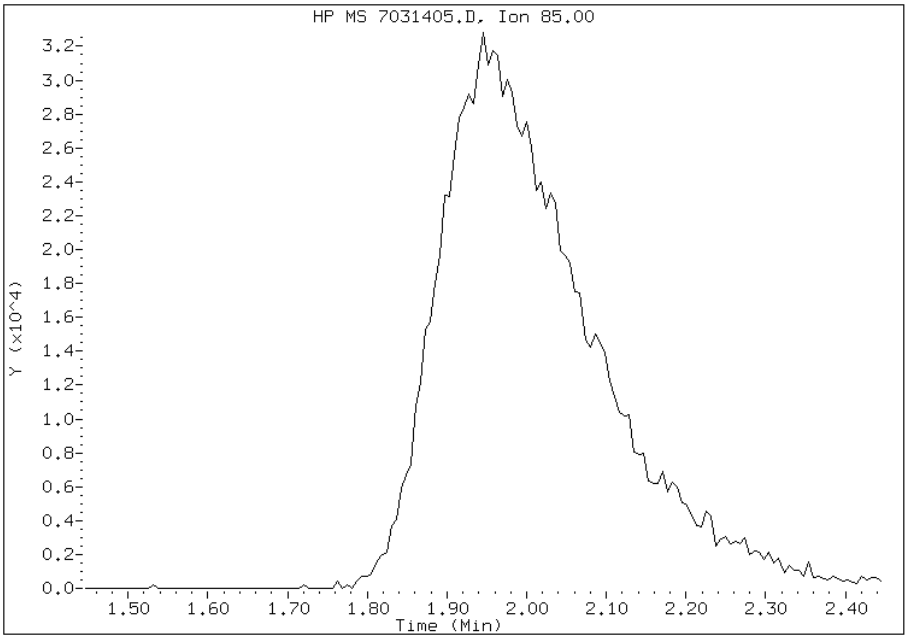
Manual Integration Results

RT: 1.95

Response: 420063

Amount: 135

Conc: 135



Manually Integrated By: zukowskim
Modification Date: 14-Mar-2014 10:54
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031405.D
Inj. Date and Time: 14-MAR-2014 10:13
Instrument ID: hp7.i
Client ID: IC vstd25
Compound: 2 Chloromethane
CAS #: 74-87-3
Report Date: 03/17/2014

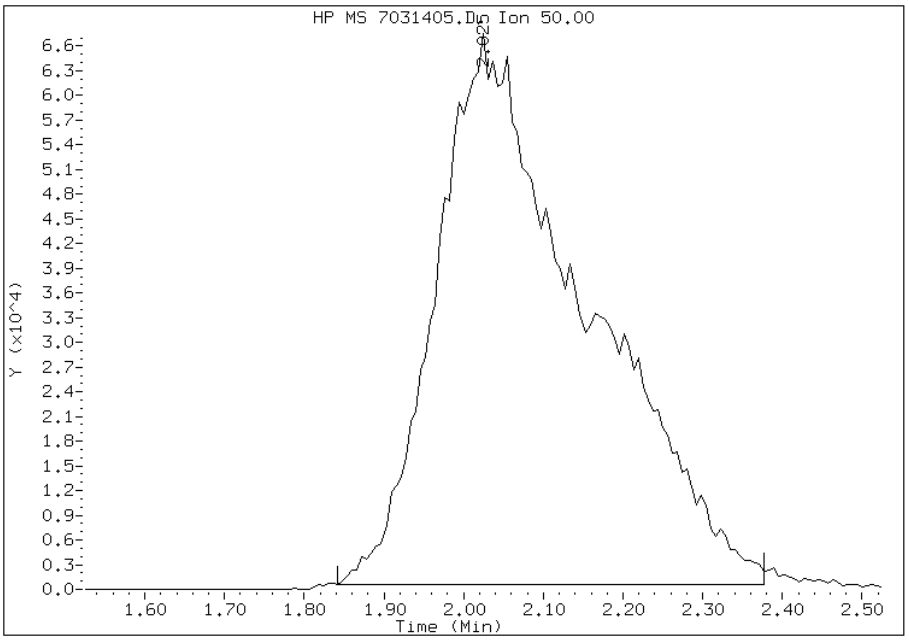
Processing Integration Results

RT: 2.02

Response: 878271

Amount: 117

Conc: 117



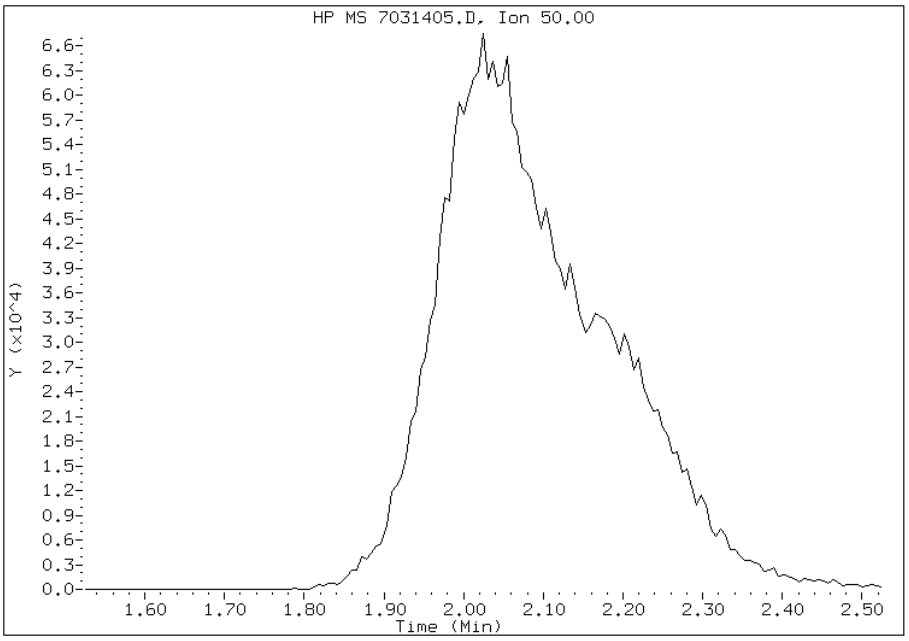
Manual Integration Results

RT: 2.02

Response: 915181

Amount: 136

Conc: 136



Manually Integrated By: zukowskim
Modification Date: 14-Mar-2014 10:55
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031405.D
Inj. Date and Time: 14-MAR-2014 10:13
Instrument ID: hp7.i
Client ID: IC vstd25
Compound: 3 Vinyl Chloride
CAS #: 75-01-4
Report Date: 03/17/2014

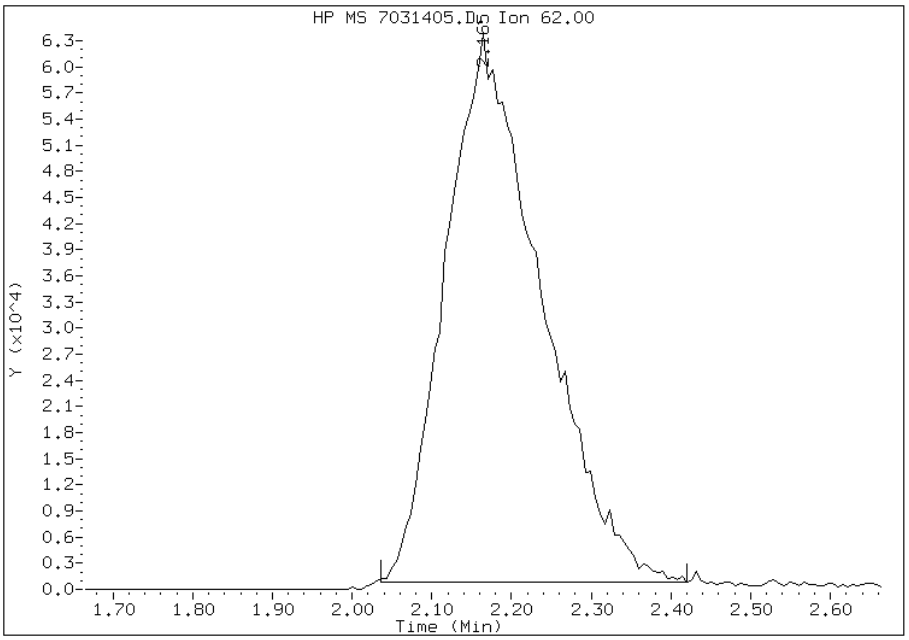
Processing Integration Results

RT: 2.16

Response: 526950

Amount: 115

Conc: 115



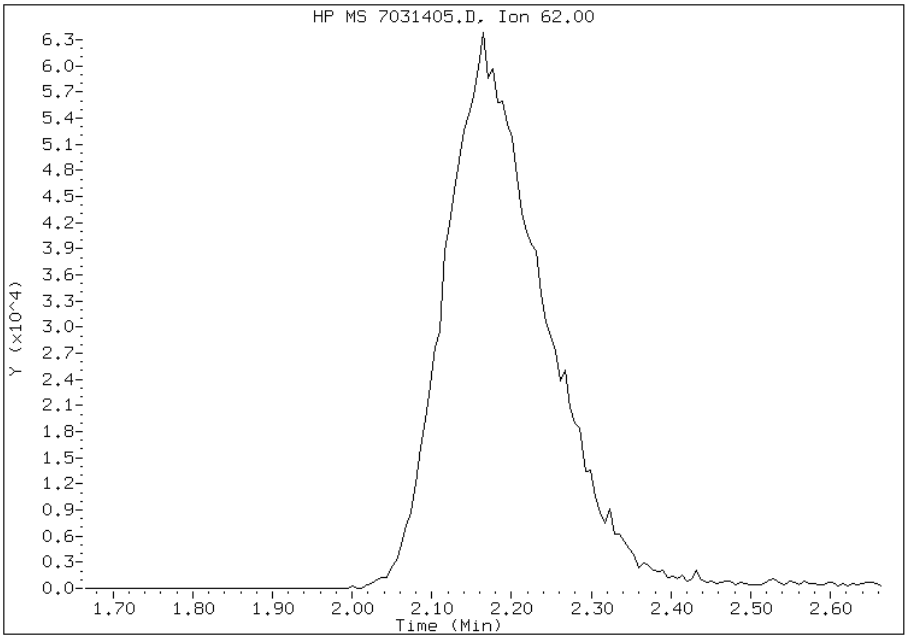
Manual Integration Results

RT: 2.16

Response: 558433

Amount: 136

Conc: 136



Manually Integrated By: zukowskim
Modification Date: 14-Mar-2014 10:55
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031405.D
Inj. Date and Time: 14-MAR-2014 10:13
Instrument ID: hp7.i
Client ID: IC vstd25
Compound: 4 Bromomethane
CAS #: 74-83-9
Report Date: 03/17/2014

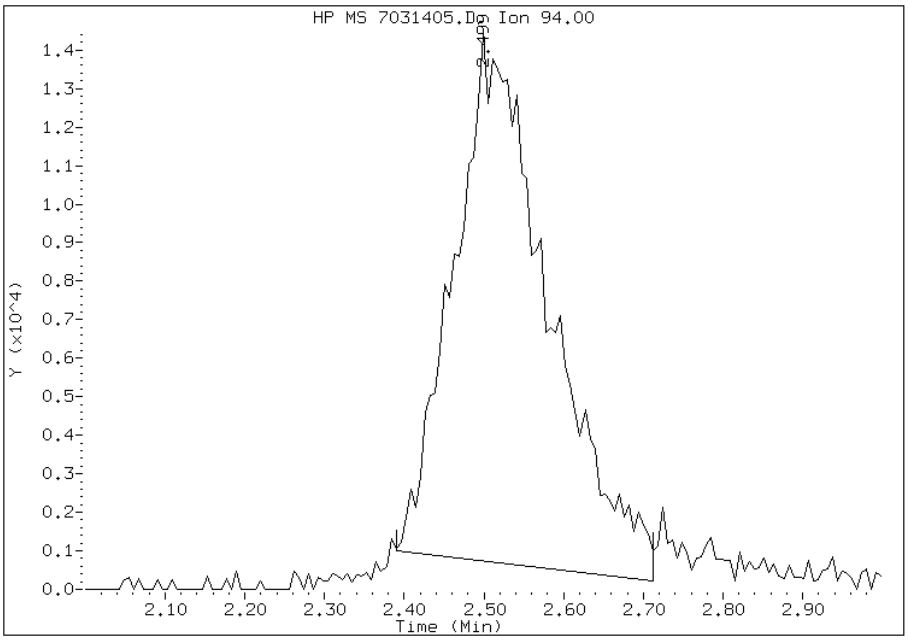
Processing Integration Results

RT: 2.50

Response: 114207

Amount: 91

Conc: 91



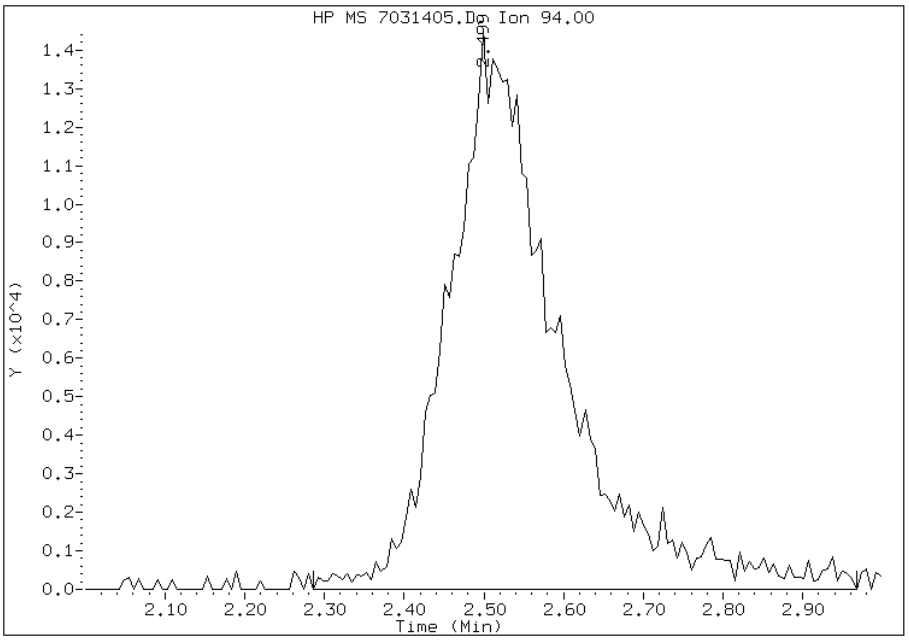
Manual Integration Results

RT: 2.50

Response: 139189

Amount: 131

Conc: 131



Manually Integrated By: zukowskim
Modification Date: 14-Mar-2014 10:54
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031405.D
Inj. Date and Time: 14-MAR-2014 10:13
Instrument ID: hp7.i
Client ID: IC vstd25
Compound: 5 Chloroethane
CAS #: 75-00-3
Report Date: 03/17/2014

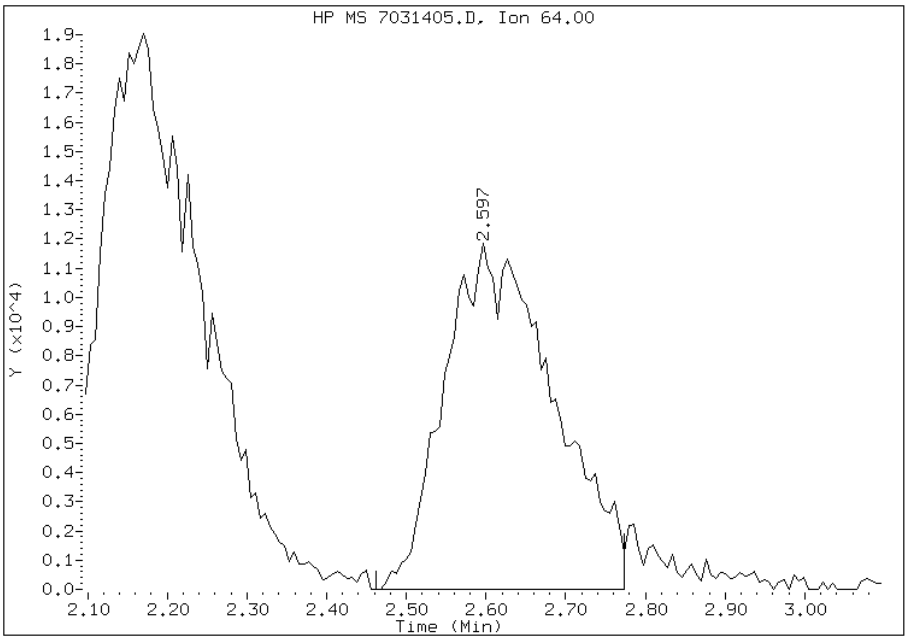
Processing Integration Results

RT: 2.60

Response: 113314

Amount: 118

Conc: 118



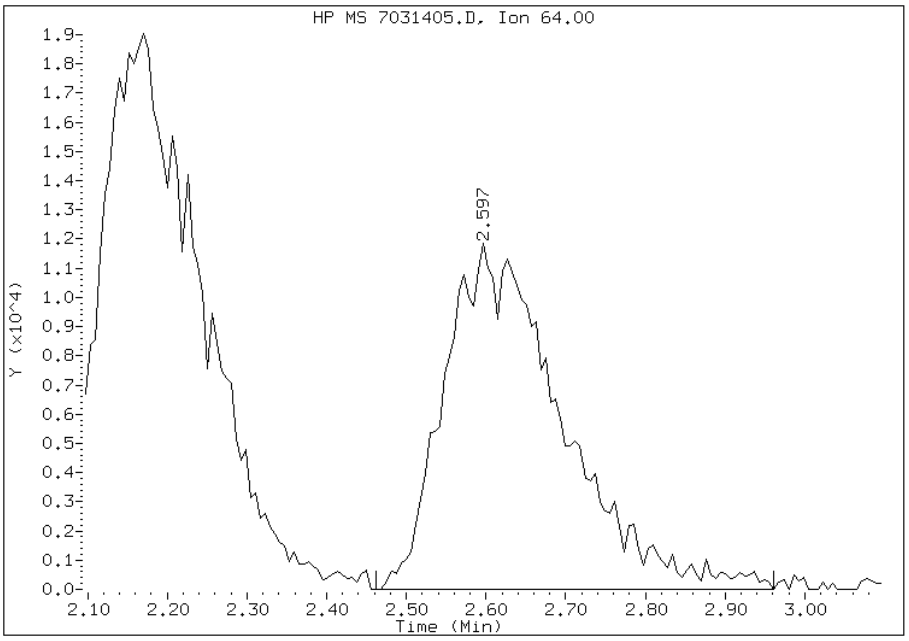
Manual Integration Results

RT: 2.60

Response: 121922

Amount: 131

Conc: 131



Manually Integrated By: zukowskim
Modification Date: 14-Mar-2014 10:55
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031405.D
Inj. Date and Time: 14-MAR-2014 10:13
Instrument ID: hp7.i
Client ID: IC vstd25
Compound: 7 Dichlorofluoromethane
CAS #: 75-43-4
Report Date: 03/17/2014

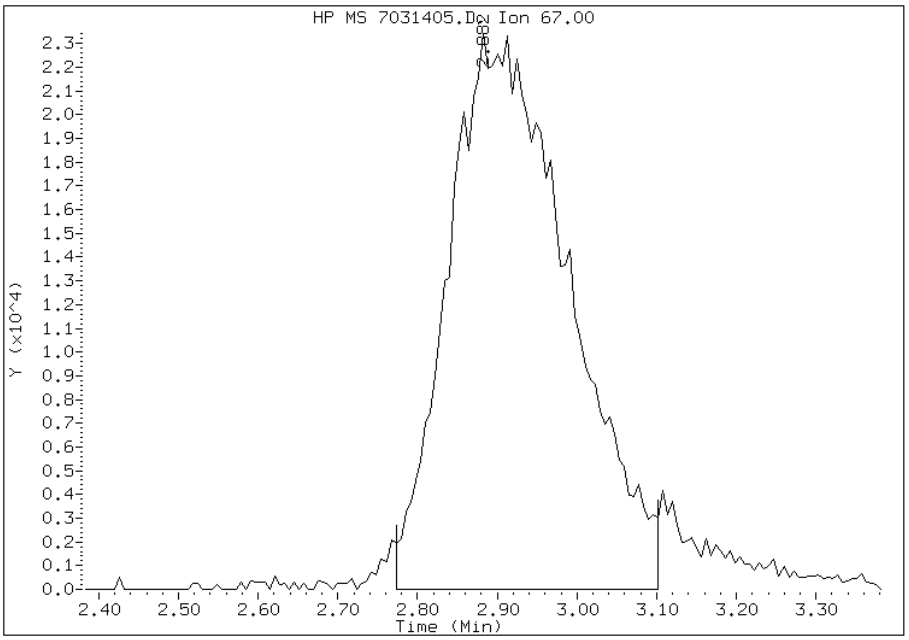
Processing Integration Results

RT: 2.88

Response: 248683

Amount: 114

Conc: 114



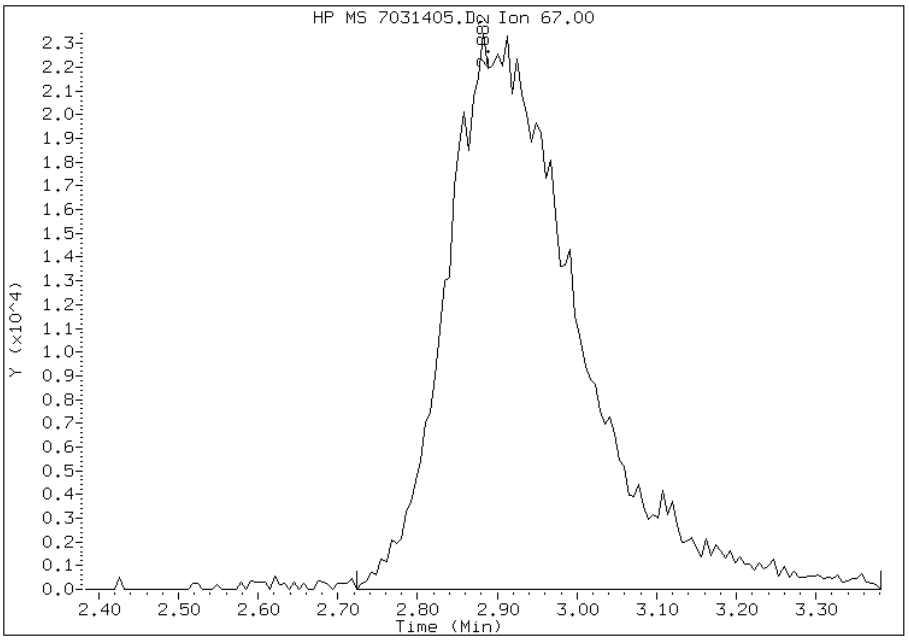
Manual Integration Results

RT: 2.88

Response: 270599

Amount: 125

Conc: 125



Manually Integrated By: zukowskim
Modification Date: 14-Mar-2014 10:55
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031405.D
Inj. Date and Time: 14-MAR-2014 10:13
Instrument ID: hp7.i
Client ID: IC vstd25
Compound: 166 Trichlorofluoromethane
CAS #: 75-69-4
Report Date: 03/17/2014

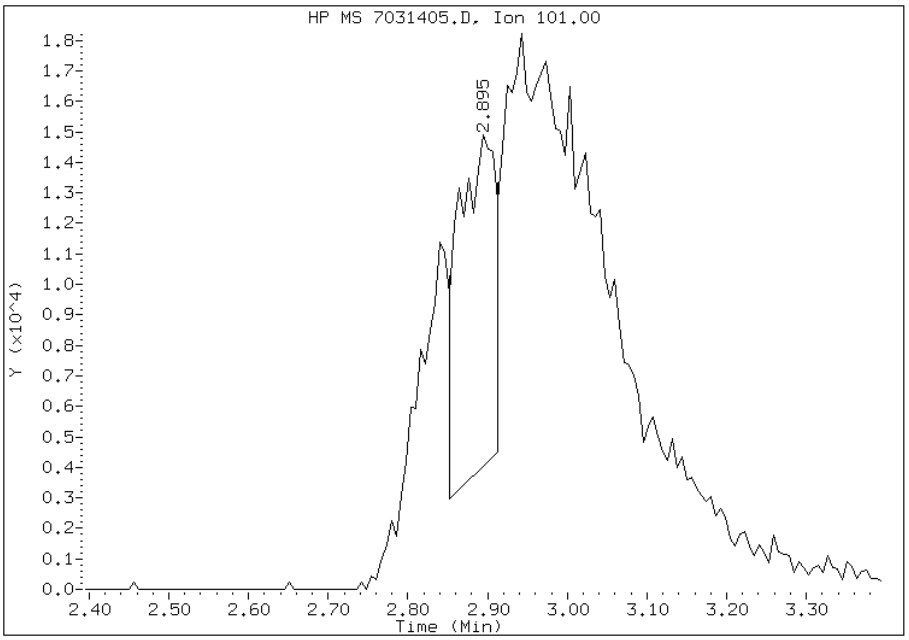
Processing Integration Results

RT: 2.89

Response: 37211

Amount: 29

Conc: 29



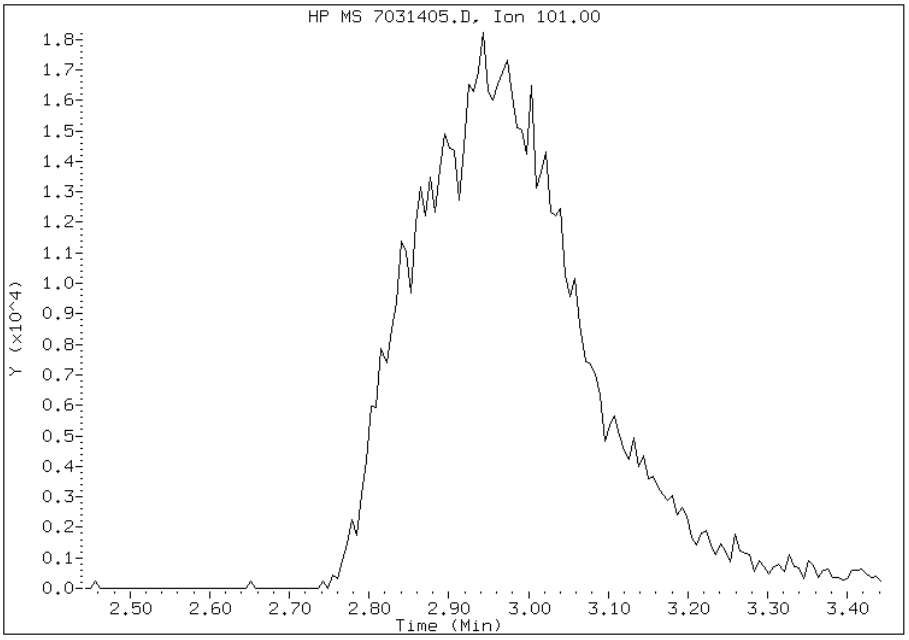
Manual Integration Results

RT: 2.94

Response: 261318

Amount: 123

Conc: 123



Manually Integrated By: zukowskim
Modification Date: 14-Mar-2014 10:59
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031405.D
Inj. Date and Time: 14-MAR-2014 10:13
Instrument ID: hp7.i
Client ID: IC vstd25
Compound: 8 Ethyl Ether
CAS #: 60-29-7
Report Date: 03/17/2014

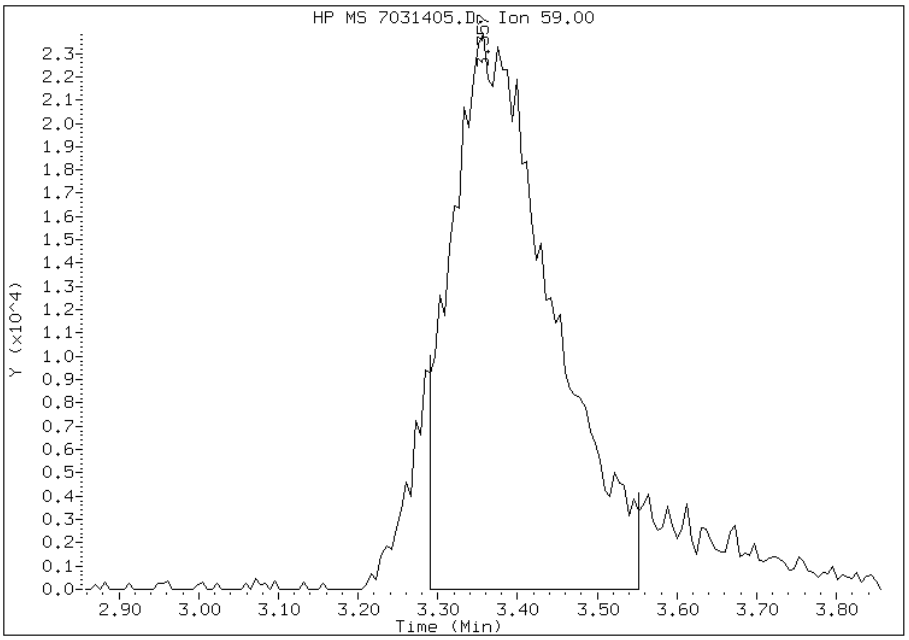
Processing Integration Results

RT: 3.36

Response: 210705

Amount: 105

Conc: 105



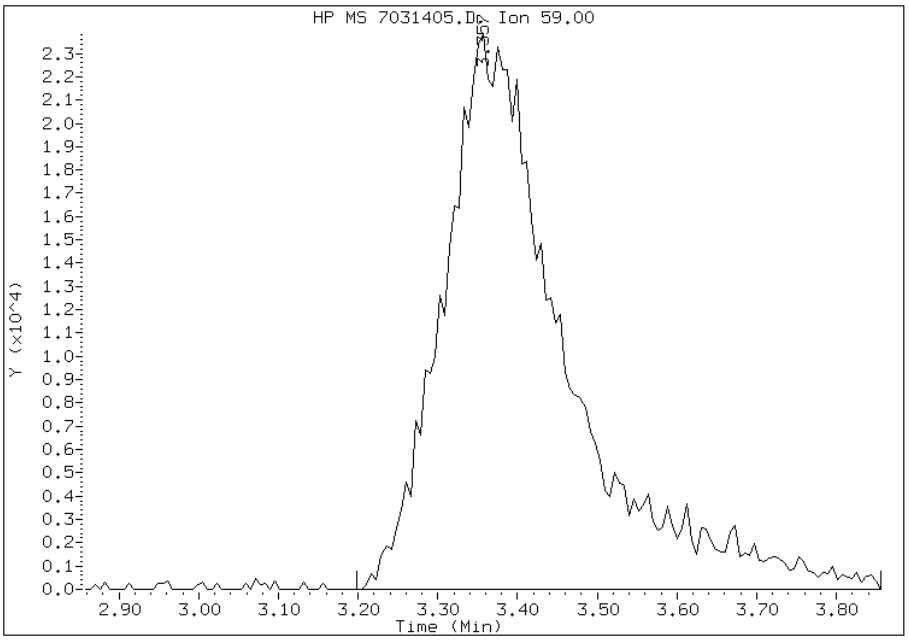
Manual Integration Results

RT: 3.36

Response: 255748

Amount: 115

Conc: 115



Manually Integrated By: zukowskim
Modification Date: 14-Mar-2014 11:37
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031405.D
Inj. Date and Time: 14-MAR-2014 10:13
Instrument ID: hp7.i
Client ID: IC vstd25
Compound: 11 Acrolein
CAS #: 107-02-8
Report Date: 03/17/2014

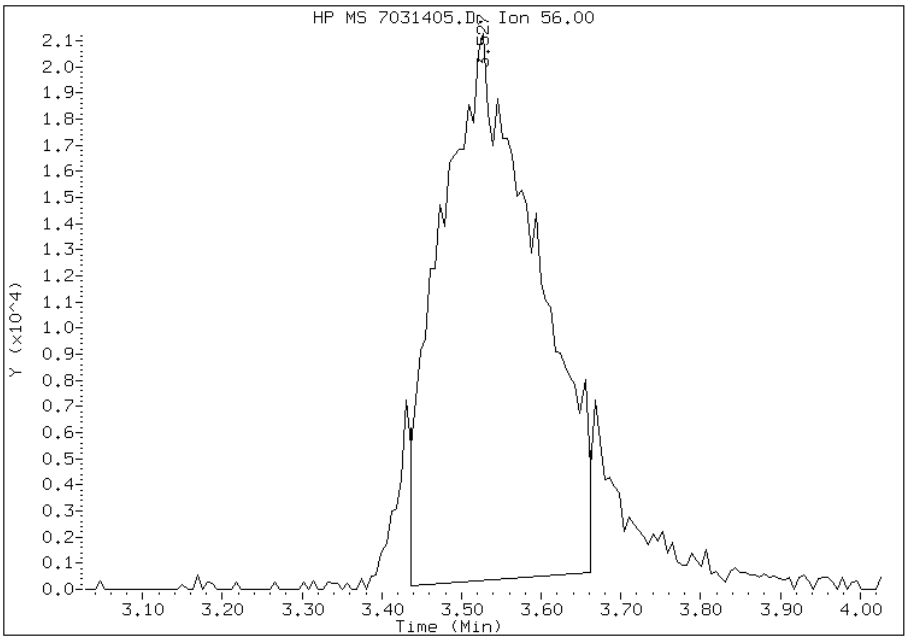
Processing Integration Results

RT: 3.53

Response: 178178

Amount: 677

Conc: 677



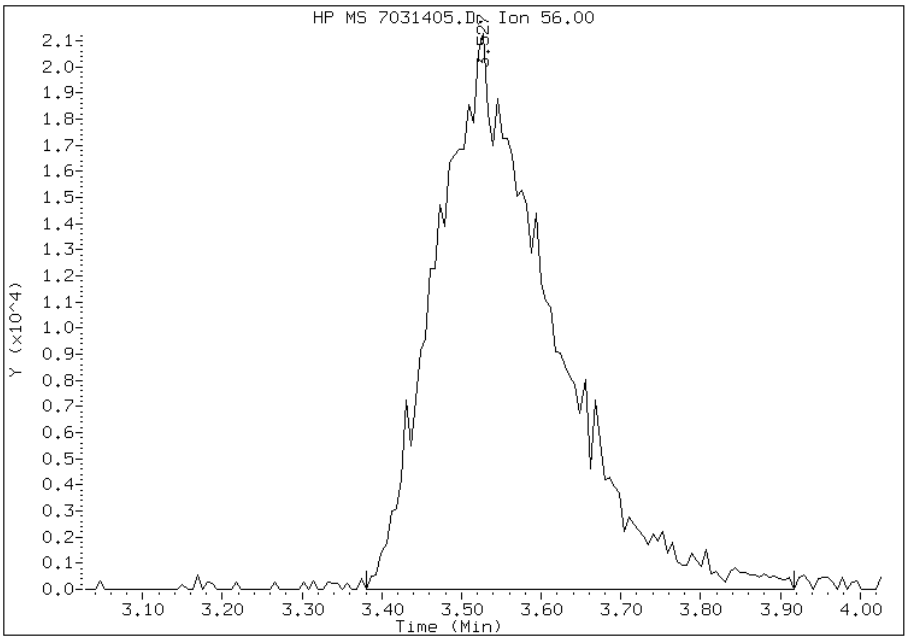
Manual Integration Results

RT: 3.53

Response: 216657

Amount: 766

Conc: 766



Manually Integrated By: zukowskim
Modification Date: 14-Mar-2014 11:36
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031405.D
Inj. Date and Time: 14-MAR-2014 10:13
Instrument ID: hp7.i
Client ID: IC vstd25
Compound: 10 1,1,2-trichloro-1,2,2-trifluoro
CAS #: 76-13-1
Report Date: 03/17/2014

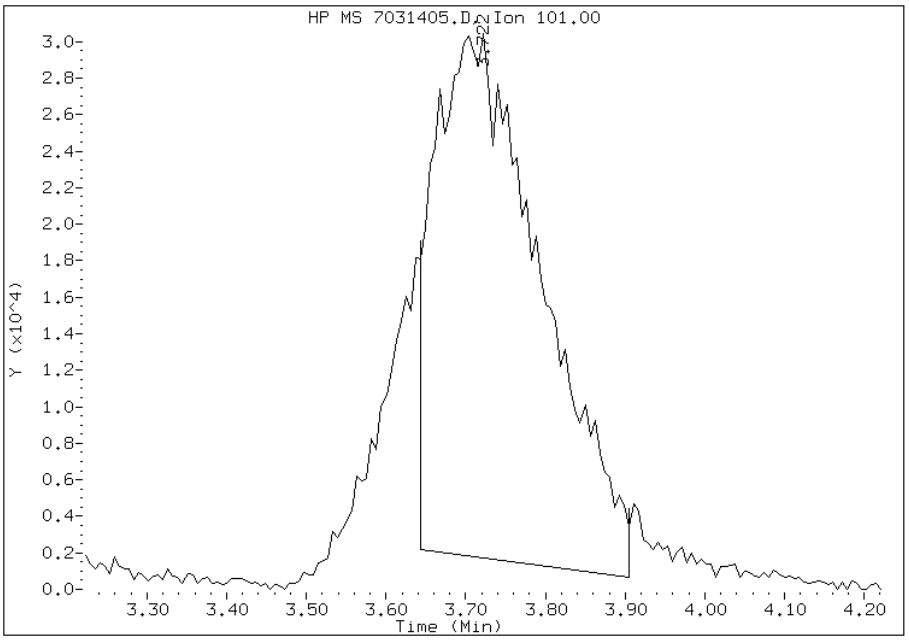
Processing Integration Results

RT: 3.72

Response: 266787

Amount: 99

Conc: 99



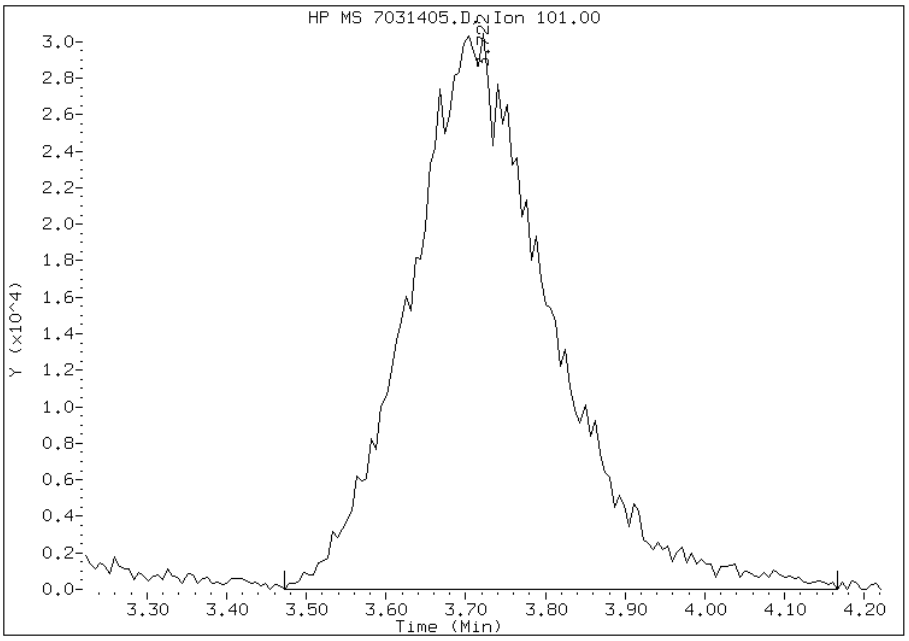
Manual Integration Results

RT: 3.72

Response: 378879

Amount: 137

Conc: 137



Manually Integrated By: zukowskim
Modification Date: 14-Mar-2014 10:54
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031405.D
Inj. Date and Time: 14-MAR-2014 10:13
Instrument ID: hp7.i
Client ID: IC vstd25
Compound: 15 Carbon Disulfide
CAS #: 75-15-0
Report Date: 03/17/2014

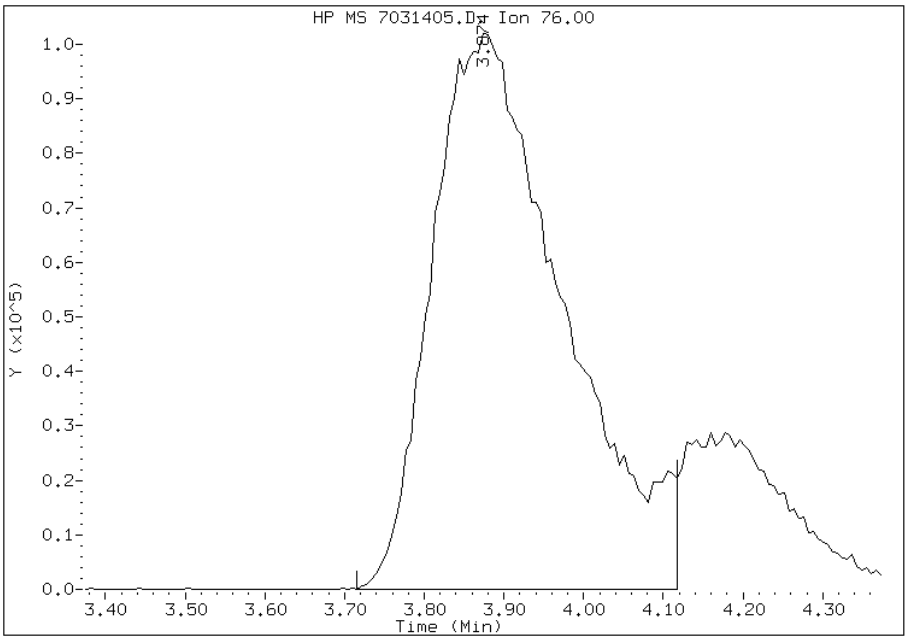
Processing Integration Results

RT: 3.87

Response: 1173387

Amount: 120

Conc: 120



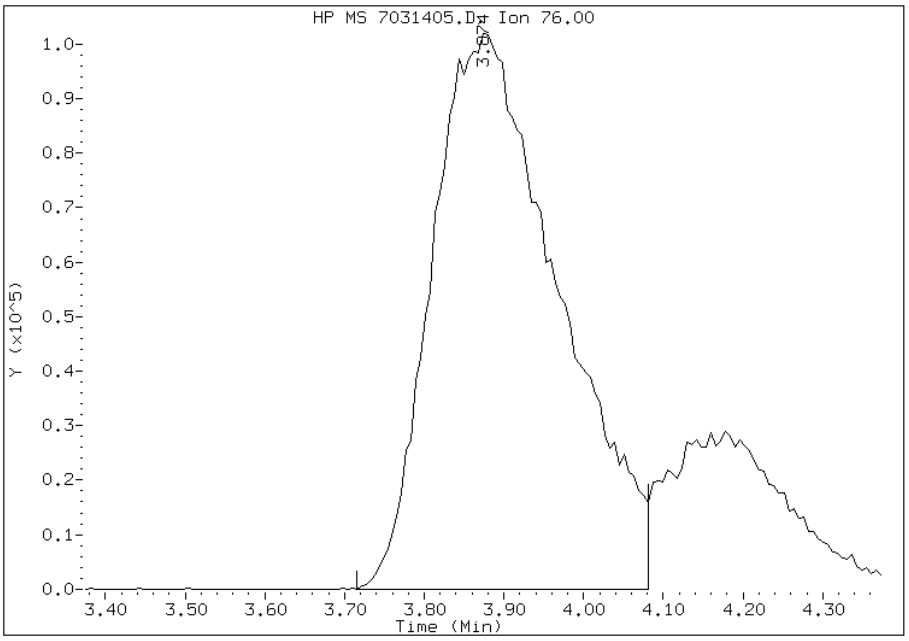
Manual Integration Results

RT: 3.87

Response: 1129838

Amount: 134

Conc: 134



Manually Integrated By: zukowskim
Modification Date: 14-Mar-2014 11:36
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031405.D
Inj. Date and Time: 14-MAR-2014 10:13
Instrument ID: hp7.i
Client ID: IC vstd25
Compound: 16 3-Chloro-1-propene
CAS #: 107-05-1
Report Date: 03/17/2014

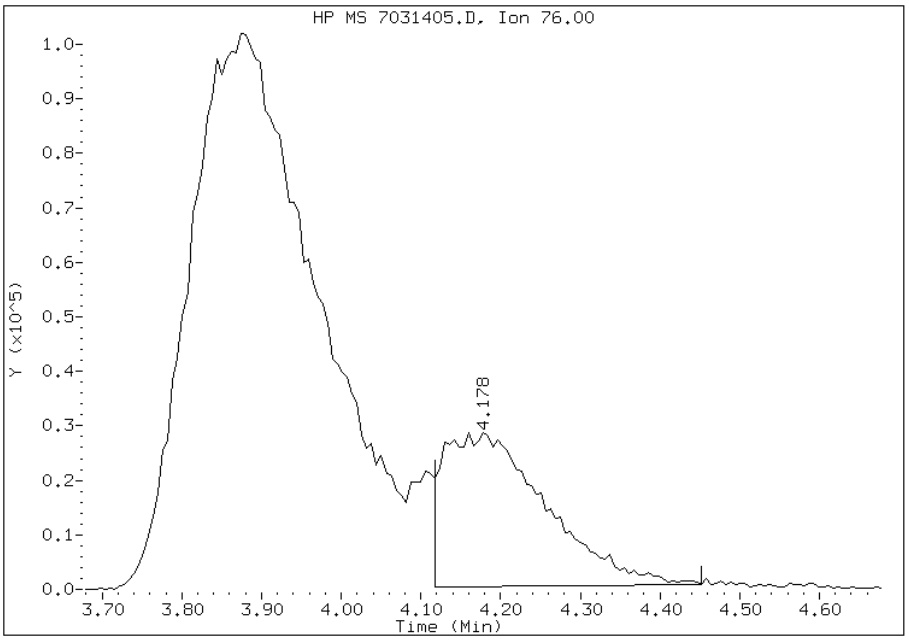
Processing Integration Results

RT: 4.18

Response: 248101

Amount: 110

Conc: 110



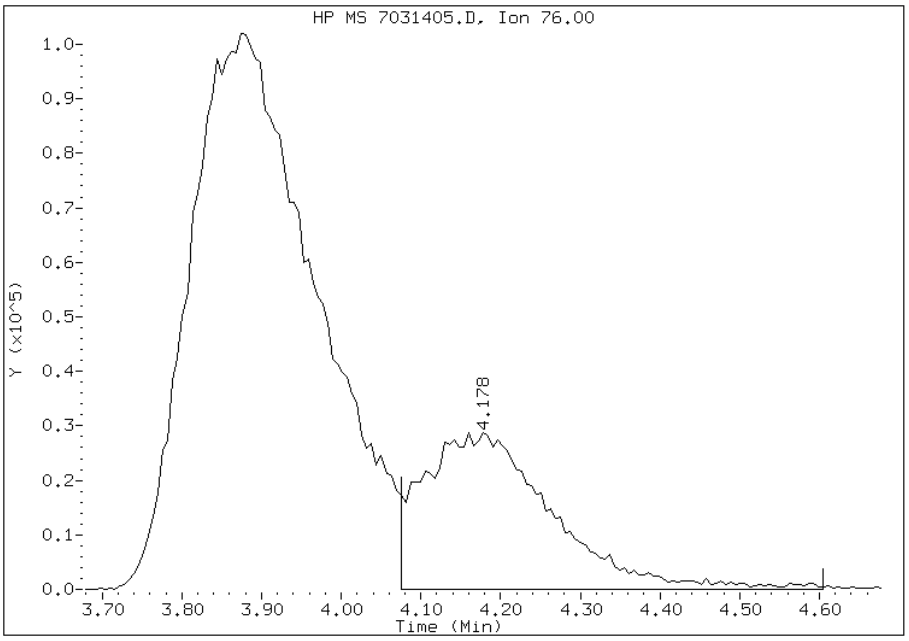
Manual Integration Results

RT: 4.18

Response: 323942

Amount: 131

Conc: 131



Manually Integrated By: zukowskim
Modification Date: 14-Mar-2014 11:36
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031405.D
Inj. Date and Time: 14-MAR-2014 10:13
Instrument ID: hp7.i
Client ID: IC vstd25
Compound: 52 1,4-Dioxane
CAS #: 123-91-1
Report Date: 03/17/2014

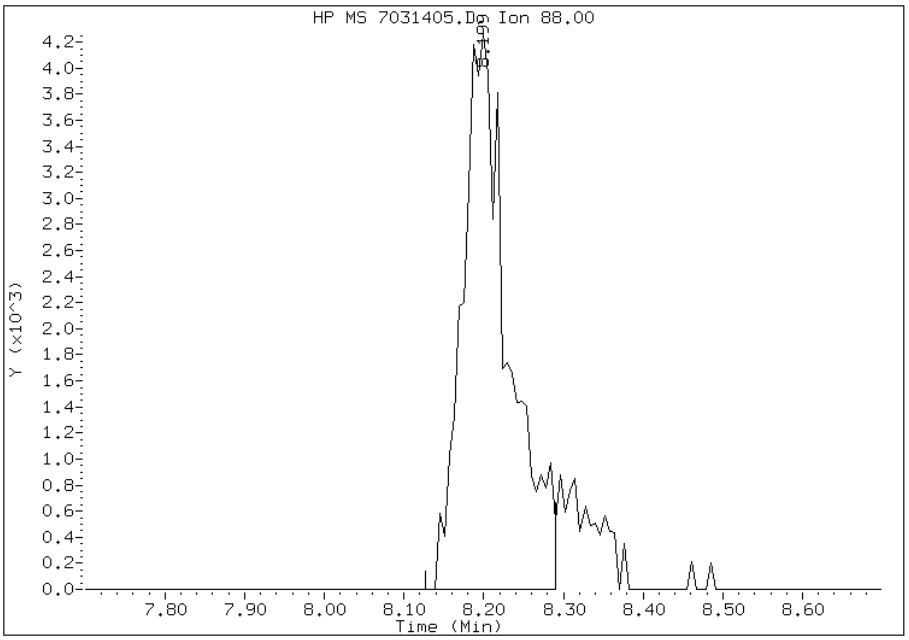
Processing Integration Results

RT: 8.20

Response: 17501

Amount: 1878

Conc: 1878



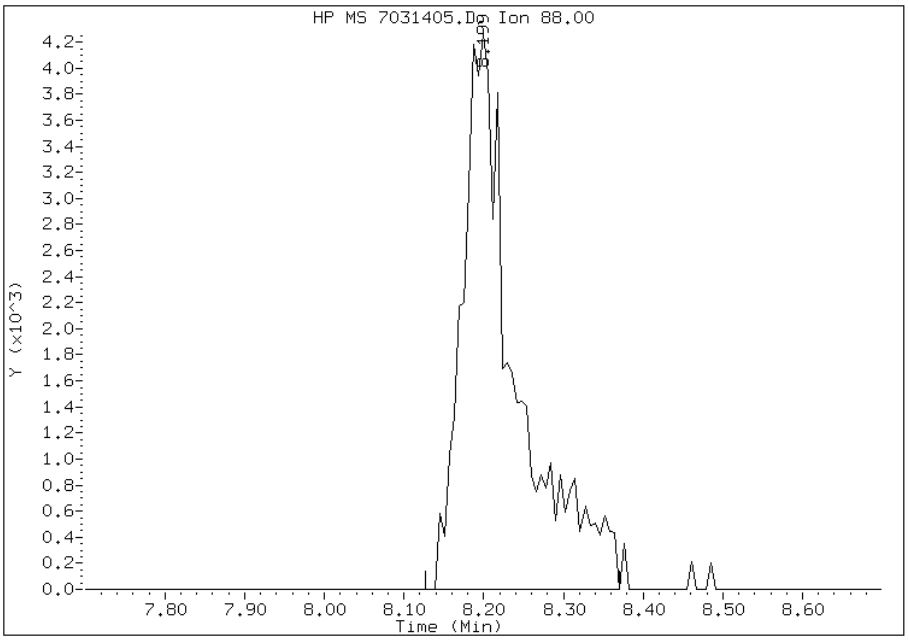
Manual Integration Results

RT: 8.20

Response: 20062

Amount: 1960

Conc: 1960



Manually Integrated By: zukowskim
Modification Date: 14-Mar-2014 11:36
Manual Integration Reason: Peak Integrated Incorrectly

TestAmerica Pittsburgh

VOLATILE REPORT SW-846 Method

Data file : \\pitsvr06\d\chem\hp7.i\7031414d.b\7031406.D
Lab Smp Id: ICIS Client Smp ID: ICIS vstd40
Inj Date : 14-MAR-2014 10:41 MS Autotune Date: 29-AUG-2013 09:08
Operator : 430936 Inst ID: hp7.i
Smp Info : ICIS, vstd40
Misc Info : 7031414d.b,T8260bh2o.m,list1.sub
Comment :
Method : \\pitsvr06\d\chem\hp7.i\7031414d.b\T8260bh2o.m
Meth Date : 17-Mar-2014 03:24 zukowskim Quant Type: ISTD
Cal Date : 14-MAR-2014 09:40 Cal File: 7031404.D
Als bottle: 5 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: list1.sub
Target Version: 4.14
Processing Host: PITPC-530

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
*	46 Fluorobenzene (IS)	96	7.408	7.410	(1.000)	2339140	250.000	
*	69 Chlorobenzene-d5	119	10.468	10.470	(1.000)	590074	250.000	
*	92 1,4-Dichlorobenzene-d4	152	12.791	12.788	(1.000)	770362	250.000	
*	176 Dioxane-d8 (IS)	96	8.131	8.140	(1.000)	50589	5000.00	
*	177 TBA-d9 (IS)	65	4.713	4.715	(1.000)	511020	5000.00	
$	39 Dibromofluoromethane (Surr)	113	6.684	6.680	(0.902)	487137	200.000	198.0
$	43 1,2-Dichloroethane-d4	65	7.049	7.057	(0.952)	574680	200.000	202.8
$	59 Toluene-d8	98	9.038	9.041	(0.863)	1715396	200.000	186.8
$	80 Bromofluorobenzene (Surr)	95	11.636	11.633	(1.112)	676012	200.000	203.1
	1 Dichlorodifluoromethane	85	1.963	1.960	(0.265)	668355	200.000	210.0
	2 Chloromethane	50	2.030	2.020	(0.274)	1423671	200.000	206.1(M)
	3 Vinyl Chloride	62	2.176	2.166	(0.294)	862930	200.000	205.0
	4 Bromomethane	94	2.529	2.495	(0.341)	205638	200.000	188.5(QM)
	5 Chloroethane	64	2.638	2.610	(0.356)	177037	200.000	186.0
	7 Dichlorofluoromethane	67	2.918	2.921	(0.394)	420090	200.000	189.9
	10 1,1,2-trichloro-1,2,2-trifluor	101	3.715	3.718	(0.502)	580526	200.000	204.7(QM)
	166 Trichlorofluoromethane	101	2.954	2.970	(0.399)	423992	200.000	194.3(QM)
	12 1,1-Dichloroethene	96	3.581	3.590	(0.483)	574469	200.000	209.0
	15 Carbon Disulfide	76	3.885	3.888	(0.525)	1745741	200.000	202.2(M)
	13 Acetone	43	3.782	3.822	(0.511)	135844	200.000	238.5
	18 Methylene Chloride	84	4.372	4.387	(0.590)	608065	200.000	180.1(Q)
	19 trans-1,2-Dichloroethene	96	4.767	4.788	(0.644)	634248	200.000	203.0
	20 Methyl tert-butyl ether	73	4.859	4.861	(0.656)	1245367	200.000	201.2
	24 1,1-Dichloroethane	63	5.370	5.372	(0.725)	1247574	200.000	205.3
	27 2,2-Dichloropropane	77	6.094	6.096	(0.823)	756870	200.000	201.7
	28 cis-1,2-dichloroethene	96	6.106	6.115	(0.824)	652724	200.000	201.5
M	29 1,2-Dichloroethene (total)	96				1286972	400.000	404.5
	30 Bromochloromethane	128	6.379	6.388	(0.861)	281614	200.000	201.3

