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03 May 2016

Andrew Smith, P.E., LHG
UST/Technical Services Unit Supervisor
Ecology's Toxics Cleanup Program
Southwest Regional Office
Department of Ecology
PO Box 47775
Olympia, WA 98504-7775

Subject: Second Annual Compliance Groundwater Monitoring Report
Agreed Order No. DE 97TCS121
Frederickson Industrial Park Site, Pierce County, WA
Geosyntec Project: GR4631E

Dear Mr. Smith:

This letter has been prepared by Geosyntec Consultants on behalf of Olin Corporation and Mallinckrodt US, Holdings LLC (the Companies) to present the results from compliance monitoring completed in 2015 at the Frederickson Industrial Park Site (Site) in Pierce County, Washington (Figure 1). This compliance monitoring is being performed in accordance with the Washington Department of Ecology's (Ecology's) Agreed Order (AO) No. DE 9514 (Order).

Background

The Site encompasses 527 acres of land south of 176th Street East and east of Canyon Road East in the Fredrickson area of Pierce County, Washington. The Site is situated approximately 10 miles south of Tacoma and 8 miles southwest of Puyallup, and is located in unincorporated County area surrounded by a mixture of industrial, residential and commercial properties. Boeing is the current owner of the Frederickson Industrial Center; Olin and Mallinckrodt are the successors of former owners of the Site.

In 1997, the Companies entered into AO No. DE 97TC-S121 requiring the Companies to undertake the following remedial actions at the Site:

- devise and implement a permanent solution regarding the impact of carbon tetrachloride (CTC) in affected domestic drinking water wells; and

- design and implement a Remedial Investigation/Feasibility Study (RI/FS).

The RI/FS Report [Geosyntec, 2012][1] was submitted to Ecology by the Companies on 28 March 2012 and recommended monitored natural attenuation (MNA) to address CTC in groundwater.

The Cleanup Action Plan (CAP), submitted to Ecology and approved after a public comment period, was based upon Ecology's approval of MNA as the groundwater remedy. A Compliance Monitoring Work Plan (CMWP) was provided as part of the CAP, and outlines the requirements for MNA compliance monitoring. The compliance monitoring network encompasses eleven monitoring wells at the Site (listed in Table 1) and includes hydrogeologic monitoring and groundwater sampling for CTC analysis. As described in the CMWP, compliance monitoring for the Site consists of performance monitoring to track MNA, followed by confirmational monitoring to confirm compliance with applicable cleanup standards. This second year of the CMWP continues the required performance monitoring.

Performance Groundwater Monitoring Results

Hydrogeologic Monitoring

Water level data collected during the March and October groundwater monitoring events are presented in Table 1. Water level contours for Aquifer A are shown in Figure 2 for both the March and October monitoring events. Groundwater flow in Aquifer A is to the north-northwest towards Clover Creek, which is consistent with past monitoring events. Upward vertical hydraulic gradients near Clover Creek were observed at the P2 intermediate and shallow monitoring wells.

Water levels decreased across the Site between the March and October monitoring events, as expected, due to a three month period of very little or no precipitation during the third quarter (http://www1.ncdc.noaa.gov/pub/orders/cdo/672495.pdf; Figure 2). The past two years of groundwater elevation data confirm that water level changes conform to expectations with high groundwater elevations during the wet season and lower groundwater elevations in the dry season.

[1] Geosyntec, 2012. Remedial Investigation/Feasibility Study (RI/FS) Report, Frederickson Industrial Park, Frederickson, Washington. March 2012.

Field Parameters

Field Parameters (Attachment A) for the March and October monitoring events are consistent with past monitoring events, and indicate stable hydrogeochemical conditions. The turbidity results for MW-4 were elevated, but all other parameters stabilized within required limits. Elevated turbidity values have been observed previously on several monitoring wells without apparent influence on CTC results.

Carbon Tetrachloride

Eleven monitoring wells were sampled during the March and October monitoring events, with samples analyzed for CTC by ALS laboratory. Figure 3 presents the locations, the March and October CTC results, and the updated October 2015 CTC contour for the Aquifer A wells. The CTC data are summarized in Table 2; the analytical reports are provided in Attachment B. Concentration trends for CTC are plotted for the monitoring wells in Figure 4. The 2014 annual report included CTC time trend plots for historical data because 2014 was the first year of compliance monitoring. Four compliance monitoring events have now been completed, therefore only data from the compliance monitoring will be reported and reviewed. As demonstrated in Table 3 and Figures 4a-4c, CTC concentrations in Aquifer A continue to decline.

Monitoring wells BMW-18, HLA-1, and 11-CL, all with concentrations ranging between 3.8 µg/L and 4.4 µg/L, continue to have the highest concentrations, which is consistent with previous monitoring results. The intermediate concentration wells (e.g., 11-BL, MW-1, and MW-13) remain in the range between 0.64 µg/L and 1.9 µg/L. The peripheral monitoring wells, MW-4 on the east, MW-7 and P-2I/P-2S on the north, and BMW-3 on the south, ranged from below detection limits of 0.096 µg/L to 0.62 µg/L. During the reporting period, five wells had concentrations below the CTC cleanup level of 0.63 µg/L for the two 2015 sampling events. Monitoring well BMW-3, the furthest upgradient monitoring well, has been below the CTC cleanup level of 0.63 µg/L for the four consecutive MNA monitoring events in 2014-2015. The CTC cleanup level of 0.63 µg/L contour line is illustrated on Figure 3. As noted previously, the concentration trends plotted in Figure 4 illustrate a continuing decline.

Overall, the October 2015 monitoring event results are among the lowest concentrations measured for each of the monitoring wells. Minor seasonal fluctuations of CTC concentrations are expected and have been observed between the semi-annual monitoring events. Fluctuations between sampling events are expected given the low CTC concentrations being analyzed and the seasonal variability of groundwater recharge and discharge, which results in the observed

seasonal groundwater elevation changes. The primary observation is a continued decrease in CTC groundwater concentrations.

Conclusions and Recommendations

This second year of MNA compliance monitoring confirms that an overall decline in CTC concentrations and contraction of the area of CTC-impacted groundwater continues to occur.

2016 Monitoring Schedule and Requested Changes

As outlined in the work plan, the mean of the last four years of data for BMW-3 is 0.34 µg/L, with the 95% UCL on the mean for this data set being 0.51 µg/L (Table 3) as defined in WAC 173-340-720 (9)(e)(iv). In accordance with Section 2.2 of the Compliance Monitoring Work Plan, the Companies request the deletion of BMW-3, the most upgradient well, from the monitoring well network due to continued concentrations below the CTC cleanup level of 0.63 µg/L.

The monitoring schedule beginning in 2016 will be on an annual basis, in accordance with Section 2.1 of the Compliance Monitoring Work Plan. This annual monitoring event will occur in the spring, to coincide with high groundwater elevations.

The Companies proposed a plan to implement a sampling comparison of low flow sampling techniques and passive diffusion bags (PDBs) in May 2015. PDBs are in common use for monitoring volatile groundwater constituents, and would reduce the production of purge water during sampling. Ecology approved the proposal and requested a revised Sampling and Analysis Plan (SAP) in August 2015. An Addendum to the SAP was submitted to Ecology in March 2016 that incorporates the sampling comparison and PDB techniques. The Companies will proceed with the implementation of the sampling comparison upon Ecology's approval of the SAP Addendum.

Please contact Julie Irwin (423-336-4084) if you have questions regarding the information presented herein.

Sincerely,

James J. Deitsch

James J. Deitsch, PhD., P.E.
Principal

Evan E. Cox, MSc.
Senior Principal

Cc: Julie Irwin, Olin Corporation
James Cashwell, Olin Corporation
Karen Burke, Mallinckrodt
Jim Bet, The Boeing Company
Anne Smith, Tacoma Water

TABLES

Table 1.
Compliance Monitoring Groundwater Sampling Event Water Level Data
Brazier Site, Frederickson, Washington

Well	Ground Elevation (ft MSL)	Top of Casing Elevation (MSL)	Top of Screen (MSL)	Bottom of Screen (MSL)	Aquifer	Sample Date	Depth to Water (ft)	Water Level (MSL)
11-BL	395.5	396.08	331.5	321.5	Lower - Aquifer A	03/25/15	36.43	359.65
						10/22/15	45.75	350.33
11-CL	403.69	404.55	329.7	319.7	Lower - Aquifer A	03/25/15	41.32	363.23
						10/22/15	51.50	353.05
BMW-18	409.74	412.09	375.7	345.7	Upper - Aquifer A	03/25/15	48.32	363.77
						10/22/15	51.53	360.56
BMW-3	414.74	416.76	381.7	351.7	Upper - Aquifer A	03/25/15	38.58	378.18
						10/22/15	51.01	365.75
HLA-1	403.86	405.81	320.9	310.9	Lower - Aquifer A	03/25/15	42.72	363.09
						10/22/15	52.89	352.92
MW-7	350.7	350.12	310.2	300.2	Upper - Aquifer A	03/26/15	24.43	325.69
						10/23/15	29.68	320.44
MW-1	413.27	415.79	324.8	314.8	Lower - Aquifer A	03/25/15	38.81	376.98
						10/22/15	52.18	363.61
MW-4	465.5	467.72	317.9	307.9	Aquifer A	03/25/15	115.11	352.61
						10/22/15	123.23	344.49
P2-I	340.65	343.23	270.7	265.7	Lower - Aquifer A	03/26/15	13.19	330.04
						10/23/15	17.16	326.07
P2-S	340.55	343.6	320.6	310.6	Upper - Aquifer A	03/26/15	16.56	327.04
						10/23/15	18.05	325.55
MW-13	394.5	394.1	284.5	274.05	Aquifer A	03/26/15	52.09	342.01
						10/23/15	57.87	336.23

Table 2.
Carbon Tetrachloride Results
Annual Report 2015
Brazier Site, Frederickson, Washington

Well	Sample Type	Sample Date	Result (µg/L)	Lab MRL	Lab MDL	Qualifiers	Depth to Water (ft)	Water Level (MSL)
11-BL		03/25/15	**0.64**	0.5	0.096		36.43	359.65
		10/22/15	**0.72**	0.5	0.096		45.75	350.33
11-CL		03/25/15	**4.3**	0.5	0.096		41.32	363.23
		10/22/15	**3.8**	0.5	0.096		51.50	353.05
BMW-18		03/25/15	**4.2**	0.5	0.096		48.32	363.77
		10/22/15	**3.8**	0.5	0.096		51.53	360.56
BMW-3		03/25/15	0.19	0.5	0.096	J	38.58	378.18
		10/22/15	0.51	0.5	0.096		51.01	365.75
HLA-1		03/25/15	**4.4**	0.5	0.096		42.72	363.09
		10/22/15	**3.9**	0.5	0.096		52.89	352.92
MW-1		03/25/15	**1.5**	0.5	0.096		38.81	376.98
		10/22/15	**1.2**	0.5	0.096		52.18	363.61
MW-4		03/25/15	0.62	0.5	0.096		115.11	352.61
		10/22/15	0.53	0.5	0.096		123.23	344.49
MW-7		03/26/15	0.22	0.5	0.096	J	24.43	325.69
		10/23/15	0.24	0.5	0.096	J	29.68	320.44
P2-I		03/26/15	<0.096	0.5	0.096		13.19	330.04
		10/23/15	<0.096	0.5	0.096		17.16	326.07
P2-S		03/26/15	0.29	0.5	0.096	J	16.56	327.04
		10/23/15	0.45	0.5	0.096	J	18.05	325.55
MW-13		03/26/15	**1.9**	0.5	0.096		52.09	342.01
		10/23/15	**1.7**	0.5	0.096		57.87	336.23

Notes:

BOLD = CTC value above groundwater cleanup level of 0.63 µg/L

µg/L = micrograms per liter; equivalent to parts per billion

MRL = Method Reporting Limit

MDL = Method Detection Limit

ND(XX)= Not Detected(Detection Limit)

Laboratory Qualifier:

J = Carbon Tetrachloride detected between the MDL and method reporting limit (MRL: 0.5 µg/L). The reported value is estimated.

Table 3.
2014-2015 Carbon Tetrachloride Groundwater Compliance Monitoring Data
Brazier Site, Frederickson, Washington

Wells	11-BL	11-CL	HLA-1	BMW-3	BMW-18	MW1	MW4	MW7	P2S	P2I	MW-13
May-14	**0.97**	**5.4**	**5.2**	*0.28*	**5.5**	**1.8**	**0.82**	**2.3**	**0.76**	**0.72**	**2.3**
Oct-14	**0.95**	**4.4**	**4.6**	*0.39*	**4.8**	**1.4**	**0.66**	ND (0.1)	ND (0.1)	ND (0.1)	**1.9**
Mar-15	**0.64**	**4.3**	**4.4**	*0.19*	**4.2**	**1.5**	0.62	*0.22*	*0.29*	ND (0.1)	**1.9**
Oct-15	**0.72**	**3.8**	**3.9**	0.51	**3.8**	**1.2**	0.53	*0.24*	*0.45*	ND (0.1)	**1.7**
95% UCL*	**0.97***	**5.4***	**5.2***	0.51**	**5.5***	**1.8***	**0.82***	**2.3****	**0.76****	**0.72****	**2.3***

Notes:
*95% Upper Confidence Limit on true mean, using Ecology's Statistical Guidance for sample sets less than 20 (Example #15, page 97-98)
https://fortress.wa.gov/ecy/publications/documents/9254.pdf

WAC 173-340-720 (9)(e)(iv) **If more than fifty percent of the measurements are below the practical quantitation limit, the largest value in the data set shall be used in place of an upper confidence limit on the true mean groundwater calculation.

FIGURES

Property Location

Frederickson Industrial Park
Frederickson, WA

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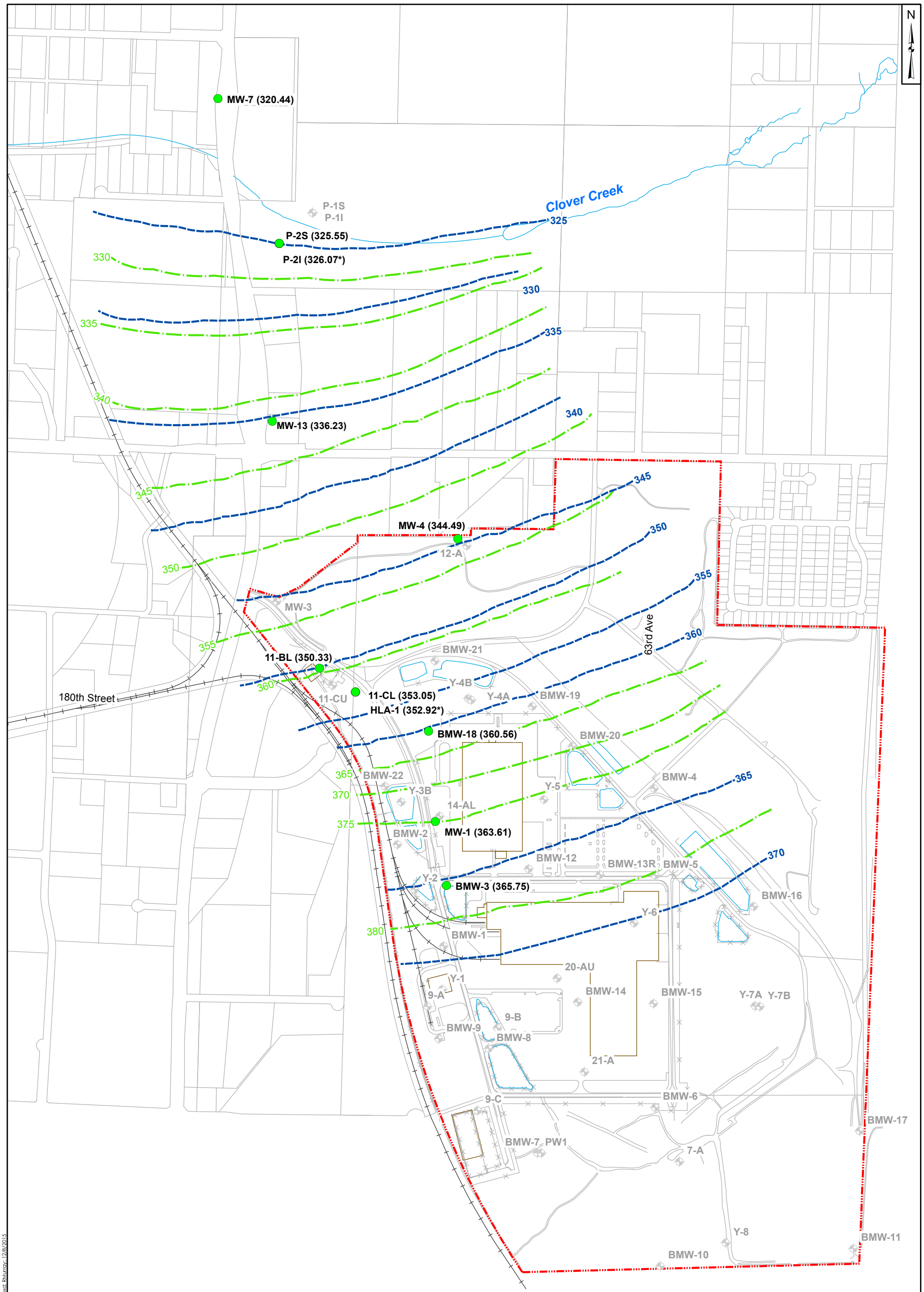
Figure **1**

N:\Frederickson\GIS\2015_November\MXD\Figure_1-1 Property Location.mxd: RMurray: 11/13/2015



Note:

* - Not used in water level contouring; well is screened in lower level of Aquifer A compared to wells used to develop contours.

Legend

- October 2015 Water Level Contours (ft masl)
- March 2015 Water Level Contours (ft masl)
- Aquifer A Compliance Monitoring Network Well (October 2015 Water Level (ft masl))
- Monitoring Wells
- Property Boundary

750 375 0 750 Feet

Aquifer A Groundwater Levels
October 2015

Frederickson Industrial Park
Frederickson, WA

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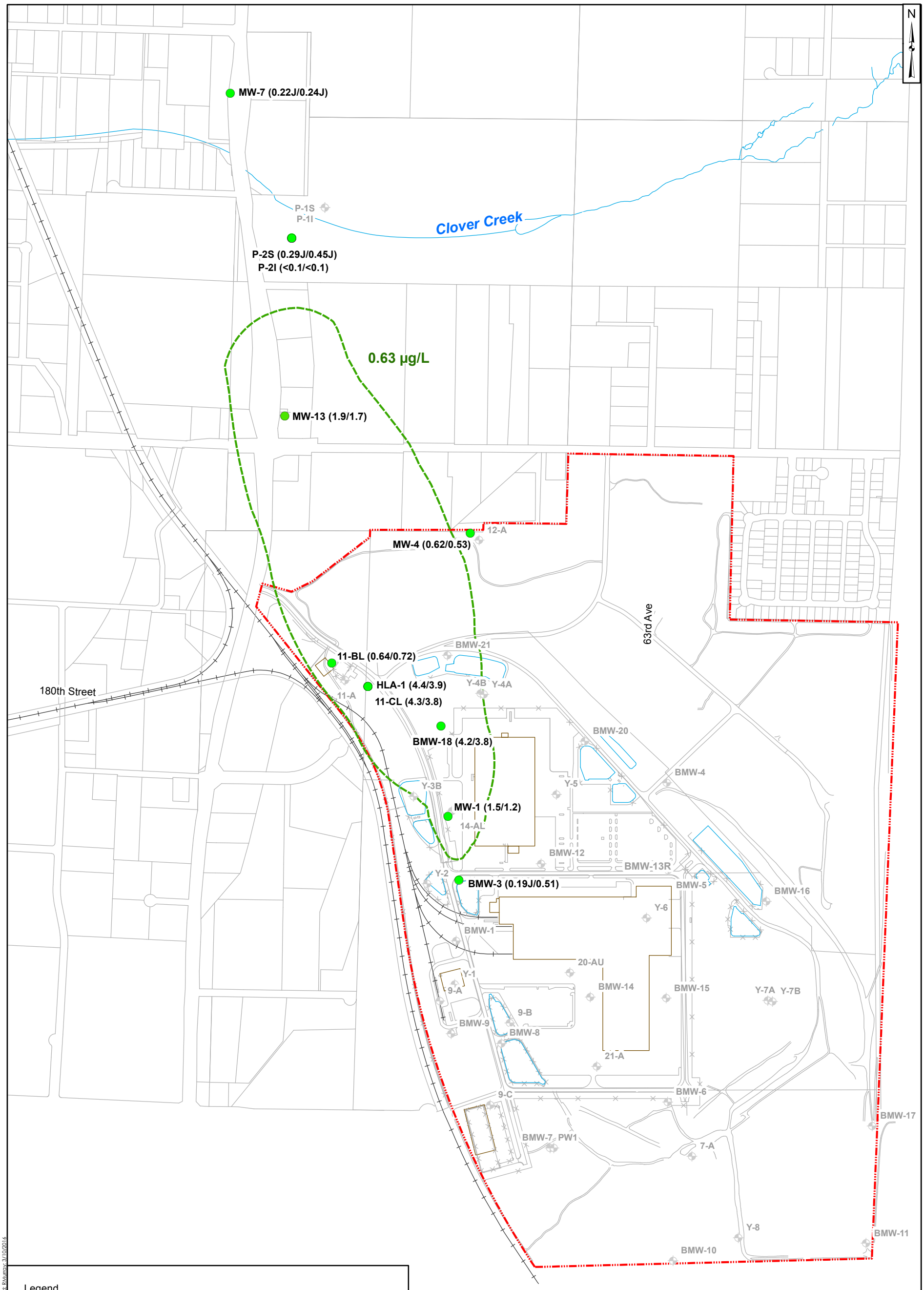
Kennesaw, GA | December 2015

Figure **2**

N:\Frederickson\GIS\2015 November\MXD\Figure 02_Oln_GW Elev_Oct2015.mxd; RMurray; 12/8/2015



Legend

- Aquifer A Monitoring Well (CTC Concentration (µg/L))
- Monitoring Wells
- CTC Contour for October 2015 data set
- Property Boundary

Notes:

1. (0.17 J) The results were above the Method Detection Limit (MDL), but below the Method Reporting Limit (MRL) and thus the values are estimated (i.e., J - flagged)
2. (5.2/4.6) Results from the May 2015 and October 2015 sampling events are displayed at each sampling location in parentheses. May 2015 results are shown on the left, and October 2015 results are shown on the right.

750 375 0 750 Feet

Aquifer A Carbon Tetrachloride Groundwater Results October 2015

Frederickson Industrial Park
Frederickson, WA

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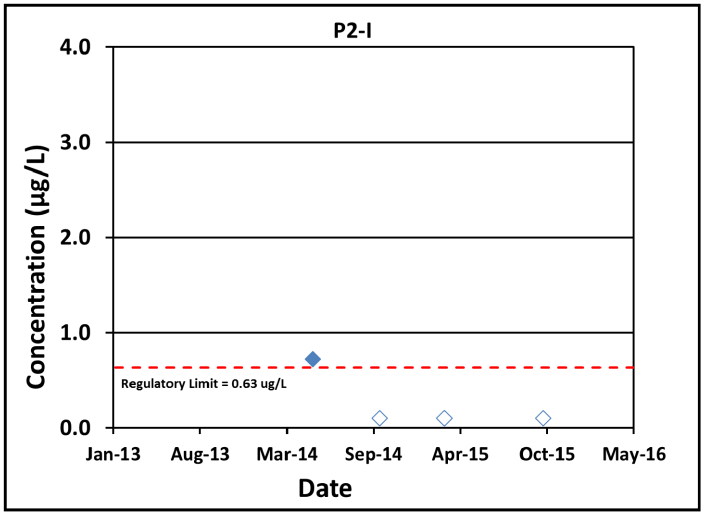
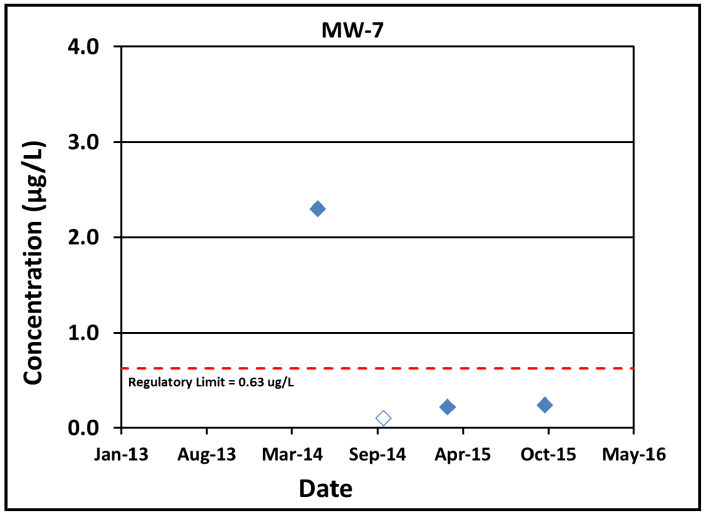
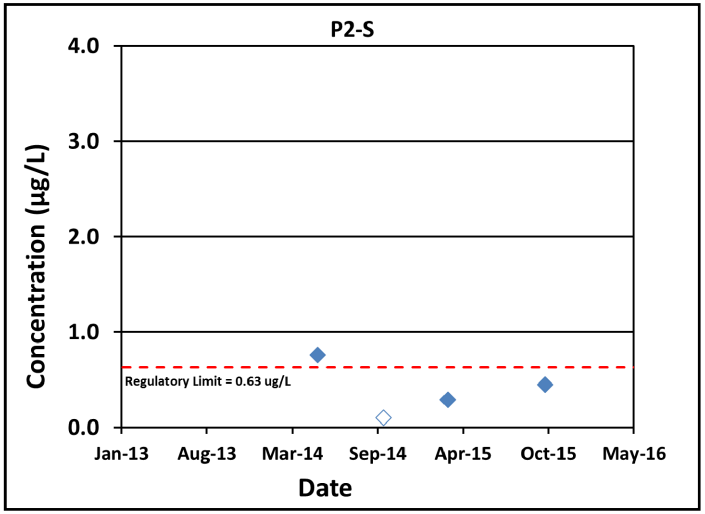
Kennesaw, GA | 10-Mar-2016

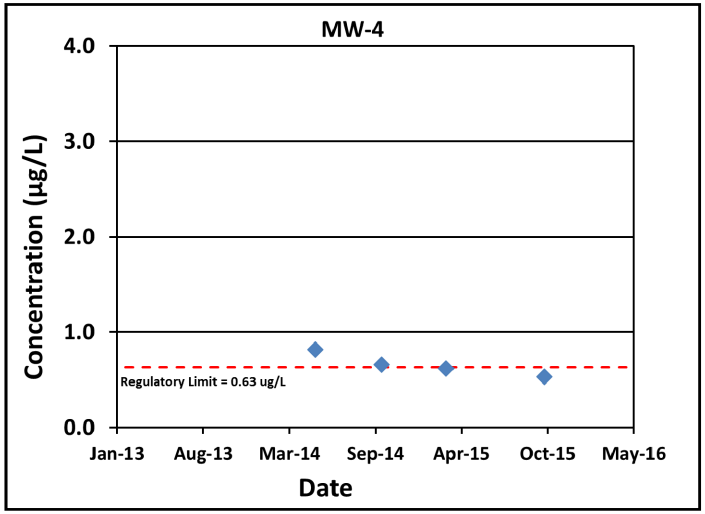
Figure 3

N:\Frederickson\GIS\2015 November\MXD\Figure 03_Olin CTC_Conc_Oct2015.mxd: RMurray 3/10/2016









Legend

◆ Detection

◇ Not Detected

Note: Method Detection Limit = 0.096 ug/L

Carbon Tetrachloride Groundwater Monitoring Well Data

Frederickson Industrial Park, Frederickson, WA

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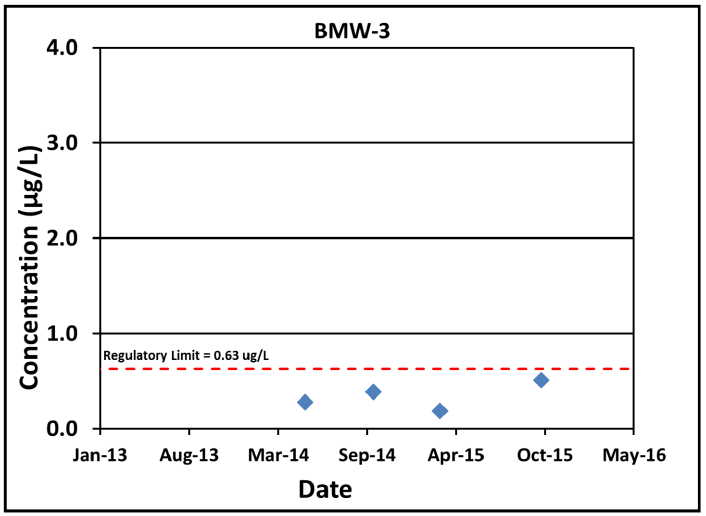
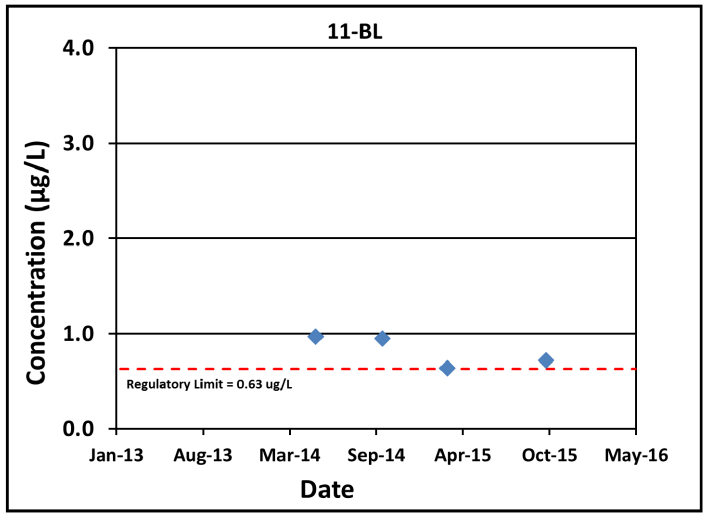
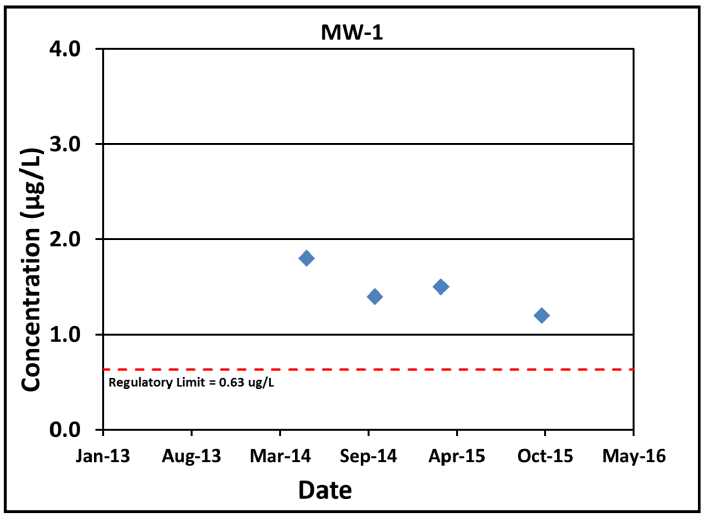
Kennesaw, GA | February 2016

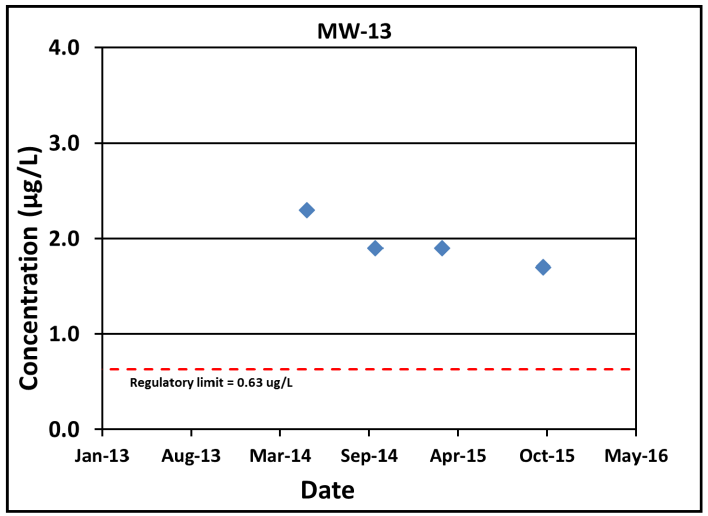
Figure 4a

internal info: path, date revised, author









Legend

Detection

Not Detected

Note: Method Detection Limit = 0.096 ug/L

Carbon Tetrachloride Groundwater Monitoring Well Data

Frederickson Industrial Park, Frederickson, WA

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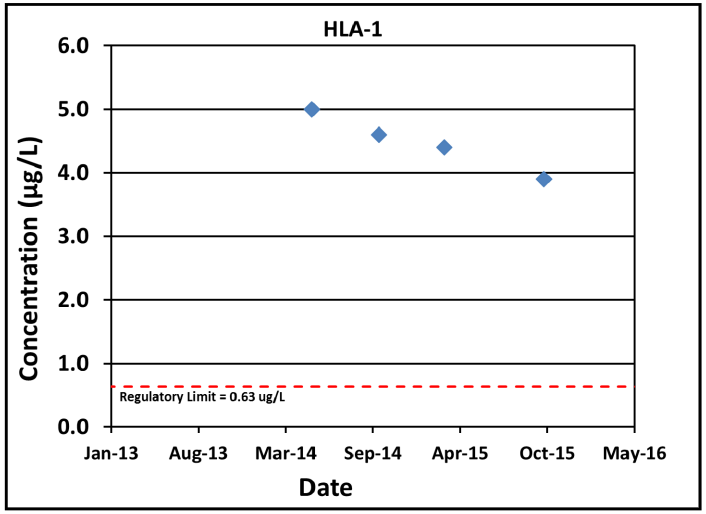
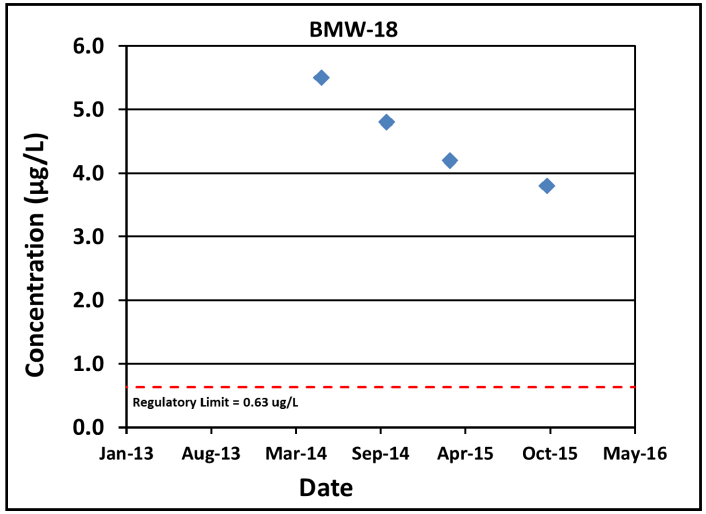
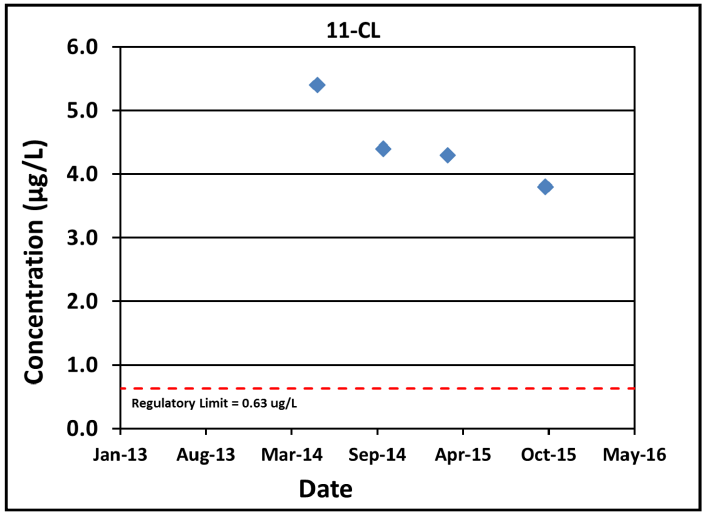
Kennesaw, GA | February 2016

Figure **4b**

internal info: path, date revised, author







Legend

- Detection
- Not Detected

Note: Method Detection Limit = 0.096 ug/L

Carbon Tetrachloride Groundwater Monitoring Well Data

Frederickson Industrial Park, Frederickson, WA

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Figure **4c**

Kennesaw, GA | February 2016

internal info: path, date revised, author

Attachments

Attachment A.
Compliance Monitoring Groundwater Sampling Event Field Parameter Data
Brazier Site, Frederickson, Washington

Well	Date	Time	pH	Field SC (µS/cm)	Temperature (°C)	Turbidity (NTUs)	Field ORP (mV)	D.O. (mg/L)
11-BL	03/25/15	11:04	6.81	219	12.04	14	17.6	1.22
	10/22/15	11:01	6.45	352	12.23	25	111.4	1.46
11-CL	03/25/15	11:47	6.52	186	13.05	8	9.4	1.59
	10/22/15	11:39	6.53	305	13.30	19	127.3	2.08
BMW-18	03/25/15	13:18	6.89	167	13.74	3	11.6	1.16
	10/22/15	12:50	6.74	283	15.20	10	140.6	1.93
BMW-3	03/25/15	7:57	6.64	75	13.21	4	33.4	1.30
	10/22/15	8:24	6.54	242	12.83	13	77.4	1.34
HLA-1	03/25/15	12:25	6.72	187	12.39	5	14.6	1.06
	10/22/15	12:09	6.69	287	13.84	13	58.6	1.71
MW-7	03/26/15	8:39	6.43	191	9.36	33	71.6	1.25
	10/23/15	8:40	6.95	274	12.72	14	55.6	1.55
MW-1	03/25/15	8:38	7.12	182	12.07	52	47.6	1.90
	10/22/15	9:11	6.98	306	12.53	98	101.4	1.61
MW-4	03/25/15	10:20	6.75	195	11.08	182	17.6	1.60
	10/22/15	10:18	6.25	337	10.69	>1000	108.6	2.08
P2-I	03/26/15	9:21	6.48	173	11.08	6	22.4	1.60
	10/23/15	9:59	7.15	284	10.95	12	126.1	1.64
P2-S	03/26/15	9:49	6.64	217	11.51	12	24.1	1.35
	10/23/15	9:33	6.90	364	9.96	12	149.6	1.86
MW-13	03/26/15	10:36	6.64	167	12.63	22	22.6	1.36
	10/23/15	10:48	6.32	279	12.51	40	73.4	1.81

Footnotes:

SC = Specific conductivity
D.O. = Dissolved oxygen
NTUs = Nephelometric Turbidity Units
ORP = Oxidation reduction potential

Attachment B

ALS Environmental
ALS Group USA, Corp
1317 South 13th Avenue
Kelso, WA 98626
T : +1 360 577 7222
F : +1 360 636 1068
www.alsglobal.com

April 15, 2015

Analytical Report for Service Request No: K1503171

Dave Parkinson
GeoSyntec Consultants
520 Pike Street, Suite #1375
Seattle, WA 98101

RE: Olin - Frederickson

Dear Dave,

Enclosed are the results of the sample(s) submitted to our laboratory March 27, 2015
For your reference, these analyses have been assigned our service request number **K1503171.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at gregory.salata@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Gregory Salata

Gregory Salata, Ph.D.
Client Services
Manager

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Inorganic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
E	The result is an estimate amount because the value exceeded the instrument calibration range.
J	The result is an estimated value.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

#	The control limit criteria is not applicable. See case narrative.
J	The result is an estimated value.
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
M	The duplicate injection precision was not met.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
S	The reported value was determined by the Method of Standard Additions (MSA).
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
+	The correlation coefficient for the MSA is less than 0.995.
Q	See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
A	A tentatively identified compound, a suspected aldol-condensation product.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
C	The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
D	The reported result is from a dilution.
E	The result is an estimated value.
J	The result is an estimated value.
N	The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
P	The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
Y	The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
Z	The chromatographic fingerprint does not resemble a petroleum product.

ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses

Agency	Web Site	Number
Alaska DEC UST	http://dec.alaska.gov/applications/eh/ehllabreports/USTLabs.aspx	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L14-51
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	Not available	-
Idaho DHW	http://www.healthandwelfare.idaho.gov/Health/Labs/CertificationDrinkingWaterLabs/tabid/1833/Default.aspx	-
ISO 17025	http://www.pjlabs.com/	L14-50
Louisiana DEQ	http://www.deq.louisiana.gov/portal/DIVISIONS/PublicParticipationandPermitSupport/LouisianaLaboratoryAccreditationProgram.aspx	03016
Maine DHS	Not available	WA01276
Michigan DEQ	http://www.michigan.gov/deq/0,1607,7-135-3307_4131_4156---,00.html	9949
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Montana DPHHS	http://www.dphhs.mt.gov/publichealth/	CERT0047
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/oqa/	WA005
North Carolina DWQ	http://www.dwqlab.org/	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/envserv/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wisconsin DNR	http://dnr.wi.gov/	998386840
Wyoming (EPA Region 8)	http://www.epa.gov/region8/water/dwhome/wyomingdi.html	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.
Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/anlayte is offered by that state.

Case Narrative

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

ALS ENVIRONMENTAL

Client:	GeoSyntec Consultants	**Service Request No.:**	K1503171
Project:	Olin - Frederickson	**Date Received:**	03/27/15
Sample Matrix:	Water		

Case Narrative

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV validation deliverables including summary forms and all of the associated raw data for each of the analyses. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Fourteen water samples were received for analysis at ALS Environmental on 03/27/15. The samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4ºC upon receipt at the laboratory.

Volatile Organic Compounds by EPA Method 8260

No anomalies associated with the analysis of these samples were observed.

Approved by_____ _____

Chain of Custody

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

K1503171

BLAINE
TECH SERVICES, INC.

1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112-1105
FAX (408) 573-7771
PHONE (408) 573-0555

CHAIN OF CUSTODY BTS # 150325-LB1

CLIENT: Geosyntec Consultants

SITE: Olin - Fredrickson
18001 Canyon Rd East
Frederickson, WA

LAB: ALS DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND
☐ EPA ☐ RWQCB REGION _____
☐ LIA
☐ OTHER

SPECIAL INSTRUCTIONS

Invoice & Report to: Geosyntec Consultants Attn: David Parkinson

C = COMPOSITE ALL CONTAINERS

CONDUCT ANALYSIS TO DETECT

	SAMPLE I.D.	DATE	TIME	MATRIX S= SOIL W=H_2O	CONTAINERS TOTAL		VOC's (8260)	(CTC) Carbon Tetrachloride	(RDX)	(TNT)	Perchlorate				ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
1	GW-032515-MW-1	3/25/15	0839	W	3	VOA		X										
2	GW-032515-MW-4	3/25/15	1021	W	3			X										
3	GW-032615-MW-7	3/26/15	0840	W	3			X										
4	GW-032615-MW-8	3/26/15	1037	W	3			X										
5	GW-032515-BMW-3	3/25/15	0758	W	3			X										
6	GW-032515-BMW-10	3/25/15	1319	W	9			X							MS/MSD			
7	GW-032615-P2-1	3/26/15	0922	W	3			X										
8	GW-032615-P2-5	3/26/15	0950	W	3			X										
9	GW-032515-11-BL	3/25/15	1105	W	3			X										
10	GW-032515-11-CL	3/25/15	1148	W	3			X										

SAMPLING COMPLETED DATE 3/26/15 TIME 1040
SAMPLING PERFORMED BY LEE BURES

RESULTS NEEDED NO LATER THAN Standard TAT

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
[signature]	3/26/15		SHIPPED VIA FedEx		
			[signature] ALS	3/27/15	0940

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #

K1503171

BLAINE
TECH SERVICES, INC.

1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112-1105
FAX (408) 573-7771
PHONE (408) 573-0555

CHAIN OF CUSTODY BTS # 150325-LB1

CLIENT: Geosyntec Consultants

SITE: OLIN - Frederickson
18001 Canyon Rd East
Frederickson, WA

CONDUCT ANALYSIS TO DETECT

LAB: ALS | DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND
☐ EPA ☐ RWQCB REGION _____
☐ LIA
☐ OTHER

SPECIAL INSTRUCTIONS

Invoice & Report to: Geosyntec Consultants Attn: David Parki

	SAMPLE I.D.	DATE	TIME	MATRIX S= SOIL W=H_2O	CONTAINERS TOTAL		C = COMPOSITE ALL CONTAINERS		VOC's (8260)	(CTC) Carbon Tetrachloride	(RDX)	(TNT)	Perchlorate			ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
11	GW-032515-HLA-1	3/25/15	1726	W	3	VOA				X									
12	GW-032515-DUP	3/25/15	—	W	3					X									
13	TB-031115	3/13/15	—	W	4					X									
14	GW-032615-EB	3/26/15	1010	W	3	↓				X									

SAMPLING COMPLETED	DATE	TIME	SAMPLING PERFORMED BY	RESULTS NEEDED NO LATER THAN
	3/26/15	1046	LEE BURES	Standard TAT

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
	3/26/15		SHIPPED VIA FEDEX		
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
			ALS	3/27/15	0940
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #

PC Greg

Cooler Receipt and Preservation Form

Client Blaine Tech Services Service Request K15 03171

Received: 3/27/15 Opened: 3/27/15 By: M Unloaded: 3/27/15 By: M

1. Samples were received via? *Mail* (*Fed Ex*) *UPS* *DHL* *PDX* *Courier* *Hand Delivered*
2. Samples were received in: (circle) (*Cooler*) *Box* *Envelope* *Other* _____ *NA*
3. Were custody seals on coolers? NA (Y) N If yes, how many and where? 1 front 1 back
   If present, were custody seals intact? (Y) N If present, were they signed and dated? (Y) N

Raw Cooler Temp	Corrected Cooler Temp	Raw Temp Blank	Corrected Temp Blank	Corr. Factor	Thermometer ID	Cooler/COC ID NA	Tracking Number NA	Filed
-0.4	-0.5	1.7	1.6	-0.1	358	BTS 150325-LB1	8757 9554 9265	

4. Packing material: (*Inserts*) (*Baggies*) *Bubble Wrap* *Gel Packs* (*Wet Ice*) *Dry Ice* *Sleeves* _____
5. Were custody papers properly filled out (ink, signed, etc.)? NA (Y) N
6. Did all bottles arrive in good condition (unbroken)? *Indicate in the table below.* NA (Y) N
7. Were all sample labels complete (i.e analysis, preservation, etc.)? NA (Y) N
8. Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.* NA (Y) N
9. Were appropriate bottles/containers and volumes received for the tests indicated? NA (Y) N
10. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below* (NA) Y N
11. Were VOA vials received without headspace? *Indicate in the table below.* NA (Y) N
12. Was C12/Res negative? (NA) Y N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, & Resolutions: _____

Page ____ *of* ____

Volatile Organic Compounds

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Client: GeoSyntec Consultants **Service Request:** K1503171
Project: Olin - Frederickson

Cover Page - Organic Analysis Data Package
Volatile Organic Compounds

Sample Name	Lab Code	Date Collected	Date Received
GW-032515-MW-1	K1503171-001	03/25/2015	03/27/2015
GW-032515-MW-4	K1503171-002	03/25/2015	03/27/2015
GW-032615-MW-7	K1503171-003	03/26/2015	03/27/2015
GW-032615-MW-13	K1503171-004	03/26/2015	03/27/2015
GW-032515-BMW-3	K1503171-005	03/25/2015	03/27/2015
GW-032515-BMW-18	K1503171-006	03/25/2015	03/27/2015
GW-032615-PZ-1	K1503171-007	03/26/2015	03/27/2015
GW-032615-PZ-S	K1503171-008	03/26/2015	03/27/2015
GW-032515-11-BL	K1503171-009	03/25/2015	03/27/2015
GW-032515-11-CL	K1503171-010	03/25/2015	03/27/2015
GW-032515-HLA-1	K1503171-011	03/25/2015	03/27/2015
GW-032515-DUP	K1503171-012	03/25/2015	03/27/2015
TB-031115	K1503171-013	03/25/2015	03/27/2015
GW-032615-EB	K1503171-014	03/26/2015	03/27/2015
GW-032515-BMW-18MS	KWG1502844-4	03/25/2015	03/27/2015
GW-032515-BMW-18DMS	KWG1502844-5	03/25/2015	03/27/2015

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1503171
Project:	Olin - Frederickson	**Date Collected:**	03/25/2015
Sample Matrix:	Water	**Date Received:**	03/27/2015

Volatile Organic Compounds

Sample Name:	GW-032515-MW-1	**Units:**	ug/L
Lab Code:	K1503171-001	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	**1.5**		0.50	0.096	1	04/03/15	04/03/15	KWG1502844	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	116	73-122	04/03/15	Acceptable
Toluene-d8	110	65-144	04/03/15	Acceptable
4-Bromofluorobenzene	110	68-117	04/03/15	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1503171
Project:	Olin - Frederickson	**Date Collected:**	03/25/2015
Sample Matrix:	Water	**Date Received:**	03/27/2015

Volatile Organic Compounds

Sample Name:	GW-032515-MW-4	**Units:**	ug/L
Lab Code:	K1503171-002	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	**0.62**		0.50	0.096	1	04/03/15	04/03/15	KWG1502844	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	120	73-122	04/03/15	Acceptable
Toluene-d8	111	65-144	04/03/15	Acceptable
4-Bromofluorobenzene	109	68-117	04/03/15	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1503171
Project:	Olin - Frederickson	**Date Collected:**	03/26/2015
Sample Matrix:	Water	**Date Received:**	03/27/2015

Volatile Organic Compounds

Sample Name:	GW-032615-MW-7	**Units:**	ug/L
Lab Code:	K1503171-003	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	**0.22**	J	0.50	0.096	1	04/08/15	04/08/15	kwg1503029	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	121	73-122	04/08/15	Acceptable
Toluene-d8	112	65-144	04/08/15	Acceptable
4-Bromofluorobenzene	108	68-117	04/08/15	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1503171
Project:	Olin - Frederickson	**Date Collected:**	03/26/2015
Sample Matrix:	Water	**Date Received:**	03/27/2015

Volatile Organic Compounds

Sample Name:	GW-032615-MW-13	**Units:**	ug/L
Lab Code:	K1503171-004	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	**1.9**		0.50	0.096	1	04/08/15	04/08/15	kwg1503029	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	118	73-122	04/08/15	Acceptable
Toluene-d8	111	65-144	04/08/15	Acceptable
4-Bromofluorobenzene	108	68-117	04/08/15	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1503171
Project:	Olin - Frederickson	**Date Collected:**	03/25/2015
Sample Matrix:	Water	**Date Received:**	03/27/2015

Volatile Organic Compounds

Sample Name:	GW-032515-BMW-3	**Units:**	ug/L
Lab Code:	K1503171-005	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	**0.19**	J	0.50	0.096	1	04/03/15	04/03/15	KWG1502844	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	118	73-122	04/03/15	Acceptable
Toluene-d8	113	65-144	04/03/15	Acceptable
4-Bromofluorobenzene	110	68-117	04/03/15	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1503171
Project:	Olin - Frederickson	**Date Collected:**	03/25/2015
Sample Matrix:	Water	**Date Received:**	03/27/2015

Volatile Organic Compounds

Sample Name:	GW-032515-BMW-18	**Units:**	ug/L
Lab Code:	K1503171-006	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	**4.2**		0.50	0.096	1	04/03/15	04/03/15	KWG1502844	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	118	73-122	04/03/15	Acceptable
Toluene-d8	112	65-144	04/03/15	Acceptable
4-Bromofluorobenzene	110	68-117	04/03/15	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1503171
Project:	Olin - Frederickson	**Date Collected:**	03/26/2015
Sample Matrix:	Water	**Date Received:**	03/27/2015

Volatile Organic Compounds

Sample Name:	GW-032615-PZ-1	**Units:**	ug/L
Lab Code:	K1503171-007	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	ND	U	0.50	0.096	1	04/08/15	04/08/15	kwg1503029	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	119	73-122	04/08/15	Acceptable
Toluene-d8	112	65-144	04/08/15	Acceptable
4-Bromofluorobenzene	109	68-117	04/08/15	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1503171
Project:	Olin - Frederickson	**Date Collected:**	03/26/2015
Sample Matrix:	Water	**Date Received:**	03/27/2015

Volatile Organic Compounds

Sample Name:	GW-032615-PZ-S	**Units:**	ug/L
Lab Code:	K1503171-008	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	**0.29**	J	0.50	0.096	1	04/08/15	04/08/15	kwg1503029	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	119	73-122	04/08/15	Acceptable
Toluene-d8	113	65-144	04/08/15	Acceptable
4-Bromofluorobenzene	107	68-117	04/08/15	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1503171
Project:	Olin - Frederickson	**Date Collected:**	03/25/2015
Sample Matrix:	Water	**Date Received:**	03/27/2015

Volatile Organic Compounds

Sample Name:	GW-032515-11-BL	**Units:**	ug/L
Lab Code:	K1503171-009	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	**0.64**		0.50	0.096	1	04/03/15	04/03/15	KWG1502844	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	116	73-122	04/03/15	Acceptable
Toluene-d8	111	65-144	04/03/15	Acceptable
4-Bromofluorobenzene	108	68-117	04/03/15	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1503171
Project:	Olin - Frederickson	**Date Collected:**	03/25/2015
Sample Matrix:	Water	**Date Received:**	03/27/2015

Volatile Organic Compounds

Sample Name:	GW-032515-11-CL	**Units:**	ug/L
Lab Code:	K1503171-010	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	**4.3**		0.50	0.096	1	04/03/15	04/03/15	KWG1502844	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	117	73-122	04/03/15	Acceptable
Toluene-d8	113	65-144	04/03/15	Acceptable
4-Bromofluorobenzene	109	68-117	04/03/15	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1503171
Project:	Olin - Frederickson	**Date Collected:**	03/25/2015
Sample Matrix:	Water	**Date Received:**	03/27/2015

Volatile Organic Compounds

Sample Name:	GW-032515-HLA-1	**Units:**	ug/L
Lab Code:	K1503171-011	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	**4.4**		0.50	0.096	1	04/03/15	04/03/15	KWG1502844	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	119	73-122	04/03/15	Acceptable
Toluene-d8	113	65-144	04/03/15	Acceptable
4-Bromofluorobenzene	110	68-117	04/03/15	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1503171
Project:	Olin - Frederickson	**Date Collected:**	03/25/2015
Sample Matrix:	Water	**Date Received:**	03/27/2015

Volatile Organic Compounds

Sample Name:	GW-032515-DUP	**Units:**	ug/L
Lab Code:	K1503171-012	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	**4.1**		0.50	0.096	1	04/03/15	04/03/15	KWG1502844	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	118	73-122	04/03/15	Acceptable
Toluene-d8	111	65-144	04/03/15	Acceptable
4-Bromofluorobenzene	110	68-117	04/03/15	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1503171
Project:	Olin - Frederickson	**Date Collected:**	03/25/2015
Sample Matrix:	Water	**Date Received:**	03/27/2015

Volatile Organic Compounds

Sample Name:	TB-031115	**Units:**	ug/L
Lab Code:	K1503171-013	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	ND	U	0.50	0.096	1	04/03/15	04/03/15	KWG1502844	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	114	73-122	04/03/15	Acceptable
Toluene-d8	111	65-144	04/03/15	Acceptable
4-Bromofluorobenzene	110	68-117	04/03/15	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1503171
Project:	Olin - Frederickson	**Date Collected:**	03/26/2015
Sample Matrix:	Water	**Date Received:**	03/27/2015

Volatile Organic Compounds

Sample Name:	GW-032615-EB	**Units:**	ug/L
Lab Code:	K1503171-014	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	ND	U	0.50	0.096	1	04/08/15	04/08/15	kwg1503029	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	118	73-122	04/08/15	Acceptable
Toluene-d8	111	65-144	04/08/15	Acceptable
4-Bromofluorobenzene	106	68-117	04/08/15	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1503171
Project:	Olin - Frederickson	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Volatile Organic Compounds

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG1502844-3	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	ND	U	0.50	0.096	1	04/03/15	04/03/15	KWG1502844	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	112	73-122	04/03/15	Acceptable
Toluene-d8	110	65-144	04/03/15	Acceptable
4-Bromofluorobenzene	113	68-117	04/03/15	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1503171
Project:	Olin - Frederickson	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Volatile Organic Compounds

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG1503029-5	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	ND	U	0.50	0.096	1	04/08/15	04/08/15	KWG1503029	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	116	73-122	04/08/15	Acceptable
Toluene-d8	109	65-144	04/08/15	Acceptable
4-Bromofluorobenzene	107	68-117	04/08/15	Acceptable

Comments:

QA/QC Report

Client: GeoSyntec Consultants **Service Request:** K1503171
Project: Olin - Frederickson
Sample Matrix: Water

Surrogate Recovery Summary
Volatile Organic Compounds

Extraction Method: EPA 5030B **Units:** Percent
Analysis Method: 8260C **Level:** Low

Sample Name	Lab Code	Sur1	Sur2	Sur3
GW-032515-MW-1	K1503171-001	116	110	110
GW-032515-MW-4	K1503171-002	120	111	109
GW-032615-MW-7	K1503171-003	121	112	108
GW-032615-MW-13	K1503171-004	118	111	108
GW-032515-BMW-3	K1503171-005	118	113	110
GW-032515-BMW-18	K1503171-006	118	112	110
GW-032615-PZ-1	K1503171-007	119	112	109
GW-032615-PZ-S	K1503171-008	119	113	107
GW-032515-11-BL	K1503171-009	116	111	108
GW-032515-11-CL	K1503171-010	117	113	109
GW-032515-HLA-1	K1503171-011	119	113	110
GW-032515-DUP	K1503171-012	118	111	110
TB-031115	K1503171-013	114	111	110
GW-032615-EB	K1503171-014	118	111	106
Method Blank	KWG1502844-3	112	110	113
Method Blank	KWG1503029-5	116	109	107
GW-032515-BMW-18MS	KWG1502844-4	116	113	114
GW-032515-BMW-18DMS	KWG1502844-5	114	112	115
Lab Control Sample	KWG1502844-1	115	113	114
Duplicate Lab Control Sample	KWG1502844-2	115	113	116
Lab Control Sample	KWG1503029-3	119	114	114
Duplicate Lab Control Sample	KWG1503029-4	119	114	115

Surrogate Recovery Control Limits (%)

Sur1	=	Dibromofluoromethane	73-122
Sur2	=	Toluene-d8	65-144
Sur3	=	4-Bromofluorobenzene	68-117

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

QA/QC Report

Client: GeoSyntec Consultants
Project: Olin - Frederickson

Service Request: K1503171
Date Analyzed: 04/03/2015
Time Analyzed: 11:02

Internal Standard Area and RT Summary
Volatile Organic Compounds

File ID: J:\MS46\DATA\040315\0403F008.D
Instrument ID: GCMS46
Analysis Method: 8260C

Lab Code: KWG1502843-2
Analysis Lot: KWG1502843

		Fluorobenzene		Chlorobenzene-d5	
		Area	**RT**	**Area**	**RT**
	Results ==>	765,438	6.49	308,098	9.95
	Upper Limit ==>	1,530,876	6.99	616,196	10.45
	Lower Limit ==>	382,719	5.99	154,049	9.45
	ICAL Result ==>	816,563	6.49	322,983	9.96
Associated Analyses					
GW-032515-BMW-18MS	KWG1502844-4	812,546	6.49	324,583	9.96
GW-032515-BMW-18DMS	KWG1502844-5	819,391	6.49	324,328	9.96
Lab Control Sample	KWG1502844-1	821,256	6.49	334,235	9.96
Duplicate Lab Control Sample	KWG1502844-2	812,939	6.49	322,679	9.96
Method Blank	KWG1502844-3	773,562	6.49	304,584	9.96
GW-032515-BMW-18	K1503171-006	756,004	6.49	303,576	9.96
GW-032515-MW-1	K1503171-001	753,343	6.49	295,921	9.96
GW-032515-MW-4	K1503171-002	750,666	6.49	303,330	9.96
GW-032515-BMW-3	K1503171-005	735,604	6.49	296,611	9.96
GW-032515-11-BL	K1503171-009	729,115	6.49	289,185	9.96
TB-031115	K1503171-013	738,819	6.49	291,206	9.95
GW-032515-11-CL	K1503171-010	709,588	6.49	286,435	9.96
GW-032515-HLA-1	K1503171-011	724,148	6.49	293,820	9.96
GW-032515-DUP	K1503171-012	741,694	6.49	293,309	9.96

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Report

Client: GeoSyntec Consultants
Project: Olin - Frederickson

Service Request: K1503171
Date Analyzed: 04/08/2015
Time Analyzed: 11:06

Internal Standard Area and RT Summary
Volatile Organic Compounds

File ID: J:\MS46\DATA\040815X\0408F004.D
Instrument ID: GCMS46
Analysis Method: 8260C

Lab Code: KWG1503030-2
Analysis Lot: KWG1503030

		Fluorobenzene		Chlorobenzene-d5		1,4-Dichlorobenzene-d4	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	Results ==>	734,132	6.49	295,222	9.96	303,375	12.53
	Upper Limit ==>	1,468,264	6.99	590,444	10.46	606,750	13.03
	Lower Limit ==>	367,066	5.99	147,611	9.46	151,688	12.03
	ICAL Result ==>	816,563	6.49	322,983	9.96	325,240	12.53
Associated Analyses							
Lab Control Sample	KWG1503029-3	760,520	6.49	309,546	9.95	324,541	12.53
Duplicate Lab Control Sample	KWG1503029-4	759,842	6.49	308,631	9.96	317,060	12.53
Method Blank	KWG1503029-5	734,408	6.49	294,950	9.95	290,964	12.53
GW-032615-MW-7	K1503171-003	723,631	6.49	298,225	9.96	290,098	12.53
GW-032615-MW-13	K1503171-004	712,832	6.49	287,270	9.96	286,263	12.53
GW-032615-PZ-1	K1503171-007	705,592	6.49	284,702	9.96	279,374	12.53
GW-032615-PZ-S	K1503171-008	700,744	6.49	286,229	9.96	279,493	12.53
GW-032615-EB	K1503171-014	698,148	6.49	279,294	9.96	271,931	12.53

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	K1503171
Project:	Olin - Frederickson	**Date Extracted:**	04/03/2015
Sample Matrix:	Water	**Date Analyzed:**	04/03/2015

Matrix Spike/Duplicate Matrix Spike Summary
Volatile Organic Compounds

Sample Name:	GW-032515-BMW-18	**Units:**	ug/L
Lab Code:	K1503171-006	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C	**Extraction Lot:**	KWG1502844

		GW-032515-BMW-18MS KWG1502844-4 Matrix Spike			GW-032515-BMW-18DMS KWG1502844-5 Duplicate Matrix Spike					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**%Rec**	**Result**	**Spike Amount**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
Carbon Tetrachloride	4.2	13.3	10.0	91	12.5	10.0	83	53-161	6	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	K1503171
Project:	Olin - Frederickson	**Date Extracted:**	04/03/2015
Sample Matrix:	Water	**Date Analyzed:**	04/03/2015

Lab Control Spike/Duplicate Lab Control Spike Summary
Volatile Organic Compounds

Extraction Method:	EPA 5030B	**Units:**	ug/L
Analysis Method:	8260C	**Basis:**	NA
		Level:	Low
		Extraction Lot:	KWG1502844

	Lab Control Sample KWG1502844-1 Lab Control Spike			Duplicate Lab Control Sample KWG1502844-2 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Spike Amount**	**%Rec**	**Result**	**Spike Amount**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
Carbon Tetrachloride	8.00	10.0	80	7.67	10.0	77	55-140	4	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	K1503171
Project:	Olin - Frederickson	**Date Extracted:**	04/08/2015
Sample Matrix:	Water	**Date Analyzed:**	04/08/2015

Lab Control Spike/Duplicate Lab Control Spike Summary
Volatile Organic Compounds

Extraction Method:	EPA 5030B	**Units:**	ug/L
Analysis Method:	8260C	**Basis:**	NA
		Level:	Low
		Extraction Lot:	KWG1503029

	Lab Control Sample KWG1503029-3 Lab Control Spike			Duplicate Lab Control Sample KWG1503029-4 Duplicate Lab Control Spike					
Analyte Name	**Result**	**Spike Amount**	**%Rec**	**Result**	**Spike Amount**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
Carbon Tetrachloride	9.05	10.0	91	8.84	10.0	88	55-140	2	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Client:	GeoSyntec Consultants	**Service Request:**	K1503171
Project:	Olin - Frederickson	**Date Extracted:**	04/03/2015
Sample Matrix:	Water	**Date Analyzed:**	04/03/2015
		Time Analyzed:	14:57

Method Blank Summary
Volatile Organic Compounds

Sample Name:	Method Blank	**Instrument ID:**	GCMS46
Lab Code:	KWG1502844-3	**File ID:**	J:\MS46\DATA\040315\0403F017.D
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C	**Extraction Lot:**	KWG1502844

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
GW-032515-BMW-18MS	KWG1502844-4	J:\MS46\DATA\040315\0403F011.D	04/03/15	12:34
GW-032515-BMW-18DMS	KWG1502844-5	J:\MS46\DATA\040315\0403F012.D	04/03/15	12:58
Lab Control Sample	KWG1502844-1	J:\MS46\DATA\040315\0403F013.D	04/03/15	13:22
Duplicate Lab Control Sample	KWG1502844-2	J:\MS46\DATA\040315\0403F014.D	04/03/15	13:45
GW-032515-BMW-18	K1503171-006	J:\MS46\DATA\040315\0403F018.D	04/03/15	15:21
GW-032515-MW-1	K1503171-001	J:\MS46\DATA\040315\0403F021.D	04/03/15	16:32
GW-032515-MW-4	K1503171-002	J:\MS46\DATA\040315\0403F022.D	04/03/15	16:56
GW-032515-BMW-3	K1503171-005	J:\MS46\DATA\040315\0403F023.D	04/03/15	17:20
GW-032515-11-BL	K1503171-009	J:\MS46\DATA\040315\0403F024.D	04/03/15	17:44
TB-031115	K1503171-013	J:\MS46\DATA\040315\0403F025.D	04/03/15	18:08
GW-032515-11-CL	K1503171-010	J:\MS46\DATA\040315\0403F026.D	04/03/15	18:32
GW-032515-HLA-1	K1503171-011	J:\MS46\DATA\040315\0403F027.D	04/03/15	18:55
GW-032515-DUP	K1503171-012	J:\MS46\DATA\040315\0403F028.D	04/03/15	19:20

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	K1503171
Project:	Olin - Frederickson	**Date Extracted:**	04/08/2015
Sample Matrix:	Water	**Date Analyzed:**	04/08/2015
		Time Analyzed:	14:07

Method Blank Summary
Volatile Organic Compounds

Sample Name:	Method Blank	**Instrument ID:**	GCMS46
Lab Code:	KWG1503029-5	**File ID:**	J:\MS46\DATA\040815X\0408F011.D
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C	**Extraction Lot:**	KWG1503029

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Lab Control Sample	KWG1503029-3	J:\MS46\DATA\040815X\0408F005.D	04/08/15	11:46
Duplicate Lab Control Sample	KWG1503029-4	J:\MS46\DATA\040815X\0408F006.D	04/08/15	12:09
GW-032615-MW-7	K1503171-003	J:\MS46\DATA\040815X\0408F022.D	04/08/15	18:27
GW-032615-MW-13	K1503171-004	J:\MS46\DATA\040815X\0408F023.D	04/08/15	18:51
GW-032615-PZ-1	K1503171-007	J:\MS46\DATA\040815X\0408F024.D	04/08/15	19:15
GW-032615-PZ-S	K1503171-008	J:\MS46\DATA\040815X\0408F025.D	04/08/15	19:38
GW-032615-EB	K1503171-014	J:\MS46\DATA\040815X\0408F026.D	04/08/15	20:02

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	K1503171
Project:	Olin - Frederickson	**Date Extracted:**	04/03/2015
Sample Matrix:	Water	**Date Analyzed:**	04/03/2015
		Time Analyzed:	13:22

Lab Control Sample Summary
Volatile Organic Compounds

Sample Name:	Lab Control Sample	**Instrument ID:**	GCMS46
Lab Code:	KWG1502844-1	**File ID:**	J:\MS46\DATA\040315\0403F013.D
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C	**Extraction Lot:**	KWG1502844

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
GW-032515-BMW-18MS	KWG1502844-4	J:\MS46\DATA\040315\0403F011.D	04/03/15	12:34
GW-032515-BMW-18DMS	KWG1502844-5	J:\MS46\DATA\040315\0403F012.D	04/03/15	12:58
Method Blank	KWG1502844-3	J:\MS46\DATA\040315\0403F017.D	04/03/15	14:57
GW-032515-BMW-18	K1503171-006	J:\MS46\DATA\040315\0403F018.D	04/03/15	15:21
GW-032515-MW-1	K1503171-001	J:\MS46\DATA\040315\0403F021.D	04/03/15	16:32
GW-032515-MW-4	K1503171-002	J:\MS46\DATA\040315\0403F022.D	04/03/15	16:56
GW-032515-BMW-3	K1503171-005	J:\MS46\DATA\040315\0403F023.D	04/03/15	17:20
GW-032515-11-BL	K1503171-009	J:\MS46\DATA\040315\0403F024.D	04/03/15	17:44
TB-031115	K1503171-013	J:\MS46\DATA\040315\0403F025.D	04/03/15	18:08
GW-032515-11-CL	K1503171-010	J:\MS46\DATA\040315\0403F026.D	04/03/15	18:32
GW-032515-HLA-1	K1503171-011	J:\MS46\DATA\040315\0403F027.D	04/03/15	18:55
GW-032515-DUP	K1503171-012	J:\MS46\DATA\040315\0403F028.D	04/03/15	19:20

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	K1503171
Project:	Olin - Frederickson	**Date Extracted:**	04/08/2015
Sample Matrix:	Water	**Date Analyzed:**	04/08/2015
		Time Analyzed:	11:46

Lab Control Sample Summary
Volatile Organic Compounds

Sample Name:	Lab Control Sample	**Instrument ID:**	GCMS46
Lab Code:	KWG1503029-3	**File ID:**	J:\MS46\DATA\040815X\0408F005.D
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C	**Extraction Lot:**	KWG1503029

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Method Blank	KWG1503029-5	J:\MS46\DATA\040815X\0408F011.D	04/08/15	14:07
GW-032615-MW-7	K1503171-003	J:\MS46\DATA\040815X\0408F022.D	04/08/15	18:27
GW-032615-MW-13	K1503171-004	J:\MS46\DATA\040815X\0408F023.D	04/08/15	18:51
GW-032615-PZ-1	K1503171-007	J:\MS46\DATA\040815X\0408F024.D	04/08/15	19:15
GW-032615-PZ-S	K1503171-008	J:\MS46\DATA\040815X\0408F025.D	04/08/15	19:38
GW-032615-EB	K1503171-014	J:\MS46\DATA\040815X\0408F026.D	04/08/15	20:02

QA/QC Results

Client: GeoSyntec Consultants
Project: Olin - Frederickson

Service Request: K1503171
Date Analyzed: 04/03/2015
Time Analyzed: 10:27

Tune Summary
Volatile Organic Compounds

File ID: J:\MS46\DATA\040315\0403F007.D
Instrument ID: GCMS46
Column:

Analysis Method: 8260C
Analysis Lot: KWG1502843

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	19.6	10694	PASS
75	95	30	60	54.6	29832	PASS
95	95	100	100	100.0	54616	PASS
96	95	5	9	7.1	3880	PASS
173	174	0	2	0.0	0	PASS
174	95	50	120	90.8	49573	PASS
175	174	5	9	7.6	3774	PASS
176	174	95	101	95.1	47138	PASS
177	176	5	9	7.7	3608	PASS

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed	Q
Continuing Calibration Verification	KWG1502843-2	J:\MS46\DATA\040315\0403F008.D	04/03/2015	11:02	
GW-032515-BMW-18MS	KWG1502844-4	J:\MS46\DATA\040315\0403F011.D	04/03/2015	12:34	
GW-032515-BMW-18DMS	KWG1502844-5	J:\MS46\DATA\040315\0403F012.D	04/03/2015	12:58	
Lab Control Sample	KWG1502844-1	J:\MS46\DATA\040315\0403F013.D	04/03/2015	13:22	
Duplicate Lab Control Sample	KWG1502844-2	J:\MS46\DATA\040315\0403F014.D	04/03/2015	13:45	
Method Blank	KWG1502844-3	J:\MS46\DATA\040315\0403F017.D	04/03/2015	14:57	
GW-032515-BMW-18	K1503171-006	J:\MS46\DATA\040315\0403F018.D	04/03/2015	15:21	
GW-032515-MW-1	K1503171-001	J:\MS46\DATA\040315\0403F021.D	04/03/2015	16:32	
GW-032515-MW-4	K1503171-002	J:\MS46\DATA\040315\0403F022.D	04/03/2015	16:56	
GW-032515-BMW-3	K1503171-005	J:\MS46\DATA\040315\0403F023.D	04/03/2015	17:20	
GW-032515-11-BL	K1503171-009	J:\MS46\DATA\040315\0403F024.D	04/03/2015	17:44	
TB-031115	K1503171-013	J:\MS46\DATA\040315\0403F025.D	04/03/2015	18:08	
GW-032515-11-CL	K1503171-010	J:\MS46\DATA\040315\0403F026.D	04/03/2015	18:32	
GW-032515-HLA-1	K1503171-011	J:\MS46\DATA\040315\0403F027.D	04/03/2015	18:55	
GW-032515-DUP	K1503171-012	J:\MS46\DATA\040315\0403F028.D	04/03/2015	19:20	

Results flagged with an asterisk (*) indicate the analysis performed outside specified tune window

Client: GeoSyntec Consultants
Project: Olin - Frederickson

Service Request: K1503171
Date Analyzed: 04/08/2015
Time Analyzed: 10:20

Tune Summary
Volatile Organic Compounds

File ID: J:\MS46\DATA\040815X\0408F003.D
Instrument ID: GCMS46
Column:

Analysis Method: 8260C
Analysis Lot: KWG1503030

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	21.6	4190	PASS
75	95	30	60	51.8	10055	PASS
95	95	100	100	100.0	19407	PASS
96	95	5	9	7.0	1354	PASS
173	174	0	2	0.3	50	PASS
174	95	50	120	92.9	18031	PASS
175	174	5	9	7.8	1401	PASS
176	174	95	101	96.8	17460	PASS
177	176	5	9	6.8	1194	PASS

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed	Q
Continuing Calibration Verification	KWG1503030-2	J:\MS46\DATA\040815X\0408F004.D	04/08/2015	11:06	
Lab Control Sample	KWG1503029-3	J:\MS46\DATA\040815X\0408F005.D	04/08/2015	11:46	
Duplicate Lab Control Sample	KWG1503029-4	J:\MS46\DATA\040815X\0408F006.D	04/08/2015	12:09	
Method Blank	KWG1503029-5	J:\MS46\DATA\040815X\0408F011.D	04/08/2015	14:07	
GW-032615-MW-7	K1503171-003	J:\MS46\DATA\040815X\0408F022.D	04/08/2015	18:27	
GW-032615-MW-13	K1503171-004	J:\MS46\DATA\040815X\0408F023.D	04/08/2015	18:51	
GW-032615-PZ-1	K1503171-007	J:\MS46\DATA\040815X\0408F024.D	04/08/2015	19:15	
GW-032615-PZ-S	K1503171-008	J:\MS46\DATA\040815X\0408F025.D	04/08/2015	19:38	
GW-032615-EB	K1503171-014	J:\MS46\DATA\040815X\0408F026.D	04/08/2015	20:02	

Results flagged with an asterisk (*) indicate the analysis performed outside specified tune window

Client: GeoSyntec Consultants **Service Request:** K1503171
Project: Olin - Frederickson **Calibration Date:** 03/16/2015

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL13899 **Column:** MS
Instrument ID: GCMS46

Level ID	File ID	Level ID	File ID
A	I:\MS46\DATA\031615\0316F009.D	G	I:\MS46\DATA\031615\0316F015.D
B	I:\MS46\DATA\031615\0316F010.D	H	I:\MS46\DATA\031615\0316F016.D
C	I:\MS46\DATA\031615\0316F011.D	I	I:\MS46\DATA\031615\0316F017.D
D	I:\MS46\DATA\031615\0316F012.D	J	I:\MS46\DATA\031615\0316F018.D
E	I:\MS46\DATA\031615\0316F013.D	K	I:\MS46\DATA\031615\0316F019.D
F	I:\MS46\DATA\031615\0316F014.D		

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
Carbon Tetrachloride	A	0.10	0.409	B	0.20	0.332	C	0.50	0.315	D	1.0	0.342	E	2.0	0.364
	F	5.0	0.308	G	10	0.346	H	20	0.342	I	40	0.348	J	60	0.362
	K	80	0.445												
Dibromofluoromethane										D	4.0	0.211	E	6.0	0.206
	F	8.0	0.214	G	10	0.223	H	12	0.223	I	14	0.232	J	16	0.221
	K	20	0.228												
Toluene-d8										D	4.0	0.801	E	6.0	0.786
	F	8.0	0.820	G	10	0.835	H	12	0.883	I	14	0.898	J	16	0.871
	K	20	0.885												
4-Bromofluorobenzene										D	4.0	0.728	E	6.0	0.758
	F	8.0	0.761	G	10	0.769	H	12	0.793	I	14	0.823	J	16	0.783
	K	20	0.781												

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound **‡ CCC Compound**

Client: GeoSyntec Consultants **Service Request:** K1503171
Project: Olin - Frederickson **Calibration Date:** 03/16/2015

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL13899 **Column:** MS
Instrument ID: GCMS46

		Calibration Evaluation					RRF Evaluation		
Analyte Name	**Compound Type**	**Fit Type**	**Eval.**	**Eval. Result**	**Q**	**Control Criteria**	**Average RRF**	**Q**	**Minimum RRF**
Carbon Tetrachloride	MS	AverageRF	% RSD	11.3		≤ 20	0.356		0.100
Dibromofluoromethane	SURR	AverageRF	% RSD	4.0		≤ 20	0.220		0.01
Toluene-d8	SURR	AverageRF	% RSD	5.0		≤ 20	0.847		0.01
4-Bromofluorobenzene	SURR	AverageRF	% RSD	3.6		≤ 20	0.775		0.01

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound **‡ CCC Compound**

QA/QC Results

Client: GeoSyntec Consultants
Project: Olin - Frederickson

Service Request: K1503171
Calibration Date: 03/16/2015
Date Analyzed: 03/16/2015

Second Source Calibration Verification
Volatile Organic Compounds

Calibration Type: Internal Standard
Analysis Method: 8260C

Calibration ID: CAL13899
Units: PPB

File ID: I:\MS46\DATA\031615\0316F022.D
J:\MS46\DATA\031715\0317F004.D

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
Carbon Tetrachloride	10	8.8	0.356	0.312	-12	NA	± 30 %	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound **‡ CCC Compound**

Client: GeoSyntec Consultants
Project: Olin - Frederickson

Service Request: K1503171
Date Analyzed: 04/03/2015

Continuing Calibration Verification Summary
Volatile Organic Compounds

Calibration Type: Internal Standard
Analysis Method: 8260C

Calibration Date: 03/16/2015
Calibration ID: CAL13899
Analysis Lot: KWG1502843
Units: PPB

File ID: J:\MS46\DATA\040315\0403F008.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Carbon Tetrachloride	10	8.7	0.100	0.356	0.309	-13	NA	± 20	AverageRF
Dibromofluoromethane	10	12	0.01	0.220	0.254	16	NA	± 20	AverageRF
Toluene-d8	10	12	0.01	0.847	0.979	15	NA	± 20	AverageRF
4-Bromofluorobenzene	10	11	0.01	0.775	0.877	13	NA	± 20	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound **‡ CCC Compound**

Client: GeoSyntec Consultants
Project: Olin - Frederickson

Service Request: K1503171
Date Analyzed: 04/08/2015

Continuing Calibration Verification Summary
Volatile Organic Compounds

Calibration Type: Internal Standard
Analysis Method: 8260C

Calibration Date: 03/16/2015
Calibration ID: CAL13899
Analysis Lot: KWG1503030
Units: PPB

File ID: J:\MS46\DATA\040815X\0408F004.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Carbon Tetrachloride	10	8.9	0.100	0.356	0.318	-11	NA	± 20	AverageRF
Dibromofluoromethane	10	12	0.01	0.220	0.258	17	NA	± 20	AverageRF
Toluene-d8	10	11	0.01	0.847	0.969	14	NA	± 20	AverageRF
4-Bromofluorobenzene	10	12	0.01	0.775	0.893	15	NA	± 20	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound **‡ CCC Compound**

Client: GeoSyntec Consultants **Service Request:** K1503171
Project: Olin - Frederickson

Analysis Run Log
Volatile Organic Compounds

Analysis Method: 8260C **Analysis Lot:** KWG1502843
Instrument ID: GCMS46

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
0403F007.D	GC/MS Tuning - Bromofluorobenzene	KWG1502843-1	4/3/2015	10:27		4/3/2015	10:44
0403F008.D	Continuing Calibration Verification	KWG1502843-2	4/3/2015	11:02		4/3/2015	11:19
0403F011.D	GW-032515-BMW-18MS	KWG1502844-4	4/3/2015	12:34		4/3/2015	12:51
0403F012.D	GW-032515-BMW-18DMS	KWG1502844-5	4/3/2015	12:58		4/3/2015	13:15
0403F013.D	Lab Control Sample	KWG1502844-1	4/3/2015	13:22		4/3/2015	13:39
0403F014.D	Duplicate Lab Control Sample	KWG1502844-2	4/3/2015	13:45		4/3/2015	14:02
0403F017.D	Method Blank	KWG1502844-3	4/3/2015	14:57		4/3/2015	15:14
0403F018.D	GW-032515-BMW-18	K1503171-006	4/3/2015	15:21		4/3/2015	15:38
0403F021.D	GW-032515-MW-1	K1503171-001	4/3/2015	16:32		4/3/2015	16:49
0403F022.D	GW-032515-MW-4	K1503171-002	4/3/2015	16:56		4/3/2015	17:13
0403F023.D	GW-032515-BMW-3	K1503171-005	4/3/2015	17:20		4/3/2015	17:37
0403F024.D	GW-032515-11-BL	K1503171-009	4/3/2015	17:44		4/3/2015	18:01
0403F025.D	TB-031115	K1503171-013	4/3/2015	18:08		4/3/2015	18:25
0403F026.D	GW-032515-11-CL	K1503171-010	4/3/2015	18:32		4/3/2015	18:49
0403F027.D	GW-032515-HLA-1	K1503171-011	4/3/2015	18:55		4/3/2015	19:12
0403F028.D	GW-032515-DUP	K1503171-012	4/3/2015	19:20		4/3/2015	19:37
0403F029.D	ZZZZZZ	ZZZZZZ	4/3/2015	19:43		4/3/2015	20:00
0403F030.D	ZZZZZZ	ZZZZZZ	4/3/2015	20:07		4/3/2015	20:24
0403F031.D	ZZZZZZ	ZZZZZZ	4/3/2015	20:31		4/3/2015	20:48
0403F032.D	ZZZZZZ	ZZZZZZ	4/3/2015	20:55		4/3/2015	21:12
0403F033.D	ZZZZZZ	ZZZZZZ	4/3/2015	21:19		4/3/2015	21:36
0403F034.D	ZZZZZZ	ZZZZZZ	4/3/2015	21:43		4/3/2015	22:00
0403F035.D	ZZZZZZ	ZZZZZZ	4/3/2015	22:07		4/3/2015	22:24

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

Client: GeoSyntec Consultants **Service Request:** K1503171
Project: Olin - Frederickson

Analysis Run Log
Volatile Organic Compounds

Analysis Method: 8260C **Analysis Lot:** KWG1503030
Instrument ID: GCMS46

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
0408F003.D	GC/MS Tuning - Bromofluorobenzene	KWG1503030-1	4/8/2015	10:20		4/8/2015	10:37
0408F004.D	Continuing Calibration Verification	KWG1503030-2	4/8/2015	11:06		4/8/2015	11:23
0408F005.D	Lab Control Sample	KWG1503029-3	4/8/2015	11:46		4/8/2015	12:03
0408F006.D	Duplicate Lab Control Sample	KWG1503029-4	4/8/2015	12:09		4/8/2015	12:26
0408F011.D	Method Blank	KWG1503029-5	4/8/2015	14:07		4/8/2015	14:24
0408F012.D	ZZZZZZ	ZZZZZZ	4/8/2015	14:31		4/8/2015	14:48
0408F013.D	ZZZZZZ	ZZZZZZ	4/8/2015	14:54		4/8/2015	15:11
0408F014.D	ZZZZZZ	ZZZZZZ	4/8/2015	15:18		4/8/2015	15:35
0408F016.D	ZZZZZZ	ZZZZZZ	4/8/2015	16:05		4/8/2015	16:22
0408F022.D	GW-032615-MW-7	K1503171-003	4/8/2015	18:27		4/8/2015	18:44
0408F023.D	GW-032615-MW-13	K1503171-004	4/8/2015	18:51		4/8/2015	19:08
0408F024.D	GW-032615-PZ-1	K1503171-007	4/8/2015	19:15		4/8/2015	19:32
0408F025.D	GW-032615-PZ-S	K1503171-008	4/8/2015	19:38		4/8/2015	19:55
0408F026.D	GW-032615-EB	K1503171-014	4/8/2015	20:02		4/8/2015	20:19
0408F027.D	ZZZZZZ	ZZZZZZ	4/8/2015	20:26		4/8/2015	20:43
0408F028.D	ZZZZZZ	ZZZZZZ	4/8/2015	20:49		4/8/2015	21:06
0408F029.D	ZZZZZZ	ZZZZZZ	4/8/2015	21:13		4/8/2015	21:30
0408F030.D	ZZZZZZ	ZZZZZZ	4/8/2015	21:37		4/8/2015	21:54

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

QA/QC Results

Client: GeoSyntec Consultants
Project: Olin - Frederickson
Sample Matrix: Water

Service Request: K1503171
Date Extracted: 04/03/2015

Extraction Prep Log
Volatile Organic Compounds

Extraction Method: EPA 5030B
Analysis Method: 8260C

Extraction Lot: KWG1502844
Level: Low

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Volume	% Solids	Note
GW-032515-MW-1	K1503171-001	03/25/15	03/27/15	10ml	10ml	NA	
GW-032515-MW-4	K1503171-002	03/25/15	03/27/15	10ml	10ml	NA	
GW-032515-BMW-3	K1503171-005	03/25/15	03/27/15	10ml	10ml	NA	
GW-032515-BMW-18	K1503171-006	03/25/15	03/27/15	10ml	10ml	NA	
GW-032515-11-BL	K1503171-009	03/25/15	03/27/15	10ml	10ml	NA	
GW-032515-11-CL	K1503171-010	03/25/15	03/27/15	10ml	10ml	NA	
GW-032515-HLA-1	K1503171-011	03/25/15	03/27/15	10ml	10ml	NA	
GW-032515-DUP	K1503171-012	03/25/15	03/27/15	10ml	10ml	NA	
TB-031115	K1503171-013	03/25/15	03/27/15	10ml	10ml	NA	
Method Blank	KWG1502844-3	NA	NA	10ml	10ml	NA	
GW-032515-BMW-18MS	KWG1502844-4	03/25/15	03/27/15	10ml	10ml	NA	
GW-032515-BMW-18DMS	KWG1502844-5	03/25/15	03/27/15	10ml	10ml	NA	
Lab Control Sample	KWG1502844-1	NA	NA	10ml	10ml	NA	
Duplicate Lab Control Sample	KWG1502844-2	NA	NA	10ml	10ml	NA	

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

QA/QC Results

Client: GeoSyntec Consultants
Project: Olin - Frederickson
Sample Matrix: Water

Service Request: K1503171
Date Extracted: 04/08/2015

Extraction Prep Log
Volatile Organic Compounds

Extraction Method: EPA 5030B
Analysis Method: 8260C

Extraction Lot: kwg1503029
Level: Low

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Volume	% Solids	Note
GW-032615-MW-7	K1503171-003	03/26/15	03/27/15	10ml	10ml	NA	
GW-032615-MW-13	K1503171-004	03/26/15	03/27/15	10ml	10ml	NA	
GW-032615-PZ-1	K1503171-007	03/26/15	03/27/15	10ml	10ml	NA	
GW-032615-PZ-S	K1503171-008	03/26/15	03/27/15	10ml	10ml	NA	
GW-032615-EB	K1503171-014	03/26/15	03/27/15	10ml	10ml	NA	
Method Blank	KWG1503029-5	NA	NA	10ml	10ml	NA	
Lab Control Sample	KWG1503029-3	NA	NA	10ml	10ml	NA	
Duplicate Lab Control Sample	KWG1503029-4	NA	NA	10ml	10ml	NA	

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

Raw Data

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Volatile Organic Compounds

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Exception Report

Data File: J:\MS46\DATA\040315\0403F021.D
Lab ID: K1503171-001
RunType: SMPL
Matrix: WATER

Date Acquired: 04/03/2015 16:32
Date Quantitated: 04/09/2015 08:33
Batch ID: KWG1502843
Analysis Method: 8260C
ListJoinID: LJ1423

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Duplicate Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: KM 4/9/15

Secondary Review: 4/9/15

Quantitation Report

Data File:	J:\MS46\DATA\040315\0403F021.D			**Instrument:**	GCMS46
Acqu Date:	04/03/2015 16:32	**Quant Date:**	04/09/2015 08:33	**Vial:**	13
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1503171-001			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	03/25/2015	**Receive Date:**	03/27/2015

Analysis Lot:	KWG1502843	**Prep Lot:**	KWG1502844	**Report Group:**	K1503171
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1424883	**Prep Date:**	04/03/2015		

Quant Method:	J:\MS46\METHODS\031615MS46_8	**Calibration ID:**	CAL13899
Title:	Volatile Organic Compounds	**Report List ID:**	LJ1423
Tune Ref:	J:\MS46\DATA\040315\0403F007.D	**Method ID:**	MJ119
MB Ref:	J:\MS46\DATA\040315\0403F017.D	**Quant based on Report List**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	6.49	0.00	96	753343	10.00	OK
2	Chlorobenzene-d5	9.96	0.01	82	295921	10.00	OK
3	1,4-Dichlorobenzene-d4	12.53	0.00	152	292870	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.69	0.00	0.00	113	191793	11.59	116	73-122	OK	
1	Toluene-d8	8.33	0.00	0.00	98	702714	11.01	110	65-144	OK	
2	4-Bromofluorobenzene	11.27	0.00	0.00	95	251383	10.97	110	68-117	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Tetrachloride	5.77		0.00	117	39021	1.46	1.5		

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\040315\0403F021.D Vial: 13
Acq On : 03 Apr 2015 04:32 pm Operator: KR
Sample : K3171-001 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 09 08:17:42 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

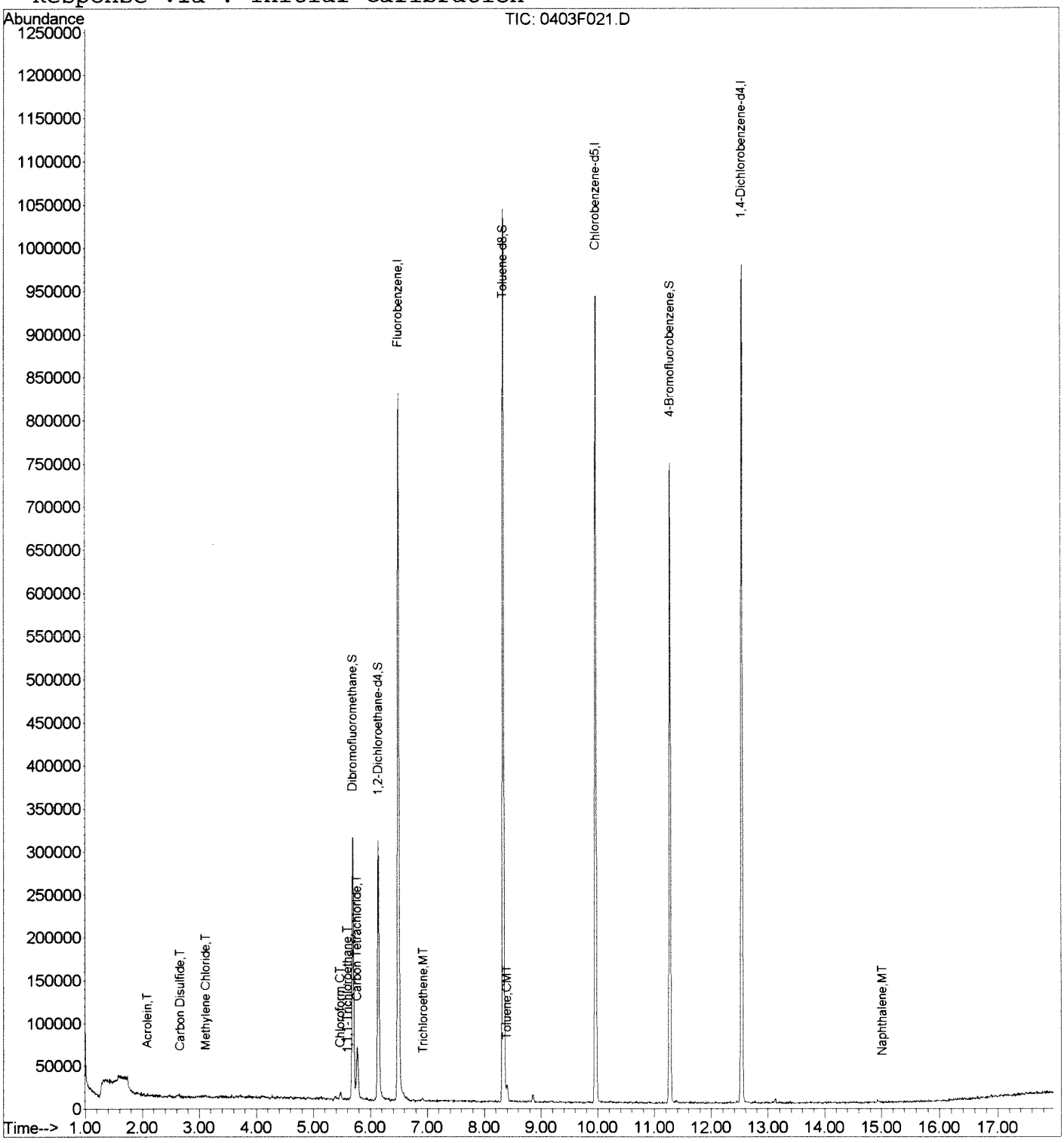
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	6.49	96	753343	10.00	PPB		0.00
64) Chlorobenzene-d5	9.96	82	295921	10.00	PPB		0.00
85) 1,4-Dichlorobenzene-d4	12.53	152	292870	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.69	113	191793	11.59	PPB		0.00
Spiked Amount 10.000			Recovery =	115.90%			
47) 1,2-Dichloroethane-d4	6.14	65	221874	12.69	PPB		0.00
Spiked Amount 10.000			Recovery =	126.90%			
62) Toluene-d8	8.33	98	702714	11.01	PPB		0.00
Spiked Amount 10.000			Recovery =	110.10%			
84) 4-Bromofluorobenzene	11.27	95	251383	10.97	PPB		0.00
Spiked Amount 10.000			Recovery =	109.70%			
Target Compounds							Qvalue
11) Acrolein	2.10	56	504	0.33	PPB	#	21
16) Carbon Disulfide	2.66	76	2573	0.05	PPB		92
21) Methylene Chloride	3.12	84	803	0.04	PPB	#	52
40) Chloroform	5.47	83	5307	0.17	PPB		86
42) 1,1,1-Trichloroethane	5.61	97	758	0.02	PPB		77
44) Carbon Tetrachloride	5.77	117	39021	1.46	PPB		97
51) Trichloroethene	6.93	95	720	0.04	PPB	#	60
63) Toluene	8.40	92	5319	0.11	PPB		98
106) Naphthalene	15.01	128	639	0.01	PPB		70

(#) = qualifier out of range (m) = manual integration
0403F021.D 031615MS46_8260.M Thu Apr 09 08:33:23 2015 Page 1

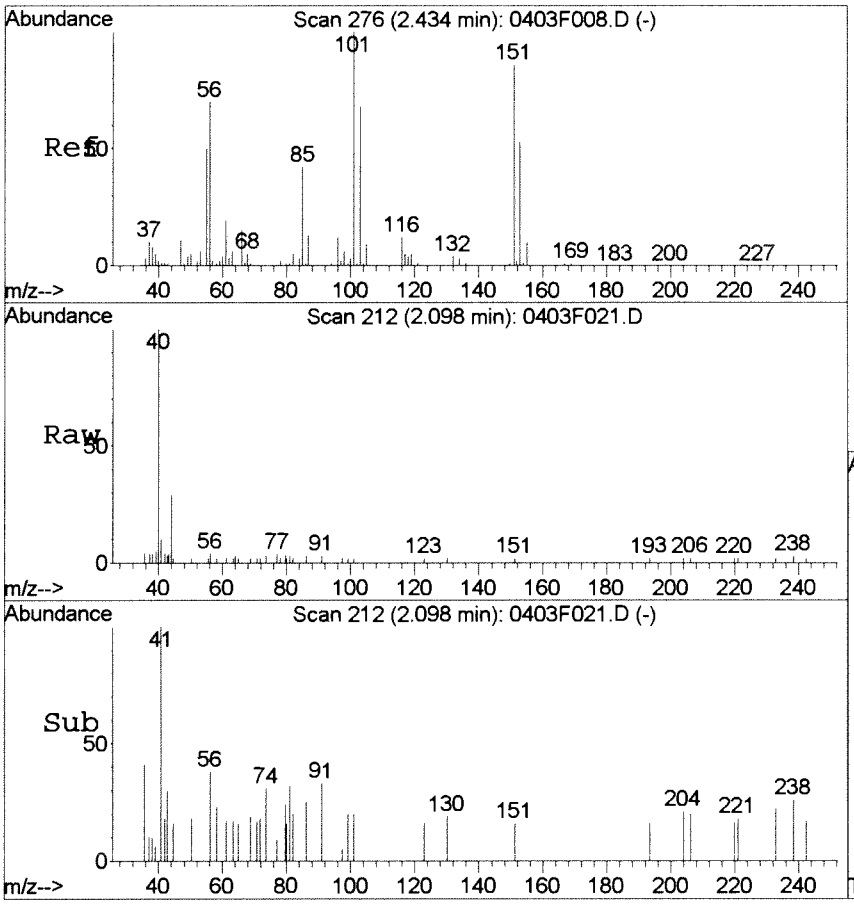
04.09.15jal2nd Rev

Data File : J:\MS46\DATA\040315\0403F021.D Vial: 13
Acq On : 03 Apr 2015 04:32 pm Operator: KR
Sample : K3171-001 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 9 8:33 2015 Quant Results File: 031615MS46_8

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Initial Calibration



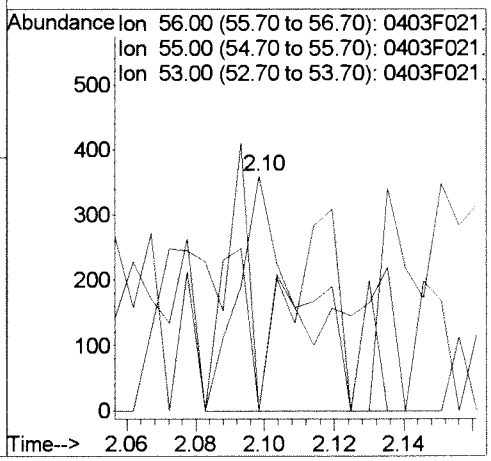
04.09.15jal2nd Rev

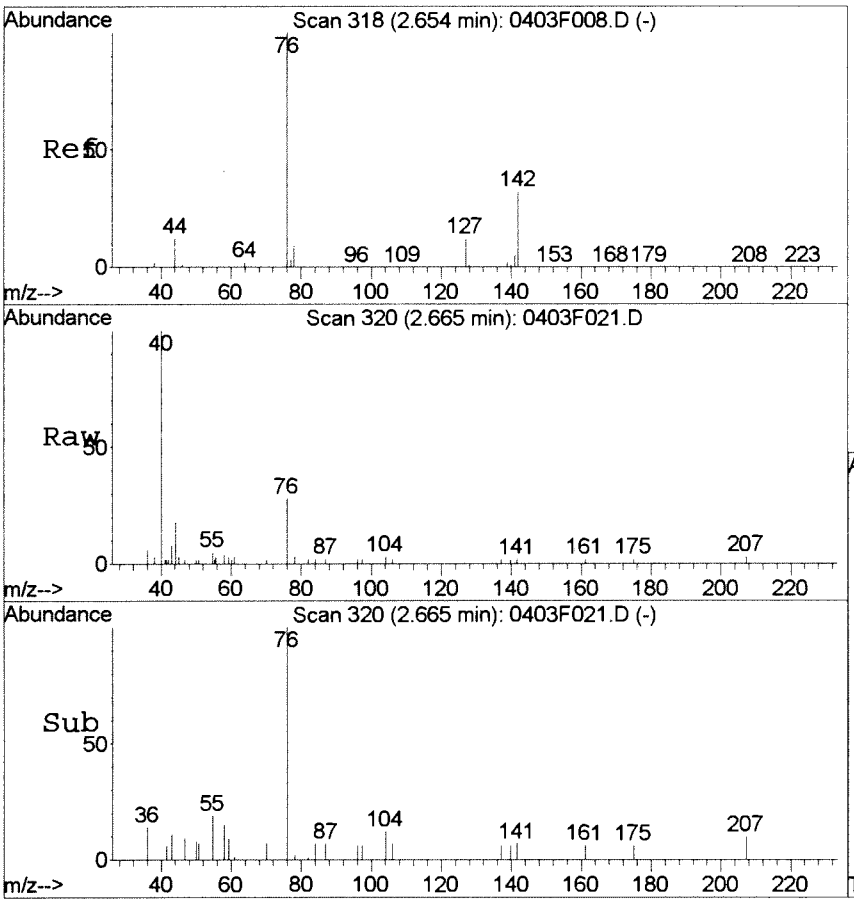


#11
Acrolein
Concen: 0.33 PPB
RT: 2.10 min Scan# 212
Delta R.T. -0.34 min
Lab File: 0403F021.D
Acq: 03 Apr 2015 04:32 pm

Tgt Ion: 56 Resp: 504

Ion	Ratio	Lower	Upper
56	100		
55	0.0	39.0	99.0#
53	0.0	0.0	37.2

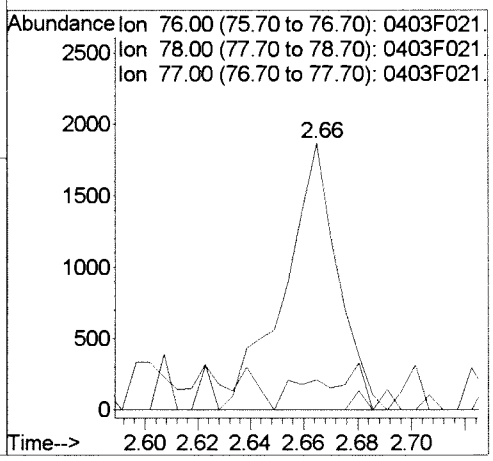


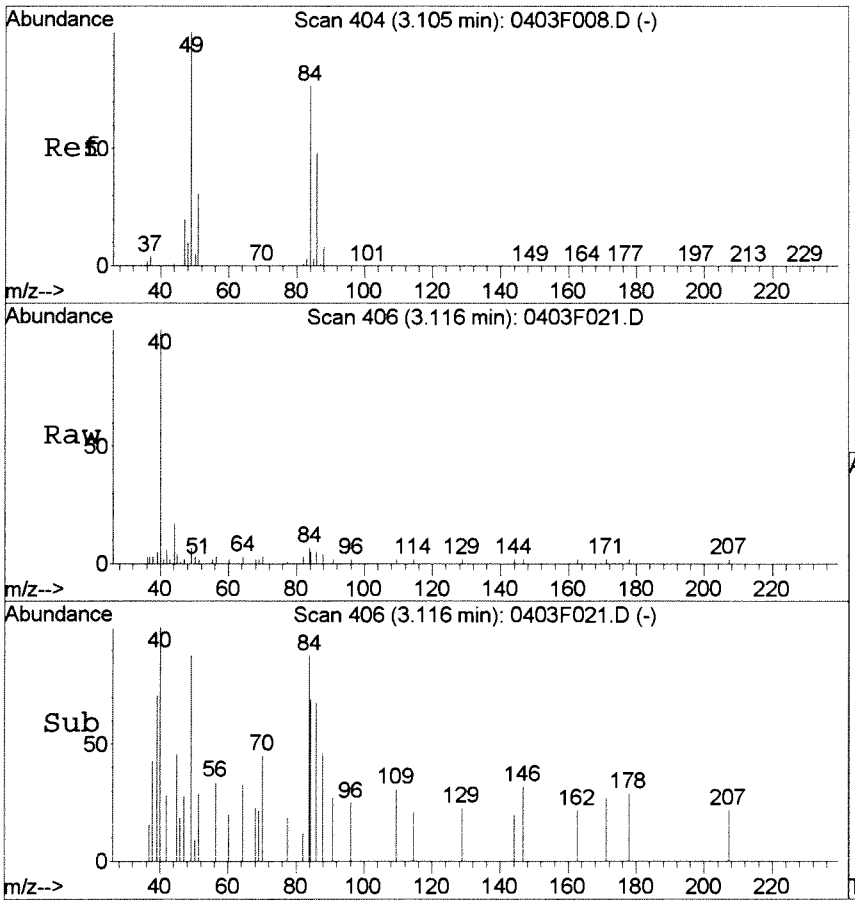


#16
Carbon Disulfide
Concen: 0.05 PPB
RT: 2.66 min Scan# 320
Delta R.T. 0.01 min
Lab File: 0403F021.D
Acq: 03 Apr 2015 04:32 pm

Tgt Ion: 76 Resp: 2573

Ion	Ratio	Lower	Upper
76	100		
78	11.2	0.0	38.4
77	0.0	0.0	32.9

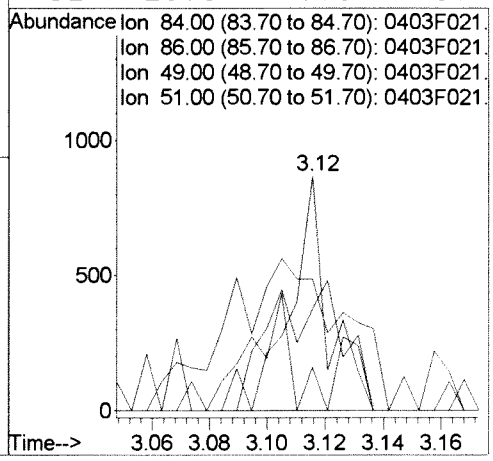


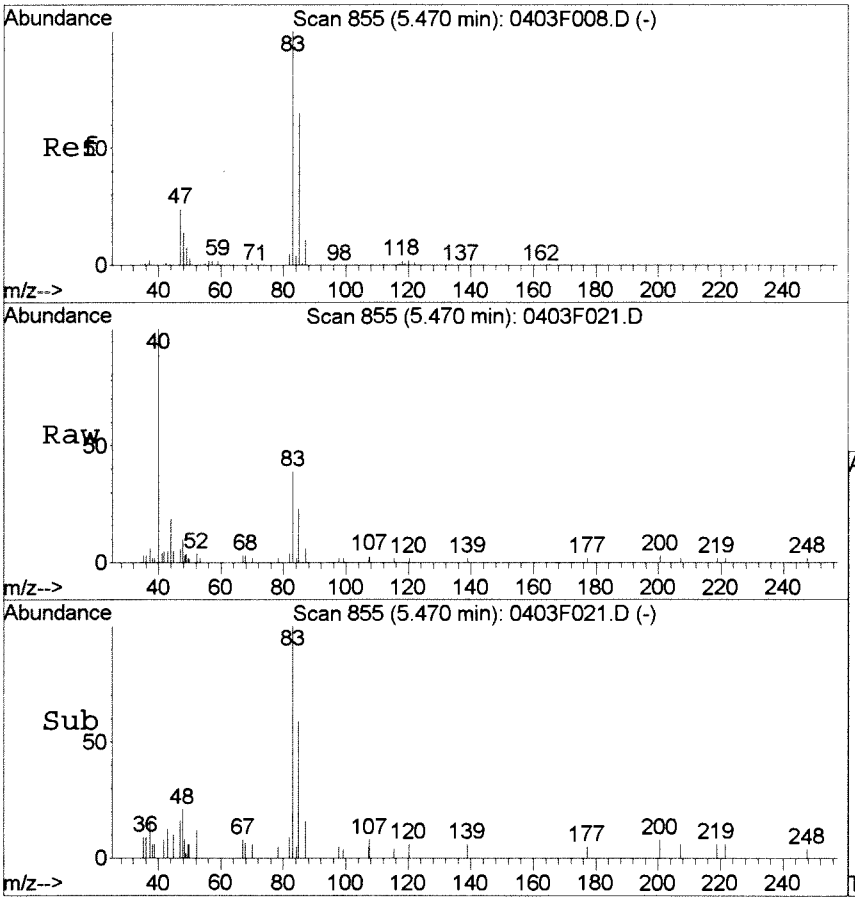


#21
Methylene Chloride
Concen: 0.04 PPB
RT: 3.12 min Scan# 406
Delta R.T. 0.01 min
Lab File: 0403F021.D
Acq: 03 Apr 2015 04:32 pm