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
31 2-Butanone	43	6.197	6.200	(0.837)	172742	200.000	222.5
37 Chloroform	83	6.495	6.504	(0.877)	951784	200.000	203.6
38 1,1,1-Trichloroethane	97	6.684	6.686	(0.902)	815472	200.000	204.0
40 1,1-Dichloropropene	75	6.872	6.881	(0.928)	676830	200.000	205.2
41 Carbon Tetrachloride	117	6.872	6.875	(0.928)	662533	200.000	204.0
42 Benzene	78	7.097	7.101	(0.958)	2066942	200.000	197.6
45 1,2-Dichloroethane	62	7.128	7.131	(0.962)	630223	200.000	185.2
47 Trichloroethene	130	7.797	7.794	(1.053)	567031	200.000	206.1
49 1,2-Dichloropropane	63	8.028	8.037	(1.084)	561398	200.000	201.9
50 Dibromomethane	93	8.150	8.153	(1.100)	267494	200.000	200.2
53 Bromodichloromethane	83	8.314	8.317	(1.122)	669944	200.000	205.3
57 cis-1,3-Dichloropropene	75	8.770	8.779	(1.184)	798255	200.000	210.2
58 4-Methyl-2-Pentanone	43	8.941	8.938	(0.854)	401665	200.000	202.1(Q)
60 Toluene	91	9.105	9.108	(0.870)	1913219	200.000	186.8
61 trans-1,3-Dichloropropene	75	9.324	9.333	(0.891)	597049	200.000	210.8
63 1,3-Dichloropropane	76	9.677	9.674	(0.924)	572228	200.000	207.6
64 1,1,2-Trichloroethane	97	9.506	9.510	(0.908)	356413	200.000	212.2
65 Tetrachloroethene	164	9.646	9.649	(0.922)	468211	200.000	215.3
66 2-Hexanone	43	9.762	9.771	(0.933)	286418	200.000	226.9
67 Dibromochloromethane	129	9.902	9.898	(0.946)	427489	200.000	209.9
68 1,2-Dibromoethane	107	10.011	10.015	(0.956)	364194	200.000	198.6
70 Chlorobenzene	112	10.498	10.495	(1.003)	1225269	200.000	200.0
71 1,1,1,2-Tetrachloroethane	131	10.577	10.580	(1.010)	493966	200.000	210.7
72 Ethylbenzene	106	10.601	10.605	(1.013)	729844	200.000	206.2(Q)
73 m,p-XYLENE	106	10.717	10.720	(1.024)	938775	200.000	208.8(Q)
74 Xylene-o	106	11.112	11.116	(1.062)	985428	200.000	203.2(Q)
76 Styrene	104	11.125	11.128	(1.063)	1419021	200.000	186.7
77 Bromoform	173	11.313	11.316	(1.081)	264000	200.000	209.1
78 Isopropylbenzene	105	11.477	11.481	(1.096)	2229186	200.000	187.6
79 Bromobenzene	156	11.788	11.791	(0.922)	592207	200.000	196.1
81 n-Propylbenzene	120	12.061	12.065	(0.943)	985787	200.000	205.3
82 2-Chlorotoluene	126	11.976	11.979	(0.936)	577259	200.000	210.3(Q)
83 1,1,2,2-Tetrachloroethane	83	11.769	11.773	(1.124)	353533	200.000	215.0
84 1,2,3-Trichloropropane	110	11.818	11.821	(0.924)	95592	200.000	204.9(Q)
85 4-Chlorotoluene	126	12.086	12.089	(0.945)	564391	200.000	211.2(Q)
86 1,3,5-Trimethylbenzene	105	12.061	12.065	(0.943)	1790254	200.000	189.3
87 tert-Butylbenzene	119	12.390	12.387	(0.969)	1682489	200.000	206.6
88 1,2,4-Trimethylbenzene	105	12.439	12.436	(0.972)	1748969	200.000	185.5
89 sec-Butylbenzene	105	12.609	12.606	(0.986)	2372885	200.000	191.1
90 4-Isopropyltoluene	119	12.755	12.752	(0.997)	1834942	200.000	189.9
91 1,3-Dichlorobenzene	146	12.724	12.722	(0.995)	981430	200.000	199.8
94 n-Butylbenzene	91	13.162	13.166	(1.029)	1850707	200.000	184.7
93 1,4-Dichlorobenzene	146	12.810	12.813	(1.001)	880146	200.000	201.3
95 1,2-Dichlorobenzene	146	13.187	13.190	(1.031)	732100	200.000	196.0
96 1,2-Dibromo-3-chloropropane	157	13.978	13.981	(1.093)	28495	200.000	208.0
97 1,2,4-Trichlorobenzene	180	14.805	14.808	(1.157)	204444	200.000	196.8
98 Hexachlorobutadiene	225	14.969	14.973	(1.170)	215924	200.000	214.9
99 Naphthalene	128	15.054	15.064	(1.177)	236066	200.000	178.9
100 1,2,3-Trichlorobenzene	180	15.310	15.307	(1.197)	126297	200.000	167.5
156 Methyl Acetate	43	4.311	4.314	(0.582)	1613554	1000.00	1077
157 Cyclohexane	56	6.738	6.741	(0.910)	1269810	200.000	211.1
158 Methyl Cyclohexane	83	7.992	7.995	(1.079)	1063967	200.000	206.4
32 Vinyl Acetate	43	5.491	5.513	(0.741)	999698	200.000	208.7
52 1,4-Dioxane	88	8.198	8.202	(1.008)	39637	4000.00	3616(M)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
21	tert-Butyl Alcohol	59	4.828	4.825	(1.025)	258298	2000.00	2065(Q)
16	3-Chloro-1-propene	76	4.153	4.168	(0.561)	505681	200.000	199.2(M)
11	Acrolein	56	3.514	3.505	(0.474)	267015	875.000	920.6(QM)
22	Acrylonitrile	53	4.792	4.819	(0.647)	1648061	2000.00	2103
8	Ethyl Ether	59	3.362	3.377	(0.454)	424411	200.000	185.8(Q)
62	Ethyl methacrylate	69	9.421	9.424	(0.900)	464011	200.000	205.1
23	Hexane	57	5.169	5.178	(0.698)	1132905	200.000	207.4
14	Iodomethane	142	3.794	3.791	(0.512)	886760	200.000	192.2(Q)
44	Isobutanol	41	7.408	7.411	(1.000)	595002	5000.00	5261
155	N-Heptane	41	7.998	7.994	(1.080)	887110	200.000	211.2
35	Tetrahydrofuran	42	6.744	6.747	(0.910)	329102	400.000	409.4
164	trans-1,4-Dichloro-2-butene	53	11.830	11.833	(0.925)	93222	200.000	209.5
169	Butadiene	39	2.206	2.197	(0.298)	863577	200.000	193.9
M 75	Xylenes (total)	106				1924203	400.000	412.0

QC Flag Legend

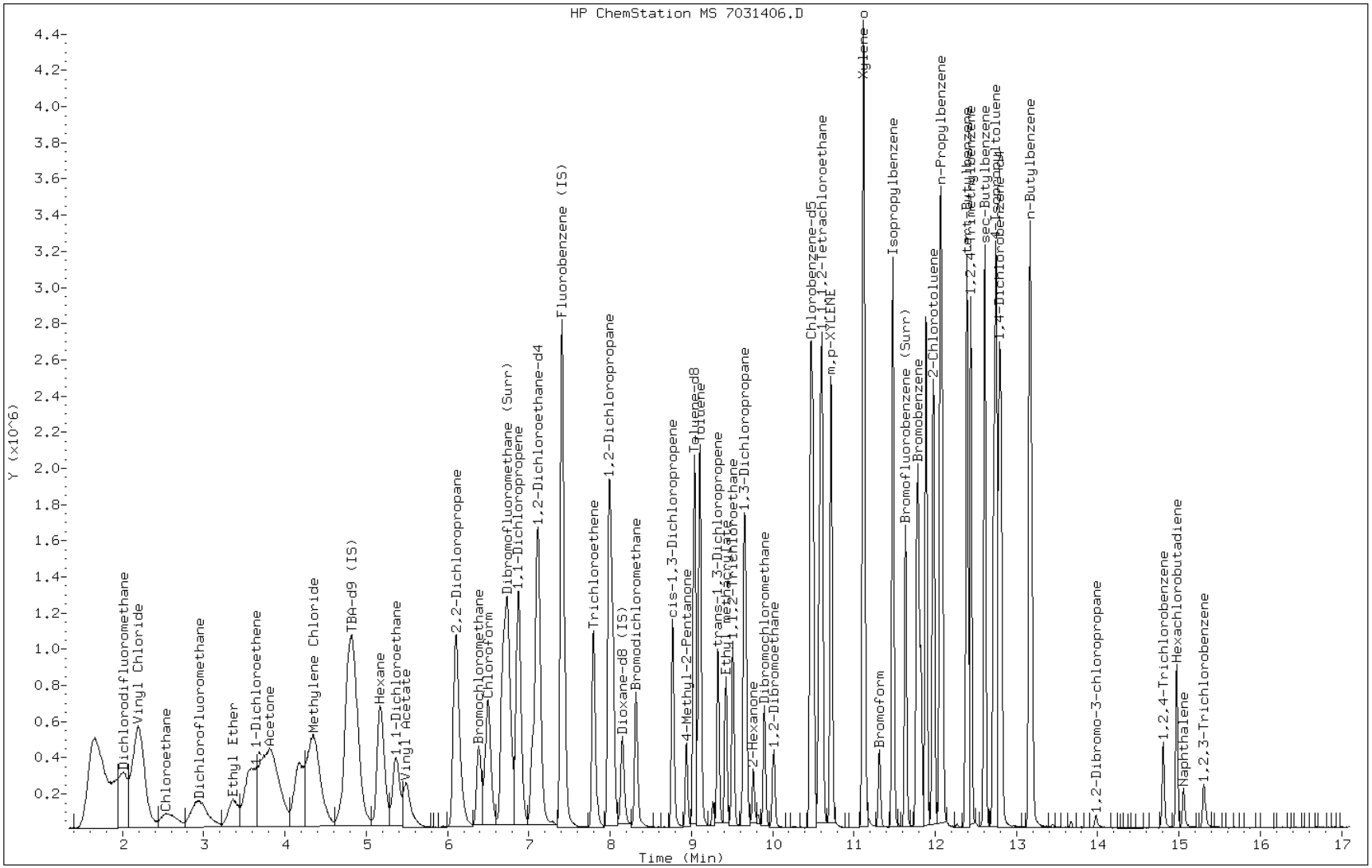
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: 7031406.D

Date: 14-MAR-2014 10:41

Client ID: ICIS vstd40 Instrument: hp7.i

Sample Info: ICIS, vstd40 Operator: 430936



Manual Integration Report

Data File: 7031406.D
Inj. Date and Time: 14-MAR-2014 10:41
Instrument ID: hp7.i
Client ID: ICIS vstd40
Compound: 2 Chloromethane
CAS #: 74-87-3
Report Date: 03/17/2014

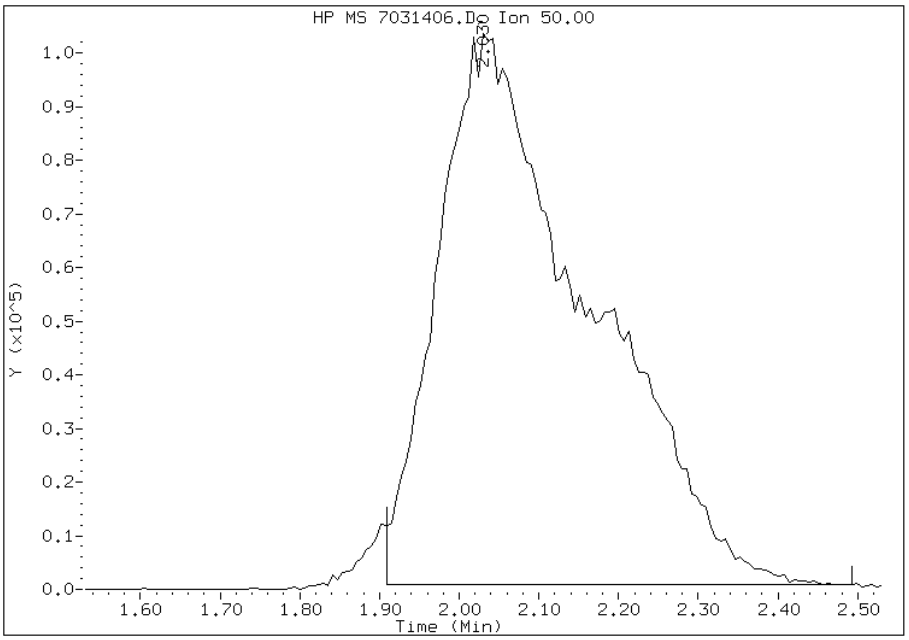
Processing Integration Results

RT: 2.03

Response: 1361868

Amount: 174

Conc: 174



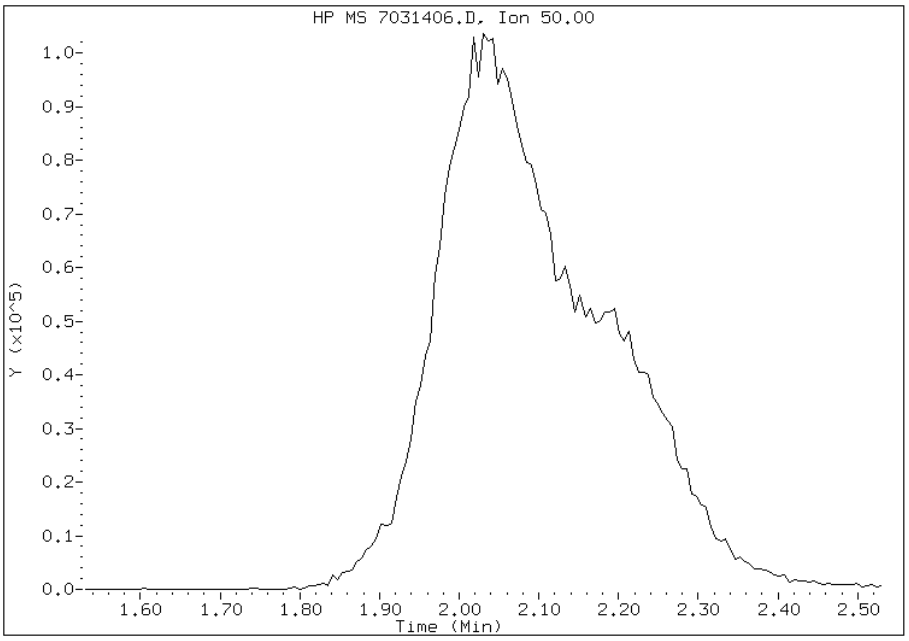
Manual Integration Results

RT: 2.03

Response: 1423671

Amount: 206

Conc: 206



Manually Integrated By: zukowskim
Modification Date: 14-Mar-2014 11:46
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031406.D
Inj. Date and Time: 14-MAR-2014 10:41
Instrument ID: hp7.i
Client ID: ICIS vstd40
Compound: 4 Bromomethane
CAS #: 74-83-9
Report Date: 03/17/2014

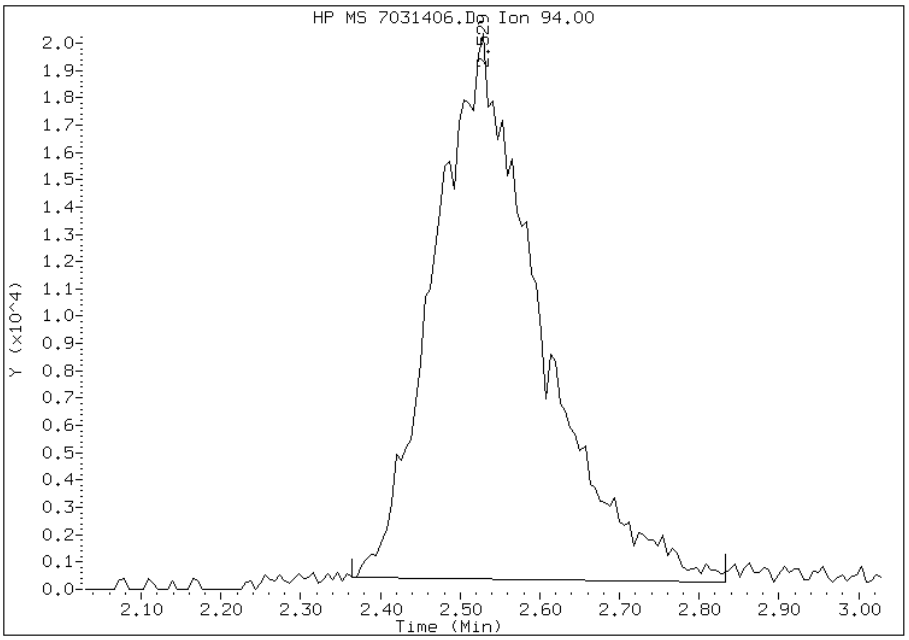
Processing Integration Results

RT: 2.53

Response: 185156

Amount: 171

Conc: 171



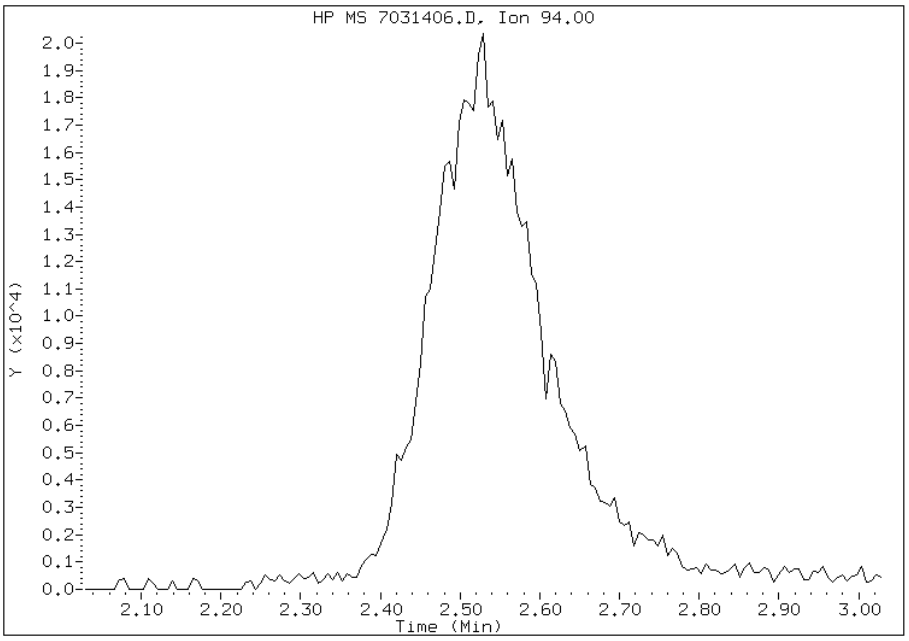
Manual Integration Results

RT: 2.53

Response: 205638

Amount: 188

Conc: 188



Manually Integrated By: zukowskim
Modification Date: 14-Mar-2014 11:46
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031406.D
Inj. Date and Time: 14-MAR-2014 10:41
Instrument ID: hp7.i
Client ID: ICIS vstd40
Compound: 166 Trichlorofluoromethane
CAS #: 75-69-4
Report Date: 03/17/2014

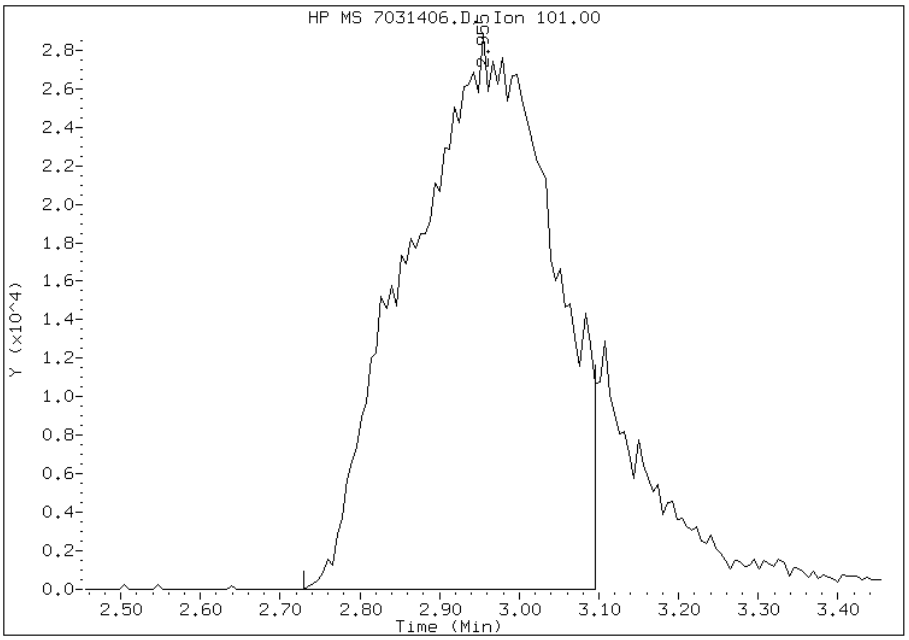
Processing Integration Results

RT: 2.95

Response: 364218

Amount: 178

Conc: 178



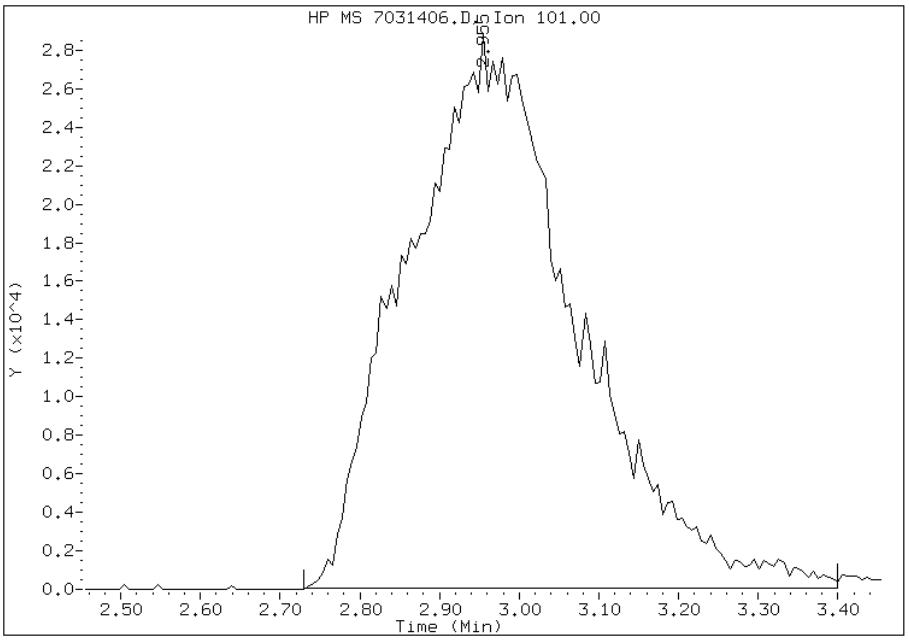
Manual Integration Results

RT: 2.95

Response: 423992

Amount: 194

Conc: 194



Manually Integrated By: zukowskim
Modification Date: 14-Mar-2014 11:46
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031406.D
Inj. Date and Time: 14-MAR-2014 10:41
Instrument ID: hp7.i
Client ID: ICIS vstd40
Compound: 11 Acrolein
CAS #: 107-02-8
Report Date: 03/17/2014

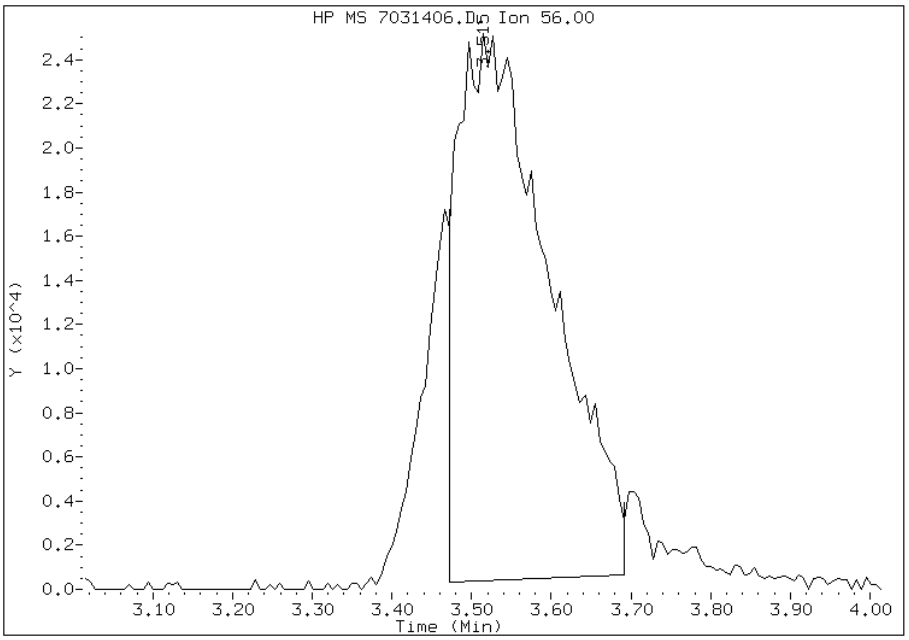
Processing Integration Results

RT: 3.51

Response: 202452

Amount: 734

Conc: 734



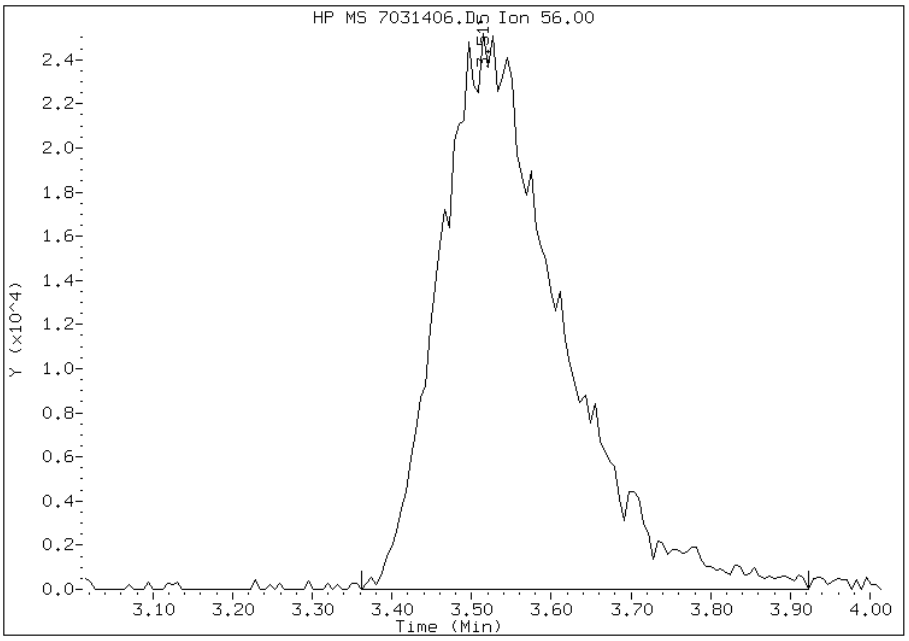
Manual Integration Results

RT: 3.51

Response: 267015

Amount: 921

Conc: 921



Manually Integrated By: zukowskim
Modification Date: 14-Mar-2014 12:11
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031406.D
Inj. Date and Time: 14-MAR-2014 10:41
Instrument ID: hp7.i
Client ID: ICIS vstd40
Compound: 10 1,1,2-trichloro-1,2,2-trifluoro
CAS #: 76-13-1
Report Date: 03/17/2014

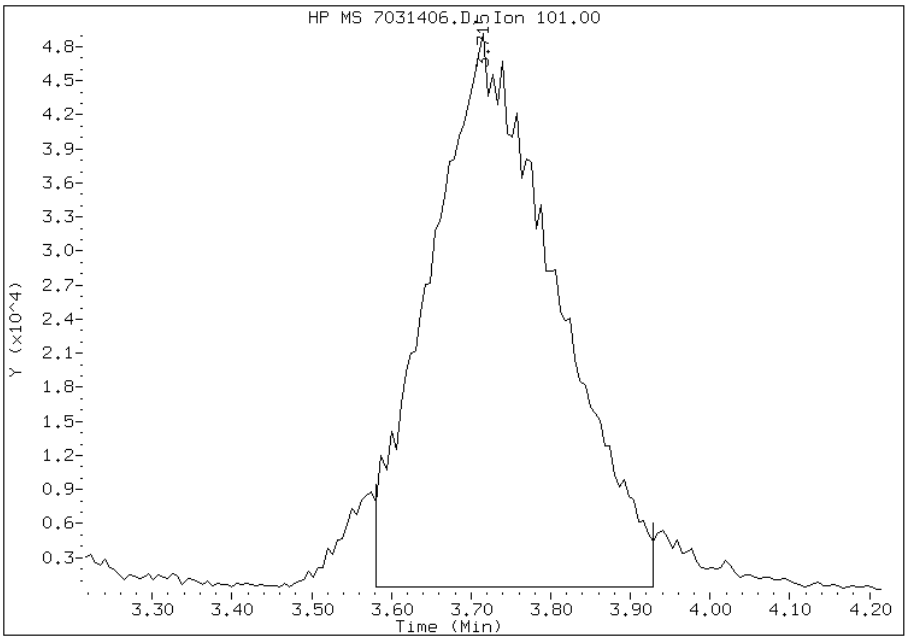
Processing Integration Results

RT: 3.72

Response: 532098

Amount: 181

Conc: 181



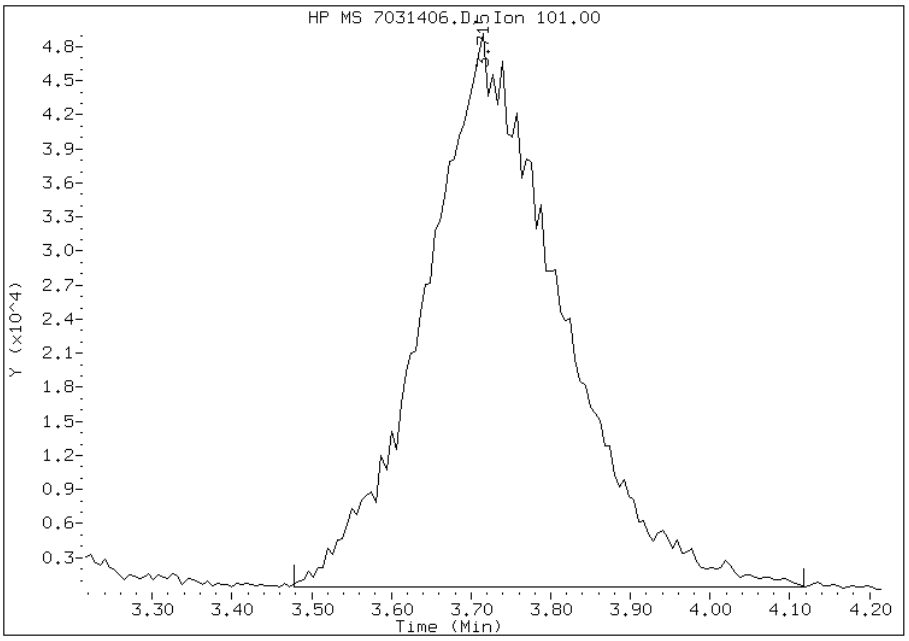
Manual Integration Results

RT: 3.72

Response: 580526

Amount: 205

Conc: 205



Manually Integrated By: zukowskim
Modification Date: 14-Mar-2014 11:46
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031406.D
Inj. Date and Time: 14-MAR-2014 10:41
Instrument ID: hp7.i
Client ID: ICIS vstd40
Compound: 15 Carbon Disulfide
CAS #: 75-15-0
Report Date: 03/17/2014

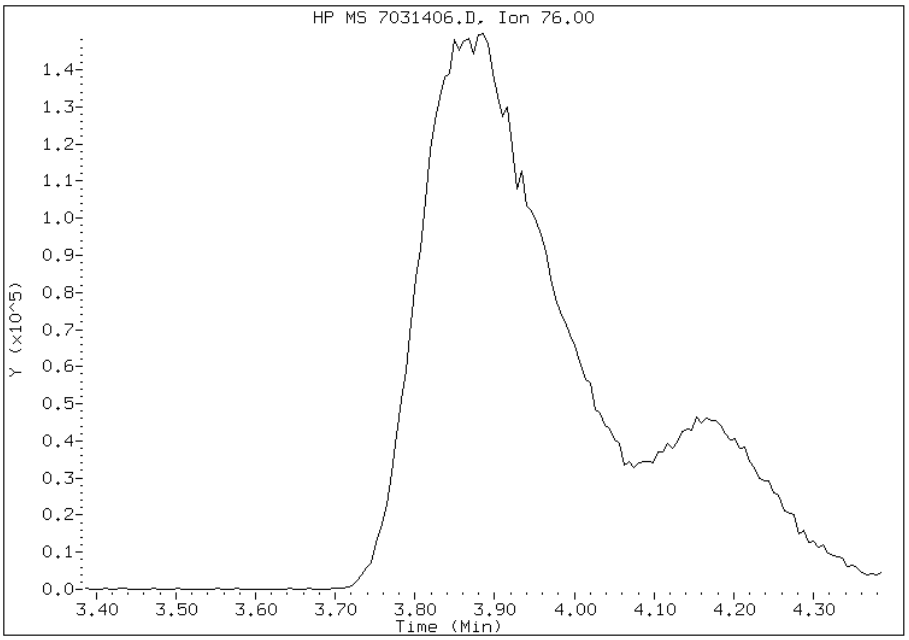
Processing Integration Results

RT: 3.89

Response: 2244486

Amount: 214

Conc: 214



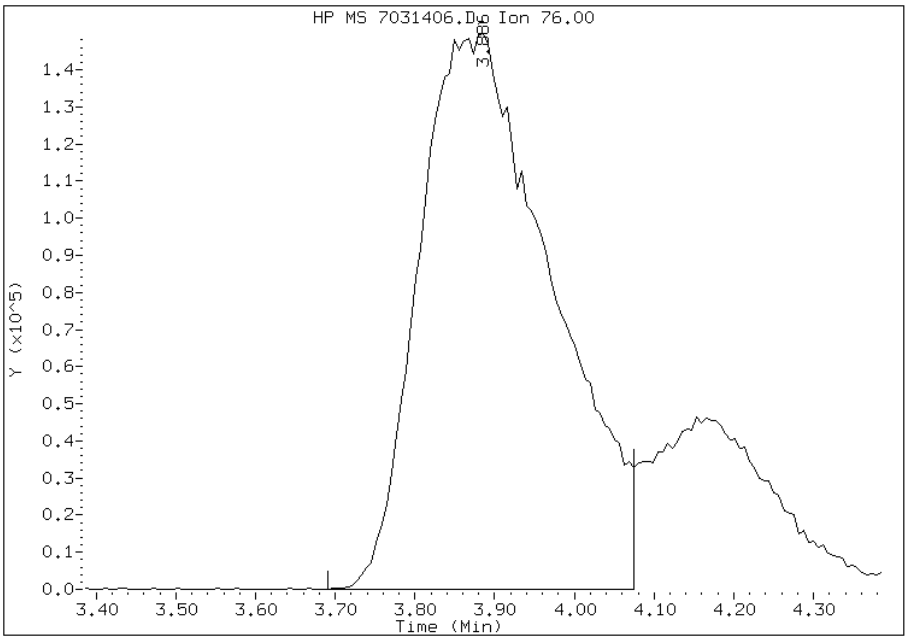
Manual Integration Results

RT: 3.89

Response: 1745741

Amount: 202

Conc: 202



Manually Integrated By: zukowskim
Modification Date: 14-Mar-2014 11:47
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031406.D
Inj. Date and Time: 14-MAR-2014 10:41
Instrument ID: hp7.i
Client ID: ICIS vstd40
Compound: 16 3-Chloro-1-propene
CAS #: 107-05-1
Report Date: 03/17/2014

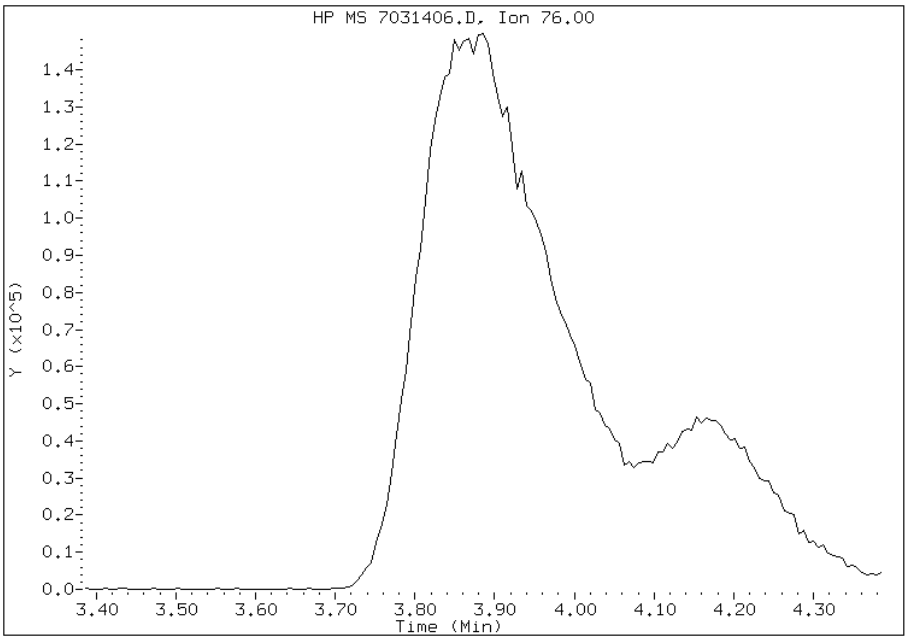
Processing Integration Results

RT: 3.89

Response: 2244486

Amount: 327

Conc: 327



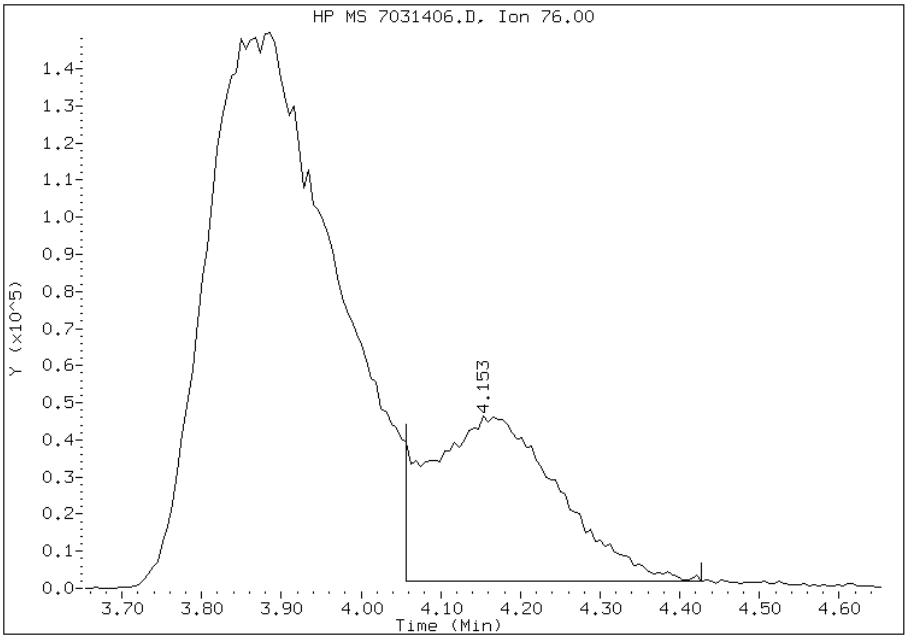
Manual Integration Results

RT: 4.15

Response: 505681

Amount: 199

Conc: 199



Manually Integrated By: zukowskim
Modification Date: 14-Mar-2014 12:11
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031406.D
Inj. Date and Time: 14-MAR-2014 10:41
Instrument ID: hp7.i
Client ID: ICIS vstd40
Compound: 52 1,4-Dioxane
CAS #: 123-91-1
Report Date: 03/17/2014

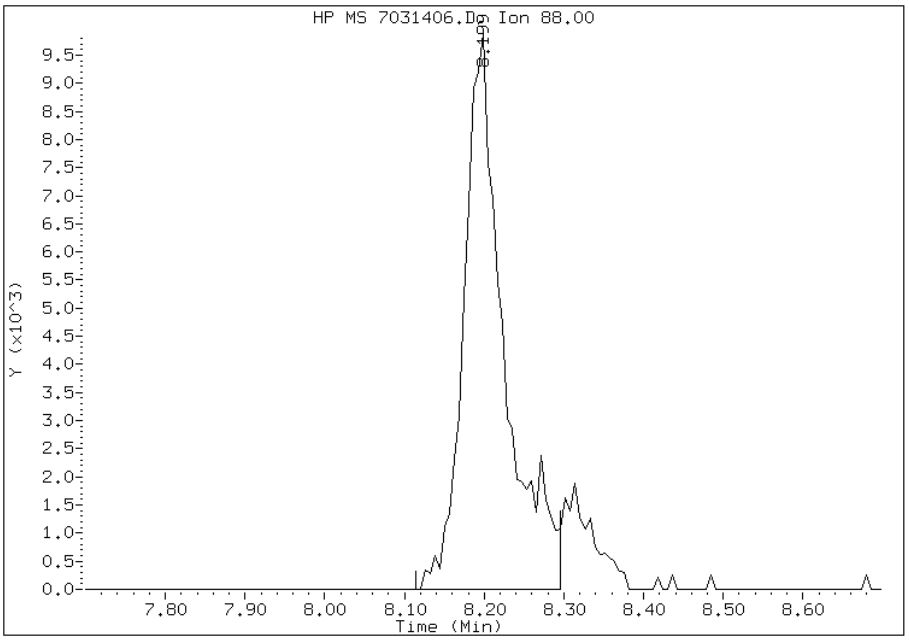
Processing Integration Results

RT: 8.20

Response: 35174

Amount: 3572

Conc: 3572



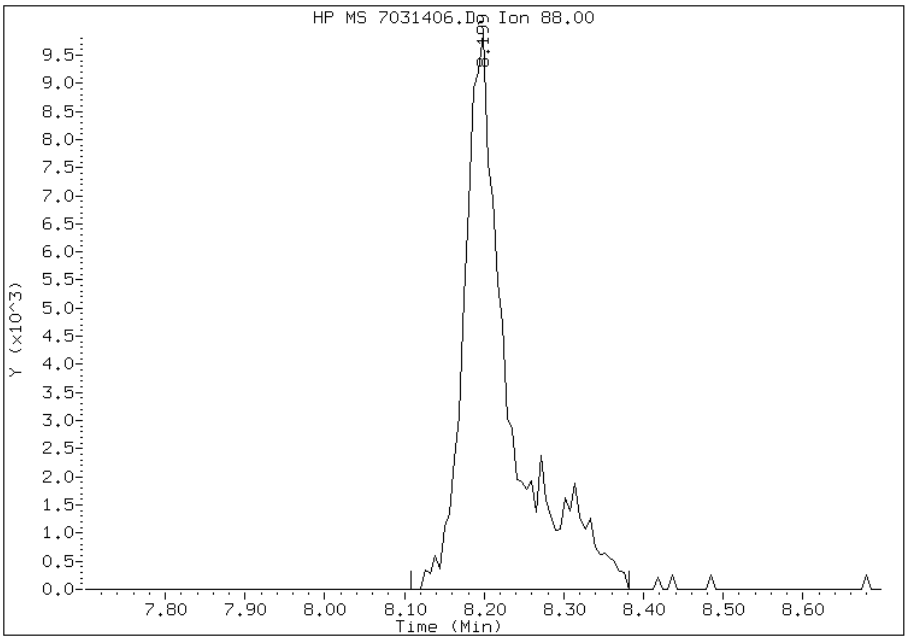
Manual Integration Results

RT: 8.20

Response: 39637

Amount: 3616

Conc: 3616



Manually Integrated By: zukowskim
Modification Date: 14-Mar-2014 12:10
Manual Integration Reason: Peak Integrated Incorrectly

TestAmerica Pittsburgh

VOLATILE REPORT SW-846 Method

Data file : \\pitsvr06\d\chem\hp7.i\7031414d.b\7031407.D
Lab Smp Id: IC Client Smp ID: IC vstd50
Inj Date : 14-MAR-2014 11:08 MS Autotune Date: 29-AUG-2013 09:08
Operator : 430936 Inst ID: hp7.i
Smp Info : IC, vstd50
Misc Info : 7031414d.b,T8260bh2o.m,list1.sub
Comment :
Method : \\pitsvr06\d\chem\hp7.i\7031414d.b\T8260bh2o.m
Meth Date : 17-Mar-2014 03:24 zukowskim Quant Type: ISTD
Cal Date : 14-MAR-2014 09:40 Cal File: 7031404.D
Als bottle: 6 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: list1.sub
Target Version: 4.14
Processing Host: PITPC-530

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

		QUANT SIG					AMOUNTS CAL-AMT	ON-COL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)
*	46 Fluorobenzene (IS)	96	7.409	7.410	(1.000)	2360610	250.000	
*	69 Chlorobenzene-d5	119	10.469	10.470	(1.000)	615341	250.000	
*	92 1,4-Dichlorobenzene-d4	152	12.787	12.788	(1.000)	788419	250.000	
*	176 Dioxane-d8 (IS)	96	8.145	8.140	(1.000)	53041	5000.00	
*	177 TBA-d9 (IS)	65	4.751	4.715	(1.000)	518523	5000.00	
$	39 Dibromofluoromethane (Surr)	113	6.679	6.680	(0.901)	599563	250.000	241.5
$	43 1,2-Dichloroethane-d4	65	7.050	7.057	(0.952)	701701	250.000	245.4
$	59 Toluene-d8	98	9.039	9.041	(0.863)	2066869	250.000	215.8
$	80 Bromofluorobenzene (Surr)	95	11.631	11.633	(1.111)	829231	250.000	238.9
	1 Dichlorodifluoromethane	85	1.946	1.960	(0.263)	814798	250.000	253.6
	2 Chloromethane	50	2.025	2.020	(0.273)	1721470	250.000	247.0
	3 Vinyl Chloride	62	2.177	2.166	(0.294)	1045868	250.000	246.2
	4 Bromomethane	94	2.524	2.495	(0.341)	263743	250.000	239.5(QM)
	5 Chloroethane	64	2.646	2.610	(0.357)	240076	250.000	249.9(M)
	7 Dichlorofluoromethane	67	2.895	2.921	(0.391)	515845	250.000	231.0(M)
	10 1,1,2-trichloro-1,2,2-trifluor	101	3.710	3.718	(0.501)	737632	250.000	257.7(QM)
	166 Trichlorofluoromethane	101	2.962	2.970	(0.400)	482215	250.000	219.0(Q)
	12 1,1-Dichloroethene	96	3.564	3.590	(0.481)	688278	250.000	248.2
	15 Carbon Disulfide	76	3.862	3.888	(0.521)	2159301	250.000	247.9(M)
	13 Acetone	43	3.856	3.822	(0.521)	165323	250.000	294.6
	18 Methylene Chloride	84	4.398	4.387	(0.594)	739573	250.000	217.1
	19 trans-1,2-Dichloroethene	96	4.775	4.788	(0.644)	788628	250.000	250.1
	20 Methyl tert-butyl ether	73	4.872	4.861	(0.658)	1527647	250.000	244.5
	24 1,1-Dichloroethane	63	5.371	5.372	(0.725)	1503844	250.000	245.2
	27 2,2-Dichloropropane	77	6.095	6.096	(0.823)	941433	250.000	248.6
	28 cis-1,2-dichloroethene	96	6.107	6.115	(0.824)	805274	250.000	246.3
M	29 1,2-Dichloroethene (total)	96				1593902	500.000	496.4
	30 Bromochloromethane	128	6.393	6.388	(0.863)	345324	250.000	244.6

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
31 2-Butanone	43	6.192	6.200	(0.836)	218665	250.000	282.3
37 Chloroform	83	6.503	6.504	(0.878)	1160160	250.000	245.9
38 1,1,1-Trichloroethane	97	6.691	6.686	(0.903)	1012062	250.000	250.9
40 1,1-Dichloropropene	75	6.874	6.881	(0.928)	848095	250.000	254.8
41 Carbon Tetrachloride	117	6.874	6.875	(0.928)	824169	250.000	251.5
42 Benzene	78	7.105	7.101	(0.959)	2506265	250.000	237.4
45 1,2-Dichloroethane	62	7.135	7.131	(0.963)	785547	250.000	228.7
47 Trichloroethene	130	7.798	7.794	(1.053)	697573	250.000	251.2
49 1,2-Dichloropropane	63	8.036	8.037	(1.085)	695125	250.000	247.7
50 Dibromomethane	93	8.151	8.153	(1.100)	326076	250.000	241.9
53 Bromodichloromethane	83	8.321	8.317	(1.123)	825550	250.000	250.7
57 cis-1,3-Dichloropropene	75	8.772	8.779	(1.184)	984231	250.000	256.9
58 4-Methyl-2-Pentanone	43	8.942	8.938	(0.854)	504786	250.000	243.5(Q)
60 Toluene	91	9.106	9.108	(0.870)	2290969	250.000	214.5
61 trans-1,3-Dichloropropene	75	9.325	9.333	(0.891)	744564	250.000	252.1
63 1,3-Dichloropropane	76	9.672	9.674	(0.924)	708834	250.000	252.4
64 1,1,2-Trichloroethane	97	9.508	9.510	(0.908)	441939	250.000	257.0
65 Tetrachloroethene	164	9.648	9.649	(0.922)	571415	250.000	251.9
66 2-Hexanone	43	9.763	9.771	(0.933)	357366	250.000	271.4
67 Dibromochloromethane	129	9.897	9.898	(0.945)	531502	250.000	250.3
68 1,2-Dibromoethane	107	10.013	10.015	(0.956)	456913	250.000	238.9
70 Chlorobenzene	112	10.499	10.495	(1.003)	1481781	250.000	232.0
71 1,1,1,2-Tetrachloroethane	131	10.578	10.580	(1.010)	606428	250.000	248.0
72 Ethylbenzene	106	10.603	10.605	(1.013)	888324	250.000	240.6(Q)
73 m,p-XYLENE	106	10.718	10.720	(1.024)	1130705	250.000	241.2
74 Xylene-o	106	11.114	11.116	(1.062)	1194559	250.000	236.2(Q)
76 Styrene	104	11.126	11.128	(1.063)	1697496	250.000	214.2
77 Bromoform	173	11.315	11.316	(1.081)	329416	250.000	250.2
78 Isopropylbenzene	105	11.479	11.481	(1.096)	2625449	250.000	211.9
79 Bromobenzene	156	11.789	11.791	(0.922)	724090	250.000	234.2
81 n-Propylbenzene	120	12.063	12.065	(0.943)	1192147	250.000	242.6
82 2-Chlorotoluene	126	11.978	11.979	(0.937)	715707	250.000	254.7(Q)
83 1,1,2,2-Tetrachloroethane	83	11.771	11.773	(1.124)	430562	250.000	255.9
84 1,2,3-Trichloropropane	110	11.819	11.821	(0.924)	122903	250.000	260.3(Q)
85 4-Chlorotoluene	126	12.087	12.089	(0.945)	696451	250.000	254.6(Q)
86 1,3,5-Trimethylbenzene	105	12.063	12.065	(0.943)	2109968	250.000	218.0
87 tert-Butylbenzene	119	12.385	12.387	(0.969)	2015457	250.000	241.8
88 1,2,4-Trimethylbenzene	105	12.434	12.436	(0.972)	2089384	250.000	216.5
89 sec-Butylbenzene	105	12.604	12.606	(0.986)	2814098	250.000	221.4
90 4-Isopropyltoluene	119	12.750	12.752	(0.997)	2198978	250.000	222.4
91 1,3-Dichlorobenzene	146	12.726	12.722	(0.995)	1204833	250.000	239.7
94 n-Butylbenzene	91	13.164	13.166	(1.029)	2201612	250.000	234.6
93 1,4-Dichlorobenzene	146	12.811	12.813	(1.002)	1092559	250.000	244.2
95 1,2-Dichlorobenzene	146	13.188	13.190	(1.031)	910332	250.000	238.2
96 1,2-Dibromo-3-chloropropane	157	13.973	13.981	(1.093)	43795	250.000	309.9
97 1,2,4-Trichlorobenzene	180	14.800	14.808	(1.157)	328309	250.000	313.5
98 Hexachlorobutadiene	225	14.971	14.973	(1.171)	307573	250.000	310.7
99 Naphthalene	128	15.056	15.064	(1.177)	417080	250.000	307.6
100 1,2,3-Trichlorobenzene	180	15.299	15.307	(1.196)	205223	250.000	278.6
156 Methyl Acetate	43	4.319	4.314	(0.583)	1984022	1250.00	1341
157 Cyclohexane	56	6.746	6.741	(0.911)	1556953	250.000	256.5
158 Methyl Cyclohexane	83	7.993	7.995	(1.079)	1296168	250.000	253.8
32 Vinyl Acetate	43	5.505	5.513	(0.743)	1276649	250.000	264.1
52 1,4-Dioxane	88	8.194	8.202	(1.006)	57962	5000.00	4963

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
21	tert-Butyl Alcohol	59	4.842	4.825	(1.019)	315188	2500.00	2483(Q)
16	3-Chloro-1-propene	76	4.166	4.168	(0.562)	613396	250.000	239.4(M)
11	Acrolein	56	3.528	3.505	(0.476)	282249	1000.00	964.3(Q)
22	Acrylonitrile	53	4.817	4.819	(0.650)	2033535	2500.00	2619
8	Ethyl Ether	59	3.376	3.377	(0.456)	526198	250.000	228.3(M)
62	Ethyl methacrylate	69	9.423	9.424	(0.900)	573467	250.000	243.1
23	Hexane	57	5.164	5.178	(0.697)	1396234	250.000	256.1
14	Iodomethane	142	3.795	3.791	(0.512)	1122634	250.000	241.2(Q)
44	Isobutanol	41	7.409	7.411	(1.000)	713463	6250.00	6349
155	N-Heptane	41	7.993	7.994	(1.079)	1080854	250.000	255.0
35	Tetrahydrofuran	42	6.752	6.747	(0.911)	409914	500.000	505.4
164	trans-1,4-Dichloro-2-butene	53	11.832	11.833	(0.925)	117363	250.000	257.7
169	Butadiene	39	2.208	2.197	(0.298)	1063789	250.000	236.7
M 75	Xylenes (total)	106				2325264	500.000	477.4