Tgt Ion: 84 Resp: 803

Ion	Ratio	Lower	Upper
84	100		
86	43.5	33.1	93.1
49	55.9	99.0	159.0#
51	18.6	8.0	68.0

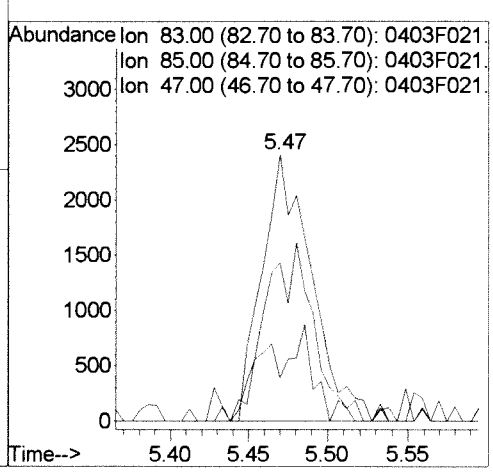


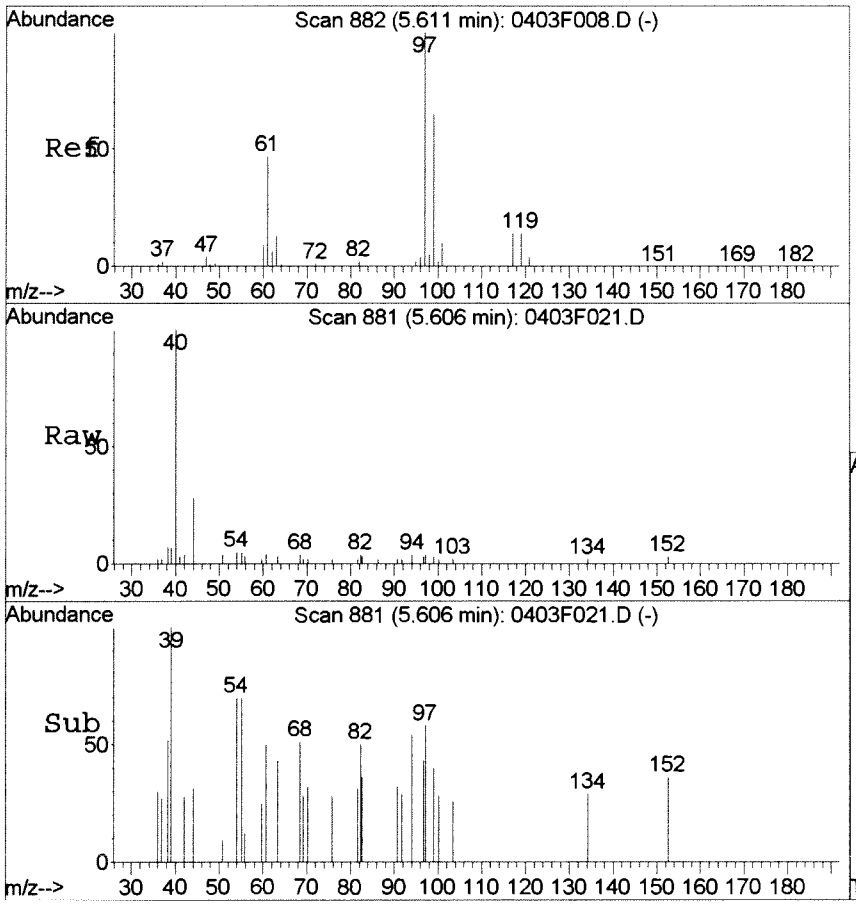


#40
Chloroform
Concen: 0.17 PPB
RT: 5.47 min Scan# 855
Delta R.T. -0.00 min
Lab File: 0403F021.D
Acq: 03 Apr 2015 04:32 pm

Tgt Ion: 83 Resp: 5307

Ion	Ratio	Lower	Upper
83	100		
85	59.3	33.1	93.1
47	42.3	0.0	54.1

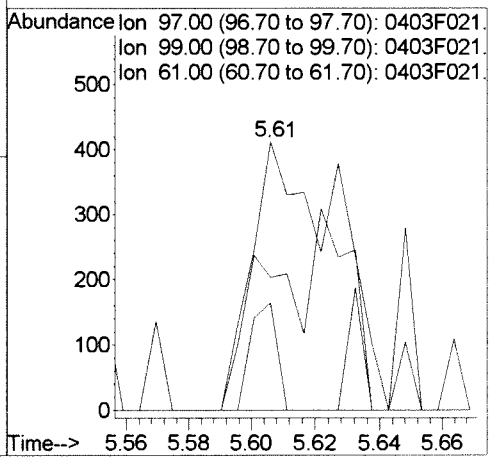


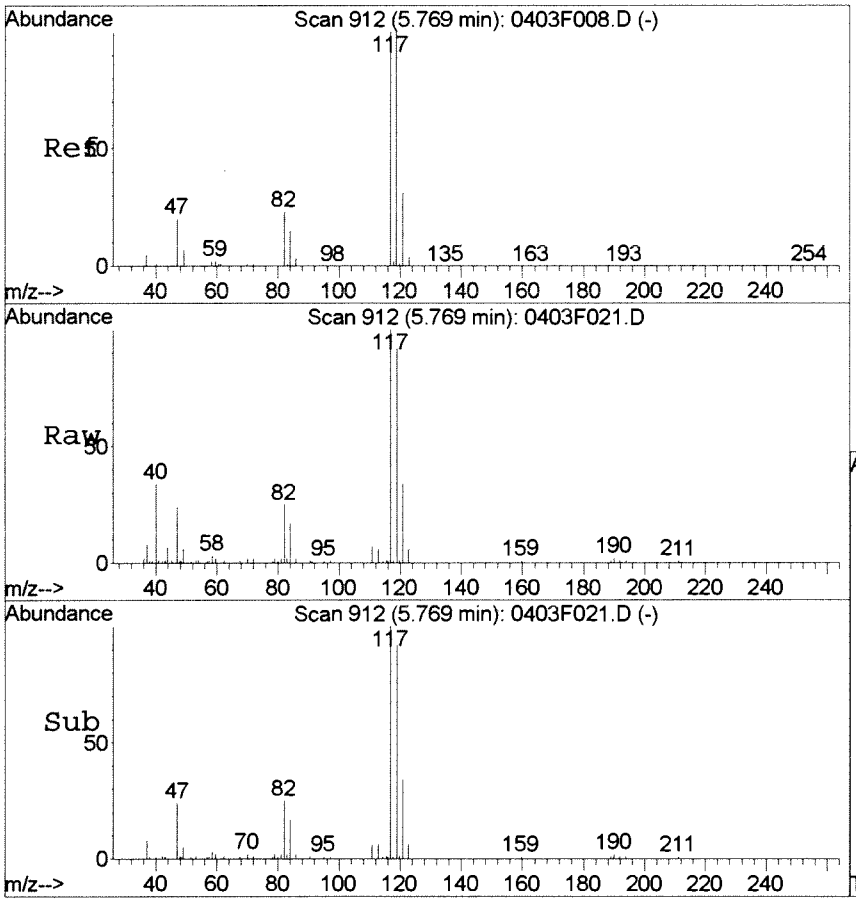


#42
1,1,1-Trichloroethane
Concen: 0.02 PPB
RT: 5.61 min Scan# 881
Delta R.T. -0.01 min
Lab File: 0403F021.D
Acq: 03 Apr 2015 04:32 pm

Tgt Ion: 97 Resp: 758

Ion	Ratio	Lower	Upper
97	100		
99	39.8	37.0	97.0
61	49.3	15.1	75.1

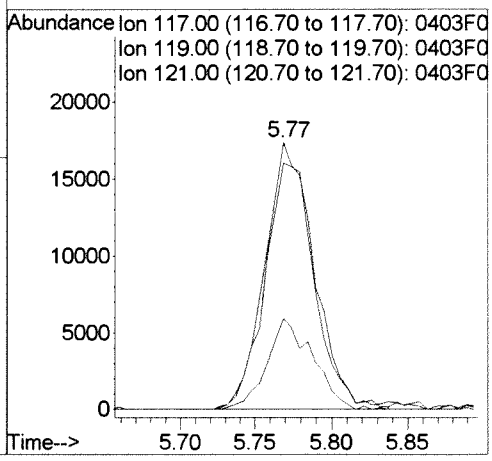


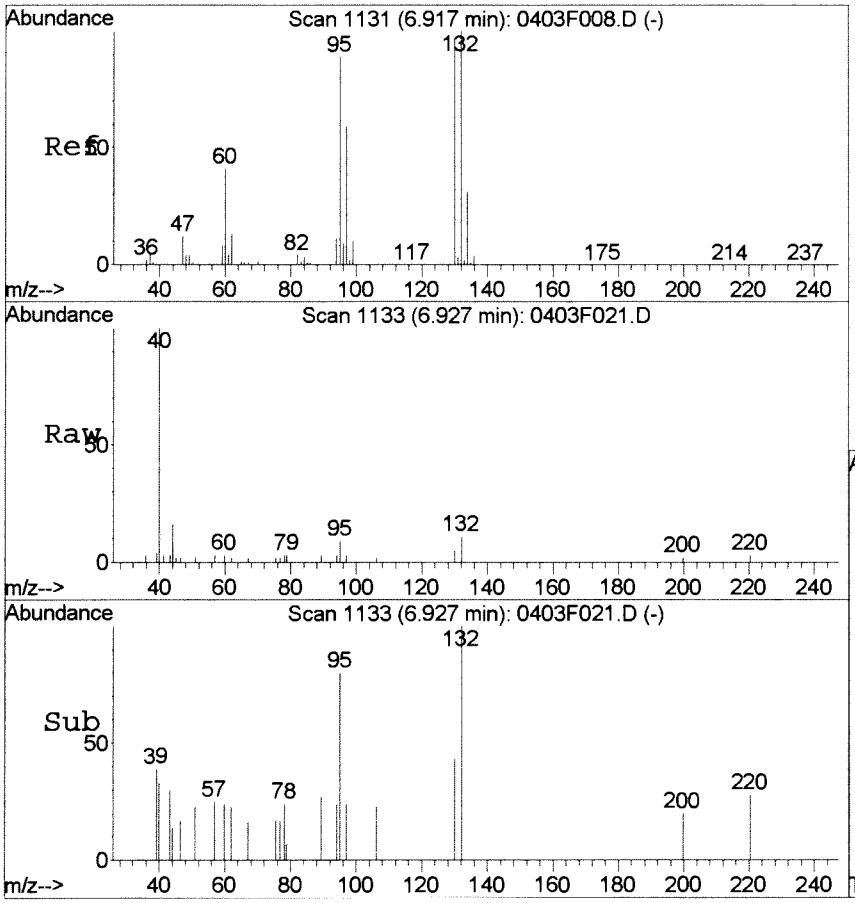


#44
Carbon Tetrachloride
Concen: 1.46 PPB
RT: 5.77 min Scan# 912
Delta R.T. -0.00 min
Lab File: 0403F021.D
Acq: 03 Apr 2015 04:32 pm

Tgt Ion:117 Resp: 39021

Ion	Ratio	Lower	Upper
117	100		
119	92.3	63.3	123.3
121	34.1	0.2	60.2

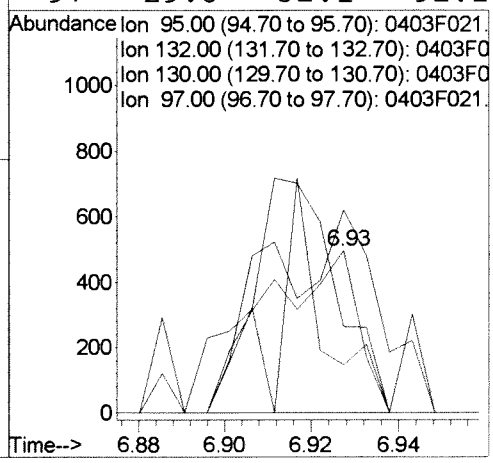


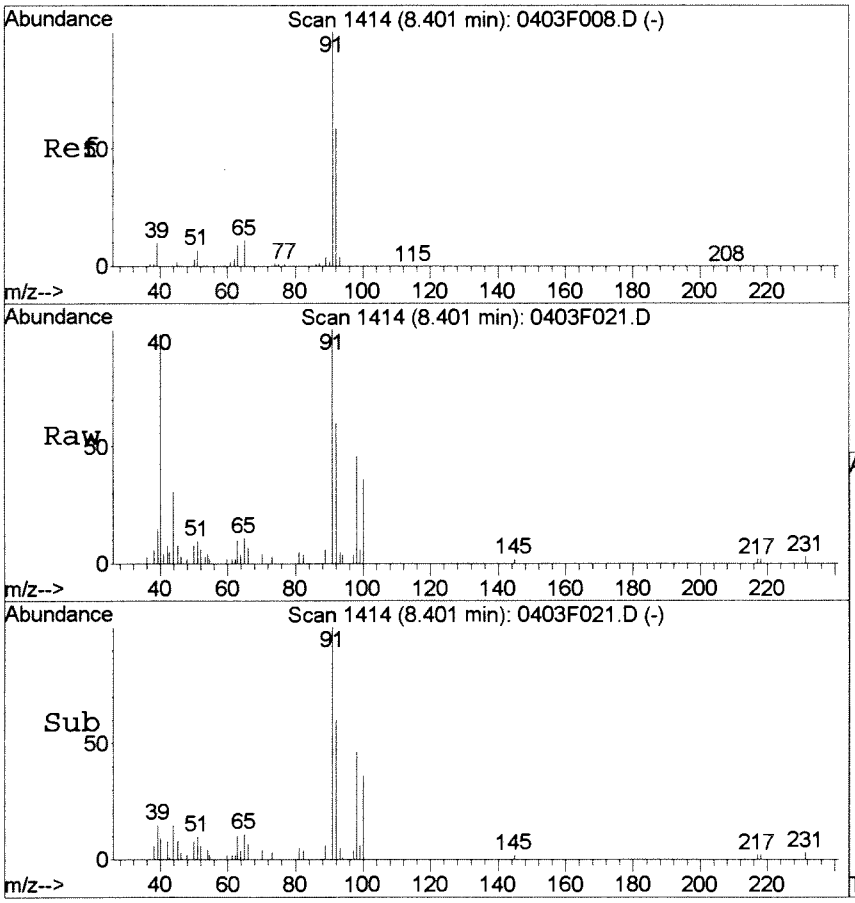


#51
Trichloroethene
Concen: 0.04 PPB
RT: 6.93 min Scan# 1133
Delta R.T. 0.01 min
Lab File: 0403F021.D
Acq: 03 Apr 2015 04:32 pm

Tgt Ion: 95 Resp: 720

Ion	Ratio	Lower	Upper
95	100		
132	124.9	72.9	132.9
130	53.1	81.4	141.4#
97	29.6	32.1	92.1#

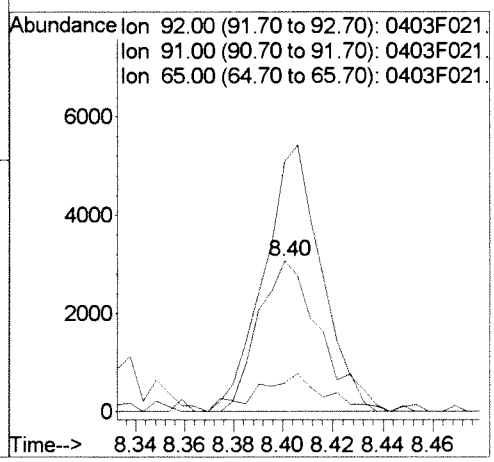


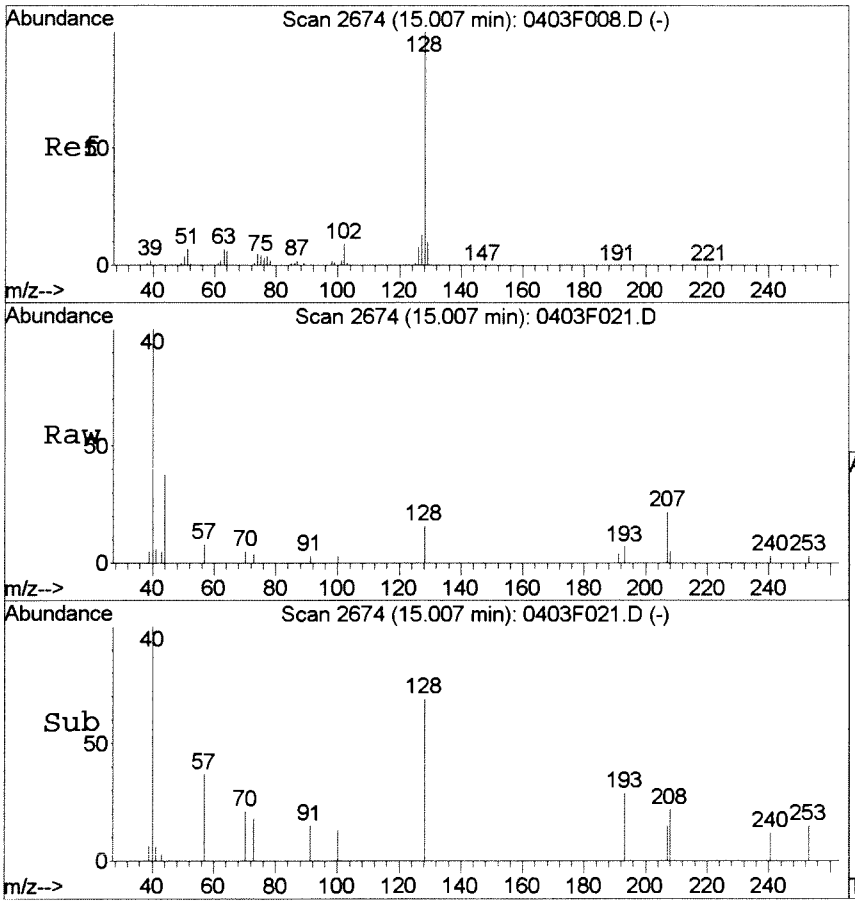


#63
Toluene
Concen: 0.11 PPB
RT: 8.40 min Scan# 1414
Delta R.T. -0.00 min
Lab File: 0403F021.D
Acq: 03 Apr 2015 04:32 pm

Tgt Ion: 92 Resp: 5319

Ion	Ratio	Lower	Upper
92	100		
91	166.4	139.2	199.2
65	18.9	0.0	50.2

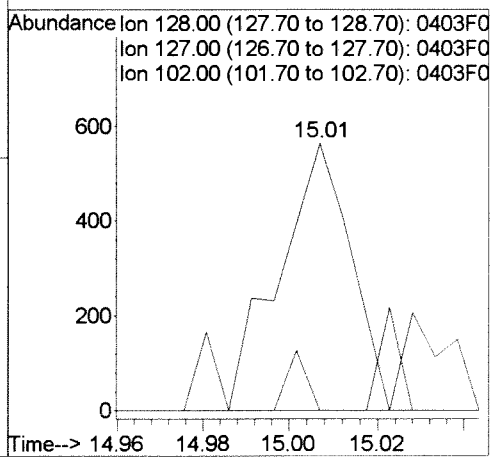




#106
Naphthalene
Concen: 0.01 PPB
RT: 15.01 min Scan# 2674
Delta R.T. -0.00 min
Lab File: 0403F021.D
Acq: 03 Apr 2015 04:32 pm

Tgt Ion:128 Resp: 639

Ion	Ratio	Lower	Upper
128	100		
127	0.0	0.0	43.8
102	0.0	0.0	38.7



Exception Report

Data File: J:\MS46\DATA\040315\0403F022.D
Lab ID: K1503171-002
RunType: SMPL
Matrix: WATER

Date Acquired: 04/03/2015 16:56
Date Quantitated: 04/09/2015 08:34
Batch ID: KWG1502843
Analysis Method: 8260C
ListJoinID: LJ1423

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Duplicate Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: KA 4/9/15

Secondary Review: 4/9/15

Quantitation Report

Data File:	J:\MS46\DATA\040315\0403F022.D			**Instrument:**	GCMS46
Acqu Date:	04/03/2015 16:56	**Quant Date:**	04/09/2015 08:34	**Vial:**	14
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1503171-002			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	03/25/2015	**Receive Date:**	03/27/2015

Analysis Lot:	KWG1502843	**Prep Lot:**	KWG1502844	**Report Group:**	K1503171
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1424884	**Prep Date:**	04/03/2015		

Quant Method:	J:\MS46\METHODS\031615MS46_8	**Calibration ID:**	CAL13899
Title:	Volatile Organic Compounds	**Report List ID:**	LJ1423
Tune Ref:	J:\MS46\DATA\040315\0403F007.D	**Method ID:**	MJ119
MB Ref:	J:\MS46\DATA\040315\0403F017.D	**Quant based on Report List**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	6.49	0.00	96	750666	10.00	OK
2	Chlorobenzene-d5	9.96	0.01	82	303330	10.00	OK
3	1,4-Dichlorobenzene-d4	12.53	0.00	152	296878	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.70	0.01	0.00	113	198601	12.04	120	73-122	OK	
1	Toluene-d8	8.33	0.00	0.00	98	706429	11.11	111	65-144	OK	
2	4-Bromofluorobenzene	11.27	0.00	0.00	95	255992	10.90	109	68-117	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Tetrachloride	5.76	-0.01	0.00	117	16647	0.6200	0.62		

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\040315\0403F022.D Vial: 14
Acq On : 03 Apr 2015 04:56 pm Operator: KR
Sample : K3171-002 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 09 08:33:31 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

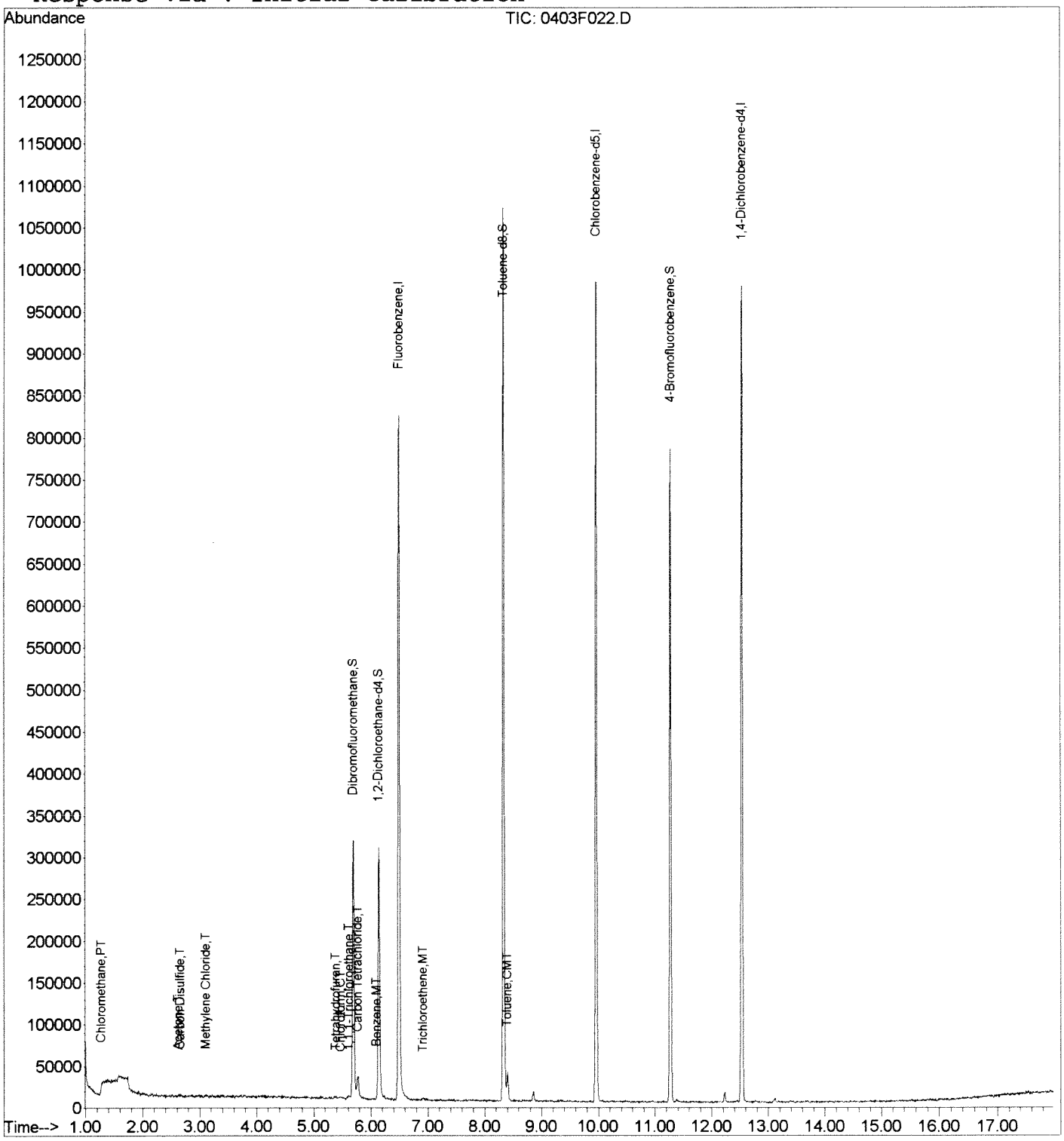
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	6.49	96	750666	10.00	PPB		0.00
64) Chlorobenzene-d5	9.96	82	303330	10.00	PPB		0.00
85) 1,4-Dichlorobenzene-d4	12.53	152	296878	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.70	113	198601	12.04	PPB		0.00
Spiked Amount 10.000			Recovery = 120.40%				
47) 1,2-Dichloroethane-d4	6.14	65	224433	12.89	PPB		0.00
Spiked Amount 10.000			Recovery = 128.90%				
62) Toluene-d8	8.33	98	706429	11.11	PPB		0.00
Spiked Amount 10.000			Recovery = 111.10%				
84) 4-Bromofluorobenzene	11.27	95	255992	10.90	PPB		0.00
Spiked Amount 10.000			Recovery = 109.00%				
Target Compounds							Qvalue
3) Chloromethane	1.27	50	998	0.04	PPB		92
14) Acetone	2.62	43	2090	0.84	PPB		79
16) Carbon Disulfide	2.65	76	2202	0.04	PPB		56
21) Methylene Chloride	3.11	84	873	0.05	PPB		91
39) Tetrahydrofuran	5.39	71	593	0.47	PPB	#	11
40) Chloroform	5.47	83	1293	0.04	PPB		94
42) 1,1,1-Trichloroethane	5.62	97	2454	0.08	PPB		97
44) Carbon Tetrachloride	5.76	117	16647	0.62	PPB		94
48) Benzene	6.10	78	892	0.01	PPB	#	63
51) Trichloroethene	6.92	95	1144	0.06	PPB	#	59
63) Toluene	8.40	92	11458	0.24	PPB		97

(#) = qualifier out of range (m) = manual integration

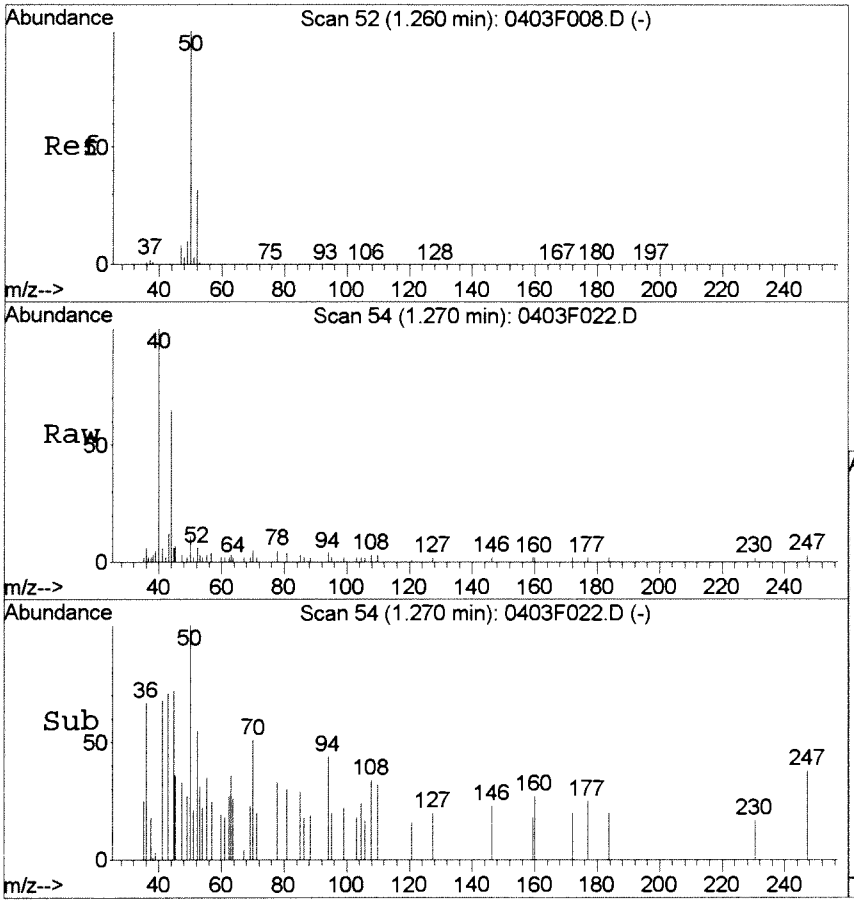
Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\040315\0403F022.D Vial: 14
Acq On : 03 Apr 2015 04:56 pm Operator: KR
Sample : K3171-002 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 9 8:34 2015 Quant Results File: 031615MS46_8

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Initial Calibration



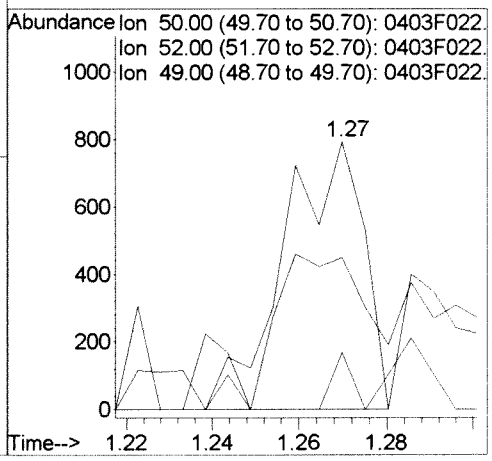
04.09.15jal2nd Rev

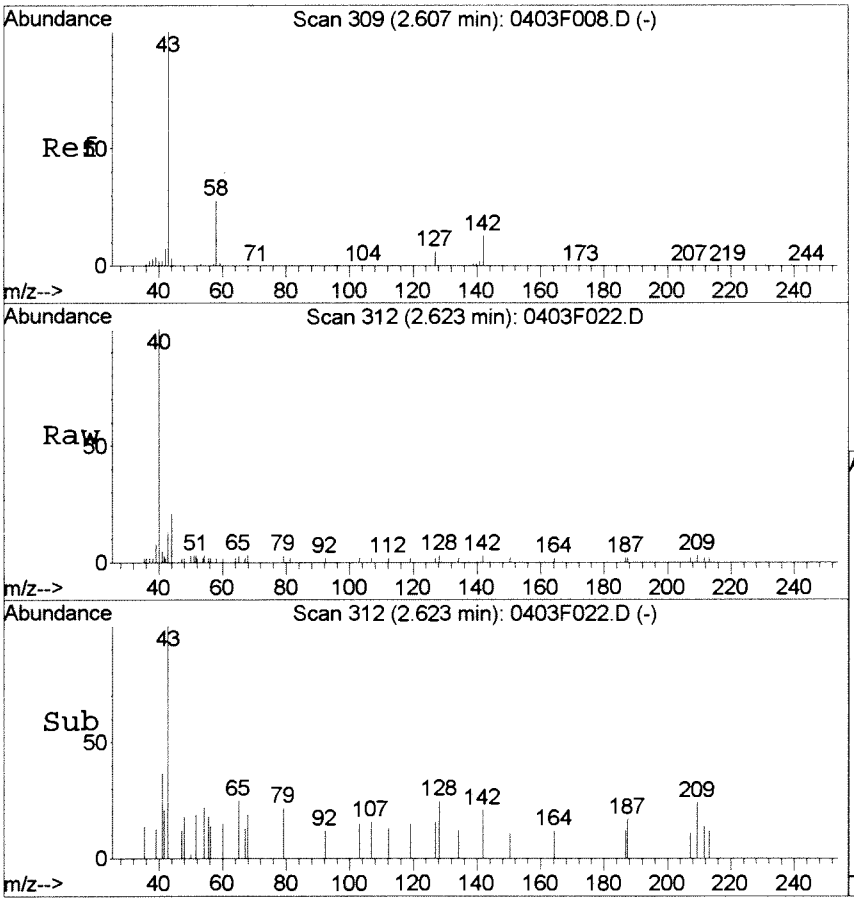


#3
Chloromethane
Concen: 0.04 PPB
RT: 1.27 min Scan# 54
Delta R.T. 0.01 min
Lab File: 0403F022.D
Acq: 03 Apr 2015 04:56 pm

Tgt Ion: 50 Resp: 998

Ion	Ratio	Lower	Upper
50	100		
52	32.5	3.0	63.0
49	21.3	0.0	40.1

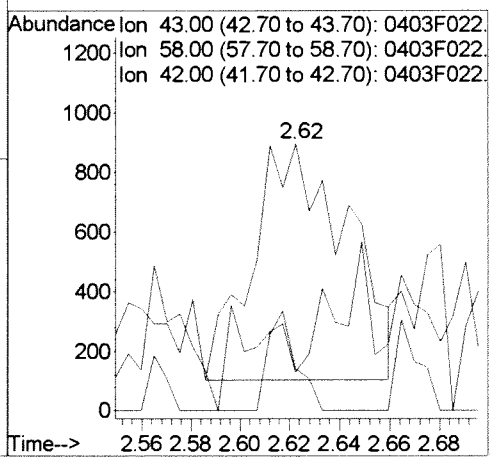


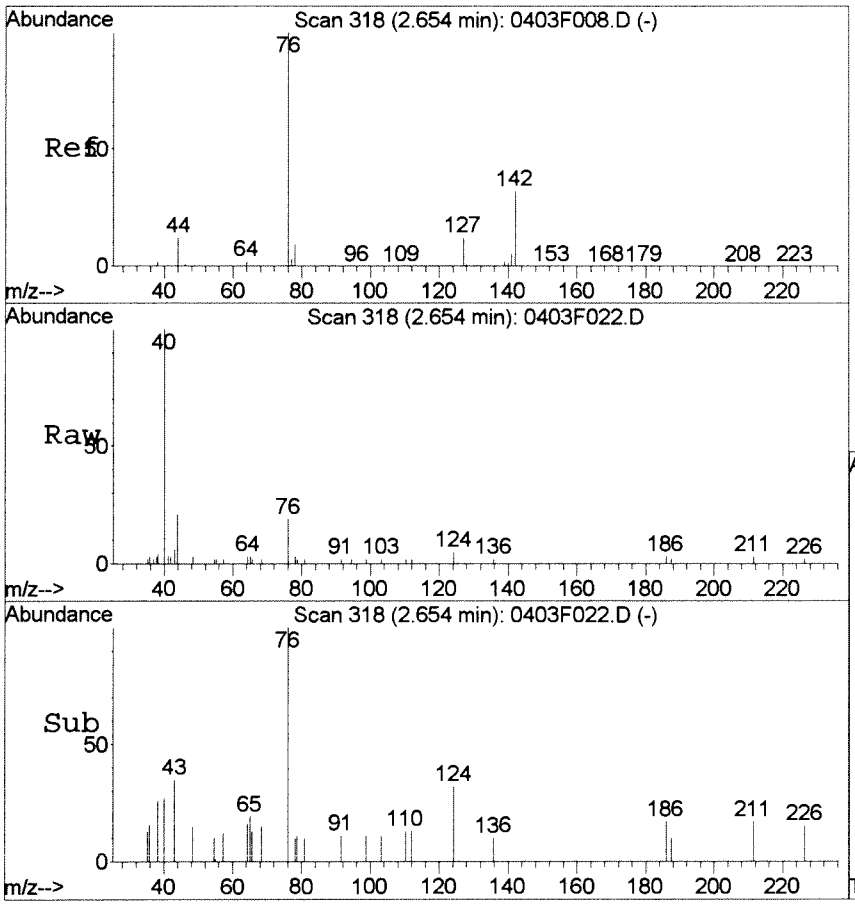


#14
Acetone
Concen: 0.84 PPB
RT: 2.62 min Scan# 312
Delta R.T. 0.02 min
Lab File: 0403F022.D
Acq: 03 Apr 2015 04:56 pm

Tgt Ion: 43 Resp: 2090

Ion	Ratio	Lower	Upper
43	100		
58	17.8	0.0	59.5
42	0.0	0.0	37.1

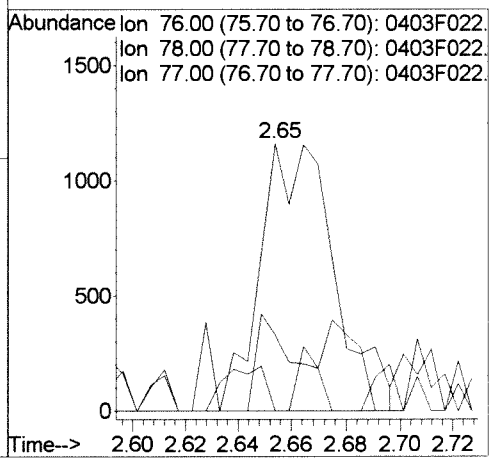


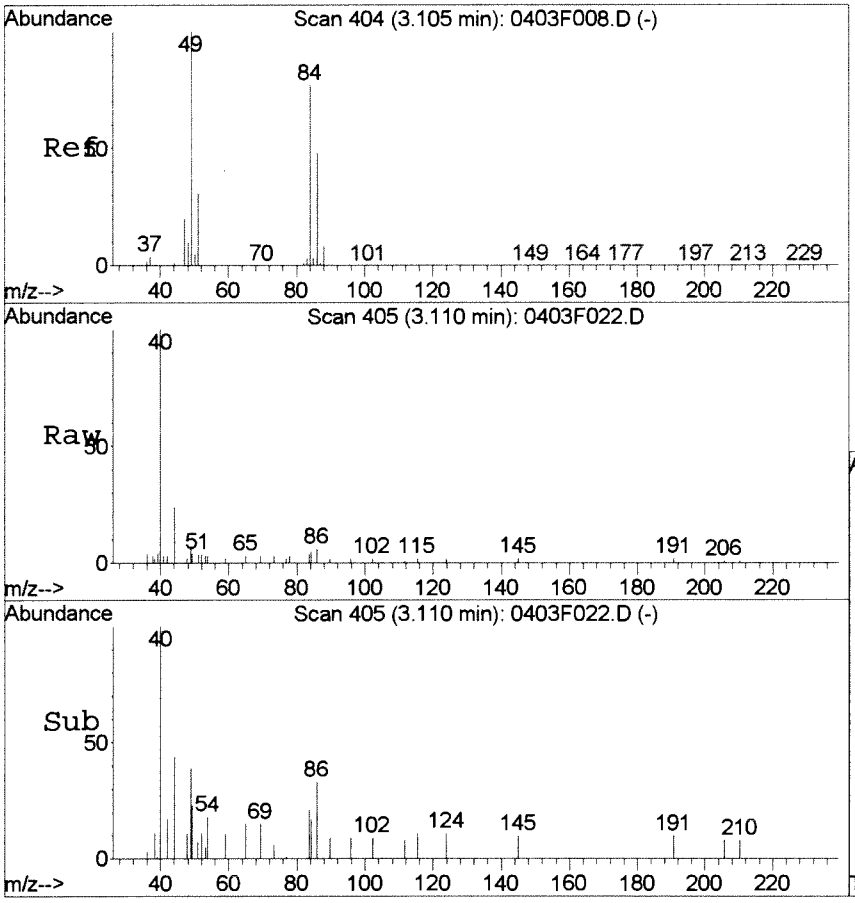


#16
Carbon Disulfide
Concen: 0.04 PPB
RT: 2.65 min Scan# 318
Delta R.T. -0.00 min
Lab File: 0403F022.D
Acq: 03 Apr 2015 04:56 pm

Tgt Ion: 76 Resp: 2202

Ion	Ratio	Lower	Upper
76	100		
78	28.3	0.0	38.4
77	0.0	0.0	32.9

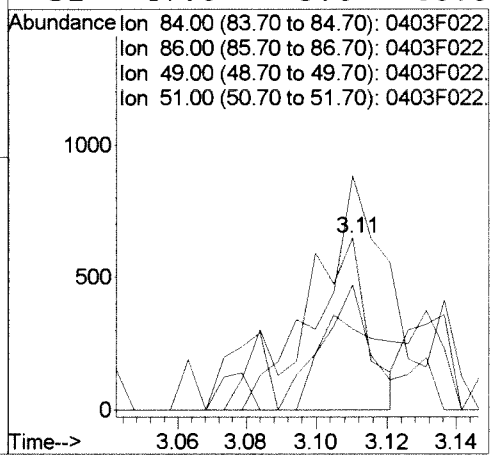


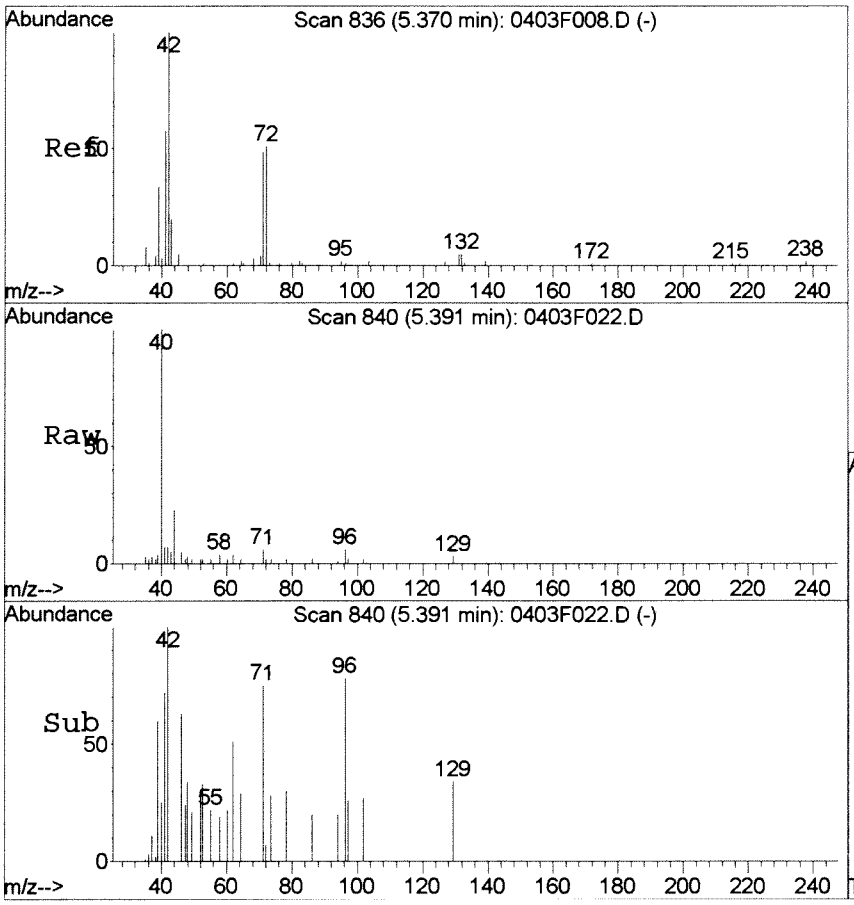


#21
Methylene Chloride
Concen: 0.05 PPB
RT: 3.11 min Scan# 405
Delta R.T. 0.00 min
Lab File: 0403F022.D
Acq: 03 Apr 2015 04:56 pm

Tgt Ion: 84 Resp: 873

Ion	Ratio	Lower	Upper
84	100		
86	72.6	33.1	93.1
49	135.9	99.0	159.0
51	47.0	8.0	68.0

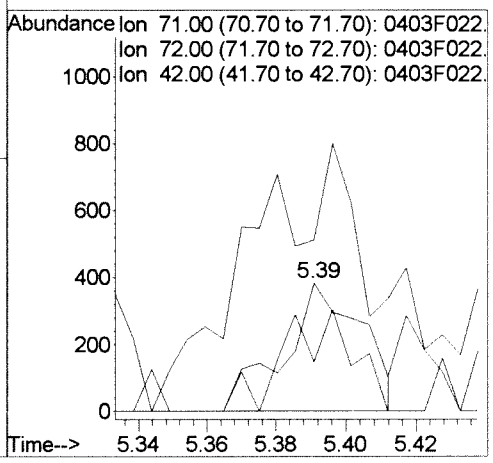


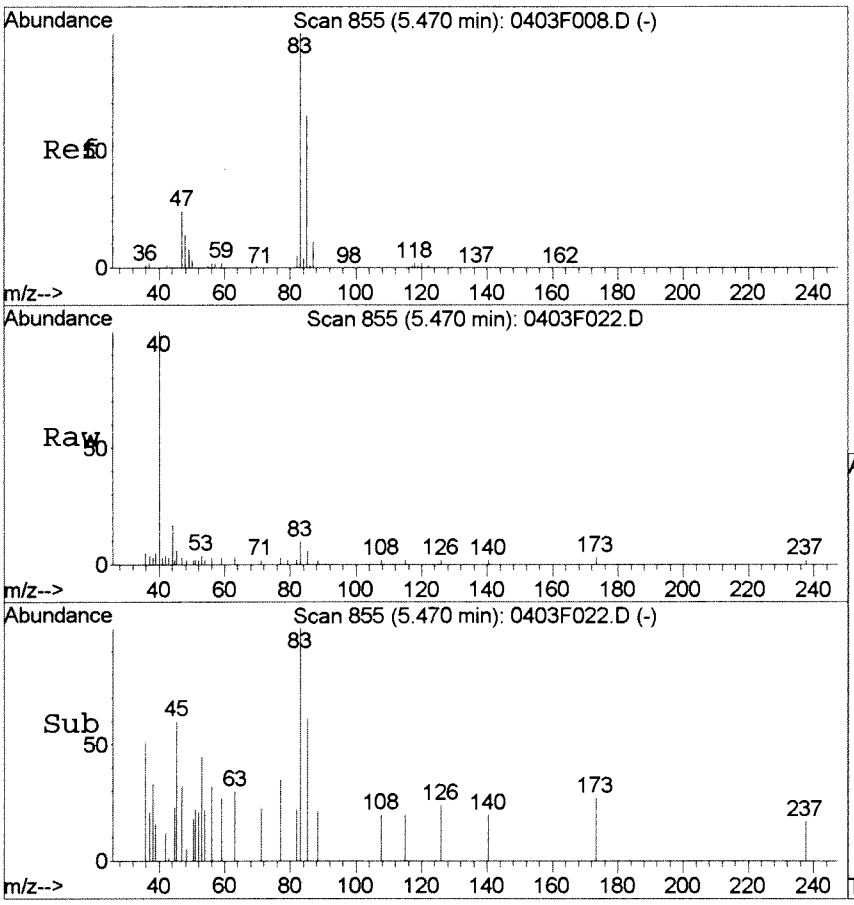


#39
Tetrahydrofuran-
Concen: 0.47 PPB
RT: 5.39 min Scan# 840
Delta R.T. 0.02 min
Lab File: 0403F022.D
Acq: 03 Apr 2015 04:56 pm

Tgt Ion: 71 Resp: 593

Ion	Ratio	Lower	Upper
71	100		
72	38.4	66.0	126.0#
42	67.6	207.4	267.4#

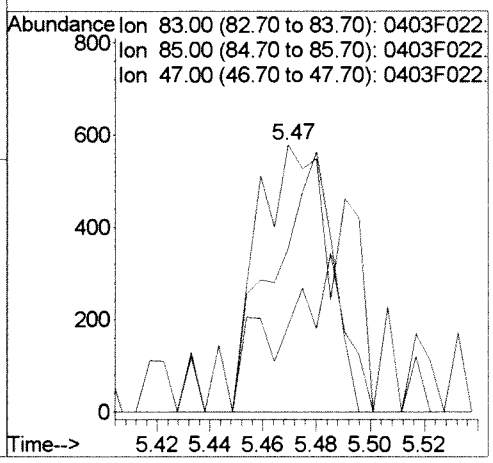


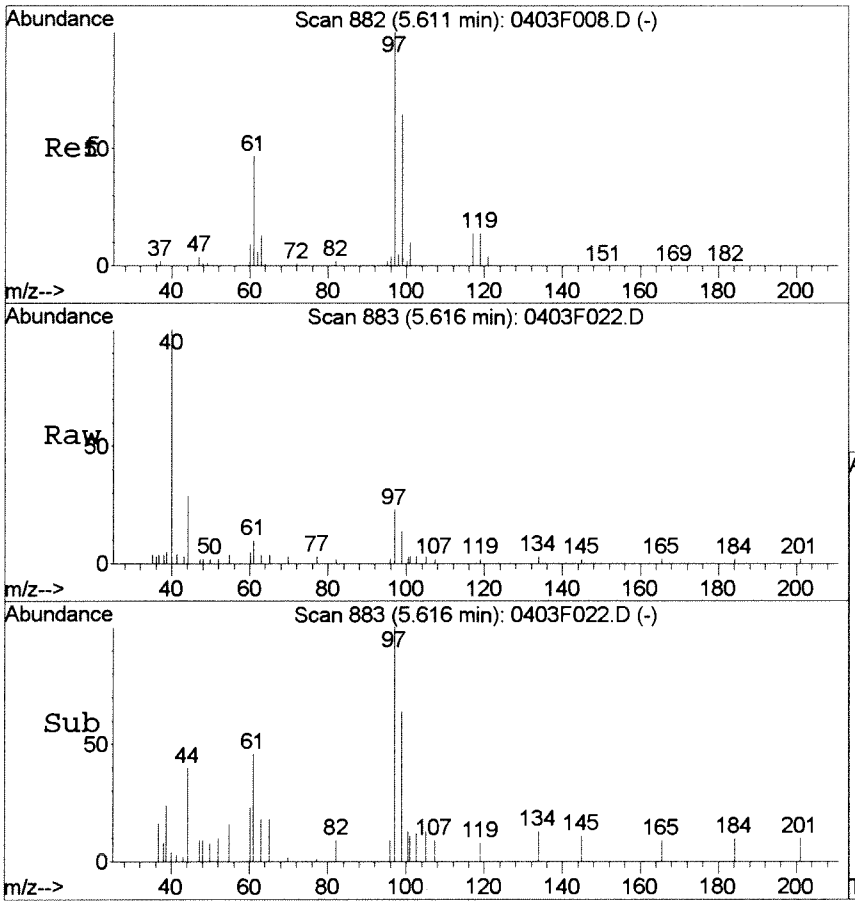


#40
Chloroform
Concen: 0.04 PPB
RT: 5.47 min Scan# 855
Delta R.T. -0.00 min
Lab File: 0403F022.D
Acq: 03 Apr 2015 04:56 pm

Tgt Ion: 83 Resp: 1293

Ion	Ratio	Lower	Upper
83	100		
85	61.3	33.1	93.1
47	32.1	0.0	54.1

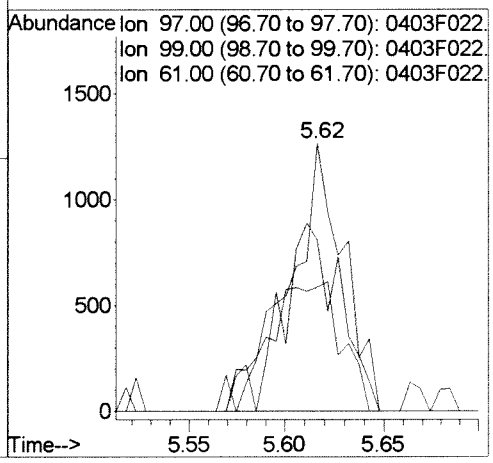


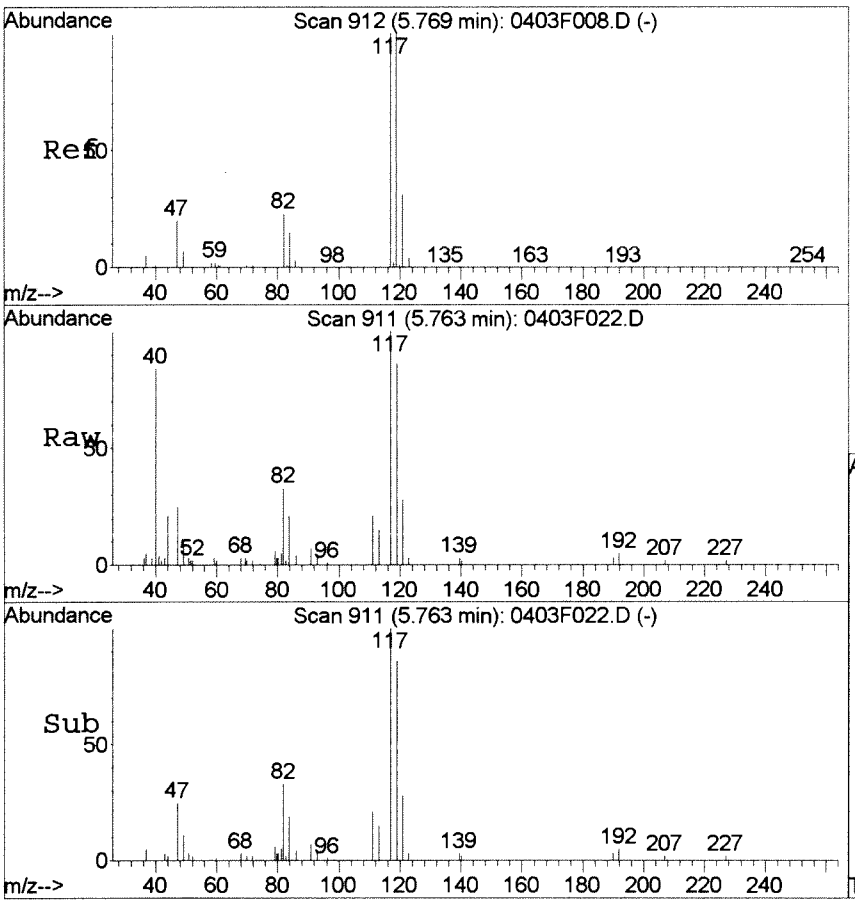


#42
1,1,1-Trichloroethane
Concen: 0.08 PPB
RT: 5.62 min Scan# 883
Delta R.T. 0.00 min
Lab File: 0403F022.D
Acq: 03 Apr 2015 04:56 pm