QC Flag Legend

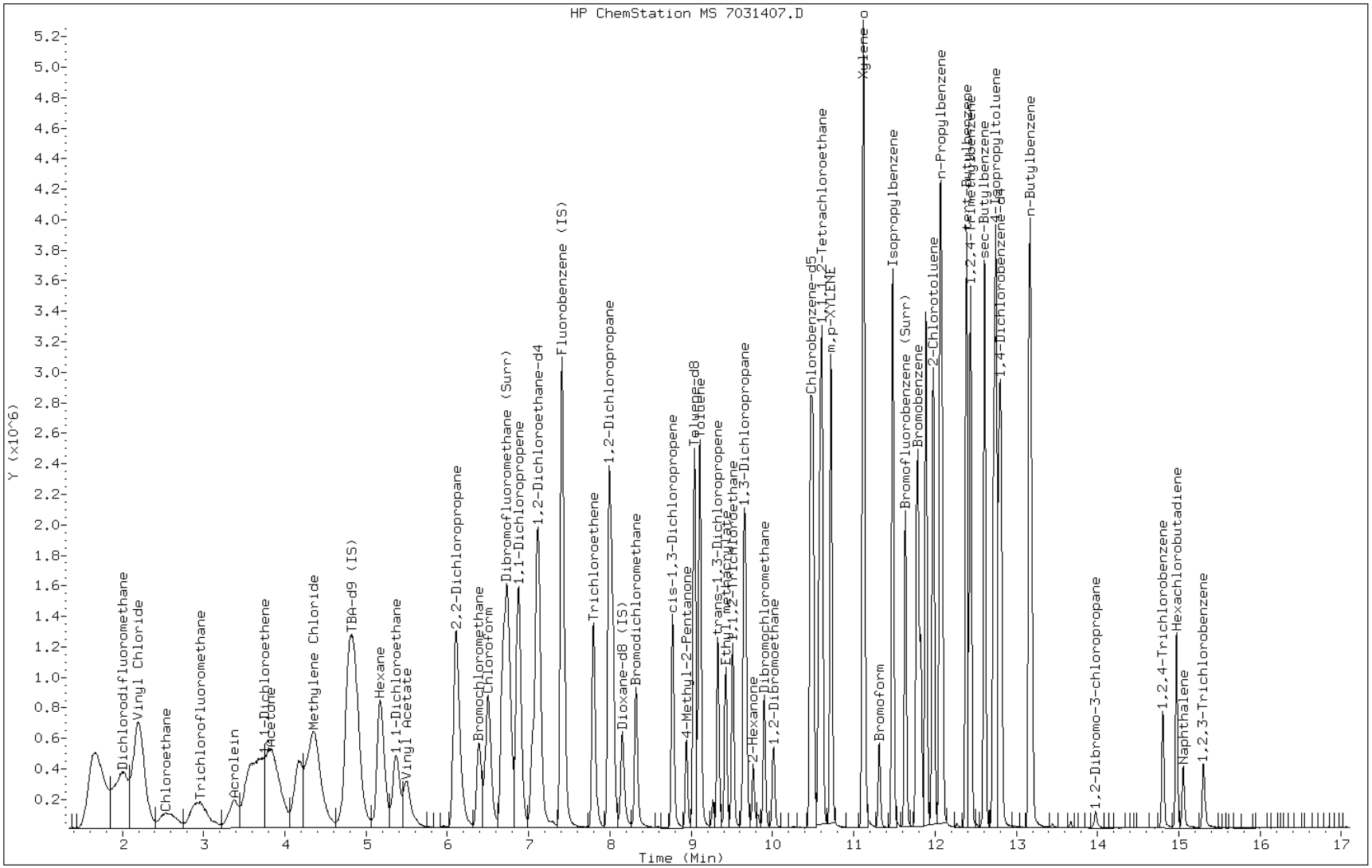
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: 7031407.D

Date: 14-MAR-2014 11:08

Client ID: IC vstd50 Instrument: hp7.i

Sample Info: IC, vstd50 Operator: 430936



Manual Integration Report

Data File: 7031407.D
Inj. Date and Time: 14-MAR-2014 11:08
Instrument ID: hp7.i
Client ID: IC vstd50
Compound: 4 Bromomethane
CAS #: 74-83-9
Report Date: 03/17/2014

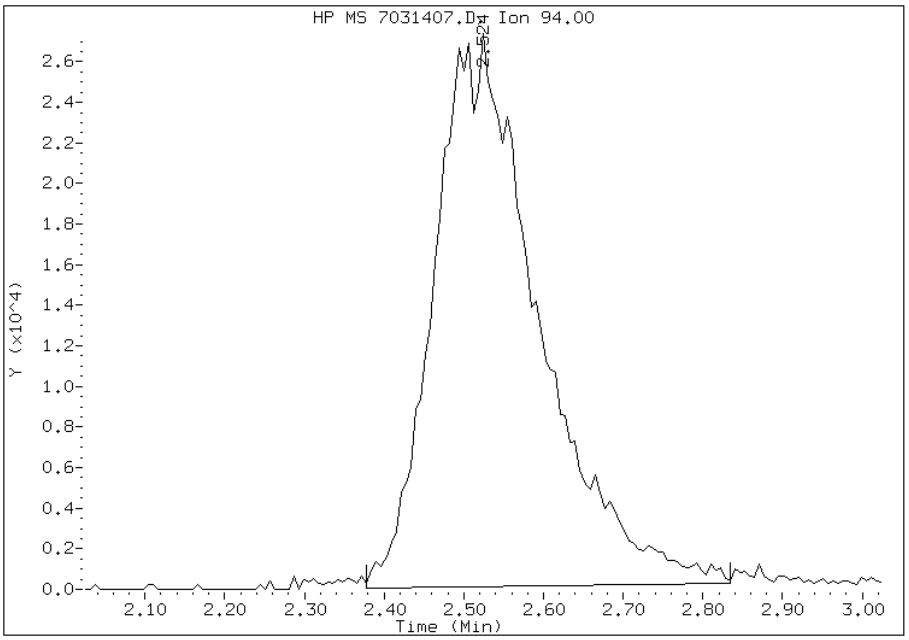
Processing Integration Results

RT: 2.52

Response: 250352

Amount: 223

Conc: 223



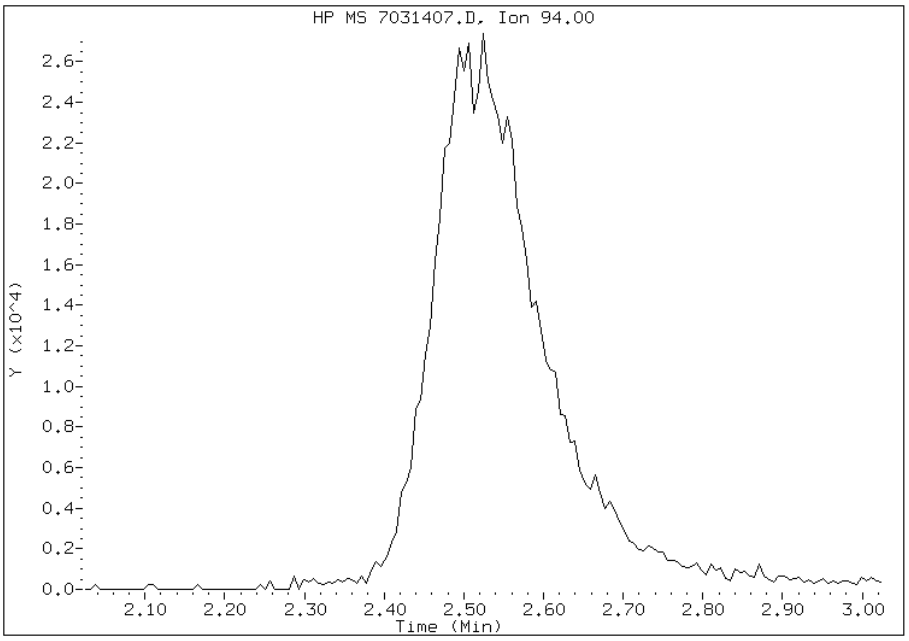
Manual Integration Results

RT: 2.52

Response: 263743

Amount: 240

Conc: 240



Manually Integrated By: zukowskim
Modification Date: 14-Mar-2014 13:00
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031407.D
Inj. Date and Time: 14-MAR-2014 11:08
Instrument ID: hp7.i
Client ID: IC vstd50
Compound: 5 Chloroethane
CAS #: 75-00-3
Report Date: 03/17/2014

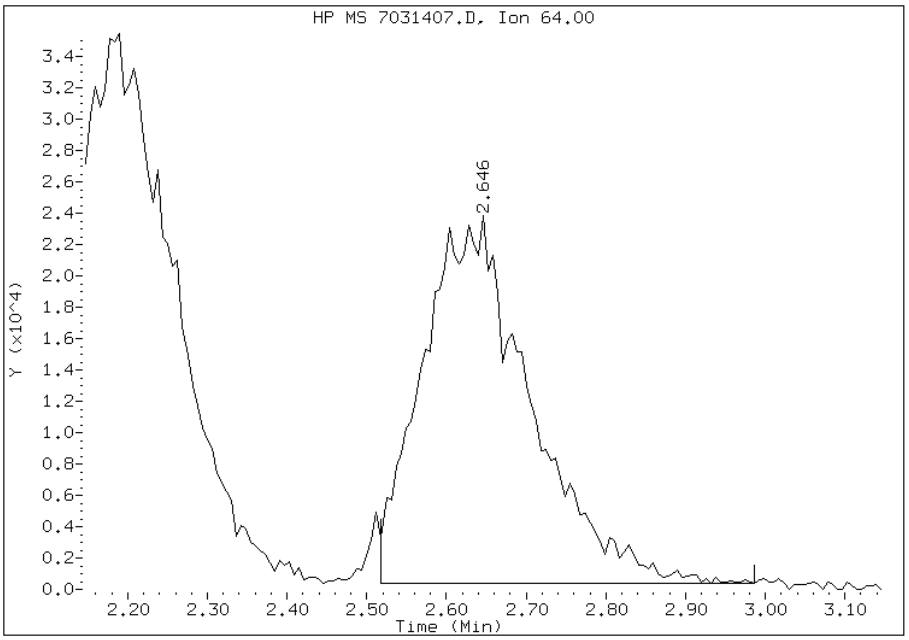
Processing Integration Results

RT: 2.65

Response: 221106

Amount: 231

Conc: 231



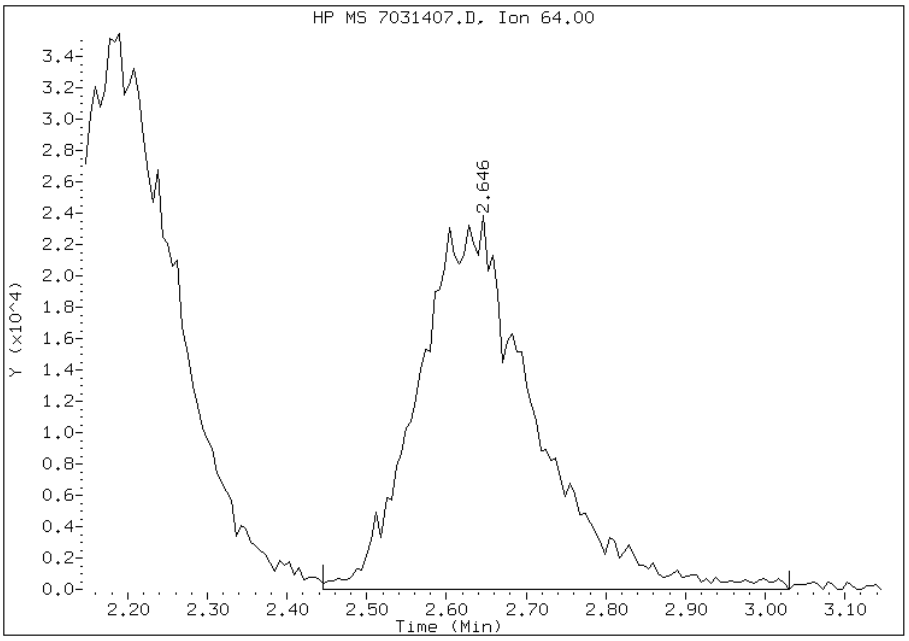
Manual Integration Results

RT: 2.65

Response: 240076

Amount: 250

Conc: 250



Manually Integrated By: zukowskim
Modification Date: 14-Mar-2014 13:00
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031407.D
Inj. Date and Time: 14-MAR-2014 11:08
Instrument ID: hp7.i
Client ID: IC vstd50
Compound: 7 Dichlorofluoromethane
CAS #: 75-43-4
Report Date: 03/17/2014

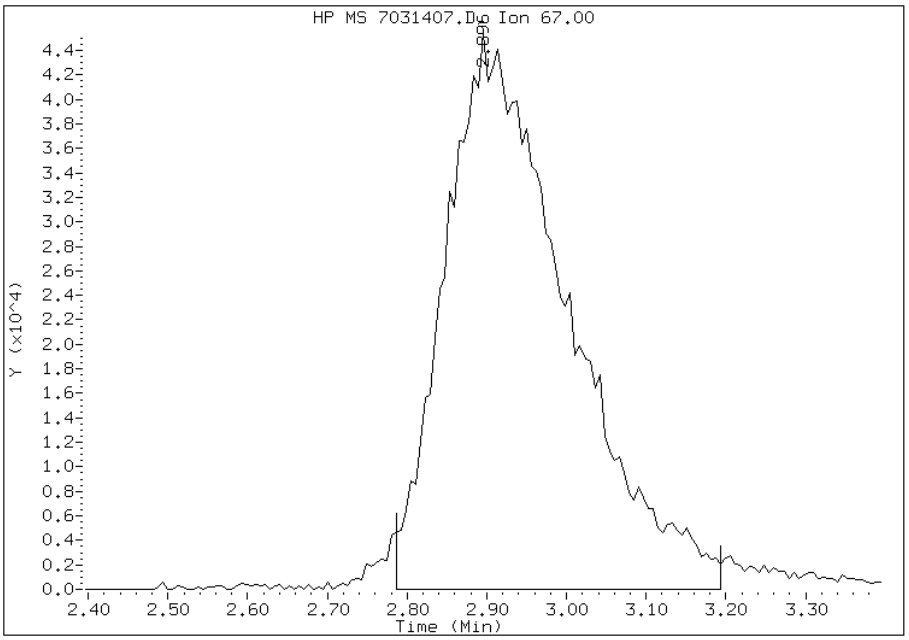
Processing Integration Results

RT: 2.90

Response: 486859

Amount: 214

Conc: 214



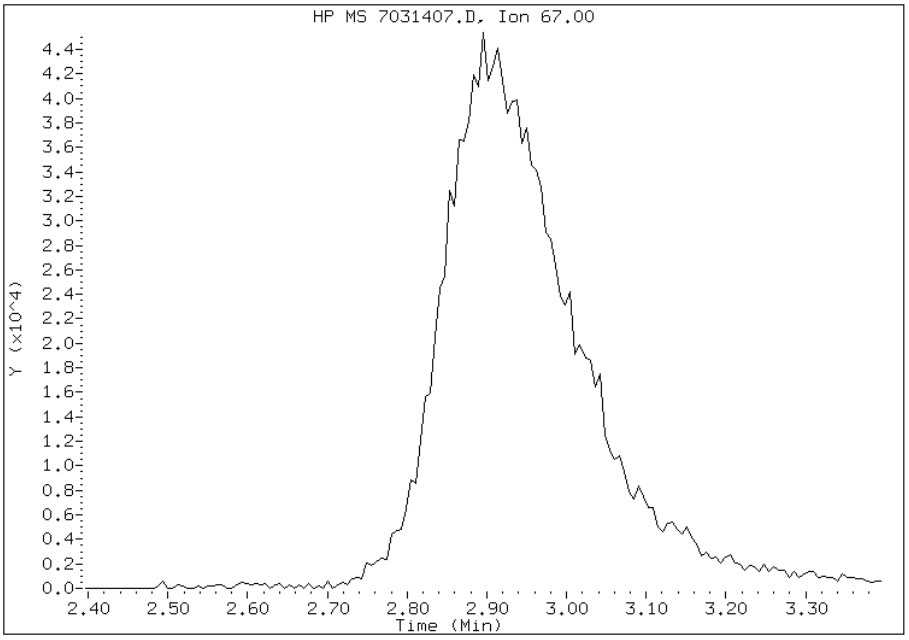
Manual Integration Results

RT: 2.90

Response: 515845

Amount: 231

Conc: 231



Manually Integrated By: zukowskim
Modification Date: 14-Mar-2014 12:59
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031407.D
Inj. Date and Time: 14-MAR-2014 11:08
Instrument ID: hp7.i
Client ID: IC vstd50
Compound: 8 Ethyl Ether
CAS #: 60-29-7
Report Date: 03/17/2014

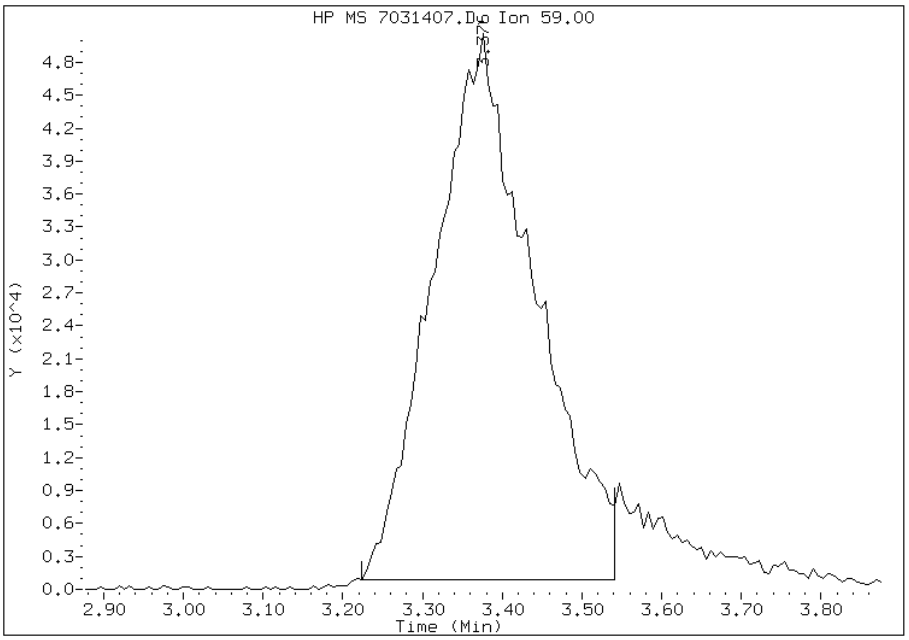
Processing Integration Results

RT: 3.38

Response: 442414

Amount: 210

Conc: 210



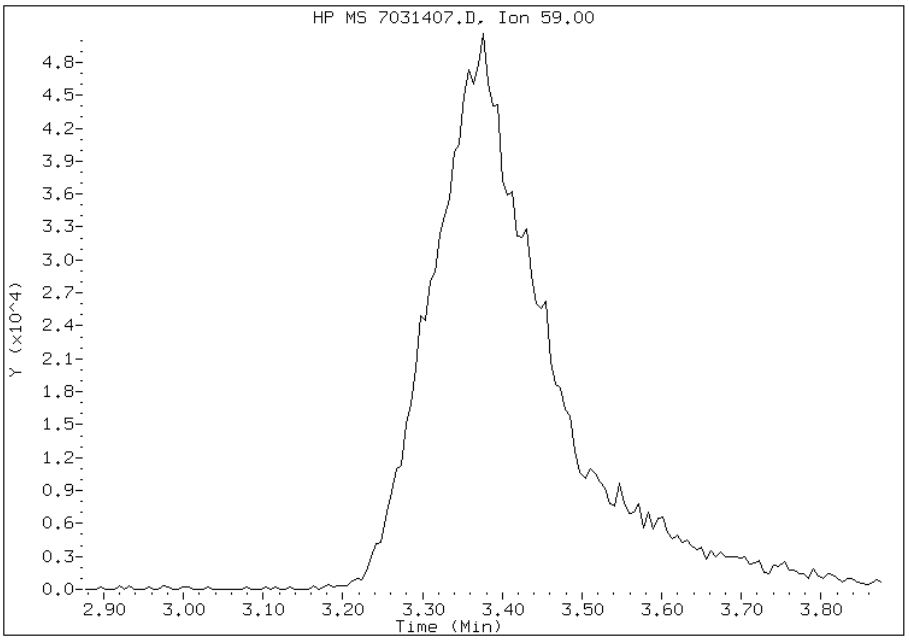
Manual Integration Results

RT: 3.38

Response: 526198

Amount: 228

Conc: 228



Manually Integrated By: zukowskim
Modification Date: 14-Mar-2014 13:39
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031407.D
Inj. Date and Time: 14-MAR-2014 11:08
Instrument ID: hp7.i
Client ID: IC vstd50
Compound: 10 1,1,2-trichloro-1,2,2-trifluoro
CAS #: 76-13-1
Report Date: 03/17/2014

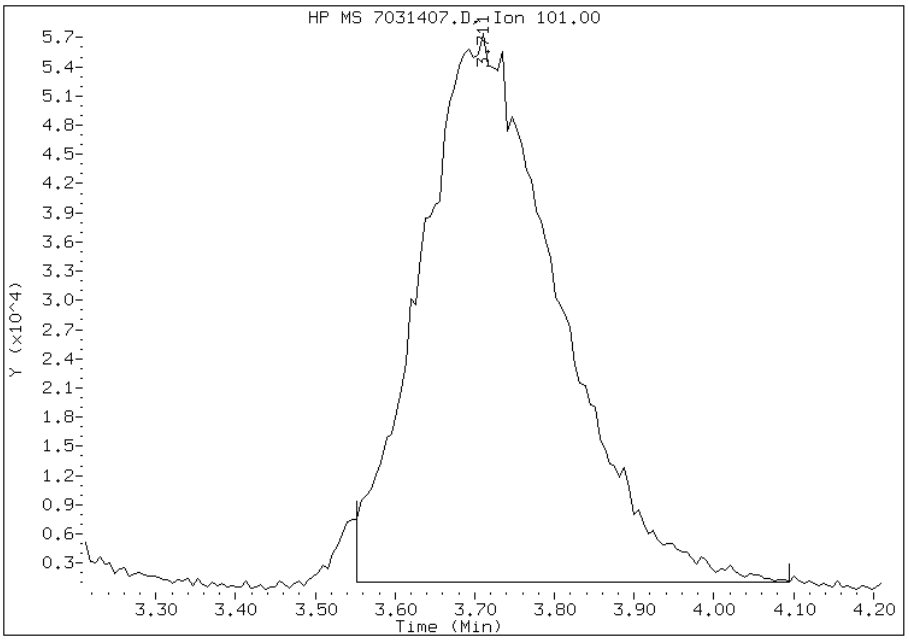
Processing Integration Results

RT: 3.71

Response: 675791

Amount: 223

Conc: 223



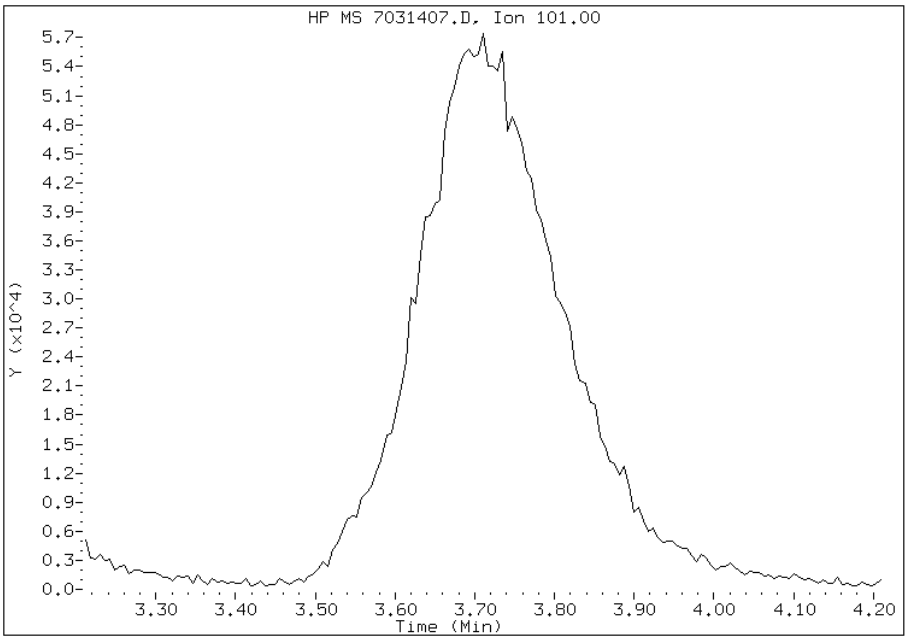
Manual Integration Results

RT: 3.71

Response: 737632

Amount: 258

Conc: 258



Manually Integrated By: zukowskim
Modification Date: 14-Mar-2014 13:00
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031407.D
Inj. Date and Time: 14-MAR-2014 11:08
Instrument ID: hp7.i
Client ID: IC vstd50
Compound: 15 Carbon Disulfide
CAS #: 75-15-0
Report Date: 03/17/2014

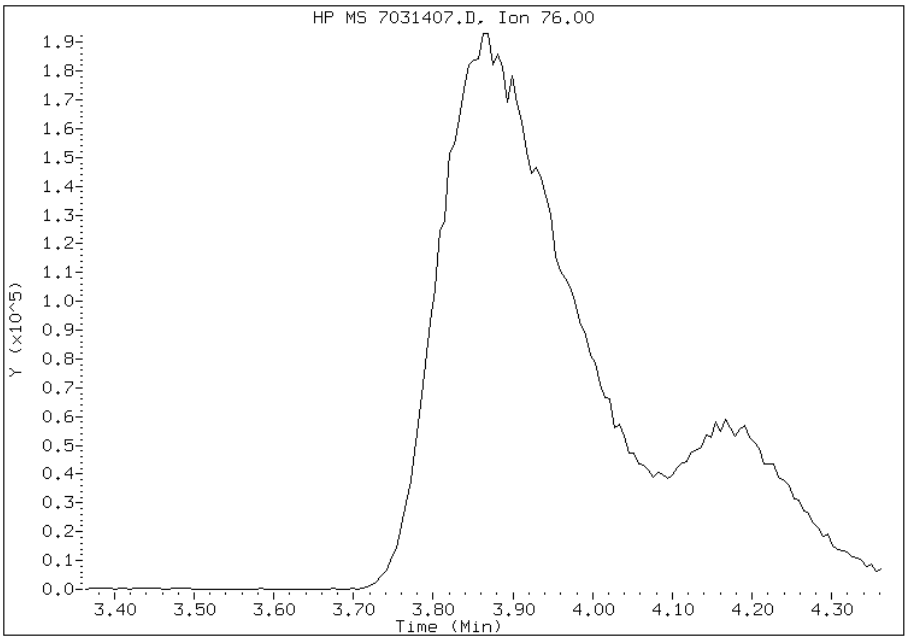
Processing Integration Results

RT: 3.86

Response: 2773876

Amount: 279

Conc: 279



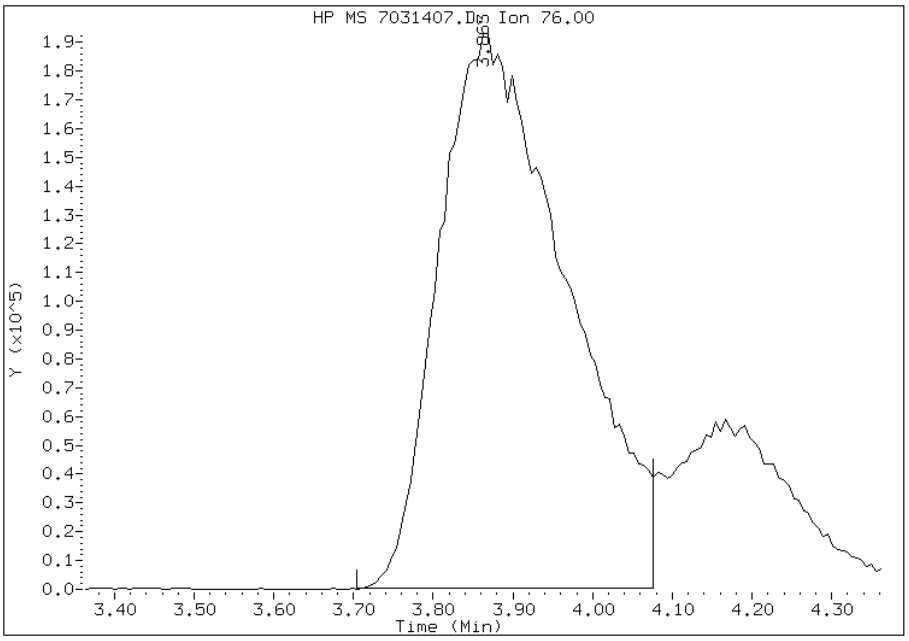
Manual Integration Results

RT: 3.86

Response: 2159301

Amount: 248

Conc: 248



Manually Integrated By: zukowskim
Modification Date: 14-Mar-2014 13:01
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031407.D
Inj. Date and Time: 14-MAR-2014 11:08
Instrument ID: hp7.i
Client ID: IC vstd50
Compound: 16 3-Chloro-1-propene
CAS #: 107-05-1
Report Date: 03/17/2014

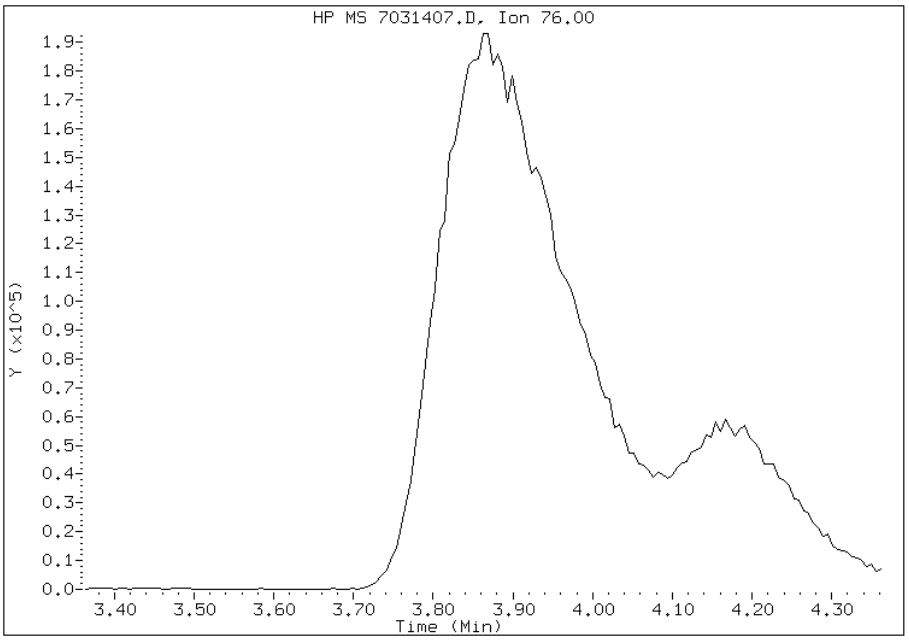
Processing Integration Results

RT: 3.86

Response: 2773876

Amount: 585

Conc: 585



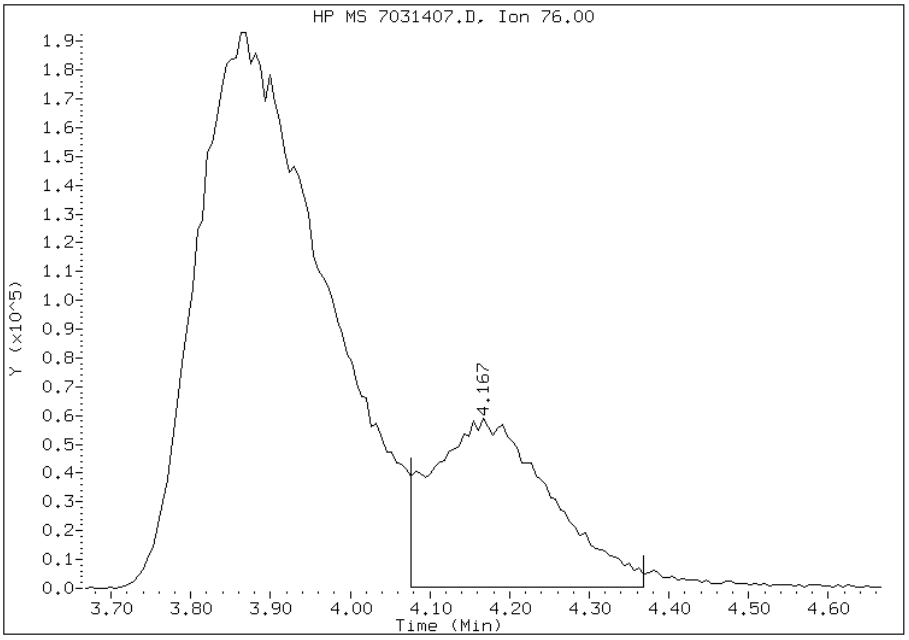
Manual Integration Results

RT: 4.17

Response: 613396

Amount: 239

Conc: 239



Manually Integrated By: zukowskim
Modification Date: 14-Mar-2014 13:39
Manual Integration Reason: Peak Integrated Incorrectly

TestAmerica Pittsburgh

VOLATILE REPORT SW-846 Method

Data file : \\pitsvr06\d\chem\hp7.i\7031414d.b\7031408.D
Lab Smp Id: IC Client Smp ID: IC vstd125
Inj Date : 14-MAR-2014 12:29 MS Autotune Date: 29-AUG-2013 09:08
Operator : 430936 Inst ID: hp7.i
Smp Info : IC, vstd125
Misc Info : 7031414d.b,T8260bh2o.m,list1.sub
Comment :
Method : \\pitsvr06\d\chem\hp7.i\7031414d.b\T8260bh2o.m
Meth Date : 17-Mar-2014 03:24 zukowskim Quant Type: ISTD
Cal Date : 14-MAR-2014 09:40 Cal File: 7031404.D
Als bottle: 7 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: list1.sub
Target Version: 4.14
Processing Host: PITPC-530

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
*	46 Fluorobenzene (IS)	96	7.411	7.410	(1.000)	2393040	250.000	
*	69 Chlorobenzene-d5	119	10.471	10.470	(1.000)	619259	250.000	
*	92 1,4-Dichlorobenzene-d4	152	12.788	12.788	(1.000)	753277	250.000	(Q)
*	176 Dioxane-d8 (IS)	96	8.134	8.140	(1.000)	43397	5000.00	
*	177 TBA-d9 (IS)	65	4.685	4.715	(1.000)	514658	5000.00	
$	39 Dibromofluoromethane (Surr)	113	6.687	6.680	(0.902)	1406363	625.000	558.8
$	43 1,2-Dichloroethane-d4	65	7.052	7.057	(0.952)	1596897	625.000	551.0
$	59 Toluene-d8	98	9.041	9.041	(0.863)	4149502	625.000	430.6
$	80 Bromofluorobenzene (Surr)	95	11.632	11.633	(1.111)	1770255	625.000	506.8
	1 Dichlorodifluoromethane	85	1.960	1.960	(0.265)	1931913	625.000	593.2(Q)
	2 Chloromethane	50	2.039	2.020	(0.275)	3926208	625.000	555.6(M)
	3 Vinyl Chloride	62	2.191	2.166	(0.296)	2341054	625.000	543.6
	4 Bromomethane	94	2.519	2.495	(0.340)	603119	625.000	540.4(QM)
	5 Chloroethane	64	2.629	2.610	(0.355)	569313	625.000	584.6(Q)
	7 Dichlorofluoromethane	67	2.927	2.921	(0.395)	1565135	625.000	691.5(Q)
	10 1,1,2-trichloro-1,2,2-trifluor	101	3.742	3.718	(0.505)	1632027	625.000	562.5(Q)
	166 Trichlorofluoromethane	101	2.964	2.970	(0.400)	1687771	625.000	756.1(Q)
	12 1,1-Dichloroethene	96	3.596	3.590	(0.485)	1605334	625.000	571.0
	15 Carbon Disulfide	76	3.894	3.888	(0.526)	4908815	625.000	555.9(M)
	13 Acetone	43	3.803	3.822	(0.513)	319785	625.000	576.4
	18 Methylene Chloride	84	4.381	4.387	(0.591)	1692219	625.000	490.0(Q)
	19 trans-1,2-Dichloroethene	96	4.789	4.788	(0.646)	1807421	625.000	565.3
	20 Methyl tert-butyl ether	73	4.862	4.861	(0.656)	3462331	625.000	546.7
	24 1,1-Dichloroethane	63	5.373	5.372	(0.725)	3433437	625.000	552.3
	27 2,2-Dichloropropane	77	6.109	6.096	(0.824)	2143538	625.000	558.4
	28 cis-1,2-dichloroethene	96	6.109	6.115	(0.824)	1858486	625.000	560.8
M	29 1,2-Dichloroethene (total)	96				3665907	1250.00	1126
	30 Bromochloromethane	128	6.389	6.388	(0.862)	793637	625.000	554.6(Q)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
31 2-Butanone	43	6.182	6.200	(0.834)	472489	625.000	597.8
37 Chloroform	83	6.510	6.504	(0.879)	2568713	625.000	537.1
38 1,1,1-Trichloroethane	97	6.693	6.686	(0.903)	2282693	625.000	558.3
40 1,1-Dichloropropene	75	6.875	6.881	(0.928)	1912143	625.000	566.7
41 Carbon Tetrachloride	117	6.875	6.875	(0.928)	1933232	625.000	581.9
42 Benzene	78	7.106	7.101	(0.959)	5186495	625.000	484.6
45 1,2-Dichloroethane	62	7.131	7.131	(0.962)	1732761	625.000	497.6
47 Trichloroethene	130	7.794	7.794	(1.052)	1590425	625.000	565.1
49 1,2-Dichloropropane	63	8.037	8.037	(1.085)	1600706	625.000	562.8
50 Dibromomethane	93	8.153	8.153	(1.100)	760696	625.000	556.6
53 Bromodichloromethane	83	8.317	8.317	(1.122)	1832759	625.000	549.1
57 cis-1,3-Dichloropropene	75	8.773	8.779	(1.184)	2161346	625.000	556.4
58 4-Methyl-2-Pentanone	43	8.938	8.938	(0.854)	1099220	625.000	527.0(Q)
60 Toluene	91	9.108	9.108	(0.870)	4523078	625.000	420.8
61 trans-1,3-Dichloropropene	75	9.327	9.333	(0.891)	1625592	625.000	546.9
63 1,3-Dichloropropane	76	9.674	9.674	(0.924)	1527773	625.000	622.0
64 1,1,2-Trichloroethane	97	9.509	9.510	(0.908)	971579	625.000	615.5
65 Tetrachloroethene	164	9.649	9.649	(0.922)	1268024	625.000	555.5
66 2-Hexanone	43	9.765	9.771	(0.933)	661364	625.000	499.2
67 Dibromochloromethane	129	9.899	9.898	(0.945)	1187776	625.000	555.8
68 1,2-Dibromoethane	107	10.014	10.015	(0.956)	989231	625.000	514.0
70 Chlorobenzene	112	10.501	10.495	(1.003)	3084555	625.000	479.9
71 1,1,1,2-Tetrachloroethane	131	10.580	10.580	(1.010)	1390779	625.000	565.2
72 Ethylbenzene	106	10.610	10.605	(1.013)	1915773	625.000	515.6(Q)
73 m,p-XYLENE	106	10.726	10.720	(1.024)	2434917	625.000	516.1(Q)
74 Xylene-o	106	11.115	11.116	(1.062)	2495806	625.000	490.4(Q)
76 Styrene	104	11.134	11.128	(1.063)	3246746	625.000	407.1
77 Bromoform	173	11.316	11.316	(1.081)	785981	625.000	593.2
78 Isopropylbenzene	105	11.480	11.481	(1.096)	4760269	625.000	381.8
79 Bromobenzene	156	11.791	11.791	(0.922)	1524144	625.000	516.1
81 n-Propylbenzene	120	12.064	12.065	(0.943)	2369093	625.000	504.6(Q)
82 2-Chlorotoluene	126	11.979	11.979	(0.937)	1538534	625.000	573.1(Q)
83 1,1,2,2-Tetrachloroethane	83	11.772	11.773	(1.124)	932593	625.000	615.0
84 1,2,3-Trichloropropane	110	11.821	11.821	(0.924)	273350	625.000	618.6(Q)
85 4-Chlorotoluene	126	12.089	12.089	(0.945)	1466334	625.000	561.2(Q)
86 1,3,5-Trimethylbenzene	105	12.064	12.065	(0.943)	3793466	625.000	410.3
87 tert-Butylbenzene	119	12.393	12.387	(0.969)	3816668	625.000	479.2
88 1,2,4-Trimethylbenzene	105	12.442	12.436	(0.973)	3772484	625.000	409.2
89 sec-Butylbenzene	105	12.612	12.606	(0.986)	4894596	625.000	403.1
90 4-Isopropyltoluene	119	12.758	12.752	(0.998)	3917860	625.000	414.6
91 1,3-Dichlorobenzene	146	12.728	12.722	(0.995)	2343233	625.000	487.9
94 n-Butylbenzene	91	13.166	13.166	(1.029)	3816880	625.000	671.9
93 1,4-Dichlorobenzene	146	12.813	12.813	(1.002)	2170030	625.000	507.7
95 1,2-Dichlorobenzene	146	13.190	13.190	(1.031)	1814054	625.000	496.8
96 1,2-Dibromo-3-chloropropane	157	13.975	13.981	(1.093)	85234	625.000	592.9
97 1,2,4-Trichlorobenzene	180	14.802	14.808	(1.157)	608708	625.000	590.2
98 Hexachlorobutadiene	225	14.972	14.973	(1.171)	539962	625.000	576.6
99 Naphthalene	128	15.057	15.064	(1.177)	823753	625.000	601.0
100 1,2,3-Trichlorobenzene	180	15.307	15.307	(1.197)	442411	625.000	617.9
156 Methyl Acetate	43	4.308	4.314	(0.581)	4279802	3125.00	3036
157 Cyclohexane	56	6.747	6.741	(0.911)	3483884	625.000	566.1
158 Methyl Cyclohexane	83	7.995	7.995	(1.079)	2838757	625.000	616.4
32 Vinyl Acetate	43	5.494	5.513	(0.741)	2420447	625.000	493.9
52 1,4-Dioxane	88	8.189	8.202	(1.007)	120417	12500.0	12780

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
21	tert-Butyl Alcohol	59	4.782	4.825	(1.021)	785178	6250.00	6232(Q)
16	3-Chloro-1-propene	76	4.198	4.168	(0.567)	1467431	625.000	565.0(QM)
11	Acrolein	56	3.517	3.505	(0.475)	320385	1125.00	1080(QM)
22	Acrylonitrile	53	4.795	4.819	(0.647)	4525549	6250.00	6138
8	Ethyl Ether	59	3.359	3.377	(0.453)	1335019	625.000	571.3(Q)
62	Ethyl methacrylate	69	9.424	9.424	(0.900)	1243240	625.000	523.7
23	Hexane	57	5.190	5.178	(0.700)	3186565	625.000	614.8
14	Iodomethane	142	3.809	3.791	(0.514)	2584396	625.000	547.7(Q)
44	Isobutanol	41	7.417	7.411	(1.001)	1567648	15625.0	15310
155	N-Heptane	41	8.001	7.994	(1.080)	2335037	625.000	543.5
35	Tetrahydrofuran	42	6.754	6.747	(0.911)	941689	1250.00	1145
164	trans-1,4-Dichloro-2-butene	53	11.833	11.833	(0.925)	284005	625.000	652.7
169	Butadiene	39	2.209	2.197	(0.298)	2346132	625.000	515.0
M 75	Xylenes (total)	106				4930723	1250.00	1006

QC Flag Legend

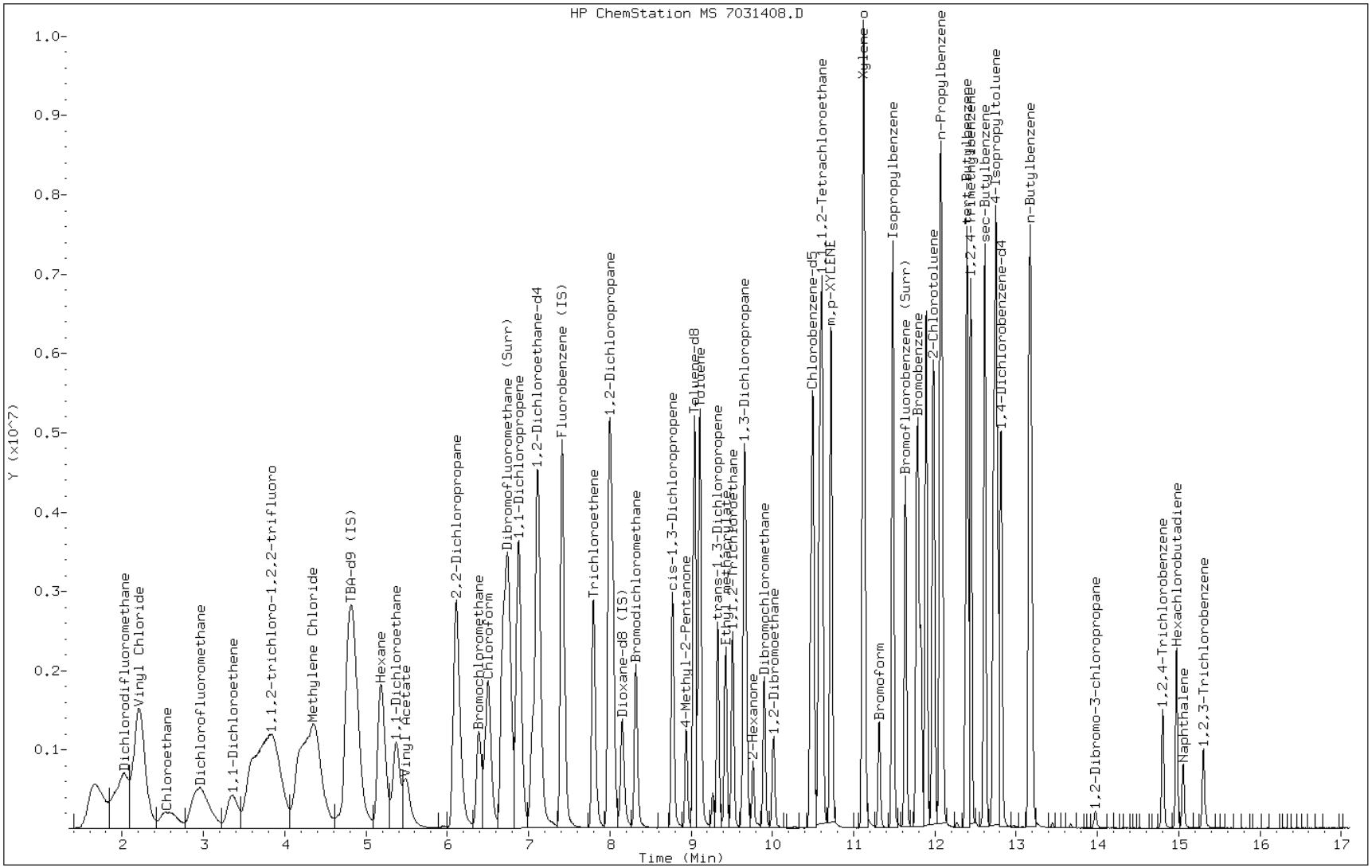
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: 7031408.D

Date: 14-MAR-2014 12:29

Client ID: IC vstd125 Instrument: hp7.i

Sample Info: IC, vstd125 Operator: 430936



Manual Integration Report

Data File: 7031408.D
Inj. Date and Time: 14-MAR-2014 12:29
Instrument ID: hp7.i
Client ID: IC vstd125
Compound: 2 Chloromethane
CAS #: 74-87-3
Report Date: 03/17/2014

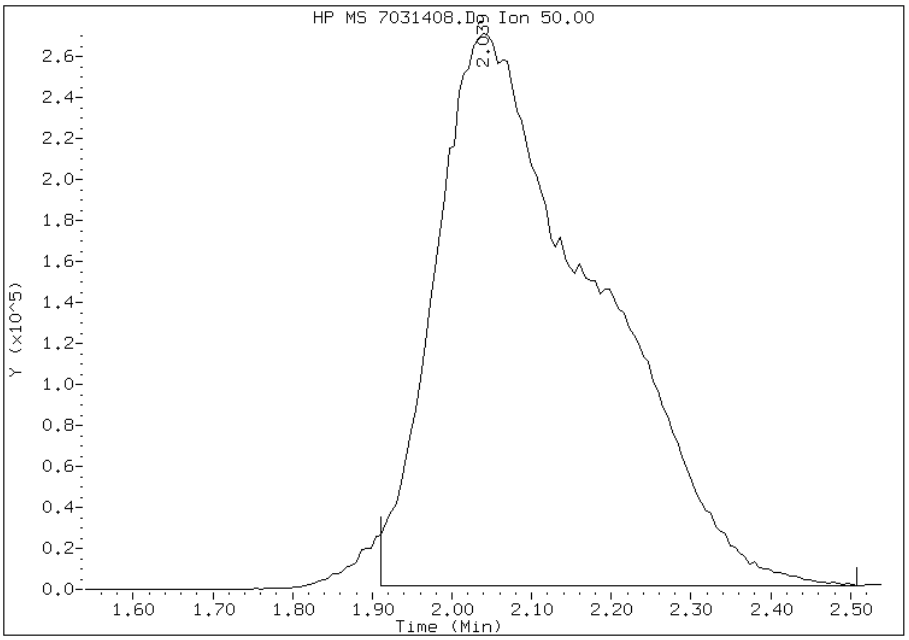
Processing Integration Results

RT: 2.04

Response: 3782544

Amount: 499

Conc: 499



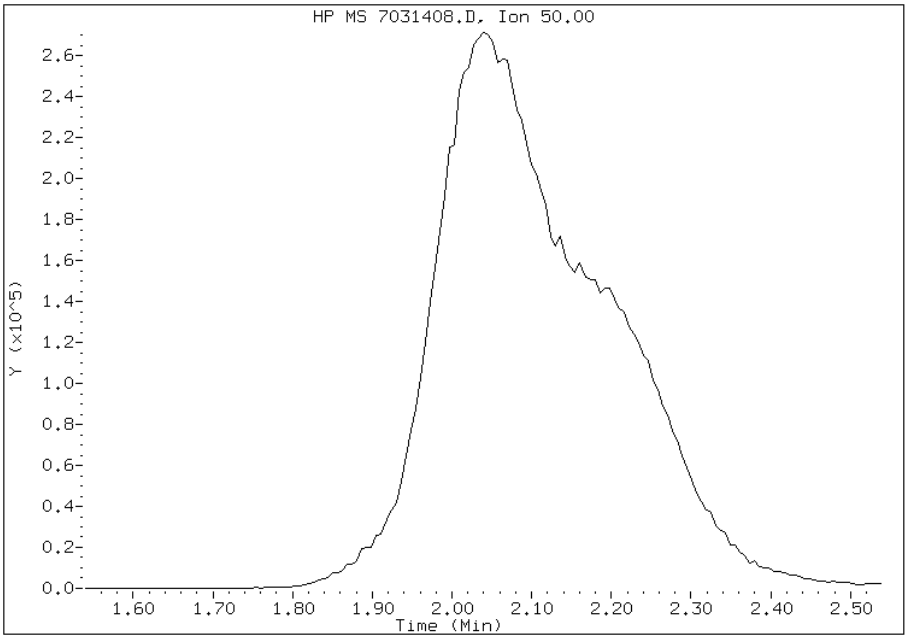
Manual Integration Results

RT: 2.04

Response: 3926208

Amount: 556

Conc: 556



Manually Integrated By: zukowskim
Modification Date: 14-Mar-2014 13:40
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031408.D
Inj. Date and Time: 14-MAR-2014 12:29
Instrument ID: hp7.i
Client ID: IC vstd125
Compound: 4 Bromomethane
CAS #: 74-83-9
Report Date: 03/17/2014

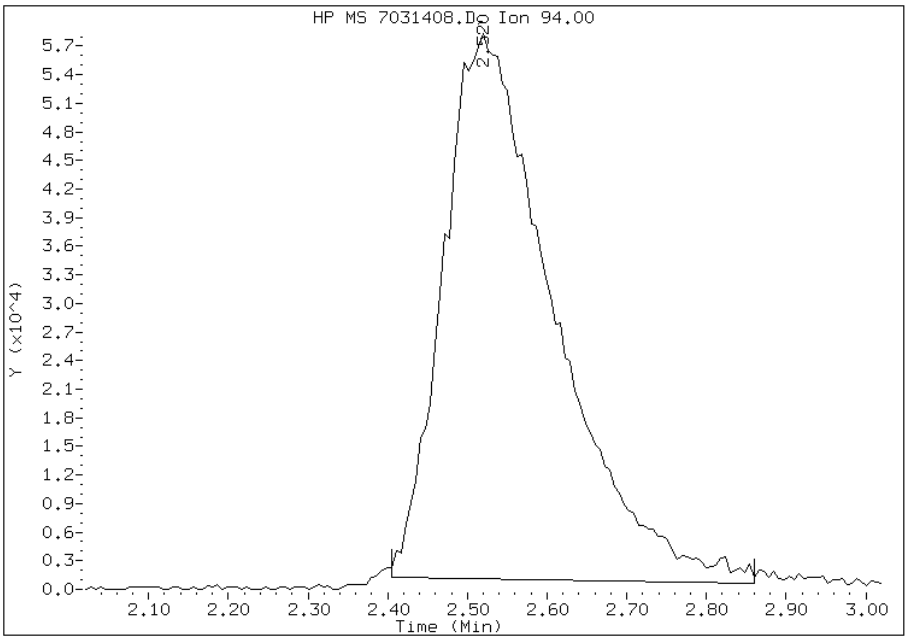
Processing Integration Results

RT: 2.52

Response: 555856

Amount: 506

Conc: 506



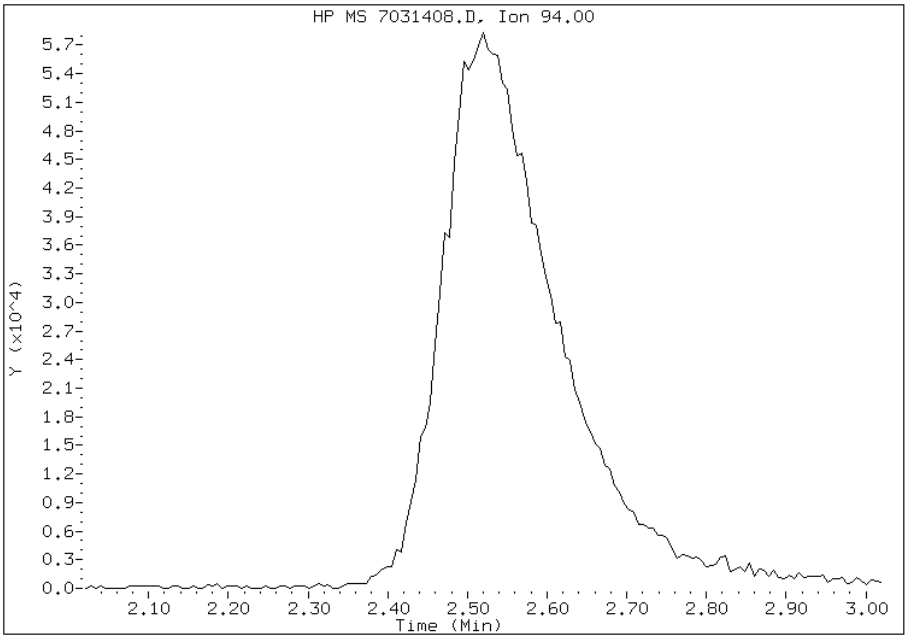
Manual Integration Results

RT: 2.52

Response: 603119

Amount: 540

Conc: 540



Manually Integrated By: zukowskim
Modification Date: 14-Mar-2014 13:40
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031408.D
Inj. Date and Time: 14-MAR-2014 12:29
Instrument ID: hp7.i
Client ID: IC vstd125
Compound: 11 Acrolein
CAS #: 107-02-8
Report Date: 03/17/2014

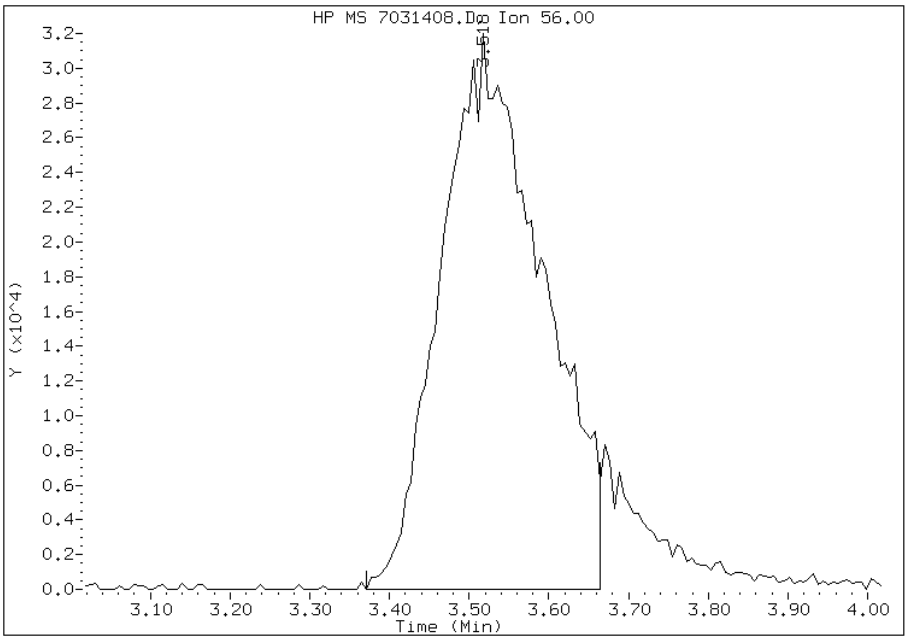
Processing Integration Results

RT: 3.52

Response: 283404

Amount: 973

Conc: 973



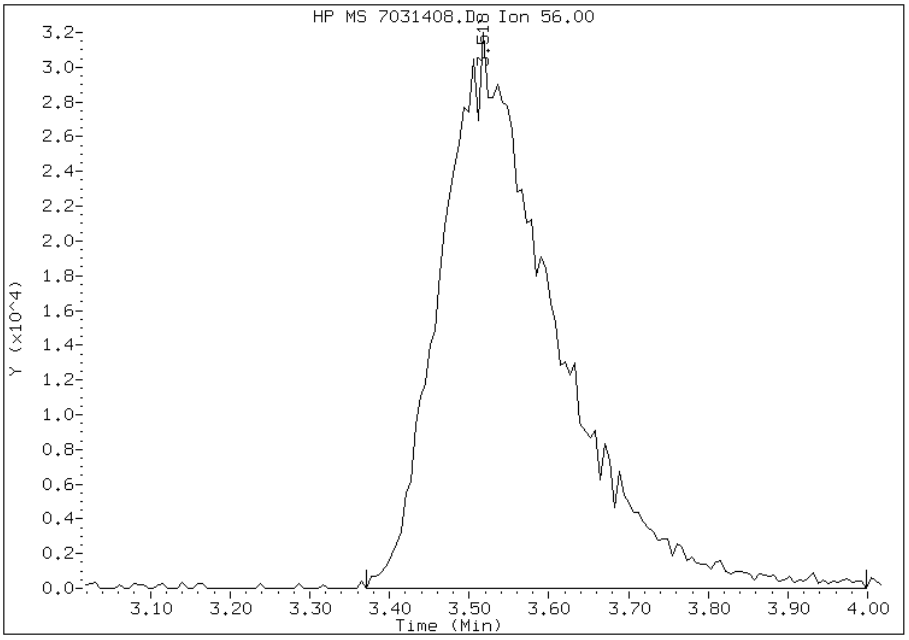
Manual Integration Results

RT: 3.52

Response: 320385

Amount: 1080

Conc: 1080



Manually Integrated By: zukowskim
Modification Date: 14-Mar-2014 13:41
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031408.D
Inj. Date and Time: 14-MAR-2014 12:29
Instrument ID: hp7.i
Client ID: IC vstd125
Compound: 15 Carbon Disulfide
CAS #: 75-15-0
Report Date: 03/17/2014

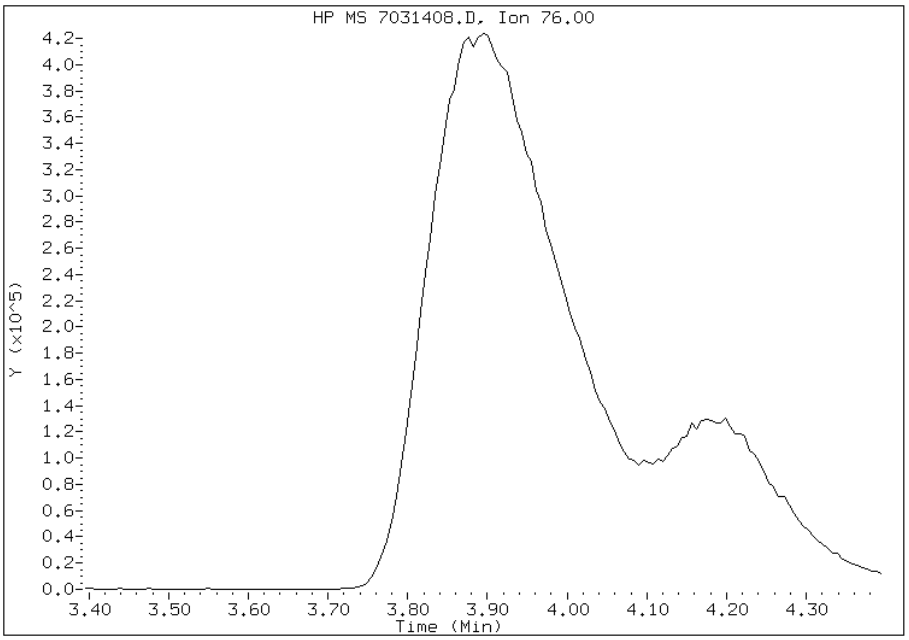
Processing Integration Results

RT: 3.89

Response: 6361880

Amount: 663

Conc: 663



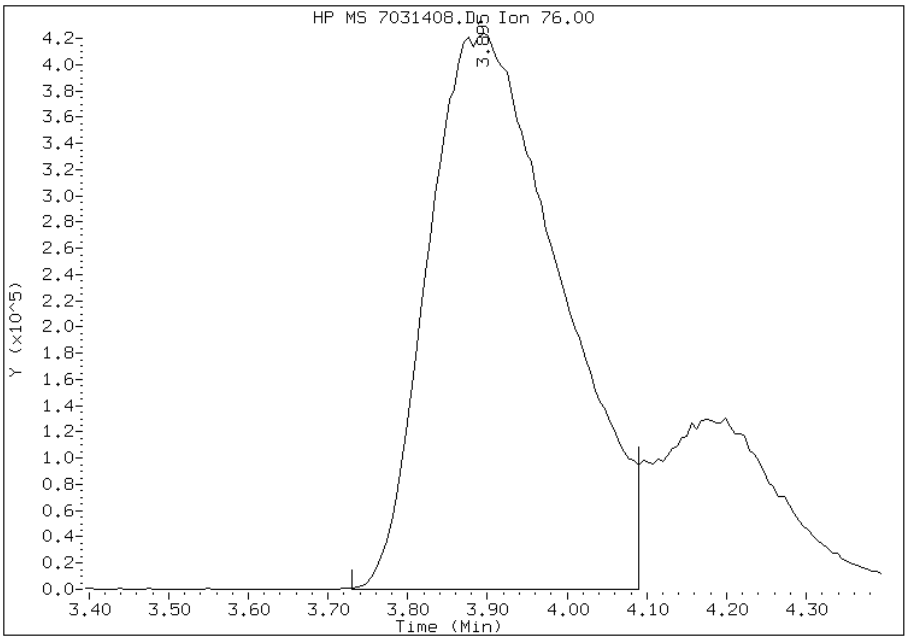
Manual Integration Results

RT: 3.89

Response: 4908815

Amount: 556

Conc: 556



Manually Integrated By: zukowskim
Modification Date: 14-Mar-2014 13:41
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031408.D
Inj. Date and Time: 14-MAR-2014 12:29
Instrument ID: hp7.i
Client ID: IC vstd125
Compound: 16 3-Chloro-1-propene
CAS #: 107-05-1
Report Date: 03/17/2014

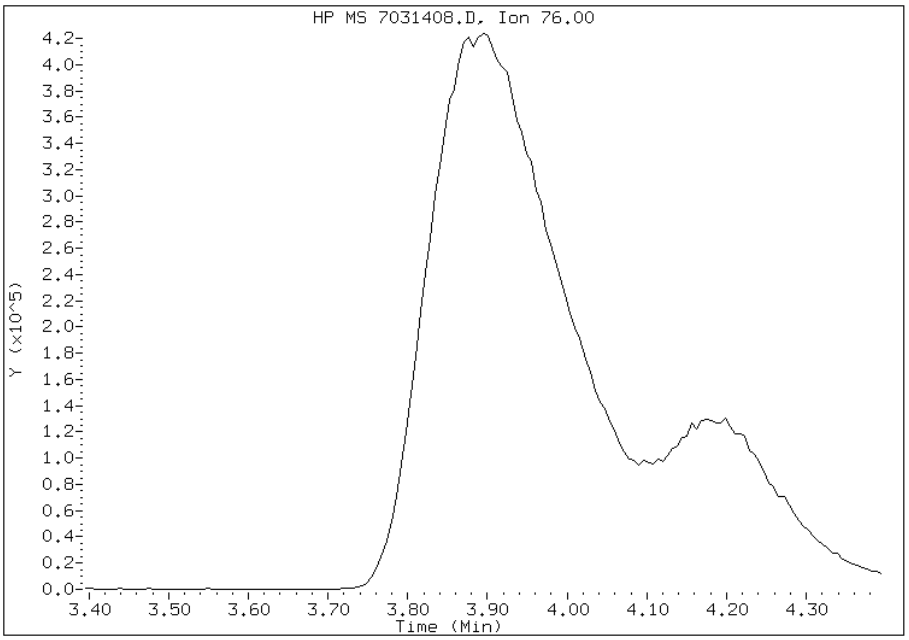
Processing Integration Results

RT: 3.89

Response: 6361880

Amount: 1542

Conc: 1542



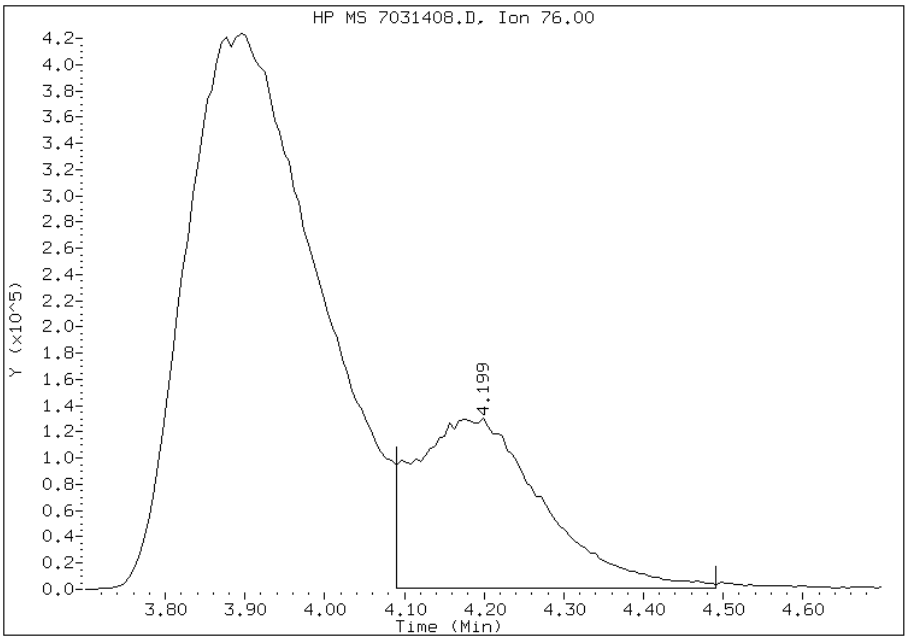
Manual Integration Results

RT: 4.20

Response: 1467431

Amount: 565

Conc: 565



Manually Integrated By: zukowskim
Modification Date: 14-Mar-2014 13:41
Manual Integration Reason: Peak Integrated Incorrectly

TestAmerica Pittsburgh

VOLATILE REPORT SW-846 Method

Data file : \\PITSVR06\D\chem\hp7.i\7031414d.b\7031409.D
Lab Smp Id: IC Client Smp ID: IC 250
Inj Date : 14-MAR-2014 13:41 MS Autotune Date: 29-AUG-2013 09:08
Operator : 430936 Inst ID: hp7.i
Smp Info : IC, vstd250
Misc Info : 7031414d.b,T8260bh2o.m,list1.sub
Comment :
Method : \\pitsvr06\d\chem\hp7.i\7031414d.b\T8260bh2o.m
Meth Date : 17-Mar-2014 03:24 zukowskim Quant Type: ISTD
Cal Date : 14-MAR-2014 12:29 Cal File: 7031408.D
Als bottle: 8 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: list1.sub
Target Version: 4.14

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	
*	46 Fluorobenzene (IS)	96	7.408	7.410	(1.000)	2330616	250.000		
*	69 Chlorobenzene-d5	119	10.468	10.470	(1.000)	644111	250.000		
*	92 1,4-Dichlorobenzene-d4	152	12.792	12.788	(1.000)	777522	250.000		(Q)
*	176 Dioxane-d8 (IS)	96	8.144	8.140	(1.000)	64496	5000.00		
*	177 TBA-d9 (IS)	65	4.798	4.715	(1.000)	607869	5000.00		
$	39 Dibromofluoromethane (Surr)	113	6.678	6.680	(0.901)	2673834	1250.00	1091	
$	43 1,2-Dichloroethane-d4	65	7.043	7.057	(0.951)	2984021	1250.00	1057	
$	59 Toluene-d8	98	9.038	9.041	(0.863)	6607438	1250.00	659.2	
$	80 Bromofluorobenzene (Surr)	95	11.636	11.633	(1.112)	3124008	1250.00	859.8	
	1 Dichlorodifluoromethane	85	1.933	1.960	(0.261)	3590601	1250.00	1132	(Q)
	2 Chloromethane	50	2.036	2.020	(0.275)	6706262	1250.00	974.5	
	3 Vinyl Chloride	62	2.201	2.166	(0.297)	4172101	1250.00	994.7	
	4 Bromomethane	94	2.511	2.495	(0.339)	1127898	1250.00	1038	(Q)
	5 Chloroethane	64	2.626	2.610	(0.355)	1017086	1250.00	1072	(Q)
	7 Dichlorofluoromethane	67	2.888	2.921	(0.390)	2075529	1250.00	941.6	(Q)
	10 1,1,2-trichloro-1,2,2-trifluor	101	3.667	3.718	(0.495)	3001398	1250.00	1062	(Q)
	166 Trichlorofluoromethane	101	2.943	2.970	(0.397)	1981846	1250.00	911.7	(Q)
	12 1,1-Dichloroethene	96	3.545	3.590	(0.479)	2904136	1250.00	1060	
	15 Carbon Disulfide	76	3.843	3.888	(0.519)	8663696	1250.00	1007	(M)
	13 Acetone	43	3.831	3.822	(0.517)	755309	1250.00	1255	
	18 Methylene Chloride	84	4.360	4.387	(0.589)	3188560	1250.00	948.1	(Q)
	19 trans-1,2-Dichloroethene	96	4.756	4.788	(0.642)	3385221	1250.00	1087	
	20 Methyl tert-butyl ether	73	4.871	4.861	(0.658)	6508596	1250.00	1055	
	24 1,1-Dichloroethane	63	5.358	5.372	(0.723)	6169720	1250.00	1019	
	27 2,2-Dichloropropane	77	6.094	6.096	(0.823)	3832129	1250.00	1025	
	28 cis-1,2-dichloroethene	96	6.100	6.115	(0.823)	3404388	1250.00	1055	(Q)
M	29 1,2-Dichloroethene (total)	96				6789609	2500.00	2142	
	30 Bromochloromethane	128	6.380	6.388	(0.861)	1498813	1250.00	1075	(Q)
	31 2-Butanone	43	6.197	6.200	(0.837)	1071164	1250.00	1253	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
37 Chloroform	83	6.495	6.504	(0.877)	4554288	1250.00	977.8
38 1,1,1-Trichloroethane	97	6.684	6.686	(0.902)	4061758	1250.00	1020
40 1,1-Dichloropropene	75	6.867	6.881	(0.927)	3380599	1250.00	1029
41 Carbon Tetrachloride	117	6.867	6.875	(0.927)	3502541	1250.00	1082
42 Benzene	78	7.098	7.101	(0.958)	8292090	1250.00	795.5
45 1,2-Dichloroethane	62	7.128	7.131	(0.962)	3061842	1250.00	902.9
47 Trichloroethene	130	7.791	7.794	(1.052)	2877493	1250.00	1050
49 1,2-Dichloropropane	63	8.029	8.037	(1.084)	2793060	1250.00	1008(Q)
50 Dibromomethane	93	8.150	8.153	(1.100)	1478480	1250.00	1111
53 Bromodichloromethane	83	8.321	8.317	(1.123)	3314400	1250.00	1020
57 cis-1,3-Dichloropropene	75	8.771	8.779	(1.184)	3808334	1250.00	1007
58 4-Methyl-2-Pentanone	43	8.941	8.938	(0.854)	2147461	1250.00	989.7(Q)
60 Toluene	91	9.105	9.108	(0.870)	6867968	1250.00	614.4
61 trans-1,3-Dichloropropene	75	9.324	9.333	(0.891)	2926940	1250.00	946.7
63 1,3-Dichloropropane	76	9.677	9.674	(0.924)	2732422	1250.00	1251
64 1,1,2-Trichloroethane	97	9.513	9.510	(0.909)	1855424	1250.00	1252
65 Tetrachloroethene	164	9.653	9.649	(0.922)	2278559	1250.00	959.7
66 2-Hexanone	43	9.762	9.771	(0.933)	1517318	1250.00	1101
67 Dibromochloromethane	129	9.896	9.898	(0.945)	2265724	1250.00	1019
68 1,2-Dibromoethane	107	10.012	10.015	(0.956)	1936272	1250.00	967.3
70 Chlorobenzene	112	10.498	10.495	(1.003)	5039995	1250.00	753.8
71 1,1,1,2-Tetrachloroethane	131	10.584	10.580	(1.011)	2458284	1250.00	960.5
72 Ethylbenzene	106	10.608	10.605	(1.013)	3142325	1250.00	813.2(Q)
73 m,p-XYLENE	106	10.723	10.720	(1.024)	3954022	1250.00	805.7(Q)
74 Xylene-o	106	11.119	11.116	(1.062)	3790246	1250.00	716.1(Q)
76 Styrene	104	11.137	11.128	(1.064)	4712697	1250.00	568.1
77 Bromoform	173	11.314	11.316	(1.081)	1557534	1250.00	1130
78 Isopropylbenzene	105	11.484	11.481	(1.097)	6820434	1250.00	526.0
79 Bromobenzene	156	11.794	11.791	(0.922)	2647827	1250.00	868.6
81 n-Propylbenzene	120	12.068	12.065	(0.943)	3586631	1250.00	740.2(Q)
82 2-Chlorotoluene	126	11.989	11.979	(0.937)	2629667	1250.00	949.0(Q)
83 1,1,2,2-Tetrachloroethane	83	11.776	11.773	(1.125)	1743587	1250.00	1252
84 1,2,3-Trichloropropane	110	11.825	11.821	(0.924)	571053	1250.00	1251
85 4-Chlorotoluene	126	12.092	12.089	(0.945)	2419448	1250.00	897.0(Q)
86 1,3,5-Trimethylbenzene	105	12.068	12.065	(0.943)	5362600	1250.00	561.9
87 tert-Butylbenzene	119	12.396	12.387	(0.969)	5655782	1250.00	688.0
88 1,2,4-Trimethylbenzene	105	12.445	12.436	(0.973)	5489167	1250.00	576.8
89 sec-Butylbenzene	105	12.615	12.606	(0.986)	6900939	1250.00	550.7
90 4-Isopropyltoluene	119	12.761	12.752	(0.998)	5554315	1250.00	569.5
91 1,3-Dichlorobenzene	146	12.731	12.722	(0.995)	3751919	1250.00	756.9
94 n-Butylbenzene	91	13.169	13.166	(1.029)	5420165	1250.00	1230
93 1,4-Dichlorobenzene	146	12.816	12.813	(1.002)	3673170	1250.00	832.5
95 1,2-Dichlorobenzene	146	13.193	13.190	(1.031)	3144581	1250.00	834.4
96 1,2-Dibromo-3-chloropropane	157	13.966	13.981	(1.092)	309999	1250.00	1251
97 1,2,4-Trichlorobenzene	180	14.805	14.808	(1.157)	1665543	1250.00	1253
98 Hexachlorobutadiene	225	14.970	14.973	(1.170)	1398181	1250.00	1254
99 Naphthalene	128	15.055	15.064	(1.177)	2370174	1250.00	1252
100 1,2,3-Trichlorobenzene	180	15.304	15.307	(1.196)	1156298	1250.00	1250
156 Methyl Acetate	43	4.305	4.314	(0.581)	8196692	6250.00	6266
157 Cyclohexane	56	6.739	6.741	(0.910)	6076835	1250.00	1014
158 Methyl Cyclohexane	83	7.992	7.995	(1.079)	4860600	1250.00	1252
32 Vinyl Acetate	43	5.486	5.513	(0.741)	4904977	1250.00	1028
52 1,4-Dioxane	88	8.193	8.202	(1.006)	328958	25000.0	24930
21 tert-Butyl Alcohol	59	4.908	4.825	(1.023)	1984890	12500.0	13340(Q)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
16	3-Chloro-1-propene	76	4.141	4.168	(0.559)	2774861	1250.00	1097(QM)
11	Acrolein	56	3.515	3.505	(0.474)	333088	1250.00	1153(Q)
22	Acrylonitrile	53	4.804	4.819	(0.649)	8410246	12500.0	12520
8	Ethyl Ether	59	3.326	3.377	(0.449)	1787672	1250.00	785.5
62	Ethyl methacrylate	69	9.428	9.424	(0.901)	2288573	1250.00	926.8
23	Hexane	57	5.157	5.178	(0.696)	5801590	1250.00	1252
14	Iodomethane	142	3.764	3.791	(0.508)	4801998	1250.00	1045(Q)
44	Isobutanol	41	7.408	7.411	(1.000)	2724867	31250.0	31330
155	N-Heptane	41	7.992	7.994	(1.079)	3936266	1250.00	940.8
35	Tetrahydrofuran	42	6.739	6.747	(0.910)	1742554	2500.00	2176
164	trans-1,4-Dichloro-2-butene	53	11.837	11.833	(0.925)	575034	1250.00	1280
169	Butadiene	39	2.201	2.197	(0.297)	4183502	1250.00	943.0
M 75	Xylenes (total)	106				7744268	2500.00	1522

QC Flag Legend

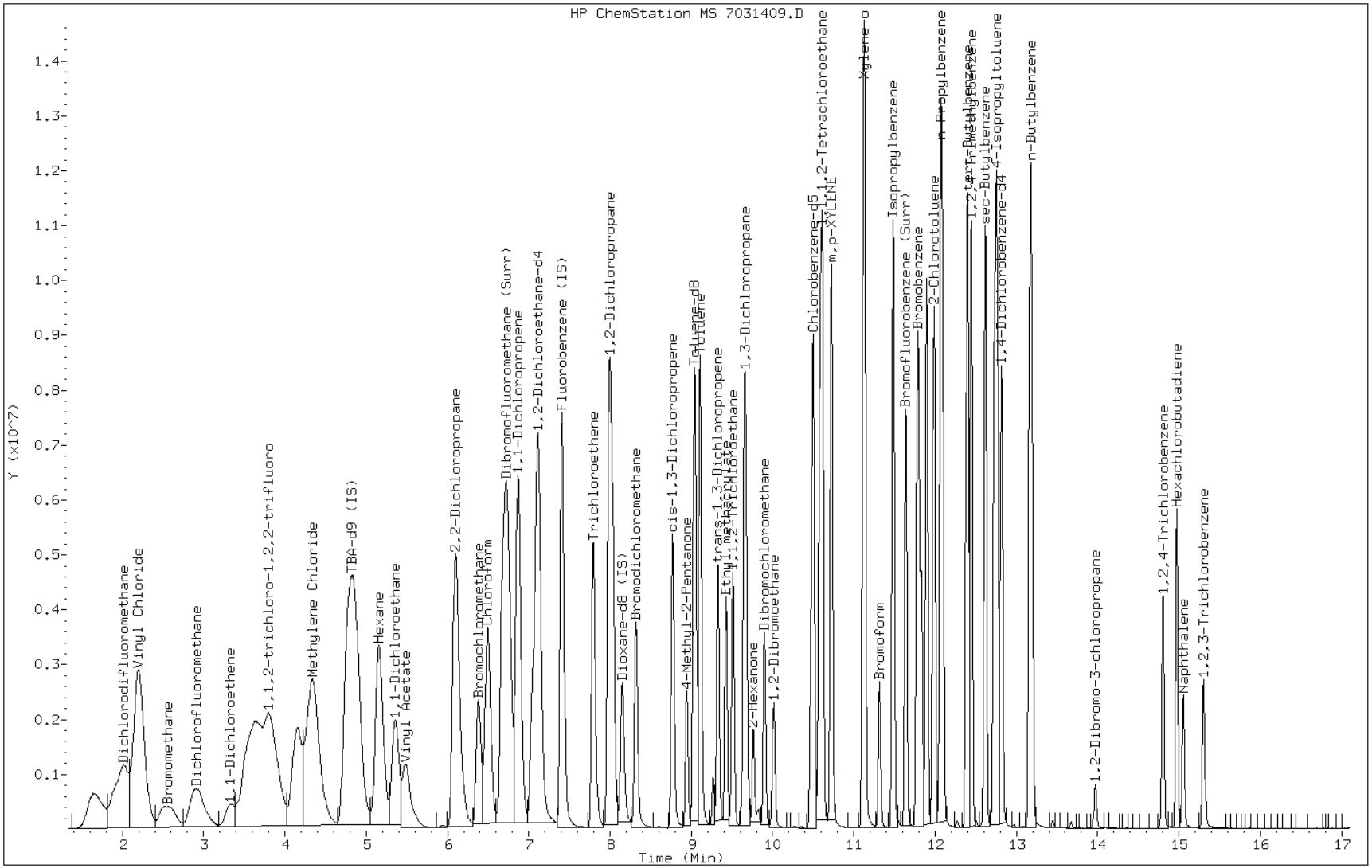
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: 7031409.D

Date: 14-MAR-2014 13:41

Client ID: IC 250 Instrument: hp7.i

Sample Info: IC, vstd250 Operator: 430936



Manual Integration Report

Data File: 7031409.D
Inj. Date and Time: 14-MAR-2014 13:41
Instrument ID: hp7.i
Client ID: IC 250
Compound: 15 Carbon Disulfide
CAS #: 75-15-0
Report Date: 03/17/2014

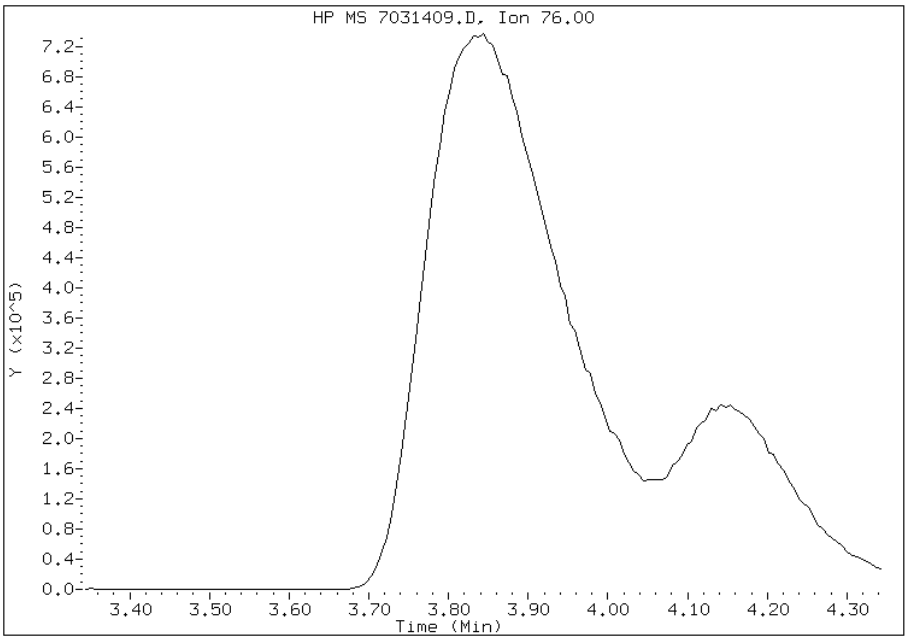
Processing Integration Results

RT: 3.84

Response: 11345027

Amount: 1275

Conc: 1275



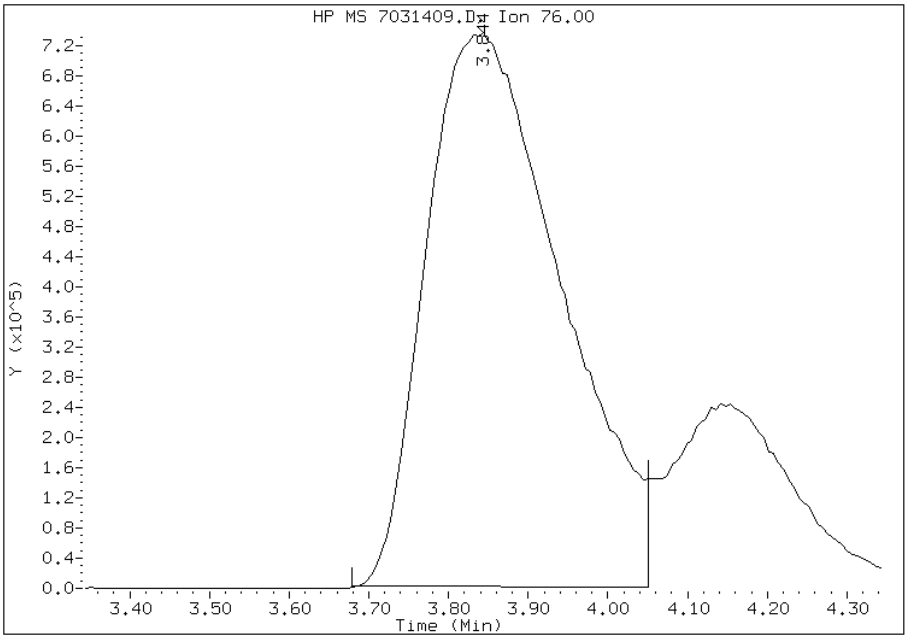
Manual Integration Results

RT: 3.84

Response: 8663696

Amount: 1007

Conc: 1007



Manually Integrated By: zukowskim
Modification Date: 16-Mar-2014 22:26
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 7031409.D
Inj. Date and Time: 14-MAR-2014 13:41
Instrument ID: hp7.i
Client ID: IC 250
Compound: 16 3-Chloro-1-propene
CAS #: 107-05-1
Report Date: 03/17/2014

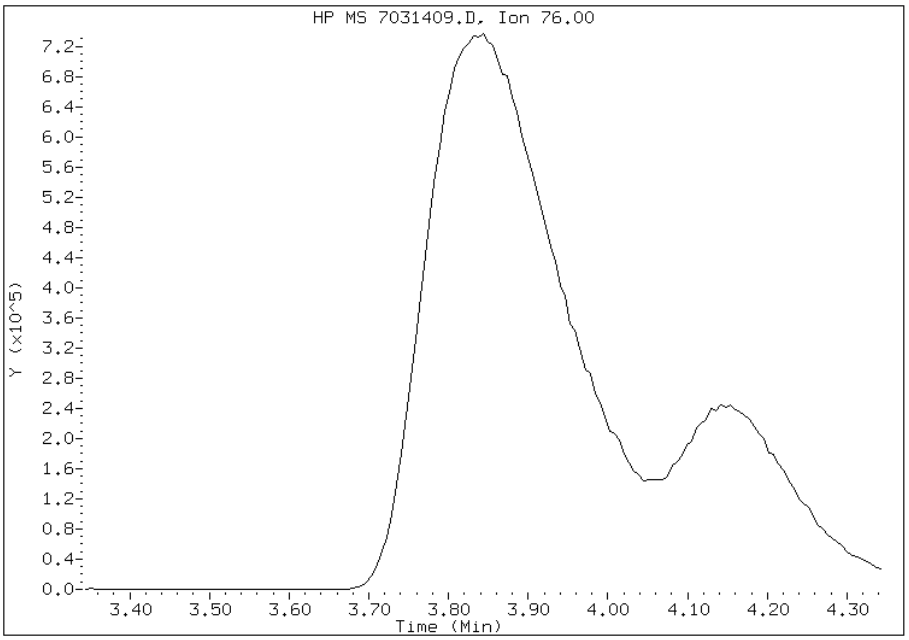
Processing Integration Results

RT: 3.84

Response: 11345027

Amount: 5169

Conc: 5169



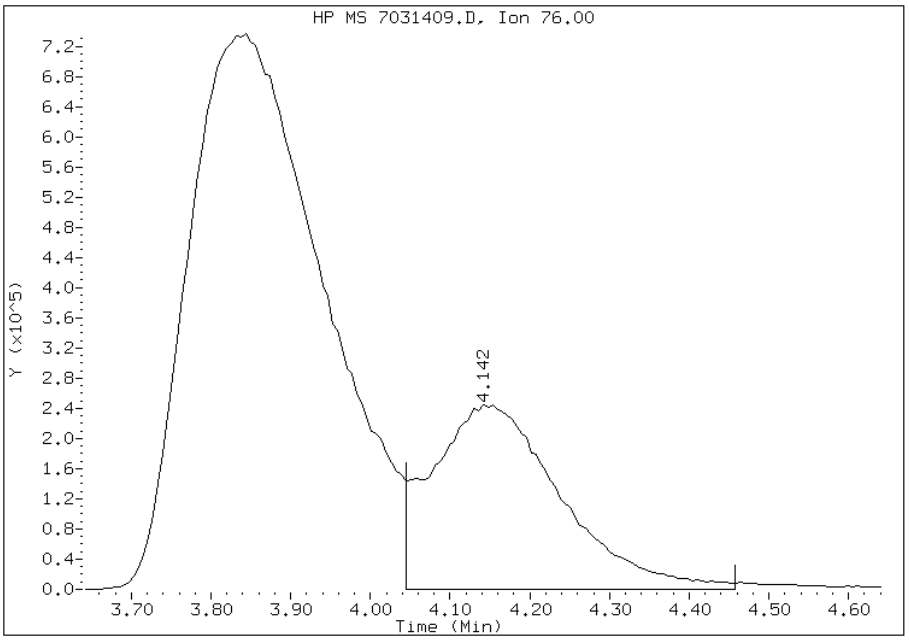
Manual Integration Results

RT: 4.14

Response: 2774861

Amount: 1097

Conc: 1097



Manually Integrated By: zukowskim
Modification Date: 16-Mar-2014 22:26
Manual Integration Reason: Peak Integrated Incorrectly

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-31007-1

SDG No.:

Lab Sample ID: CCVIS 180-101826/2 Calibration Date: 04/06/2014 23:32

Instrument ID: HP7 Calib Start Date: 03/14/2014 09:40

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/14/2014 17:39

Lab File ID: 70407002.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	0.3402	0.4530		53.3	40.0	33.2	50.0
Chloromethane	Ave	0.7382	0.9011	0.1000	48.8	40.0	22.1	50.0
1,3-Butadiene	Ave	0.4759	0.5032		42.3	40.0	5.7	50.0
Vinyl chloride	Ave	0.4499	0.4717		41.9	40.0	4.8	20.0
Bromomethane	Ave	0.1166	0.0971		33.3	40.0	-16.7	50.0
Chloroethane	Ave	0.1017	0.0872		34.3	40.0	-14.3	50.0
Dichlorofluoromethane	Ave	0.2364	0.1829		30.9	40.0	-22.7	50.0
Trichlorofluoromethane	Ave	0.2332	0.1622		27.8	40.0	-30.4	50.0
Ethyl ether	Ave	0.2441	0.1304		21.4	40.0	-46.6	50.0
1,1-Dichloroethene	Ave	0.2937	0.3182		43.3	40.0	8.3	20.0
Acrolein	Ave	0.0310	0.0253		143	175	-18.3	50.0
1,1,2-Trichloro-1,2,2-triflu oroethane	Ave	0.3031	0.2999		39.6	40.0	-1.1	50.0
Iodomethane	Ave	0.4930	0.5424		44.0	40.0	10.0	50.0
Carbon disulfide	Ave	0.9226	1.038		45.0	40.0	12.5	50.0
Acetone	Qua	0.0728	0.0616		39.4	40.0	-1.6	50.0
Allyl chloride	Ave	0.2713	0.2931		43.2	40.0	8.0	50.0
Methyl acetate	Qua	0.1765	0.1708		213	200	6.5	50.0
Methylene Chloride	Ave	0.3608	0.3694		41.0	40.0	2.4	50.0
trans-1,2-Dichloroethene	Ave	0.3340	0.3931		47.1	40.0	17.7	50.0
Acrylonitrile	Qua	0.0895	0.0889		425	400	6.2	50.0
Methyl tert-butyl ether	Ave	0.6617	0.6561		39.7	40.0	-0.8	50.0
tert-Butyl alcohol	Ave	1.224	1.365		446	400	11.6	50.0
Hexane	Qua	0.5582	0.5857		40.1	40.0	0.1	50.0
1,1-Dichloroethane	Ave	0.6495	0.7315	0.1000	45.1	40.0	12.6	25.0
Vinyl acetate	Ave	0.5120	0.3332		26.0	40.0	-34.9	50.0
2,2-Dichloropropane	Ave	0.4010	0.4752		47.4	40.0	18.5	50.0
cis-1,2-Dichloroethene	Ave	0.3462	0.3920		45.3	40.0	13.2	50.0
2-Butanone (MEK)	Qua	0.0922	0.0753		35.7	40.0	-10.7	50.0
Bromochloromethane	Ave	0.1495	0.1610		43.1	40.0	7.7	50.0
Chloroform	Ave	0.4996	0.5480		43.9	40.0	9.7	20.0
1,1,1-Trichloroethane	Ave	0.4271	0.4941		46.3	40.0	15.7	25.0
Cyclohexane	Ave	0.6429	0.7362		45.8	40.0	14.5	50.0
Carbon tetrachloride	Ave	0.3471	0.3986		45.9	40.0	14.8	25.0
1,1-Dichloropropene	Ave	0.3525	0.3845		43.6	40.0	9.1	50.0
Benzene	Ave	1.118	1.126		40.3	40.0	0.7	25.0
1,2-Dichloroethane	Ave	0.3638	0.2835		31.2	40.0	-22.1	25.0
Isobutyl alcohol	Qua	0.0111	0.0102		833	1000	-16.7	50.0
Trichloroethene	Ave	0.2940	0.3309		45.0	40.0	12.5	25.0
Methylcyclohexane	Qua	0.5153	0.6035		44.1	40.0	10.1	50.0
1,2-Dichloropropane	Ave	0.2971	0.2868		38.6	40.0	-3.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-31007-1

SDG No.:

Lab Sample ID: CCVIS 180-101826/2 Calibration Date: 04/06/2014 23:32

Instrument ID: HP7 Calib Start Date: 03/14/2014 09:40

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/14/2014 17:39

Lab File ID: 70407002.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	0.1428	0.1374		38.5	40.0	-3.8	50.0
1,4-Dioxane	Qua	1.105	1.481		1070	800	34.3	50.0
Dichlorobromomethane	Ave	0.3487	0.3503		40.2	40.0	0.5	25.0
cis-1,3-Dichloropropene	Ave	0.4058	0.4136		40.8	40.0	1.9	25.0
4-Methyl-2-pentanone (MIBK)	Ave	0.8421	0.8040		38.2	40.0	-4.5	50.0
Toluene	Ave	4.339	3.900		36.0	40.0	-10.1	20.0
trans-1,3-Dichloropropene	Ave	1.200	1.198		39.9	40.0	-0.2	25.0
Ethyl methacrylate	Ave	0.9584	0.9128		38.1	40.0	-4.8	50.0
1,1,2-Trichloroethane	Qua	0.7467	0.7410		41.6	40.0	3.9	25.0
Tetrachloroethene	Ave	0.9215	0.9809		42.6	40.0	6.4	25.0
1,3-Dichloropropane	Qua	1.184	1.151		39.2	40.0	-2.1	50.0
2-Hexanone	Ave	0.5349	0.5376		40.2	40.0	0.5	50.0
Chlorodibromomethane	Ave	0.8628	0.9103		42.2	40.0	5.5	25.0
1,2-Dibromoethane	Ave	0.7769	0.8176		42.1	40.0	5.2	50.0
Chlorobenzene	Ave	2.595	2.560	0.3000	39.5	40.0	-1.3	50.0
1,1,1,2-Tetrachloroethane	Ave	0.9934	1.064		42.9	40.0	7.2	50.0
Ethylbenzene	Ave	1.500	1.524		40.6	40.0	1.6	20.0
m-Xylene & p-Xylene	Ave	1.905	1.989		41.8	40.0	4.4	25.0
o-Xylene	Ave	2.054	2.008		39.1	40.0	-2.2	25.0
Styrene	Ave	3.220	2.853		35.4	40.0	-11.4	25.0
Bromoform	Ave	0.5349	0.5878	0.1000	44.0	40.0	9.9	50.0
Isopropylbenzene	Ave	5.033	4.726		37.6	40.0	-6.1	50.0
1,1,2,2-Tetrachloroethane	Qua	0.7279	0.8464	0.3000	49.3	40.0	23.3	50.0
Bromobenzene	Ave	0.9802	0.9622		39.3	40.0	-1.8	50.0
1,2,3-Trichloropropane	Qua	0.1632	0.1814		48.3	40.0	20.8	50.0
trans-1,4-Dichloro-2-butene	Ave	0.1444	0.1611		44.6	40.0	11.6	50.0
N-Propylbenzene	Ave	1.558	1.080		27.7	40.0	-30.7	50.0
2-Chlorotoluene	Ave	0.8910	0.9447		42.4	40.0	6.0	50.0
1,3,5-Trimethylbenzene	Ave	3.068	2.785		36.3	40.0	-9.2	50.0
4-Chlorotoluene	Ave	0.8672	0.8711		40.2	40.0	0.4	50.0
tert-Butylbenzene	Ave	2.643	2.659		40.2	40.0	0.6	50.0
1,2,4-Trimethylbenzene	Ave	3.060	2.748		35.9	40.0	-10.2	50.0
sec-Butylbenzene	Ave	4.029	3.732		37.0	40.0	-7.4	50.0
1,3-Dichlorobenzene	Ave	1.594	1.624		40.8	40.0	1.9	25.0
4-Isopropyltoluene	Ave	3.136	2.836		36.2	40.0	-9.6	50.0
1,4-Dichlorobenzene	Ave	1.419	1.453		41.0	40.0	2.4	25.0
n-Butylbenzene	Qua	2.649	2.885		34.7	40.0	-13.1	50.0
1,2-Dichlorobenzene	Ave	1.212	1.332		44.0	40.0	9.9	25.0
1,2-Dibromo-3-Chloropropane	Qua	0.0514	0.1024		89.2	40.0	122.9*	50.0
1,2,4-Trichlorobenzene	Qua	0.3852	0.4158		49.9	40.0	24.7	50.0
Hexachlorobutadiene	Qua	0.3308	0.4904		62.5	40.0	56.3*	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-31007-1

SDG No.:

Lab Sample ID: CCVIS 180-101826/2 Calibration Date: 04/06/2014 23:32

Instrument ID: HP7 Calib Start Date: 03/14/2014 09:40

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/14/2014 17:39

Lab File ID: 70407002.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
Naphthalene	Qua	0.4918	0.4828		45.2	40.0	12.9	50.0
1,2,3-Trichlorobenzene	Qua	0.3025	0.1898		30.6	40.0	-23.4	50.0
Dibromofluoromethane (Surr)	Ave	0.2629	0.2701		41.1	40.0	2.7	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3028	0.2690		35.5	40.0	-11.2	25.0
Toluene-d8 (Surr)	Ave	3.891	3.580		36.8	40.0	-8.0	50.0
4-Bromofluorobenzene (Surr)	Ave	1.410	1.555		44.1	40.0	10.2	25.0

TestAmerica Pittsburgh

VOLATILE REPORT SW-846 Method

Data file : \\pitsvr06\d\chem\hp7.i\7040714d.b\70407002.D
Lab Smp Id: CCVIS Client Smp ID: CCVIS40
Inj Date : 06-APR-2014 23:32 MS Autotune Date: 29-AUG-2013 09:08
Operator : 430936 Inst ID: hp7.i
Smp Info : CCVIS
Misc Info : 7040714d.b,T8260bh2o.m,list1.sub
Comment :
Method : \\pitsvr06\d\chem\hp7.i\7040714d.b\T8260bh2o.m
Meth Date : 07-Apr-2014 02:09 hp7.i Quant Type: ISTD
Cal Date : 14-MAR-2014 09:40 Cal File: 7031404.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: list1.sub
Target Version: 4.14
Processing Host: PITPC-530

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
*	46 Fluorobenzene (IS)	96	7.397	7.397	(1.000)	1960397	250.000	
*	69 Chlorobenzene-d5	119	10.463	10.463	(1.000)	505154	250.000	
*	92 1,4-Dichlorobenzene-d4	152	12.787	12.787	(1.000)	662899	250.000	
*	176 Dioxane-d8 (IS)	96	8.139	8.139	(1.000)	50279	5000.00	
*	177 TBA-d9 (IS)	65	4.842	4.842	(1.000)	689516	5000.00	
$	39 Dibromofluoromethane (Surr)	113	6.673	6.673	(0.902)	423521	200.000	205.4
$	43 1,2-Dichloroethane-d4	65	7.032	7.032	(0.951)	421803	200.000	177.6
$	59 Toluene-d8	98	9.033	9.033	(0.863)	1446625	200.000	184.0
$	80 Bromofluorobenzene (Surr)	95	11.631	11.631	(1.112)	628212	200.000	220.5
	1 Dichlorodifluoromethane	85	1.934	1.934	(0.262)	710435	200.000	266.3
	2 Chloromethane	50	2.031	2.031	(0.275)	1413125	200.000	244.1
	3 Vinyl Chloride	62	2.196	2.196	(0.297)	739753	200.000	209.7
	4 Bromomethane	94	2.518	2.518	(0.340)	152268	200.000	166.5
	5 Chloroethane	64	2.591	2.591	(0.350)	136799	200.000	171.5
	7 Dichlorofluoromethane	67	2.871	2.871	(0.388)	286775	200.000	154.7(M)
	10 1,1,2-trichloro-1,2,2-trifluor	101	3.649	3.649	(0.493)	470267	200.000	197.8
	166 Trichlorofluoromethane	101	2.926	2.926	(0.396)	254375	200.000	139.1(M)
	12 1,1-Dichloroethene	96	3.522	3.522	(0.476)	499024	200.000	216.6
	15 Carbon Disulfide	76	3.795	3.795	(0.513)	1628442	200.000	225.1(M)
	13 Acetone	43	3.850	3.850	(0.521)	96669	200.000	196.8
	18 Methylene Chloride	84	4.337	4.337	(0.586)	579384	200.000	204.8
	19 trans-1,2-Dichloroethene	96	4.744	4.744	(0.641)	616565	200.000	235.4
	20 Methyl tert-butyl ether	73	4.872	4.872	(0.659)	1029026	200.000	198.3
	24 1,1-Dichloroethane	63	5.347	5.347	(0.723)	1147204	200.000	225.2
	27 2,2-Dichloropropane	77	6.083	6.083	(0.822)	745313	200.000	237.0
	28 cis-1,2-dichloroethene	96	6.095	6.095	(0.824)	614833	200.000	226.5
M	29 1,2-Dichloroethene (total)	96				1231398	400.000	461.9
	30 Bromochloromethane	128	6.369	6.369	(0.861)	252550	200.000	215.4

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
31 2-Butanone	43	6.198	6.198	(0.838)	118056	200.000	178.6
37 Chloroform	83	6.490	6.490	(0.877)	859368	200.000	219.3
38 1,1,1-Trichloroethane	97	6.673	6.673	(0.902)	774945	200.000	231.4
40 1,1-Dichloropropene	75	6.862	6.862	(0.928)	603076	200.000	218.2
41 Carbon Tetrachloride	117	6.849	6.849	(0.926)	625088	200.000	229.7
42 Benzene	78	7.087	7.087	(0.958)	1765801	200.000	201.4
45 1,2-Dichloroethane	62	7.123	7.123	(0.963)	444551	200.000	155.8
47 Trichloroethene	130	7.792	7.792	(1.053)	518991	200.000	225.1
49 1,2-Dichloropropane	63	8.030	8.030	(1.086)	449760	200.000	193.0
50 Dibromomethane	93	8.145	8.145	(1.101)	215427	200.000	192.4
53 Bromodichloromethane	83	8.315	8.315	(1.124)	549375	200.000	200.9
57 cis-1,3-Dichloropropene	75	8.766	8.766	(1.185)	648668	200.000	203.9
58 4-Methyl-2-Pentanone	43	8.942	8.942	(0.855)	324932	200.000	191.0
60 Toluene	91	9.100	9.100	(0.870)	1576197	200.000	179.8
61 trans-1,3-Dichloropropene	75	9.325	9.325	(0.891)	484112	200.000	199.6
63 1,3-Dichloropropane	76	9.672	9.672	(0.924)	465176	200.000	195.9
64 1,1,2-Trichloroethane	97	9.508	9.508	(0.909)	299465	200.000	207.8
65 Tetrachloroethene	164	9.642	9.642	(0.922)	396394	200.000	212.9
66 2-Hexanone	43	9.769	9.769	(0.934)	217252	200.000	201.0
67 Dibromochloromethane	129	9.897	9.897	(0.946)	367855	200.000	211.0
68 1,2-Dibromoethane	107	10.007	10.007	(0.956)	330422	200.000	210.5
70 Chlorobenzene	112	10.493	10.493	(1.003)	1034590	200.000	197.3
71 1,1,1,2-Tetrachloroethane	131	10.572	10.572	(1.010)	430184	200.000	214.3
72 Ethylbenzene	106	10.603	10.603	(1.013)	615787	200.000	203.2
73 m,p-XYLENE	106	10.718	10.718	(1.024)	803880	200.000	208.9
74 Xylene-o	106	11.108	11.108	(1.062)	811586	200.000	195.5
76 Styrene	104	11.126	11.126	(1.063)	1153001	200.000	177.2
77 Bromoform	173	11.315	11.315	(1.081)	237524	200.000	219.8
78 Isopropylbenzene	105	11.479	11.479	(1.097)	1909998	200.000	187.8
79 Bromobenzene	156	11.783	11.783	(0.922)	510280	200.000	196.3
81 n-Propylbenzene	120	11.886	11.886	(0.930)	572822	200.000	138.6
82 2-Chlorotoluene	126	11.978	11.978	(0.937)	500991	200.000	212.1
83 1,1,2,2-Tetrachloroethane	83	11.771	11.771	(1.125)	342056	200.000	246.6
84 1,2,3-Trichloropropane	110	11.820	11.820	(0.924)	96182	200.000	241.5
85 4-Chlorotoluene	126	12.087	12.087	(0.945)	461948	200.000	200.9
86 1,3,5-Trimethylbenzene	105	12.063	12.063	(0.943)	1476768	200.000	181.5
87 tert-Butylbenzene	119	12.385	12.385	(0.969)	1409882	200.000	201.2
88 1,2,4-Trimethylbenzene	105	12.434	12.434	(0.972)	1457226	200.000	179.6
89 sec-Butylbenzene	105	12.604	12.604	(0.986)	1979200	200.000	185.2
90 4-Isopropyltoluene	119	12.750	12.750	(0.997)	1504096	200.000	180.9
91 1,3-Dichlorobenzene	146	12.720	12.720	(0.995)	861395	200.000	203.8
94 n-Butylbenzene	91	13.164	13.164	(1.029)	1530209	200.000	173.7
93 1,4-Dichlorobenzene	146	12.811	12.811	(1.002)	770639	200.000	204.9
95 1,2-Dichlorobenzene	146	13.188	13.188	(1.031)	706551	200.000	219.9
96 1,2-Dibromo-3-chloropropane	157	13.973	13.973	(1.093)	54308	200.000	445.8
97 1,2,4-Trichlorobenzene	180	14.807	14.807	(1.158)	220489	200.000	249.4
98 Hexachlorobutadiene	225	14.971	14.971	(1.171)	260061	200.000	312.6
99 Naphthalene	128	15.062	15.062	(1.178)	256044	200.000	225.9
100 1,2,3-Trichlorobenzene	180	15.305	15.305	(1.197)	100659	200.000	153.2
156 Methyl Acetate	43	4.294	4.294	(0.581)	1339335	1000.00	1065
157 Cyclohexane	56	6.734	6.734	(0.910)	1154528	200.000	229.0
158 Methyl Cyclohexane	83	7.981	7.981	(1.079)	946514	200.000	220.3
32 Vinyl Acetate	43	5.487	5.487	(0.742)	522551	200.000	130.2
52 1,4-Dioxane	88	8.194	8.194	(1.007)	59582	4000.00	5370

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
21	tert-Butyl Alcohol	59	4.951	4.951	(1.023)	376589	2000.00	2231(QM)
16	3-Chloro-1-propene	76	4.118	4.118	(0.557)	459688	200.000	216.0(QM)
11	Acrolein	56	3.522	3.522	(0.476)	173871	875.000	715.3(QM)
22	Acrylonitrile	53	4.805	4.805	(0.650)	1393810	2000.00	2124
8	Ethyl Ether	59	3.382	3.382	(0.457)	204521	200.000	106.8
62	Ethyl methacrylate	69	9.423	9.423	(0.901)	368866	200.000	190.5
23	Hexane	57	5.140	5.140	(0.695)	918563	200.000	200.3
14	Iodomethane	142	3.722	3.722	(0.503)	850578	200.000	220.0(Q)
44	Isobutanol	41	7.397	7.397	(1.000)	401408	5000.00	4165
155	N-Heptane	41	7.981	7.981	(1.079)	688390	200.000	195.6
35	Tetrahydrofuran	42	6.722	6.722	(0.909)	303526	400.000	450.6
164	trans-1,4-Dichloro-2-butene	53	11.832	11.832	(0.925)	85429	200.000	223.1
169	Butadiene	39	2.177	2.177	(0.294)	789240	200.000	211.5
M 75	Xylenes (total)	106				1615466	400.000	404.4

QC Flag Legend

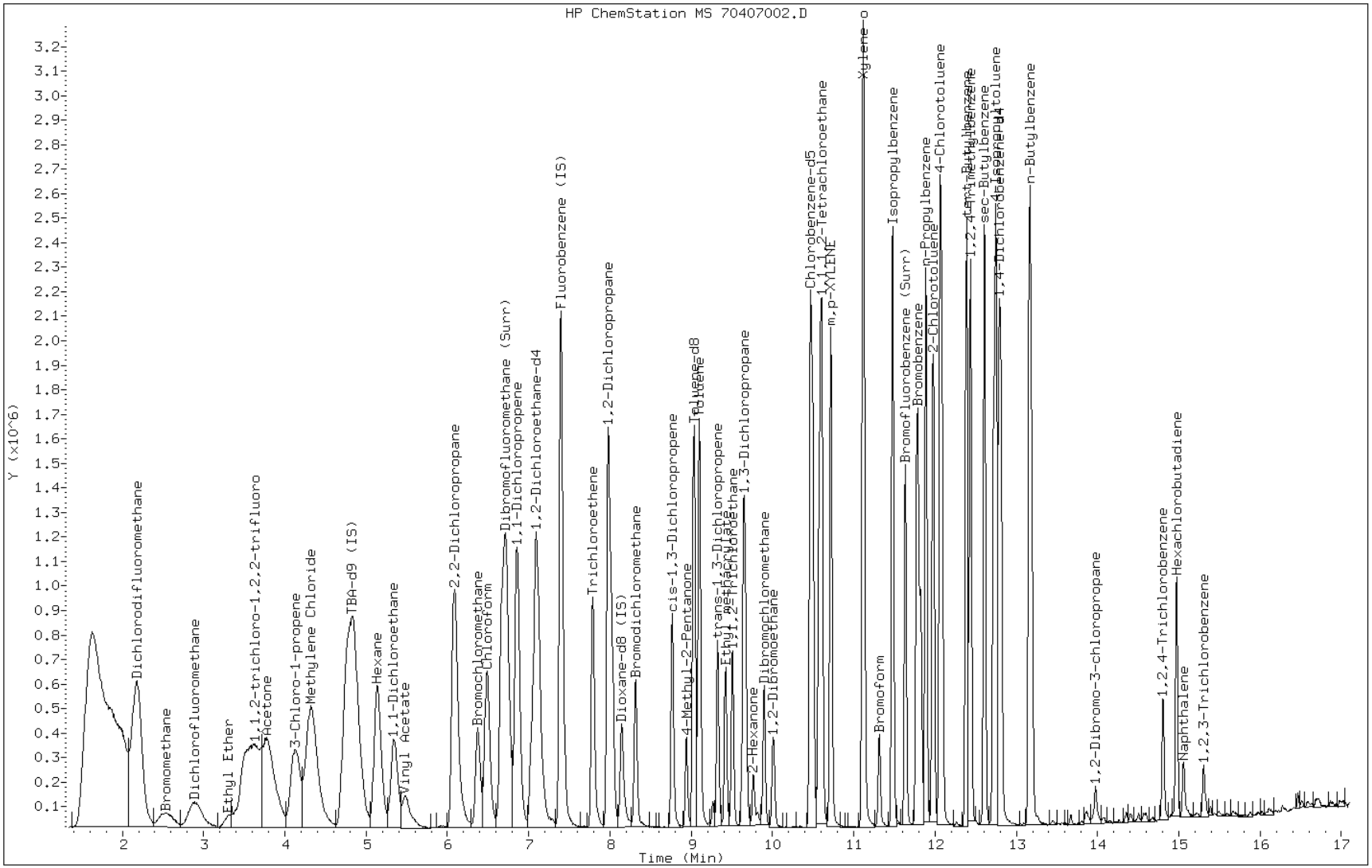
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: 70407002.D