Tgt Ion: 97 Resp: 2454

Ion	Ratio	Lower	Upper
97	100		
99	63.9	37.0	97.0
61	46.2	15.1	75.1

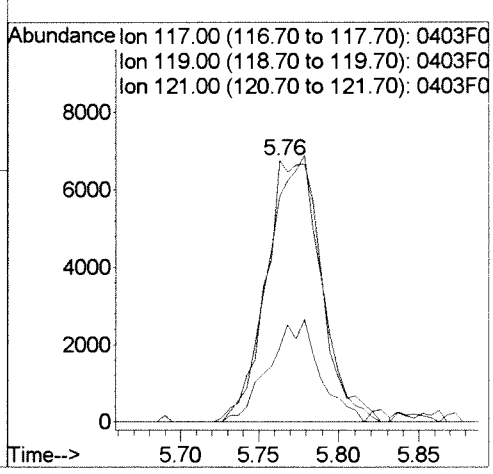


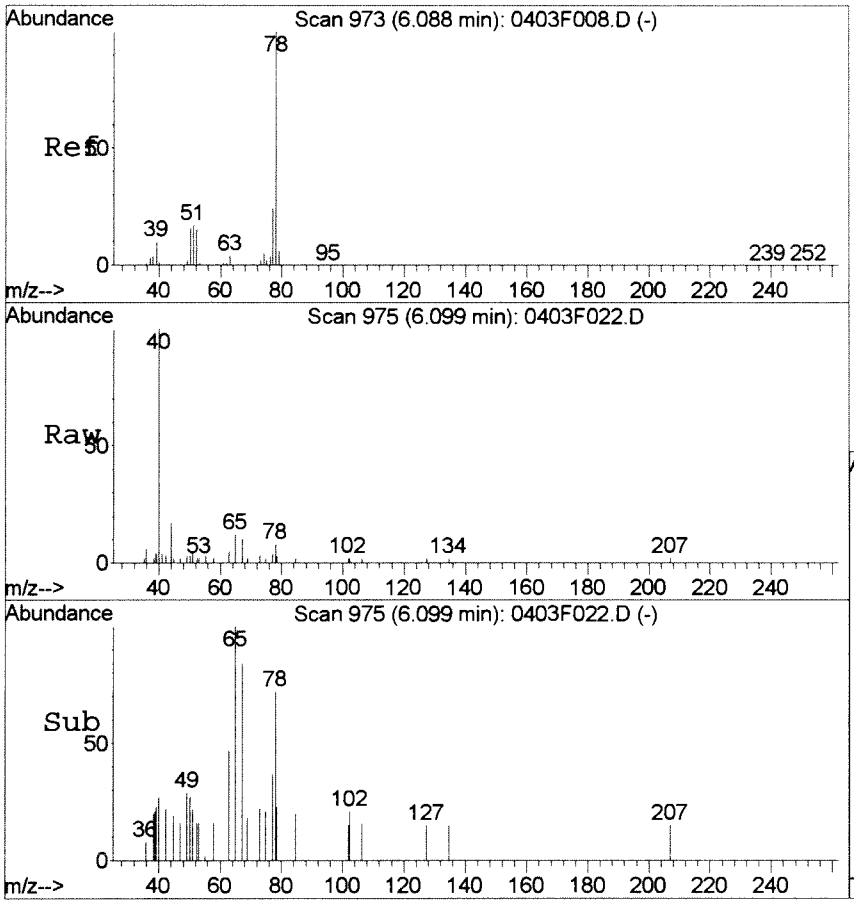


#44
Carbon Tetrachloride
Concen: 0.62 PPB
RT: 5.76 min Scan# 911
Delta R.T. -0.01 min
Lab File: 0403F022.D
Acq: 03 Apr 2015 04:56 pm

Tgt Ion:117 Resp: 16647

Ion	Ratio	Lower	Upper
117	100		
119	86.5	63.3	123.3
121	28.2	0.2	60.2

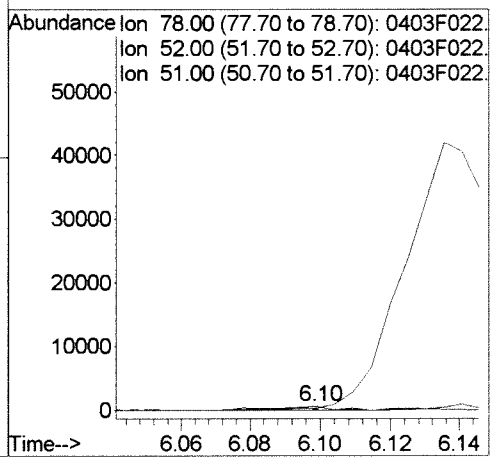


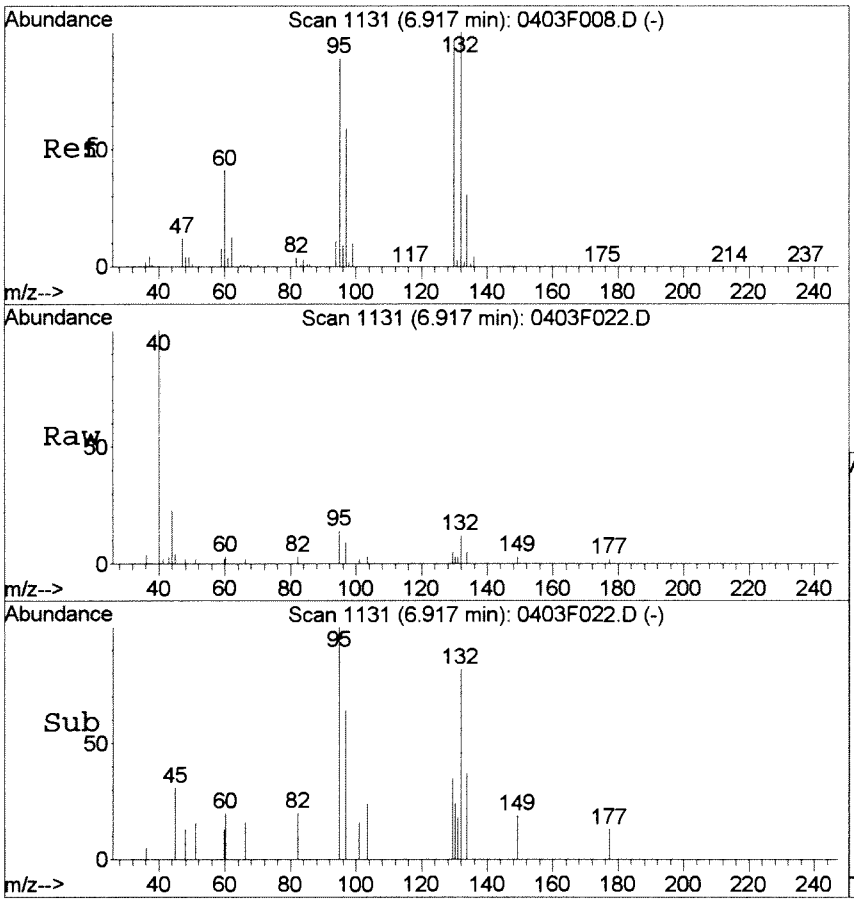


#48
Benzene
Concen: 0.01 PPB
RT: 6.10 min Scan# 975
Delta R.T. 0.01 min
Lab File: 0403F022.D
Acq: 03 Apr 2015 04:56 pm

Tgt Ion: 78 Resp: 892

Ion	Ratio	Lower	Upper
78	100		
52	16.6	0.0	46.3
51	48.9	0.0	47.5#

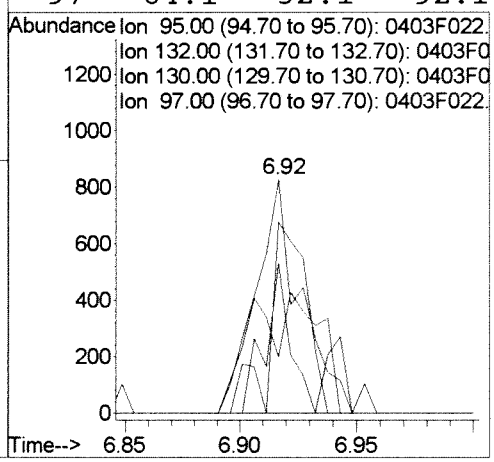


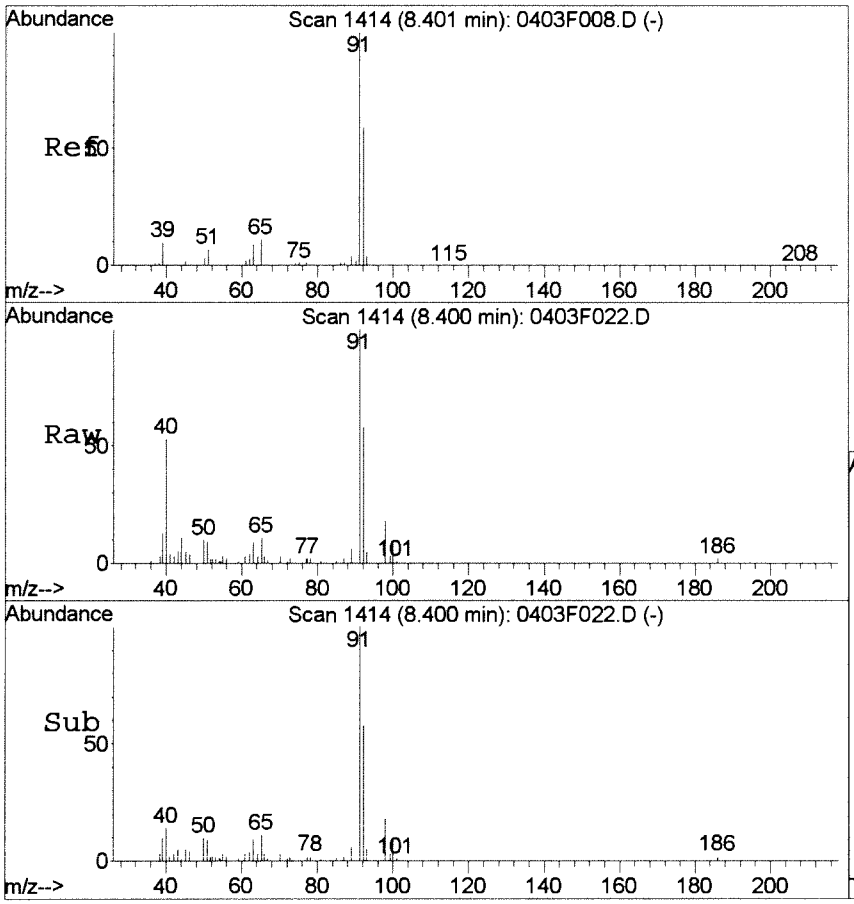


#51
Trichloroethene
Concen: 0.06 PPB
RT: 6.92 min Scan# 1131
Delta R.T. -0.00 min
Lab File: 0403F022.D
Acq: 03 Apr 2015 04:56 pm

Tgt Ion: 95 Resp: 1144

Ion	Ratio	Lower	Upper
95	100		
132	81.8	72.9	132.9
130	24.0	81.4	141.4#
97	64.1	32.1	92.1

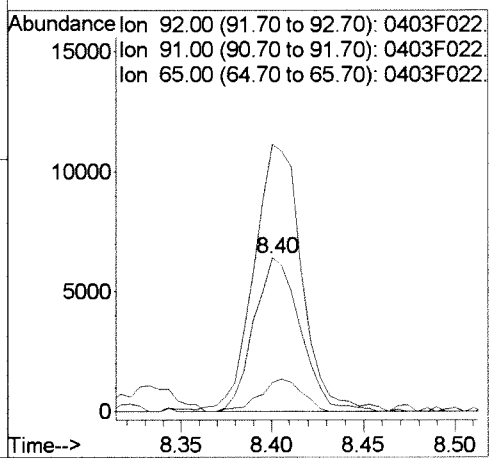




#63
Toluene
Concen: 0.24 PPB
RT: 8.40 min Scan# 1414
Delta R.T. -0.00 min
Lab File: 0403F022.D
Acq: 03 Apr 2015 04:56 pm

Tgt Ion: 92 Resp: 11458

Ion	Ratio	Lower	Upper
92	100		
91	173.8	139.2	199.2
65	19.0	0.0	50.2



Exception Report

Data File: J:\MS46\DATA\040815X\0408F022.D
Lab ID: K1503171-003
RunType: SMPL
Matrix: WATER

Date Acquired: 04/08/2015 18:27
Date Quantitated: 04/09/2015 14:36
Batch ID: KWG1503030
Analysis Method: 8260C
ListJoinID: LJ1423

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Duplicate Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 4/9/15

Secondary Review: 4/10/15

Quantitation Report

Data File:	J:\MS46\DATA\040815X\0408F022.D			**Instrument:**	GCMS46
Acqu Date:	04/08/2015 18:27	**Quant Date:**	04/09/2015 14:36	**Vial:**	22
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1503171-003			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	03/26/2015	**Receive Date:**	03/27/2015

Analysis Lot:	KWG1503030	**Prep Lot:**	kwg1503029	**Report Group:**	K1503171
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1426068	**Prep Date:**	04/08/2015		

Quant Method:	J:\MS46\METHODS\031615MS46_8	**Calibration ID:**	CAL13899
Title:	Volatile Organic Compounds	**Report List ID:**	LJ1423
Tune Ref:	J:\MS46\DATA\040815X\0408F003.D	**Method ID:**	MJ119
MB Ref:	J:\MS46\DATA\040815X\0408F011.D	**Quant based on Report List**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	6.49	0.00	96	723631	10.00	OK
2	Chlorobenzene-d5	9.96	0.00	82	298225	10.00	OK
3	1,4-Dichlorobenzene-d4	12.53	0.00	152	290098	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.69	0.00	0.00	113	193037	12.14	121	73-122	OK	
1	Toluene-d8	8.33	0.00	0.00	98	685870	11.19	112	65-144	OK	
2	4-Bromofluorobenzene	11.27	0.00	0.00	95	248352	10.75	108	68-117	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Tetrachloride	5.77		0.00	117	5541	0.2200	0.22	J	

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\040815X\0408F022.D Vial: 22
Acq On : 08 Apr 2015 06:27 pm Operator: KR
Sample : K3171-003 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 09 14:35:00 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.49	96	723631	10.00	PPB	0.00
64) Chlorobenzene-d5	9.96	82	298225	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	12.53	152	290098	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.69	113	193037	12.14	PPB	0.00
Spiked Amount 10.000			Recovery =	121.40%		
47) 1,2-Dichloroethane-d4	6.14	65	220318	13.12	PPB	0.00
Spiked Amount 10.000			Recovery =	131.20%		
62) Toluene-d8	8.33	98	685870	11.19	PPB	0.00
Spiked Amount 10.000			Recovery =	111.90%		
84) 4-Bromofluorobenzene	11.27	95	248352	10.75	PPB	0.00
Spiked Amount 10.000			Recovery =	107.50%		
Target Compounds						Qvalue
11) Acrolein	2.03	56	582	0.40	PPB	# 46
14) Acetone	2.63	43	1863m	0.78	PPB	
16) Carbon Disulfide	2.65	76	1591	0.03	PPB	80
24) Methyl tert-Butyl Ether	3.40	73	968	0.03	PPB	62
40) Chloroform	5.49	83	1262	0.04	PPB	94
42) 1,1,1-Trichloroethane	5.62	97	2084	0.07	PPB	84
44) Carbon Tetrachloride	5.77	117	5541	0.22	PPB	96
48) Benzene	6.08	78	867	0.01	PPB	70
51) Trichloroethene	6.91	95	1256m	0.07	PPB	
63) Toluene	8.40	92	12588	0.28	PPB	92
74) 1-Chlorohexane	9.95	91	1199	0.05	PPB	# 53

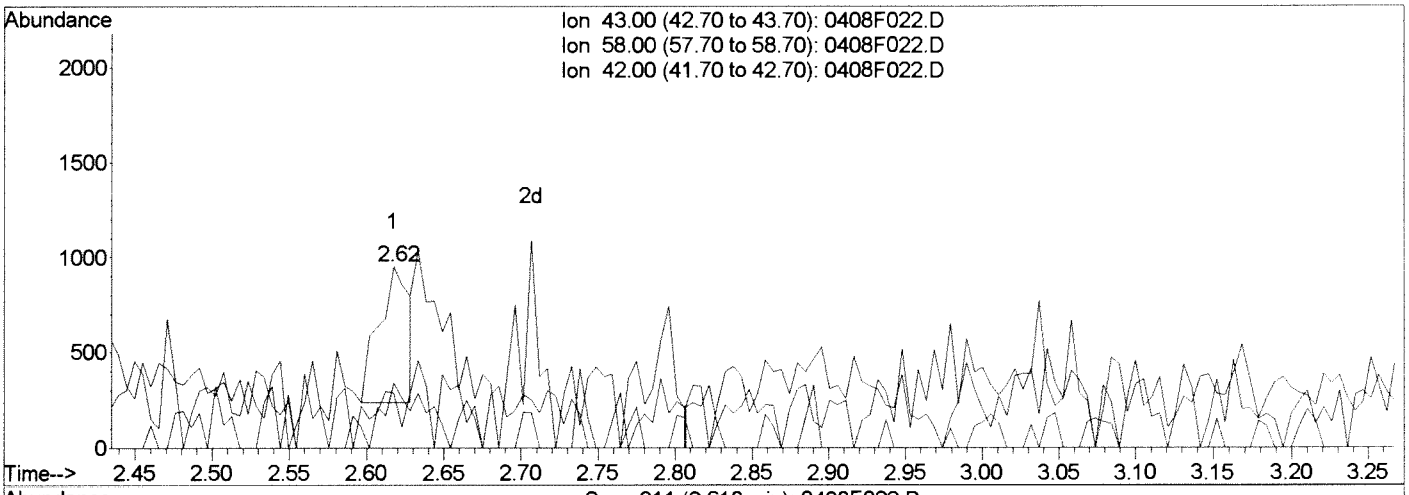
(#) = qualifier out of range (m) = manual integration
0408F022.D 031615MS46_8260.M Thu Apr 09 14:36:56 2015 Page 1

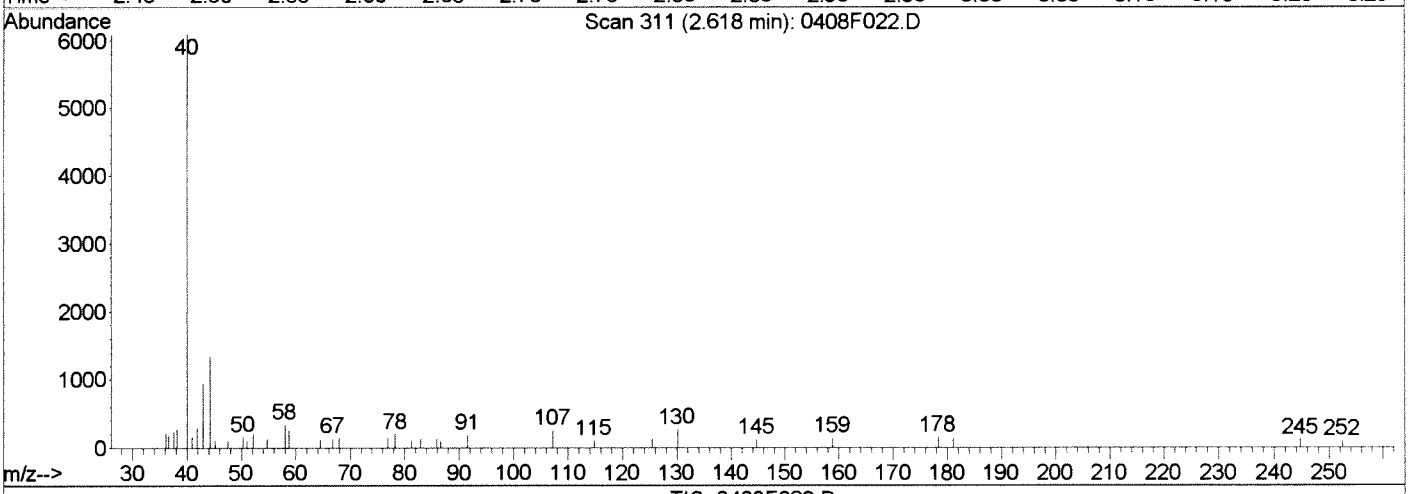
04.10.15jal2nd Rev

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\040815X\0408F022.D Vial: 22
Acq On : 08 Apr 2015 06:27 pm Operator: KR
Sample : K3171-003 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 9 14:35 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Multiple Level Calibration





TIC: 0408F022.D

(14) Acetone (T)

2.62min 0.40PPB

response 970

Ion	Exp%	Act%
43.00	100	100
58.00	29.50	20.28
42.00	7.10	9.37
0.00	0.00	0.00

Manual Integration:

Before

04/09/15

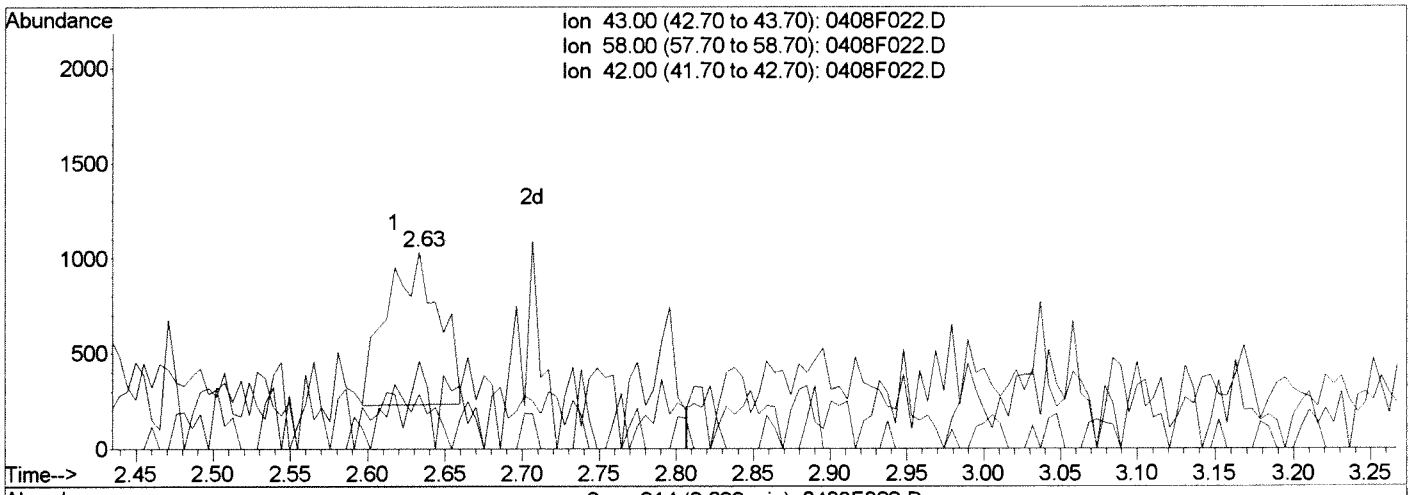
0408F022.D 031615MS46_8260.M Thu Apr 09 14:35:27 2015

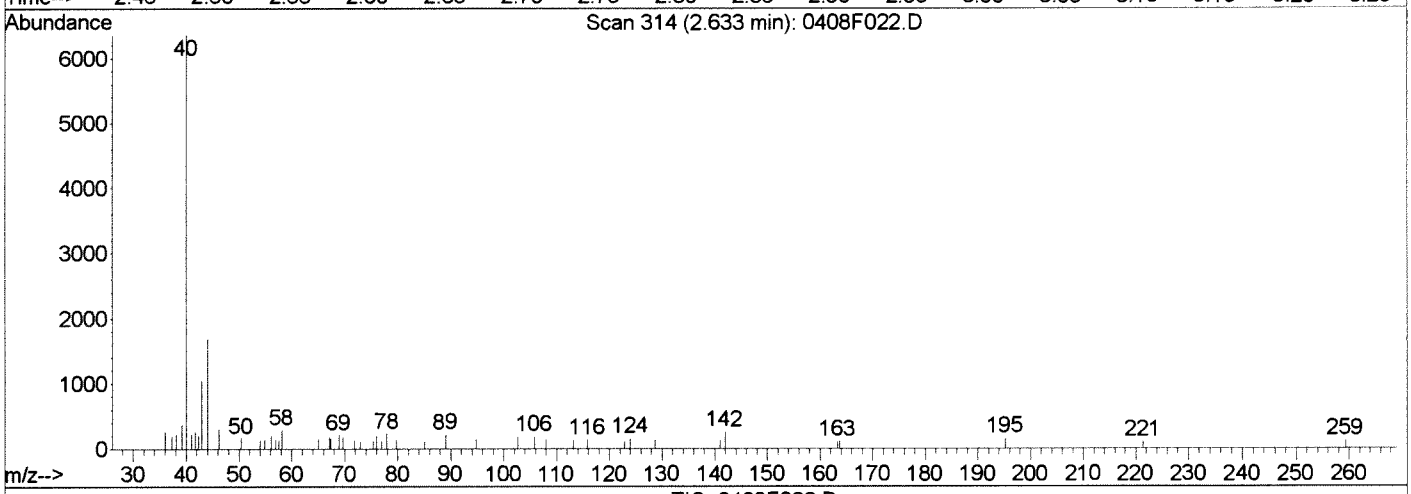
04.10.15jal2nd Rev

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\040815X\0408F022.D Vial: 22
Acq On : 08 Apr 2015 06:27 pm Operator: KR
Sample : K3171-003 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 9 14:35 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Multiple Level Calibration





TIC: 0408F022.D

(14) Acetone (T)
2.63min 0.78PPB m
response 1863

Ion	Exp%	Act%
43.00	100	100
58.00	29.50	27.70
42.00	7.10	25.00
0.00	0.00	0.00

Manual Integration:
After
Baseline correction
04/09/15

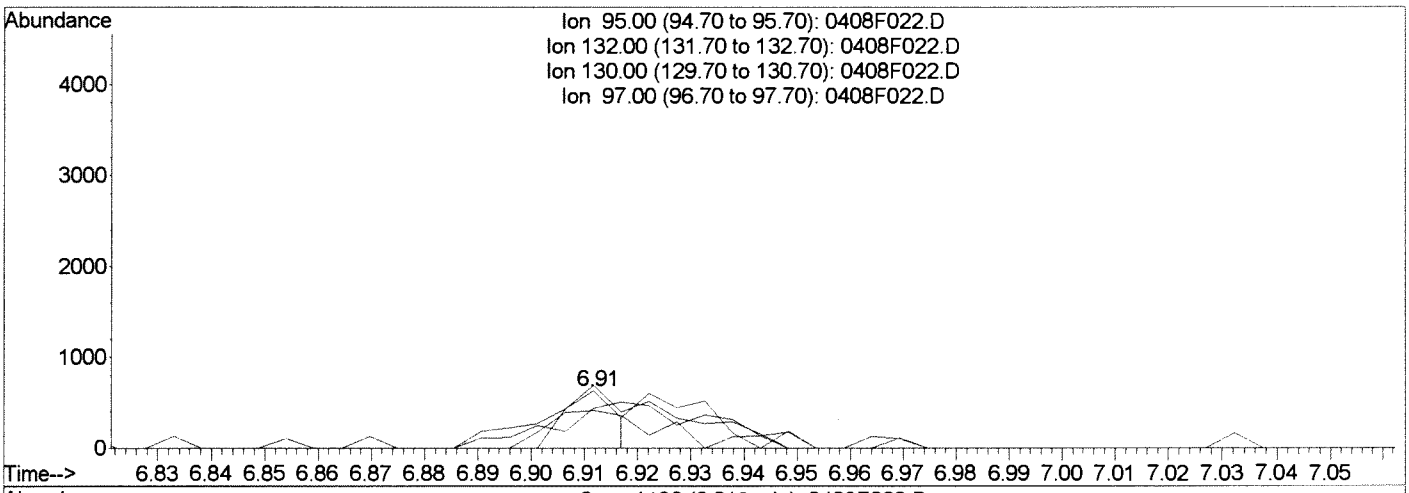
0408F022.D 031615MS46_8260.M Thu Apr 09 14:35:35 2015

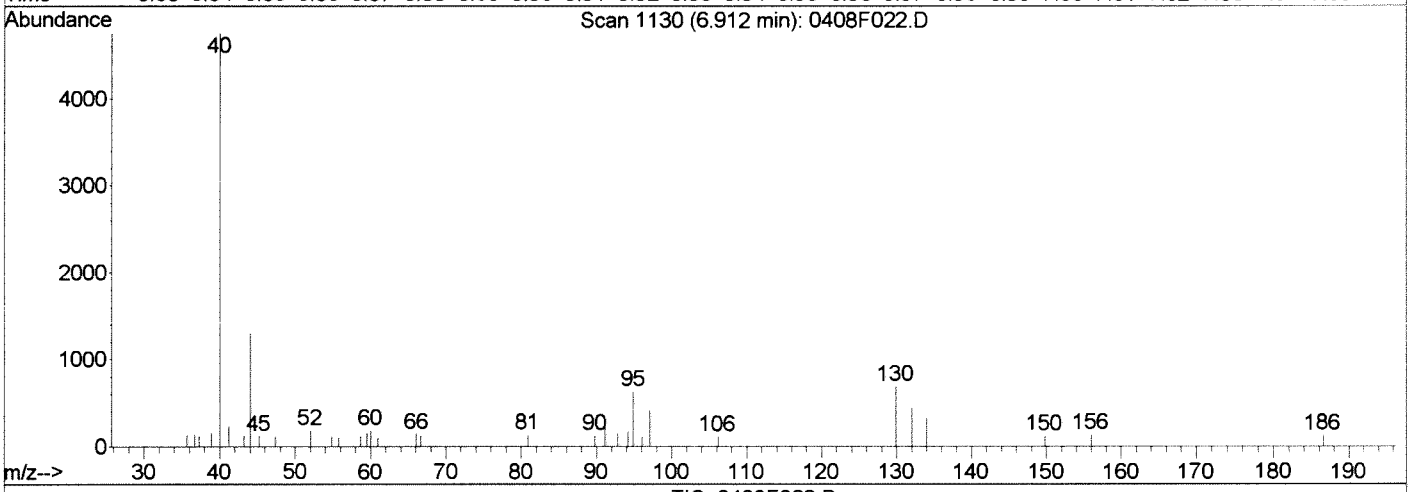
04.10.15jal2nd Rev

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\040815X\0408F022.D Vial: 22
Acq On : 08 Apr 2015 06:27 pm Operator: KR
Sample : K3171-003 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 9 14:36 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Multiple Level Calibration





TIC: 0408F022.D

(51) Trichloroethene (MT)

6.91min 0.03PPB

response 653

Ion	Exp%	Act%
95.00	100	100
132.00	102.90	69.52#
130.00	111.40	109.68
97.00	62.10	65.71

Manual Integration:

Before

04/09/15

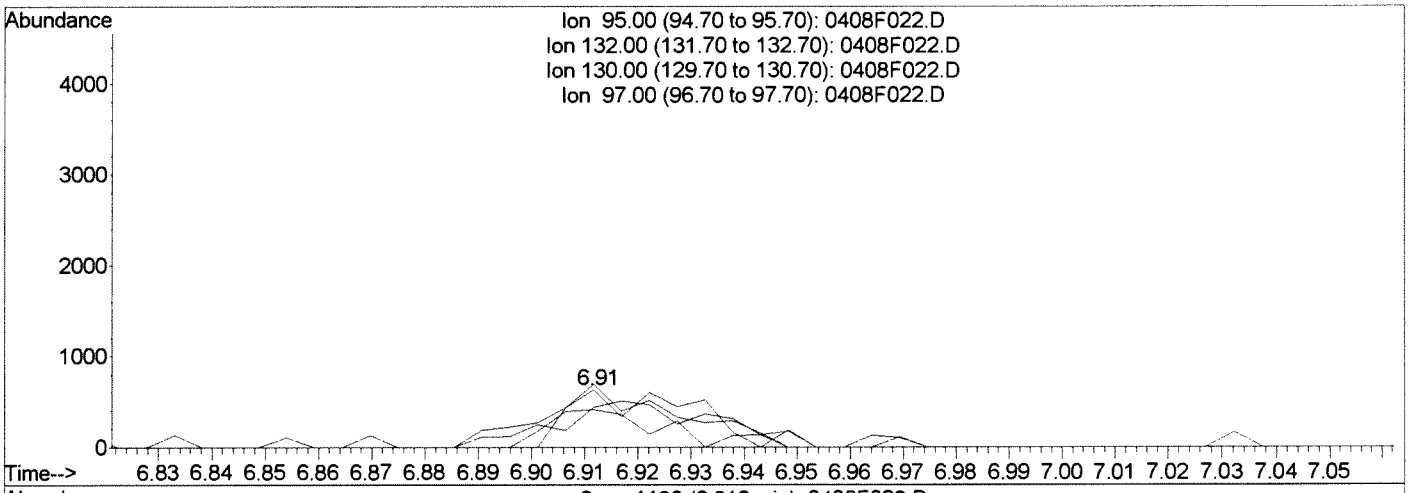
0408F022.D 031615MS46_8260.M Thu Apr 09 14:36:11 2015

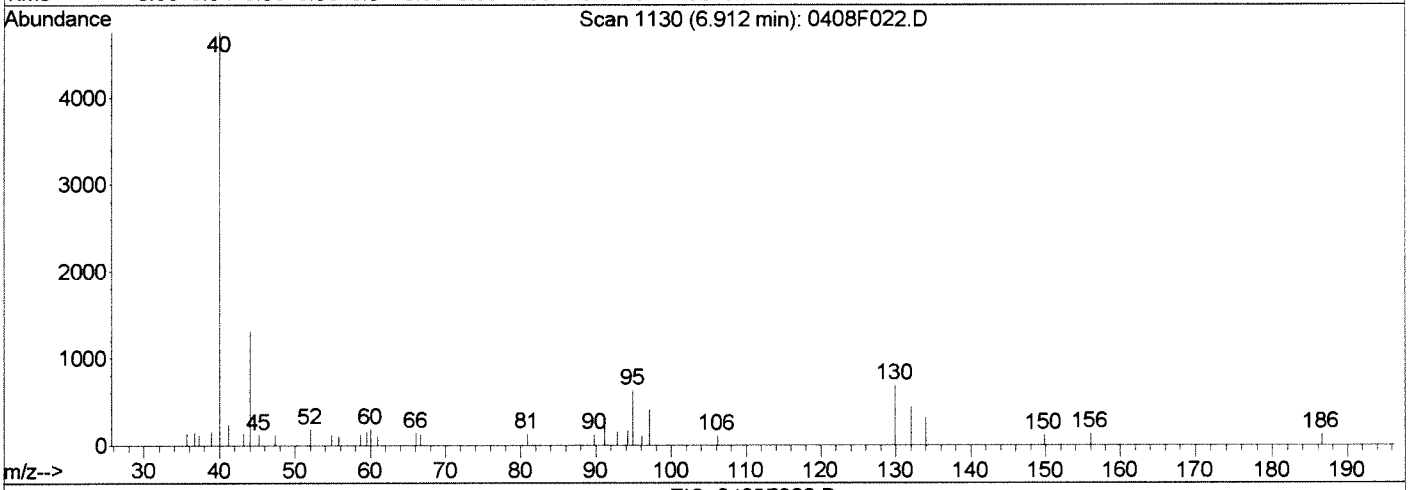
04.10.15jal2nd Rev

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\040815X\0408F022.D Vial: 22
Acq On : 08 Apr 2015 06:27 pm Operator: KR
Sample : K3171-003 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 9 14:36 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Multiple Level Calibration





TIC: 0408F022.D

(51) Trichloroethene (MT)
6.91min 0.07PPB m
response 1256

Ion	Exp%	Act%
95.00	100	100
132.00	102.90	69.52#
130.00	111.40	109.68
97.00	62.10	65.71

Manual Integration:
After
Baseline correction
04/09/15

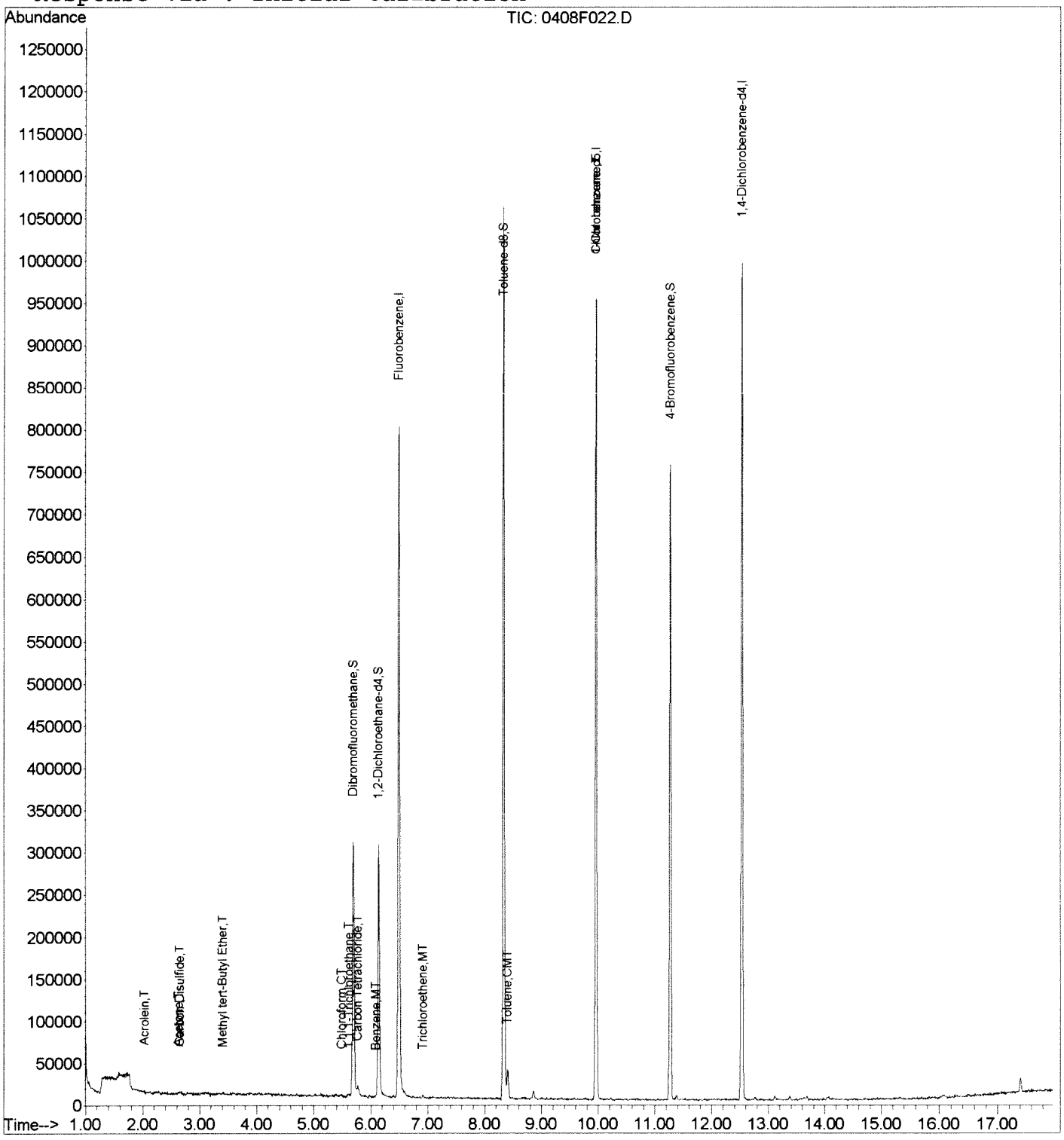
0408F022.D 031615MS46_8260.M Thu Apr 09 14:36:16 2015

04.10.15jal2nd Rev

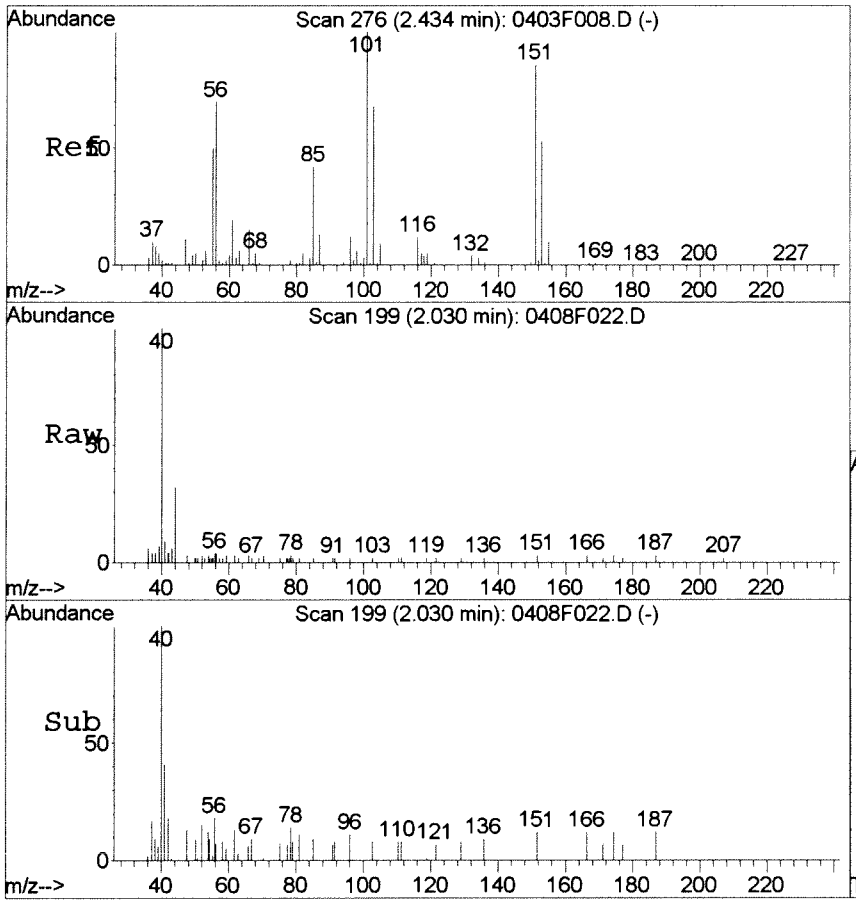
Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\040815X\0408F022.D Vial: 22
Acq On : 08 Apr 2015 06:27 pm Operator: KR
Sample : K3171-003 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 9 14:36 2015 Quant Results File: 031615MS46_8

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Initial Calibration



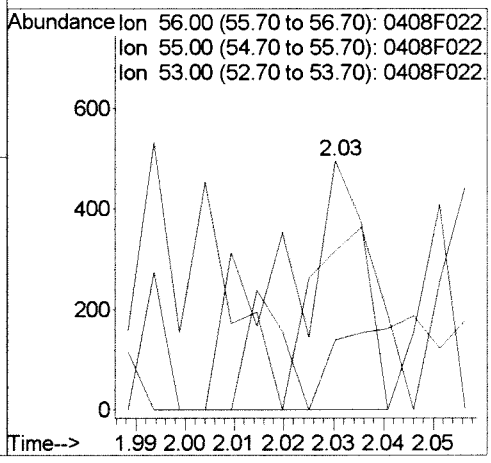
04.10.15jal2ndRev

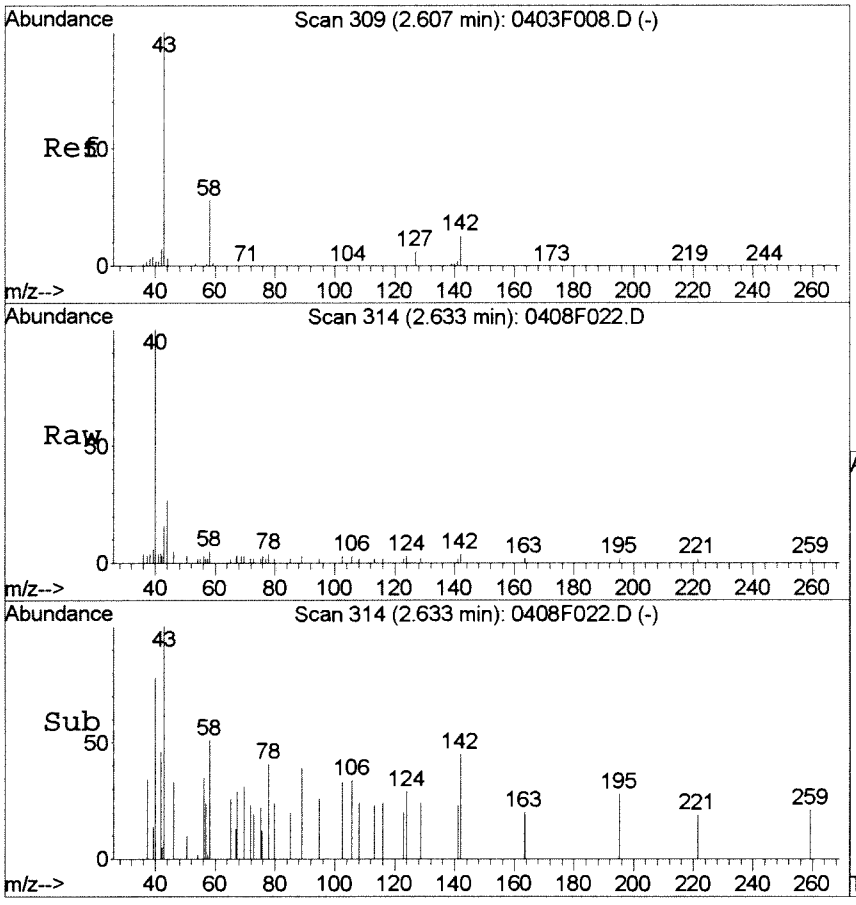


#11
Acrolein
Concen: 0.40 PPB
RT: 2.03 min Scan# 199
Delta R.T. -0.40 min
Lab File: 0408F022.D
Acq: 08 Apr 2015 06:27 pm

Tgt Ion: 56 Resp: 582

Ion	Ratio	Lower	Upper
56	100		
55	25.4	39.0	99.0#
53	28.2	0.0	37.2

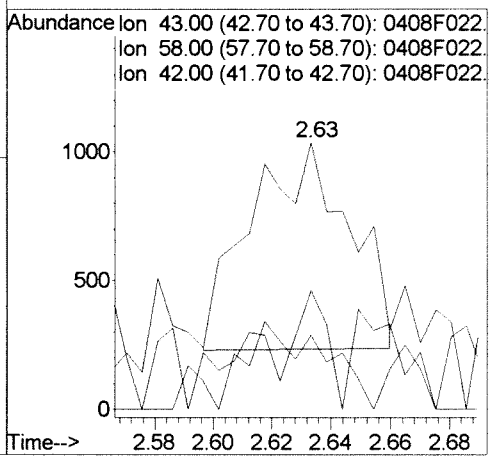


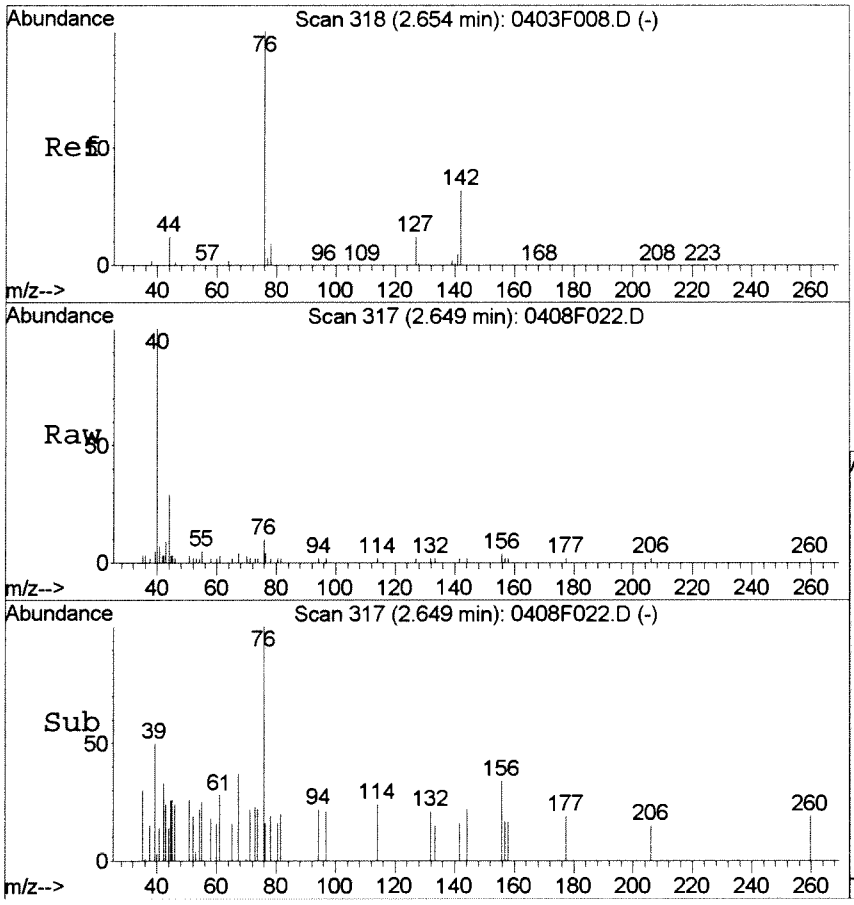


#14
Acetone
Concen: 0.78 PPB m
RT: 2.63 min Scan# 314
Delta R.T. 0.03 min
Lab File: 0408F022.D
Acq: 08 Apr 2015 06:27 pm

Tgt Ion: 43 Resp: 1863

Ion	Ratio	Lower	Upper
43	100		
58	27.7	0.0	59.5
42	25.0	0.0	37.1

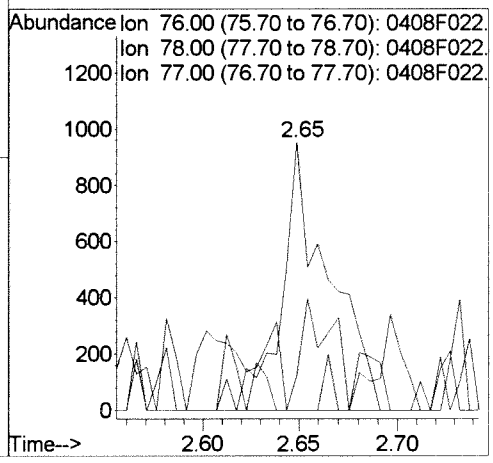


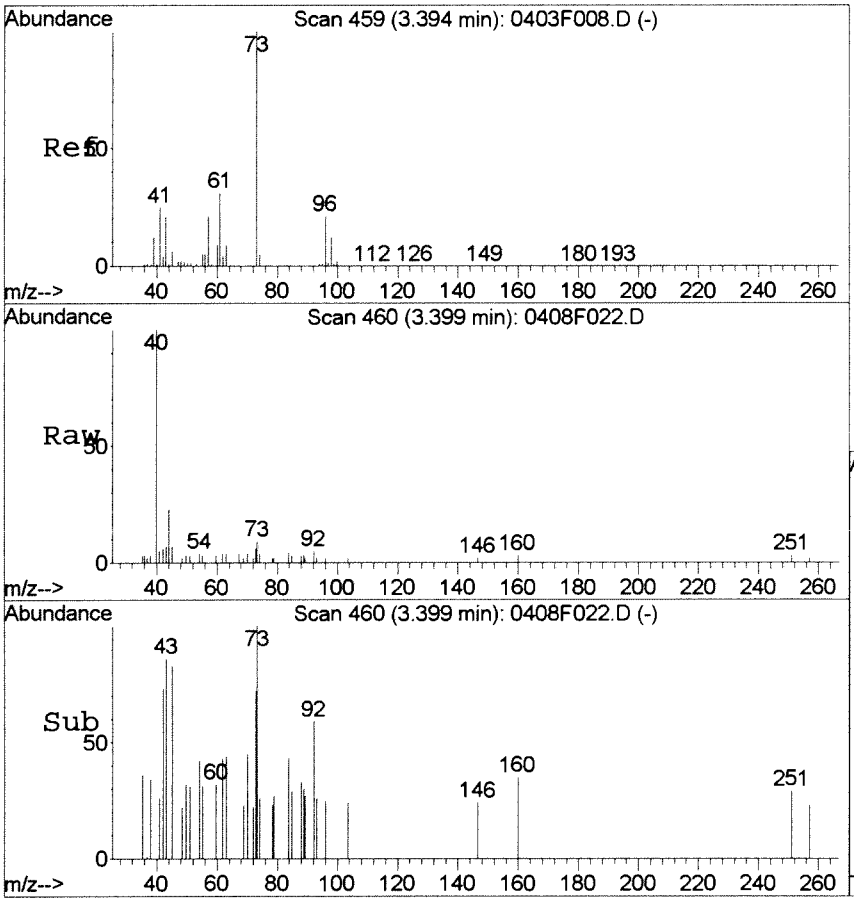


#16
Carbon Disulfide
Concen: 0.03 PPB
RT: 2.65 min Scan# 317
Delta R.T. -0.01 min
Lab File: 0408F022.D
Acq: 08 Apr 2015 06:27 pm