Date: 06-APR-2014 23:32

Client ID: CCVIS40 Instrument: hp7.i

Sample Info: CCVIS Operator: 430936



Manual Integration Report

Data File: 70407002.D
Inj. Date and Time: 06-APR-2014 23:32
Instrument ID: hp7.i
Client ID: CCVIS40
Compound: 7 Dichlorofluoromethane
CAS #: 75-43-4
Report Date: 04/07/2014

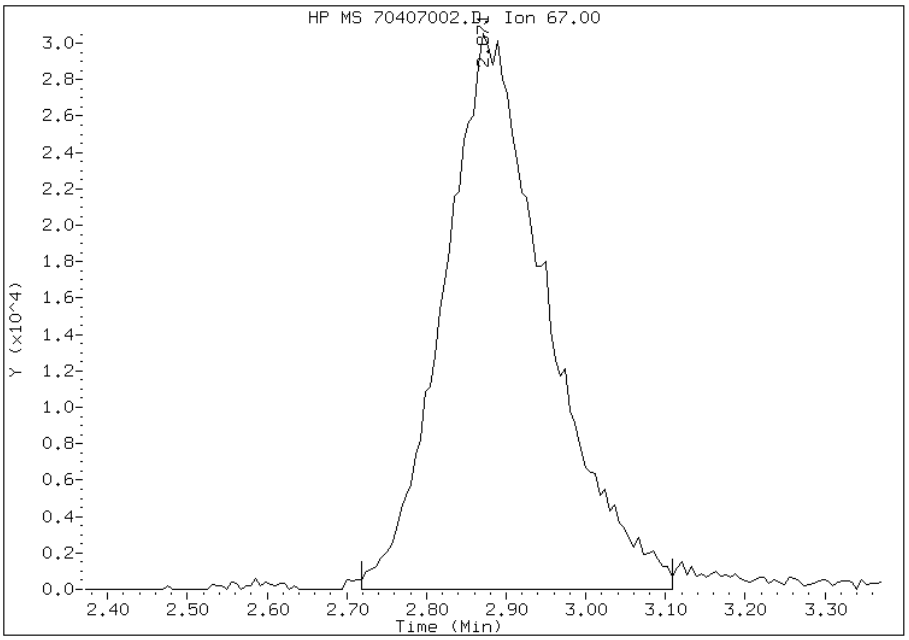
Processing Integration Results

RT: 2.87

Response: 277930

Amount: 150

Conc: 150



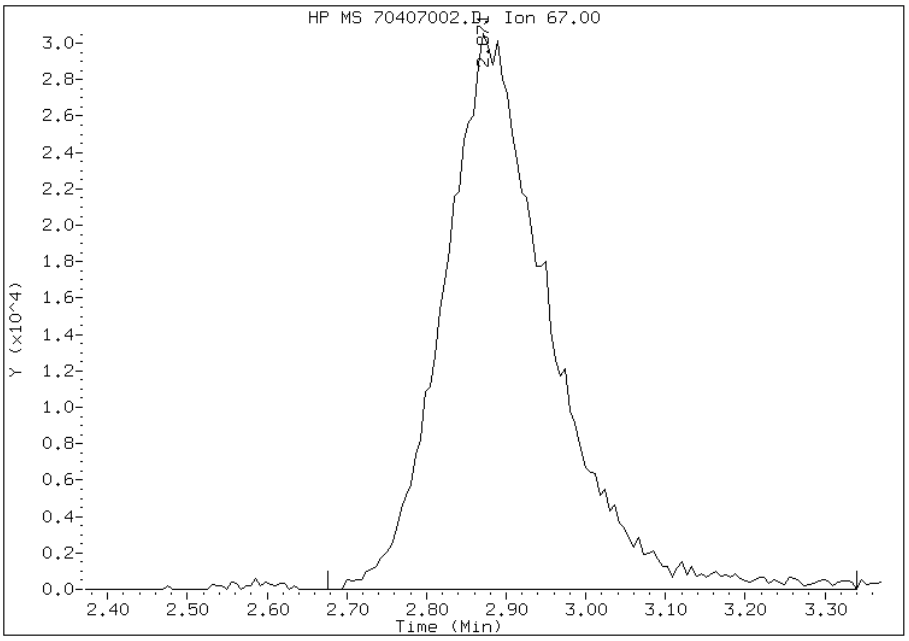
Manual Integration Results

RT: 2.87

Response: 286775

Amount: 155

Conc: 155



Manually Integrated By: zukowskim
Modification Date: 07-Apr-2014 00:03
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 70407002.D
Inj. Date and Time: 06-APR-2014 23:32
Instrument ID: hp7.i
Client ID: CCVIS40
Compound: 166 Trichlorofluoromethane
CAS #: 75-69-4
Report Date: 04/07/2014

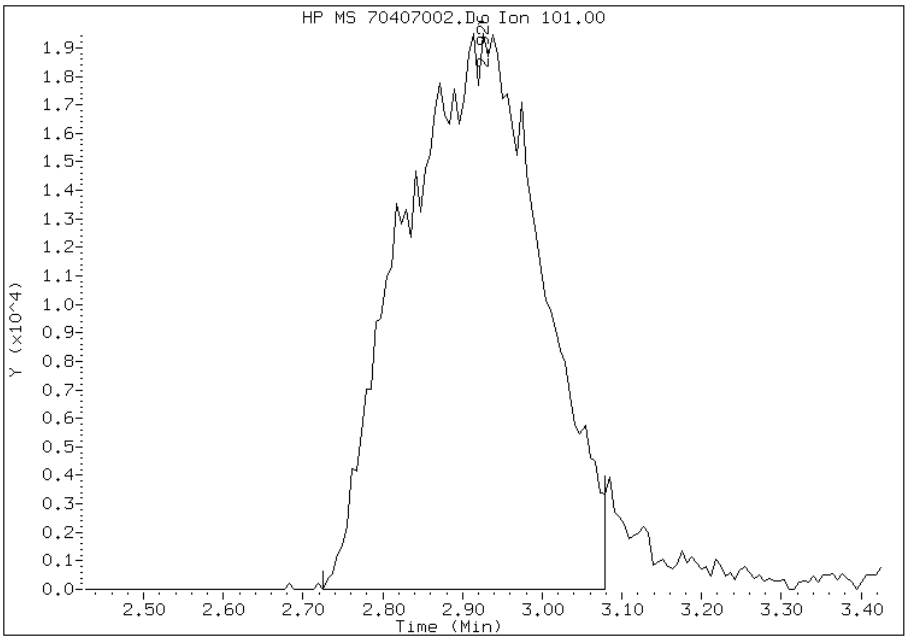
Processing Integration Results

RT: 2.93

Response: 239473

Amount: 131

Conc: 131



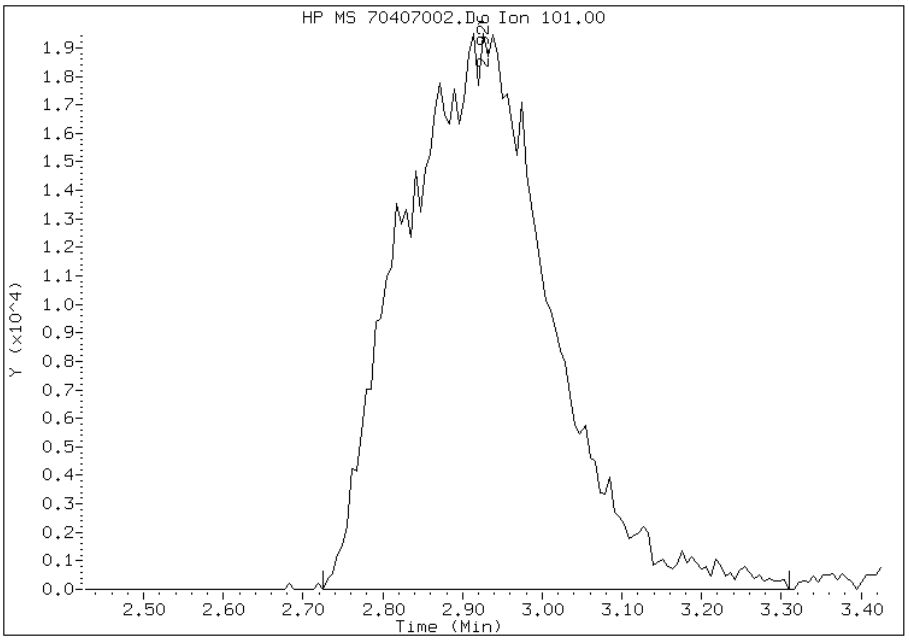
Manual Integration Results

RT: 2.93

Response: 254375

Amount: 139

Conc: 139



Manually Integrated By: zukowskim
Modification Date: 07-Apr-2014 00:03
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 70407002.D
Inj. Date and Time: 06-APR-2014 23:32
Instrument ID: hp7.i
Client ID: CCVIS40
Compound: 11 Acrolein
CAS #: 107-02-8
Report Date: 04/07/2014

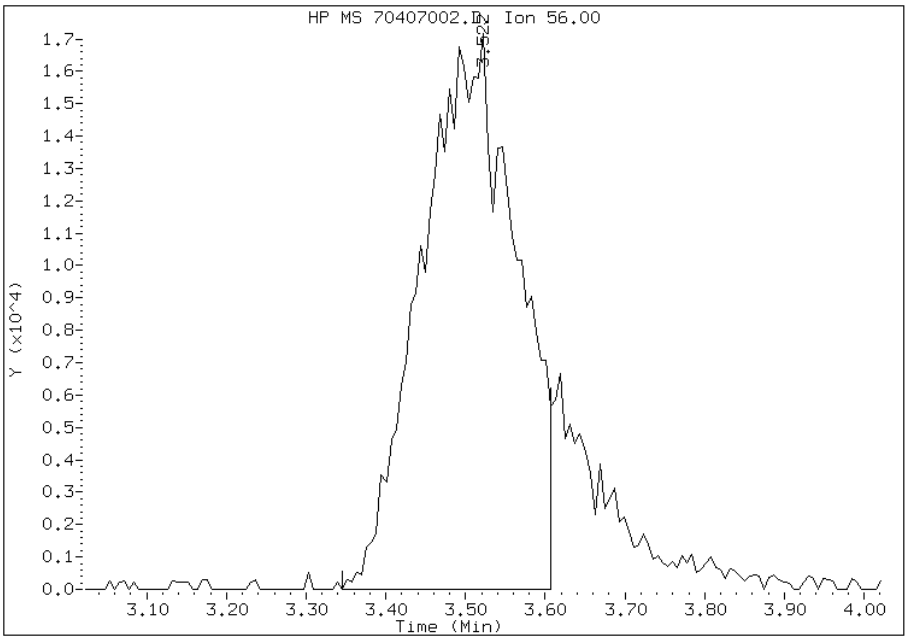
Processing Integration Results

RT: 3.52

Response: 144116

Amount: 593

Conc: 593



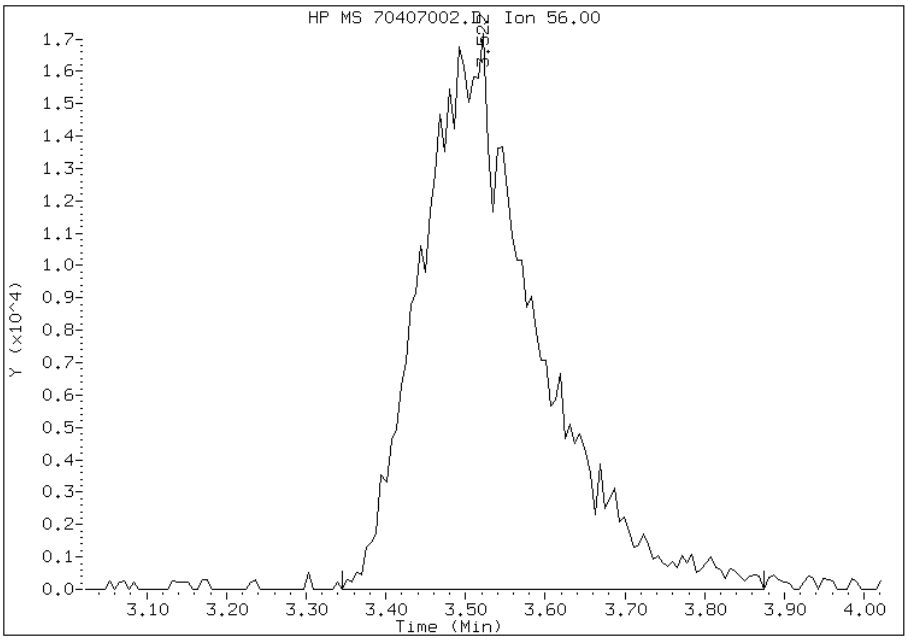
Manual Integration Results

RT: 3.52

Response: 173871

Amount: 715

Conc: 715



Manually Integrated By: zukowskim
Modification Date: 07-Apr-2014 00:04
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 70407002.D
Inj. Date and Time: 06-APR-2014 23:32
Instrument ID: hp7.i
Client ID: CCVIS40
Compound: 15 Carbon Disulfide
CAS #: 75-15-0
Report Date: 04/07/2014

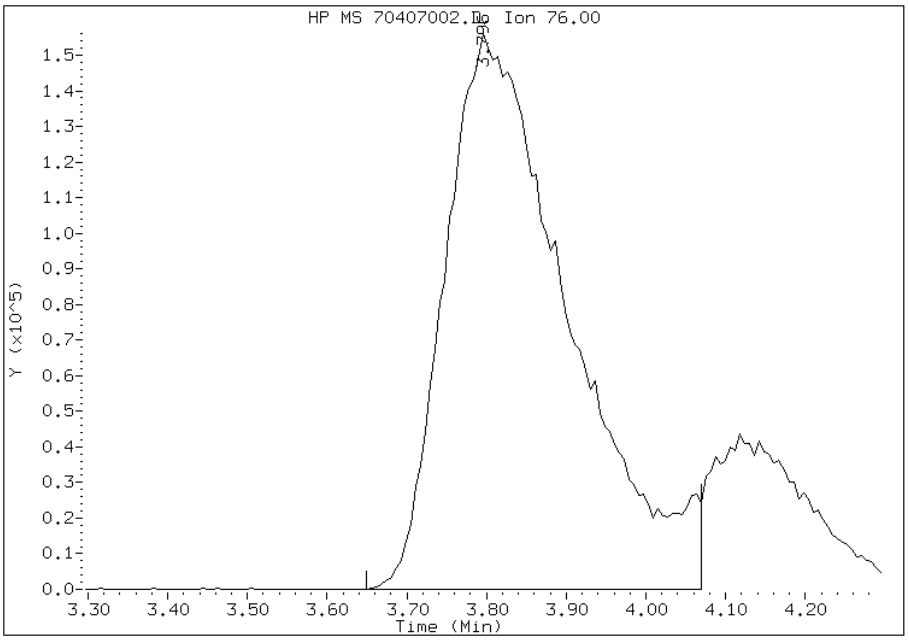
Processing Integration Results

RT: 3.80

Response: 1684506

Amount: 233

Conc: 233



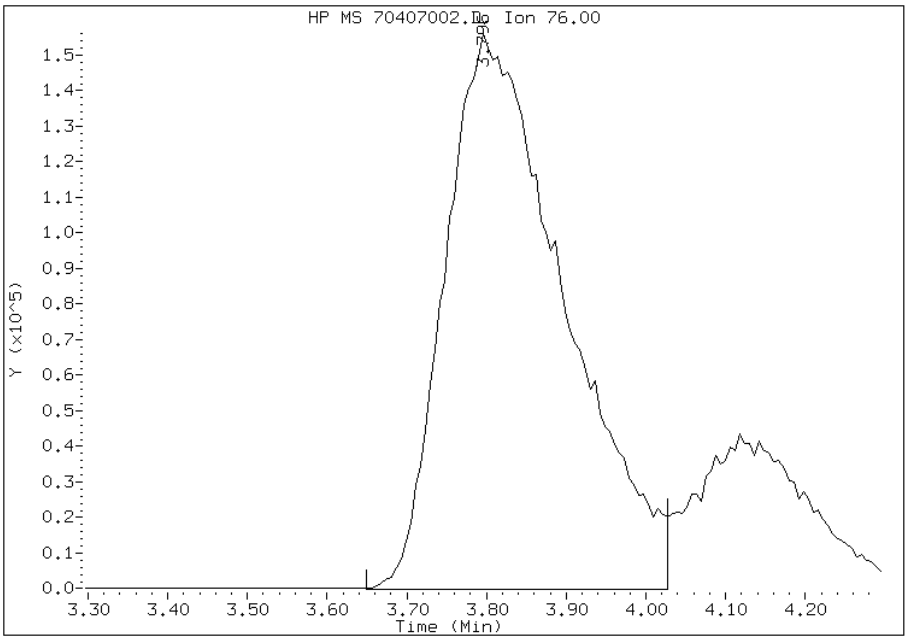
Manual Integration Results

RT: 3.80

Response: 1628442

Amount: 225

Conc: 225



Manually Integrated By: zukowskim
Modification Date: 07-Apr-2014 00:03
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 70407002.D
Inj. Date and Time: 06-APR-2014 23:32
Instrument ID: hp7.i
Client ID: CCVIS40
Compound: 16 3-Chloro-1-propene
CAS #: 107-05-1
Report Date: 04/07/2014

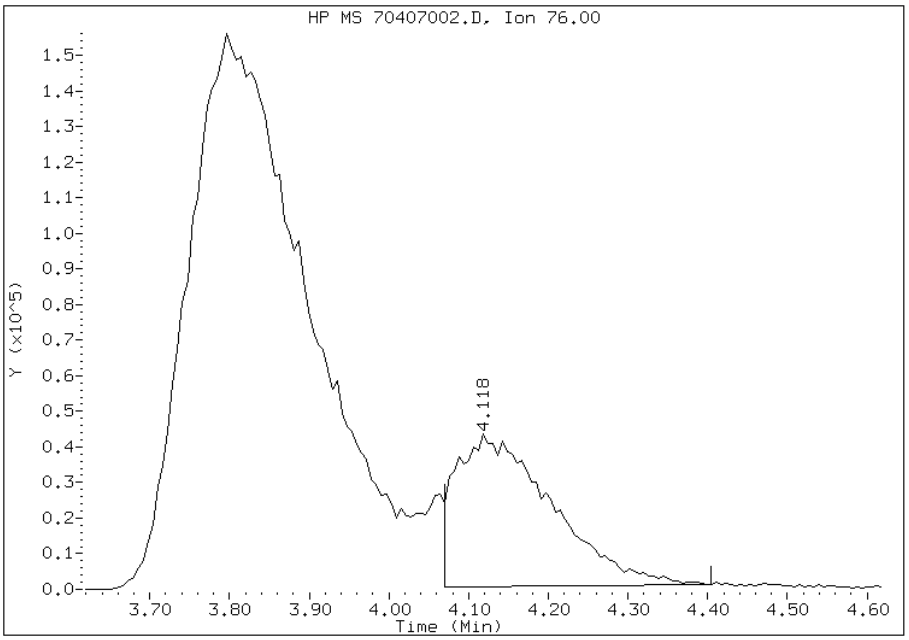
Processing Integration Results

RT: 4.12

Response: 353217

Amount: 166

Conc: 166



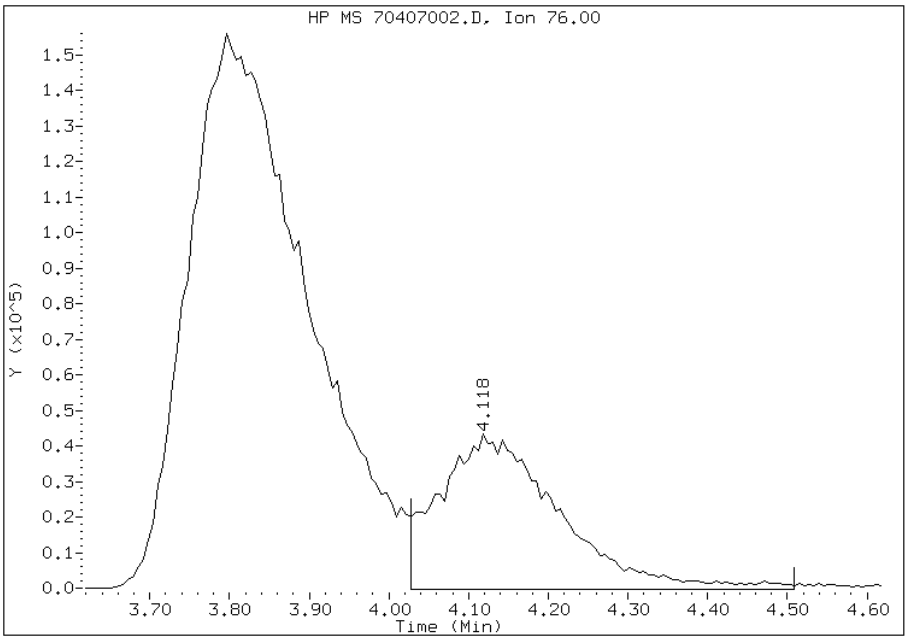
Manual Integration Results

RT: 4.12

Response: 459688

Amount: 216

Conc: 216



Manually Integrated By: zukowskim
Modification Date: 07-Apr-2014 00:04
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 70407002.D
Inj. Date and Time: 06-APR-2014 23:32
Instrument ID: hp7.i
Client ID: CCVIS40
Compound: 21 tert-Butyl Alcohol
CAS #: 75-65-0
Report Date: 04/07/2014

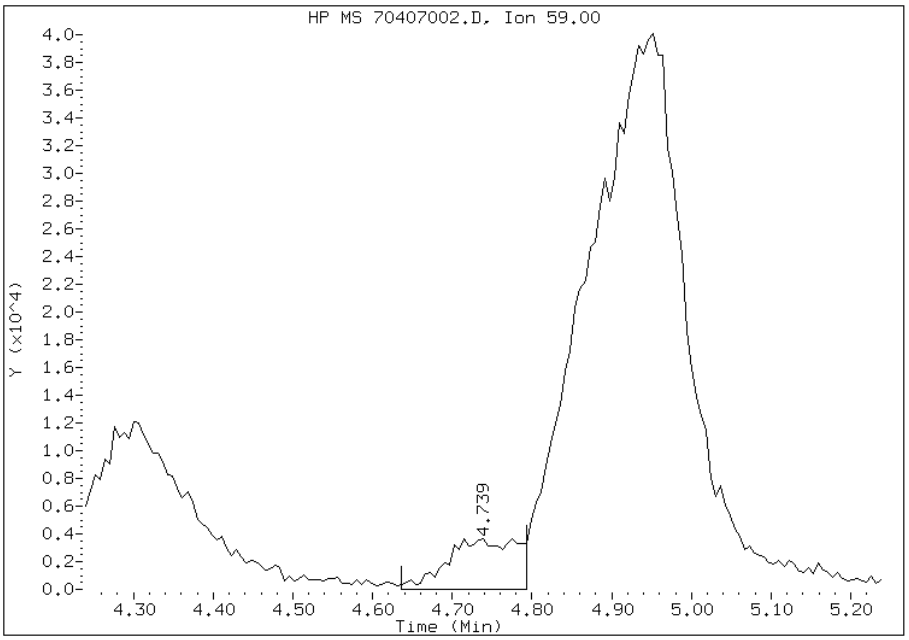
Processing Integration Results

RT: 4.74

Response: 23030

Amount: 136

Conc: 136



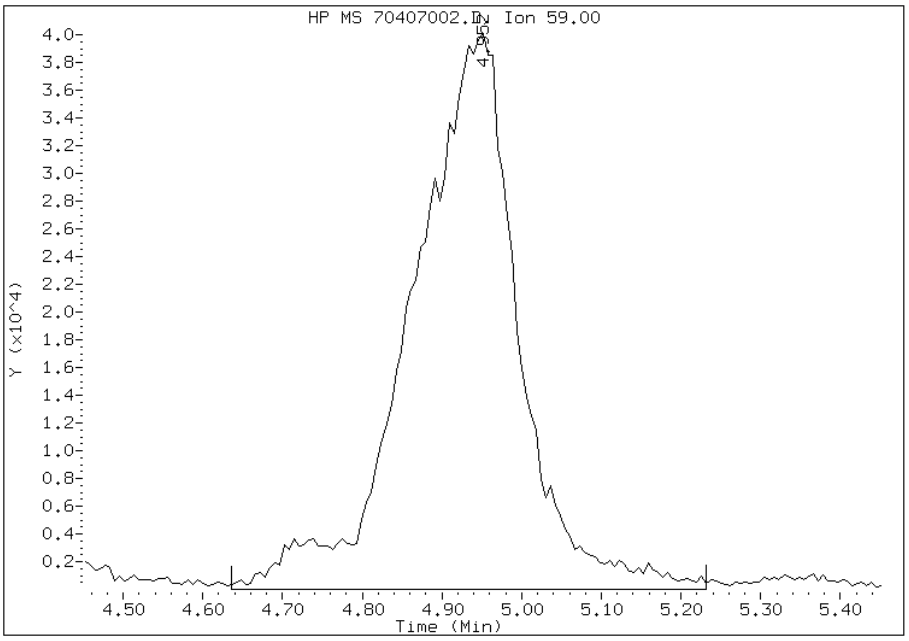
Manual Integration Results

RT: 4.95

Response: 376589

Amount: 2231

Conc: 2231



Manually Integrated By: zukowskim
Modification Date: 07-Apr-2014 00:04
Manual Integration Reason: Peak Integrated Incorrectly

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-31007-1

SDG No.:

Lab Sample ID: CCVIS 180-102001/2 Calibration Date: 04/08/2014 09:07

Instrument ID: HP7 Calib Start Date: 03/14/2014 09:40

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/14/2014 17:39

Lab File ID: 70408003.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	0.3402	0.5138		60.4	40.0	51.0*	50.0
Chloromethane	Ave	0.7382	0.9829	0.1000	53.3	40.0	33.1	50.0
1,3-Butadiene	Ave	0.4759	0.5278		44.4	40.0	10.9	50.0
Vinyl chloride	Ave	0.4499	0.4526		40.2	40.0	0.6	20.0
Bromomethane	Ave	0.1166	0.1033		35.4	40.0	-11.4	50.0
Chloroethane	Ave	0.1017	0.0879		34.6	40.0	-13.6	50.0
Dichlorofluoromethane	Ave	0.2364	0.1919		32.5	40.0	-18.9	50.0
Trichlorofluoromethane	Ave	0.2332	0.1766		30.3	40.0	-24.3	50.0
Ethyl ether	Ave	0.2441	0.1948		31.9	40.0	-20.2	50.0
Acrolein	Ave	0.0310	0.0235		132	175	-24.4	50.0
1,1-Dichloroethene	Ave	0.2937	0.3392		46.2	40.0	15.5	20.0
1,1,2-Trichloro-1,2,2-triflu oroethane	Ave	0.3031	0.3482		45.9	40.0	14.9	50.0
Iodomethane	Ave	0.4930	0.5542		45.0	40.0	12.4	50.0
Carbon disulfide	Ave	0.9226	1.099		47.7	40.0	19.1	50.0
Acetone	Qua	0.0728	0.0864		58.1	40.0	45.1	50.0
Allyl chloride	Ave	0.2713	0.2864		42.2	40.0	5.6	50.0
Methyl acetate	Qua	0.1765	0.1838		231	200	15.6	50.0
Methylene Chloride	Ave	0.3608	0.3632		40.3	40.0	0.7	50.0
trans-1,2-Dichloroethene	Ave	0.3340	0.4043		48.4	40.0	21.0	50.0
Acrylonitrile	Qua	0.0895	0.0892		427	400	6.7	50.0
Methyl tert-butyl ether	Ave	0.6617	0.7093		42.9	40.0	7.2	50.0
tert-Butyl alcohol	Ave	1.224	1.332		435	400	8.9	50.0
Hexane	Qua	0.5582	0.6481		44.6	40.0	11.4	50.0
1,1-Dichloroethane	Ave	0.6495	0.7535	0.1000	46.4	40.0	16.0	25.0
Vinyl acetate	Ave	0.5120	0.2756		21.5	40.0	-46.2	50.0
2,2-Dichloropropane	Ave	0.4010	0.4900		48.9	40.0	22.2	50.0
cis-1,2-Dichloroethene	Ave	0.3462	0.4192		48.4	40.0	21.1	50.0
2-Butanone (MEK)	Qua	0.0922	0.0999		48.4	40.0	21.0	50.0
Bromochloromethane	Ave	0.1495	0.1737		46.5	40.0	16.2	50.0
Chloroform	Ave	0.4996	0.5736		45.9	40.0	14.8	20.0
1,1,1-Trichloroethane	Ave	0.4271	0.5149		48.2	40.0	20.6	25.0
Cyclohexane	Ave	0.6429	0.7928		49.3	40.0	23.3	50.0
1,1-Dichloropropene	Ave	0.3525	0.3827		43.4	40.0	8.6	50.0
Carbon tetrachloride	Ave	0.3471	0.4183		48.2	40.0	20.5	25.0
Benzene	Ave	1.118	1.144		40.9	40.0	2.3	25.0
1,2-Dichloroethane	Ave	0.3638	0.2916		32.1	40.0	-19.8	25.0
Isobutyl alcohol	Qua	0.0111	0.0110		901	1000	-9.9	50.0
Trichloroethene	Ave	0.2940	0.3364		45.8	40.0	14.4	25.0
Methylcyclohexane	Qua	0.5153	0.6634		48.9	40.0	22.2	50.0
1,2-Dichloropropane	Ave	0.2971	0.2938		39.5	40.0	-1.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-31007-1

SDG No.:

Lab Sample ID: CCVIS 180-102001/2 Calibration Date: 04/08/2014 09:07

Instrument ID: HP7 Calib Start Date: 03/14/2014 09:40

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/14/2014 17:39

Lab File ID: 70408003.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	0.1428	0.1459		40.9	40.0	2.2	50.0
1,4-Dioxane	Qua	1.105	1.358		987	800	23.4	50.0
Dichlorobromomethane	Ave	0.3487	0.3658		42.0	40.0	4.9	25.0
cis-1,3-Dichloropropene	Ave	0.4058	0.4352		42.9	40.0	7.3	25.0
4-Methyl-2-pentanone (MIBK)	Ave	0.8421	0.8001		38.0	40.0	-5.0	50.0
Toluene	Ave	4.339	3.868		35.7	40.0	-10.9	20.0
trans-1,3-Dichloropropene	Ave	1.200	1.232		41.1	40.0	2.7	25.0
Ethyl methacrylate	Ave	0.9584	0.9216		38.5	40.0	-3.8	50.0
1,1,2-Trichloroethane	Qua	0.7467	0.7424		41.6	40.0	4.1	25.0
Tetrachloroethene	Ave	0.9215	0.997		43.3	40.0	8.2	25.0
1,3-Dichloropropane	Qua	1.184	1.147		39.0	40.0	-2.4	50.0
2-Hexanone	Ave	0.5349	0.5369		40.2	40.0	0.4	50.0
Chlorodibromomethane	Ave	0.8628	0.9285		43.0	40.0	7.6	25.0
1,2-Dibromoethane	Ave	0.7769	0.8151		42.0	40.0	4.9	50.0
Chlorobenzene	Ave	2.595	2.569	0.3000	39.6	40.0	-1.0	50.0
1,1,1,2-Tetrachloroethane	Ave	0.9934	1.097		44.2	40.0	10.5	50.0
Ethylbenzene	Ave	1.500	1.529		40.8	40.0	1.9	20.0
m-Xylene & p-Xylene	Ave	1.905	1.985		41.7	40.0	4.2	25.0
o-Xylene	Ave	2.054	2.008		39.1	40.0	-2.3	25.0
Styrene	Ave	3.220	2.841		35.3	40.0	-11.8	25.0
Bromoform	Ave	0.5349	0.5981	0.1000	44.7	40.0	11.8	50.0
Isopropylbenzene	Ave	5.033	4.793		38.1	40.0	-4.8	50.0
1,1,2,2-Tetrachloroethane	Qua	0.7279	0.8455	0.3000	49.3	40.0	23.2	50.0
Bromobenzene	Ave	0.9802	1.003		41.0	40.0	2.4	50.0
1,2,3-Trichloropropane	Qua	0.1632	0.1747		46.5	40.0	16.1	50.0
trans-1,4-Dichloro-2-butene	Ave	0.1444	0.1489		41.2	40.0	3.1	50.0
N-Propylbenzene	Ave	1.558	1.129		29.0	40.0	-27.5	50.0
2-Chlorotoluene	Ave	0.8910	0.9688		43.5	40.0	8.7	50.0
1,3,5-Trimethylbenzene	Ave	3.068	2.865		37.4	40.0	-6.6	50.0
4-Chlorotoluene	Ave	0.8672	0.8903		41.1	40.0	2.7	50.0
tert-Butylbenzene	Ave	2.643	2.723		41.2	40.0	3.0	50.0
1,2,4-Trimethylbenzene	Ave	3.060	2.835		37.1	40.0	-7.3	50.0
sec-Butylbenzene	Ave	4.029	3.921		38.9	40.0	-2.7	50.0
1,3-Dichlorobenzene	Ave	1.594	1.707		42.8	40.0	7.1	25.0
4-Isopropyltoluene	Ave	3.136	2.961		37.8	40.0	-5.6	50.0
1,4-Dichlorobenzene	Ave	1.419	1.508		42.5	40.0	6.3	25.0
n-Butylbenzene	Qua	2.649	3.053		37.9	40.0	-5.3	50.0
1,2-Dichlorobenzene	Ave	1.212	1.381		45.6	40.0	14.0	25.0
1,2-Dibromo-3-Chloropropane	Qua	0.0514	0.0939		82.3	40.0	105.9*	50.0
1,2,4-Trichlorobenzene	Qua	0.3852	0.6239		75.0	40.0	87.5*	50.0
Hexachlorobutadiene	Qua	0.3308	0.5547		71.3	40.0	78.1*	50.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Pittsburgh Job No.: 180-31007-1

SDG No.:

Lab Sample ID: CCVIS 180-102001/2 Calibration Date: 04/08/2014 09:07

Instrument ID: HP7 Calib Start Date: 03/14/2014 09:40

GC Column: DB-624 ID: 0.18(mm) Calib End Date: 03/14/2014 17:39

Lab File ID: 70408003.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
Naphthalene	Qua	0.4918	0.7824		72.3	40.0	80.6*	50.0
1,2,3-Trichlorobenzene	Qua	0.3025	0.3753		64.6	40.0	61.6*	50.0
Dibromofluoromethane (Surr)	Ave	0.2629	0.2873		43.7	40.0	9.3	50.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3028	0.2871		37.9	40.0	-5.2	25.0
Toluene-d8 (Surr)	Ave	3.891	3.551		36.5	40.0	-8.7	50.0
4-Bromofluorobenzene (Surr)	Ave	1.410	1.540		43.7	40.0	9.2	25.0

TestAmerica Pittsburgh

VOLATILE REPORT SW-846 Method

Data file : \\pitsvr06\d\chem\hp7.i\7040814d.b\70408003.D
Lab Smp Id: CCVIS Client Smp ID: CCVIS40
Inj Date : 08-APR-2014 09:07 MS Autotune Date: 29-AUG-2013 09:08
Operator : 430936 Inst ID: hp7.i
Smp Info : CCVIS
Misc Info : 7040814d.b,T8260bh2o.m,list1.sub
Comment :
Method : \\pitsvr06\d\chem\hp7.i\7040814d.b\T8260bh2o.m
Meth Date : 08-Apr-2014 09:59 hp7.i Quant Type: ISTD
Cal Date : 14-MAR-2014 09:40 Cal File: 7031404.D
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: list1.sub
Target Version: 4.14
Processing Host: PITPC-530

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
*	46 Fluorobenzene (IS)	96	7.401	7.401	(1.000)	1892292	250.000	
*	69 Chlorobenzene-d5	119	10.467	10.467	(1.000)	504940	250.000	
*	92 1,4-Dichlorobenzene-d4	152	12.791	12.791	(1.000)	660705	250.000	
*	176 Dioxane-d8 (IS)	96	8.137	8.137	(1.000)	51216	5000.00	
*	177 TBA-d9 (IS)	65	4.804	4.804	(1.000)	594149	5000.00	
$	39 Dibromofluoromethane (Surr)	113	6.677	6.677	(0.902)	434919	200.000	218.6
$	43 1,2-Dichloroethane-d4	65	7.042	7.042	(0.952)	434657	200.000	189.6
$	59 Toluene-d8	98	9.032	9.032	(0.863)	1434533	200.000	182.6
$	80 Bromofluorobenzene (Surr)	95	11.635	11.635	(1.112)	621906	200.000	218.3
	1 Dichlorodifluoromethane	85	1.914	1.914	(0.259)	777770	200.000	302.0(Q)
	2 Chloromethane	50	2.036	2.036	(0.275)	1487913	200.000	266.3
	3 Vinyl Chloride	62	2.194	2.194	(0.296)	685215	200.000	201.2
	4 Bromomethane	94	2.510	2.510	(0.339)	156394	200.000	177.2
	5 Chloroethane	64	2.608	2.608	(0.352)	133077	200.000	172.8
	7 Dichlorofluoromethane	67	2.893	2.893	(0.391)	290465	200.000	162.3(M)
	10 1,1,2-trichloro-1,2,2-trifluor	101	3.672	3.672	(0.496)	527098	200.000	229.7
	166 Trichlorofluoromethane	101	2.912	2.912	(0.393)	267370	200.000	151.5
	12 1,1-Dichloroethene	96	3.538	3.538	(0.478)	513465	200.000	230.9
	15 Carbon Disulfide	76	3.818	3.818	(0.516)	1664066	200.000	238.3(M)
	13 Acetone	43	3.861	3.861	(0.522)	130762	200.000	290.3
	18 Methylene Chloride	84	4.354	4.354	(0.588)	549797	200.000	201.3
	19 trans-1,2-Dichloroethene	96	4.755	4.755	(0.642)	612025	200.000	242.1
	20 Methyl tert-butyl ether	73	4.865	4.865	(0.657)	1073807	200.000	214.4
	24 1,1-Dichloroethane	63	5.345	5.345	(0.722)	1140618	200.000	232.0
	27 2,2-Dichloropropane	77	6.081	6.081	(0.822)	741777	200.000	244.4
	28 cis-1,2-dichloroethene	96	6.093	6.093	(0.823)	634579	200.000	242.2
M	29 1,2-Dichloroethene (total)	96				1246604	400.000	484.2
	30 Bromochloromethane	128	6.379	6.379	(0.862)	262911	200.000	232.4

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
31 2-Butanone	43	6.197	6.197	(0.837)	151221	200.000	241.9
37 Chloroform	83	6.495	6.495	(0.878)	868317	200.000	229.6
38 1,1,1-Trichloroethane	97	6.677	6.677	(0.902)	779479	200.000	241.1
40 1,1-Dichloropropene	75	6.860	6.860	(0.927)	579323	200.000	217.1
41 Carbon Tetrachloride	117	6.860	6.860	(0.927)	633300	200.000	241.1
42 Benzene	78	7.091	7.091	(0.958)	1731524	200.000	204.6
45 1,2-Dichloroethane	62	7.121	7.121	(0.962)	441455	200.000	160.3
47 Trichloroethene	130	7.791	7.791	(1.053)	509201	200.000	228.8
49 1,2-Dichloropropane	63	8.028	8.028	(1.085)	444710	200.000	197.7
50 Dibromomethane	93	8.144	8.144	(1.100)	220893	200.000	204.4
53 Bromodichloromethane	83	8.314	8.314	(1.123)	553694	200.000	209.8
57 cis-1,3-Dichloropropene	75	8.770	8.770	(1.185)	658822	200.000	214.5
58 4-Methyl-2-Pentanone	43	8.940	8.940	(0.854)	323189	200.000	190.0
60 Toluene	91	9.099	9.099	(0.869)	1562381	200.000	178.3
61 trans-1,3-Dichloropropene	75	9.330	9.330	(0.891)	497853	200.000	205.4
63 1,3-Dichloropropane	76	9.670	9.670	(0.924)	463379	200.000	195.1
64 1,1,2-Trichloroethane	97	9.506	9.506	(0.908)	299911	200.000	208.2
65 Tetrachloroethene	164	9.646	9.646	(0.922)	402756	200.000	216.4
66 2-Hexanone	43	9.768	9.768	(0.933)	216880	200.000	200.8
67 Dibromochloromethane	129	9.896	9.896	(0.945)	375076	200.000	215.2
68 1,2-Dibromoethane	107	10.011	10.011	(0.956)	329242	200.000	209.8
70 Chlorobenzene	112	10.498	10.498	(1.003)	1037580	200.000	198.0
71 1,1,1,2-Tetrachloroethane	131	10.577	10.577	(1.010)	443267	200.000	220.9
72 Ethylbenzene	106	10.607	10.607	(1.013)	617529	200.000	203.8
73 m,p-XYLENE	106	10.717	10.717	(1.024)	801905	200.000	208.4
74 Xylene-o	106	11.112	11.112	(1.062)	811028	200.000	195.4
76 Styrene	104	11.130	11.130	(1.063)	1147653	200.000	176.5
77 Bromoform	173	11.313	11.313	(1.081)	241620	200.000	223.6
78 Isopropylbenzene	105	11.477	11.477	(1.096)	1936164	200.000	190.5
79 Bromobenzene	156	11.788	11.788	(0.922)	530392	200.000	204.8
81 n-Propylbenzene	120	11.885	11.885	(0.929)	596887	200.000	145.0
82 2-Chlorotoluene	126	11.976	11.976	(0.936)	512082	200.000	217.5
83 1,1,2,2-Tetrachloroethane	83	11.769	11.769	(1.124)	341532	200.000	246.3
84 1,2,3-Trichloropropane	110	11.818	11.818	(0.924)	92355	200.000	232.3
85 4-Chlorotoluene	126	12.086	12.086	(0.945)	470597	200.000	205.3
86 1,3,5-Trimethylbenzene	105	12.061	12.061	(0.943)	1514459	200.000	186.8
87 tert-Butylbenzene	119	12.390	12.390	(0.969)	1439147	200.000	206.0
88 1,2,4-Trimethylbenzene	105	12.438	12.438	(0.972)	1498396	200.000	185.3
89 sec-Butylbenzene	105	12.609	12.609	(0.986)	2072530	200.000	194.6
90 4-Isopropyltoluene	119	12.755	12.755	(0.997)	1565241	200.000	188.9
91 1,3-Dichlorobenzene	146	12.724	12.724	(0.995)	902206	200.000	214.2
94 n-Butylbenzene	91	13.162	13.162	(1.029)	1613869	200.000	189.5
93 1,4-Dichlorobenzene	146	12.810	12.810	(1.001)	797074	200.000	212.6
95 1,2-Dichlorobenzene	146	13.187	13.187	(1.031)	730117	200.000	228.0
96 1,2-Dibromo-3-chloropropane	157	13.984	13.984	(1.093)	49632	200.000	411.7
97 1,2,4-Trichlorobenzene	180	14.805	14.805	(1.157)	329788	200.000	375.0
98 Hexachlorobutadiene	225	14.969	14.969	(1.170)	293177	200.000	356.3
99 Naphthalene	128	15.054	15.054	(1.177)	413523	200.000	361.3
100 1,2,3-Trichlorobenzene	180	15.304	15.304	(1.196)	198346	200.000	323.2
156 Methyl Acetate	43	4.299	4.299	(0.581)	1391185	1000.00	1156
157 Cyclohexane	56	6.726	6.726	(0.909)	1200140	200.000	246.6
158 Methyl Cyclohexane	83	7.985	7.985	(1.079)	1004273	200.000	244.4
32 Vinyl Acetate	43	5.503	5.503	(0.744)	417133	200.000	107.6
52 1,4-Dioxane	88	8.198	8.198	(1.007)	55655	4000.00	4936

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
21	tert-Butyl Alcohol	59	4.919	4.919	(1.024)	316667	2000.00	2177(Q)
16	3-Chloro-1-propene	76	4.135	4.135	(0.559)	433596	200.000	211.1(M)
11	Acrolein	56	3.514	3.514	(0.475)	155292	875.000	661.9(Q)
22	Acrylonitrile	53	4.798	4.798	(0.648)	1350558	2000.00	2133
8	Ethyl Ether	59	3.344	3.344	(0.452)	294954	200.000	159.6(M)
62	Ethyl methacrylate	69	9.421	9.421	(0.900)	372284	200.000	192.3
23	Hexane	57	5.150	5.150	(0.696)	981131	200.000	222.8
14	Iodomethane	142	3.757	3.757	(0.508)	838918	200.000	224.8(Q)
44	Isobutanol	41	7.401	7.401	(1.000)	416905	5000.00	4505
155	N-Heptane	41	7.985	7.985	(1.079)	713819	200.000	210.1
35	Tetrahydrofuran	42	6.726	6.726	(0.909)	302628	400.000	465.4
164	trans-1,4-Dichloro-2-butene	53	11.830	11.830	(0.925)	78698	200.000	206.2
169	Butadiene	39	2.194	2.194	(0.296)	799027	200.000	221.8
M 75	Xylenes (total)	106				1612933	400.000	403.9

QC Flag Legend

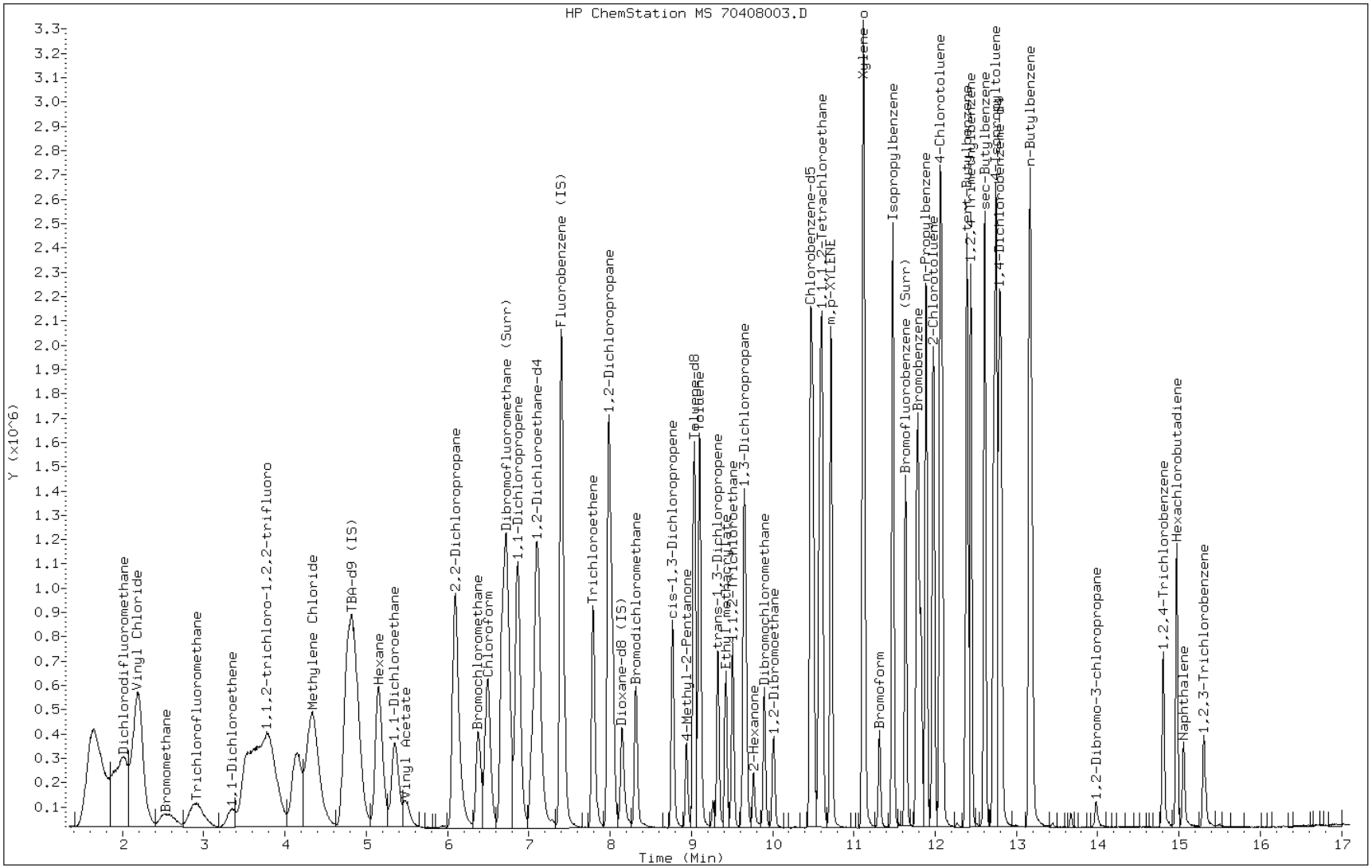
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: 70408003.D

Date: 08-APR-2014 09:07

Client ID: CCVIS40 Instrument: hp7.i

Sample Info: CCVIS Operator: 430936



Manual Integration Report

Data File: 70408003.D
Inj. Date and Time: 08-APR-2014 09:07
Instrument ID: hp7.i
Client ID: CCVIS40
Compound: 7 Dichlorofluoromethane
CAS #: 75-43-4
Report Date: 04/08/2014

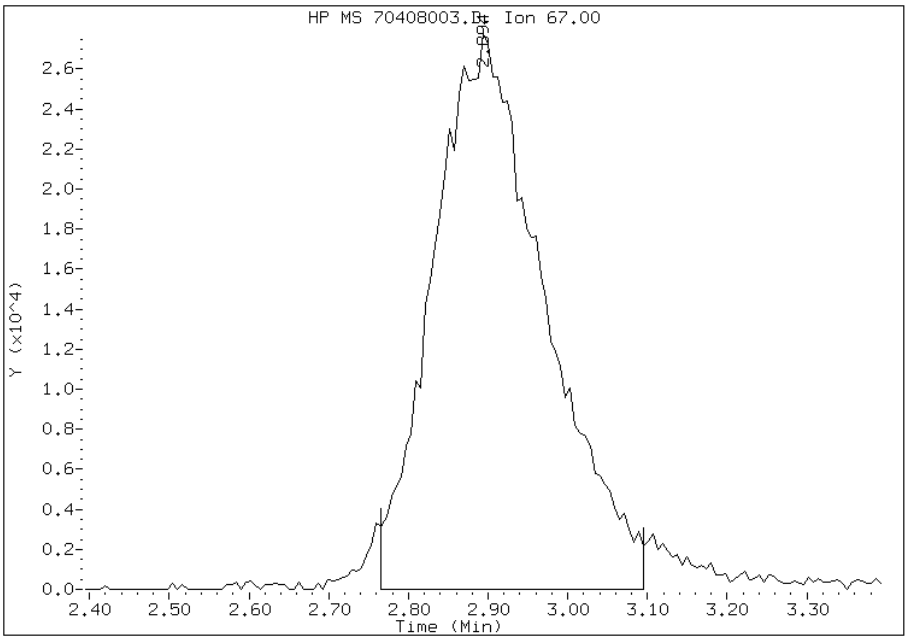
Processing Integration Results

RT: 2.89

Response: 272261

Amount: 152

Conc: 152



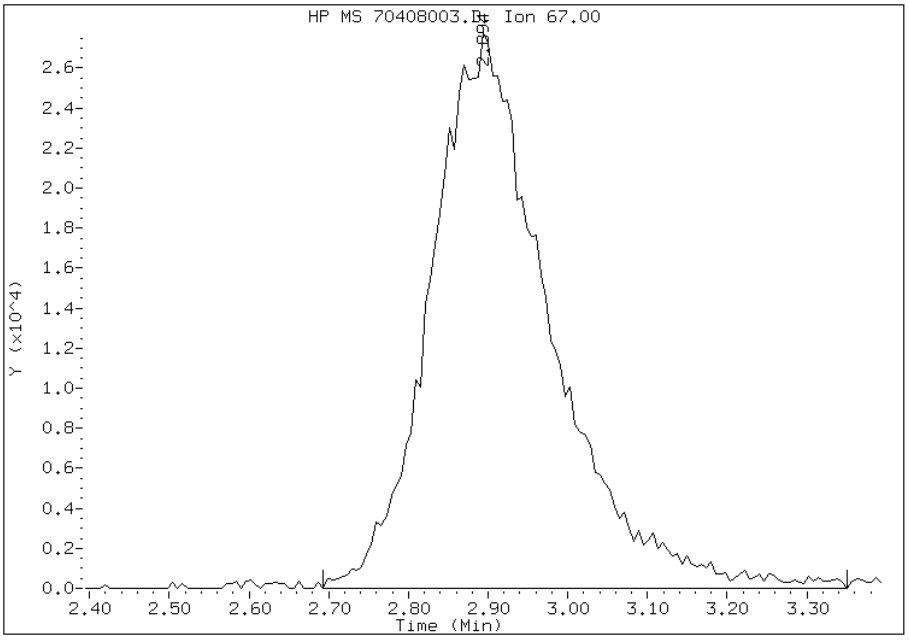
Manual Integration Results

RT: 2.89

Response: 290465

Amount: 162

Conc: 162



Manually Integrated By: zukowskim
Modification Date: 08-Apr-2014 09:37
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 70408003.D
Inj. Date and Time: 08-APR-2014 09:07
Instrument ID: hp7.i
Client ID: CCVIS40
Compound: 8 Ethyl Ether
CAS #: 60-29-7
Report Date: 04/08/2014