Tgt Ion: 76 Resp: 1591

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	38.4
77	0.0	0.0	32.9

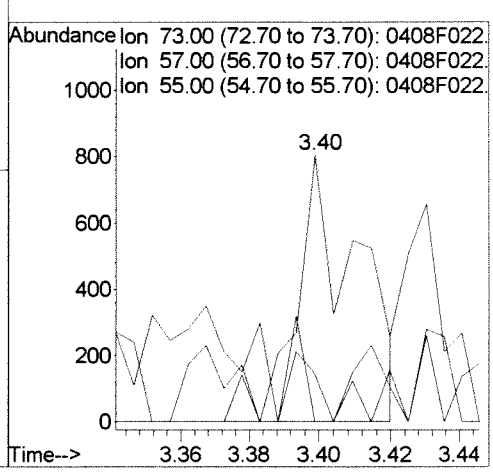


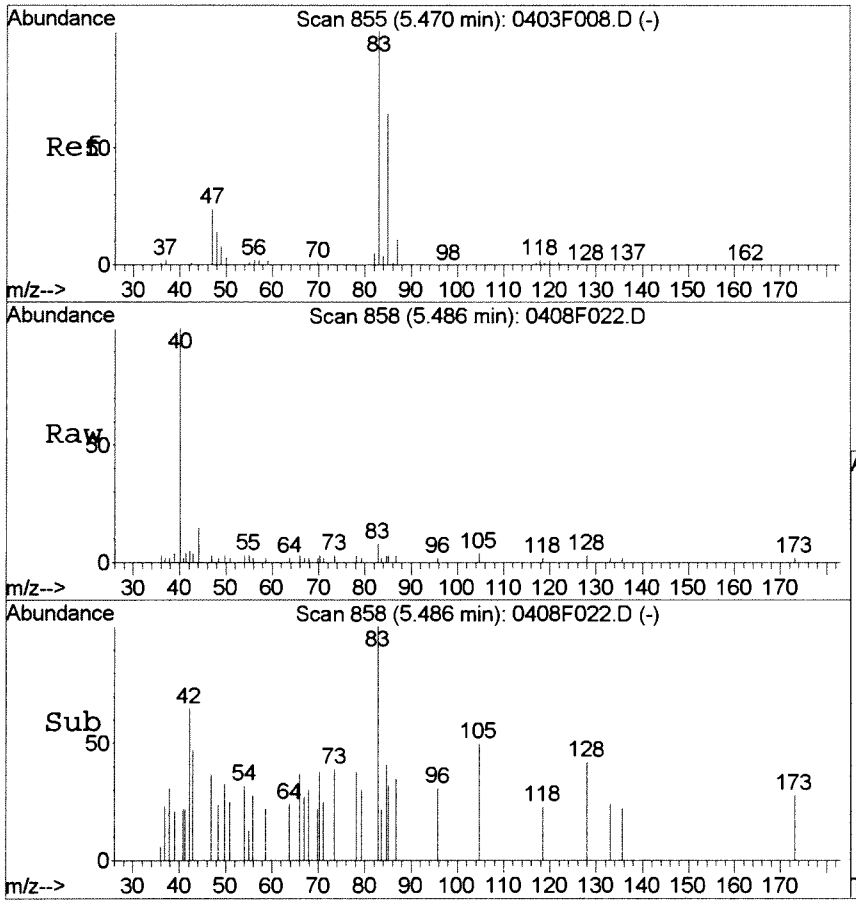


#24
Methyl tert-Butyl Ether
Concen: 0.03 PPB
RT: 3.40 min Scan# 460
Delta R.T. 0.01 min
Lab File: 0408F022.D
Acq: 08 Apr 2015 06:27 pm

Tgt Ion: 73 Resp: 968

Ion	Ratio	Lower	Upper
73	100		
57	0.0	0.0	51.3
55	4.7	0.0	34.4

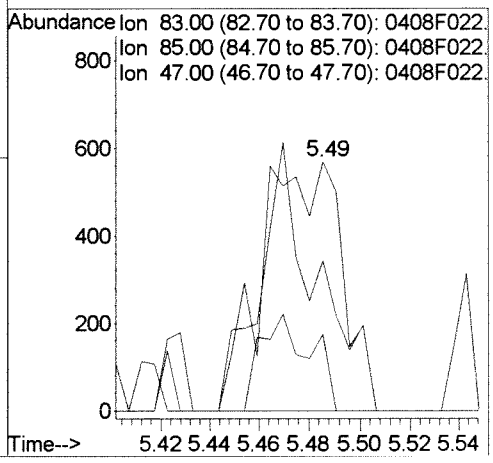


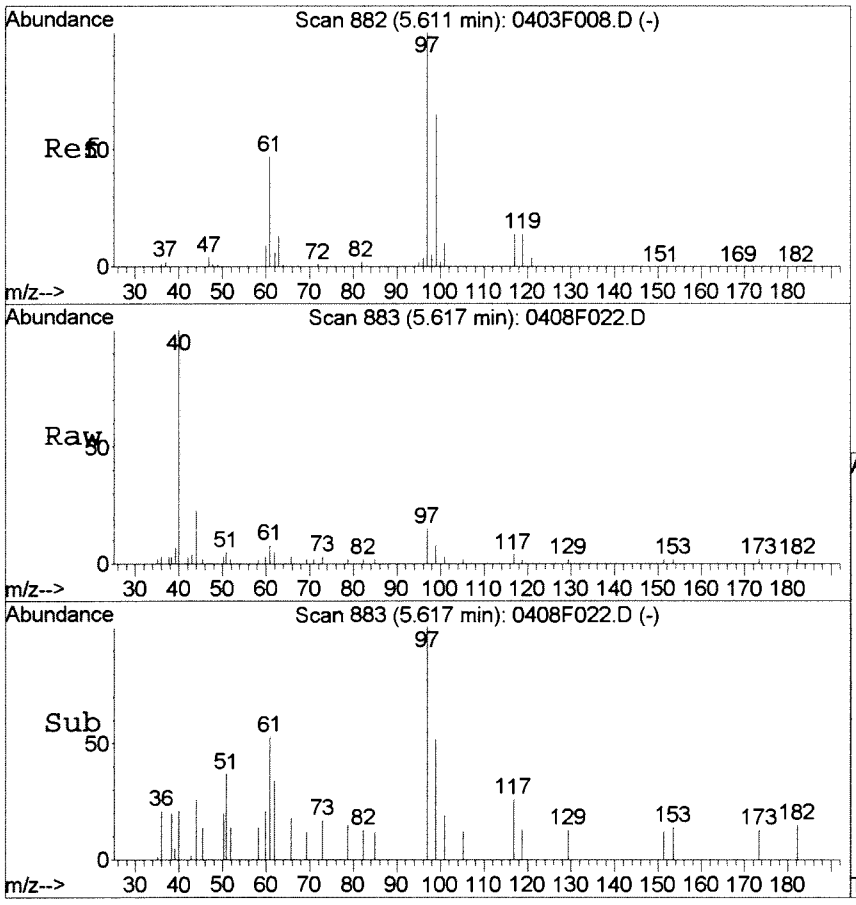


#40
Chloroform
Concen: 0.04 PPB
RT: 5.49 min Scan# 858
Delta R.T. 0.02 min
Lab File: 0408F022.D
Acq: 08 Apr 2015 06:27 pm

Tgt Ion: 83 Resp: 1262

Ion	Ratio	Lower	Upper
83	100		
85	60.3	33.1	93.1
47	30.8	0.0	54.1

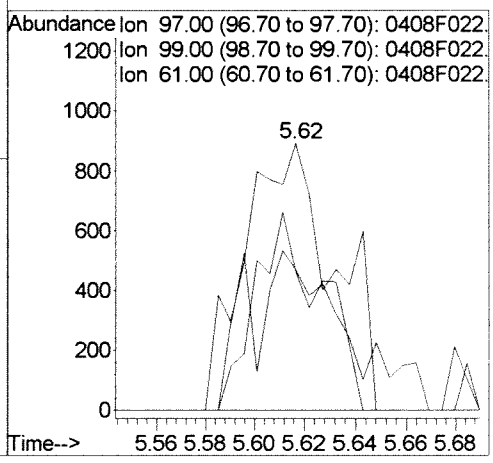


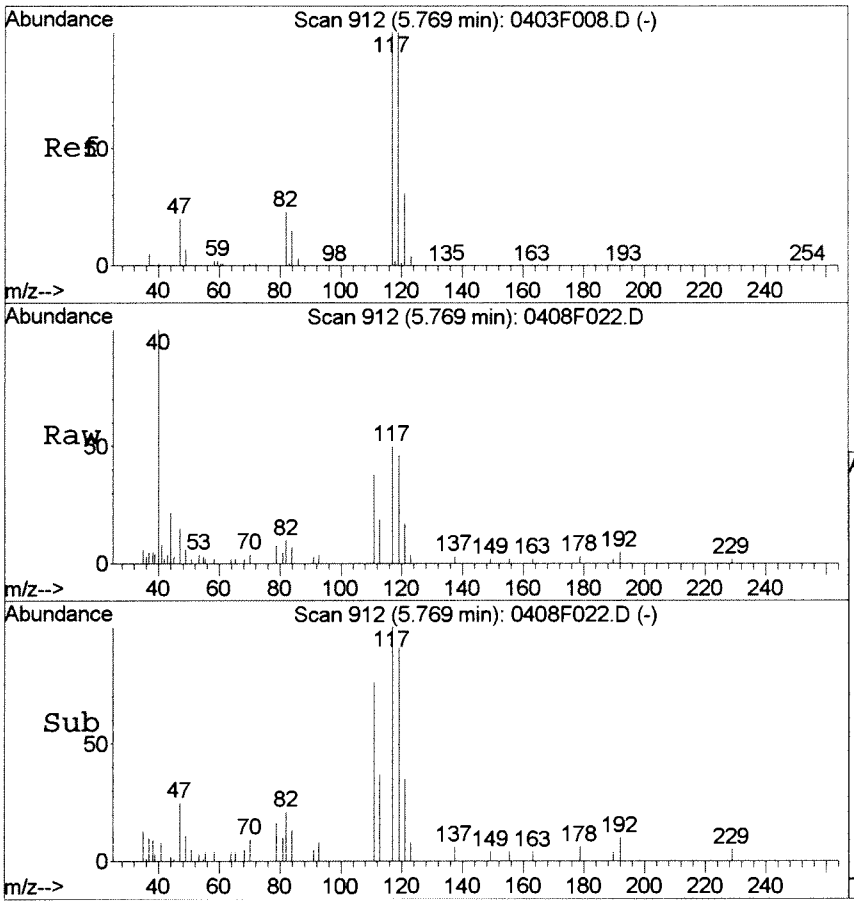


#42
1,1,1-Trichloroethane
Concen: 0.07 PPB
RT: 5.62 min Scan# 883
Delta R.T. 0.01 min
Lab File: 0408F022.D
Acq: 08 Apr 2015 06:27 pm

Tgt Ion: 97 Resp: 2084

Ion	Ratio	Lower	Upper
97	100		
99	52.0	37.0	97.0
61	52.6	15.1	75.1

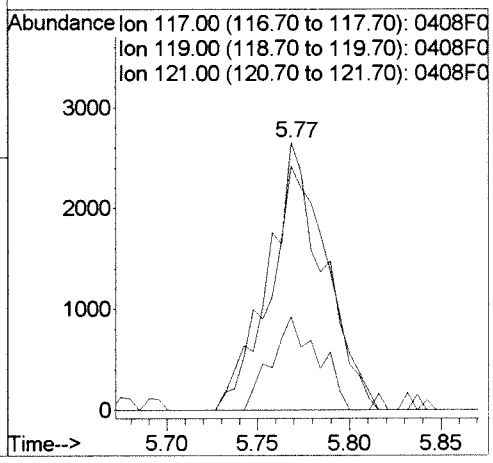


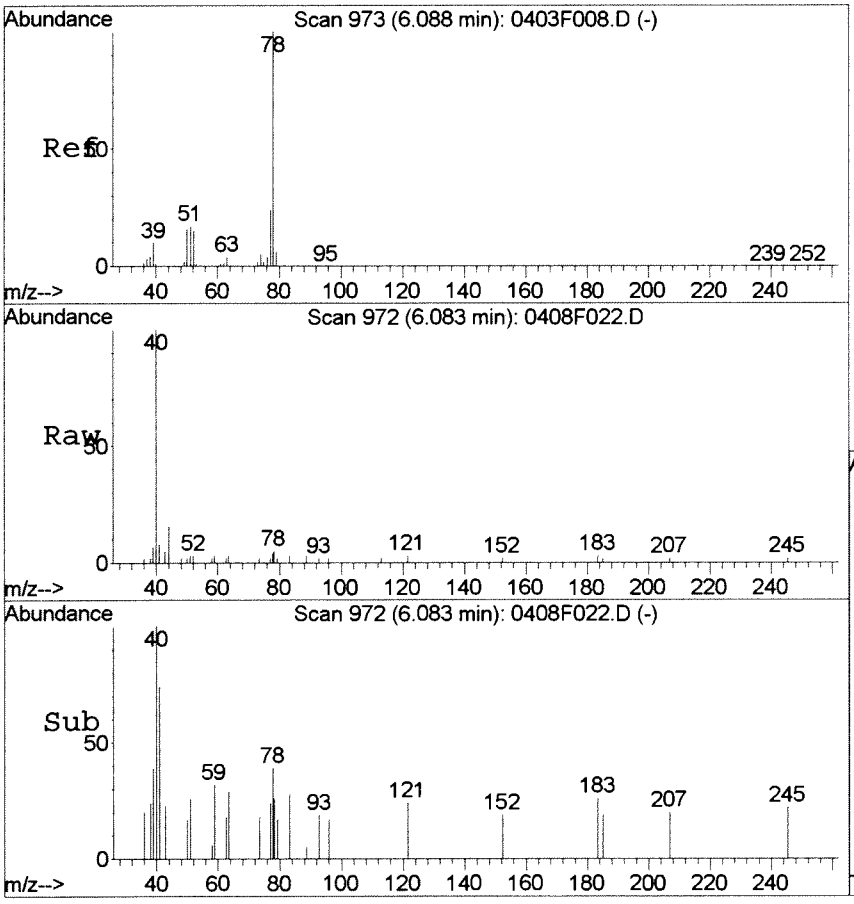


#44
Carbon Tetrachloride
Concen: 0.22 PPB
RT: 5.77 min Scan# 912
Delta R.T. -0.00 min
Lab File: 0408F022.D
Acq: 08 Apr 2015 06:27 pm

Tgt Ion:117 Resp: 5541

Ion	Ratio	Lower	Upper
117	100		
119	91.2	63.3	123.3
121	34.9	0.2	60.2

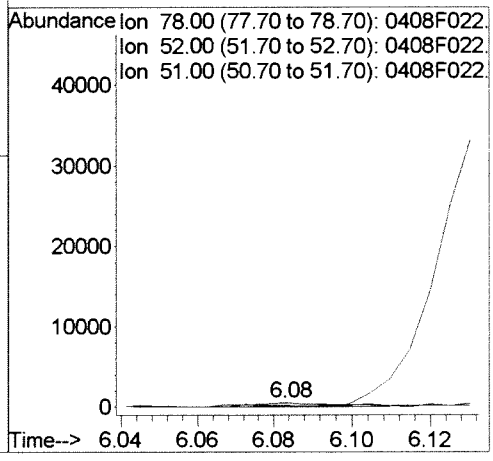


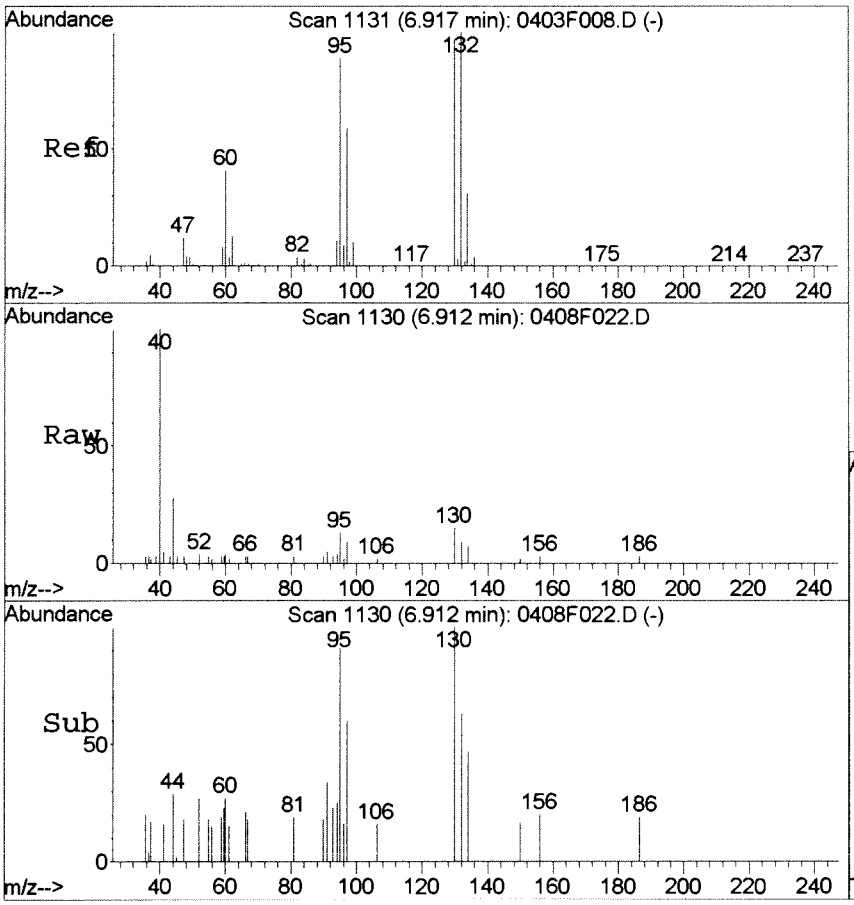


#48
Benzene
Concen: 0.01 PPB
RT: 6.08 min Scan# 972
Delta R.T. -0.01 min
Lab File: 0408F022.D
Acq: 08 Apr 2015 06:27 pm

Tgt Ion: 78 Resp: 867

Ion	Ratio	Lower	Upper
78	100		
52	29.8	0.0	46.3
51	29.6	0.0	47.5

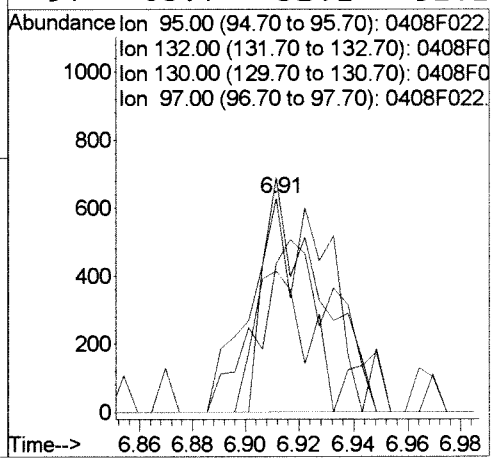


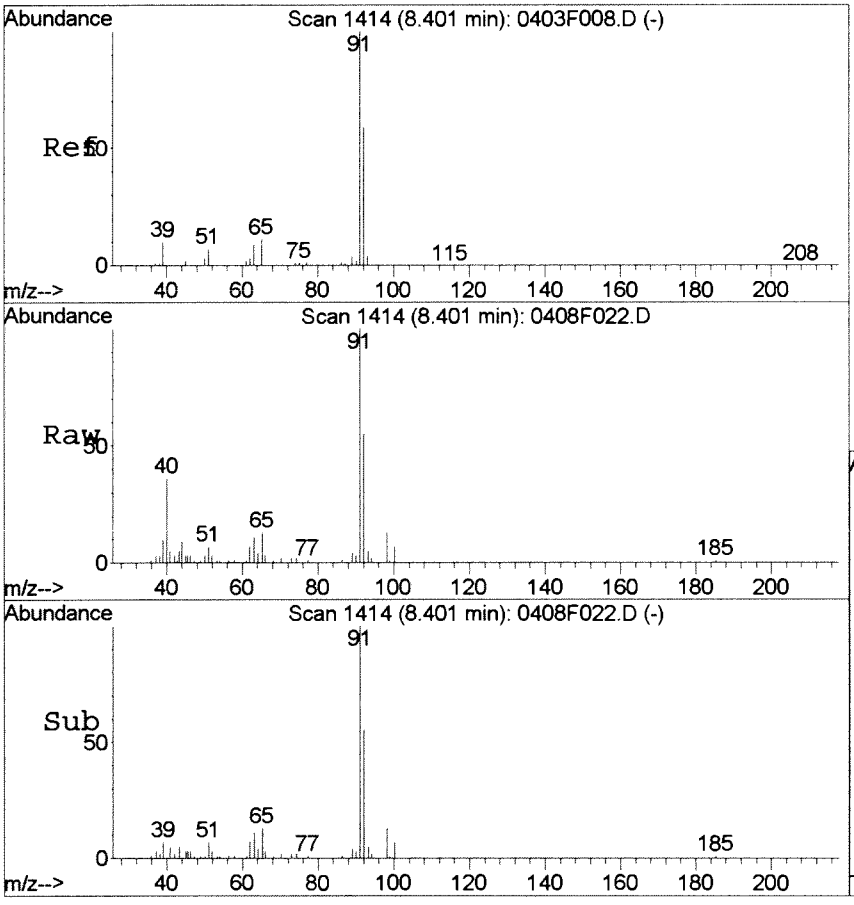


#51
Trichloroethene
Concen: 0.07 PPB m
RT: 6.91 min Scan# 1130
Delta R.T. -0.01 min
Lab File: 0408F022.D
Acq: 08 Apr 2015 06:27 pm

Tgt Ion: 95 Resp: 1256

Ion	Ratio	Lower	Upper
95	100		
132	69.5	72.9	132.9#
130	109.7	81.4	141.4
97	65.7	32.1	92.1

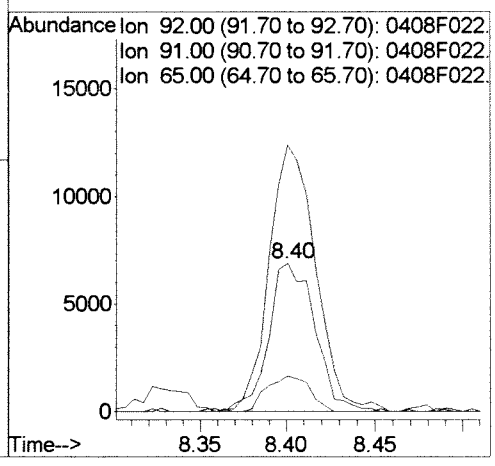


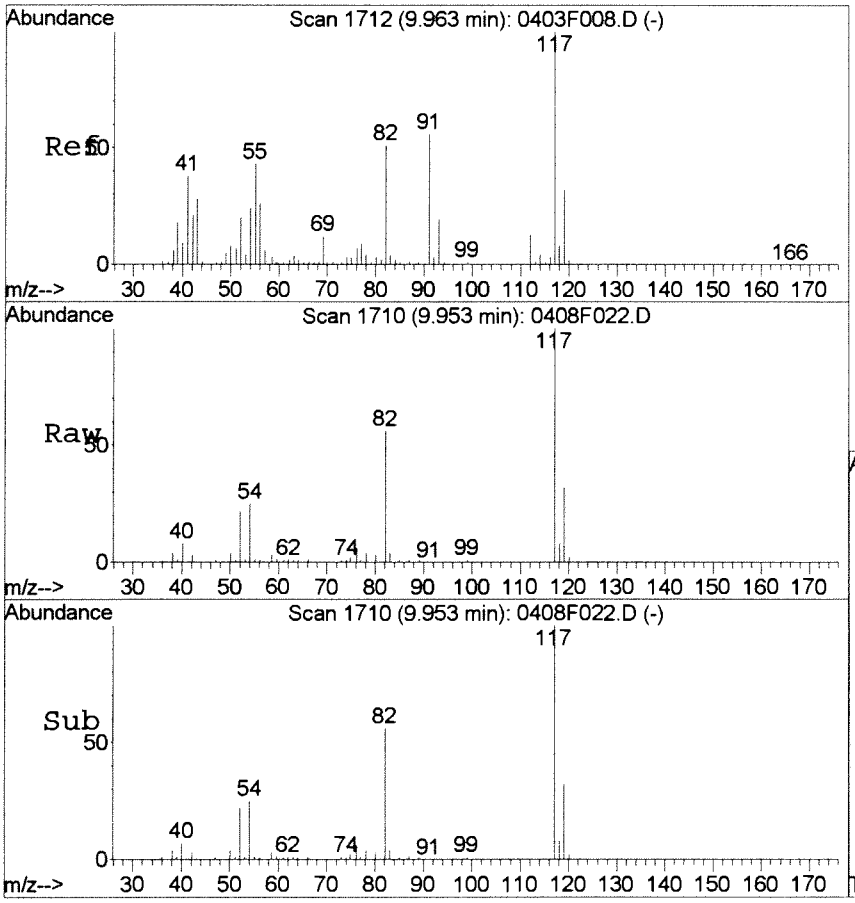


#63
Toluene
Concen: 0.28 PPB
RT: 8.40 min Scan# 1414
Delta R.T. -0.00 min
Lab File: 0408F022.D
Acq: 08 Apr 2015 06:27 pm

Tgt Ion: 92 Resp: 12588

Ion	Ratio	Lower	Upper
92	100		
91	180.2	139.2	199.2
65	24.0	0.0	50.2

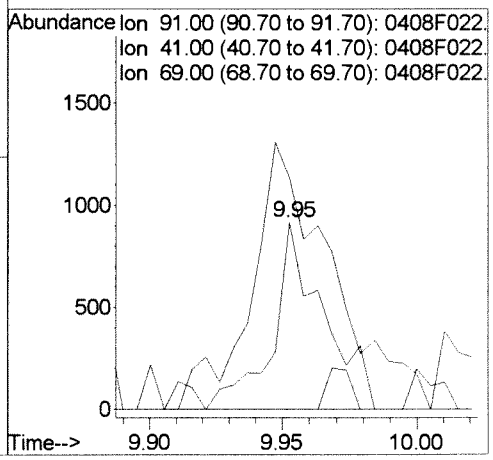




#74
1-Chlorohexane
Concen: 0.05 PPB
RT: 9.95 min Scan# 1710
Delta R.T. -0.01 min
Lab File: 0408F022.D
Acq: 08 Apr 2015 06:27 pm

Tgt Ion: 91 Resp: 1199

Ion	Ratio	Lower	Upper
91	100		
41	98.1	31.8	91.8#
69	0.0	0.0	51.3



Exception Report

Data File: J:\MS46\DATA\040815X\0408F023.D
Lab ID: K1503171-004
RunType: SMPL
Matrix: WATER

Date Acquired: 04/08/2015 18:51
Date Quantitated: 04/09/2015 14:38
Batch ID: KWG1503030
Analysis Method: 8260C
ListJoinID: LJ1423

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Duplicate Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 4/9/15

Secondary Review: 4/10/15

Quantitation Report

Data File:	J:\MS46\DATA\040815X\0408F023.D			**Instrument:**	GCMS46
Acqu Date:	04/08/2015 18:51	**Quant Date:**	04/09/2015 14:38	**Vial:**	23
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1503171-004			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	03/26/2015	**Receive Date:**	03/27/2015

Analysis Lot:	KWG1503030	**Prep Lot:**	kwg1503029	**Report Group:**	K1503171
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1426069	**Prep Date:**	04/08/2015		

Quant Method:	J:\MS46\METHODS\031615MS46_8	**Calibration ID:**	CAL13899
Title:	Volatile Organic Compounds	**Report List ID:**	LJ1423
Tune Ref:	J:\MS46\DATA\040815X\0408F003.D	**Method ID:**	MJ119
MB Ref:	J:\MS46\DATA\040815X\0408F011.D	**Quant based on Report List**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	6.49	0.00	96	712832	10.00	OK
2	Chlorobenzene-d5	9.96	0.00	82	287270	10.00	OK
3	1,4-Dichlorobenzene-d4	12.53	0.00	152	286263	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.69	0.00	0.00	113	185280	11.83	118	73-122	OK	
1	Toluene-d8	8.33	0.00	0.00	98	672051	11.13	111	65-144	OK	
2	4-Bromofluorobenzene	11.27	0.00	0.00	95	240789	10.82	108	68-117	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Tetrachloride	5.77		0.00	117	48595	1.92	1.9		

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\040815X\0408F023.D Vial: 23
Acq On : 08 Apr 2015 06:51 pm Operator: KR
Sample : K3171-004 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 09 14:37:08 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	6.49	96	712832	10.00	PPB		0.00
64) Chlorobenzene-d5	9.96	82	287270	10.00	PPB		0.00
85) 1,4-Dichlorobenzene-d4	12.53	152	286263	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.69	113	185280	11.83	PPB		0.00
Spiked Amount 10.000			Recovery =	118.30%			
47) 1,2-Dichloroethane-d4	6.14	65	213044	12.88	PPB		0.00
Spiked Amount 10.000			Recovery =	128.80%			
62) Toluene-d8	8.33	98	672051	11.13	PPB		0.00
Spiked Amount 10.000			Recovery =	111.30%			
84) 4-Bromofluorobenzene	11.27	95	240789	10.82	PPB		0.00
Spiked Amount 10.000			Recovery =	108.20%			
Target Compounds							Qvalue
6) Bromomethane	1.64	96	914	0.07	PPB		78
9) Trichlorofluoromethane	1.93	101	1371	0.05	PPB	#	61
14) Acetone	2.62	43	1631	0.69	PPB		84
16) Carbon Disulfide	2.66	76	1712	0.03	PPB		90
21) Methylene Chloride	3.10	84	703	0.04	PPB		79
40) Chloroform	5.47	83	4014	0.13	PPB		98
42) 1,1,1-Trichloroethane	5.61	97	1019	0.04	PPB	#	64
44) Carbon Tetrachloride	5.77	117	48595	1.92	PPB		96
51) Trichloroethene	6.92	95	573	0.03	PPB	#	52
63) Toluene	8.41	92	5026	0.11	PPB		93
74) 1-Chlorohexane	9.96	91	1397	0.06	PPB	#	20

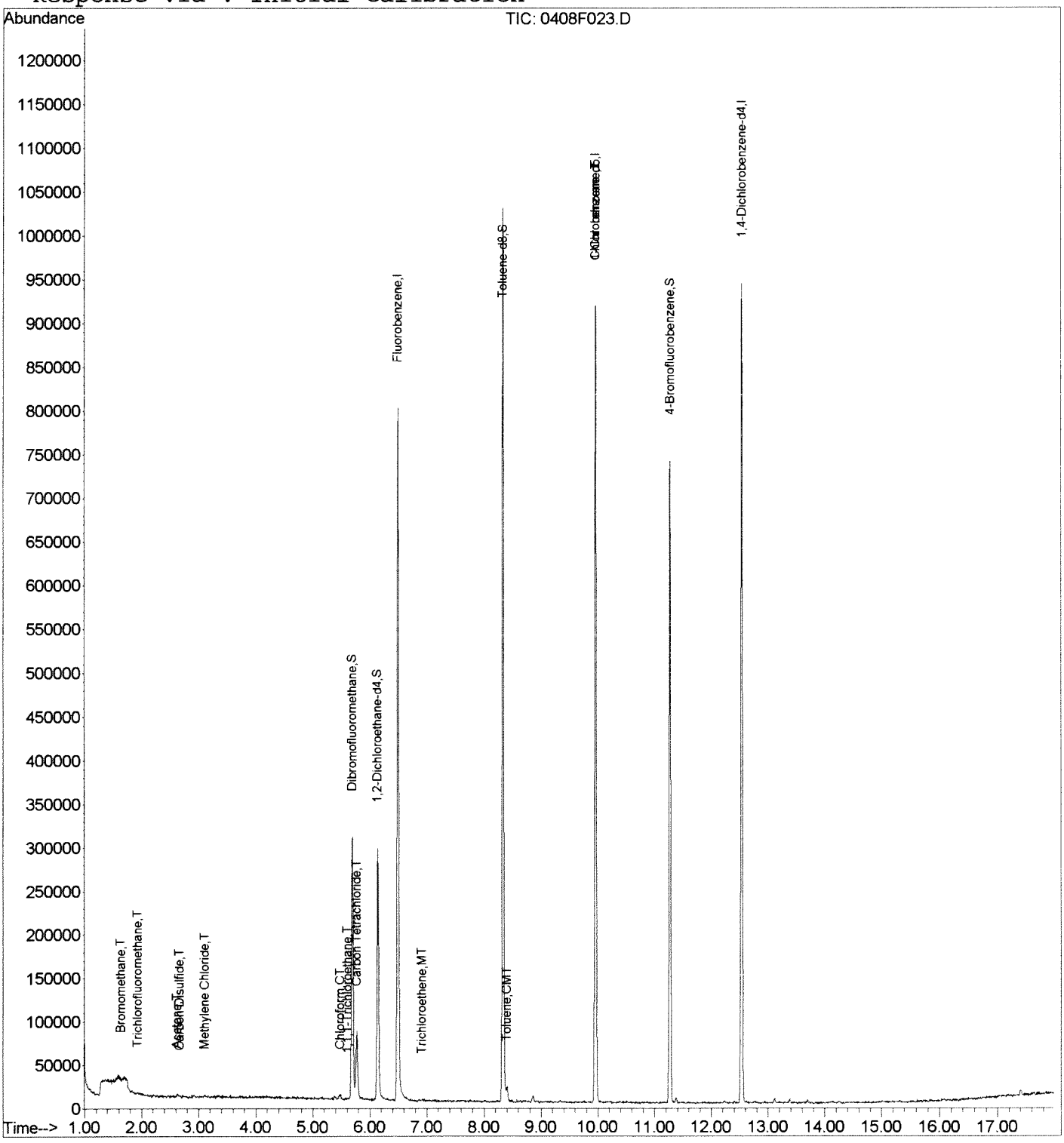
(#) = qualifier out of range (m) = manual integration
0408F023.D 031615MS46_8260.M Thu Apr 09 14:38:55 2015 Page 1

04.10.15jal2nd Rev

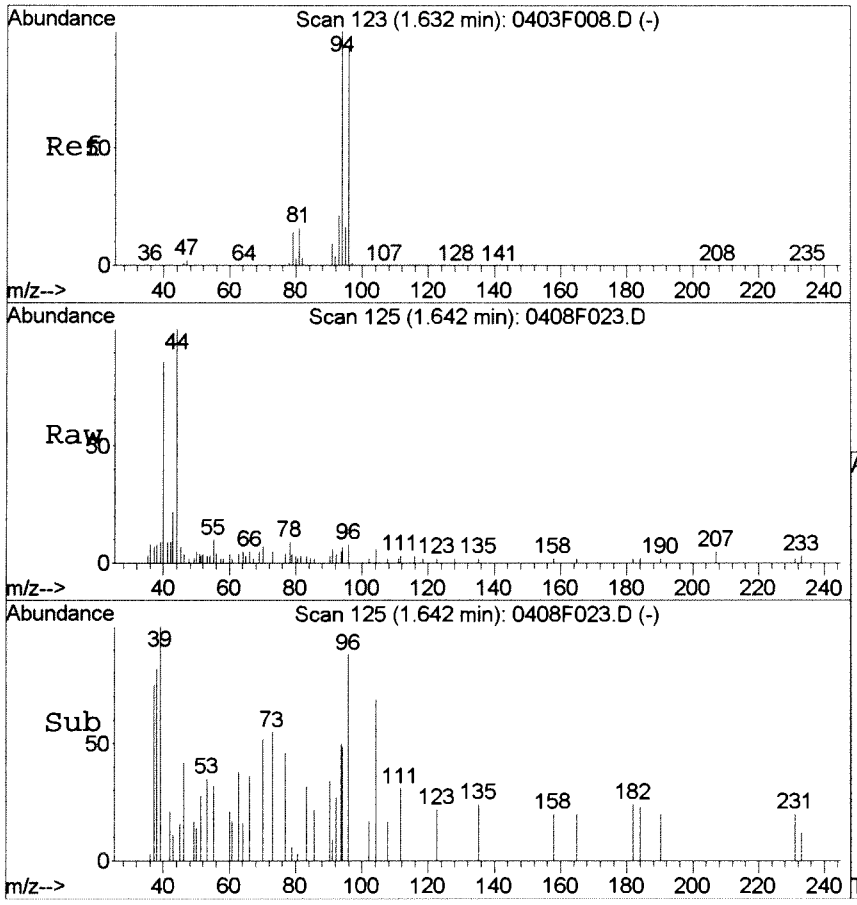
Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\040815X\0408F023.D Vial: 23
Acq On : 08 Apr 2015 06:51 pm Operator: KR
Sample : K3171-004 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 9 14:38 2015 Quant Results File: 031615MS46_8

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Initial Calibration



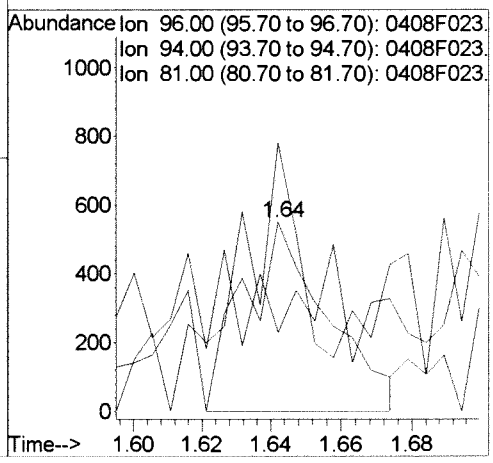
04.10.15jal2nd Rev

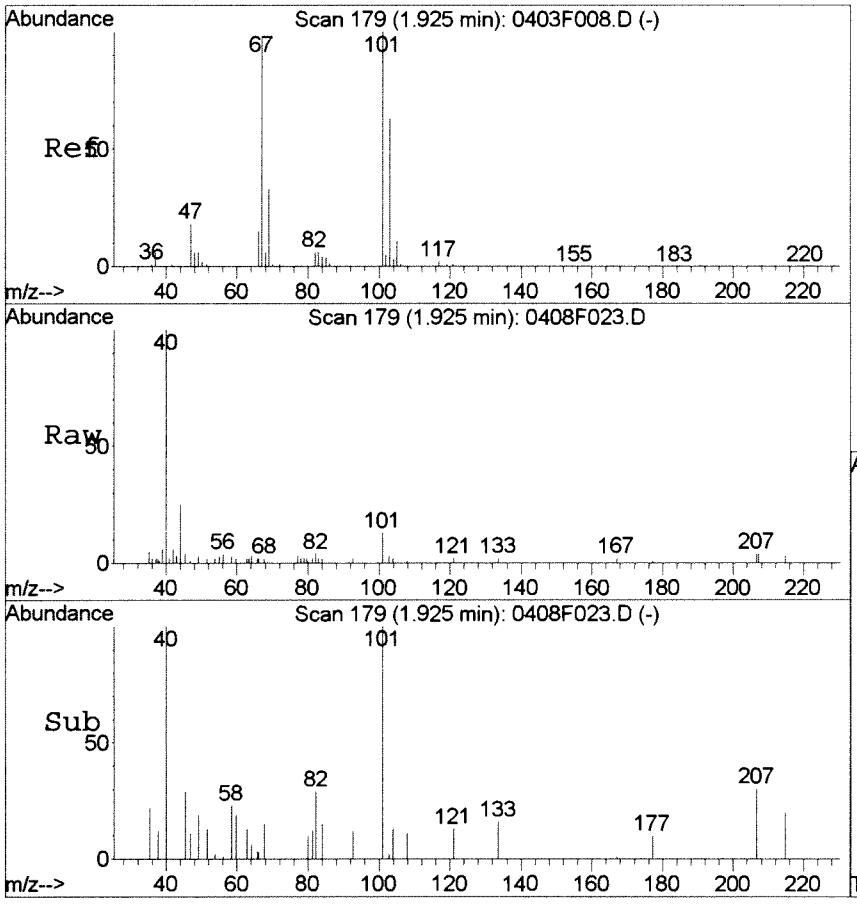


#6
Bromomethane
Concen: 0.07 PPB
RT: 1.64 min Scan# 125
Delta R.T. 0.01 min
Lab File: 0408F023.D
Acq: 08 Apr 2015 06:51 pm

Tgt Ion: 96 Resp: 914

Ion	Ratio	Lower	Upper
96	100		
94	128.6	74.2	134.2
81	10.6	0.0	44.0

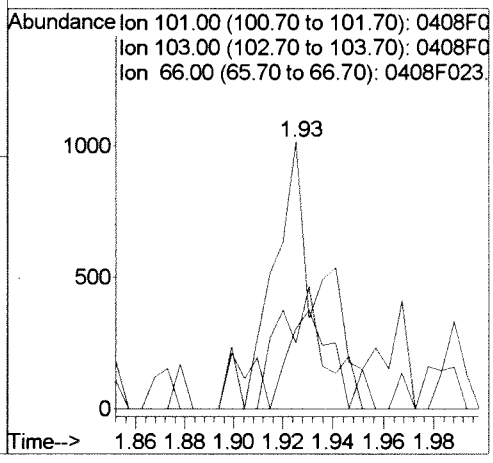


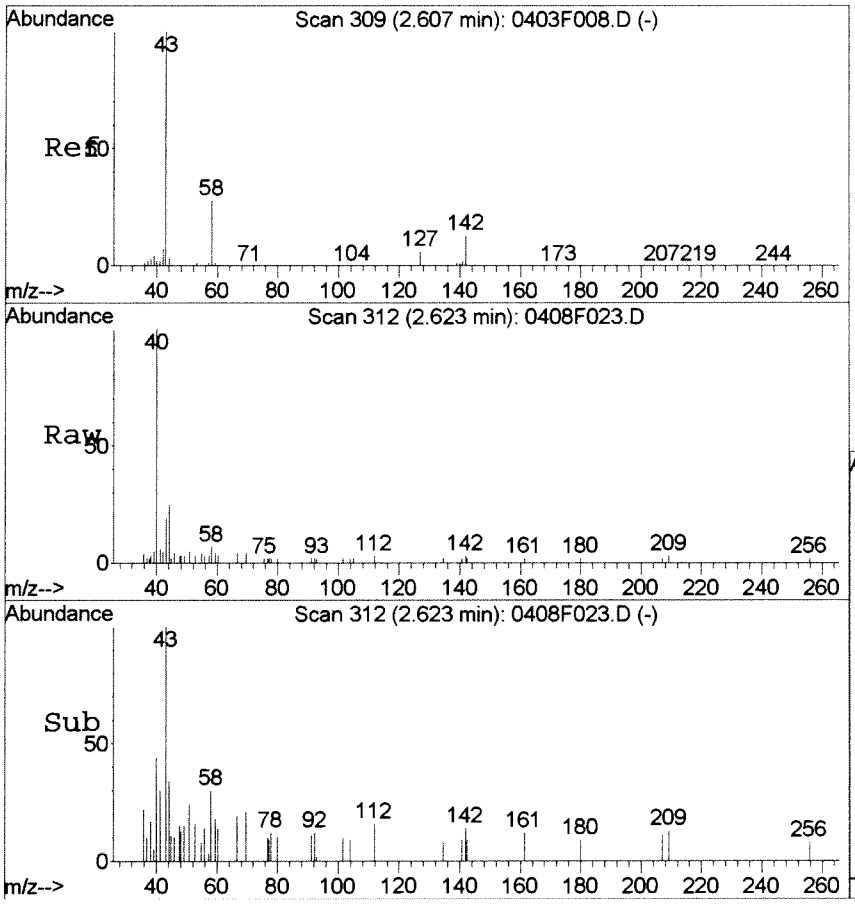


#9
Trichlorofluoromethane
Concen: 0.05 PPB
RT: 1.93 min Scan# 179
Delta R.T. -0.00 min
Lab File: 0408F023.D
Acq: 08 Apr 2015 06:51 pm

Tgt Ion:101 Resp: 1371

Ion	Ratio	Lower	Upper
101	100		
103	24.5	31.6	91.6#
66	15.2	0.0	45.1

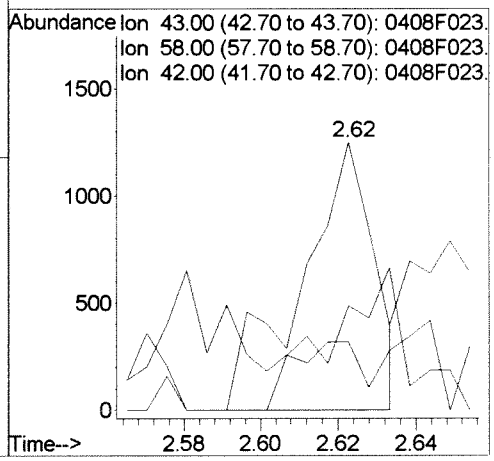


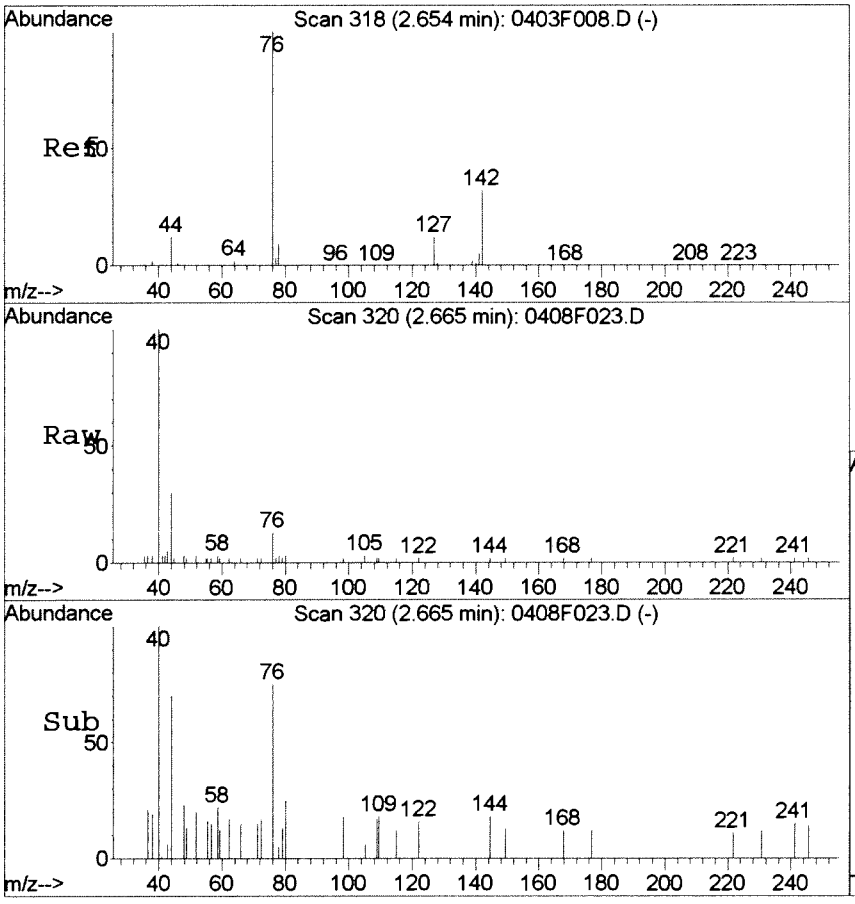


#14
Acetone
Concen: 0.69 PPB
RT: 2.62 min Scan# 312
Delta R.T. 0.02 min
Lab File: 0408F023.D
Acq: 08 Apr 2015 06:51 pm

Tgt Ion: 43 Resp: 1631

Ion	Ratio	Lower	Upper
43	100		
58	38.8	0.0	59.5
42	4.1	0.0	37.1

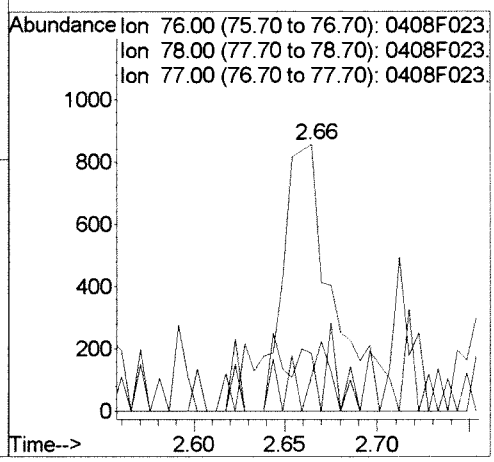


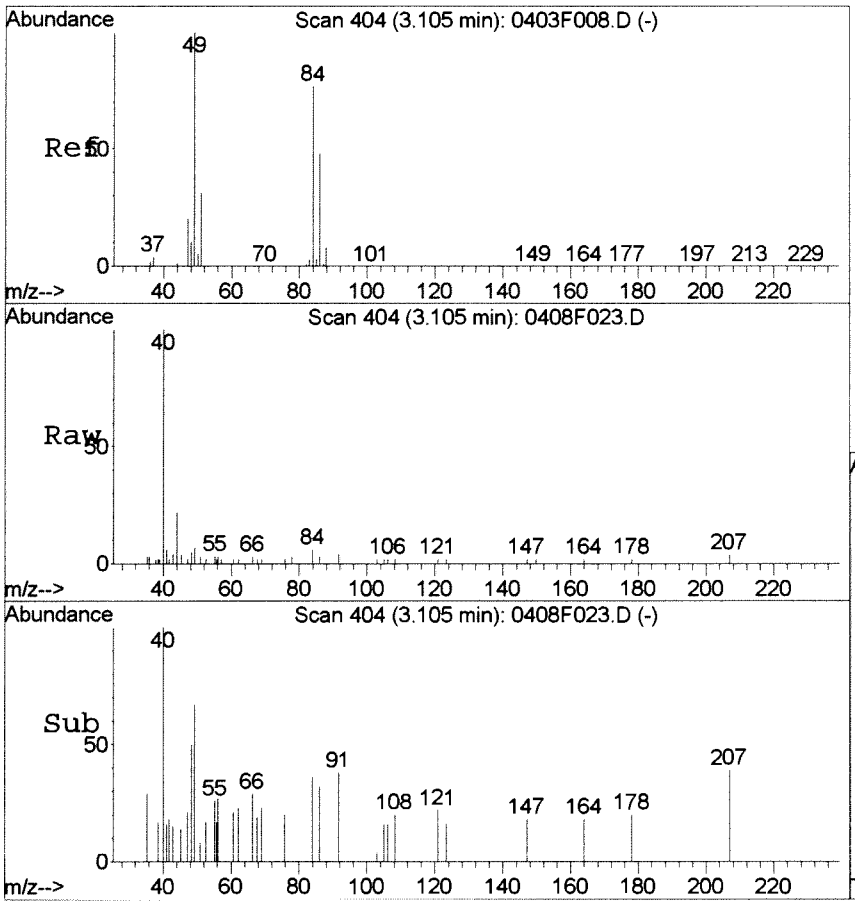


#16
Carbon Disulfide
Concen: 0.03 PPB
RT: 2.66 min Scan# 320
Delta R.T. 0.01 min
Lab File: 0408F023.D
Acq: 08 Apr 2015 06:51 pm

Tgt Ion: 76 Resp: 1712

Ion	Ratio	Lower	Upper
76	100		
78	9.3	0.0	38.4
77	13.3	0.0	32.9

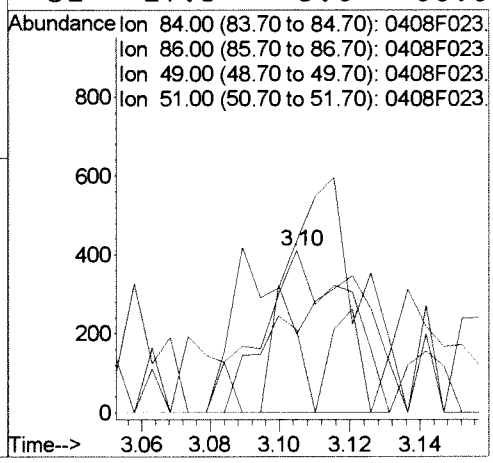


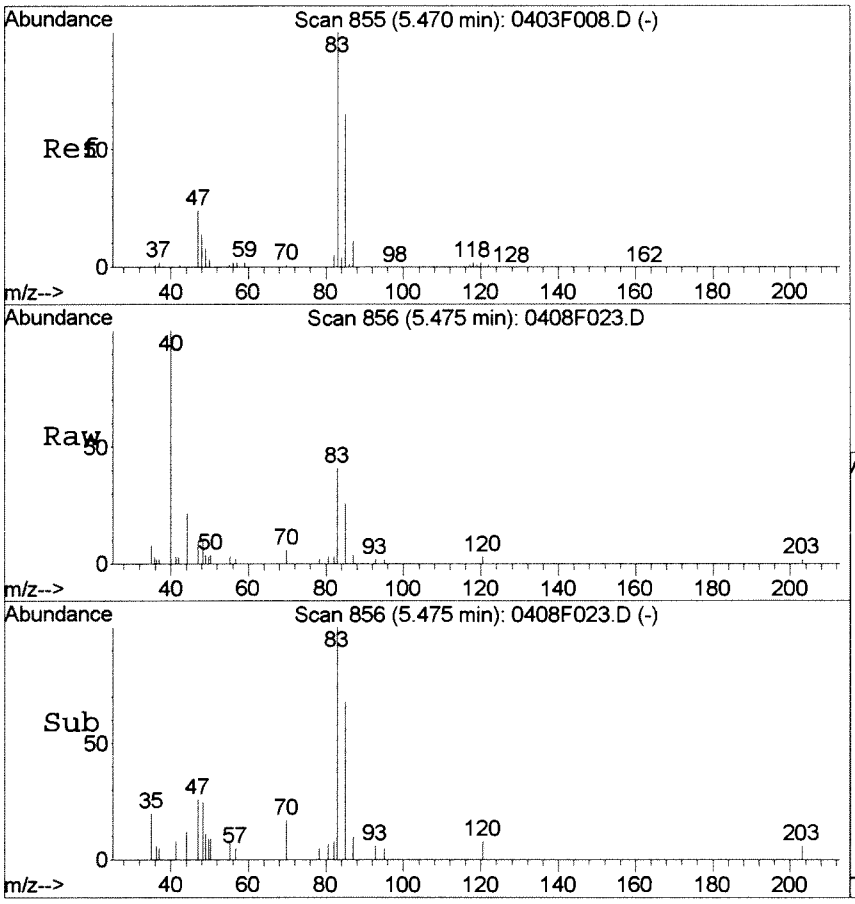


#21
Methylene Chloride
Concen: 0.04 PPB
RT: 3.10 min Scan# 404
Delta R.T. -0.00 min
Lab File: 0408F023.D
Acq: 08 Apr 2015 06:51 pm

Tgt Ion: 84 Resp: 703

Ion	Ratio	Lower	Upper
84	100		
86	51.1	33.1	93.1
49	105.8	99.0	159.0
51	17.3	8.0	68.0

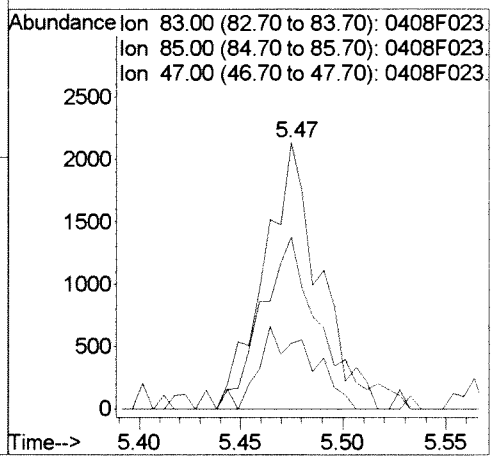


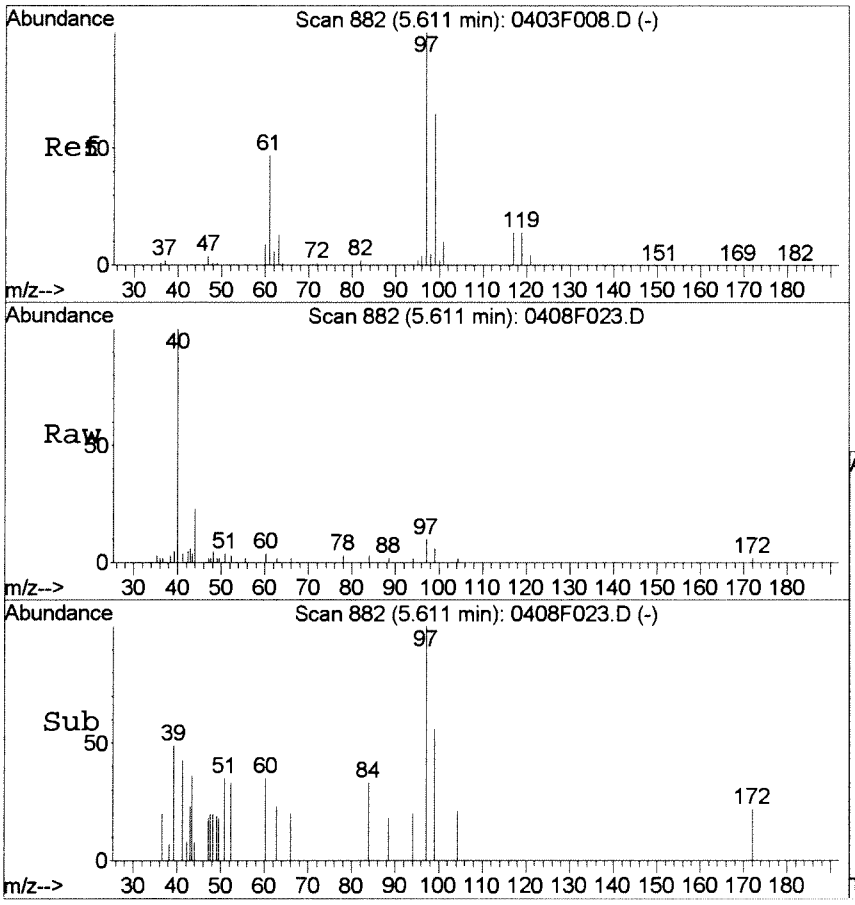


#40
Chloroform
Concen: 0.13 PPB
RT: 5.47 min Scan# 856
Delta R.T. 0.01 min
Lab File: 0408F023.D
Acq: 08 Apr 2015 06:51 pm

Tgt Ion: 83 Resp: 4014

Ion	Ratio	Lower	Upper
83	100		
85	64.6	33.1	93.1
47	24.6	0.0	54.1

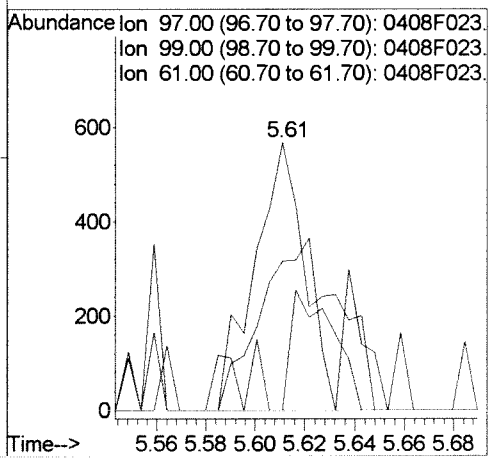


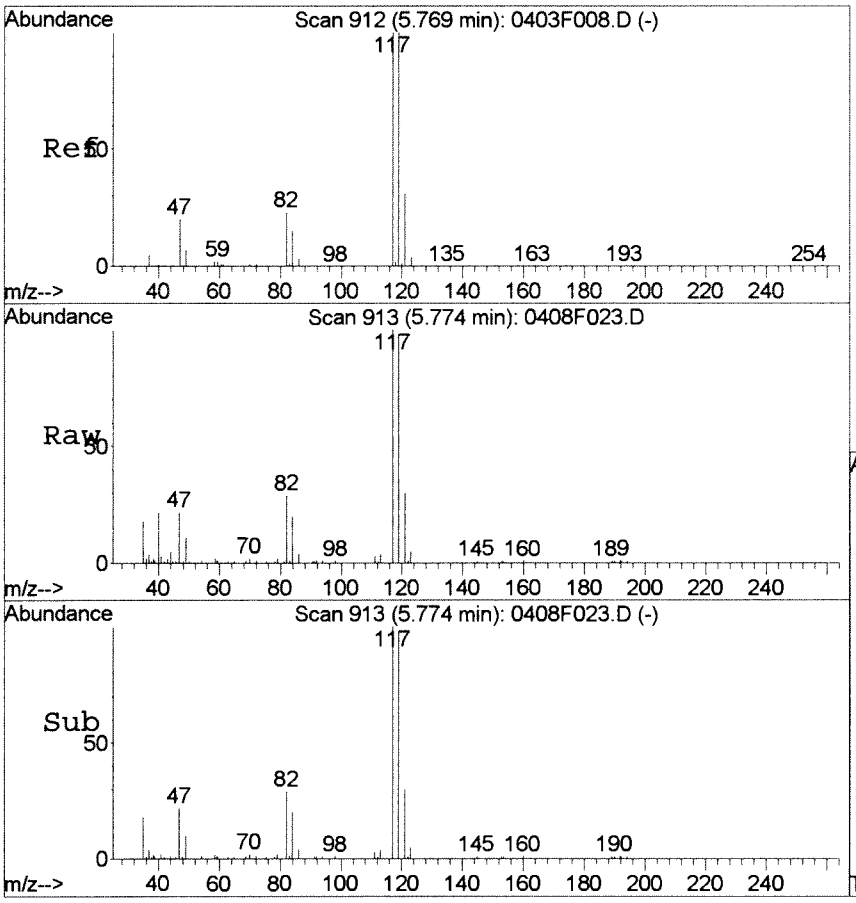


#42
1,1,1-Trichloroethane
Concen: 0.04 PPB
RT: 5.61 min Scan# 882
Delta R.T. -0.00 min
Lab File: 0408F023.D
Acq: 08 Apr 2015 06:51 pm

Tgt Ion: 97 Resp: 1019

Ion	Ratio	Lower	Upper
97	100		
99	55.6	37.0	97.0
61	0.0	15.1	75.1#

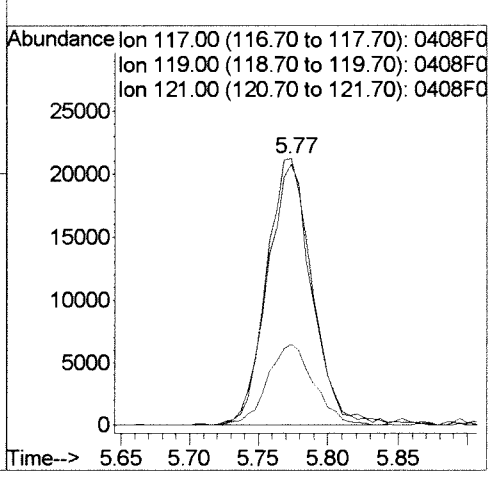


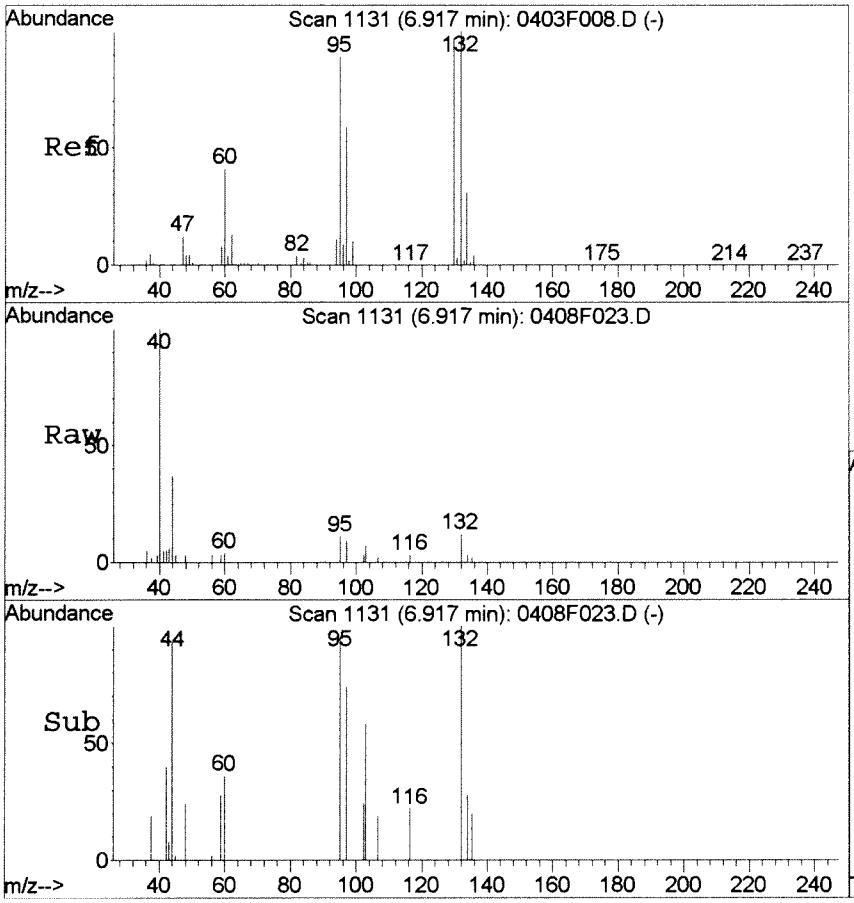


#44
Carbon Tetrachloride
Concen: 1.92 PPB
RT: 5.77 min Scan# 913
Delta R.T. 0.01 min
Lab File: 0408F023.D
Acq: 08 Apr 2015 06:51 pm

Tgt Ion:117 Resp: 48595

Ion	Ratio	Lower	Upper
117	100		
119	97.8	63.3	123.3
121	30.0	0.2	60.2

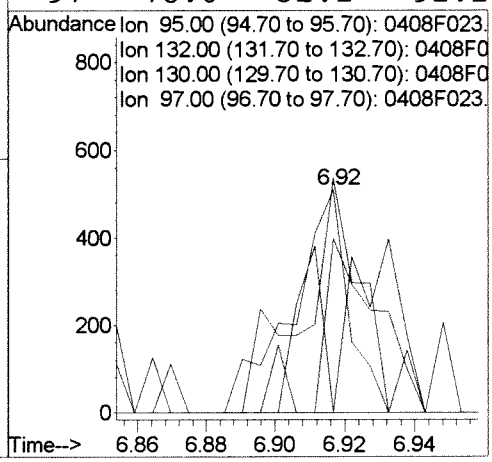


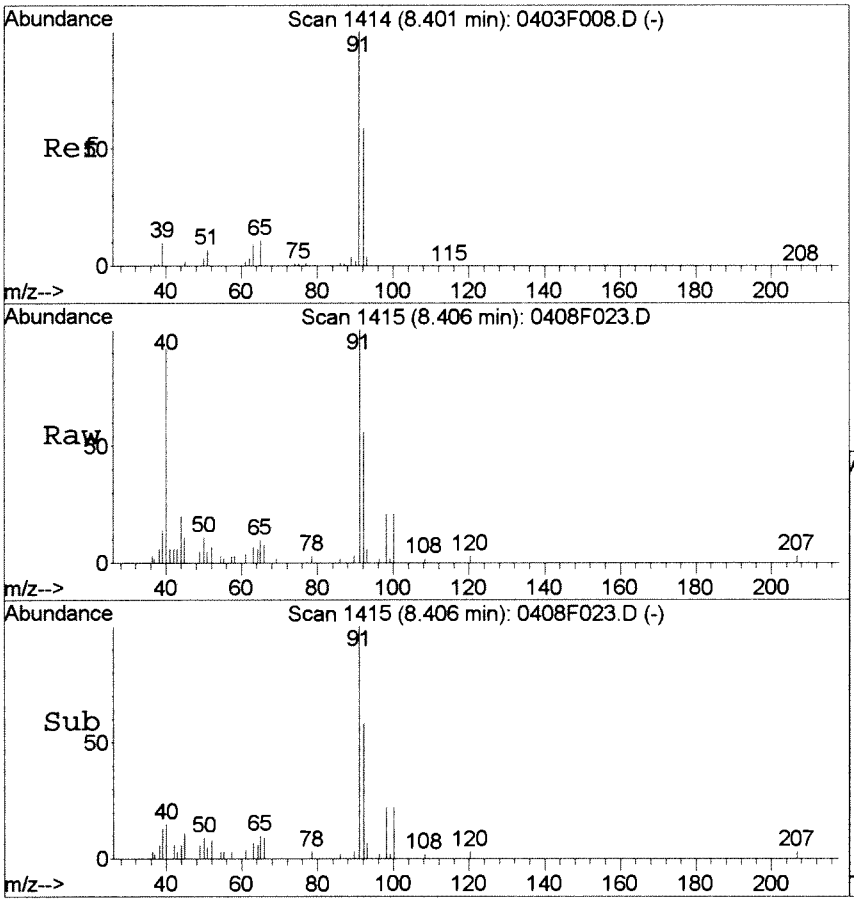


#51
Trichloroethene
Concen: 0.03 PPB
RT: 6.92 min Scan# 1131
Delta R.T. -0.00 min
Lab File: 0408F023.D
Acq: 08 Apr 2015 06:51 pm

Tgt Ion: 95 Resp: 573

Ion	Ratio	Lower	Upper
95	100		
132	105.3	72.9	132.9
130	0.0	81.4	141.4#
97	78.0	32.1	92.1

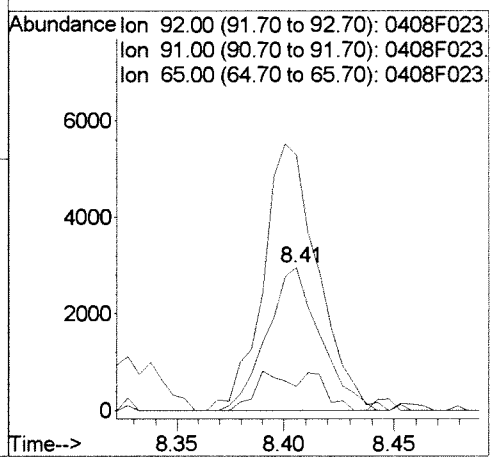


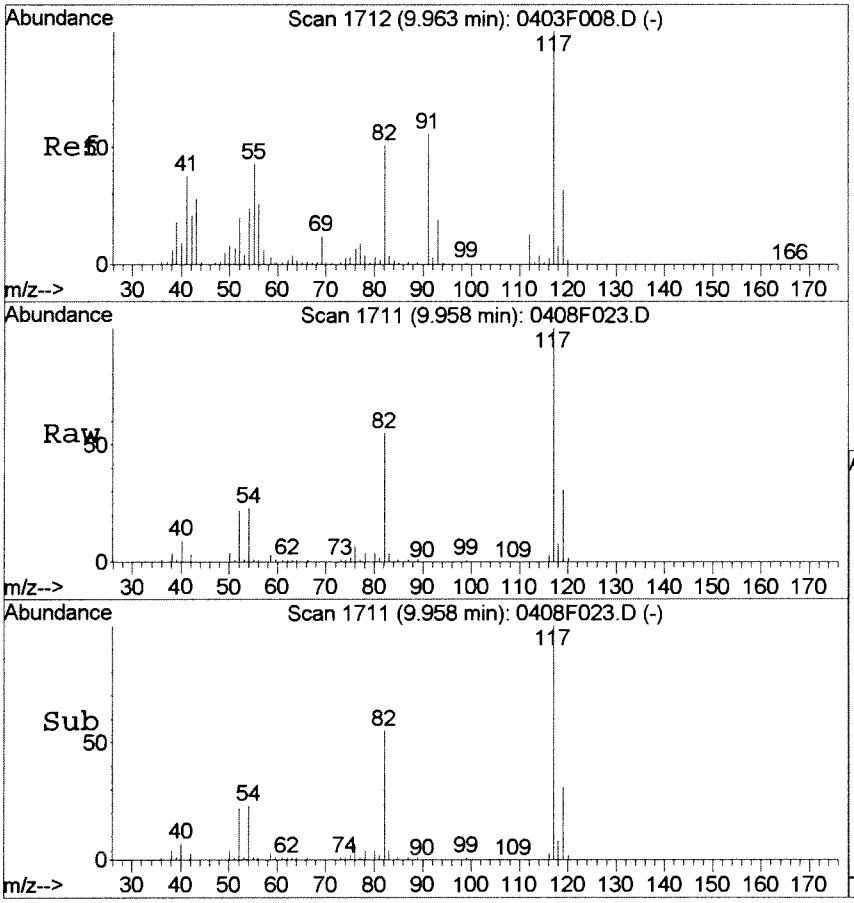


#63
Toluene
Concen: 0.11 PPB
RT: 8.41 min Scan# 1415
Delta R.T. 0.01 min
Lab File: 0408F023.D
Acq: 08 Apr 2015 06:51 pm

Tgt Ion: 92 Resp: 5026

Ion	Ratio	Lower	Upper
92	100		
91	178.7	139.2	199.2
65	17.0	0.0	50.2

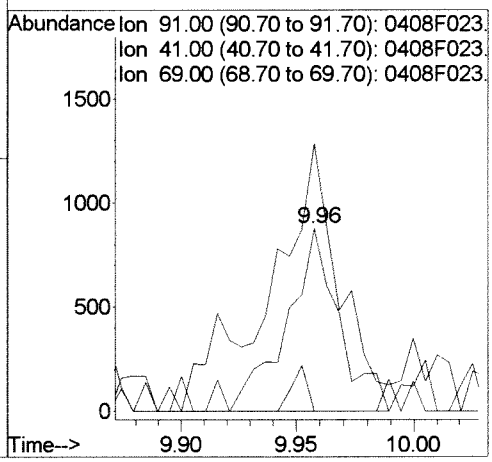




#74
1-Chlorohexane
Concen: 0.06 PPB
RT: 9.96 min Scan# 1711
Delta R.T. -0.01 min
Lab File: 0408F023.D
Acq: 08 Apr 2015 06:51 pm

Tgt Ion: 91 Resp: 1397

Ion	Ratio	Lower	Upper
91	100		
41	132.0	31.8	91.8#
69	0.0	0.0	51.3



Exception Report

Data File: J:\MS46\DATA\040315\0403F023.D
Lab ID: K1503171-005
RunType: SMPL
Matrix: WATER

Date Acquired: 04/03/2015 17:20
Date Quantitated: 04/09/2015 08:36
Batch ID: KWG1502843
Analysis Method: 8260C
ListJoinID: LJ1423

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Duplicate Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 4/9/15

Secondary Review: 4.9.15

Quantitation Report

Data File:	J:\MS46\DATA\040315\0403F023.D			**Instrument:**	GCMS46
Acqu Date:	04/03/2015 17:20	**Quant Date:**	04/09/2015 08:36	**Vial:**	15
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1503171-005			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	03/25/2015	**Receive Date:**	03/27/2015

Analysis Lot:	KWG1502843	**Prep Lot:**	KWG1502844	**Report Group:**	K1503171
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1424885	**Prep Date:**	04/03/2015		

Quant Method:	J:\MS46\METHODS\031615MS46_8	**Calibration ID:**	CAL13899
Title:	Volatile Organic Compounds	**Report List ID:**	LJ1423
Tune Ref:	J:\MS46\DATA\040315\0403F007.D	**Method ID:**	MJ119
MB Ref:	J:\MS46\DATA\040315\0403F017.D	**Quant based on Report List**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	6.49	0.00	96	735604	10.00	OK
2	Chlorobenzene-d5	9.96	0.01	82	296611	10.00	OK
3	1,4-Dichlorobenzene-d4	12.53	0.00	152	291081	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.69	0.00	0.00	113	189886	11.75	118	73-122	OK	
1	Toluene-d8	8.33	0.00	0.00	98	701897	11.26	113	65-144	OK	
2	4-Bromofluorobenzene	11.27	0.00	0.00	95	252685	11.00	110	68-117	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Tetrachloride	5.77		0.00	117	5072	0.1900	0.19	J	

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\040315\0403F023.D Vial: 15
Acq On : 03 Apr 2015 05:20 pm Operator: KR
Sample : K3171-005 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 09 08:35:11 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	6.49	96	735604	10.00	PPB		0.00
64) Chlorobenzene-d5	9.96	82	296611	10.00	PPB		0.00
85) 1,4-Dichlorobenzene-d4	12.53	152	291081	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.69	113	189886	11.75	PPB		0.00
Spiked Amount 10.000			Recovery =	117.50%			
47) 1,2-Dichloroethane-d4	6.14	65	218762	12.82	PPB		0.00
Spiked Amount 10.000			Recovery =	128.20%			
62) Toluene-d8	8.33	98	701897	11.26	PPB		0.00
Spiked Amount 10.000			Recovery =	112.60%			
84) 4-Bromofluorobenzene	11.27	95	252685	11.00	PPB		0.00
Spiked Amount 10.000			Recovery =	110.00%			
Target Compounds							Qvalue
14) Acetone	2.63	43	1752	0.72	PPB	#	40
15) Iodomethane	2.64	142	777	0.05	PPB	#	27
16) Carbon Disulfide	2.66	76	2341	0.04	PPB		96
21) Methylene Chloride	3.11	84	571	0.03	PPB		88
40) Chloroform	5.47	83	10898	0.35	PPB		92
42) 1,1,1-Trichloroethane	5.62	97	643	0.02	PPB	#	37
44) Carbon Tetrachloride	5.77	117	5072	0.19	PPB		87
48) Benzene	6.09	78	736	0.01	PPB		61
51) Trichloroethene	6.91	95	1943	0.10	PPB	#	56
57) Bromodichloromethane	7.58	83	785	0.03	PPB		89
63) Toluene	8.41	92	6462	0.14	PPB		86

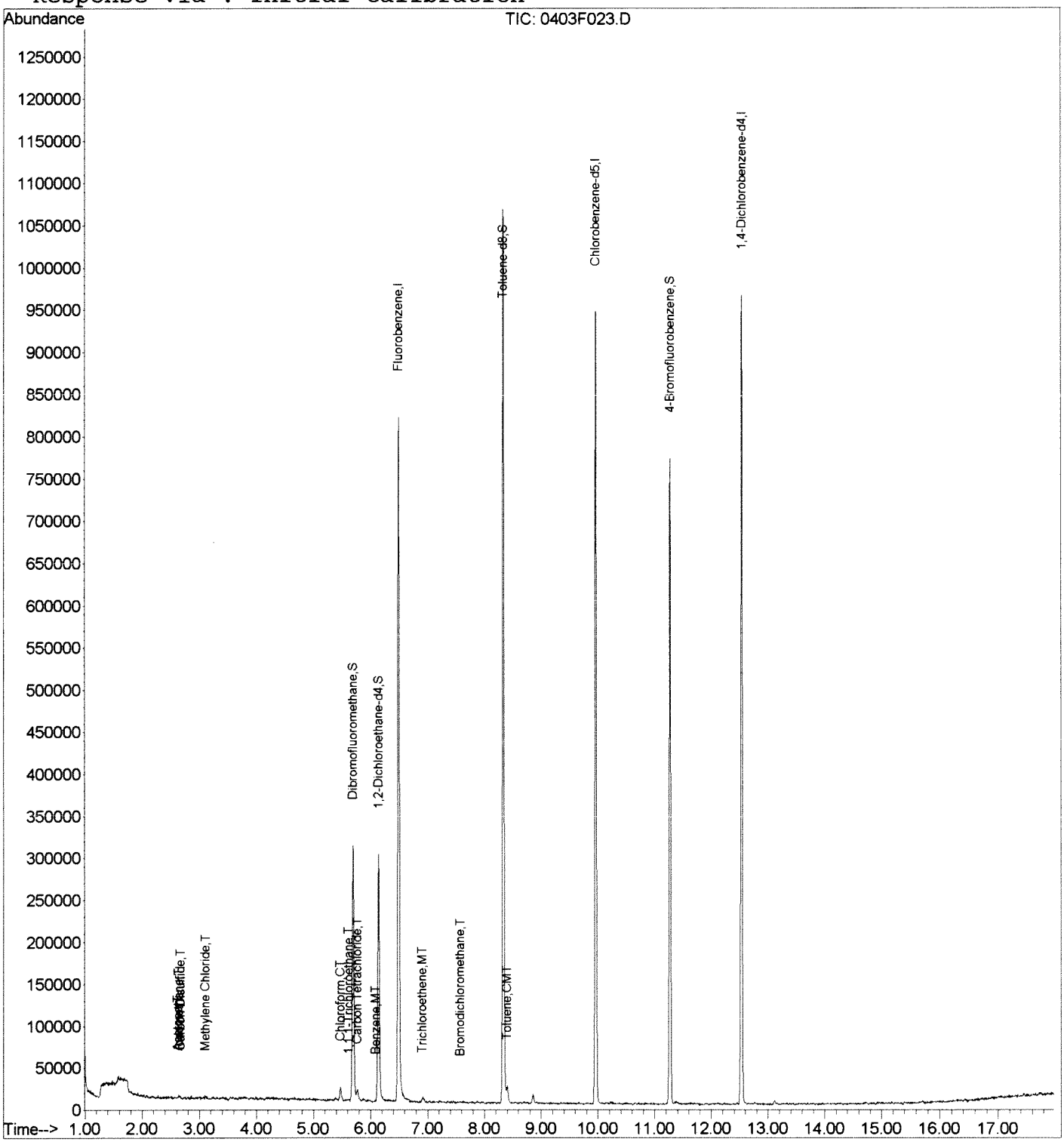
(#) = qualifier out of range (m) = manual integration
0403F023.D 031615MS46_8260.M Thu Apr 09 08:36:53 2015 Page 1

04.09.15jal2ndRev

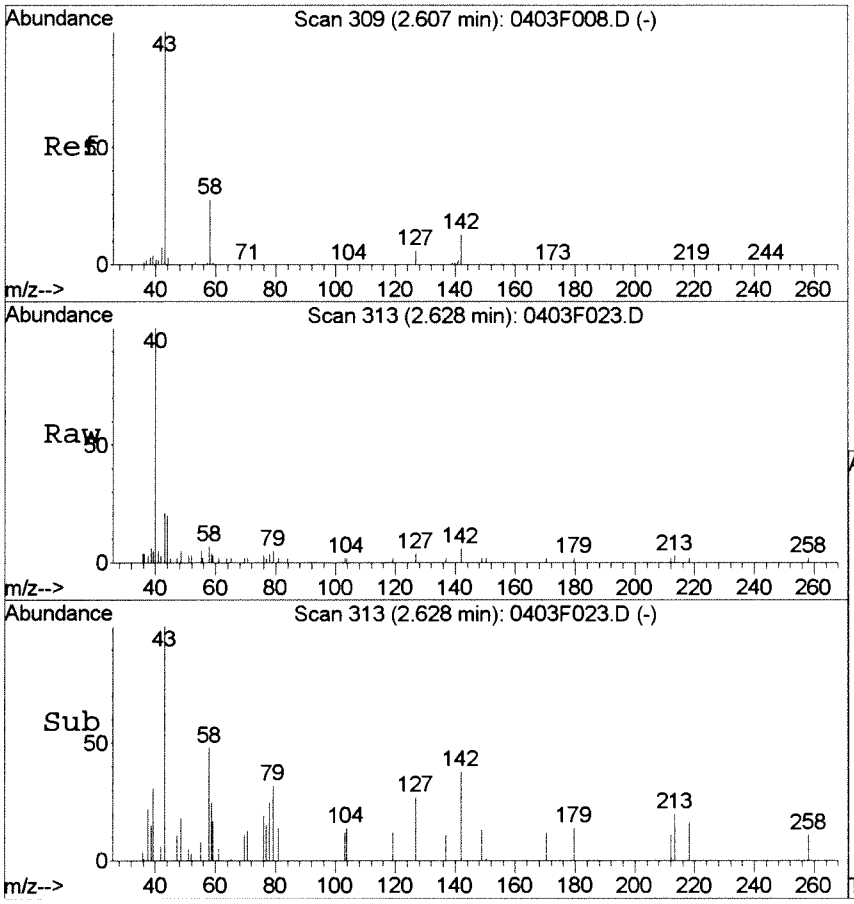
Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\040315\0403F023.D Vial: 15
Acq On : 03 Apr 2015 05:20 pm Operator: KR
Sample : K3171-005 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 9 8:36 2015 Quant Results File: 031615MS46_8

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Initial Calibration



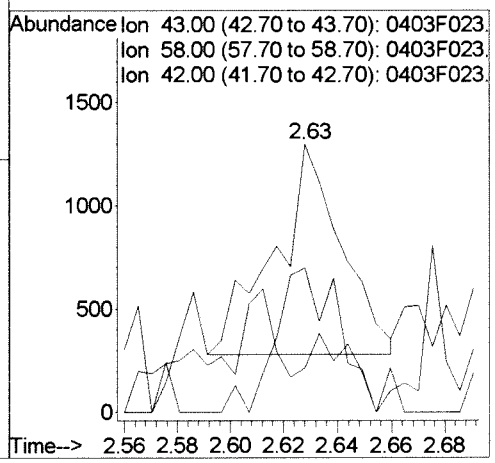
04.09.15jal2nd Rev

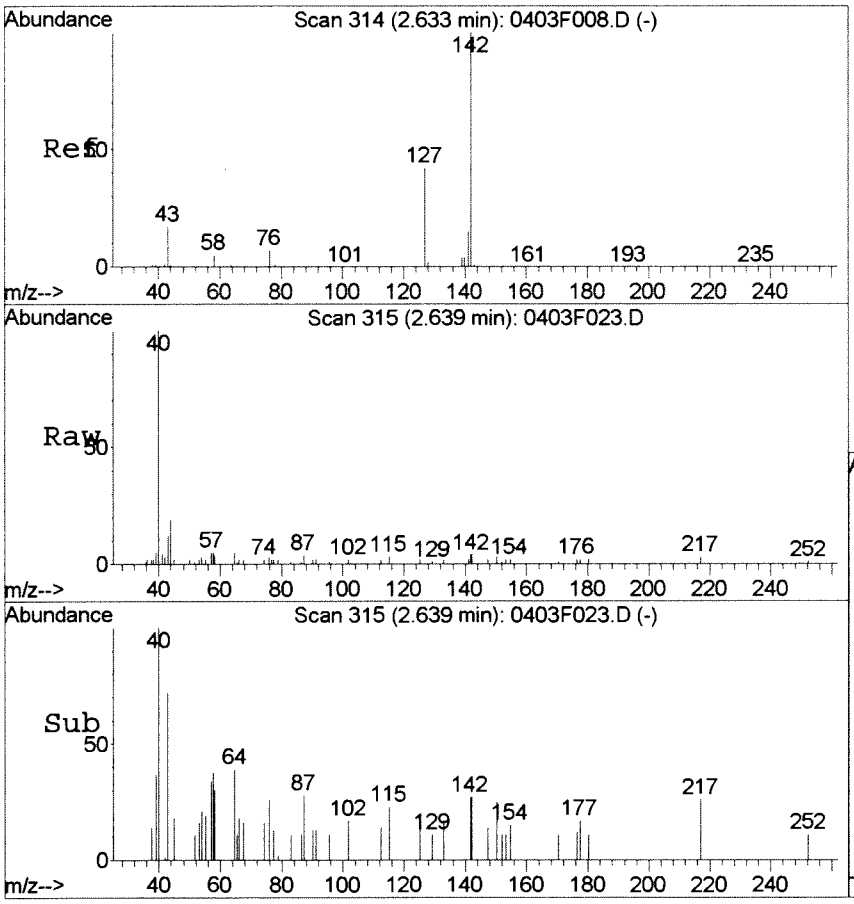


#14
Acetone
Concen: 0.72 PPB
RT: 2.63 min Scan# 313
Delta R.T. 0.02 min
Lab File: 0403F023.D
Acq: 03 Apr 2015 05:20 pm

Tgt Ion: 43 Resp: 1752

Ion	Ratio	Lower	Upper
43	100		
58	68.4	0.0	59.5#
42	10.9	0.0	37.1

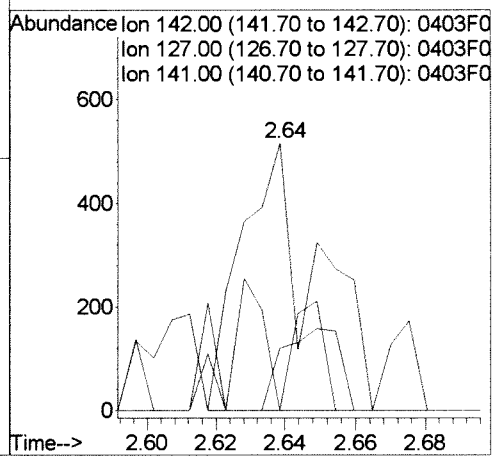


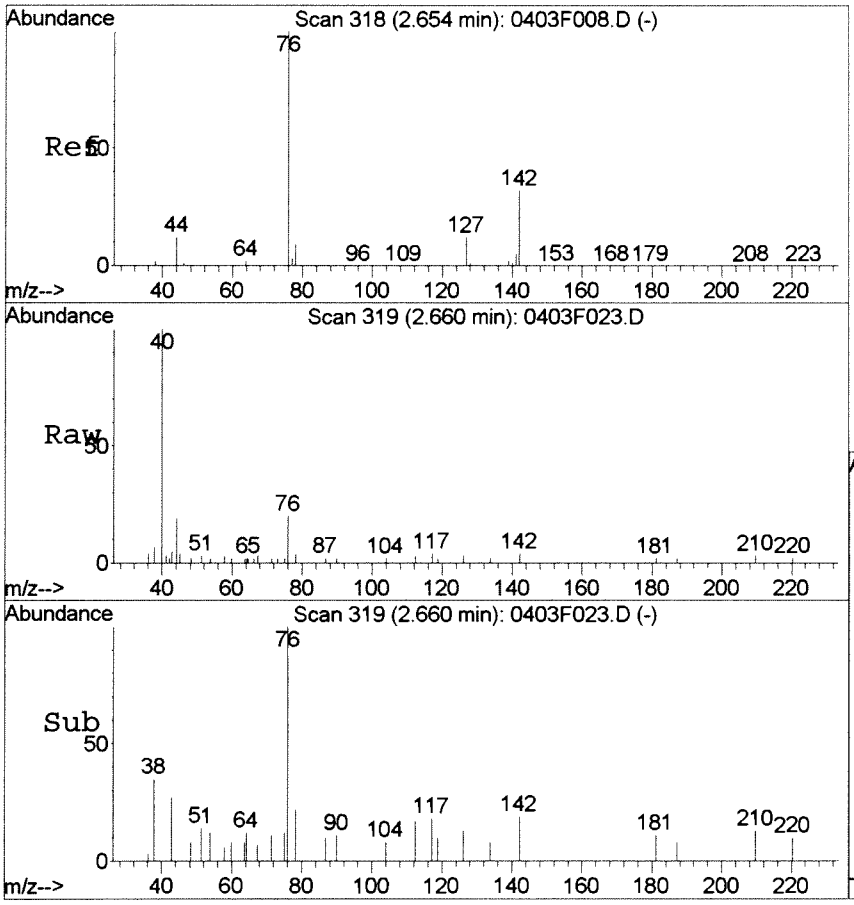


#15
Iodomethane
Concen: 0.05 PPB
RT: 2.64 min Scan# 315
Delta R.T. 0.01 min
Lab File: 0403F023.D
Acq: 03 Apr 2015 05:20 pm

Tgt Ion:142 Resp: 777

Ion	Ratio	Lower	Upper
142	100		
127	0.0	10.8	70.8#
141	52.5	0.0	44.2#

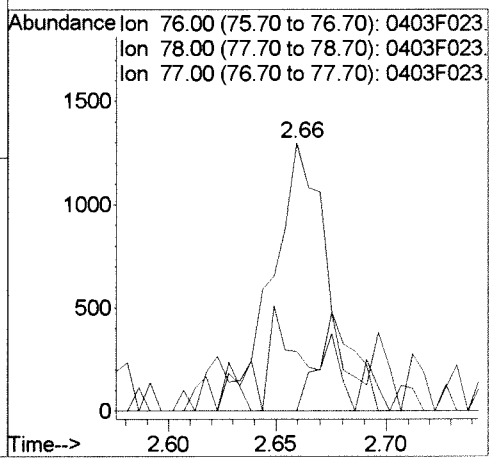


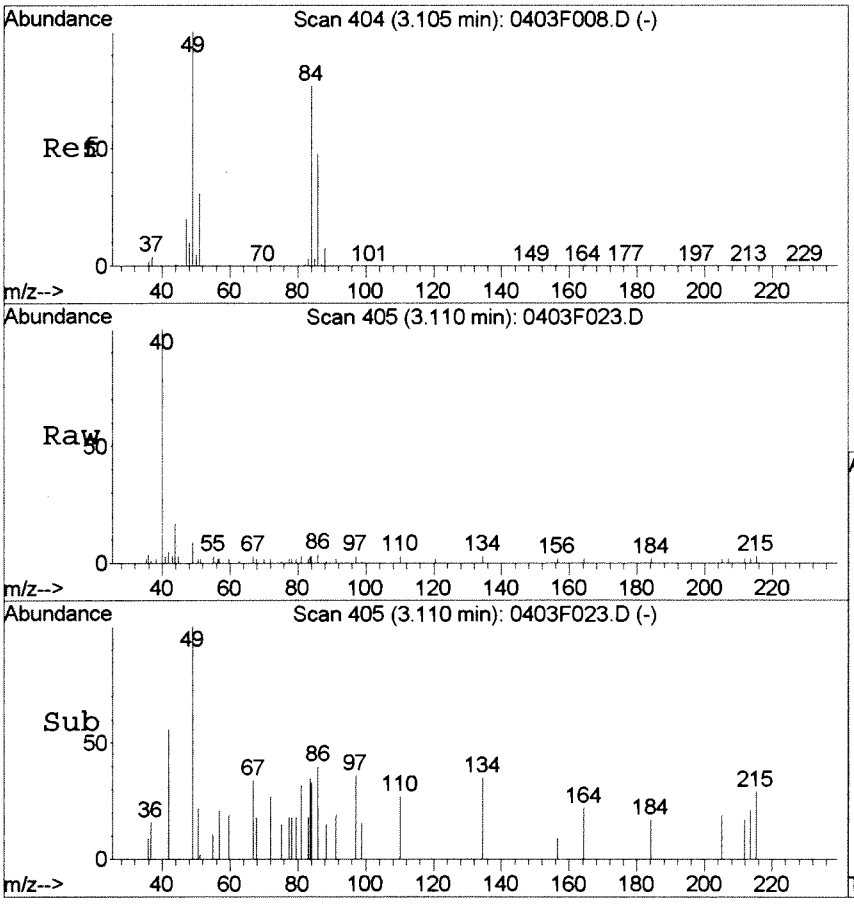


#16
Carbon Disulfide
Concen: 0.04 PPB
RT: 2.66 min Scan# 319
Delta R.T. 0.01 min
Lab File: 0403F023.D
Acq: 03 Apr 2015 05:20 pm

Tgt Ion: 76 Resp: 2341

Ion	Ratio	Lower	Upper
76	100		
78	9.4	0.0	38.4
77	0.0	0.0	32.9

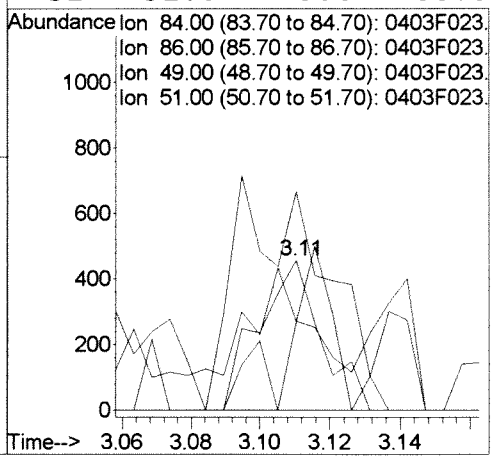


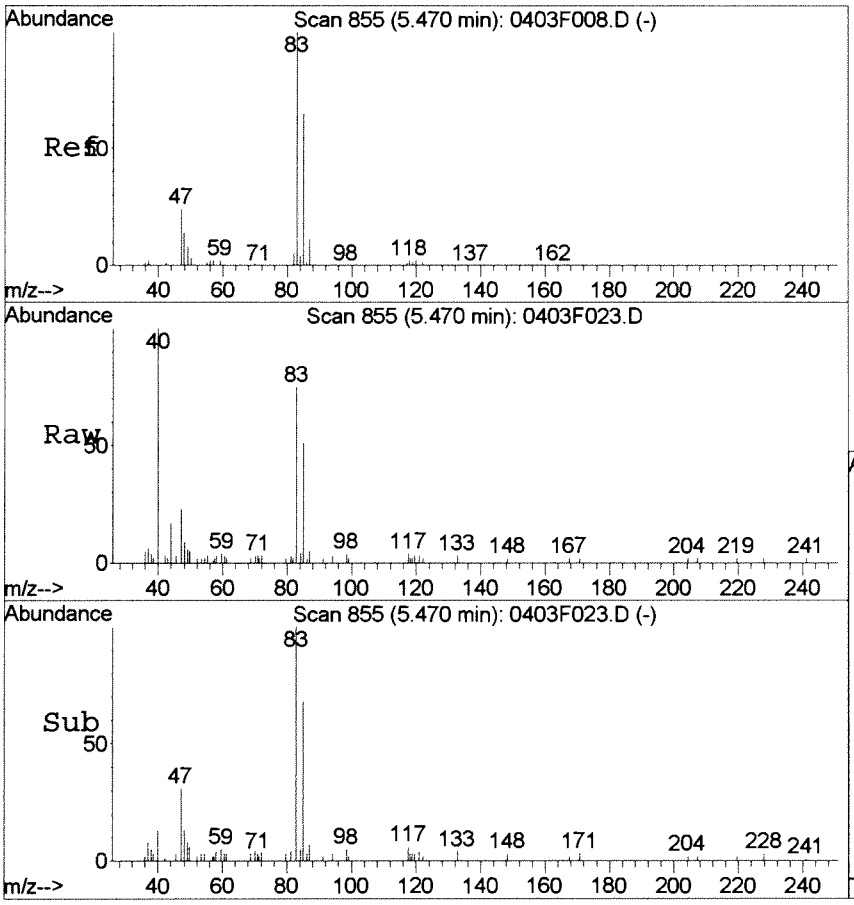


#21
Methylene Chloride
Concen: 0.03 PPB
RT: 3.11 min Scan# 405
Delta R.T. 0.01 min
Lab File: 0403F023.D
Acq: 03 Apr 2015 05:20 pm

Tgt Ion: 84 Resp: 571

Ion	Ratio	Lower	Upper
84	100		
86	58.3	33.1	93.1
49	146.1	99.0	159.0
51	31.8	8.0	68.0

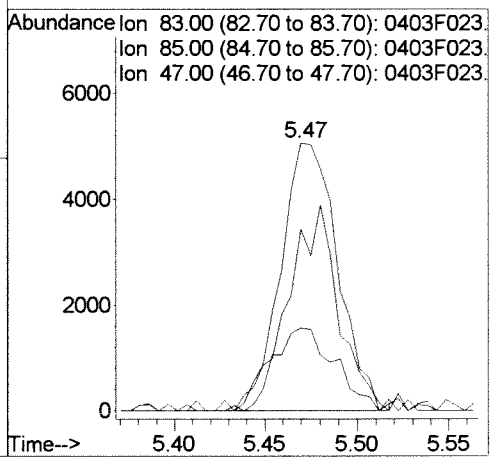


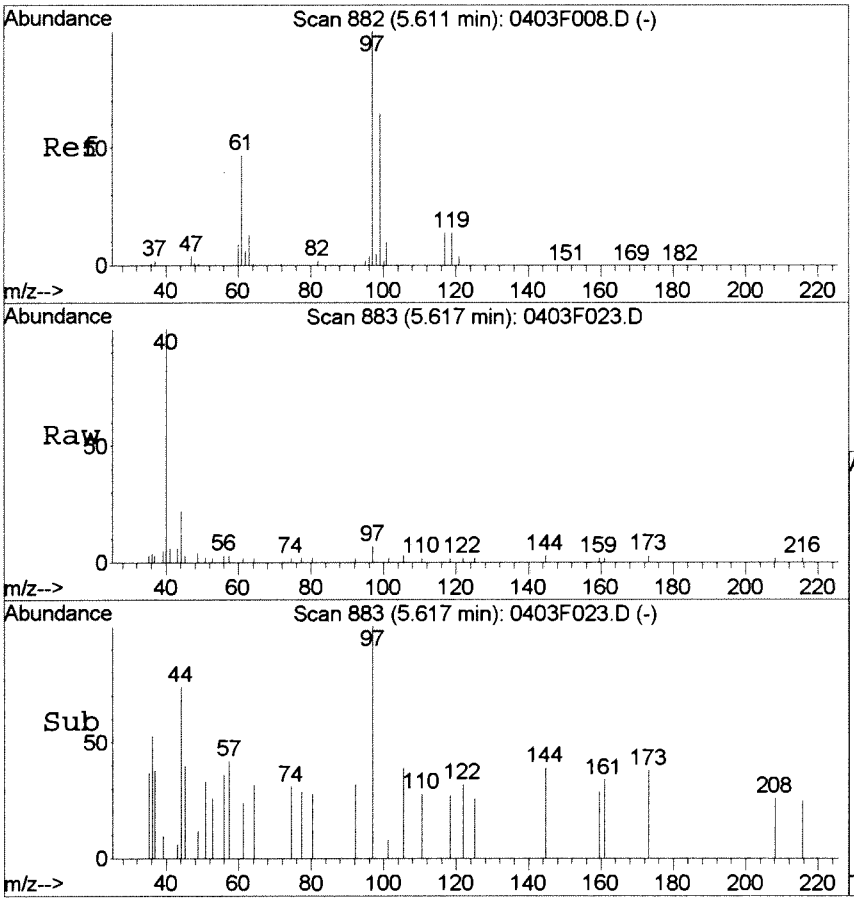


#40
Chloroform
Concen: 0.35 PPB
RT: 5.47 min Scan# 855
Delta R.T. 0.00 min
Lab File: 0403F023.D
Acq: 03 Apr 2015 05:20 pm

Tgt Ion: 83 Resp: 10898

Ion	Ratio	Lower	Upper
83	100		
85	67.8	33.1	93.1
47	30.9	0.0	54.1

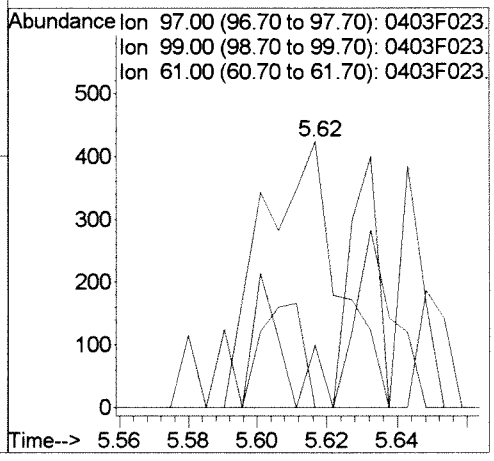


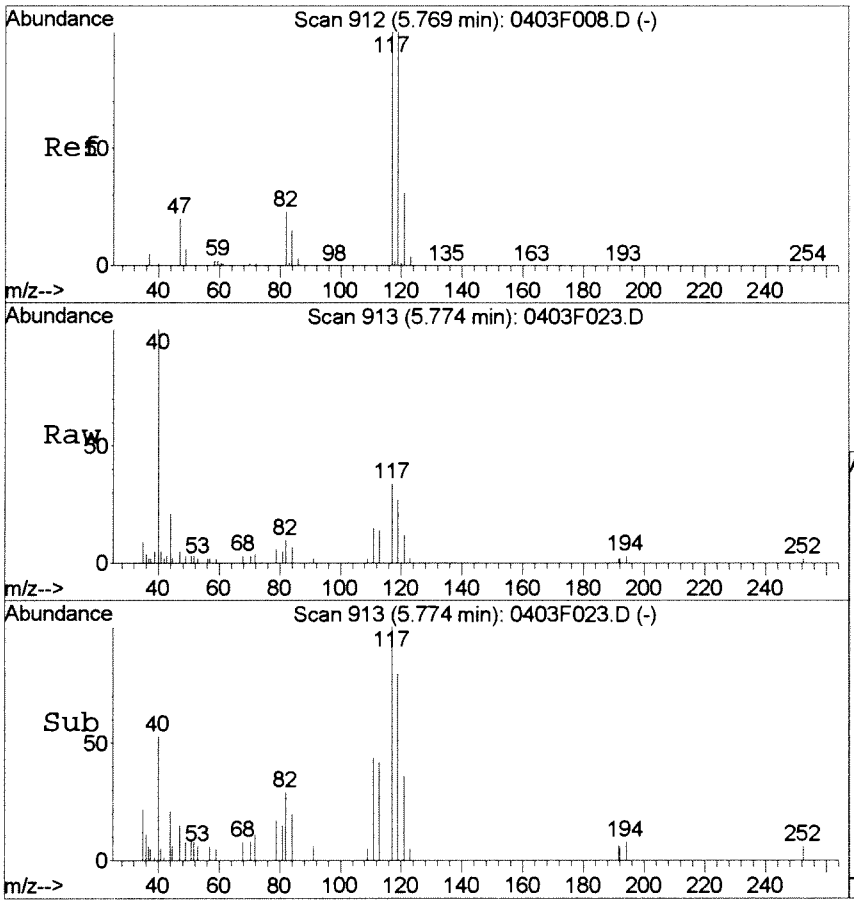


#42
1,1,1-Trichloroethane
Concen: 0.02 PPB
RT: 5.62 min Scan# 883
Delta R.T. 0.01 min
Lab File: 0403F023.D
Acq: 03 Apr 2015 05:20 pm

Tgt Ion: 97 Resp: 643

Ion	Ratio	Lower	Upper
97	100		
99	0.0	37.0	97.0#
61	23.6	15.1	75.1

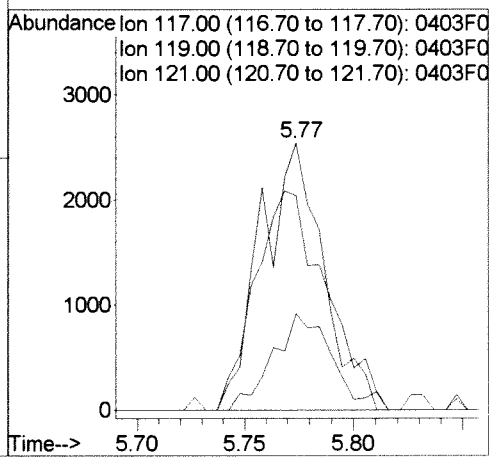


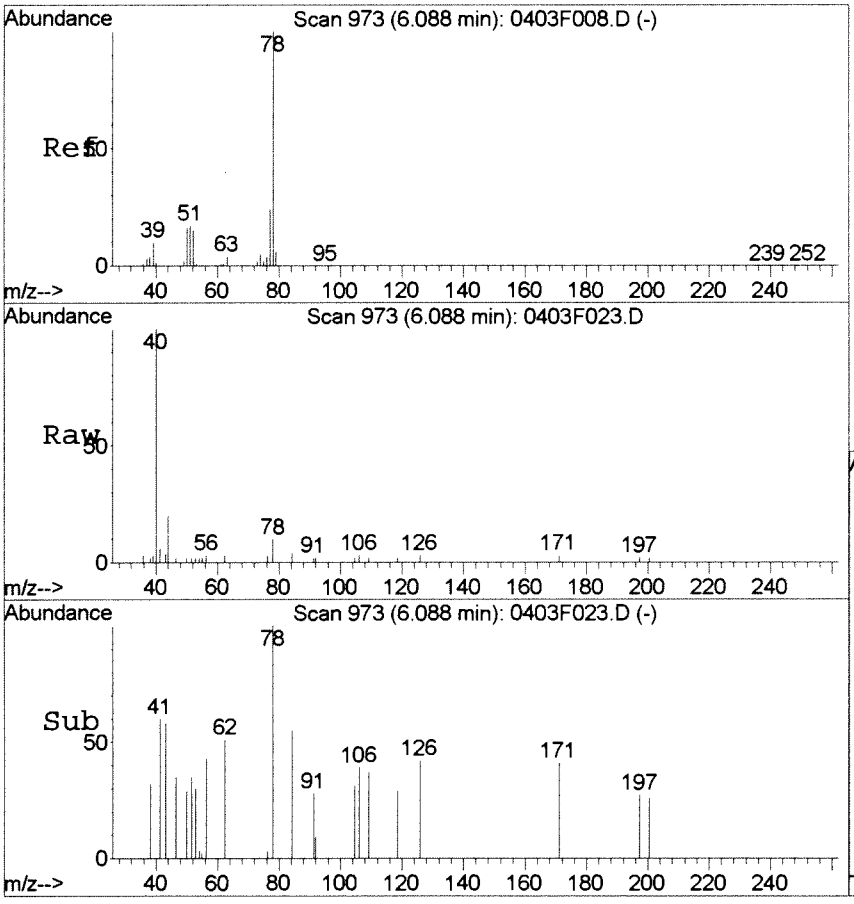


#44
Carbon Tetrachloride
Concen: 0.19 PPB
RT: 5.77 min Scan# 913
Delta R.T. 0.01 min
Lab File: 0403F023.D
Acq: 03 Apr 2015 05:20 pm

Tgt Ion:117 Resp: 5072

Ion	Ratio	Lower	Upper
117	100		
119	80.3	63.3	123.3
121	36.2	0.2	60.2

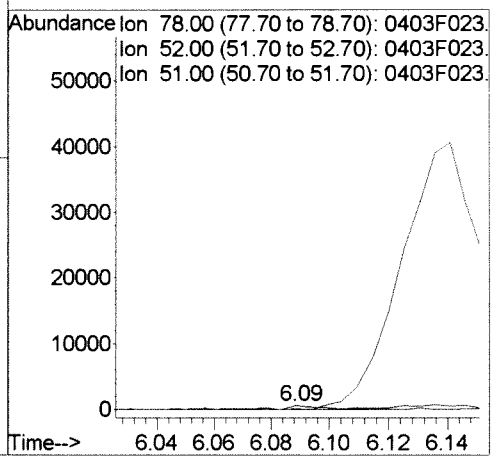


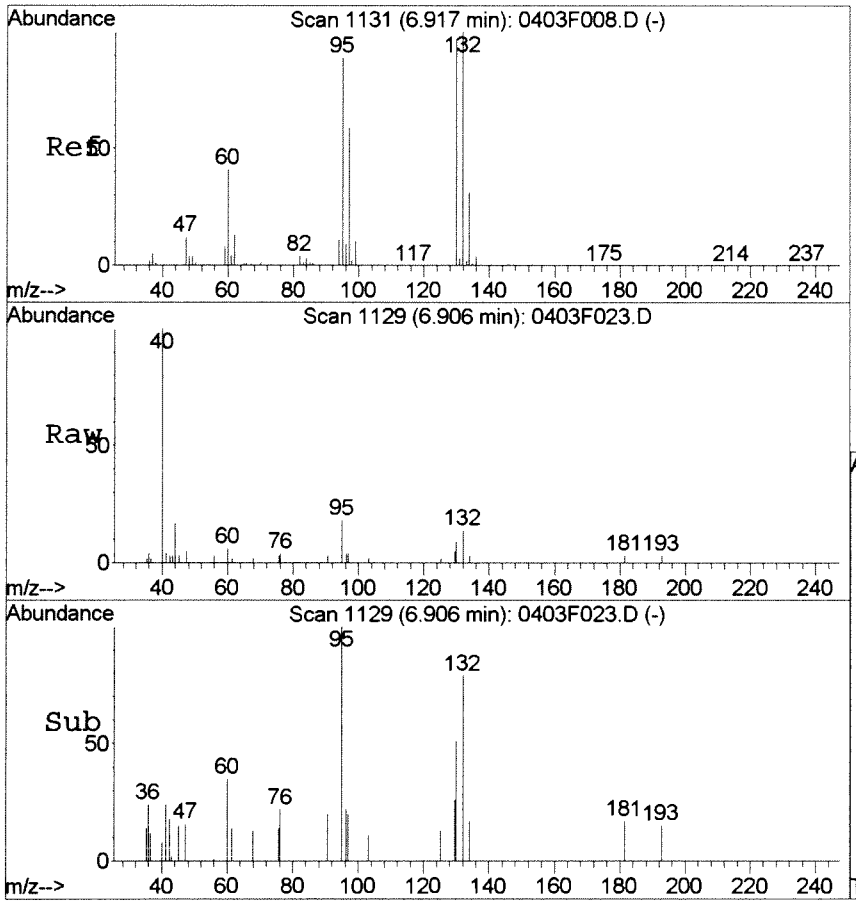


#48
Benzene
Concen: 0.01 PPB
RT: 6.09 min Scan# 973
Delta R.T. 0.00 min
Lab File: 0403F023.D
Acq: 03 Apr 2015 05:20 pm