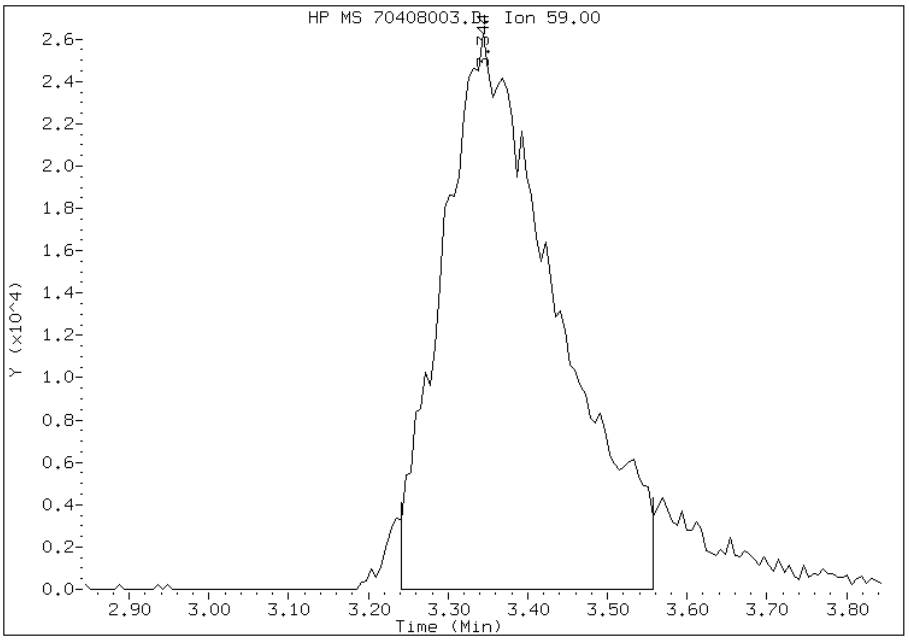
Processing Integration Results

RT: 3.34

Response: 263562

Amount: 143

Conc: 143



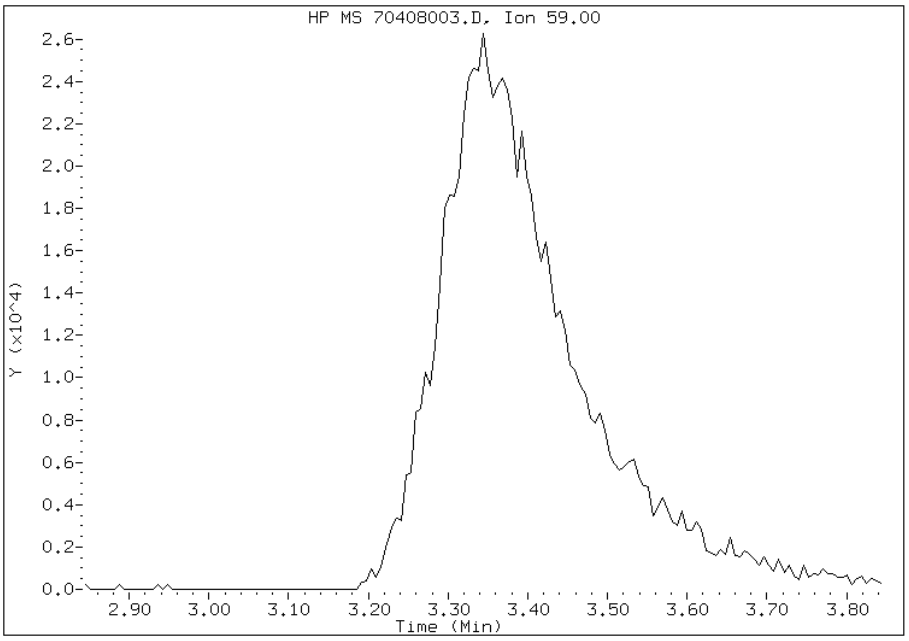
Manual Integration Results

RT: 3.34

Response: 294954

Amount: 160

Conc: 160



Manually Integrated By: zukowskim
Modification Date: 08-Apr-2014 09:38
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 70408003.D
Inj. Date and Time: 08-APR-2014 09:07
Instrument ID: hp7.i
Client ID: CCVIS40
Compound: 15 Carbon Disulfide
CAS #: 75-15-0
Report Date: 04/08/2014

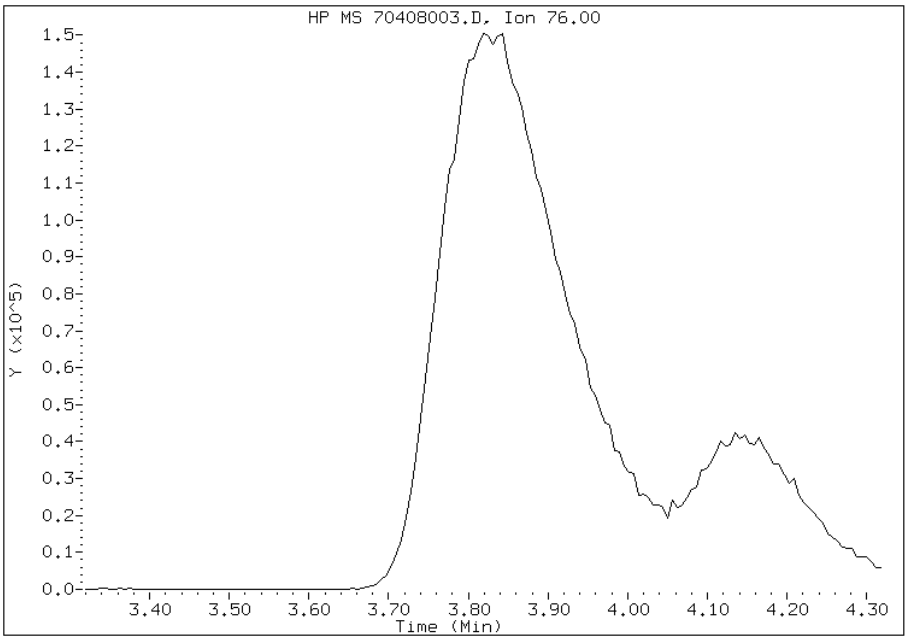
Processing Integration Results

RT: 3.82

Response: 2094710

Amount: 300

Conc: 300



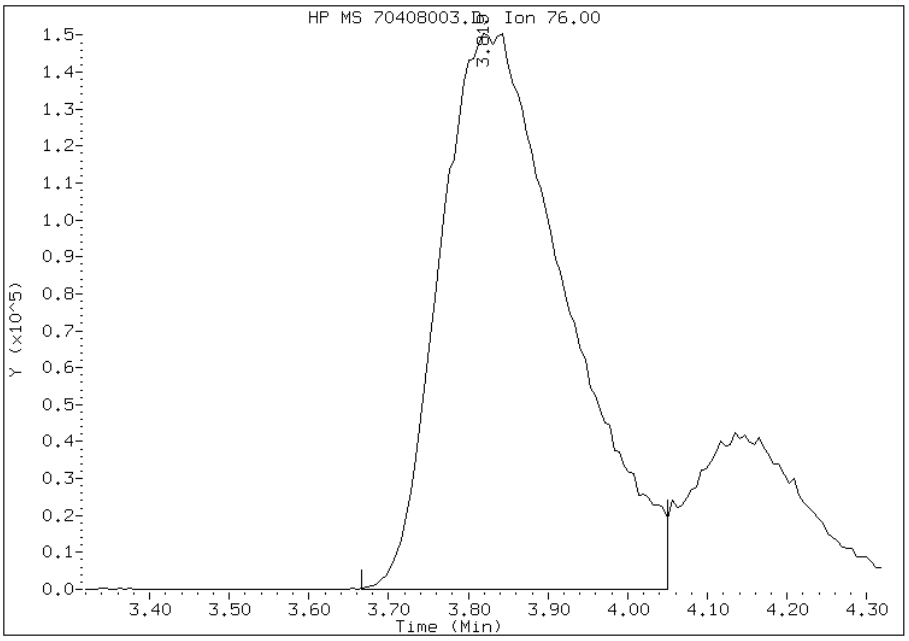
Manual Integration Results

RT: 3.82

Response: 1664066

Amount: 238

Conc: 238



Manually Integrated By: zukowskim
Modification Date: 08-Apr-2014 09:37
Manual Integration Reason: Peak Integrated Incorrectly

Manual Integration Report

Data File: 70408003.D
Inj. Date and Time: 08-APR-2014 09:07
Instrument ID: hp7.i
Client ID: CCVIS40
Compound: 16 3-Chloro-1-propene
CAS #: 107-05-1
Report Date: 04/08/2014

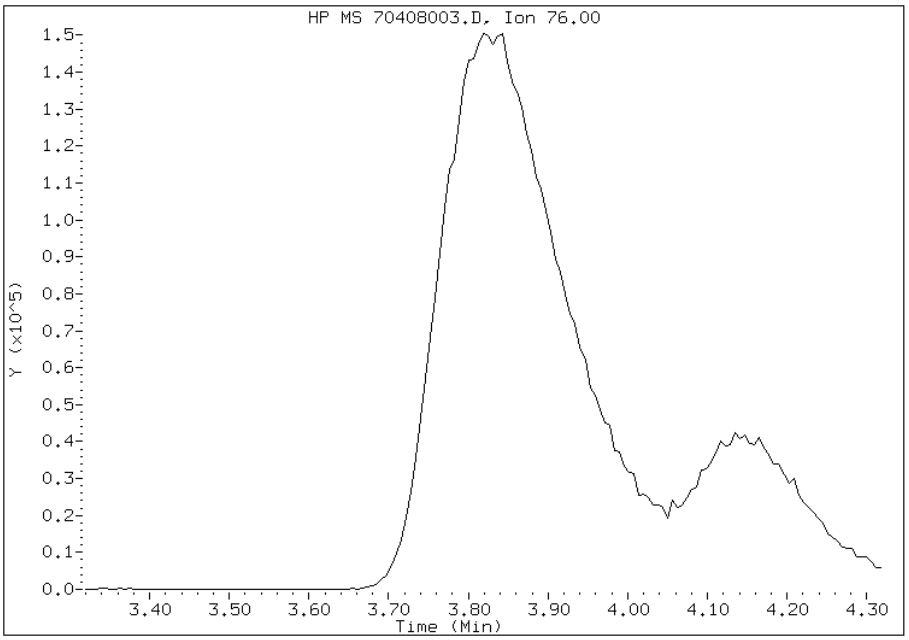
Processing Integration Results

RT: 3.82

Response: 2094710

Amount: 1020

Conc: 1020



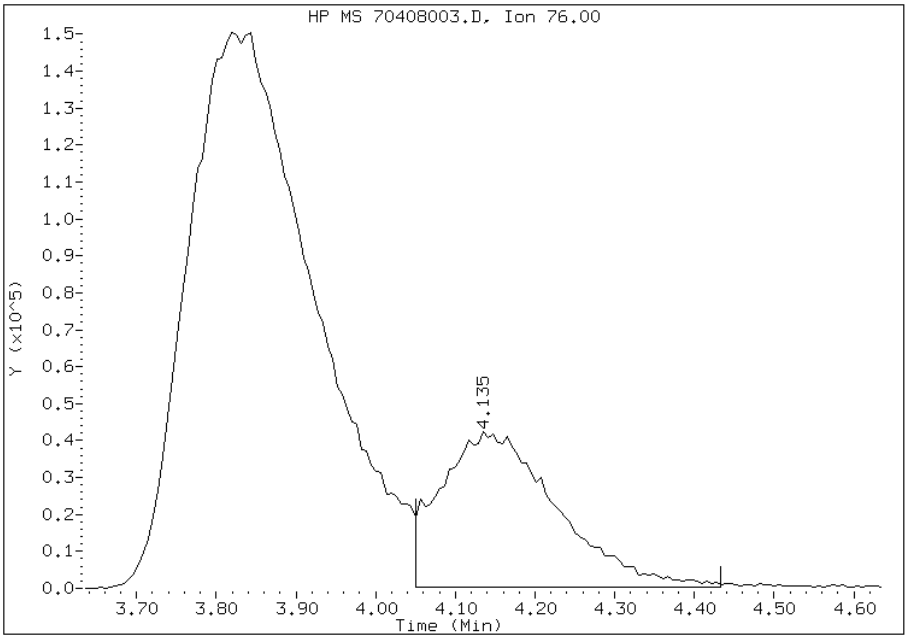
Manual Integration Results

RT: 4.13

Response: 433596

Amount: 211

Conc: 211



Manually Integrated By: zukowskim
Modification Date: 08-Apr-2014 09:37
Manual Integration Reason: Peak Integrated Incorrectly

TestAmerica Pittsburgh

Data file : \\pitsvr06\d\chem\hp7.i\7031414d.b\7031401.D
Lab Smp Id: BFB Client Smp ID: 31019D
Inj Date : 14-MAR-2014 07:40
Operator : 430936 Inst ID: hp7.i
Smp Info : BFB
Misc Info : BFB
Comment :
Method : \\pitsvr06\d\chem\hp7.i\7031414d.b\TBFB.m
Meth Date : 02-Jul-2013 09:22 Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 2 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
Vi	1.000	Injection Volume
Cpnd Variable		Local Compound Variable

					CONCENTRATIONS ON-COL (ng)	CONCENTRATIONS FINAL (ug/L)		
RT	EXP RT	DLT RT	MASS	RESPONSE			TARGET RANGE	RATIO
1 bfb							CAS #: 460-00-4	
11.636	11.610	0.026	95	648960			100.00- 100.00	100.00(a)
11.636	11.610	0.026	50	163712			15.00- 40.00	25.23
11.636	11.610	0.026	75	319808			30.00- 60.00	49.28
11.636	11.610	0.026	96	52768			5.00- 9.00	8.13
11.636	11.610	0.026	173	4121			0.00- 2.00	0.73
11.636	11.610	0.026	174	563584			50.00- 100.00	86.84
11.636	11.610	0.026	175	46992			5.00- 9.00	8.34
11.636	11.610	0.026	176	557312			95.00- 101.00	98.89
11.636	11.610	0.026	177	44104			5.00- 9.00	7.91

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: 7031401.D

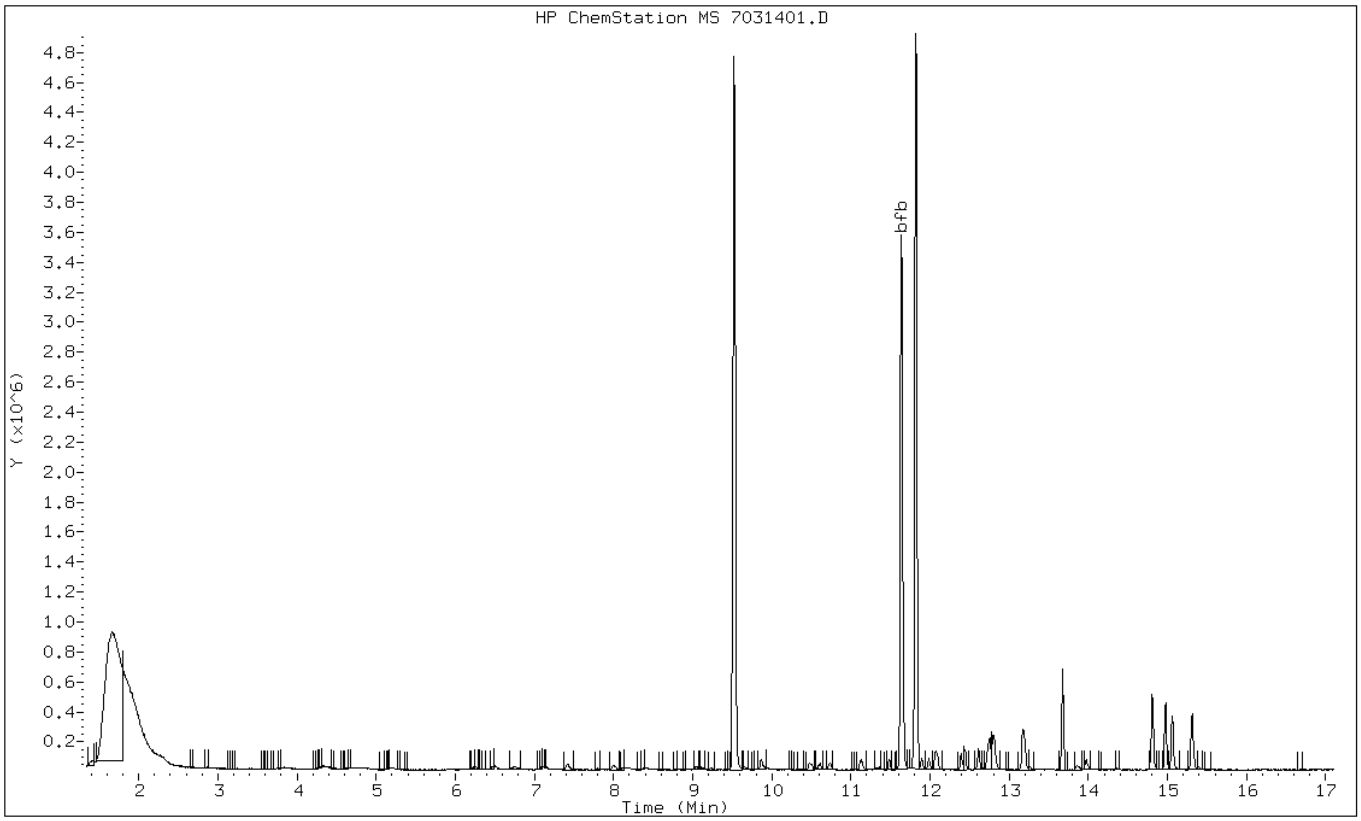
Date: 14-MAR-2014 07:40

Client ID: 31019D

Instrument: hp7.i

Sample Info: BFB

Operator: 430936



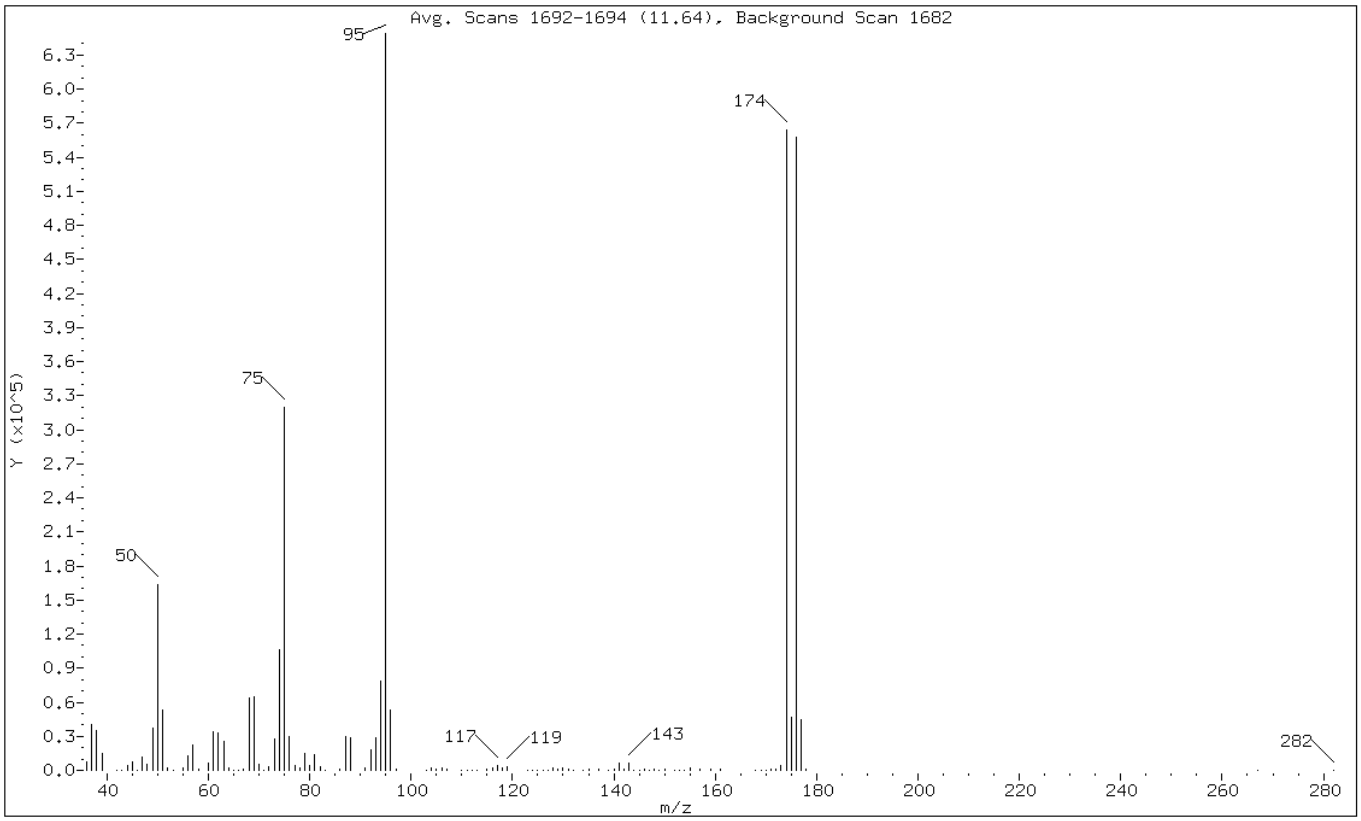
Data File: 7031401.D

Date: 14-MAR-2014 07:40

Client ID: 31019D Instrument: hp7.i

Sample Info: BFB Operator: 430936

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	25.23
75	30.00 - 60.00% of mass 95	49.28
96	5.00 - 9.00% of mass 95	8.13
173	Less than 2.00% of mass 174	0.64 (0.73)
174	50.00 - 100.00% of mass 95	86.84
175	5.00 - 9.00% of mass 174	7.24 (8.34)
176	95.00 - 101.00% of mass 174	85.88 (98.89)
177	5.00 - 9.00% of mass 176	6.80 (7.91)

Data File: 7031401.D

Date: 14-MAR-2014 07:40

Client ID: 31019D Instrument: hp7.i

Sample Info: BFB Operator: 430936

Data File: \\PITSVR06\D\chem\hp7.i\7031414d.b\7031401.D
Spectrum: Avg. Scans 1692-1694 (11.64), Background Scan 1682
Location of Maximum: 95.00
Number of points: 113

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	6939	69.00	64312	107.00	559	145.00	480
37.00	40320	70.00	5023	110.00	337	146.00	807
38.00	34864	71.00	242	111.00	449	147.00	405
39.00	14969	72.00	3478	112.00	254	148.00	1361
42.00	12	73.00	27528	113.00	379	149.00	458
43.00	169	74.00	105736	115.00	613	150.00	663
44.00	4240	75.00	319808	116.00	2183	152.00	391
45.00	7252	76.00	29480	117.00	3804	153.00	419
46.00	369	77.00	4404	118.00	2269	154.00	407
47.00	11790	78.00	2309	119.00	3371	155.00	1919
48.00	5197	79.00	14672	123.00	93	157.00	1126
49.00	36744	80.00	4027	124.00	356	159.00	800
50.00	163712	81.00	14218	125.00	266	161.00	622
51.00	53192	82.00	3145	126.00	267	168.00	81
52.00	2286	83.00	423	127.00	213	169.00	79
53.00	74	86.00	800	128.00	2311	170.00	330
55.00	1903	87.00	30144	129.00	1277	171.00	757
56.00	12240	88.00	28816	130.00	2483	172.00	1042
57.00	22368	91.00	2285	131.00	891	173.00	4121
58.00	931	92.00	18424	132.00	70	174.00	563584
60.00	6897	93.00	28376	134.00	187	175.00	46992
61.00	33960	94.00	78560	135.00	1125	176.00	557312
62.00	33040	95.00	648960	137.00	1047	177.00	44104
63.00	25264	96.00	52768	139.00	140	178.00	985
64.00	2380	97.00	1255	140.00	561	267.00	88
65.00	134	103.00	228	141.00	6336	282.00	93
66.00	85	104.00	2548	142.00	794		
67.00	1214	105.00	946	143.00	6452		
68.00	63680	106.00	2260	144.00	334		

TestAmerica Pittsburgh

Data file : \\pitsvr06\d\chem\hp7.i\7040714d.b\70407001.D
Lab Smp Id: BFB Client Smp ID: 31019D
Inj Date : 06-APR-2014 22:48 MS Autotune Date: 29-AUG-2013 09:08
Operator : 430936 Inst ID: hp7.i
Smp Info : BFB
Misc Info : 7040714d.b,TBFB.m,all.sub
Comment :
Method : \\pitsvr06\d\chem\hp7.i\7040714d.b\TBFB.m
Meth Date : 02-Jul-2013 09:22 Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: WATER

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
Vi	1.000	Injection Volume
Cpnd Variable		Local Compound Variable

RT	EXP RT	DLT RT	MASS	RESPONSE	CONCENTRATIONS ON-COL (ng)	CONCENTRATIONS FINAL (ug/L)	TARGET RANGE	RATIO
1 bfb							CAS #: 460-00-4	
11.642	11.610	0.032	95	313664			100.00- 100.00	100.00(a)
11.642	11.610	0.032	50	72216			15.00- 40.00	23.02
11.642	11.610	0.032	75	142848			30.00- 60.00	45.54
11.642	11.610	0.032	96	22296			5.00- 9.00	7.11
11.642	11.610	0.032	173	1851			0.00- 2.00	0.67
11.642	11.610	0.032	174	276160			50.00- 100.00	88.04
11.642	11.610	0.032	175	21840			5.00- 9.00	7.91
11.642	11.610	0.032	176	273984			95.00- 101.00	99.21
11.642	11.610	0.032	177	18768			5.00- 9.00	6.85

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: 70407001.D

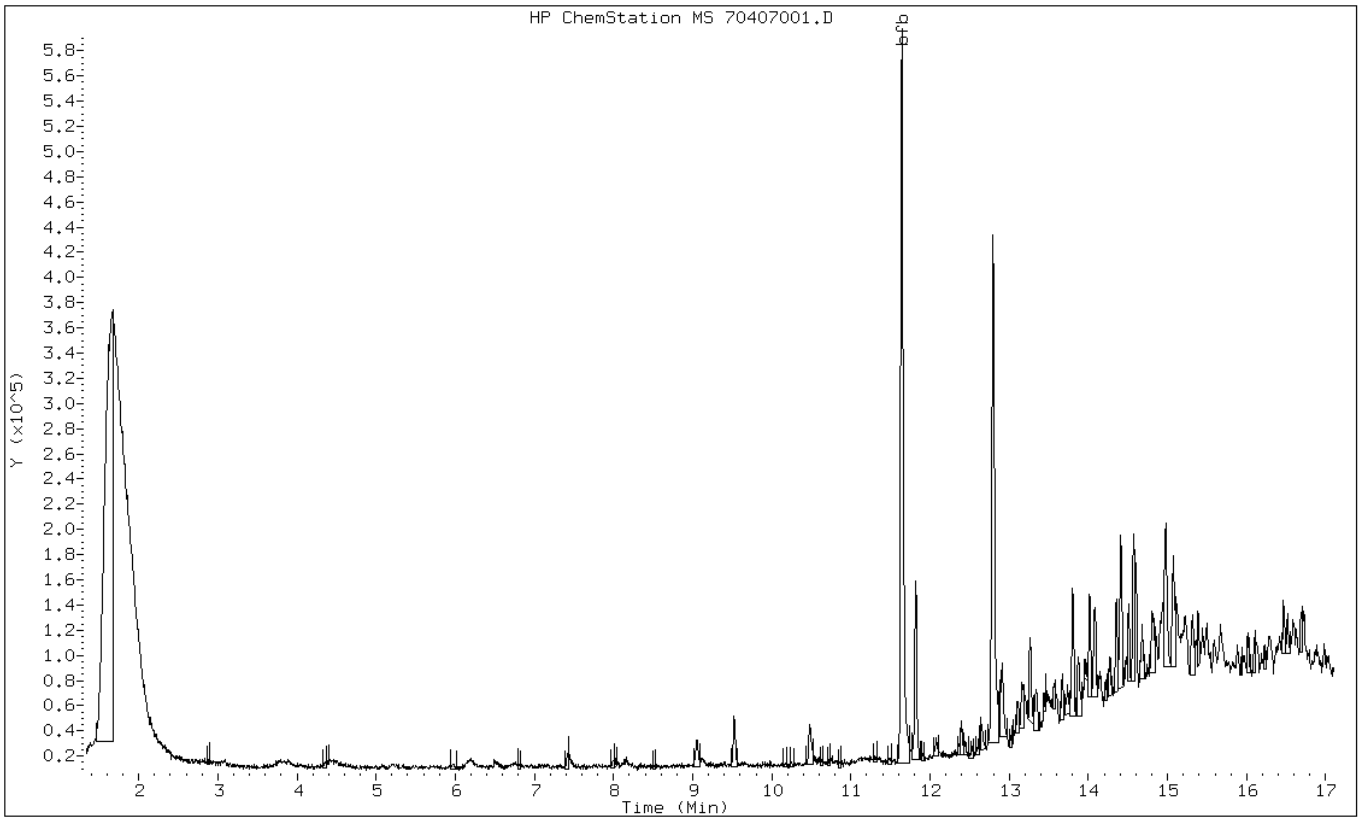
Date: 06-APR-2014 22:48

Client ID: 31019D

Instrument: hp7.i

Sample Info: BFB

Operator: 430936



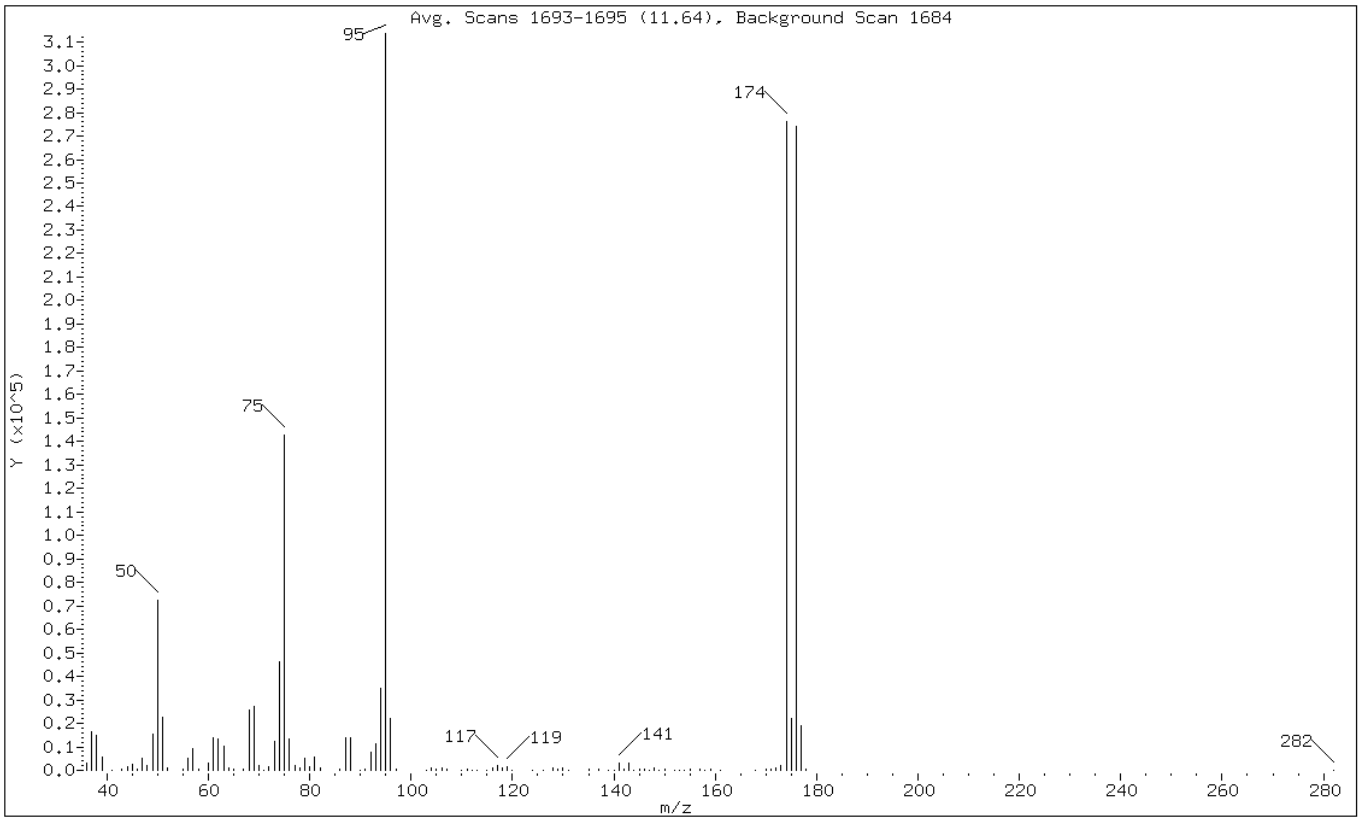
Data File: 70407001.D

Date: 06-APR-2014 22:48

Client ID: 31019D Instrument: hp7.i

Sample Info: BFB Operator: 430936

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	23.02
75	30.00 - 60.00% of mass 95	45.54
96	5.00 - 9.00% of mass 95	7.11
173	Less than 2.00% of mass 174	0.59 (0.67)
174	50.00 - 100.00% of mass 95	88.04
175	5.00 - 9.00% of mass 174	6.96 (7.91)
176	95.00 - 101.00% of mass 174	87.35 (99.21)
177	5.00 - 9.00% of mass 176	5.98 (6.85)

Data File: 70407001.D

Date: 06-APR-2014 22:48

Client ID: 31019D Instrument: hp7.i

Sample Info: BFB Operator: 430936

Data File: \\pitsvr06\d\chem\hp7.i\7040714d.b\70407001.D
Spectrum: Avg. Scans 1693-1695 (11.64), Background Scan 1684
Location of Maximum: 95.00
Number of points: 106

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	3114	69.00	27432	105.00	365	145.00	427
37.00	16354	70.00	1928	106.00	1226	146.00	457
38.00	15113	71.00	99	107.00	270	147.00	212
39.00	5497	72.00	1568	110.00	69	148.00	839
41.00	82	73.00	12303	111.00	263	149.00	104
43.00	429	74.00	46096	112.00	97	150.00	292
44.00	1616	75.00	142848	113.00	197	152.00	161
45.00	2752	76.00	13191	115.00	199	153.00	97
46.00	290	77.00	1859	116.00	929	154.00	80
47.00	4956	78.00	1111	117.00	1994	155.00	740
48.00	2148	79.00	5278	118.00	954	157.00	473
49.00	15441	80.00	1573	119.00	1481	158.00	67
50.00	72216	81.00	5827	120.00	67	159.00	651
51.00	22432	82.00	1176	124.00	82	161.00	185
52.00	800	86.00	397	126.00	82	168.00	78
55.00	756	87.00	13912	128.00	1144	170.00	271
56.00	5295	88.00	13969	129.00	342	171.00	362
57.00	9053	90.00	83	130.00	814	172.00	1152
58.00	356	91.00	718	131.00	225	173.00	1851
60.00	2961	92.00	7767	135.00	550	174.00	276160
61.00	14080	93.00	11183	137.00	570	175.00	21840
62.00	13491	94.00	34896	139.00	109	176.00	273984
63.00	10523	95.00	313664	140.00	102	177.00	18768
64.00	1116	96.00	22296	141.00	3138	178.00	460
65.00	369	97.00	700	142.00	385	282.00	68
67.00	582	103.00	91	143.00	3121		
68.00	25528	104.00	1184	144.00	151		

TestAmerica Pittsburgh

Data file : \\pitsvr06\d\chem\hp7.i\7040814d.b\70408001.D
Lab Smp Id: BFB Client Smp ID: 31019D
Inj Date : 08-APR-2014 07:42 MS Autotune Date: 29-AUG-2013 09:08
Operator : 430936 Inst ID: hp7.i
Smp Info : BFB
Misc Info : 7040814d.b,TBFB.m,all.sub
Comment :
Method : \\pitsvr06\d\chem\hp7.i\7040814d.b\TBFB.m
Meth Date : 02-Jul-2013 09:22 Quant Type: ESTD
Cal Date : Cal File:
Als bottle: 1 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: WATER
Processing Host: PITPC-530

Concentration Formula: Amt * DF * Uf * Vf * Vi * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
Vi	1.000	Injection Volume
Cpnd Variable		Local Compound Variable

					CONCENTRATIONS ON-COL	FINAL		
RT	EXP RT	DLT RT	MASS	RESPONSE	(ng)	(ug/L)	TARGET RANGE	RATIO
1 bfb							CAS #: 460-00-4	
11.636	11.610	0.026	95	535744			100.00- 100.00	100.00(a)
11.636	11.610	0.026	50	126152			15.00- 40.00	23.55
11.636	11.610	0.026	75	249152			30.00- 60.00	46.51
11.636	11.610	0.026	96	41376			5.00- 9.00	7.72
11.636	11.610	0.026	173	3427			0.00- 2.00	0.74
11.636	11.610	0.026	174	463040			50.00- 100.00	86.43
11.636	11.610	0.026	175	39560			5.00- 9.00	8.54
11.636	11.610	0.026	176	462720			95.00- 101.00	99.93
11.636	11.610	0.026	177	35328			5.00- 9.00	7.63

QC Flag Legend

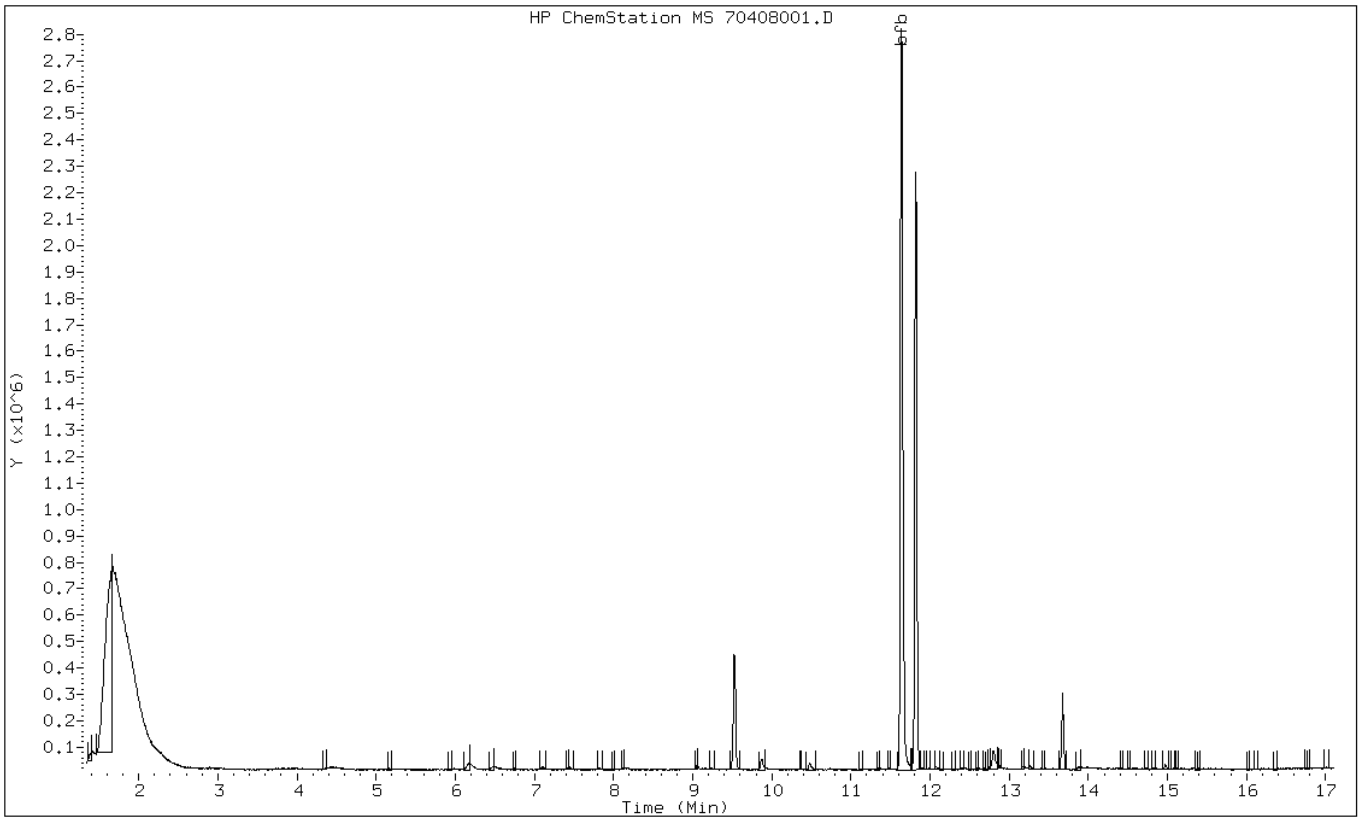
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).

Data File: 70408001.D

Date: 08-APR-2014 07:42

Client ID: 31019D Instrument: hp7.i

Sample Info: BFB Operator: 430936



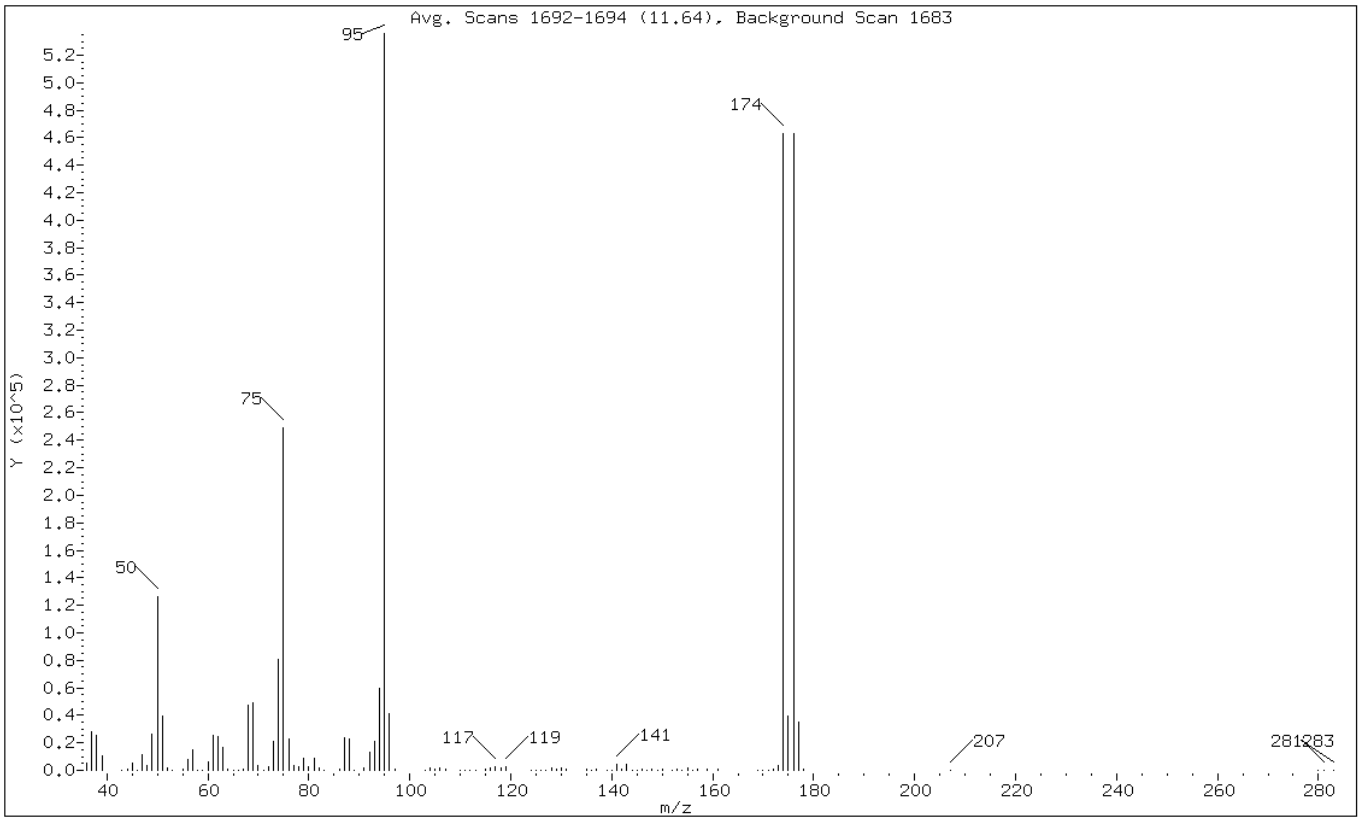
Data File: 70408001.D

Date: 08-APR-2014 07:42

Client ID: 31019D Instrument: hp7.i

Sample Info: BFB Operator: 430936

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	23.55
75	30.00 - 60.00% of mass 95	46.51
96	5.00 - 9.00% of mass 95	7.72
173	Less than 2.00% of mass 174	0.64 (0.74)
174	50.00 - 100.00% of mass 95	86.43
175	5.00 - 9.00% of mass 174	7.38 (8.54)
176	95.00 - 101.00% of mass 174	86.37 (99.93)
177	5.00 - 9.00% of mass 176	6.59 (7.63)

Data File: 70408001.D

Date: 08-APR-2014 07:42

Client ID: 31019D Instrument: hp7.i

Sample Info: BFB Operator: 430936

Data File: \\pitsvr06\d\chem\hp7.i\7040814d.b\70408001.D
Spectrum: Avg. Scans 1692-1694 (11.64), Background Scan 1683
Location of Maximum: 95.00
Number of points: 114

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	5652	69.00	49120	106.00	1699	146.00	846
37.00	27952	70.00	3541	107.00	492	147.00	385
38.00	25240	71.00	223	110.00	326	148.00	1264
39.00	10412	72.00	2446	111.00	237	149.00	350
43.00	381	73.00	20704	112.00	107	150.00	464
44.00	1270	74.00	81032	113.00	333	152.00	269
45.00	5592	75.00	249152	115.00	459	153.00	551
46.00	345	76.00	23184	116.00	1404	154.00	404
47.00	11028	77.00	3069	117.00	2937	155.00	1344
48.00	3360	78.00	2267	118.00	1372	156.00	323
49.00	26696	79.00	9064	119.00	2292	157.00	649
50.00	126152	80.00	2380	124.00	347	159.00	696
51.00	39600	81.00	8336	125.00	164	161.00	589
52.00	1533	82.00	2061	126.00	92	169.00	137
53.00	74	83.00	95	127.00	93	170.00	205
55.00	1217	86.00	545	128.00	1663	171.00	344
56.00	7836	87.00	23784	129.00	811	172.00	916
57.00	15308	88.00	22472	130.00	1765	173.00	3427
58.00	434	89.00	67	131.00	642	174.00	463040
59.00	75	91.00	1444	135.00	784	175.00	39560
60.00	5815	92.00	13145	136.00	82	176.00	462720
61.00	25368	93.00	20936	137.00	698	177.00	35328
62.00	24920	94.00	59680	139.00	177	178.00	1060
63.00	16624	95.00	535744	140.00	174	207.00	12
64.00	1279	96.00	41376	141.00	4556	280.00	66
65.00	204	97.00	1209	142.00	628	281.00	70
66.00	114	103.00	279	143.00	4422	283.00	69
67.00	1182	104.00	1903	144.00	309		
68.00	47480	105.00	710	145.00	391		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-31007-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 180-101826/3

Matrix: Water | Lab File ID: 70407005.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2014 01:11

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 101826 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	5.0	U	5.0	0.99
108-88-3	Toluene	5.0	U	5.0	0.85
100-41-4	Ethylbenzene	5.0	U	5.0	0.62
1330-20-7	Xylenes, Total	10	U	10	2.0
98-82-8	Isopropylbenzene	5.0	U	5.0	0.53
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	1.0
95-63-6	1,2,4-Trimethylbenzene	5.0	U	5.0	0.52
108-67-8	1,3,5-Trimethylbenzene	5.0	U	5.0	0.59
91-20-3	Naphthalene	5.0	U	5.0	0.47

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	88		62-123
2037-26-5	Toluene-d8 (Surr)	84		80-120
460-00-4	4-Bromofluorobenzene (Surr)	100		75-120
1868-53-7	Dibromofluoromethane (Surr)	116		80-120

TestAmerica Pittsburgh

VOLATILE REPORT SW-846 Method

Data file : \\pitsvr06\d\chem\hp7.i\7040714d.b\70407005.D
Lab Smp Id: MB
Inj Date : 07-APR-2014 01:11 MS Autotune Date: 29-AUG-2013 09:08
Operator : 430936 Inst ID: hp7.i
Smp Info : MB
Misc Info : 7040714d.b,T8260bh2o.m,list1.sub
Comment :
Method : \\pitsvr06\d\chem\hp7.i\7040714d.b\T8260bh2o.m
Meth Date : 07-Apr-2014 02:09 hp7.i Quant Type: ISTD
Cal Date : 14-MAR-2014 09:40 Cal File: 7031404.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: list1.sub
Target Version: 4.14
Processing Host: PITPC-530

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

							CONCENTRATIONS	
		QUANT SIG					ON-COLUMN	FINAL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)
*	46 Fluorobenzene (IS)	96	7.414	7.397	(1.000)	2378073	250.000	
*	69 Chlorobenzene-d5	119	10.468	10.463	(1.000)	605064	250.000	
*	92 1,4-Dichlorobenzene-d4	152	12.786	12.787	(1.000)	842472	250.000	
*	176 Dioxane-d8 (IS)	96	8.138	8.139	(1.000)	77410	5000.00	
*	177 TBA-d9 (IS)	65	4.591	4.842	(1.000)	777214	5000.00	(H)
$	39 Dibromofluoromethane (Surr)	113	6.684	6.673	(0.902)	726816	290.639	290.6
$	43 1,2-Dichloroethane-d4	65	7.055	7.032	(0.952)	632512	219.601	219.6
$	59 Toluene-d8	98	9.038	9.033	(0.863)	1988068	211.129	211.1
$	80 Bromofluorobenzene (Surr)	95	11.636	11.631	(1.112)	849089	248.780	248.8
	1 Dichlorodifluoromethane	85	Compound Not Detected.					
	2 Chloromethane	50	Compound Not Detected.					
	3 Vinyl Chloride	62	Compound Not Detected.					
	4 Bromomethane	94	Compound Not Detected.					
	5 Chloroethane	64	Compound Not Detected.					
	7 Dichlorofluoromethane	67	Compound Not Detected.					
	10 1,1,2-trichloro-1,2,2-trifluor	101	Compound Not Detected.					
	166 Trichlorofluoromethane	101	Compound Not Detected.					
	12 1,1-Dichloroethene	96	Compound Not Detected.					
	15 Carbon Disulfide	76	Compound Not Detected.					
	13 Acetone	43	Compound Not Detected.					
	18 Methylene Chloride	84	Compound Not Detected.					
	19 trans-1,2-Dichloroethene	96	Compound Not Detected.					
	20 Methyl tert-butyl ether	73	Compound Not Detected.					
	24 1,1-Dichloroethane	63	Compound Not Detected.					
	27 2,2-Dichloropropane	77	Compound Not Detected.					
	28 cis-1,2-dichloroethene	96	Compound Not Detected.					
M	29 1,2-Dichloroethene (total)	96	Compound Not Detected.					
	30 Bromochloromethane	128	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ng)
31 2-Butanone	43	Compound Not Detected.					
37 Chloroform	83	Compound Not Detected.					
38 1,1,1-Trichloroethane	97	Compound Not Detected.					
40 1,1-Dichloropropene	75	Compound Not Detected.					
41 Carbon Tetrachloride	117	Compound Not Detected.					
42 Benzene	78	Compound Not Detected.					
45 1,2-Dichloroethane	62	Compound Not Detected.					
47 Trichloroethene	130	Compound Not Detected.					
49 1,2-Dichloropropane	63	Compound Not Detected.					
50 Dibromomethane	93	Compound Not Detected.					
53 Bromodichloromethane	83	Compound Not Detected.					
57 cis-1,3-Dichloropropene	75	Compound Not Detected.					
58 4-Methyl-2-Pentanone	43	Compound Not Detected.					
60 Toluene	91	Compound Not Detected.					
61 trans-1,3-Dichloropropene	75	Compound Not Detected.					
63 1,3-Dichloropropane	76	Compound Not Detected.					
64 1,1,2-Trichloroethane	97	Compound Not Detected.					
65 Tetrachloroethene	164	Compound Not Detected.					
66 2-Hexanone	43	Compound Not Detected.					
67 Dibromochloromethane	129	Compound Not Detected.					
68 1,2-Dibromoethane	107	Compound Not Detected.					
70 Chlorobenzene	112	Compound Not Detected.					
71 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.					
72 Ethylbenzene	106	Compound Not Detected.					
73 m,p-XYLENE	106	Compound Not Detected.					
74 Xylene-o	106	Compound Not Detected.					
76 Styrene	104	Compound Not Detected.					
77 Bromoform	173	Compound Not Detected.					
78 Isopropylbenzene	105	Compound Not Detected.					
79 Bromobenzene	156	Compound Not Detected.					
81 n-Propylbenzene	120	Compound Not Detected.					
82 2-Chlorotoluene	126	Compound Not Detected.					
83 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					
84 1,2,3-Trichloropropane	110	Compound Not Detected.					
85 4-Chlorotoluene	126	Compound Not Detected.					
86 1,3,5-Trimethylbenzene	105	Compound Not Detected.					
87 tert-Butylbenzene	119	Compound Not Detected.					
88 1,2,4-Trimethylbenzene	105	Compound Not Detected.					
89 sec-Butylbenzene	105	Compound Not Detected.					
90 4-Isopropyltoluene	119	Compound Not Detected.					
91 1,3-Dichlorobenzene	146	Compound Not Detected.					
94 n-Butylbenzene	91	Compound Not Detected.					
93 1,4-Dichlorobenzene	146	Compound Not Detected.					
95 1,2-Dichlorobenzene	146	Compound Not Detected.					
96 1,2-Dibromo-3-chloropropane	157	Compound Not Detected.					
97 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
98 Hexachlorobutadiene	225	Compound Not Detected.					
99 Naphthalene	128	Compound Not Detected.					
100 1,2,3-Trichlorobenzene	180	Compound Not Detected.					
156 Methyl Acetate	43	Compound Not Detected.					
157 Cyclohexane	56	Compound Not Detected.					
158 Methyl Cyclohexane	83	Compound Not Detected.					
32 Vinyl Acetate	43	Compound Not Detected.					
52 1,4-Dioxane	88	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ng)
21	tert-Butyl Alcohol	59	Compound Not Detected.					
16	3-Chloro-1-propene	76	Compound Not Detected.					
11	Acrolein	56	Compound Not Detected.					
22	Acrylonitrile	53	Compound Not Detected.					
8	Ethyl Ether	59	Compound Not Detected.					
62	Ethyl methacrylate	69	Compound Not Detected.					
23	Hexane	57	Compound Not Detected.					
14	Iodomethane	142	Compound Not Detected.					
44	Isobutanol	41	Compound Not Detected.					
155	N-Heptane	41	Compound Not Detected.					
35	Tetrahydrofuran	42	Compound Not Detected.					
164	trans-1,4-Dichloro-2-butene	53	Compound Not Detected.					
169	Butadiene	39	Compound Not Detected.					
M 75	Xylenes (total)	106	Compound Not Detected.					

QC Flag Legend

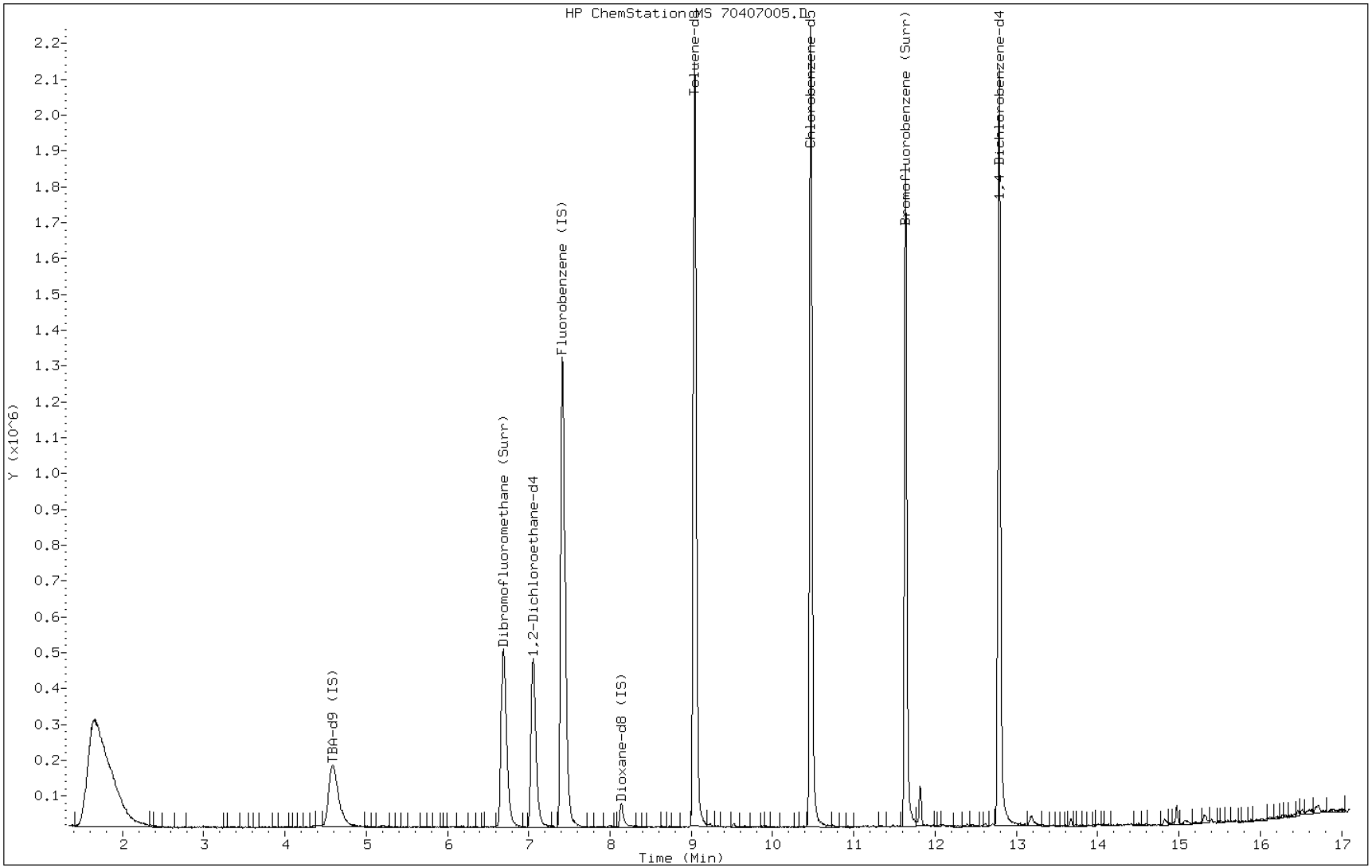
H - Operator selected an alternate compound hit.

Data File: 70407005.D

Date: 07-APR-2014 01:11

Client ID: Instrument: hp7.i

Sample Info: MB Operator: 430936



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-31007-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 180-102001/3

Matrix: Water | Lab File ID: 70408006.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/08/2014 10:44

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.: 102001 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	5.0	U	5.0	0.99
108-88-3	Toluene	5.0	U	5.0	0.85
100-41-4	Ethylbenzene	5.0	U	5.0	0.62
1330-20-7	Xylenes, Total	10	U	10	2.0
98-82-8	Isopropylbenzene	5.0	U	5.0	0.53
1634-04-4	Methyl tert-butyl ether	5.0	U	5.0	1.0
95-63-6	1,2,4-Trimethylbenzene	5.0	U	5.0	0.52
108-67-8	1,3,5-Trimethylbenzene	5.0	U	5.0	0.59
91-20-3	Naphthalene	5.0	U	5.0	0.47

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	89		62-123
2037-26-5	Toluene-d8 (Surr)	84		80-120
460-00-4	4-Bromofluorobenzene (Surr)	98		75-120
1868-53-7	Dibromofluoromethane (Surr)	117		80-120

TestAmerica Pittsburgh

VOLATILE REPORT SW-846 Method

Data file : \\pitsvr06\d\chem\hp7.i\7040814d.b\70408006.D
Lab Smp Id: MB
Inj Date : 08-APR-2014 10:44 MS Autotune Date: 29-AUG-2013 09:08
Operator : 430936 Inst ID: hp7.i
Smp Info : MB
Misc Info : 7040814d.b,T8260bh2o.m,list1.sub
Comment :
Method : \\pitsvr06\d\chem\hp7.i\7040814d.b\T8260bh2o.m
Meth Date : 08-Apr-2014 09:59 hp7.i Quant Type: ISTD
Cal Date : 14-MAR-2014 09:40 Cal File: 7031404.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: list1.sub
Target Version: 4.14
Processing Host: PITPC-530

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

		QUANT SIG					CONCENTRATIONS	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng)	FINAL (ng)
*	46 Fluorobenzene (IS)	96	7.420	7.401	(1.000)	2167870	250.000	
*	69 Chlorobenzene-d5	119	10.468	10.467	(1.000)	552970	250.000	
*	92 1,4-Dichlorobenzene-d4	152	12.786	12.791	(1.000)	798713	250.000	
*	176 Dioxane-d8 (IS)	96	8.138	8.137	(1.000)	63051	5000.00	
*	177 TBA-d9 (IS)	65	4.598	4.804	(1.000)	768685	5000.00	(H)
$	39 Dibromofluoromethane (Surr)	113	6.690	6.677	(0.902)	663981	291.258	291.2
$	43 1,2-Dichloroethane-d4	65	7.055	7.042	(0.951)	587108	223.602	223.6
$	59 Toluene-d8	98	9.039	9.032	(0.863)	1800606	209.236	209.2
$	80 Bromofluorobenzene (Surr)	95	11.630	11.635	(1.111)	764819	245.200	245.2
	1 Dichlorodifluoromethane	85	Compound Not Detected.					
	2 Chloromethane	50	Compound Not Detected.					
	3 Vinyl Chloride	62	Compound Not Detected.					
	4 Bromomethane	94	Compound Not Detected.					
	5 Chloroethane	64	Compound Not Detected.					
	7 Dichlorofluoromethane	67	Compound Not Detected.					
	10 1,1,2-trichloro-1,2,2-trifluor	101	Compound Not Detected.					
	166 Trichlorofluoromethane	101	Compound Not Detected.					
	12 1,1-Dichloroethene	96	Compound Not Detected.					
	15 Carbon Disulfide	76	Compound Not Detected.					
	13 Acetone	43	Compound Not Detected.					
	18 Methylene Chloride	84	Compound Not Detected.					
	19 trans-1,2-Dichloroethene	96	Compound Not Detected.					
	20 Methyl tert-butyl ether	73	Compound Not Detected.					
	24 1,1-Dichloroethane	63	Compound Not Detected.					
	27 2,2-Dichloropropane	77	Compound Not Detected.					
	28 cis-1,2-dichloroethene	96	Compound Not Detected.					
M	29 1,2-Dichloroethene (total)	96	Compound Not Detected.					
	30 Bromochloromethane	128	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ng)
31 2-Butanone	43	Compound Not Detected.					
37 Chloroform	83	Compound Not Detected.					
38 1,1,1-Trichloroethane	97	Compound Not Detected.					
40 1,1-Dichloropropene	75	Compound Not Detected.					
41 Carbon Tetrachloride	117	Compound Not Detected.					
42 Benzene	78	Compound Not Detected.					
45 1,2-Dichloroethane	62	Compound Not Detected.					
47 Trichloroethene	130	Compound Not Detected.					
49 1,2-Dichloropropane	63	Compound Not Detected.					
50 Dibromomethane	93	Compound Not Detected.					
53 Bromodichloromethane	83	Compound Not Detected.					
57 cis-1,3-Dichloropropene	75	Compound Not Detected.					
58 4-Methyl-2-Pentanone	43	Compound Not Detected.					
60 Toluene	91	Compound Not Detected.					
61 trans-1,3-Dichloropropene	75	Compound Not Detected.					
63 1,3-Dichloropropane	76	Compound Not Detected.					
64 1,1,2-Trichloroethane	97	Compound Not Detected.					
65 Tetrachloroethene	164	Compound Not Detected.					
66 2-Hexanone	43	Compound Not Detected.					
67 Dibromochloromethane	129	Compound Not Detected.					
68 1,2-Dibromoethane	107	Compound Not Detected.					
70 Chlorobenzene	112	Compound Not Detected.					
71 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.					
72 Ethylbenzene	106	Compound Not Detected.					
73 m,p-XYLENE	106	Compound Not Detected.					
74 Xylene-o	106	Compound Not Detected.					
76 Styrene	104	Compound Not Detected.					
77 Bromoform	173	Compound Not Detected.					
78 Isopropylbenzene	105	Compound Not Detected.					
79 Bromobenzene	156	Compound Not Detected.					
81 n-Propylbenzene	120	Compound Not Detected.					
82 2-Chlorotoluene	126	Compound Not Detected.					
83 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					
84 1,2,3-Trichloropropane	110	Compound Not Detected.					
85 4-Chlorotoluene	126	Compound Not Detected.					
86 1,3,5-Trimethylbenzene	105	Compound Not Detected.					
87 tert-Butylbenzene	119	Compound Not Detected.					
88 1,2,4-Trimethylbenzene	105	Compound Not Detected.					
89 sec-Butylbenzene	105	Compound Not Detected.					
90 4-Isopropyltoluene	119	Compound Not Detected.					
91 1,3-Dichlorobenzene	146	Compound Not Detected.					
94 n-Butylbenzene	91	Compound Not Detected.					
93 1,4-Dichlorobenzene	146	Compound Not Detected.					
95 1,2-Dichlorobenzene	146	Compound Not Detected.					
96 1,2-Dibromo-3-chloropropane	157	Compound Not Detected.					
97 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
98 Hexachlorobutadiene	225	Compound Not Detected.					
99 Naphthalene	128	Compound Not Detected.					
100 1,2,3-Trichlorobenzene	180	Compound Not Detected.					
156 Methyl Acetate	43	Compound Not Detected.					
157 Cyclohexane	56	Compound Not Detected.					
158 Methyl Cyclohexane	83	Compound Not Detected.					
32 Vinyl Acetate	43	Compound Not Detected.					
52 1,4-Dioxane	88	Compound Not Detected.					

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ng)
21	tert-Butyl Alcohol	59	Compound Not Detected.					
16	3-Chloro-1-propene	76	Compound Not Detected.					
11	Acrolein	56	Compound Not Detected.					
22	Acrylonitrile	53	Compound Not Detected.					
8	Ethyl Ether	59	Compound Not Detected.					
62	Ethyl methacrylate	69	Compound Not Detected.					
23	Hexane	57	Compound Not Detected.					
14	Iodomethane	142	Compound Not Detected.					
44	Isobutanol	41	Compound Not Detected.					
155	N-Heptane	41	Compound Not Detected.					
35	Tetrahydrofuran	42	Compound Not Detected.					
164	trans-1,4-Dichloro-2-butene	53	Compound Not Detected.					
169	Butadiene	39	Compound Not Detected.					
M 75	Xylenes (total)	106	Compound Not Detected.					

QC Flag Legend

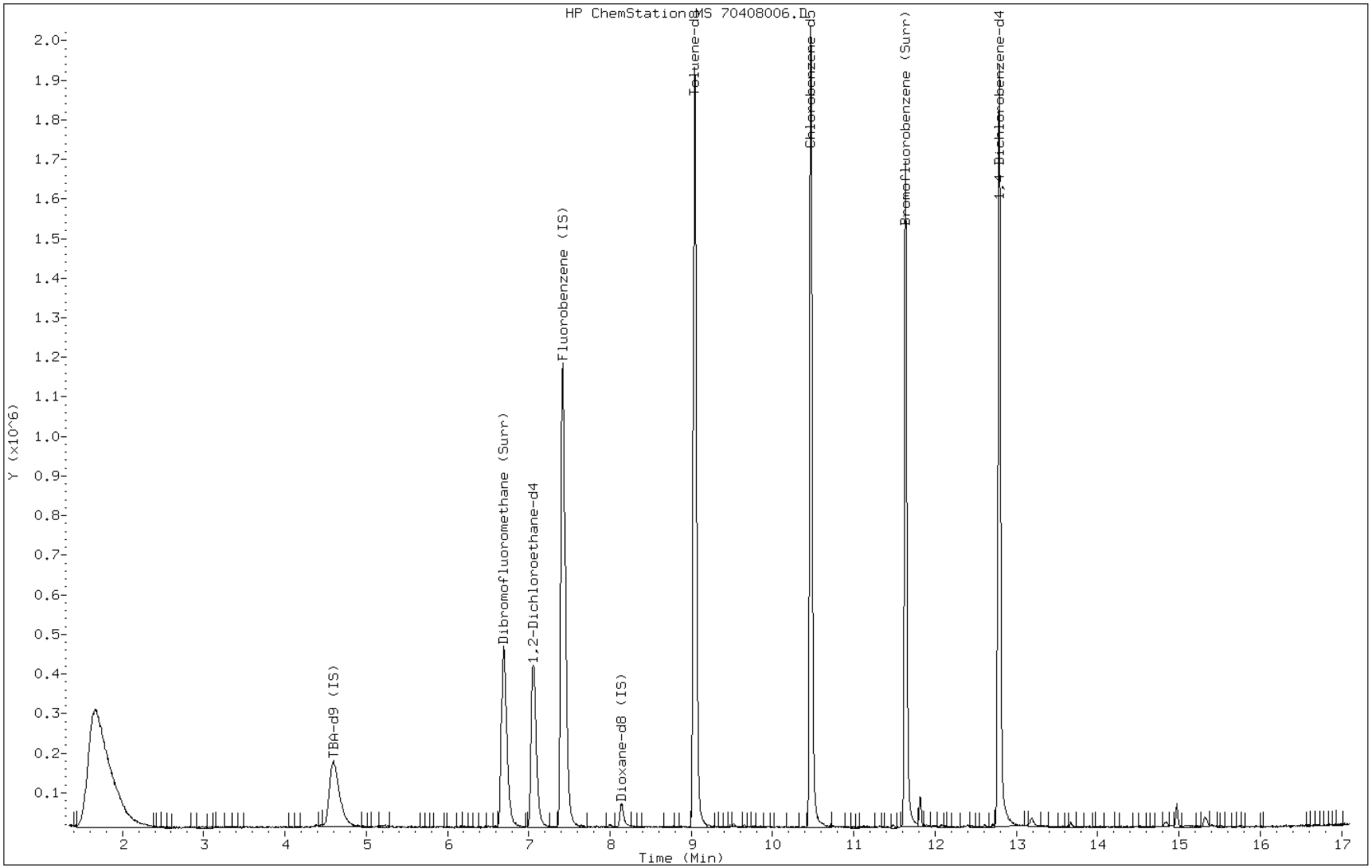
H - Operator selected an alternate compound hit.

Data File: 70408006.D

Date: 08-APR-2014 10:44

Client ID: Instrument: hp7.i

Sample Info: MB Operator: 430936



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-31007-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-101826/6

Matrix: Water | Lab File ID: 70407009.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2014 02:57

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 101826 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	39.7		5.0	0.99
108-88-3	Toluene	34.1		5.0	0.85
100-41-4	Ethylbenzene	39.6		5.0	0.62
1330-20-7	Xylenes, Total	78.2		10	2.0
98-82-8	Isopropylbenzene	36.0		5.0	0.53
1634-04-4	Methyl tert-butyl ether	38.9		5.0	1.0
95-63-6	1,2,4-Trimethylbenzene	36.3		5.0	0.52
108-67-8	1,3,5-Trimethylbenzene	36.4		5.0	0.59
91-20-3	Naphthalene	27.0		5.0	0.47

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	84		62-123
2037-26-5	Toluene-d8 (Surr)	82		80-120
460-00-4	4-Bromofluorobenzene (Surr)	97		75-120
1868-53-7	Dibromofluoromethane (Surr)	101		80-120

TestAmerica Pittsburgh

VOLATILE REPORT SW-846 Method

Data file : \\pitsvr06\d\chem\hp7.i\7040714d.b\70407009.D
Lab Smp Id: LCS
Inj Date : 07-APR-2014 02:57 MS Autotune Date: 29-AUG-2013 09:08
Operator : 430936 Inst ID: hp7.i
Smp Info : LCS
Misc Info : 7040714d.b,T8260bh2o.m,list1.sub
Comment :
Method : \\pitsvr06\d\chem\hp7.i\7040714d.b\T8260bh2o.m
Meth Date : 07-Apr-2014 02:09 hp7.i Quant Type: ISTD
Cal Date : 14-MAR-2014 09:40 Cal File: 7031404.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: list1.sub
Target Version: 4.14
Processing Host: PITPC-530

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

		QUANT SIG					CONCENTRATIONS ON-COLUMN	FINAL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)
*	46 Fluorobenzene (IS)	96	7.396	7.397	(1.000)	2213189	250.000	
*	69 Chlorobenzene-d5	119	10.462	10.463	(1.000)	583271	250.000	
*	92 1,4-Dichlorobenzene-d4	152	12.786	12.787	(1.000)	747001	250.000	
*	176 Dioxane-d8 (IS)	96	8.138	8.139	(1.000)	68218	5000.00	
*	177 TBA-d9 (IS)	65	4.804	4.842	(1.000)	681052	5000.00	
$	39 Dibromofluoromethane (Surr)	113	6.672	6.673	(0.902)	586064	251.815	251.8
$	43 1,2-Dichloroethane-d4	65	7.037	7.032	(0.951)	561282	209.388	209.4
$	59 Toluene-d8	98	9.032	9.033	(0.863)	1851820	204.008	204.0
$	80 Bromofluorobenzene (Surr)	95	11.630	11.631	(1.112)	797551	242.411	242.4
	1 Dichlorodifluoromethane	85	1.927	1.934	(0.261)	849549	282.083	282.1
	2 Chloromethane	50	2.024	2.031	(0.274)	1670857	255.681	255.7
	3 Vinyl Chloride	62	2.194	2.196	(0.297)	812420	203.977	204.0
	4 Bromomethane	94	2.492	2.518	(0.337)	177789	172.234	172.2
	5 Chloroethane	64	2.596	2.591	(0.351)	145338	161.372	161.4
	7 Dichlorofluoromethane	67	2.888	2.871	(0.391)	327456	156.437	156.4(M)
	10 1,1,2-trichloro-1,2,2-trifluor	101	3.624	3.649	(0.490)	584348	217.755	217.8
	166 Trichlorofluoromethane	101	2.937	2.926	(0.397)	296756	143.755	143.8(M)
	12 1,1-Dichloroethene	96	3.527	3.522	(0.477)	552962	212.653	212.6
	15 Carbon Disulfide	76	3.831	3.795	(0.518)	1815357	222.272	222.3(M)
	13 Acetone	43	3.825	3.850	(0.517)	93472	162.732	162.7(M)
	18 Methylene Chloride	84	4.354	4.337	(0.589)	657248	205.791	205.8
	19 trans-1,2-Dichloroethene	96	4.737	4.744	(0.641)	688671	232.916	232.9
	20 Methyl tert-butyl ether	73	4.865	4.872	(0.658)	1138163	194.307	194.3
	24 1,1-Dichloroethane	63	5.352	5.347	(0.724)	1298698	225.873	225.9
	27 2,2-Dichloropropane	77	6.082	6.083	(0.822)	842720	237.385	237.4
	28 cis-1,2-dichloroethene	96	6.094	6.095	(0.824)	704425	229.840	229.8
M	29 1,2-Dichloroethene (total)	96				1393096	462.756	462.8
	30 Bromochloromethane	128	6.374	6.369	(0.862)	291384	220.180	220.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ng)
31 2-Butanone	43	6.185	6.198	(0.836)	138691	186.486	186.5
37 Chloroform	83	6.489	6.490	(0.877)	977599	221.019	221.0
38 1,1,1-Trichloroethane	97	6.672	6.673	(0.902)	854519	225.991	226.0
40 1,1-Dichloropropene	75	6.860	6.862	(0.928)	668847	214.329	214.3
41 Carbon Tetrachloride	117	6.854	6.849	(0.927)	696603	226.725	226.7
42 Benzene	78	7.092	7.087	(0.959)	1967193	198.726	198.7
45 1,2-Dichloroethane	62	7.128	7.123	(0.964)	494349	153.508	153.5
47 Trichloroethene	130	7.791	7.792	(1.053)	583349	224.103	224.1
49 1,2-Dichloropropane	63	8.028	8.030	(1.086)	508131	193.164	193.2
50 Dibromomethane	93	8.144	8.145	(1.101)	240158	190.009	190.0
53 Bromodichloromethane	83	8.314	8.315	(1.124)	623406	201.949	201.9
57 cis-1,3-Dichloropropene	75	8.764	8.766	(1.185)	736536	205.036	205.0
58 4-Methyl-2-Pentanone	43	8.935	8.942	(0.854)	336708	171.372	171.4(Q)
60 Toluene	91	9.099	9.100	(0.870)	1724230	170.330	170.3
61 trans-1,3-Dichloropropene	75	9.324	9.325	(0.891)	530082	189.333	189.3
63 1,3-Dichloropropane	76	9.671	9.672	(0.924)	508900	184.361	184.4
64 1,1,2-Trichloroethane	97	9.507	9.508	(0.909)	324811	193.864	193.9
65 Tetrachloroethene	164	9.647	9.642	(0.922)	451974	210.230	210.2
66 2-Hexanone	43	9.762	9.769	(0.933)	211448	169.449	169.4
67 Dibromochloromethane	129	9.896	9.897	(0.946)	405722	201.547	201.5
68 1,2-Dibromoethane	107	10.006	10.007	(0.956)	351361	193.846	193.8
70 Chlorobenzene	112	10.498	10.493	(1.003)	1164770	192.383	192.4
71 1,1,1,2-Tetrachloroethane	131	10.571	10.572	(1.010)	481701	207.845	207.8
72 Ethylbenzene	106	10.602	10.603	(1.013)	692292	197.838	197.8
73 m,p-XYLENE	106	10.717	10.718	(1.024)	904233	203.470	203.5
74 Xylene-o	106	11.113	11.108	(1.062)	899642	187.691	187.7
76 Styrene	104	11.125	11.126	(1.063)	1300896	173.179	173.2
77 Bromoform	173	11.313	11.315	(1.081)	248590	199.193	199.2
78 Isopropylbenzene	105	11.478	11.479	(1.097)	2114417	180.070	180.1
79 Bromobenzene	156	11.788	11.783	(0.922)	583390	199.198	199.2
81 n-Propylbenzene	120	11.885	11.886	(0.930)	664818	142.801	142.8
82 2-Chlorotoluene	126	11.977	11.978	(0.937)	568006	213.361	213.4
83 1,1,2,2-Tetrachloroethane	83	11.770	11.771	(1.125)	354643	218.558	218.6
84 1,2,3-Trichloropropane	110	11.818	11.820	(0.924)	97797	216.829	216.8
85 4-Chlorotoluene	126	12.086	12.087	(0.945)	528598	203.994	204.0
86 1,3,5-Trimethylbenzene	105	12.062	12.063	(0.943)	1667595	181.887	181.9
87 tert-Butylbenzene	119	12.384	12.385	(0.969)	1583970	200.549	200.5
88 1,2,4-Trimethylbenzene	105	12.433	12.434	(0.972)	1659103	181.472	181.5
89 sec-Butylbenzene	105	12.609	12.604	(0.986)	2259378	187.660	187.6
90 4-Isopropyltoluene	119	12.749	12.750	(0.997)	1725720	184.172	184.2
91 1,3-Dichlorobenzene	146	12.719	12.720	(0.995)	965756	202.790	202.8
94 n-Butylbenzene	91	13.163	13.164	(1.029)	1728456	174.375	174.4
93 1,4-Dichlorobenzene	146	12.810	12.811	(1.002)	870143	205.273	205.3
95 1,2-Dichlorobenzene	146	13.187	13.188	(1.031)	779357	215.238	215.2
96 1,2-Dibromo-3-chloropropane	157	13.972	13.973	(1.093)	45538	338.637	338.6
97 1,2,4-Trichlorobenzene	180	14.805	14.807	(1.158)	173449	170.426	170.4
98 Hexachlorobutadiene	225	14.964	14.971	(1.170)	211590	217.553	217.6
99 Naphthalene	128	15.061	15.062	(1.178)	174190	134.914	134.9
100 1,2,3-Trichlorobenzene	180	15.316	15.305	(1.198)	54302	57.6764	57.68
156 Methyl Acetate	43	4.305	4.294	(0.582)	1398810	975.848	975.8
157 Cyclohexane	56	6.727	6.734	(0.910)	1299937	228.400	228.4
158 Methyl Cyclohexane	83	7.980	7.981	(1.079)	1080766	223.033	223.0
32 Vinyl Acetate	43	5.486	5.487	(0.742)	526853	116.242	116.2
52 1,4-Dioxane	88	8.193	8.194	(1.007)	57150	3850.56	3850

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ng)
	21 tert-Butyl Alcohol	59	4.914	4.951	(1.023)	315472	1892.27	1892(Q)
	16 3-Chloro-1-propene	76	4.135	4.118	(0.559)	521036	216.911	216.9(M)
	11 Acrolein	56	3.502	3.522	(0.474)	167727	611.214	611.2(Q)
	22 Acrylonitrile	53	4.804	4.805	(0.650)	1409888	1882.97	1883
	8 Ethyl Ether	59	3.295	3.382	(0.446)	235891	109.155	109.2
	62 Ethyl methacrylate	69	9.422	9.423	(0.901)	402840	180.154	180.2
	23 Hexane	57	5.145	5.140	(0.696)	1077558	208.524	208.5
	14 Iodomethane	142	3.746	3.722	(0.506)	970928	222.474	222.5(Q)
	44 Isobutanol	41	7.402	7.397	(1.001)	436130	3997.98	3998
	155 N-Heptane	41	7.986	7.981	(1.080)	784122	197.348	197.3
	35 Tetrahydrofuran	42	6.727	6.722	(0.910)	330743	434.909	434.9
	164 trans-1,4-Dichloro-2-butene	53	11.824	11.832	(0.925)	87044	201.726	201.7
	169 Butadiene	39	2.164	2.177	(0.293)	898886	213.357	213.4
M	75 Xylenes (total)	106				1803875	391.160	391.2

QC Flag Legend

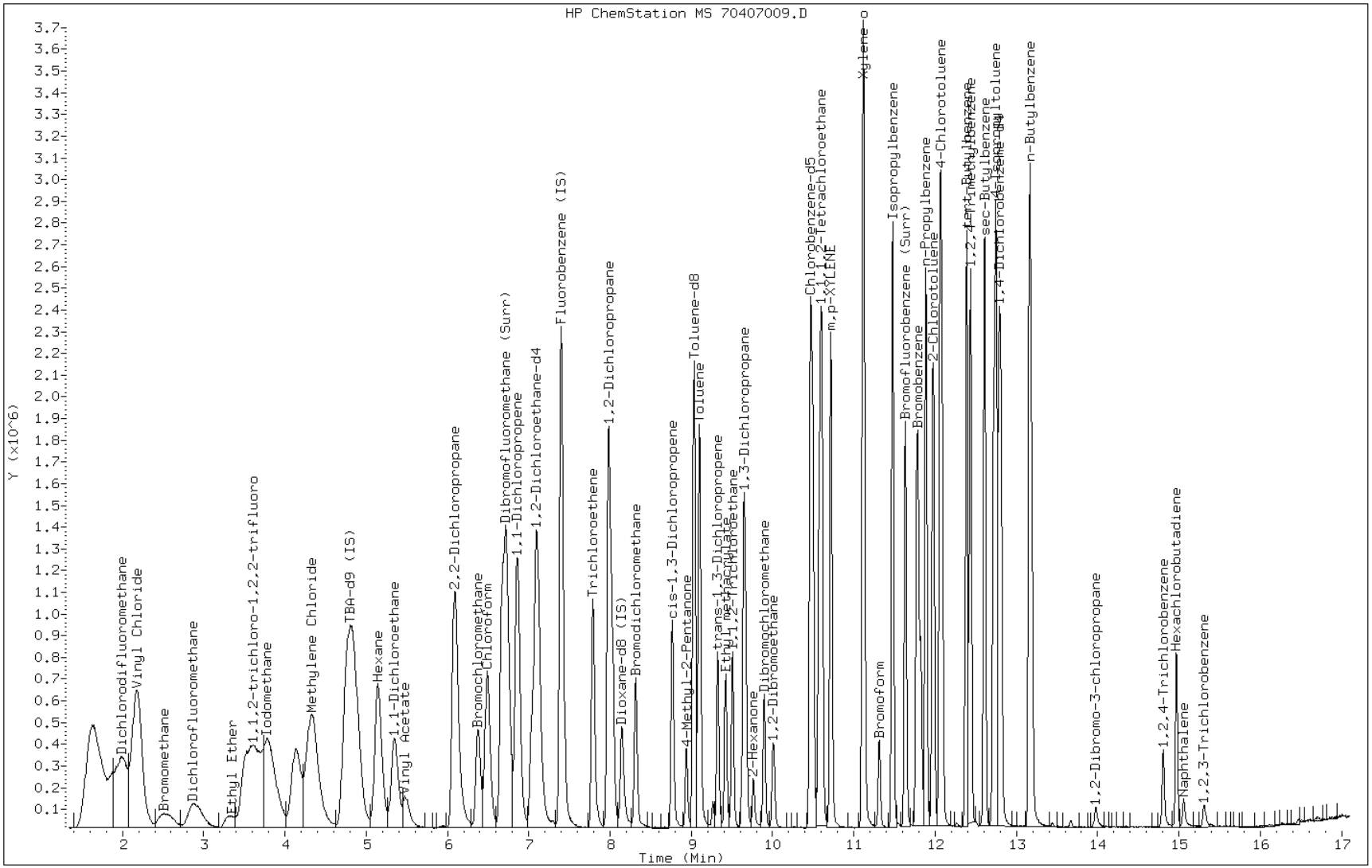
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: 70407009.D

Date: 07-APR-2014 02:57

Client ID: Instrument: hp7.i

Sample Info: LCS Operator: 430936



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-31007-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 180-102001/7

Matrix: Water | Lab File ID: 70408014.D

Analysis Method: 8260B | Date Collected:

Sample wt/vol: 5(mL) | Date Analyzed: 04/08/2014 14:49

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.: 102001 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	40.2		5.0	0.99
108-88-3	Toluene	35.3		5.0	0.85
100-41-4	Ethylbenzene	40.9		5.0	0.62
1330-20-7	Xylenes, Total	80.6		10	2.0
98-82-8	Isopropylbenzene	37.9		5.0	0.53
1634-04-4	Methyl tert-butyl ether	39.0		5.0	1.0
95-63-6	1,2,4-Trimethylbenzene	37.2		5.0	0.52
108-67-8	1,3,5-Trimethylbenzene	37.3		5.0	0.59
91-20-3	Naphthalene	19.2		5.0	0.47

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	91		62-123
2037-26-5	Toluene-d8 (Surr)	86		80-120
460-00-4	4-Bromofluorobenzene (Surr)	102		75-120
1868-53-7	Dibromofluoromethane (Surr)	107		80-120

TestAmerica Pittsburgh

VOLATILE REPORT SW-846 Method

Data file : \\pitsvr06\d\chem\hp7.i\7040814d.b\70408014.D
Lab Smp Id: LCS
Inj Date : 08-APR-2014 14:49 MS Autotune Date: 29-AUG-2013 09:08
Operator : 430936 Inst ID: hp7.i
Smp Info : LCS
Misc Info : 7040814d.b,T8260bh2o.m,list1.sub
Comment :
Method : \\pitsvr06\d\chem\hp7.i\7040814d.b\T8260bh2o.m
Meth Date : 08-Apr-2014 09:59 hp7.i Quant Type: ISTD
Cal Date : 14-MAR-2014 09:40 Cal File: 7031404.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: list1.sub
Target Version: 4.14
Processing Host: PITPC-530

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

		QUANT SIG					CONCENTRATIONS	
							ON-COLUMN	FINAL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)
*	46 Fluorobenzene (IS)	96	7.408	7.401	(1.000)	1919712	250.000	
*	69 Chlorobenzene-d5	119	10.468	10.467	(1.000)	501001	250.000	
*	92 1,4-Dichlorobenzene-d4	152	12.786	12.791	(1.000)	650696	250.000	
*	176 Dioxane-d8 (IS)	96	8.138	8.137	(1.000)	56892	5000.00	
*	177 TBA-d9 (IS)	65	4.749	4.804	(1.000)	567192	5000.00	
$	39 Dibromofluoromethane (Surr)	113	6.672	6.677	(0.901)	542299	268.632	268.6
$	43 1,2-Dichloroethane-d4	65	7.037	7.042	(0.950)	528696	227.384	227.4
$	59 Toluene-d8	98	9.032	9.032	(0.863)	1676368	215.005	215.0
$	80 Bromofluorobenzene (Surr)	95	11.630	11.635	(1.111)	719319	254.534	254.5
	1 Dichlorodifluoromethane	85	1.933	1.914	(0.261)	707461	270.815	270.8
	2 Chloromethane	50	2.042	2.036	(0.276)	1390308	245.275	245.3
	3 Vinyl Chloride	62	2.219	2.194	(0.300)	631471	182.783	182.8
	4 Bromomethane	94	2.493	2.510	(0.337)	147850	165.127	165.1
	5 Chloroethane	64	2.602	2.608	(0.351)	134530	172.207	172.2
	7 Dichlorofluoromethane	67	2.894	2.893	(0.391)	325460	179.253	179.2(M)
	10 1,1,2-trichloro-1,2,2-trifluor	101	3.679	3.672	(0.497)	513792	220.733	220.7
	166 Trichlorofluoromethane	101	3.010	2.912	(0.406)	307630	171.804	171.8
	12 1,1-Dichloroethene	96	3.551	3.538	(0.479)	445330	197.442	197.4(Q)
	15 Carbon Disulfide	76	3.849	3.818	(0.520)	1569367	221.529	221.5(M)
	13 Acetone	43	3.813	3.861	(0.515)	86627	176.691	176.7
	18 Methylene Chloride	84	4.366	4.354	(0.589)	564447	203.753	203.8
	19 trans-1,2-Dichloroethene	96	4.749	4.755	(0.641)	594368	231.753	231.8
	20 Methyl tert-butyl ether	73	4.859	4.865	(0.656)	991232	195.093	195.1
	24 1,1-Dichloroethane	63	5.352	5.345	(0.722)	1131481	226.875	226.9
	27 2,2-Dichloropropane	77	6.088	6.081	(0.822)	745528	242.112	242.1
	28 cis-1,2-dichloroethene	96	6.100	6.093	(0.823)	629575	236.821	236.8
M	29 1,2-Dichloroethene (total)	96				1223943	468.574	468.6
	30 Bromochloromethane	128	6.380	6.379	(0.861)	264223	230.179	230.2

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ng)
31 2-Butanone	43	6.185	6.197	(0.835)	129868	202.592	202.6
37 Chloroform	83	6.489	6.495	(0.876)	882011	229.892	229.9
38 1,1,1-Trichloroethane	97	6.684	6.677	(0.902)	753128	229.626	229.6
40 1,1-Dichloropropene	75	6.873	6.860	(0.928)	597596	220.773	220.8
41 Carbon Tetrachloride	117	6.867	6.860	(0.927)	638336	239.522	239.5
42 Benzene	78	7.098	7.091	(0.958)	1724184	200.804	200.8
45 1,2-Dichloroethane	62	7.122	7.121	(0.961)	456811	163.537	163.5
47 Trichloroethene	130	7.797	7.791	(1.053)	525741	232.848	232.8
49 1,2-Dichloropropane	63	8.028	8.028	(1.084)	444460	194.789	194.8
50 Dibromomethane	93	8.144	8.144	(1.099)	213027	194.310	194.3
53 Bromodichloromethane	83	8.320	8.314	(1.123)	563559	210.471	210.5
57 cis-1,3-Dichloropropene	75	8.771	8.770	(1.184)	667072	214.087	214.1
58 4-Methyl-2-Pentanone	43	8.941	8.940	(0.854)	307471	182.190	182.2(Q)
60 Toluene	91	9.099	9.099	(0.869)	1536712	176.734	176.7
61 trans-1,3-Dichloropropene	75	9.324	9.330	(0.891)	489789	203.669	203.7
63 1,3-Dichloropropane	76	9.671	9.670	(0.924)	461846	196.104	196.1
64 1,1,2-Trichloroethane	97	9.507	9.506	(0.908)	296411	207.342	207.3
65 Tetrachloroethene	164	9.647	9.646	(0.922)	414043	224.212	224.2
66 2-Hexanone	43	9.762	9.768	(0.933)	203258	189.634	189.6
67 Dibromochloromethane	129	9.896	9.896	(0.945)	370281	214.146	214.1
68 1,2-Dibromoethane	107	10.012	10.011	(0.956)	324394	208.357	208.4
70 Chlorobenzene	112	10.498	10.498	(1.003)	1029225	197.911	197.9
71 1,1,1,2-Tetrachloroethane	131	10.577	10.577	(1.010)	441199	221.630	221.6
72 Ethylbenzene	106	10.608	10.607	(1.013)	615404	204.745	204.7
73 m,p-XYLENE	106	10.717	10.717	(1.024)	807466	211.532	211.5
74 Xylene-o	106	11.113	11.112	(1.062)	788097	191.419	191.4
76 Styrene	104	11.125	11.130	(1.063)	1133621	175.692	175.7
77 Bromoform	173	11.314	11.313	(1.081)	238564	222.550	222.5
78 Isopropylbenzene	105	11.478	11.477	(1.096)	1911200	189.491	189.5
79 Bromobenzene	156	11.788	11.788	(0.922)	524869	205.741	205.7
81 n-Propylbenzene	120	11.885	11.885	(0.930)	589519	145.368	145.4
82 2-Chlorotoluene	126	11.977	11.976	(0.937)	504218	217.432	217.4
83 1,1,2,2-Tetrachloroethane	83	11.770	11.769	(1.124)	318016	229.376	229.4
84 1,2,3-Trichloropropane	110	11.818	11.818	(0.924)	88800	226.505	226.5
85 4-Chlorotoluene	126	12.086	12.086	(0.945)	465913	206.414	206.4
86 1,3,5-Trimethylbenzene	105	12.062	12.061	(0.943)	1489126	186.460	186.5
87 tert-Butylbenzene	119	12.384	12.390	(0.969)	1423713	206.937	206.9
88 1,2,4-Trimethylbenzene	105	12.439	12.438	(0.973)	1482386	186.141	186.1
89 sec-Butylbenzene	105	12.609	12.609	(0.986)	2013413	191.981	192.0
90 4-Isopropyltoluene	119	12.749	12.755	(0.997)	1530229	187.479	187.5
91 1,3-Dichlorobenzene	146	12.719	12.724	(0.995)	878716	211.822	211.8
94 n-Butylbenzene	91	13.163	13.162	(1.029)	1566339	185.241	185.2
93 1,4-Dichlorobenzene	146	12.810	12.810	(1.002)	752896	203.901	203.9
95 1,2-Dichlorobenzene	146	13.187	13.187	(1.031)	683909	216.832	216.8
96 1,2-Dibromo-3-chloropropane	157	13.978	13.984	(1.093)	39672	338.677	338.7
97 1,2,4-Trichlorobenzene	180	14.812	14.805	(1.158)	144354	162.145	162.1
98 Hexachlorobutadiene	225	14.970	14.969	(1.171)	225681	273.335	273.3
99 Naphthalene	128	15.067	15.054	(1.178)	110494	96.2389	96.24
100 1,2,3-Trichlorobenzene	180	15.316	15.304	(1.198)	40530	44.8585	44.86
156 Methyl Acetate	43	4.305	4.299	(0.581)	1266361	1024.12	1024
157 Cyclohexane	56	6.739	6.726	(0.910)	1149540	232.852	232.8
158 Methyl Cyclohexane	83	7.986	7.985	(1.078)	969230	231.352	231.4
32 Vinyl Acetate	43	5.486	5.503	(0.741)	760177	193.362	193.4
52 1,4-Dioxane	88	8.205	8.198	(1.008)	36798	3029.76	3030

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ng)
	21 tert-Butyl Alcohol	59	4.871	4.919	(1.026)	275234	1982.33	1982(Q)
	16 3-Chloro-1-propene	76	4.153	4.135	(0.561)	422081	202.578	202.6(M)
	11 Acrolein	56	3.545	3.514	(0.479)	150253	631.242	631.2(Q)
	22 Acrylonitrile	53	4.804	4.798	(0.649)	1289189	1995.52	1996
	8 Ethyl Ether	59	3.344	3.344	(0.451)	281539	150.194	150.2(M)
	62 Ethyl methacrylate	69	9.422	9.421	(0.900)	371124	193.225	193.2
	23 Hexane	57	5.151	5.150	(0.695)	986705	220.793	220.8
	14 Iodomethane	142	3.782	3.757	(0.511)	855653	226.033	226.0(Q)
	44 Isobutanol	41	7.408	7.401	(1.000)	427056	4552.28	4552
	155 N-Heptane	41	7.986	7.985	(1.078)	709271	205.799	205.8
	35 Tetrahydrofuran	42	6.733	6.726	(0.909)	297074	450.355	450.4
	164 trans-1,4-Dichloro-2-butene	53	11.837	11.830	(0.926)	77762	206.888	206.9
	169 Butadiene	39	2.194	2.194	(0.296)	753149	206.094	206.1
M	75 Xylenes (total)	106				1595563	402.950	403.0

QC Flag Legend

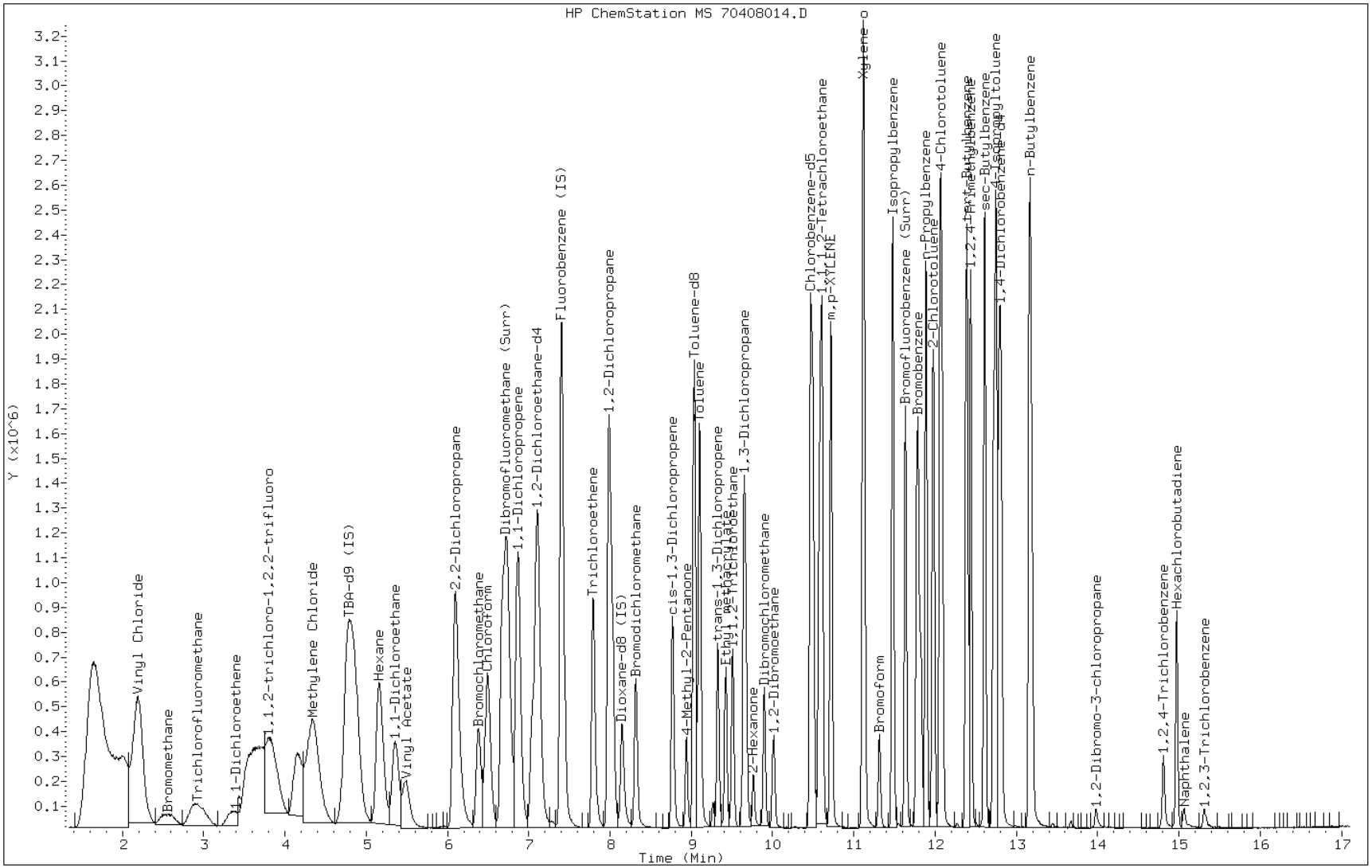
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: 70408014.D

Date: 08-APR-2014 14:49

Client ID: Instrument: hp7.i

Sample Info: LCS Operator: 430936



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-31007-1

SDG No.:

Client Sample ID: | Lab Sample ID: 180-31031-F-3 MS

Matrix: Water | Lab File ID: 70407010.D

Analysis Method: 8260B | Date Collected: 03/25/2014 12:55

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2014 03:30

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 101826 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	40.0		5.0	0.99
108-88-3	Toluene	34.7		5.0	0.85
100-41-4	Ethylbenzene	40.3		5.0	0.62
1330-20-7	Xylenes, Total	78.9		10	2.0
98-82-8	Isopropylbenzene	36.1		5.0	0.53
1634-04-4	Methyl tert-butyl ether	39.4		5.0	1.0
95-63-6	1,2,4-Trimethylbenzene	35.2		5.0	0.52
108-67-8	1,3,5-Trimethylbenzene	34.9		5.0	0.59
91-20-3	Naphthalene	77.2		5.0	0.47

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	89		62-123
2037-26-5	Toluene-d8 (Surr)	85		80-120
460-00-4	4-Bromofluorobenzene (Surr)	102		75-120
1868-53-7	Dibromofluoromethane (Surr)	105		80-120

TestAmerica Pittsburgh

VOLATILE REPORT SW-846 Method

Data file : \\pitsvr06\d\chem\hp7.i\7040714d.b\70407010.D
Lab Smp Id: 180-31031-F-3 MS
Inj Date : 07-APR-2014 03:30 MS Autotune Date: 29-AUG-2013 09:08
Operator : 430936 Inst ID: hp7.i
Smp Info : 180-31031-F-3 MS
Misc Info : 7040714d.b,T8260bh2o.m,list1.sub
Comment :
Method : \\pitsvr06\d\chem\hp7.i\7040714d.b\T8260bh2o.m
Meth Date : 07-Apr-2014 02:09 hp7.i Quant Type: ISTD
Cal Date : 14-MAR-2014 09:40 Cal File: 7031404.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: list1.sub
Target Version: 4.14
Processing Host: PITPC-530

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

		QUANT SIG					CONCENTRATIONS ON-COLUMN	FINAL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)
*	46 Fluorobenzene (IS)	96	7.404	7.397	(1.000)	2246966	250.000	
*	69 Chlorobenzene-d5	119	10.464	10.463	(1.000)	583478	250.000	
*	92 1,4-Dichlorobenzene-d4	152	12.788	12.787	(1.000)	777696	250.000	
*	176 Dioxane-d8 (IS)	96	8.134	8.139	(1.000)	54259	5000.00	
*	177 TBA-d9 (IS)	65	4.855	4.842	(1.000)	720157	5000.00	
$	39 Dibromofluoromethane (Surr)	113	6.674	6.673	(0.901)	622192	263.320	263.3
$	43 1,2-Dichloroethane-d4	65	7.039	7.032	(0.951)	603332	221.692	221.7
$	59 Toluene-d8	98	9.034	9.033	(0.863)	1937611	213.383	213.4
$	80 Bromofluorobenzene (Surr)	95	11.632	11.631	(1.112)	843260	256.213	256.2
	1 Dichlorodifluoromethane	85	1.929	1.934	(0.261)	700677	229.154	229.2
	2 Chloromethane	50	2.038	2.031	(0.275)	1372672	206.894	206.9
	3 Vinyl Chloride	62	2.203	2.196	(0.298)	737914	182.485	182.5
	4 Bromomethane	94	2.501	2.518	(0.338)	179705	171.473	171.5(M)
	5 Chloroethane	64	2.604	2.591	(0.352)	146354	160.057	160.0
	7 Dichlorofluoromethane	67	2.872	2.871	(0.388)	312560	147.076	147.1(M)
	10 1,1,2-trichloro-1,2,2-trifluor	101	3.632	3.649	(0.491)	553038	202.990	203.0
	166 Trichlorofluoromethane	101	2.945	2.926	(0.398)	274315	130.886	130.9(M)
	12 1,1-Dichloroethene	96	3.517	3.522	(0.475)	532209	201.595	201.6
	15 Carbon Disulfide	76	3.821	3.795	(0.516)	1763400	212.665	212.7(M)
	13 Acetone	43	3.827	3.850	(0.517)	102731	179.556	179.6
	18 Methylene Chloride	84	4.344	4.337	(0.587)	634314	195.625	195.6
	19 trans-1,2-Dichloroethene	96	4.752	4.744	(0.642)	686963	228.846	228.8
	20 Methyl tert-butyl ether	73	4.873	4.872	(0.658)	1171725	197.029	197.0
	24 1,1-Dichloroethane	63	5.354	5.347	(0.723)	1281216	219.483	219.5
	27 2,2-Dichloropropane	77	6.078	6.083	(0.821)	824686	228.813	228.8
	28 cis-1,2-dichloroethene	96	6.102	6.095	(0.824)	710593	228.367	228.4
M	29 1,2-Dichloroethene (total)	96				1397556	457.213	457.2
	30 Bromochloromethane	128	6.376	6.369	(0.861)	289256	215.287	215.3

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ng)
31 2-Butanone	43	6.193	6.198	(0.837)	150324	200.177	200.2
37 Chloroform	83	6.498	6.490	(0.878)	988310	220.081	220.1
38 1,1,1-Trichloroethane	97	6.680	6.673	(0.902)	829781	216.150	216.2
40 1,1-Dichloropropene	75	6.863	6.862	(0.927)	673172	212.473	212.5
41 Carbon Tetrachloride	117	6.863	6.849	(0.927)	669997	214.788	214.8
42 Benzene	78	7.088	7.087	(0.957)	2011619	200.159	200.2
45 1,2-Dichloroethane	62	7.124	7.123	(0.962)	501704	153.450	153.4
47 Trichloroethene	130	7.793	7.792	(1.053)	590803	223.555	223.6
49 1,2-Dichloropropane	63	8.024	8.030	(1.084)	521449	195.247	195.2
50 Dibromomethane	93	8.152	8.145	(1.101)	243685	189.902	189.9
53 Bromodichloromethane	83	8.316	8.315	(1.123)	627550	200.236	200.2
57 cis-1,3-Dichloropropene	75	8.767	8.766	(1.184)	761729	208.861	208.9
58 4-Methyl-2-Pentanone	43	8.943	8.942	(0.855)	364151	185.274	185.3(Q)
60 Toluene	91	9.101	9.100	(0.870)	1755739	173.381	173.4
61 trans-1,3-Dichloropropene	75	9.320	9.325	(0.891)	555779	198.441	198.4
63 1,3-Dichloropropane	76	9.673	9.672	(0.924)	535881	195.286	195.3
64 1,1,2-Trichloroethane	97	9.509	9.508	(0.909)	336884	201.802	201.8
65 Tetrachloroethene	164	9.643	9.642	(0.922)	455679	211.878	211.9
66 2-Hexanone	43	9.764	9.769	(0.933)	235040	188.289	188.3
67 Dibromochloromethane	129	9.892	9.897	(0.945)	419661	208.397	208.4
68 1,2-Dibromoethane	107	10.014	10.007	(0.957)	373146	205.792	205.8
70 Chlorobenzene	112	10.494	10.493	(1.003)	1189111	196.334	196.3
71 1,1,1,2-Tetrachloroethane	131	10.573	10.572	(1.010)	493774	212.979	213.0
72 Ethylbenzene	106	10.604	10.603	(1.013)	705429	201.521	201.5
73 m,p-XYLENE	106	10.719	10.718	(1.024)	901230	202.722	202.7
74 Xylene-o	106	11.109	11.108	(1.062)	921292	192.139	192.1
76 Styrene	104	11.127	11.126	(1.063)	1304096	173.543	173.5
77 Bromoform	173	11.316	11.315	(1.081)	266823	213.727	213.7
78 Isopropylbenzene	105	11.474	11.479	(1.097)	2120193	180.497	180.5
79 Bromobenzene	156	11.784	11.783	(0.922)	596898	195.766	195.8
81 n-Propylbenzene	120	11.887	11.886	(0.930)	666342	137.479	137.5
82 2-Chlorotoluene	126	11.979	11.978	(0.937)	575851	207.771	207.8
83 1,1,2,2-Tetrachloroethane	83	11.772	11.771	(1.125)	374806	232.463	232.5
84 1,2,3-Trichloropropane	110	11.821	11.820	(0.924)	105812	225.789	225.8(Q)
85 4-Chlorotoluene	126	12.082	12.087	(0.945)	538926	199.771	199.8
86 1,3,5-Trimethylbenzene	105	12.058	12.063	(0.943)	1667297	174.677	174.7
87 tert-Butylbenzene	119	12.386	12.385	(0.969)	1591388	193.535	193.5
88 1,2,4-Trimethylbenzene	105	12.435	12.434	(0.972)	1676486	176.136	176.1
89 sec-Butylbenzene	105	12.605	12.604	(0.986)	2266417	180.815	180.8
90 4-Isopropyltoluene	119	12.751	12.750	(0.997)	1735772	177.934	177.9
91 1,3-Dichlorobenzene	146	12.721	12.720	(0.995)	1005345	202.771	202.8
94 n-Butylbenzene	91	13.159	13.164	(1.029)	1752830	167.613	167.6
93 1,4-Dichlorobenzene	146	12.812	12.811	(1.002)	884554	200.437	200.4
95 1,2-Dichlorobenzene	146	13.189	13.188	(1.031)	818178	217.041	217.0
96 1,2-Dibromo-3-chloropropane	157	13.980	13.973	(1.093)	61582	432.143	432.1
97 1,2,4-Trichlorobenzene	180	14.801	14.807	(1.157)	392928	379.513	379.5
98 Hexachlorobutadiene	225	14.972	14.971	(1.171)	333993	344.231	344.2
99 Naphthalene	128	15.057	15.062	(1.177)	522001	385.924	385.9
100 1,2,3-Trichlorobenzene	180	15.306	15.305	(1.197)	252199	349.613	349.6
156 Methyl Acetate	43	4.301	4.294	(0.581)	1509018	1044.96	1045
157 Cyclohexane	56	6.735	6.734	(0.910)	1280379	221.582	221.6
158 Methyl Cyclohexane	83	7.982	7.981	(1.078)	1069326	216.819	216.8
32 Vinyl Acetate	43	5.488	5.487	(0.741)	601190	130.649	130.6
52 1,4-Dioxane	88	8.195	8.194	(1.007)	70079	5843.74	5844

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ng)
	21 tert-Butyl Alcohol	59	4.964	4.951	(1.023)	330587	1875.26	1875(Q)
	16 3-Chloro-1-propene	76	4.137	4.118	(0.559)	482002	197.645	197.6(M)
	11 Acrolein	56	3.511	3.522	(0.474)	172613	619.564	619.6(Q)
	22 Acrylonitrile	53	4.800	4.805	(0.648)	1530090	2026.23	2026
	8 Ethyl Ether	59	3.328	3.382	(0.450)	234890	107.057	107.0(Q)
	62 Ethyl methacrylate	69	9.424	9.423	(0.901)	432096	193.169	193.2
	23 Hexane	57	5.141	5.140	(0.694)	1102357	210.203	210.2
	14 Iodomethane	142	3.742	3.722	(0.505)	931751	210.288	210.3(Q)
	44 Isobutanol	41	7.398	7.397	(0.999)	479817	4356.67	4357
	155 N-Heptane	41	7.982	7.981	(1.078)	776324	192.448	192.4
	35 Tetrahydrofuran	42	6.735	6.722	(0.910)	326209	422.499	422.5
	164 trans-1,4-Dichloro-2-butene	53	11.833	11.832	(0.925)	85918	191.258	191.2
	169 Butadiene	39	2.178	2.177	(0.294)	813949	190.293	190.3
M	75 Xylenes (total)	106				1822522	394.861	394.9