Tgt Ion: 78 Resp: 736

Ion	Ratio	Lower	Upper
78	100		
52	0.0	0.0	46.3
51	0.0	0.0	47.5

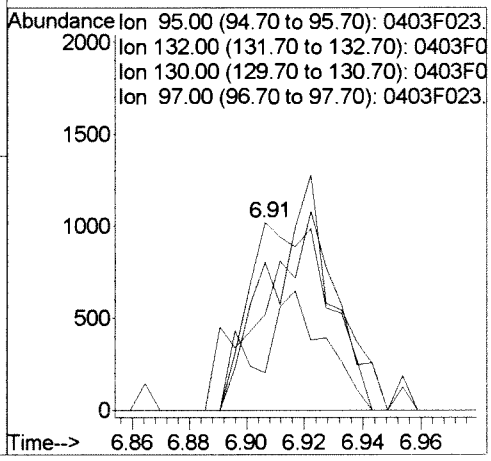


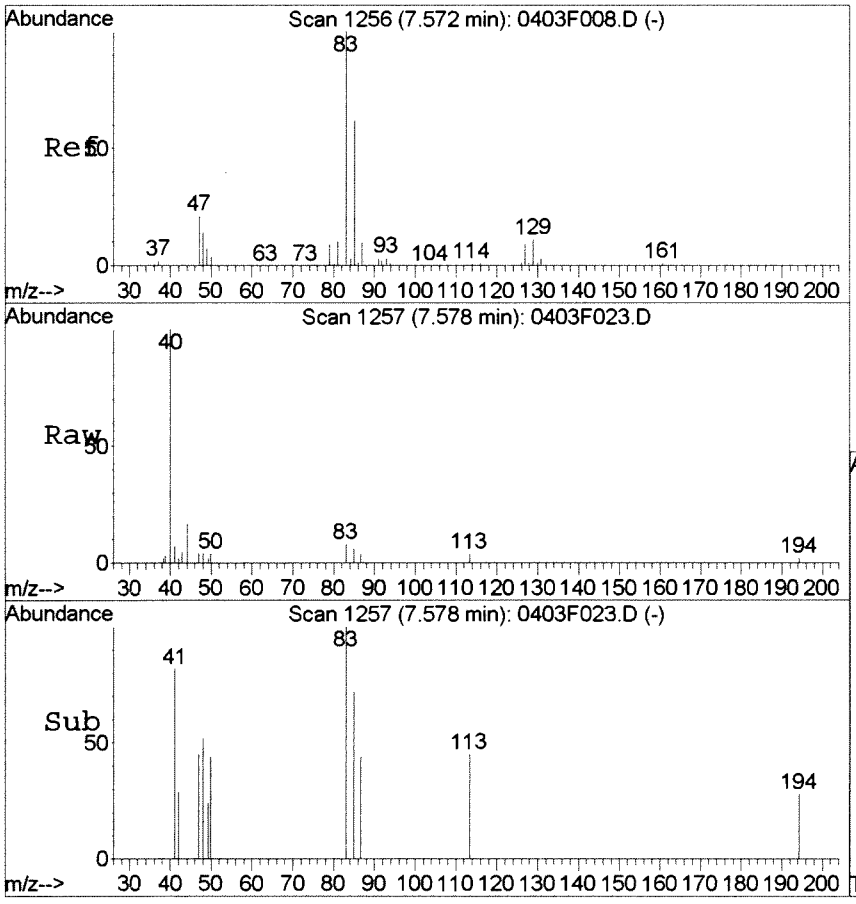


#51
Trichloroethene
Concen: 0.10 PPB
RT: 6.91 min Scan# 1129
Delta R.T. -0.01 min
Lab File: 0403F023.D
Acq: 03 Apr 2015 05:20 pm

Tgt Ion: 95 Resp: 1943

Ion	Ratio	Lower	Upper
95	100		
132	78.7	72.9	132.9
130	51.0	81.4	141.4#
97	19.9	32.1	92.1#

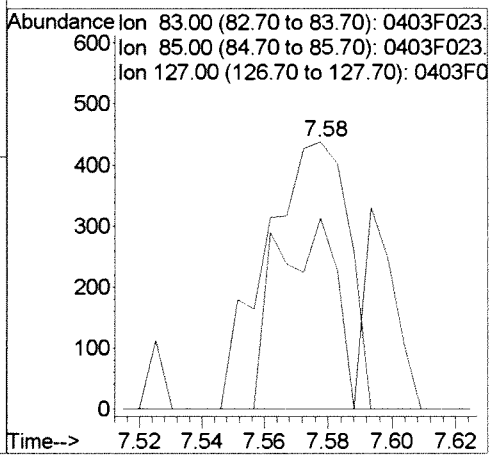


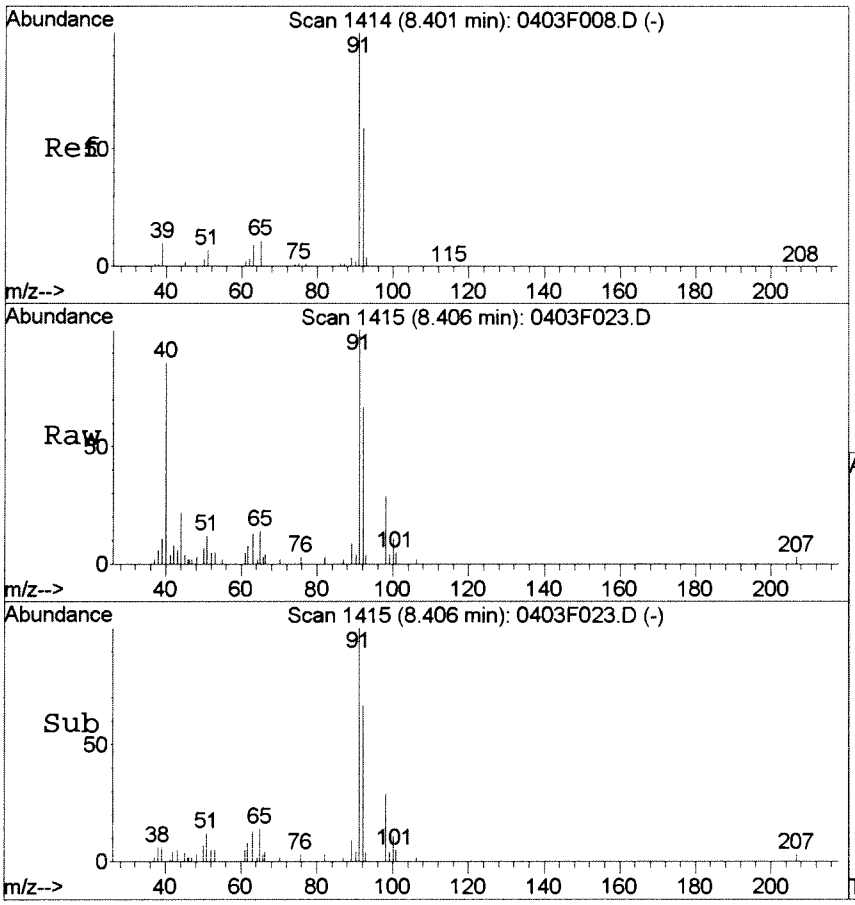


#57
Bromodichloromethane
Concen: 0.03 PPB
RT: 7.58 min Scan# 1257
Delta R.T. 0.01 min
Lab File: 0403F023.D
Acq: 03 Apr 2015 05:20 pm

Tgt Ion: 83 Resp: 785

Ion	Ratio	Lower	Upper
83	100		
85	71.7	33.9	93.9
127	0.0	0.0	38.1

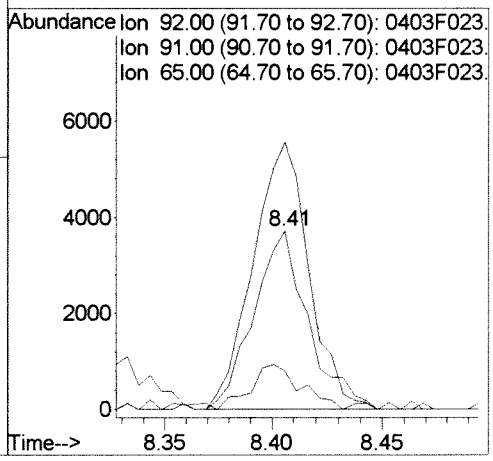




#63
Toluene
Concen: 0.14 PPB
RT: 8.41 min Scan# 1415
Delta R.T. 0.01 min
Lab File: 0403F023.D
Acq: 03 Apr 2015 05:20 pm

Tgt Ion: 92 Resp: 6462

Ion	Ratio	Lower	Upper
92	100		
91	149.3	139.2	199.2
65	25.2	0.0	50.2



Exception Report

Data File: J:\MS46\DATA\040315\0403F018.D
Lab ID: K1503171-006
RunType: SMPL
Matrix: WATER

Date Acquired: 04/03/2015 15:21
Date Quantitated: 04/09/2015 08:16
Batch ID: KWG1502843
Analysis Method: 8260C
ListJoinID: LJ1423

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Duplicate Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: KA 4/9/15

Secondary Review: 4/9/15

Quantitation Report

Data File:	J:\MS46\DATA\040315\0403F018.D			**Instrument:**	GCMS46
Acqu Date:	04/03/2015 15:21	**Quant Date:**	04/09/2015 08:16	**Vial:**	10
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1503171-006			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	03/25/2015	**Receive Date:**	03/27/2015

Analysis Lot:	KWG1502843	**Prep Lot:**	KWG1502844	**Report Group:**	K1503171
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1424886	**Prep Date:**	04/03/2015		

Quant Method:	J:\MS46\METHODS\031615MS46_8	**Calibration ID:**	CAL13899
Title:	Volatile Organic Compounds	**Report List ID:**	LJ1423
Tune Ref:	J:\MS46\DATA\040315\0403F007.D	**Method ID:**	MJ119
MB Ref:	J:\MS46\DATA\040315\0403F017.D	**Quant based on Report List**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	6.49	0.00	96	756004	10.00	OK
2	Chlorobenzene-d5	9.96	0.01	82	303576	10.00	OK
3	1,4-Dichlorobenzene-d4	12.53	0.00	152	298224	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.69	0.00	0.00	113	195659	11.78	118	73-122	OK	
1	Toluene-d8	8.33	0.00	0.00	98	718825	11.22	112	65-144	OK	
2	4-Bromofluorobenzene	11.27	0.00	0.00	95	258514	10.99	110	68-117	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Tetrachloride	5.77		0.00	117	112798	4.20	4.2		

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File : J:\MS46\DATA\040315\0403F018.D Vial: 10
Acq On : 03 Apr 2015 03:21 pm Operator: KR
Sample : K3171-006 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 08 16:55:46 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

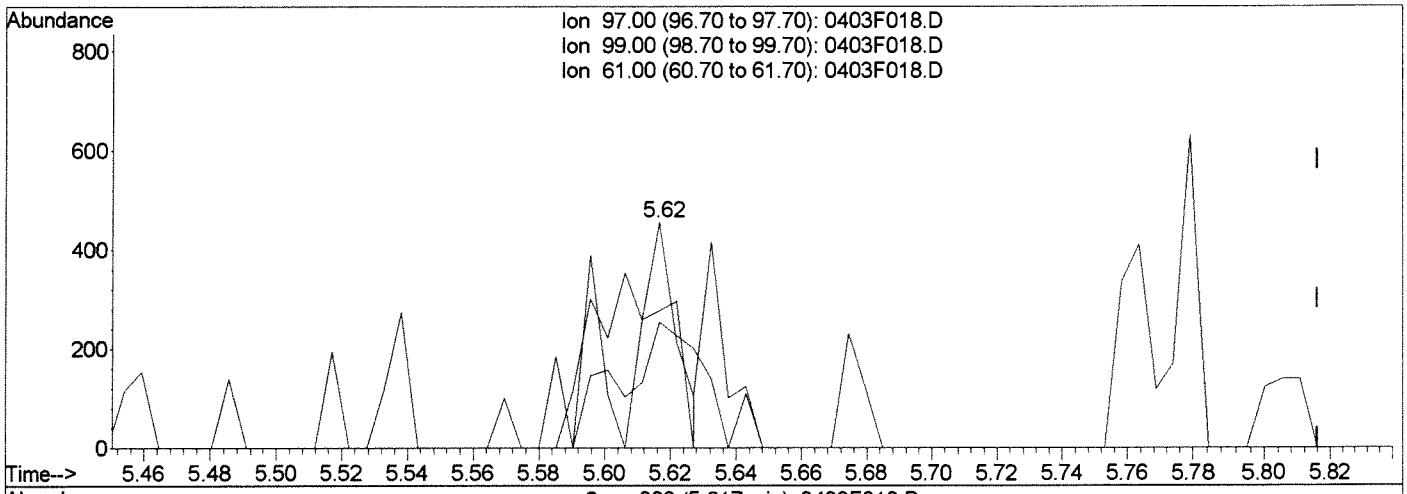
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	6.49	96	756004	10.00	PPB		0.00
64) Chlorobenzene-d5	9.96	82	303576	10.00	PPB		0.00
85) 1,4-Dichlorobenzene-d4	12.53	152	298224	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.69	113	195659	11.78	PPB		0.00
Spiked Amount 10.000			Recovery =	117.80%			
47) 1,2-Dichloroethane-d4	6.14	65	227698	12.98	PPB		0.00
Spiked Amount 10.000			Recovery =	129.80%			
62) Toluene-d8	8.33	98	718825	11.22	PPB		0.00
Spiked Amount 10.000			Recovery =	112.20%			
84) 4-Bromofluorobenzene	11.27	95	258514	10.99	PPB		0.00
Spiked Amount 10.000			Recovery =	109.90%			
Target Compounds							Qvalue
9) Trichlorofluoromethane	1.92	101	2613	0.09	PPB		90
14) Acetone	2.62	43	2124	0.85	PPB		85
15) Iodomethane	2.64	142	917	0.06	PPB		88
16) Carbon Disulfide	2.66	76	4034	0.07	PPB		84
40) Chloroform	5.48	83	8322	0.26	PPB		97
42) 1,1,1-Trichloroethane	5.62	97	839m	0.03	PPB		
44) Carbon Tetrachloride	5.77	117	112798	4.20	PPB		98
48) Benzene	6.09	78	799	0.01	PPB		74
51) Trichloroethene	6.93	95	1358	0.07	PPB	#	61
63) Toluene	8.41	92	12470	0.26	PPB		86
74) 1-Chlorohexane	10.09	91	865	0.03	PPB		67
78) m,p-Xylenes	10.22	106	864	0.03	PPB		90
106) Naphthalene	15.00	128	981	0.02	PPB		70

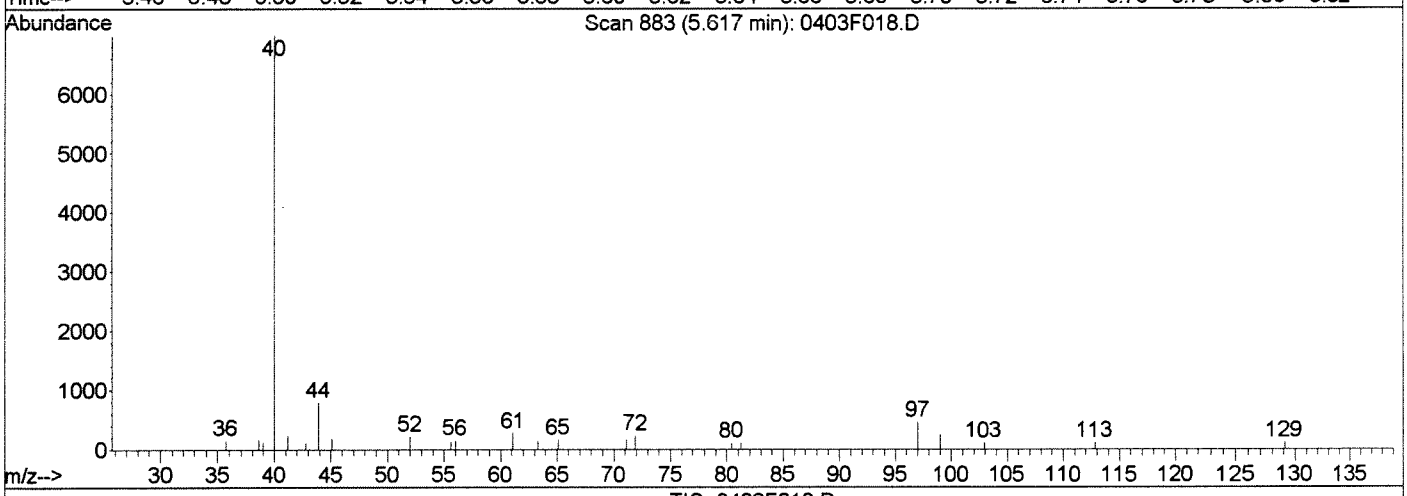
(#) = qualifier out of range (m) = manual integration

04.09.15jal2nd Rev

Data File : J:\MS46\DATA\040315\0403F018.D Vial: 10
Acq On : 03 Apr 2015 03:21 pm Operator: KR
Sample : K3171-006 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 8 16:56 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Multiple Level Calibration





TIC: 0403F018.D

(42) 1,1,1-Trichloroethane (T)

5.62min 0.02PPB

response 637

Ion	Exp%	Act%
97.00	100	100
99.00	67.00	55.70
61.00	45.10	60.75
0.00	0.00	0.00

Manual Integration:

Before

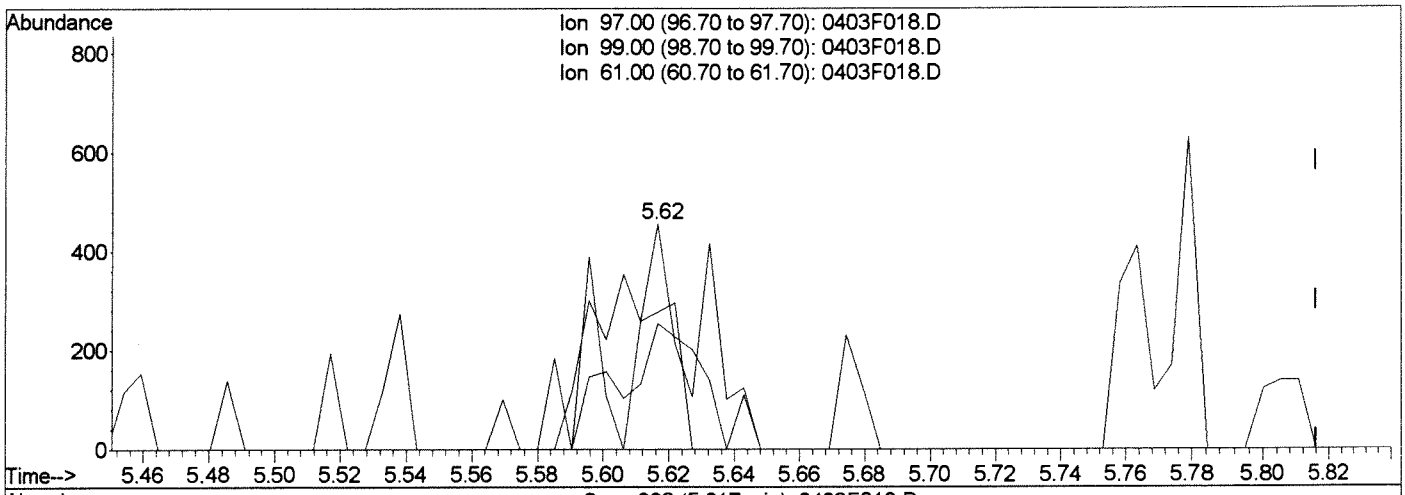
04/08/15

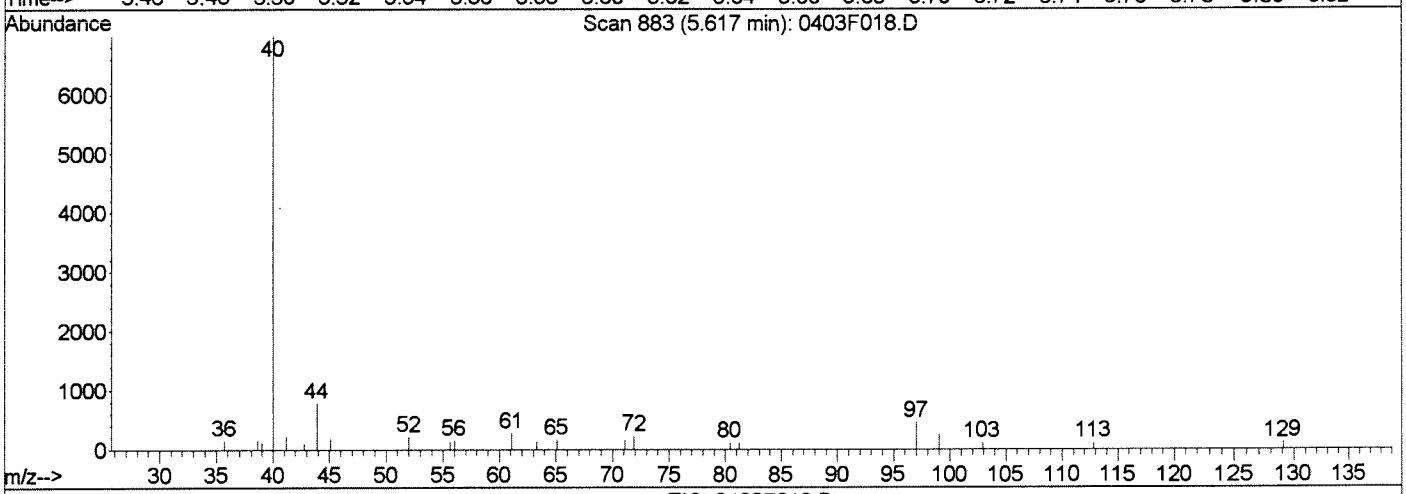
0403F018.D 031615MS46_8260.M Wed Apr 08 16:56:37 2015

04.09.15jal2nd Rev

Data File : J:\MS46\DATA\040315\0403F018.D Vial: 10
Acq On : 03 Apr 2015 03:21 pm Operator: KR
Sample : K3171-006 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 8 16:56 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Multiple Level Calibration





TIC: 0403F018.D

(42) 1,1,1-Trichloroethane (T)

5.62min 0.03PPB m

response 839

Ion	Exp%	Act%
97.00	100	100
99.00	67.00	55.70
61.00	45.10	60.75
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

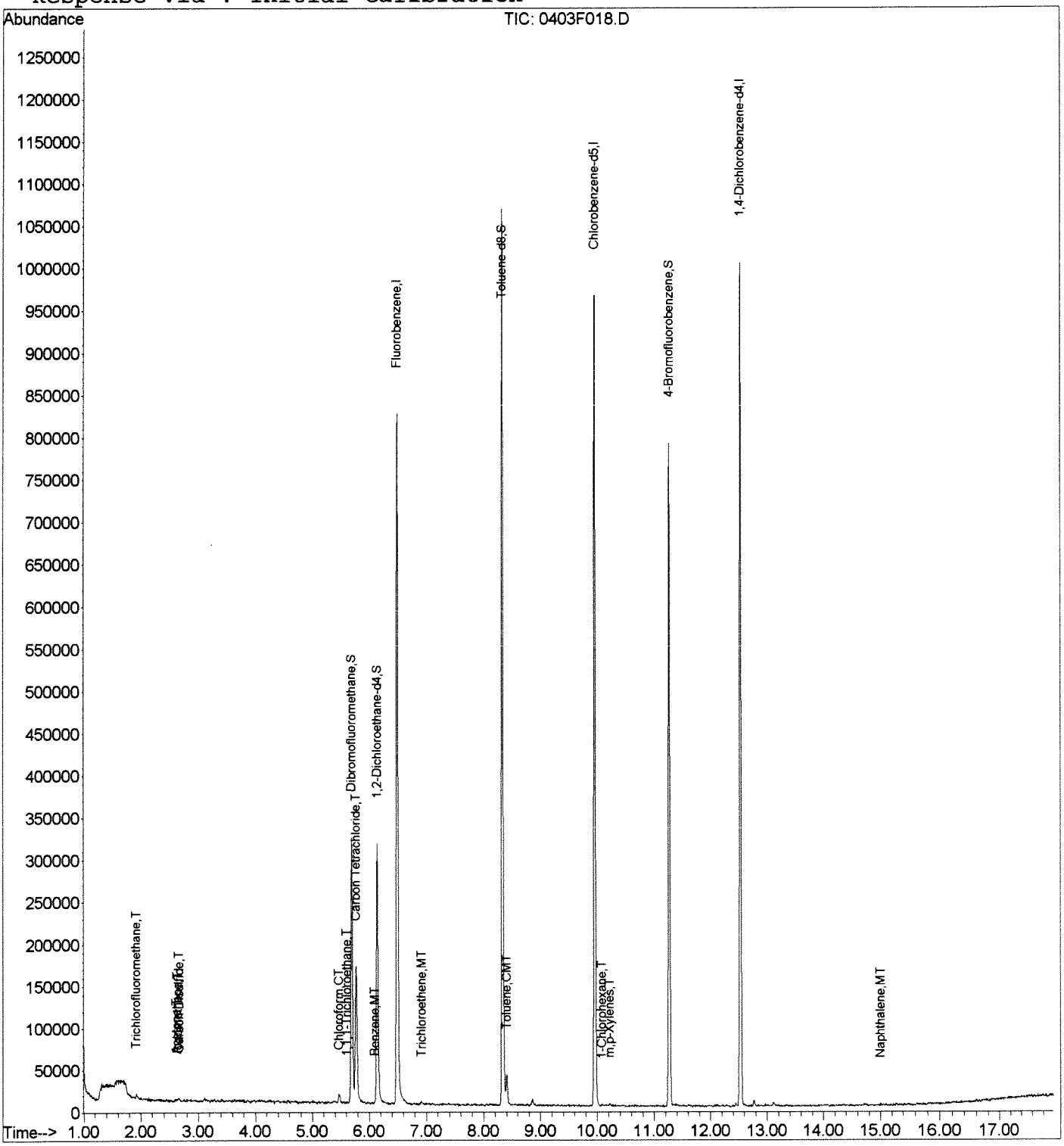
04/08/15

0403F018.D 031615MS46_8260.M Wed Apr 08 16:56:40 2015

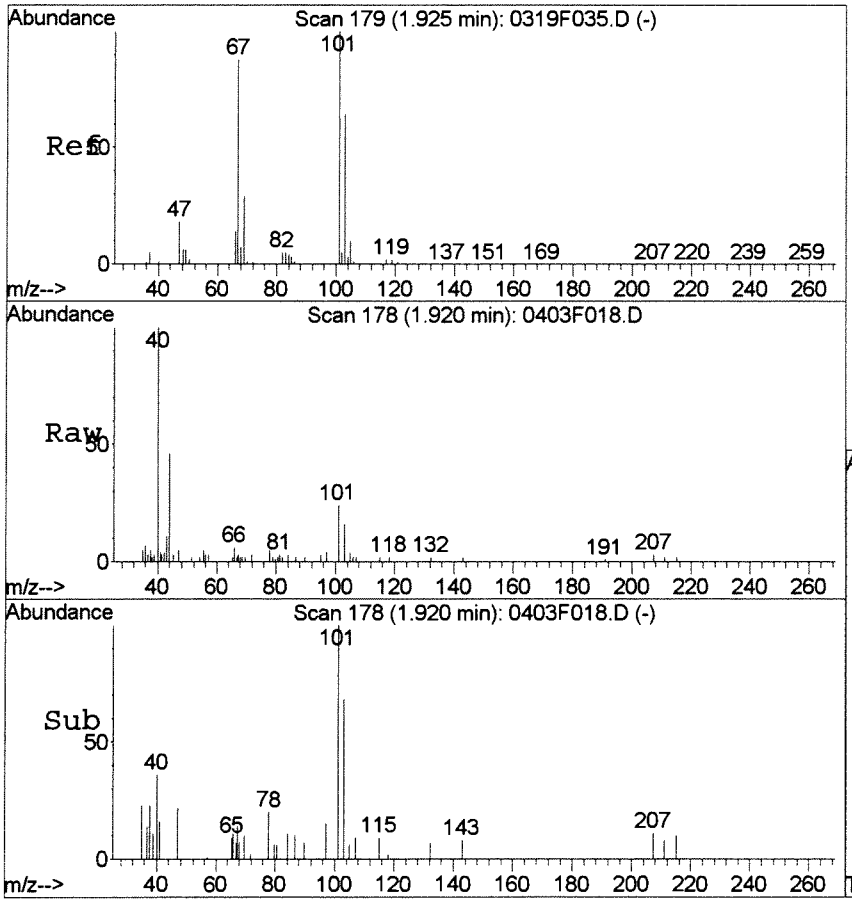
04.09.15jal2nd Rev

Data File : J:\MS46\DATA\040315\0403F018.D Vial: 10
Acq On : 03 Apr 2015 03:21 pm Operator: KR
Sample : K3171-006 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 8 16:57 2015 Quant Results File: 031615MS46_8

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Initial Calibration



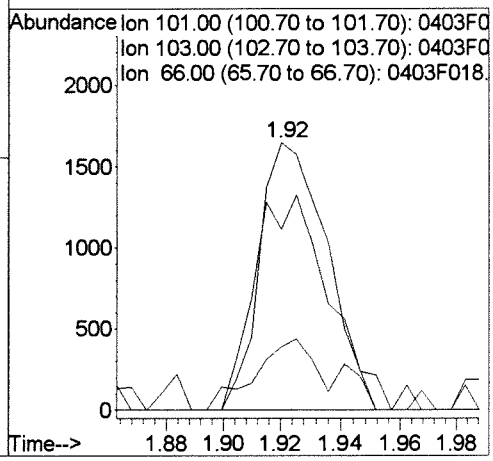
04.09.15jal2nd Rev

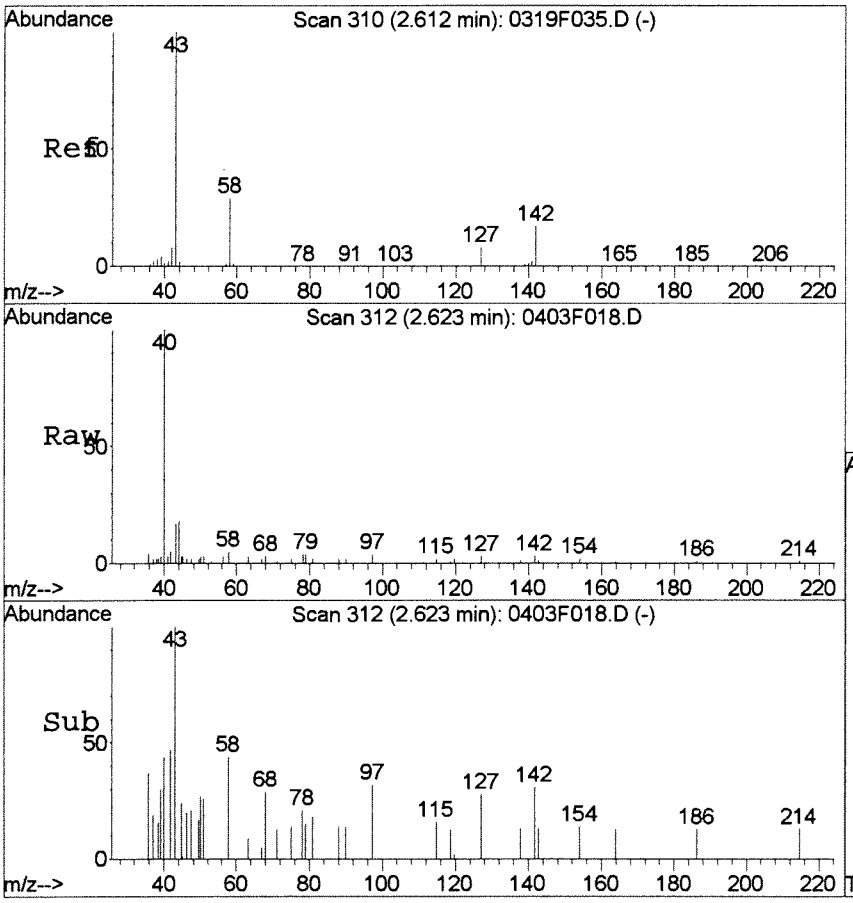


#9
Trichlorofluoromethane
Concen: 0.09 PPB
RT: 1.92 min Scan# 178
Delta R.T. -0.01 min
Lab File: 0403F018.D
Acq: 03 Apr 2015 03:21 pm

Tgt Ion:101 Resp: 2613

Ion	Ratio	Lower	Upper
101	100		
103	67.7	31.6	91.6
66	23.5	0.0	45.1

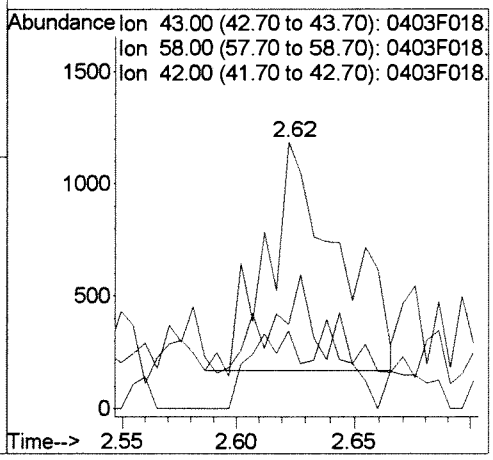


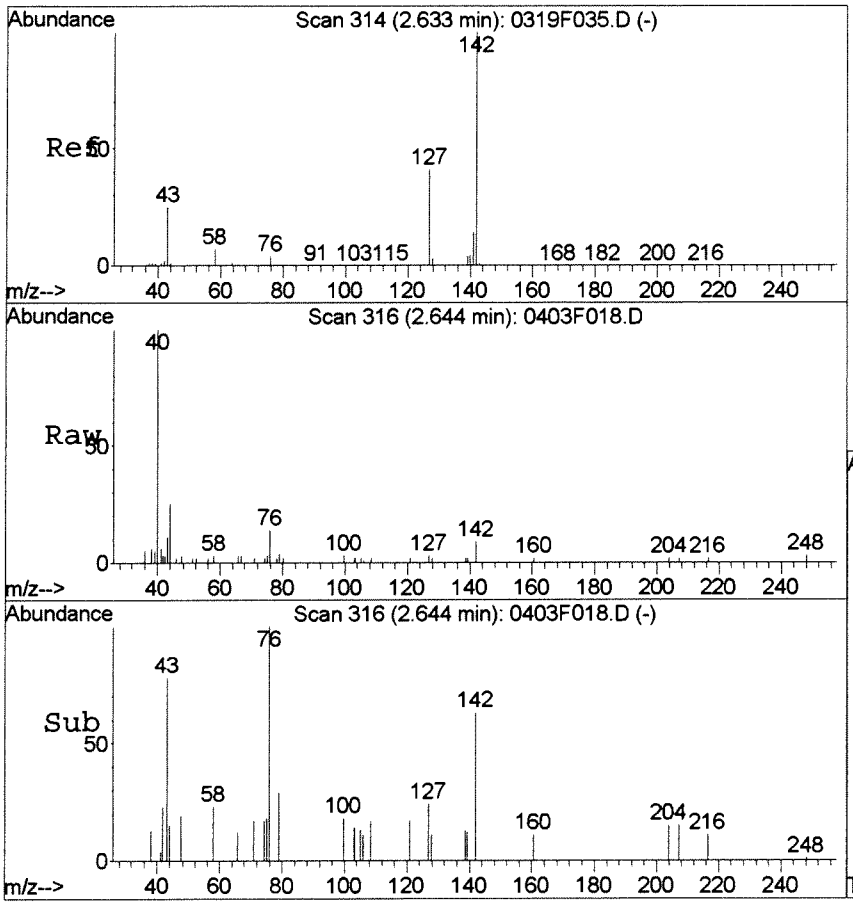


#14
Acetone
Concen: 0.85 PPB
RT: 2.62 min Scan# 312
Delta R.T. 0.01 min
Lab File: 0403F018.D
Acq: 03 Apr 2015 03:21 pm

Tgt Ion: 43 Resp: 2124

Ion	Ratio	Lower	Upper
43	100		
58	34.1	0.0	59.5
42	20.9	0.0	37.1

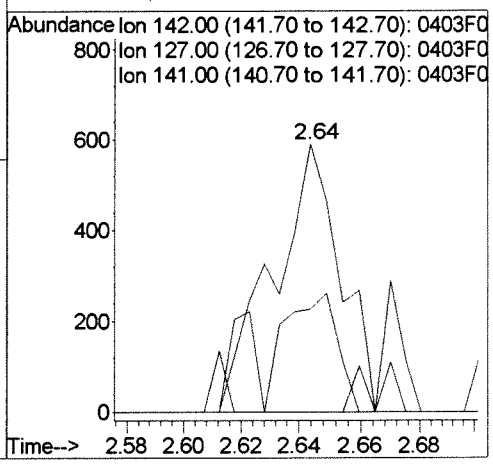


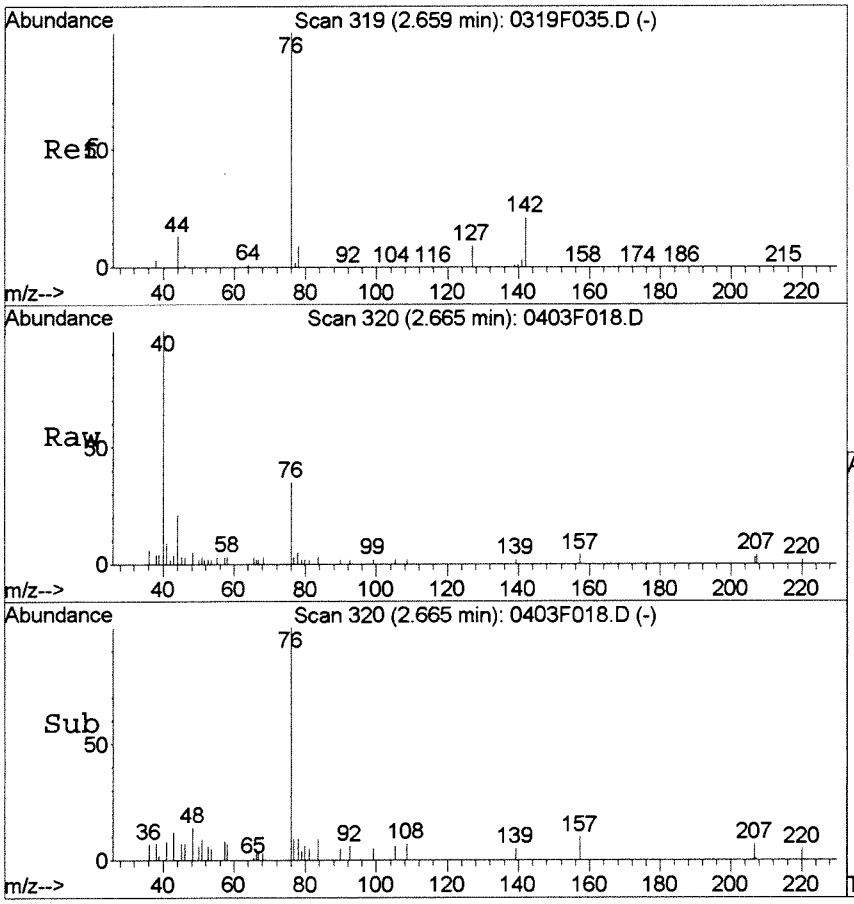


#15
Iodomethane
Concen: 0.06 PPB
RT: 2.64 min Scan# 316
Delta R.T. 0.01 min
Lab File: 0403F018.D
Acq: 03 Apr 2015 03:21 pm

Tgt Ion:142 Resp: 917

Ion	Ratio	Lower	Upper
142	100		
127	38.4	10.8	70.8
141	0.0	0.0	44.2

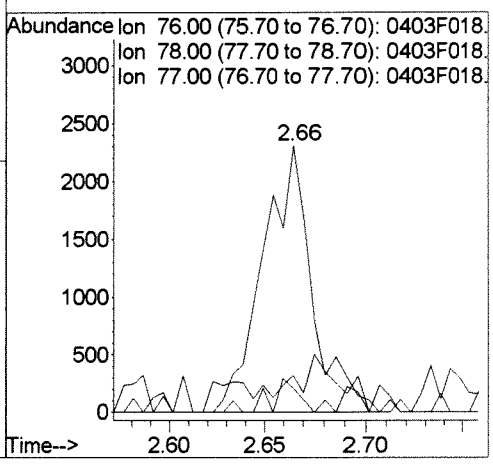


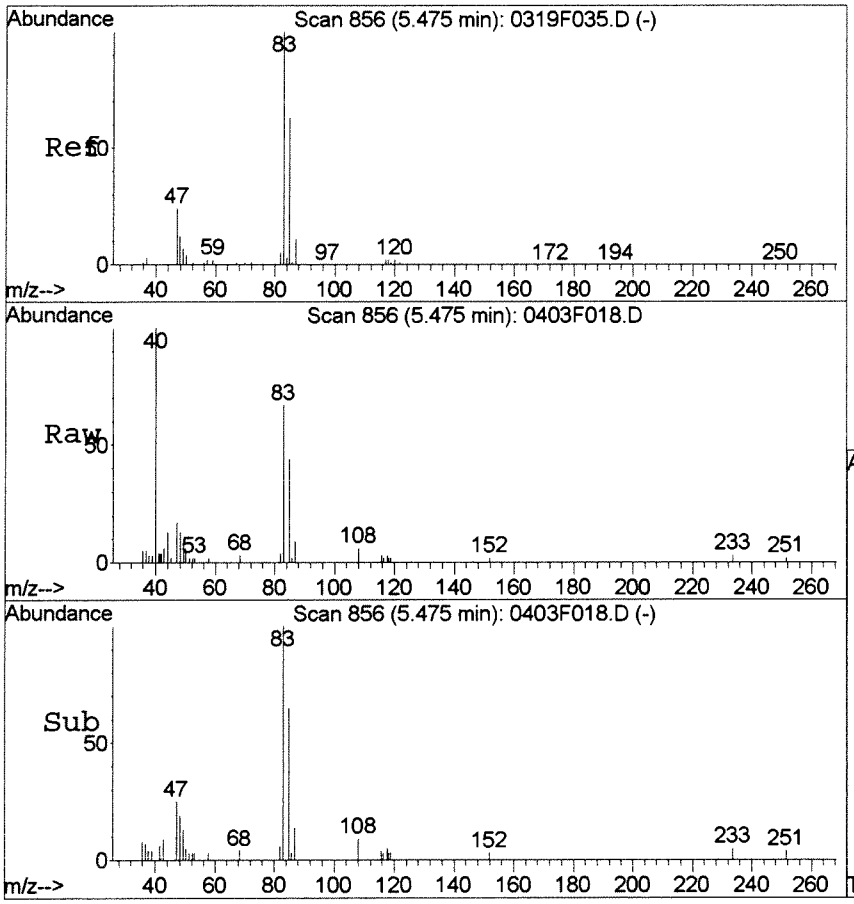


#16
Carbon Disulfide
Concen: 0.07 PPB
RT: 2.66 min Scan# 320
Delta R.T. 0.01 min
Lab File: 0403F018.D
Acq: 03 Apr 2015 03:21 pm

Tgt Ion: 76 Resp: 4034

Ion	Ratio	Lower	Upper
76	100		
78	13.9	0.0	38.4
77	9.1	0.0	32.9

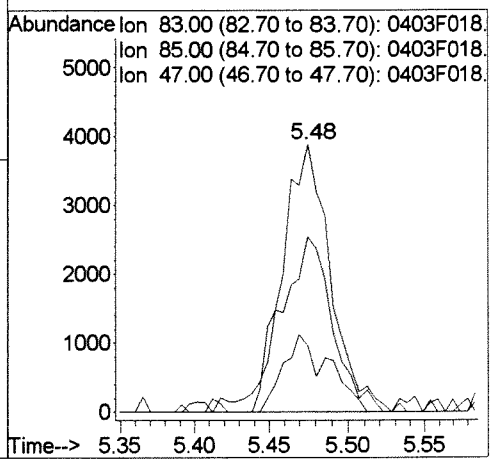


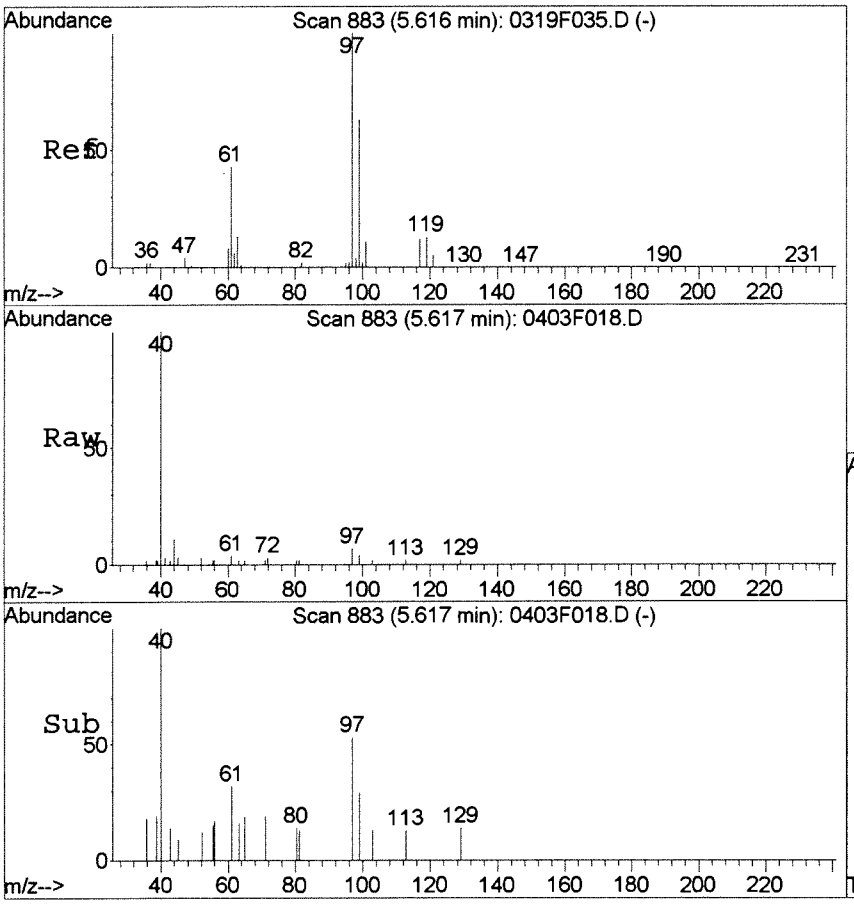


#40
Chloroform
Concen: 0.26 PPB
RT: 5.48 min Scan# 856
Delta R.T. 0.00 min
Lab File: 0403F018.D
Acq: 03 Apr 2015 03:21 pm

Tgt Ion: 83 Resp: 8322

Ion	Ratio	Lower	Upper
83	100		
85	65.4	33.1	93.1
47	24.7	0.0	54.1

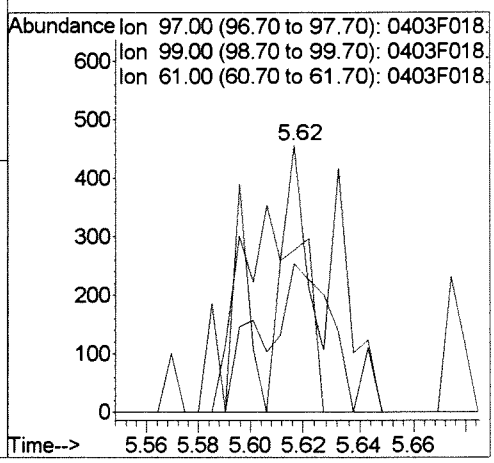


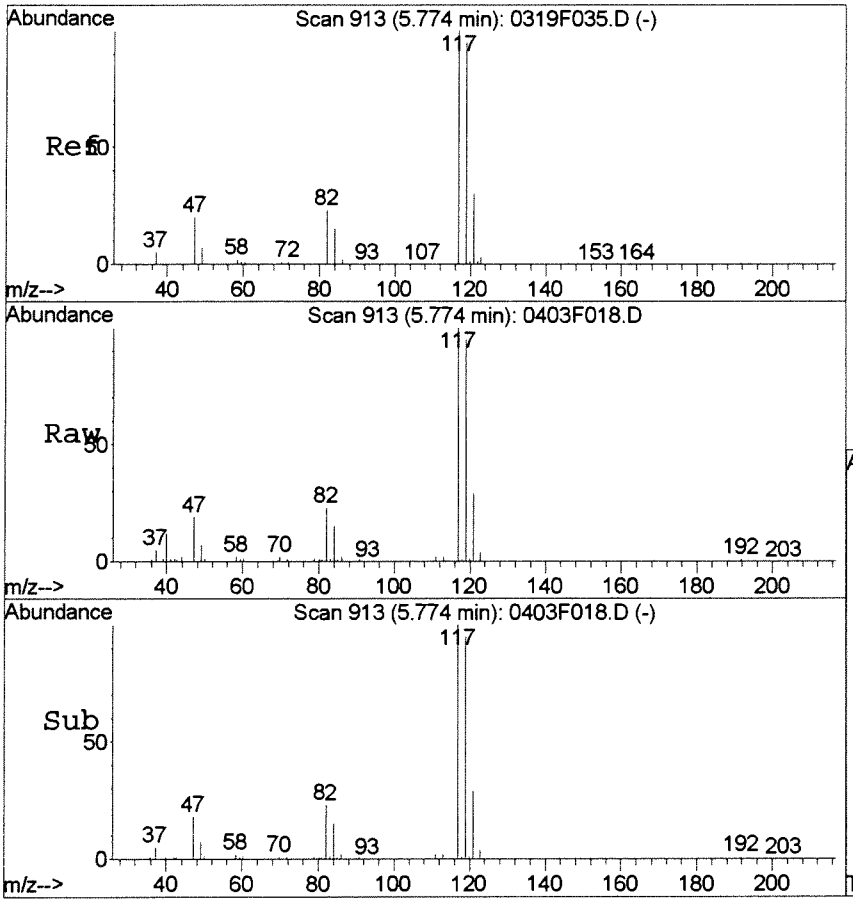


#42
1,1,1-Trichloroethane
Concen: 0.03 PPB m
RT: 5.62 min Scan# 883
Delta R.T. 0.00 min
Lab File: 0403F018.D
Acq: 03 Apr 2015 03:21 pm

Tgt Ion: 97 Resp: 839

Ion	Ratio	Lower	Upper
97	100		
99	55.7	37.0	97.0
61	60.7	15.1	75.1

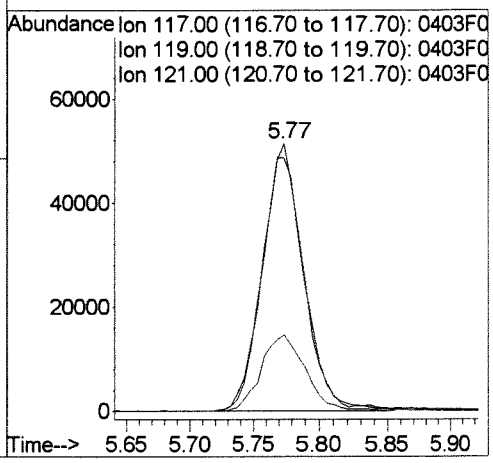


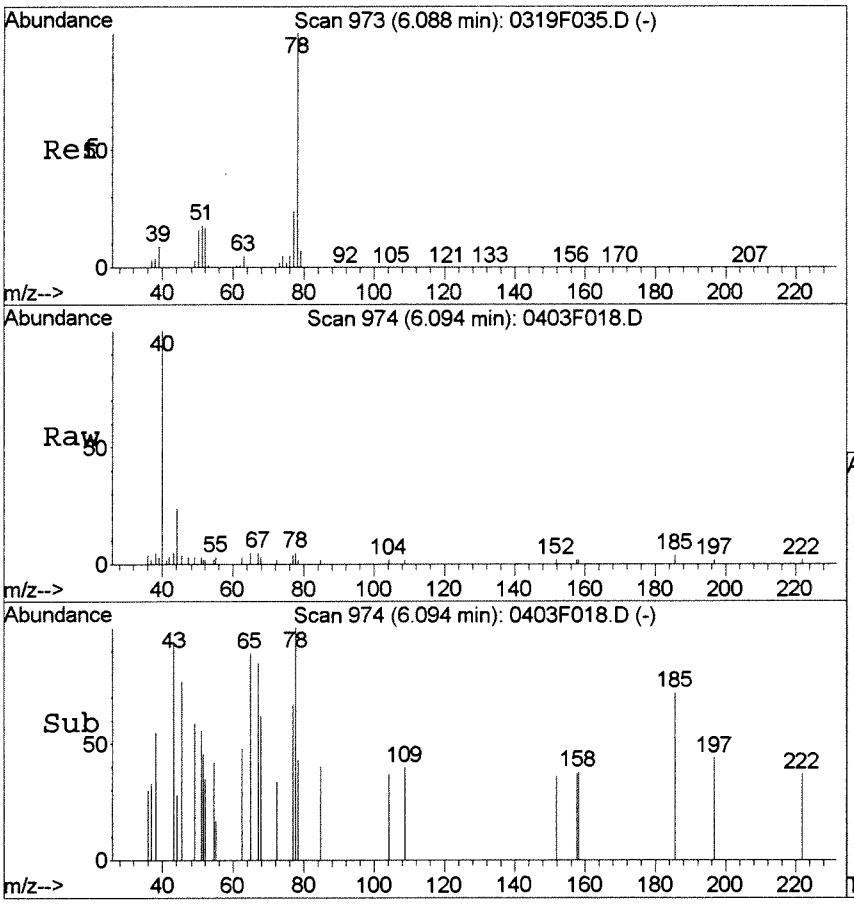


#44
Carbon Tetrachloride
Concen: 4.20 PPB
RT: 5.77 min Scan# 913
Delta R.T. 0.01 min
Lab File: 0403F018.D
Acq: 03 Apr 2015 03:21 pm