QC Flag Legend

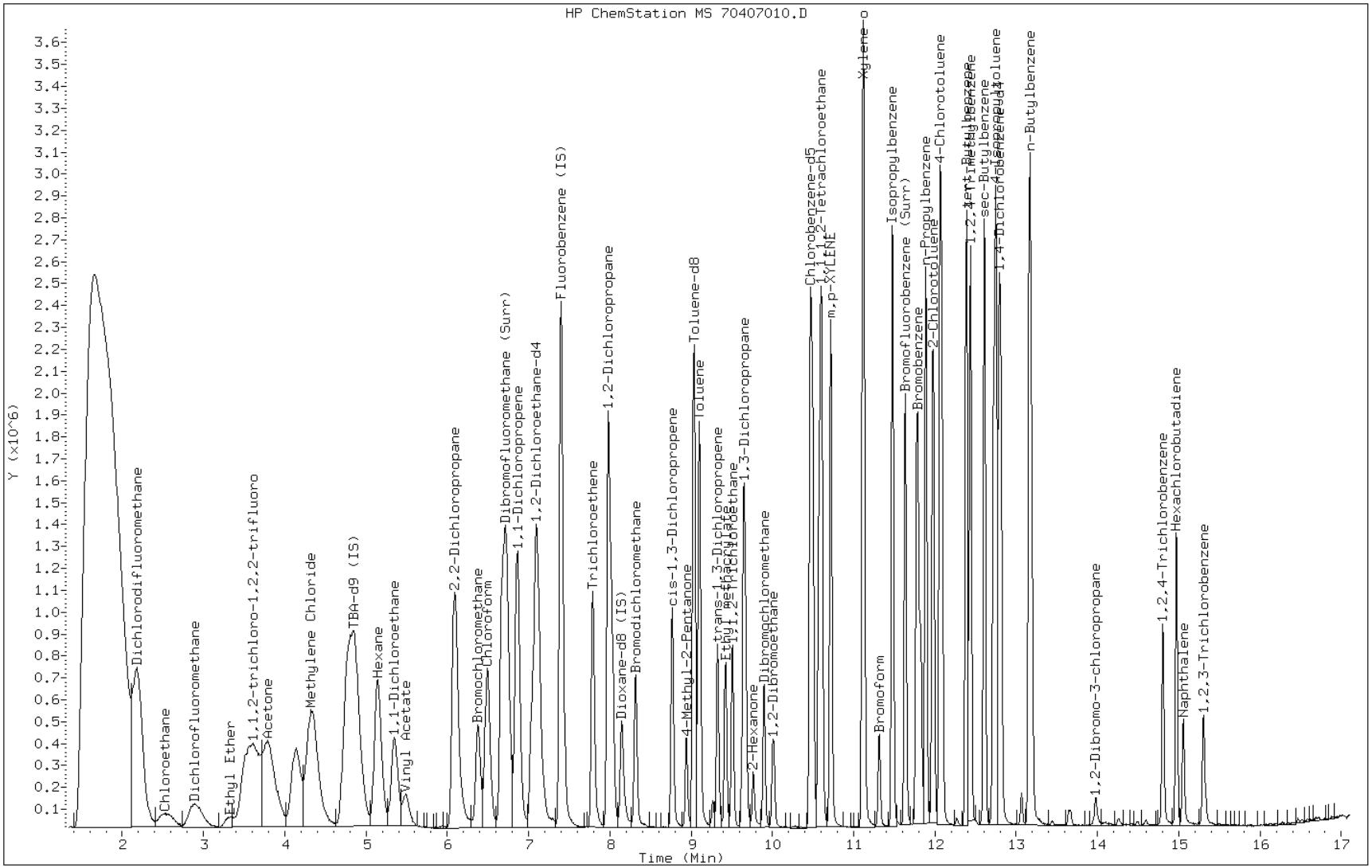
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: 70407010.D

Date: 07-APR-2014 03:30

Client ID: Instrument: hp7.i

Sample Info: 180-31031-F-3 MS Operator: 430936



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-31007-1

SDG No.:

Client Sample ID: | Lab Sample ID: 180-31031-F-7 MS

Matrix: Water | Lab File ID: 70408015.D

Analysis Method: 8260B | Date Collected: 03/25/2014 15:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/08/2014 15:22

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.: 102001 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	41.3		5.0	0.99
108-88-3	Toluene	35.9		5.0	0.85
100-41-4	Ethylbenzene	41.7		5.0	0.62
1330-20-7	Xylenes, Total	82.4		10	2.0
98-82-8	Isopropylbenzene	38.7		5.0	0.53
1634-04-4	Methyl tert-butyl ether	43.0		5.0	1.0
95-63-6	1,2,4-Trimethylbenzene	37.5		5.0	0.52
108-67-8	1,3,5-Trimethylbenzene	37.2		5.0	0.59
91-20-3	Naphthalene	85.0		5.0	0.47

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	93		62-123
2037-26-5	Toluene-d8 (Surr)	88		80-120
460-00-4	4-Bromofluorobenzene (Surr)	106		75-120
1868-53-7	Dibromofluoromethane (Surr)	110		80-120

TestAmerica Pittsburgh

VOLATILE REPORT SW-846 Method

Data file : \\pitsvr06\d\chem\hp7.i\7040814d.b\70408015.D
Lab Smp Id: 180-31031-F-7 MS
Inj Date : 08-APR-2014 15:22 MS Autotune Date: 29-AUG-2013 09:08
Operator : 430936 Inst ID: hp7.i
Smp Info : 180-31031-F-7 MS
Misc Info : 7040814d.b,T8260bh2o.m,list1.sub
Comment :
Method : \\pitsvr06\d\chem\hp7.i\7040814d.b\T8260bh2o.m
Meth Date : 08-Apr-2014 09:59 hp7.i Quant Type: ISTD
Cal Date : 14-MAR-2014 09:40 Cal File: 7031404.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: list1.sub
Target Version: 4.14
Processing Host: PITPC-530

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

		QUANT SIG					CONCENTRATIONS ON-COLUMN	FINAL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)
*	46 Fluorobenzene (IS)	96	7.399	7.401	(1.000)	1813890	250.000	
*	69 Chlorobenzene-d5	119	10.465	10.467	(1.000)	479816	250.000	
*	92 1,4-Dichlorobenzene-d4	152	12.789	12.791	(1.000)	642215	250.000	
*	176 Dioxane-d8 (IS)	96	8.141	8.137	(1.000)	51854	5000.00	
*	177 TBA-d9 (IS)	65	4.844	4.804	(1.000)	654188	5000.00	
$	39 Dibromofluoromethane (Surr)	113	6.675	6.677	(0.902)	523744	274.576	274.6
$	43 1,2-Dichloroethane-d4	65	7.040	7.042	(0.951)	511471	232.809	232.8
$	59 Toluene-d8	98	9.036	9.032	(0.863)	1637087	219.238	219.2
$	80 Bromofluorobenzene (Surr)	95	11.633	11.635	(1.112)	718866	265.605	265.6
	1 Dichlorodifluoromethane	85	1.930	1.914	(0.261)	624290	252.920	252.9
	2 Chloromethane	50	2.058	2.036	(0.278)	1290068	240.868	240.9
	3 Vinyl Chloride	62	2.216	2.194	(0.300)	626842	192.028	192.0
	4 Bromomethane	94	2.502	2.510	(0.338)	145572	172.068	172.1
	5 Chloroethane	64	2.630	2.608	(0.355)	137438	186.193	186.2
	7 Dichlorofluoromethane	67	2.879	2.893	(0.389)	275997	160.879	160.9(Q)
	10 1,1,2-trichloro-1,2,2-trifluor	101	3.658	3.672	(0.494)	443126	201.480	201.5(Q)
	166 Trichlorofluoromethane	101	2.946	2.912	(0.398)	228989	135.346	135.3
	12 1,1-Dichloroethene	96	3.530	3.538	(0.477)	468134	219.661	219.7
	15 Carbon Disulfide	76	3.816	3.818	(0.516)	1557387	232.663	232.7(M)
	13 Acetone	43	3.877	3.861	(0.524)	89845	197.859	197.8
	18 Methylene Chloride	84	4.339	4.354	(0.586)	558990	213.555	213.6
	19 trans-1,2-Dichloroethene	96	4.741	4.755	(0.641)	600901	247.969	248.0
	20 Methyl tert-butyl ether	73	4.875	4.865	(0.659)	1033220	215.221	215.2
	24 1,1-Dichloroethane	63	5.343	5.345	(0.722)	1106455	234.800	234.8
	27 2,2-Dichloropropane	77	6.085	6.081	(0.822)	701440	241.083	241.1
	28 cis-1,2-dichloroethene	96	6.091	6.093	(0.823)	619158	246.490	246.5
M	29 1,2-Dichloroethene (total)	96				1220059	494.460	494.4
	30 Bromochloromethane	128	6.371	6.379	(0.861)	261925	241.489	241.5

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ng)
31 2-Butanone	43	6.195	6.197	(0.837)	137381	228.585	228.6
37 Chloroform	83	6.499	6.495	(0.878)	856309	236.214	236.2
38 1,1,1-Trichloroethane	97	6.675	6.677	(0.902)	748870	241.648	241.6
40 1,1-Dichloropropene	75	6.858	6.860	(0.927)	578623	226.234	226.2
41 Carbon Tetrachloride	117	6.858	6.860	(0.927)	623883	247.756	247.8
42 Benzene	78	7.095	7.091	(0.959)	1676364	206.625	206.6
45 1,2-Dichloroethane	62	7.125	7.121	(0.963)	447413	169.517	169.5
47 Trichloroethene	130	7.789	7.791	(1.053)	508880	238.529	238.5
49 1,2-Dichloropropane	63	8.026	8.028	(1.085)	431461	200.124	200.1
50 Dibromomethane	93	8.147	8.144	(1.101)	215873	208.393	208.4
53 Bromodichloromethane	83	8.318	8.314	(1.124)	544907	215.378	215.4
57 cis-1,3-Dichloropropene	75	8.768	8.770	(1.185)	631395	214.459	214.4
58 4-Methyl-2-Pentanone	43	8.938	8.940	(0.854)	320818	198.491	198.5(Q)
60 Toluene	91	9.103	9.099	(0.870)	1494446	179.461	179.5
61 trans-1,3-Dichloropropene	75	9.328	9.330	(0.891)	470836	204.432	204.4
63 1,3-Dichloropropane	76	9.668	9.670	(0.924)	455333	202.608	202.6
64 1,1,2-Trichloroethane	97	9.510	9.506	(0.909)	293357	215.034	215.0
65 Tetrachloroethene	164	9.644	9.646	(0.922)	392624	222.001	222.0
66 2-Hexanone	43	9.766	9.768	(0.933)	210198	204.767	204.8
67 Dibromochloromethane	129	9.899	9.896	(0.946)	365570	220.757	220.8
68 1,2-Dibromoethane	107	10.009	10.011	(0.956)	325762	218.474	218.5
70 Chlorobenzene	112	10.496	10.498	(1.003)	1020696	204.936	204.9
71 1,1,1,2-Tetrachloroethane	131	10.575	10.577	(1.010)	435805	228.586	228.6
72 Ethylbenzene	106	10.605	10.607	(1.013)	600411	208.576	208.6
73 m,p-XYLENE	106	10.721	10.717	(1.024)	782084	213.928	213.9
74 Xylene-o	106	11.110	11.112	(1.062)	781162	198.112	198.1
76 Styrene	104	11.128	11.130	(1.063)	1128518	182.623	182.6
77 Bromoform	173	11.317	11.313	(1.081)	243948	237.620	237.6
78 Isopropylbenzene	105	11.475	11.477	(1.096)	1869656	193.556	193.6
79 Bromobenzene	156	11.785	11.788	(0.922)	525947	208.886	208.9
81 n-Propylbenzene	120	11.889	11.885	(0.930)	570155	142.450	142.4
82 2-Chlorotoluene	126	11.980	11.976	(0.937)	494693	216.142	216.1
83 1,1,2,2-Tetrachloroethane	83	11.773	11.769	(1.125)	342740	261.921	261.9
84 1,2,3-Trichloropropane	110	11.822	11.818	(0.924)	90838	235.178	235.2
85 4-Chlorotoluene	126	12.083	12.086	(0.945)	457451	205.342	205.3
86 1,3,5-Trimethylbenzene	105	12.059	12.061	(0.943)	1464681	185.822	185.8
87 tert-Butylbenzene	119	12.388	12.390	(0.969)	1377073	202.801	202.8
88 1,2,4-Trimethylbenzene	105	12.436	12.438	(0.972)	1474025	187.535	187.5
89 sec-Butylbenzene	105	12.607	12.609	(0.986)	1974118	190.720	190.7
90 4-Isopropyltoluene	119	12.753	12.755	(0.997)	1533553	190.368	190.4
91 1,3-Dichlorobenzene	146	12.722	12.724	(0.995)	893435	218.214	218.2
94 n-Butylbenzene	91	13.160	13.162	(1.029)	1551883	186.345	186.3
93 1,4-Dichlorobenzene	146	12.813	12.810	(1.002)	779210	213.814	213.8
95 1,2-Dichlorobenzene	146	13.191	13.187	(1.031)	714198	229.425	229.4
96 1,2-Dibromo-3-chloropropane	157	13.975	13.984	(1.093)	61398	512.062	512.1
97 1,2,4-Trichlorobenzene	180	14.803	14.805	(1.157)	367581	428.131	428.1
98 Hexachlorobutadiene	225	14.967	14.969	(1.170)	303981	381.129	381.1
99 Naphthalene	128	15.052	15.054	(1.177)	477910	424.958	425.0
100 1,2,3-Trichlorobenzene	180	15.308	15.304	(1.197)	232370	390.209	390.2
156 Methyl Acetate	43	4.315	4.299	(0.583)	1273988	1098.80	1099
157 Cyclohexane	56	6.724	6.726	(0.909)	1149513	246.431	246.4
158 Methyl Cyclohexane	83	7.983	7.985	(1.079)	961411	244.081	244.1
32 Vinyl Acetate	43	5.495	5.503	(0.743)	743897	200.260	200.2
52 1,4-Dioxane	88	8.196	8.198	(1.007)	62602	5469.00	5469

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ng)
	21 tert-Butyl Alcohol	59	4.954	4.919	(1.023)	341064	2129.79	2130(Q)
	16 3-Chloro-1-propene	76	4.132	4.135	(0.559)	412603	209.582	209.6(M)
	11 Acrolein	56	3.548	3.514	(0.480)	146820	652.805	652.8(M)
	22 Acrylonitrile	53	4.808	4.798	(0.650)	1323334	2185.24	2185
	8 Ethyl Ether	59	3.311	3.344	(0.448)	212468	119.959	120.0(QM)
	62 Ethyl methacrylate	69	9.425	9.421	(0.901)	369503	200.875	200.9
	23 Hexane	57	5.136	5.150	(0.694)	953321	226.050	226.0
	14 Iodomethane	142	3.749	3.757	(0.507)	847011	236.804	236.8(Q)
	44 Isobutanol	41	7.405	7.401	(1.001)	421059	4765.62	4766
	155 N-Heptane	41	7.983	7.985	(1.079)	690480	212.035	212.0
	35 Tetrahydrofuran	42	6.730	6.726	(0.910)	297661	477.571	477.6
	164 trans-1,4-Dichloro-2-butene	53	11.834	11.830	(0.925)	84253	227.117	227.1
	169 Butadiene	39	2.210	2.194	(0.299)	708362	205.147	205.1
M	75 Xylenes (total)	106				1563246	412.040	412.0

QC Flag Legend

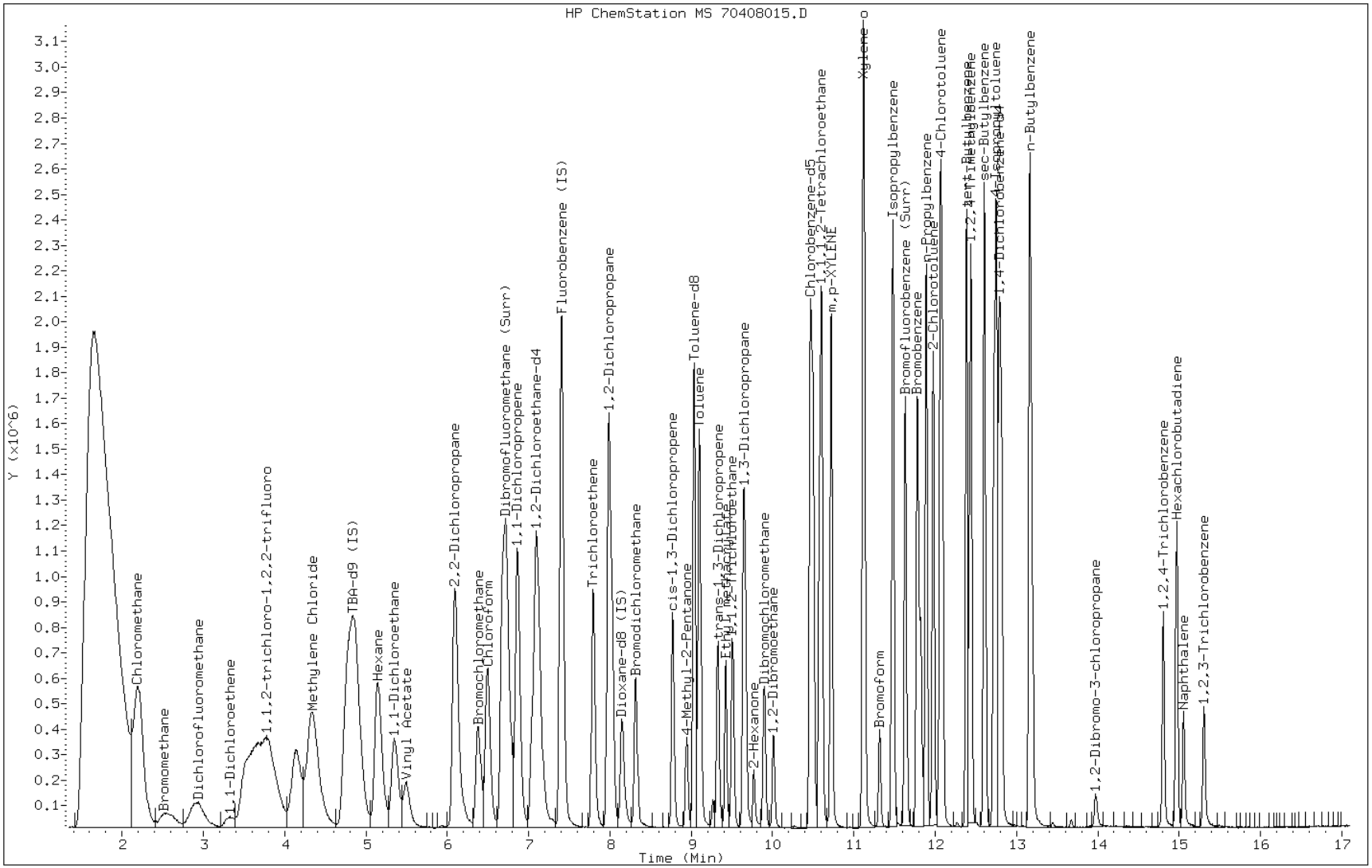
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: 70408015.D

Date: 08-APR-2014 15:22

Client ID: Instrument: hp7.i

Sample Info: 180-31031-F-7 MS Operator: 430936



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-31007-1

SDG No.:

Client Sample ID: | Lab Sample ID: 180-31031-E-3 MSD

Matrix: Water | Lab File ID: 70407011.D

Analysis Method: 8260B | Date Collected: 03/25/2014 12:55

Sample wt/vol: 5(mL) | Date Analyzed: 04/07/2014 04:01

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.: 101826 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	40.2		5.0	0.99
108-88-3	Toluene	34.3		5.0	0.85
100-41-4	Ethylbenzene	39.4		5.0	0.62
1330-20-7	Xylenes, Total	78.3		10	2.0
98-82-8	Isopropylbenzene	35.9		5.0	0.53
1634-04-4	Methyl tert-butyl ether	38.4		5.0	1.0
95-63-6	1,2,4-Trimethylbenzene	35.3		5.0	0.52
108-67-8	1,3,5-Trimethylbenzene	35.0		5.0	0.59
91-20-3	Naphthalene	86.2		5.0	0.47

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	88		62-123
2037-26-5	Toluene-d8 (Surr)	85		80-120
460-00-4	4-Bromofluorobenzene (Surr)	101		75-120
1868-53-7	Dibromofluoromethane (Surr)	105		80-120

TestAmerica Pittsburgh

VOLATILE REPORT SW-846 Method

Data file : \\pitsvr06\d\chem\hp7.i\7040714d.b\70407011.D
Lab Smp Id: 180-31031-E-3 MSD
Inj Date : 07-APR-2014 04:01 MS Autotune Date: 29-AUG-2013 09:08
Operator : 430936 Inst ID: hp7.i
Smp Info : 180-31031-E-3 MSD
Misc Info : 7040714d.b,T8260bh2o.m,list1.sub
Comment :
Method : \\pitsvr06\d\chem\hp7.i\7040714d.b\T8260bh2o.m
Meth Date : 07-Apr-2014 02:09 hp7.i Quant Type: ISTD
Cal Date : 14-MAR-2014 09:40 Cal File: 7031404.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: list1.sub
Target Version: 4.14
Processing Host: PITPC-530

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

		QUANT SIG					CONCENTRATIONS ON-COLUMN	FINAL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)	
*	46 Fluorobenzene (IS)	96	7.395	7.397	(1.000)	2272087	250.000		
*	69 Chlorobenzene-d5	119	10.467	10.463	(1.000)	597418	250.000		
*	92 1,4-Dichlorobenzene-d4	152	12.785	12.787	(1.000)	786750	250.000		
*	176 Dioxane-d8 (IS)	96	8.144	8.139	(1.000)	65947	5000.00		(Q)
*	177 TBA-d9 (IS)	65	4.858	4.842	(1.000)	724572	5000.00		
$	39 Dibromofluoromethane (Surr)	113	6.677	6.673	(0.903)	624217	261.256	261.2	
$	43 1,2-Dichloroethane-d4	65	7.036	7.032	(0.951)	608765	221.215	221.2	
$	59 Toluene-d8	98	9.032	9.033	(0.863)	1975050	212.431	212.4	
$	80 Bromofluorobenzene (Surr)	95	11.629	11.631	(1.111)	848578	251.812	251.8	
	1 Dichlorodifluoromethane	85	1.914	1.934	(0.259)	726839	235.082	235.1	
	2 Chloromethane	50	2.042	2.031	(0.276)	1475809	219.980	220.0	
	3 Vinyl Chloride	62	2.212	2.196	(0.299)	772088	188.825	188.8	
	4 Bromomethane	94	2.510	2.518	(0.339)	173915	164.114	164.1	
	5 Chloroethane	64	2.595	2.591	(0.351)	159708	172.730	172.7	
	7 Dichlorofluoromethane	67	2.875	2.871	(0.389)	301911	140.494	140.5	
	10 1,1,2-trichloro-1,2,2-trifluor	101	3.624	3.649	(0.490)	572049	207.646	207.6	
	166 Trichlorofluoromethane	101	2.936	2.926	(0.397)	272539	128.601	128.6	(M)
	12 1,1-Dichloroethene	96	3.514	3.522	(0.475)	519439	194.583	194.6	
	15 Carbon Disulfide	76	3.800	3.795	(0.514)	1794626	214.038	214.0	(M)
	13 Acetone	43	3.836	3.850	(0.519)	96520	163.925	163.9	
	18 Methylene Chloride	84	4.329	4.337	(0.585)	629599	192.024	192.0	
	19 trans-1,2-Dichloroethene	96	4.737	4.744	(0.641)	702647	231.483	231.5	
	20 Methyl tert-butyl ether	73	4.858	4.872	(0.657)	1153593	191.836	191.8	
	24 1,1-Dichloroethane	63	5.333	5.347	(0.721)	1316877	223.098	223.1	
	27 2,2-Dichloropropane	77	6.075	6.083	(0.822)	822101	225.574	225.6	
	28 cis-1,2-dichloroethene	96	6.093	6.095	(0.824)	722601	229.659	229.6	
M	29 1,2-Dichloroethene (total)	96				1425248	461.141	461.1	
	30 Bromochloromethane	128	6.379	6.369	(0.863)	292232	215.097	215.1	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ng)
31 2-Butanone	43	6.209	6.198	(0.840)	152282	200.571	200.6
37 Chloroform	83	6.489	6.490	(0.877)	993983	218.897	218.9
38 1,1,1-Trichloroethane	97	6.671	6.673	(0.902)	840558	216.537	216.5
40 1,1-Dichloropropene	75	6.854	6.862	(0.927)	682987	213.187	213.2
41 Carbon Tetrachloride	117	6.848	6.849	(0.926)	676076	214.340	214.3
42 Benzene	78	7.085	7.087	(0.958)	2040243	200.762	200.8
45 1,2-Dichloroethane	62	7.115	7.123	(0.962)	498384	150.749	150.7
47 Trichloroethene	130	7.791	7.792	(1.053)	601015	224.904	224.9
49 1,2-Dichloropropane	63	8.022	8.030	(1.085)	514630	190.563	190.6
50 Dibromomethane	93	8.144	8.145	(1.101)	242801	187.121	187.1
53 Bromodichloromethane	83	8.314	8.315	(1.124)	636946	200.987	201.0
57 cis-1,3-Dichloropropene	75	8.764	8.766	(1.185)	761697	206.543	206.5
58 4-Methyl-2-Pentanone	43	8.940	8.942	(0.854)	354531	176.171	176.2(Q)
60 Toluene	91	9.099	9.100	(0.869)	1779352	171.612	171.6
61 trans-1,3-Dichloropropene	75	9.324	9.325	(0.891)	555963	193.875	193.9
63 1,3-Dichloropropane	76	9.671	9.672	(0.924)	526217	186.334	186.3
64 1,1,2-Trichloroethane	97	9.506	9.508	(0.908)	338311	197.506	197.5
65 Tetrachloroethene	164	9.640	9.642	(0.921)	461378	209.523	209.5
66 2-Hexanone	43	9.762	9.769	(0.933)	223417	174.801	174.8
67 Dibromochloromethane	129	9.896	9.897	(0.945)	408934	198.332	198.3
68 1,2-Dibromoethane	107	10.011	10.007	(0.956)	365753	197.008	197.0
70 Chlorobenzene	112	10.492	10.493	(1.002)	1187464	191.487	191.5
71 1,1,1,2-Tetrachloroethane	131	10.577	10.572	(1.010)	490185	206.497	206.5
72 Ethylbenzene	106	10.601	10.603	(1.013)	706629	197.153	197.2
73 m,p-XYLENE	106	10.717	10.718	(1.024)	921988	202.552	202.6
74 Xylene-o	106	11.112	11.108	(1.062)	927752	188.972	189.0
76 Styrene	104	11.124	11.126	(1.063)	1304738	169.577	169.6
77 Bromoform	173	11.313	11.315	(1.081)	261149	204.301	204.3
78 Isopropylbenzene	105	11.477	11.479	(1.096)	2156837	179.333	179.3
79 Bromobenzene	156	11.788	11.783	(0.922)	598114	193.907	193.9
81 n-Propylbenzene	120	11.885	11.886	(0.930)	675704	137.806	137.8
82 2-Chlorotoluene	126	11.976	11.978	(0.937)	581142	207.267	207.3
83 1,1,2,2-Tetrachloroethane	83	11.769	11.771	(1.124)	371010	223.809	223.8
84 1,2,3-Trichloropropane	110	11.818	11.820	(0.924)	102923	216.657	216.6(Q)
85 4-Chlorotoluene	126	12.086	12.087	(0.945)	536434	196.559	196.6
86 1,3,5-Trimethylbenzene	105	12.061	12.063	(0.943)	1691669	175.191	175.2
87 tert-Butylbenzene	119	12.384	12.385	(0.969)	1611410	193.715	193.7
88 1,2,4-Trimethylbenzene	105	12.438	12.434	(0.973)	1701509	176.708	176.7
89 sec-Butylbenzene	105	12.603	12.604	(0.986)	2290238	180.612	180.6
90 4-Isopropyltoluene	119	12.755	12.750	(0.998)	1766799	179.030	179.0
91 1,3-Dichlorobenzene	146	12.724	12.720	(0.995)	1010894	201.544	201.5
94 n-Butylbenzene	91	13.162	13.164	(1.029)	1790652	170.088	170.1
93 1,4-Dichlorobenzene	146	12.810	12.811	(1.002)	902002	202.038	202.0
95 1,2-Dichlorobenzene	146	13.187	13.188	(1.031)	816035	213.981	214.0
96 1,2-Dibromo-3-chloropropane	157	13.978	13.973	(1.093)	60414	420.139	420.1
97 1,2,4-Trichlorobenzene	180	14.805	14.807	(1.158)	423285	403.388	403.4
98 Hexachlorobutadiene	225	14.969	14.971	(1.171)	365228	373.510	373.5
99 Naphthalene	128	15.054	15.062	(1.177)	594401	430.964	431.0
100 1,2,3-Trichlorobenzene	180	15.304	15.305	(1.197)	307799	421.472	421.5
156 Methyl Acetate	43	4.311	4.294	(0.583)	1486321	1014.51	1014
157 Cyclohexane	56	6.720	6.734	(0.909)	1325805	226.906	226.9
158 Methyl Cyclohexane	83	7.979	7.981	(1.079)	1106329	222.328	222.3
32 Vinyl Acetate	43	5.485	5.487	(0.742)	571892	122.908	122.9
52 1,4-Dioxane	88	8.192	8.194	(1.006)	71081	4897.63	4898

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ng)
	21 tert-Butyl Alcohol	59	4.962	4.951	(1.021)	349383	1969.81	1970(Q)
	16 3-Chloro-1-propene	76	4.110	4.118	(0.556)	488863	198.242	198.2(M)
	11 Acrolein	56	3.508	3.522	(0.474)	173463	615.731	615.7(M)
	22 Acrylonitrile	53	4.798	4.805	(0.649)	1463183	1905.59	1906
	8 Ethyl Ether	59	3.307	3.382	(0.447)	230092	103.711	103.7
	62 Ethyl methacrylate	69	9.421	9.423	(0.900)	415501	181.416	181.4
	23 Hexane	57	5.138	5.140	(0.695)	1123960	212.050	212.0
	14 Iodomethane	142	3.739	3.722	(0.506)	951101	212.282	212.3
	44 Isobutanol	41	7.395	7.397	(1.000)	476863	4276.67	4277
	155 N-Heptane	41	7.985	7.981	(1.080)	784080	192.222	192.2
	35 Tetrahydrofuran	42	6.726	6.722	(0.910)	333529	427.204	427.2
	164 trans-1,4-Dichloro-2-butene	53	11.830	11.832	(0.925)	83524	183.789	183.8
	169 Butadiene	39	2.170	2.177	(0.293)	850343	196.603	196.6
M	75 Xylenes (total)	106				1849740	391.524	391.5

QC Flag Legend

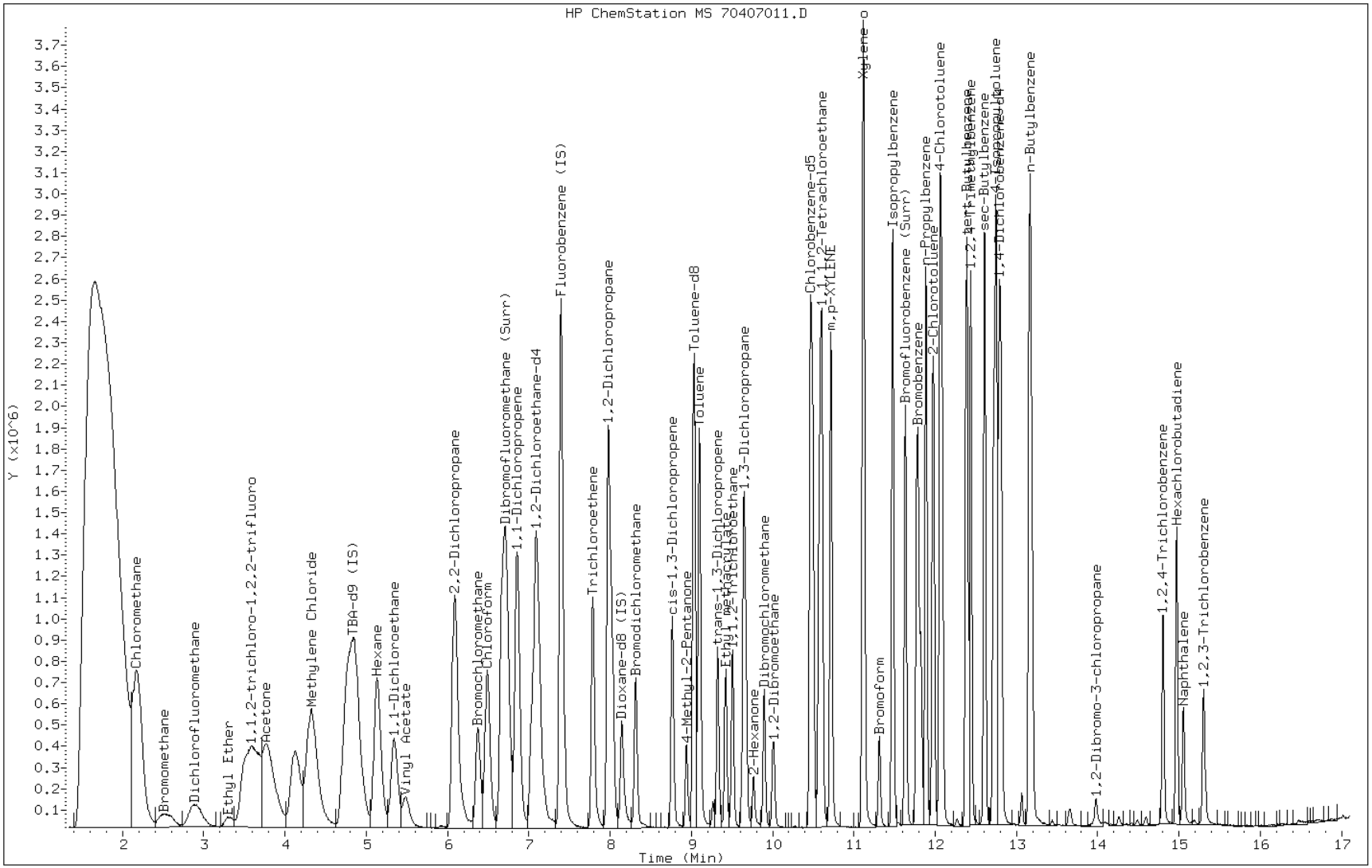
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: 70407011.D

Date: 07-APR-2014 04:01

Client ID: Instrument: hp7.i

Sample Info: 180-31031-E-3 MSD Operator: 430936



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Pittsburgh | Job No.: 180-31007-1

SDG No.:

Client Sample ID: | Lab Sample ID: 180-31031-G-7 MSD

Matrix: Water | Lab File ID: 70408016.D

Analysis Method: 8260B | Date Collected: 03/25/2014 15:00

Sample wt/vol: 5(mL) | Date Analyzed: 04/08/2014 15:48

Soil Aliquot Vol: | Dilution Factor: 1

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

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

Analysis Batch No.: 102001 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-43-2	Benzene	39.1		5.0	0.99
108-88-3	Toluene	35.9		5.0	0.85
100-41-4	Ethylbenzene	41.0		5.0	0.62
1330-20-7	Xylenes, Total	78.3		10	2.0
98-82-8	Isopropylbenzene	35.1		5.0	0.53
1634-04-4	Methyl tert-butyl ether	37.1		5.0	1.0
95-63-6	1,2,4-Trimethylbenzene	36.2		5.0	0.52
108-67-8	1,3,5-Trimethylbenzene	36.0		5.0	0.59
91-20-3	Naphthalene	90.9		5.0	0.47

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		62-123
2037-26-5	Toluene-d8 (Surr)	86		80-120
460-00-4	4-Bromofluorobenzene (Surr)	98		75-120
1868-53-7	Dibromofluoromethane (Surr)	102		80-120

TestAmerica Pittsburgh

VOLATILE REPORT SW-846 Method

Data file : \\pitsvr06\d\chem\hp7.i\7040814d.b\70408016.D
Lab Smp Id: 180-31031-G-7 MSD
Inj Date : 08-APR-2014 15:48 MS Autotune Date: 29-AUG-2013 09:08
Operator : 430936 Inst ID: hp7.i
Smp Info : 180-31031-G-7 MSD
Misc Info : 7040814d.b,T8260bh2o.m,list1.sub
Comment :
Method : \\pitsvr06\d\chem\hp7.i\7040814d.b\T8260bh2o.m
Meth Date : 08-Apr-2014 09:59 hp7.i Quant Type: ISTD
Cal Date : 14-MAR-2014 09:40 Cal File: 7031404.D
Als bottle: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: list1.sub
Target Version: 4.14
Processing Host: PITPC-530

Concentration Formula: Amt * DF * CpndVariable
Cpnd Variable Local Compound Variable

							CONCENTRATIONS	
		QUANT SIG					ON-COLUMN	FINAL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)
*	46 Fluorobenzene (IS)	96	7.402	7.401	(1.000)	2290953	250.000	
*	69 Chlorobenzene-d5	119	10.462	10.467	(1.000)	612725	250.000	
*	92 1,4-Dichlorobenzene-d4	152	12.786	12.791	(1.000)	749044	250.000	
*	176 Dioxane-d8 (IS)	96	8.144	8.137	(1.000)	80321	5000.00	
*	177 TBA-d9 (IS)	65	4.847	4.804	(1.000)	687185	5000.00	
$	39 Dibromofluoromethane (Surr)	113	6.678	6.677	(0.902)	613756	254.762	254.8
$	43 1,2-Dichloroethane-d4	65	7.043	7.042	(0.952)	658281	237.239	237.2
$	59 Toluene-d8	98	9.032	9.032	(0.863)	2060482	216.084	216.1
$	80 Bromofluorobenzene (Surr)	95	11.630	11.635	(1.112)	847582	245.233	245.2
	1 Dichlorodifluoromethane	85	1.939	1.914	(0.262)	638875	204.931	204.9
	2 Chloromethane	50	2.073	2.036	(0.280)	1300619	192.270	192.3
	3 Vinyl Chloride	62	2.231	2.194	(0.301)	665894	161.513	161.5
	4 Bromomethane	94	2.535	2.510	(0.343)	164277	153.742	153.7(M)
	5 Chloroethane	64	2.657	2.608	(0.359)	143431	153.849	153.8
	7 Dichlorofluoromethane	67	2.912	2.893	(0.393)	304834	140.686	140.7(M)
	10 1,1,2-trichloro-1,2,2-trifluor	101	3.667	3.672	(0.495)	579689	208.687	208.7(M)
	166 Trichlorofluoromethane	101	2.943	2.912	(0.398)	242856	113.651	113.6(Q)
	12 1,1-Dichloroethene	96	3.527	3.538	(0.477)	498278	185.119	185.1
	15 Carbon Disulfide	76	3.813	3.818	(0.515)	1650908	195.276	195.3
	13 Acetone	43	3.880	3.861	(0.524)	102371	174.569	174.6
	18 Methylene Chloride	84	4.360	4.354	(0.589)	591503	178.919	178.9
	19 trans-1,2-Dichloroethene	96	4.768	4.755	(0.644)	644640	210.624	210.6
	20 Methyl tert-butyl ether	73	4.871	4.865	(0.658)	1124794	185.506	185.5
	24 1,1-Dichloroethane	63	5.358	5.345	(0.724)	1220620	205.087	205.1
	27 2,2-Dichloropropane	77	6.088	6.081	(0.822)	660623	179.773	179.8
	28 cis-1,2-dichloroethene	96	6.106	6.093	(0.825)	699214	220.396	220.4
M	29 1,2-Dichloroethene (total)	96				1343854	431.019	431.0
	30 Bromochloromethane	128	6.386	6.379	(0.863)	296098	216.148	216.1

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ng)
31 2-Butanone	43	6.203	6.197	(0.838)	191738	253.972	254.0
37 Chloroform	83	6.502	6.495	(0.878)	967156	211.236	211.2
38 1,1,1-Trichloroethane	97	6.684	6.677	(0.903)	811035	207.211	207.2
40 1,1-Dichloropropene	75	6.867	6.860	(0.928)	703519	217.788	217.8
41 Carbon Tetrachloride	117	6.861	6.860	(0.927)	676217	212.619	212.6
42 Benzene	78	7.092	7.091	(0.958)	2000934	195.273	195.3
45 1,2-Dichloroethane	62	7.128	7.121	(0.963)	558126	167.429	167.4
47 Trichloroethene	130	7.791	7.791	(1.053)	653607	242.570	242.6
49 1,2-Dichloropropane	63	8.029	8.028	(1.085)	579582	212.847	212.8
50 Dibromomethane	93	8.144	8.144	(1.100)	269888	206.283	206.3
53 Bromodichloromethane	83	8.321	8.314	(1.124)	705055	220.646	220.6
57 cis-1,3-Dichloropropene	75	8.771	8.770	(1.185)	863615	232.251	232.2
58 4-Methyl-2-Pentanone	43	8.941	8.940	(0.855)	435930	211.207	211.2(Q)
60 Toluene	91	9.105	9.099	(0.870)	1908639	179.483	179.5
61 trans-1,3-Dichloropropene	75	9.324	9.330	(0.891)	634076	215.591	215.6
63 1,3-Dichloropropane	76	9.671	9.670	(0.924)	608764	213.366	213.4
64 1,1,2-Trichloroethane	97	9.507	9.506	(0.909)	396507	229.003	229.0
65 Tetrachloroethene	164	9.647	9.646	(0.922)	518000	229.359	229.4
66 2-Hexanone	43	9.768	9.768	(0.934)	292625	223.230	223.2
67 Dibromochloromethane	129	9.896	9.896	(0.946)	469490	222.013	222.0
68 1,2-Dibromoethane	107	10.012	10.011	(0.957)	416562	218.770	218.8
70 Chlorobenzene	112	10.498	10.498	(1.003)	1245229	195.786	195.8
71 1,1,1,2-Tetrachloroethane	131	10.578	10.577	(1.011)	504987	207.418	207.4
72 Ethylbenzene	106	10.602	10.607	(1.013)	753338	204.935	204.9
73 m,p-XYLENE	106	10.717	10.717	(1.024)	966548	207.037	207.0
74 Xylene-o	106	11.113	11.112	(1.062)	928511	184.402	184.4
76 Styrene	104	11.125	11.130	(1.063)	1357263	171.997	172.0
77 Bromoform	173	11.314	11.313	(1.081)	298006	227.311	227.3
78 Isopropylbenzene	105	11.478	11.477	(1.097)	2166893	175.668	175.7
79 Bromobenzene	156	11.788	11.788	(0.922)	622070	211.826	211.8
81 n-Propylbenzene	120	11.885	11.885	(0.930)	687775	147.329	147.3
82 2-Chlorotoluene	126	11.977	11.976	(0.937)	585632	219.382	219.4
83 1,1,2,2-Tetrachloroethane	83	11.770	11.769	(1.125)	388573	229.136	229.1
84 1,2,3-Trichloropropane	110	11.819	11.818	(0.924)	113099	251.810	251.8
85 4-Chlorotoluene	126	12.086	12.086	(0.945)	544623	209.605	209.6
86 1,3,5-Trimethylbenzene	105	12.062	12.061	(0.943)	1654566	179.974	180.0
87 tert-Butylbenzene	119	12.384	12.390	(0.969)	1635404	206.496	206.5
88 1,2,4-Trimethylbenzene	105	12.433	12.438	(0.972)	1659026	180.969	181.0
89 sec-Butylbenzene	105	12.603	12.609	(0.986)	2219635	183.856	183.8
90 4-Isopropyltoluene	119	12.749	12.755	(0.997)	1666362	177.352	177.4
91 1,3-Dichlorobenzene	146	12.719	12.724	(0.995)	1015190	212.589	212.6
94 n-Butylbenzene	91	13.163	13.162	(1.029)	1704288	170.006	170.0
93 1,4-Dichlorobenzene	146	12.810	12.810	(1.002)	884419	208.072	208.1
95 1,2-Dichlorobenzene	146	13.187	13.187	(1.031)	798868	220.025	220.0
96 1,2-Dibromo-3-chloropropane	157	13.972	13.984	(1.093)	63193	457.799	457.8
97 1,2,4-Trichlorobenzene	180	14.806	14.805	(1.158)	411984	412.062	412.1
98 Hexachlorobutadiene	225	14.970	14.969	(1.171)	341864	366.948	366.9
99 Naphthalene	128	15.055	15.054	(1.177)	599181	454.269	454.3
100 1,2,3-Trichlorobenzene	180	15.304	15.304	(1.197)	304335	437.312	437.3
156 Methyl Acetate	43	4.318	4.299	(0.583)	1634271	1118.07	1118
157 Cyclohexane	56	6.727	6.726	(0.909)	1261038	214.044	214.0
158 Methyl Cyclohexane	83	7.986	7.985	(1.079)	1059072	210.045	210.0
32 Vinyl Acetate	43	5.510	5.503	(0.744)	573254	122.186	122.2
52 1,4-Dioxane	88	8.193	8.198	(1.006)	90009	5085.89	5086

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ng)
	21 tert-Butyl Alcohol	59	4.956	4.919	(1.023)	372331	2213.39	2213(Q)
	16 3-Chloro-1-propene	76	4.141	4.135	(0.560)	400953	161.254	161.2(Q)
	11 Acrolein	56	3.545	3.514	(0.479)	153785	541.386	541.4(M)
	22 Acrylonitrile	53	4.823	4.798	(0.652)	1465989	1892.30	1892
	8 Ethyl Ether	59	3.326	3.344	(0.449)	222797	99.5961	99.60
	62 Ethyl methacrylate	69	9.422	9.421	(0.901)	527075	224.382	224.4
	23 Hexane	57	5.145	5.150	(0.695)	1194394	224.136	224.1
	14 Iodomethane	142	3.746	3.757	(0.506)	880921	194.999	195.0(Q)
	44 Isobutanol	41	7.402	7.401	(1.000)	557923	5018.72	5019
	155 N-Heptane	41	7.986	7.985	(1.079)	807384	196.305	196.3
	35 Tetrahydrofuran	42	6.727	6.726	(0.909)	326931	415.304	415.3
	164 trans-1,4-Dichloro-2-butene	53	11.831	11.830	(0.925)	96222	222.388	222.4
	169 Butadiene	39	2.194	2.194	(0.297)	760984	174.494	174.5
M	75 Xylenes (total)	106				1895059	391.438	391.4

QC Flag Legend

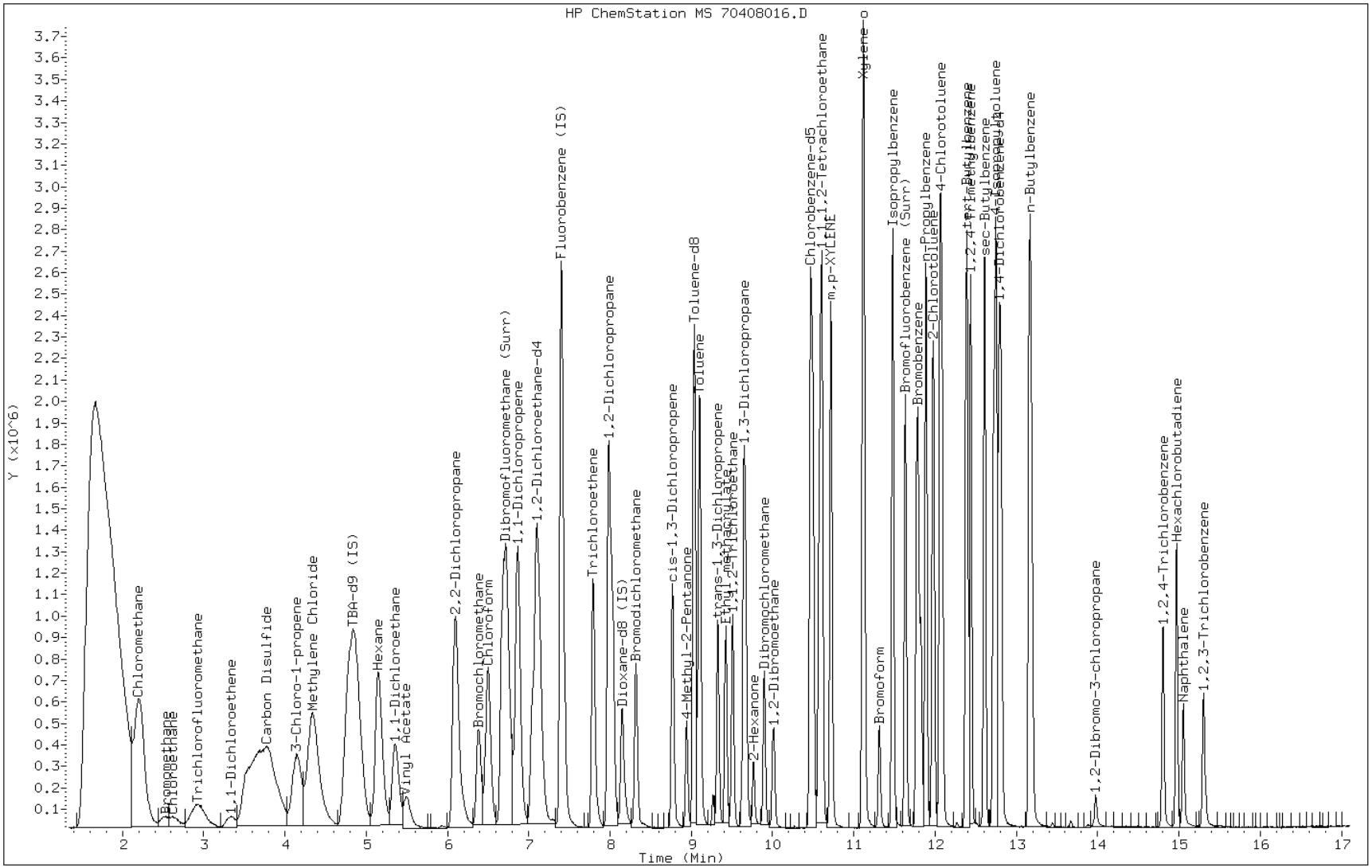
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: 70408016.D

Date: 08-APR-2014 15:48

Client ID: Instrument: hp7.i

Sample Info: 180-31031-G-7 MSD Operator: 430936



GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-31007-1

SDG No.:

Instrument ID: HP7 Start Date: 03/14/2014 07:40

Analysis Batch Number: 99778 End Date: 03/17/2014 08:20

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-99778/1		03/14/2014 07:40	1	7031401.D	DB-624 0.18(mm)
IC 180-99778/3		03/14/2014 09:40	1	7031404.D	DB-624 0.18(mm)
IC 180-99778/4		03/14/2014 10:13	1	7031405.D	DB-624 0.18(mm)
ICIS 180-99778/5		03/14/2014 10:41	1	7031406.D	DB-624 0.18(mm)
IC 180-99778/6		03/14/2014 11:08	1	7031407.D	DB-624 0.18(mm)
IC 180-99778/7		03/14/2014 12:29	1	7031408.D	DB-624 0.18(mm)
IC 180-99778/8		03/14/2014 13:41	1	7031409.D	DB-624 0.18(mm)
IC 180-99778/2		03/14/2014 17:39	1	7031417.D	DB-624 0.18(mm)
ICV 180-99778/9		03/17/2014 08:20	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-31007-1

SDG No.:

Instrument ID: HP7 Start Date: 04/06/2014 22:48

Analysis Batch Number: 101826 End Date: 04/07/2014 08:41

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-101826/1		04/06/2014 22:48	1	70407001.D	DB-624 0.18(mm)
CCVIS 180-101826/2		04/06/2014 23:32	1	70407002.D	DB-624 0.18(mm)
MB 180-101826/3		04/07/2014 01:11	1	70407005.D	DB-624 0.18(mm)
ZZZZZ		04/07/2014 01:37	1		DB-624 0.18(mm)
ZZZZZ		04/07/2014 02:06	1		DB-624 0.18(mm)
ZZZZZ		04/07/2014 02:31	5		DB-624 0.18(mm)
LCS 180-101826/6		04/07/2014 02:57	1	70407009.D	DB-624 0.18(mm)
180-31031-F-3 MS		04/07/2014 03:30	1	70407010.D	DB-624 0.18(mm)
180-31031-E-3 MSD		04/07/2014 04:01	1	70407011.D	DB-624 0.18(mm)
ZZZZZ		04/07/2014 05:32	1		DB-624 0.18(mm)
180-31007-1	HD-MW-125-01-0	04/07/2014 06:53	1	70407017.D	DB-624 0.18(mm)
180-31007-3	TRIP BLANK 1	04/07/2014 07:47	1	70407019.D	DB-624 0.18(mm)
ZZZZZ		04/07/2014 08:41	1		DB-624 0.18(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Pittsburgh Job No.: 180-31007-1

SDG No.:

Instrument ID: HP7 Start Date: 04/08/2014 07:42

Analysis Batch Number: 102001 End Date: 04/08/2014 19:29

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 180-102001/1		04/08/2014 07:42	1	70408001.D	DB-624 0.18(mm)
CCVIS 180-102001/2		04/08/2014 09:07	1	70408003.D	DB-624 0.18(mm)
MB 180-102001/3		04/08/2014 10:44	1	70408006.D	DB-624 0.18(mm)
180-31007-2	HD-MW-160-01-0	04/08/2014 12:22	5	70408009.D	DB-624 0.18(mm)
ZZZZZ		04/08/2014 12:49	1		DB-624 0.18(mm)
ZZZZZ		04/08/2014 13:19	1		DB-624 0.18(mm)
ZZZZZ		04/08/2014 13:54	1		DB-624 0.18(mm)
ZZZZZ		04/08/2014 14:20	1		DB-624 0.18(mm)
LCS 180-102001/7		04/08/2014 14:49	1	70408014.D	DB-624 0.18(mm)
180-31031-F-7 MS		04/08/2014 15:22	1	70408015.D	DB-624 0.18(mm)
180-31031-G-7 MSD		04/08/2014 15:48	1	70408016.D	DB-624 0.18(mm)
ZZZZZ		04/08/2014 17:40	1		DB-624 0.18(mm)
ZZZZZ		04/08/2014 18:08	1		DB-624 0.18(mm)
ZZZZZ		04/08/2014 19:29	1		DB-624 0.18(mm)

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: Kent Littlefield	Site Contact: Rodney Myers	Date Submitted: 3/25/2014	COC No: TAP032520141
Leidos	Tel/Fax: 717-901-8100	Lab Contact: Carrie Gamber	Carrier:	1 of 1 COCs
6310 Allentown Blvd.	Analysis Turnaround Time			Job No.
Harrisburg, PA 17112	Calendar (C) or Work Days (W)			
(717) 901 - 8100 Phone	TAT if different from Below: Standard			
(717) 901-8102 FAX	☐ 2 weeks			
Project Name: HD Bldg 45 UST Characterization	☐ 1 week			
Site: York PA	☐ 2 days			
Quote # 18012593	☐ 1 day			

180-31007 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	PADEP UST Shortlist Unleaded (8260B)														Sample Specific Notes:
HD-MW-125-01-0	3/25/2014	11:23	Groundwater	Water	3	X														
HD-MW-160-01-0	3/25/2014	9:33	Groundwater	Water	3	X														
Trip Blank 1	3/25/2014	12:00	Trip Blank	Water	2	X														
Temp Blank 1	3/25/2014	12:05	Temp Blank	Water	1															
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Unpreserved 7=Na2S2O3						2	6	4	6	6	5	5	6	4	4	4	4	4	4	4	4	4
Field Filter						N	N	Y	N	Y	N	N	N	Y	N	Y	N	Y	N	Y	N	Y	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, Project Specific Analyte Lists Bill to Leidios, e-mail lab results to kent.v.littlefield@leidos.com**

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by: Emily Wade	Company: Leidos	Date/Time: 03/25/2014/14:00	Received by: Fed-Ex	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company: TAP	Date/Time: 3/26/14 0915
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

ORIGIN ID:THVA

SHIP DATE: 2... 14
ACTWGT: 2...
CAD: /P...
DIMS:

UNITED STATES US

TO SAMPLE RECEIVING
TEST AMERICA
301 ALPHA DR

PITTSBURGH PA 15238
(412) 963-7058 REF:
INV:
PO: DEPT:

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Part # 156297-435 RIT2 11/13

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WED - 26 MAR 10:30A
PRIORITY OVERNIGHT

TRK# 0200 8009 6082 0646

XH AGCA

15238
PA-US PIT

2 Your Internal Billing Reference

Uncorrected temp 3.9 °C
Thermometer ID #4
CF -1 Initials DW

PT-WI-SR-001 effective 7/26/13

180-31007 Waybill

Login Sample Receipt Checklist

Client: Leidos, Inc.

Job Number: 180-31007-1

Login Number: 31007

List Source: TestAmerica Pittsburgh

List Number: 1

Creator: Skowronek, Elyse N

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	