Tgt Ion:117 Resp: 112798

Ion	Ratio	Lower	Upper
117	100		
119	94.4	63.3	123.3
121	28.6	0.2	60.2

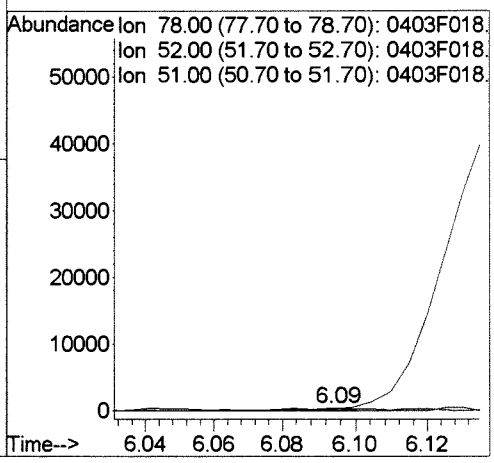


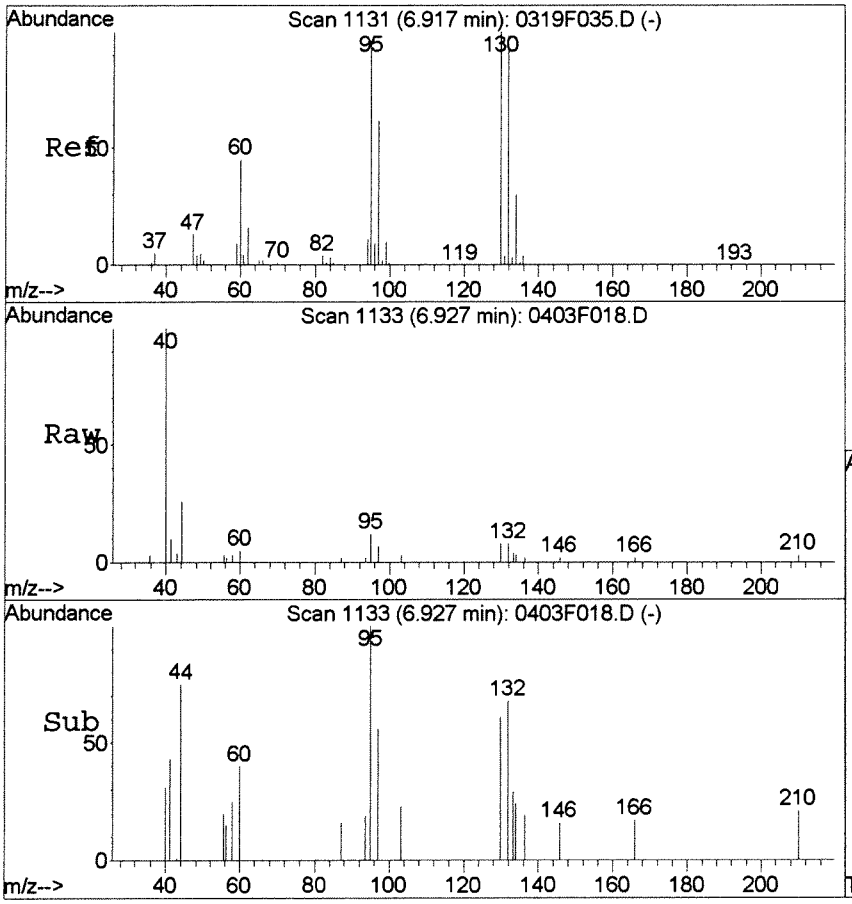


#48
Benzene
Concen: 0.01 PPB
RT: 6.09 min Scan# 974
Delta R.T. 0.01 min
Lab File: 0403F018.D
Acq: 03 Apr 2015 03:21 pm

Tgt Ion: 78 Resp: 799

Ion	Ratio	Lower	Upper
78	100		
52	24.2	0.0	46.3
51	31.6	0.0	47.5

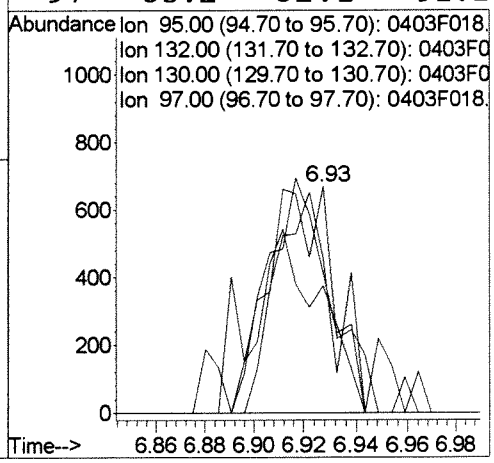


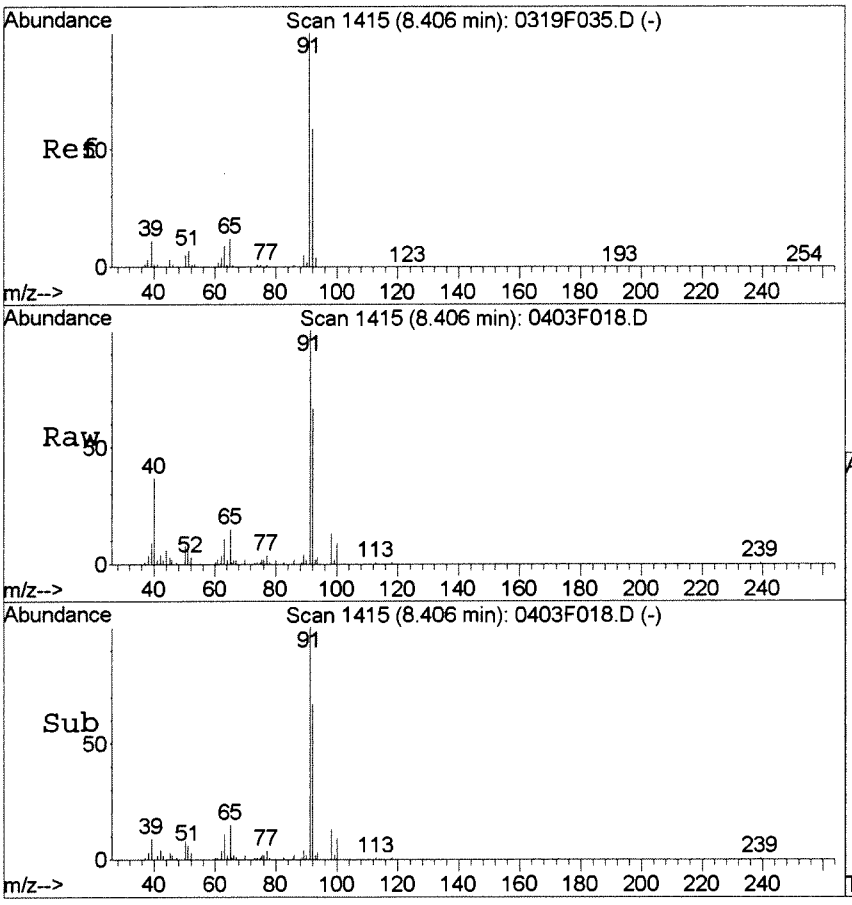


#51
Trichloroethene
Concen: 0.07 PPB
RT: 6.93 min Scan# 1133
Delta R.T. 0.01 min
Lab File: 0403F018.D
Acq: 03 Apr 2015 03:21 pm

Tgt Ion: 95 Resp: 1358

Ion	Ratio	Lower	Upper
95	100		
132	68.4	72.9	132.9#
130	61.5	81.4	141.4#
97	35.2	32.1	92.1

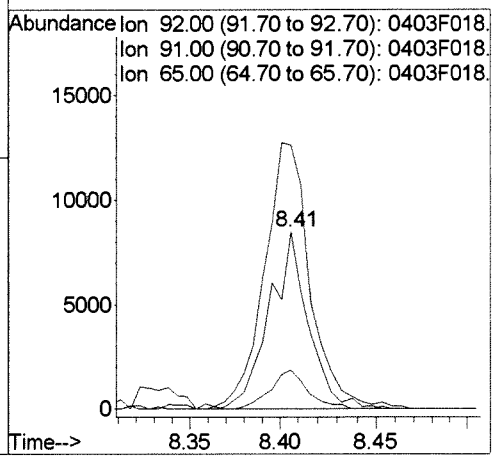


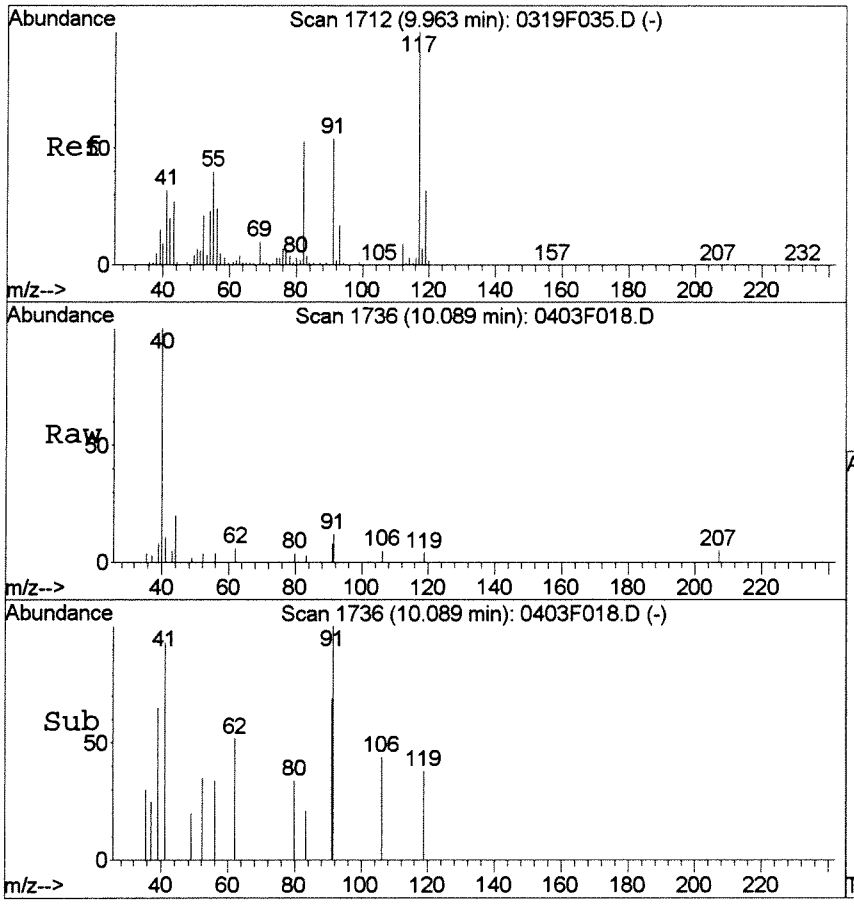


#63
Toluene
Concen: 0.26 PPB
RT: 8.41 min Scan# 1415
Delta R.T. 0.01 min
Lab File: 0403F018.D
Acq: 03 Apr 2015 03:21 pm

Tgt Ion: 92 Resp: 12470

Ion	Ratio	Lower	Upper
92	100		
91	148.5	139.2	199.2
65	23.8	0.0	50.2

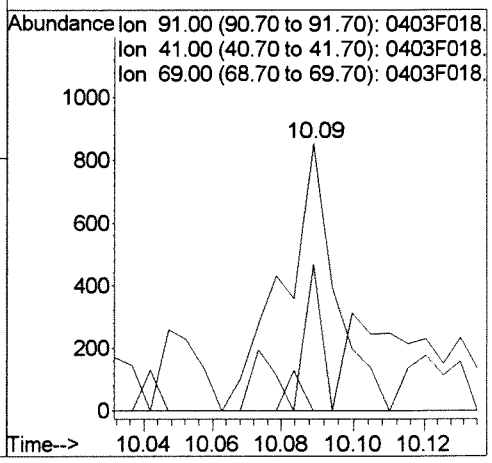


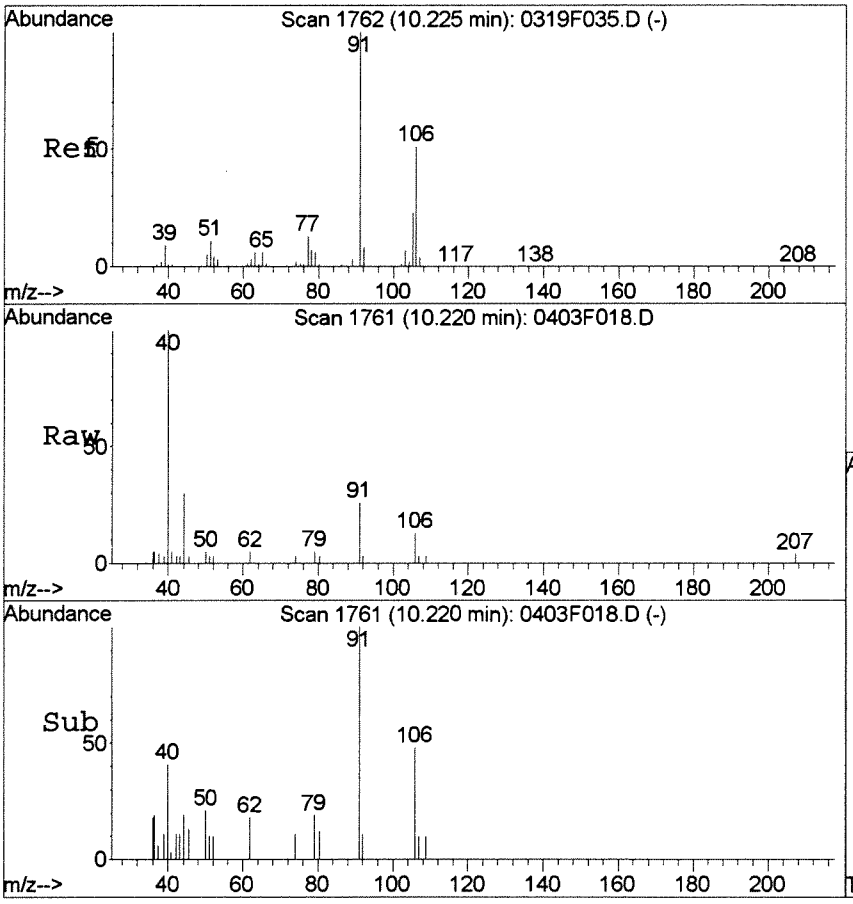


#74
1-Chlorohexane
Concen: 0.03 PPB
RT: 10.09 min Scan# 1736
Delta R.T. 0.13 min
Lab File: 0403F018.D
Acq: 03 Apr 2015 03:21 pm

Tgt Ion: 91 Resp: 865

Ion	Ratio	Lower	Upper
91	100		
41	39.3	31.8	91.8
69	0.0	0.0	51.3

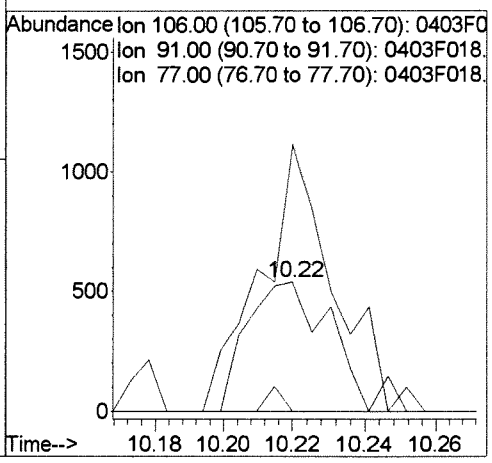


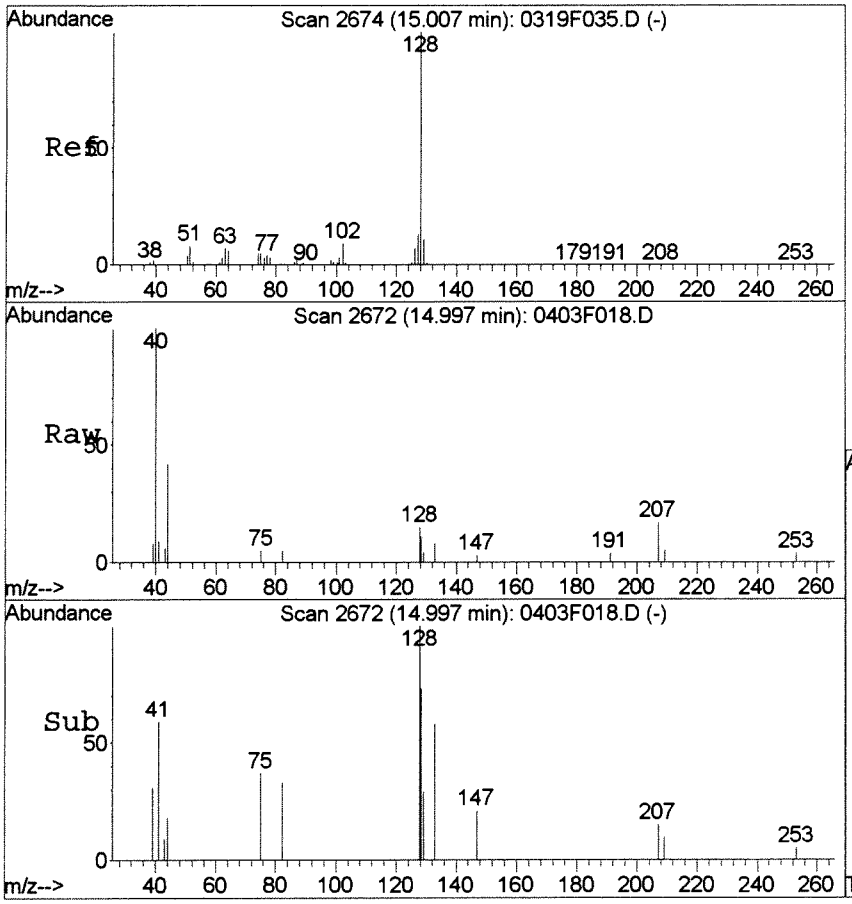


#78
m,p-Xylenes
Concen: 0.03 PPB
RT: 10.22 min Scan# 1761
Delta R.T. 0.00 min
Lab File: 0403F018.D
Acq: 03 Apr 2015 03:21 pm

Tgt Ion:106 Resp: 864

Ion	Ratio	Lower	Upper
106	100		
91	206.9	170.9	230.9
77	0.0	0.0	57.1

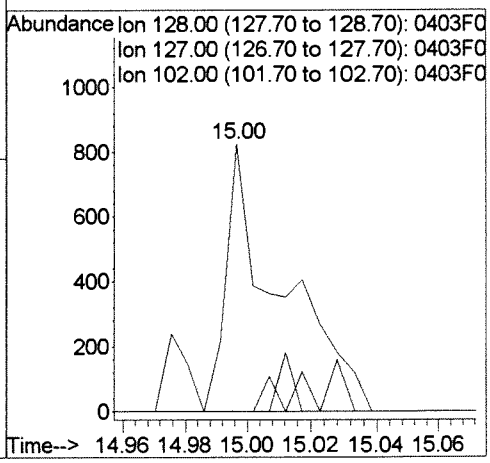




#106
Naphthalene
Concen: 0.02 PPB
RT: 15.00 min Scan# 2672
Delta R.T. -0.01 min
Lab File: 0403F018.D
Acq: 03 Apr 2015 03:21 pm

Tgt Ion:128 Resp: 981

Ion	Ratio	Lower	Upper
128	100		
127	0.0	0.0	43.8
102	0.0	0.0	38.7



Exception Report

Data File: J:\MS46\DATA\040815X\0408F024.D
Lab ID: K1503171-007
RunType: SMPL
Matrix: WATER

Date Acquired: 04/08/2015 19:15
Date Quantitated: 04/09/2015 14:54
Batch ID: KWG1503030
Analysis Method: 8260C
ListJoinID: LJ1423

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Duplicate Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: KWJ 4/9/15

Secondary Review: 4/10/15

Quantitation Report

Data File:	J:\MS46\DATA\040815X\0408F024.D			**Instrument:**	GCMS46
Acqu Date:	04/08/2015 19:15	**Quant Date:**	04/09/2015 14:54	**Vial:**	24
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1503171-007			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	03/26/2015	**Receive Date:**	03/27/2015

Analysis Lot:	KWG1503030	**Prep Lot:**	kwg1503029	**Report Group:**	K1503171
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1426070	**Prep Date:**	04/08/2015		

Quant Method:	J:\MS46\METHODS\031615MS46_8	**Calibration ID:**	CAL13899
Title:	Volatile Organic Compounds	**Report List ID:**	LJ1423
Tune Ref:	J:\MS46\DATA\040815X\0408F003.D	**Method ID:**	MJ119
MB Ref:	J:\MS46\DATA\040815X\0408F011.D	**Quant based on Report List**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	6.49	0.00	96	705592	10.00	OK
2	Chlorobenzene-d5	9.96	0.00	82	284702	10.00	OK
3	1,4-Dichlorobenzene-d4	12.53	0.00	152	279374	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.69	0.00	0.00	113	184152	11.88	119	73-122	OK	
1	Toluene-d8	8.33	0.00	0.00	98	669554	11.20	112	65-144	OK	
2	4-Bromofluorobenzene	11.27	0.00	0.00	95	239333	10.85	109	68-117	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Tetrachloride				117	0		0.096	U	

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\040815X\0408F024.D Vial: 24
Acq On : 08 Apr 2015 07:15 pm Operator: KR
Sample : K3171-007 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 09 14:39:01 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	6.49	96	705592	10.00	PPB		0.00
64) Chlorobenzene-d5	9.96	82	284702	10.00	PPB		0.00
85) 1,4-Dichlorobenzene-d4	12.53	152	279374	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.69	113	184152	11.88	PPB		0.00
Spiked Amount 10.000			Recovery =	118.80%			
47) 1,2-Dichloroethane-d4	6.14	65	213309	13.03	PPB		0.00
Spiked Amount 10.000			Recovery =	130.30%			
62) Toluene-d8	8.33	98	669554	11.20	PPB		0.00
Spiked Amount 10.000			Recovery =	112.00%			
84) 4-Bromofluorobenzene	11.27	95	239333	10.85	PPB		0.00
Spiked Amount 10.000			Recovery =	108.50%			
Target Compounds							Qvalue
3) Chloromethane	1.26	50	973	0.04	PPB		94
14) Acetone	2.61	43	2294m	0.98	PPB		
16) Carbon Disulfide	2.66	76	1402	0.03	PPB		81
21) Methylene Chloride	3.10	84	1256	0.07	PPB	#	77
40) Chloroform	5.49	83	1318	0.04	PPB		75
42) 1,1,1-Trichloroethane	5.62	97	779	0.03	PPB		84
48) Benzene	6.10	78	530	0.01	PPB	#	1
51) Trichloroethene	6.92	95	627	0.03	PPB	#	28
63) Toluene	8.41	92	11633	0.26	PPB		98

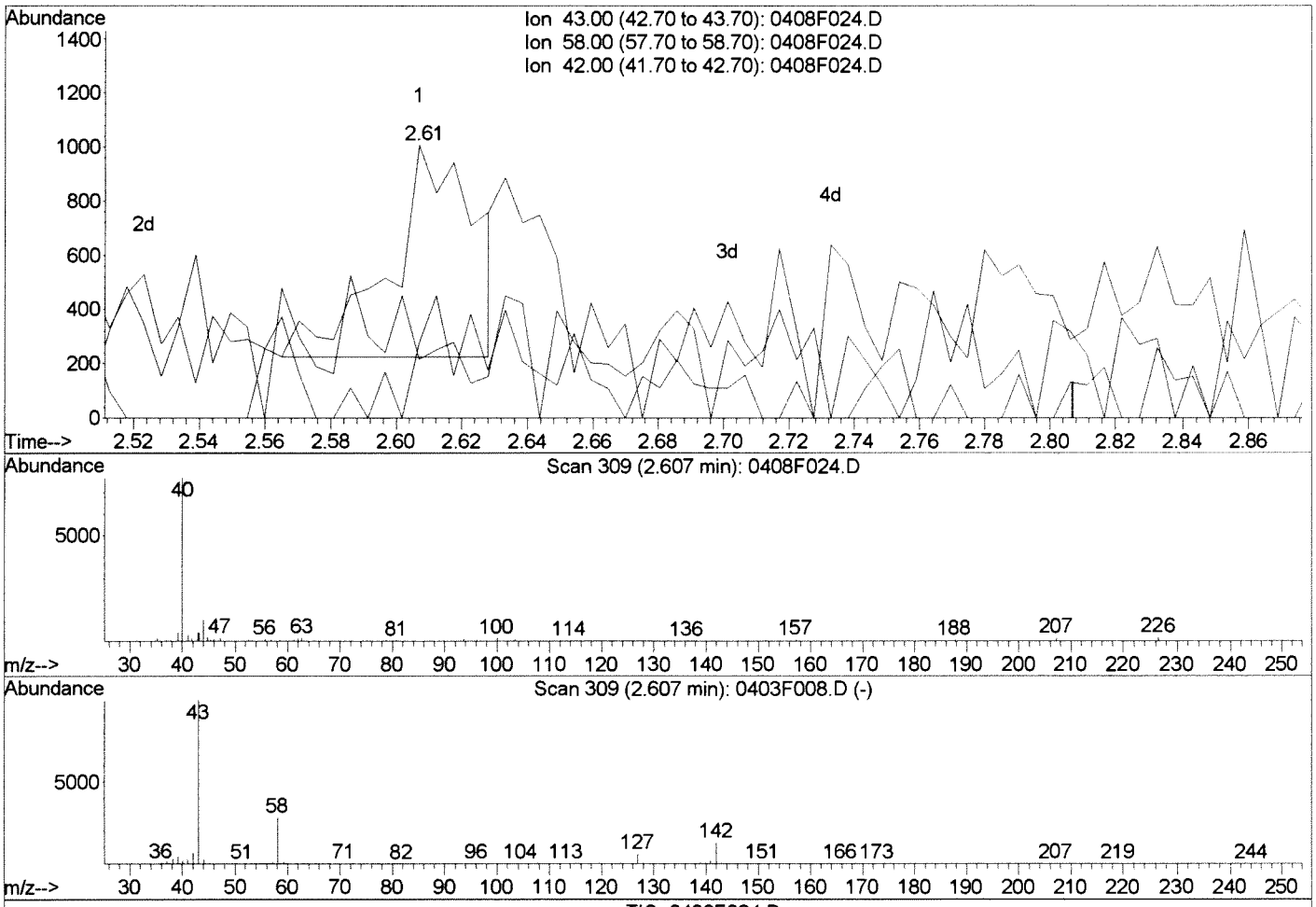
(#) = qualifier out of range (m) = manual integration
0408F024.D 031615MS46_8260.M Thu Apr 09 14:54:32 2015 Page 1

04.10.15jal2nd Rev

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\040815X\0408F024.D Vial: 24
Acq On : 08 Apr 2015 07:15 pm Operator: KR
Sample : K3171-007 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 9 14:53 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Multiple Level Calibration



TIC: 0408F024.D

(14) Acetone (T)
2.61min 0.59PPB
response 1389

Ion	Exp%	Act%
43.00	100	100
58.00	29.50	12.92
42.00	7.10	8.18
0.00	0.00	0.00

Manual Integration:
Before
04/09/15

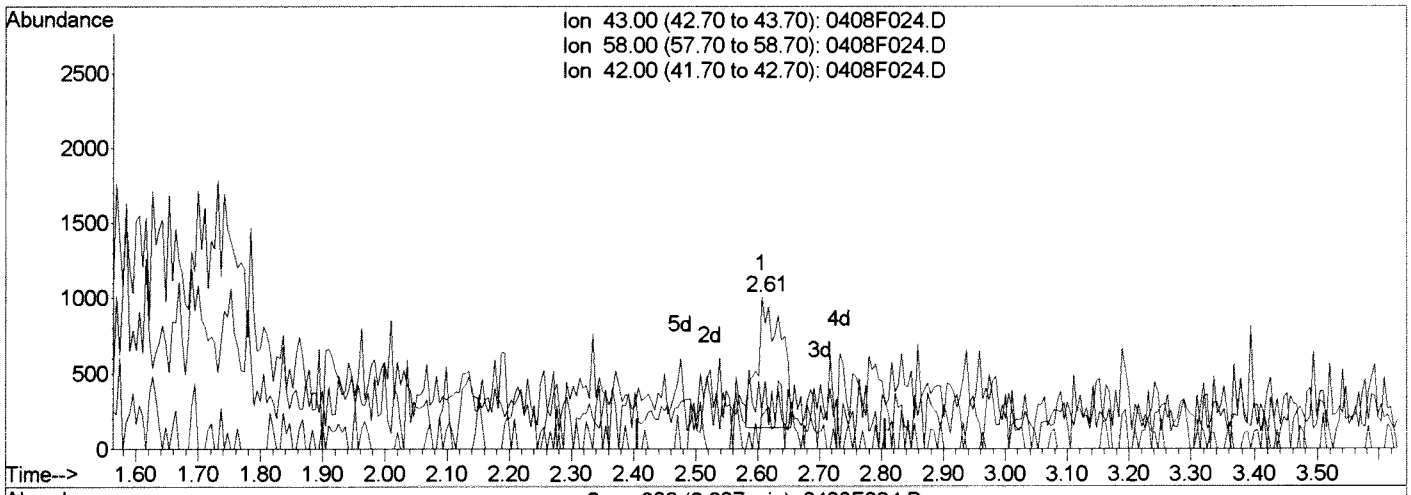
0408F024.D 031615MS46_8260.M Thu Apr 09 14:53:15 2015

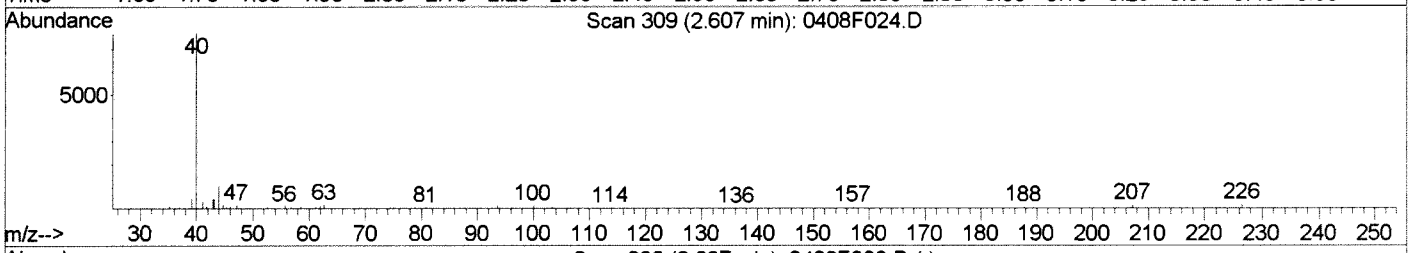
04.10.15jal2nd Rev

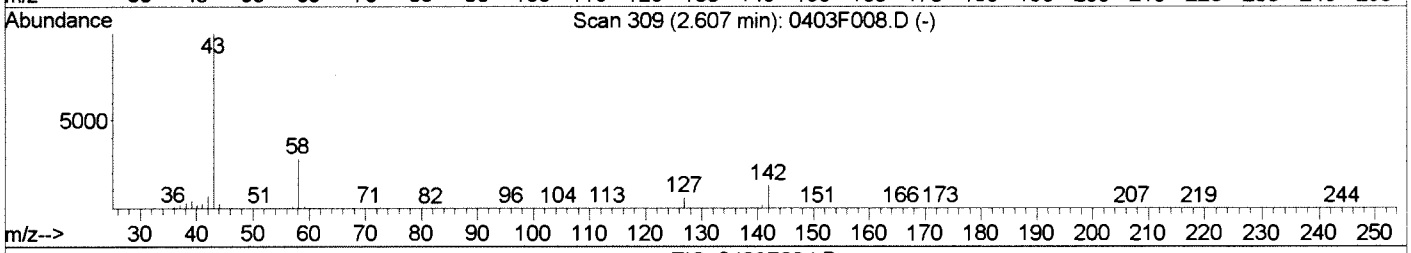
Quantitation Report (Qedit)

Data File : J:\MS46\DATA\040815X\0408F024.D Vial: 24
Acq On : 08 Apr 2015 07:15 pm Operator: KR
Sample : K3171-007 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 9 14:53 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Multiple Level Calibration







TIC: 0408F024.D

(14) Acetone (T)

2.61min 0.98PPB m

response 2294

Ion	Exp%	Act%
43.00	100	100
58.00	29.50	33.84
42.00	7.10	41.30#
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

04/09/15

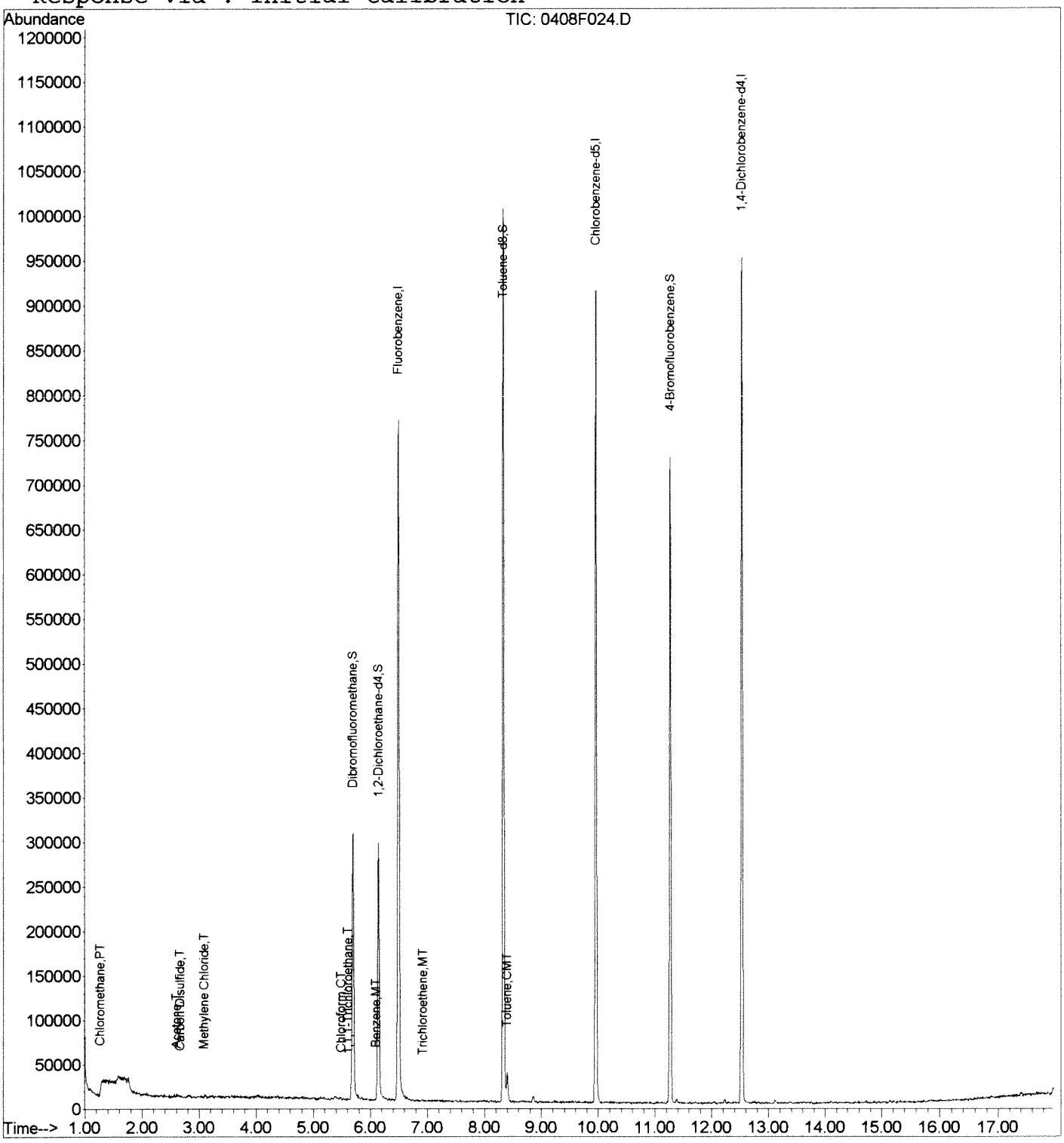
0408F024.D 031615MS46_8260.M Thu Apr 09 14:53:26 2015

04.10.15jal2nd Rev

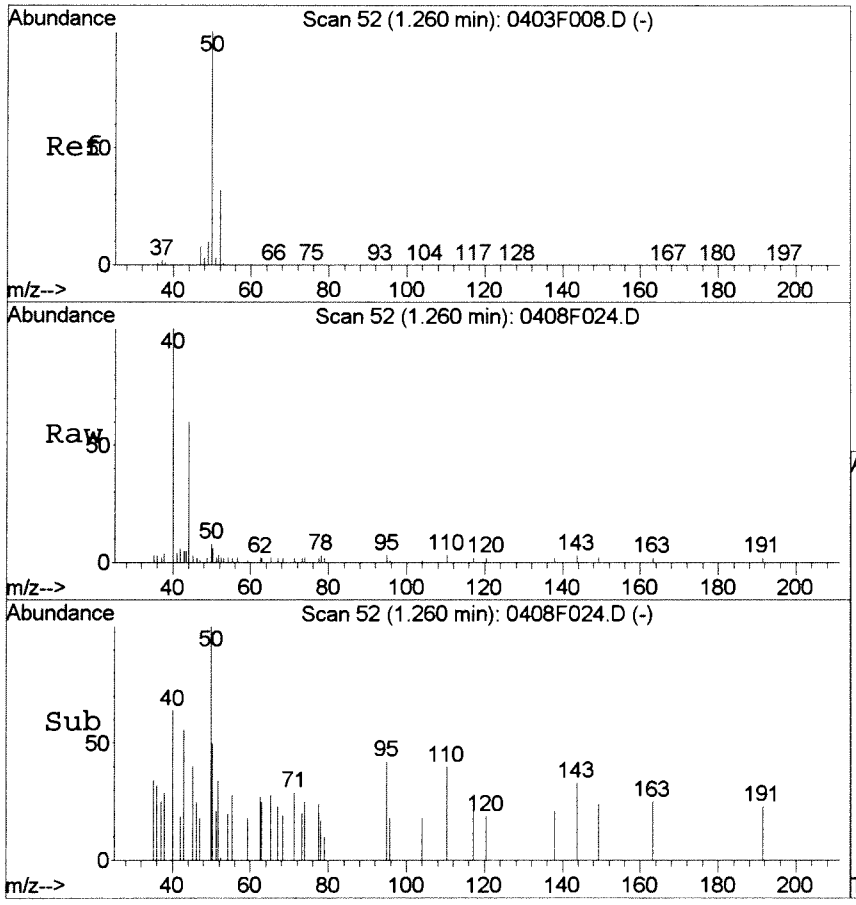
Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\040815X\0408F024.D Vial: 24
Acq On : 08 Apr 2015 07:15 pm Operator: KR
Sample : K3171-007 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 9 14:54 2015 Quant Results File: 031615MS46_8

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Initial Calibration



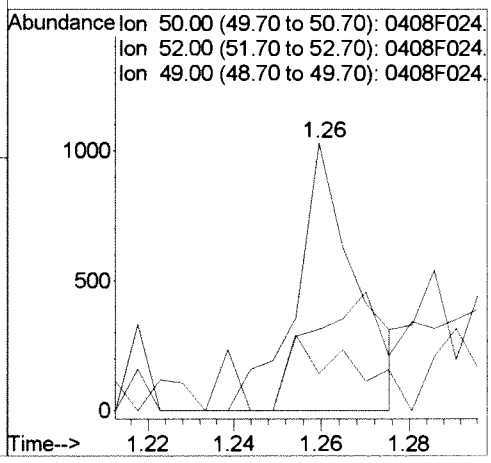
04.10.15jal2nd Rev

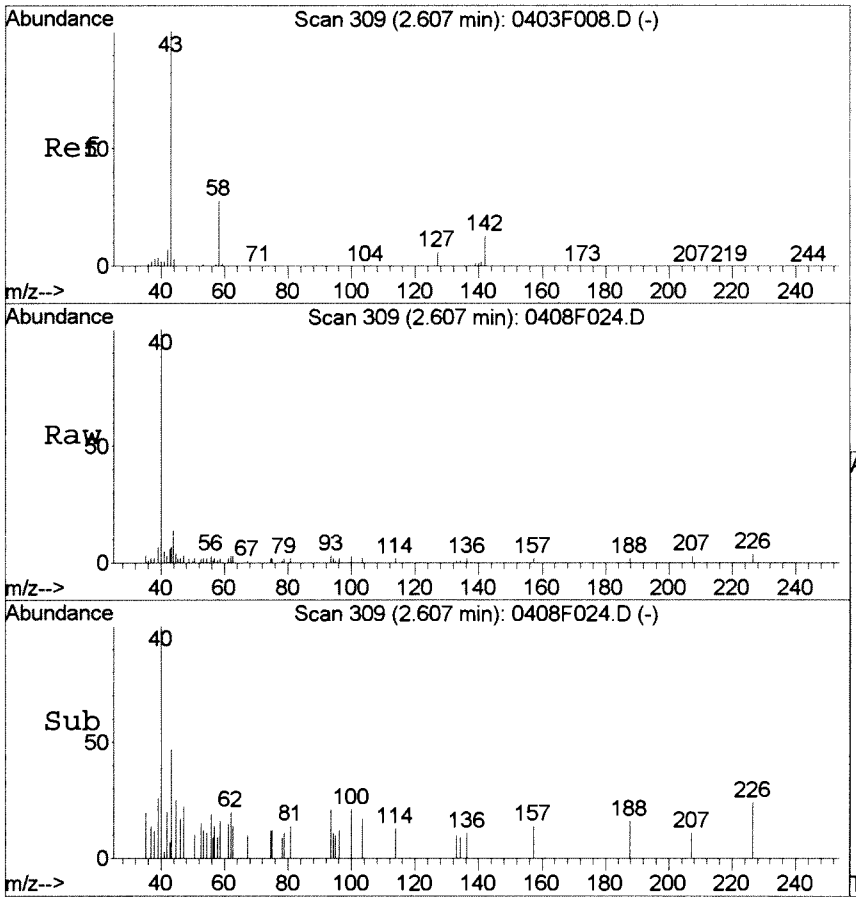


#3
Chloromethane
Concen: 0.04 PPB
RT: 1.26 min Scan# 52
Delta R.T. -0.00 min
Lab File: 0408F024.D
Acq: 08 Apr 2015 07:15 pm

Tgt Ion: 50 Resp: 973

Ion	Ratio	Lower	Upper
50	100		
52	30.4	3.0	63.0
49	13.9	0.0	40.1

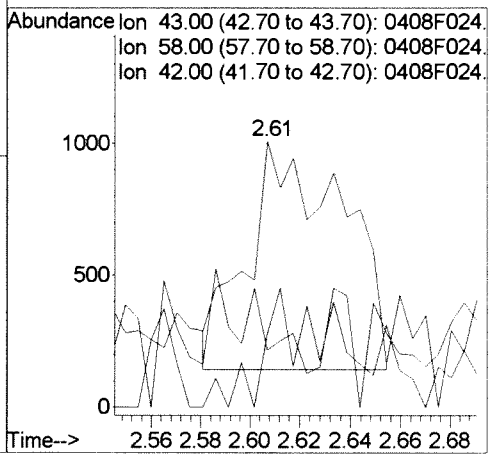


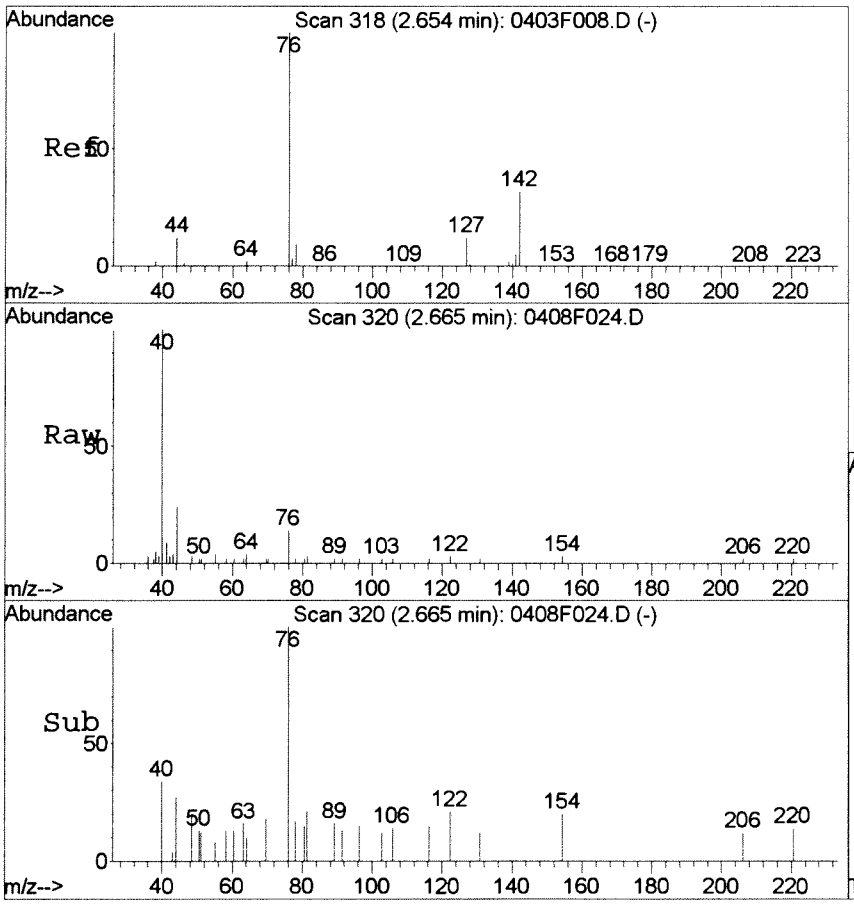


#14
Acetone
Concen: 0.98 PPB m
RT: 2.61 min Scan# 309
Delta R.T. -0.00 min
Lab File: 0408F024.D
Acq: 08 Apr 2015 07:15 pm

Tgt Ion: 43 Resp: 2294

Ion	Ratio	Lower	Upper
43	100		
58	33.8	0.0	59.5
42	41.3	0.0	37.1#

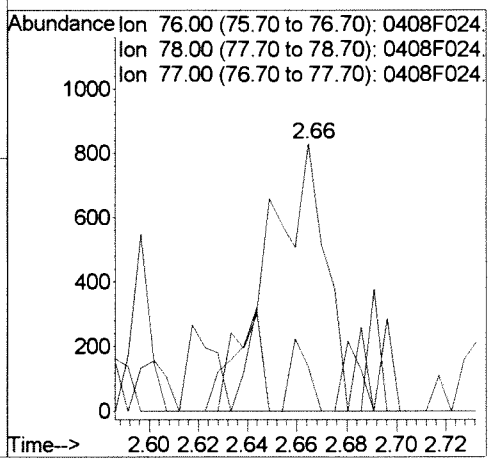


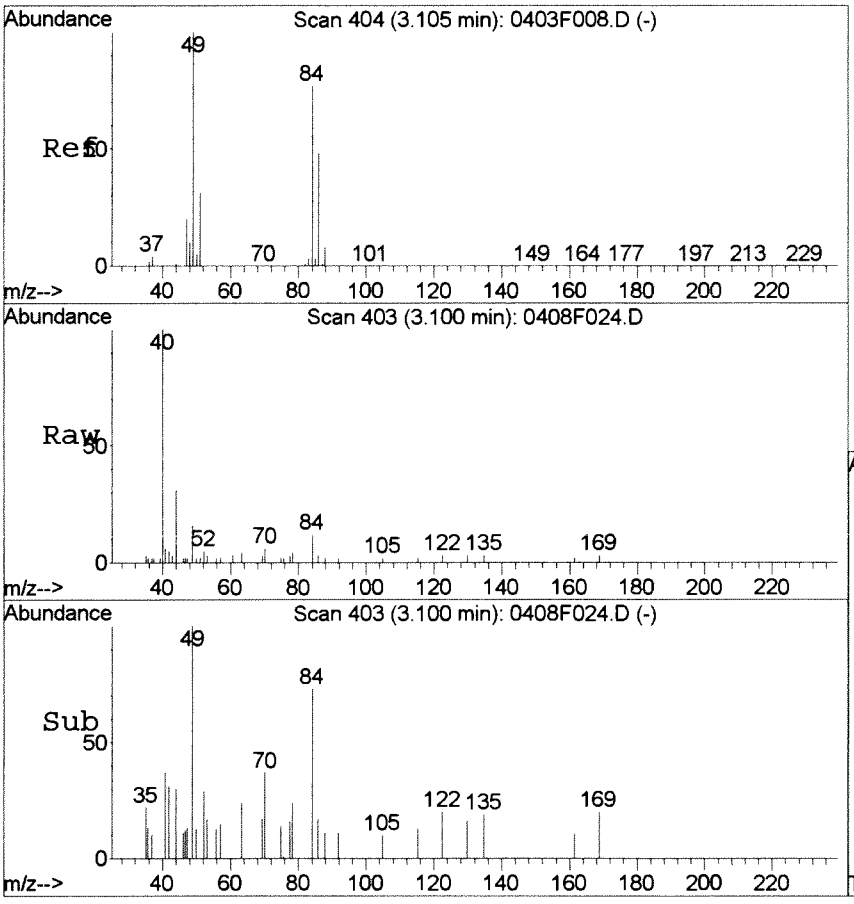


#16
Carbon Disulfide
Concen: 0.03 PPB
RT: 2.66 min Scan# 320
Delta R.T. 0.01 min
Lab File: 0408F024.D
Acq: 08 Apr 2015 07:15 pm

Tgt Ion: 76 Resp: 1402

Ion	Ratio	Lower	Upper
76	100		
78	16.5	0.0	38.4
77	0.0	0.0	32.9

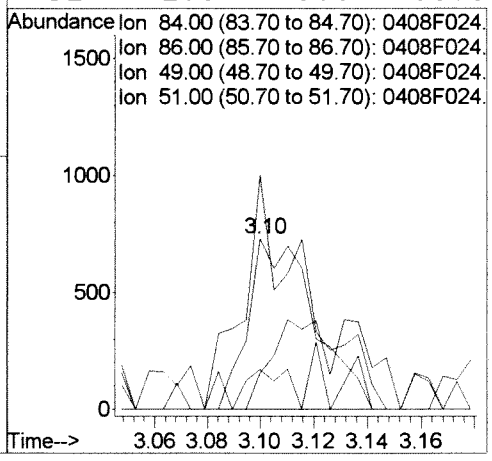


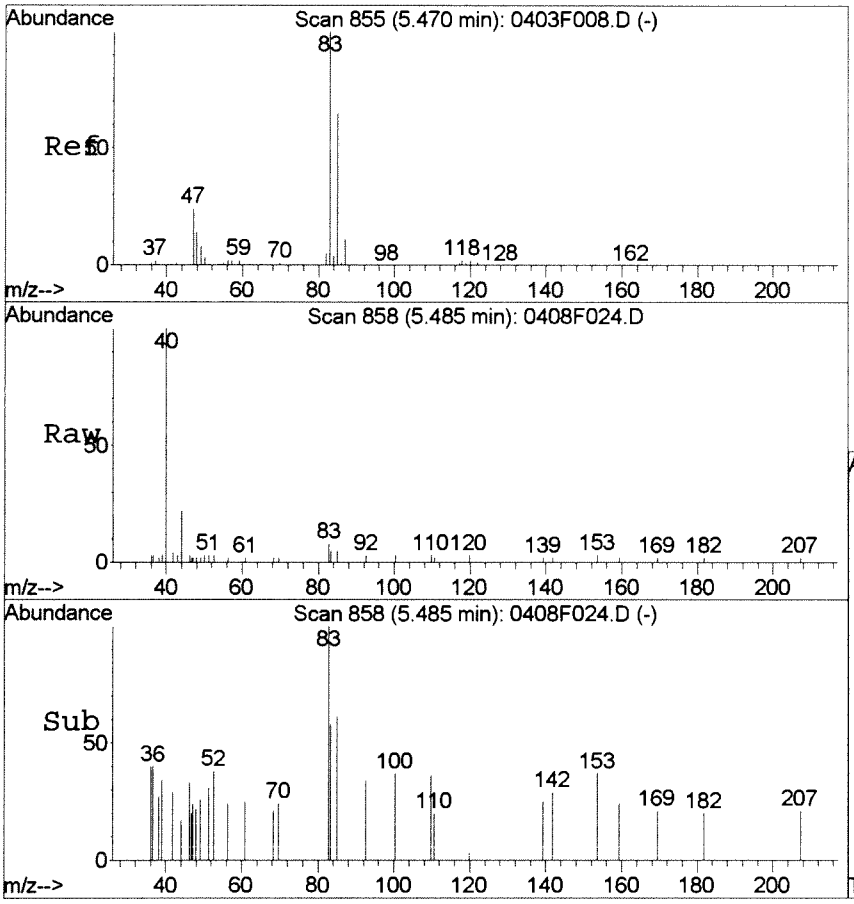


#21
Methylene Chloride
Concen: 0.07 PPB
RT: 3.10 min Scan# 403
Delta R.T. -0.01 min
Lab File: 0408F024.D
Acq: 08 Apr 2015 07:15 pm

Tgt Ion: 84 Resp: 1256

Ion	Ratio	Lower	Upper
84	100		
86	23.2	33.1	93.1#
49	137.1	99.0	159.0
51	21.0	8.0	68.0

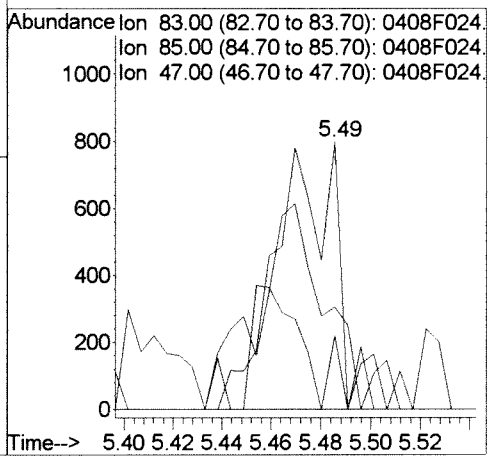


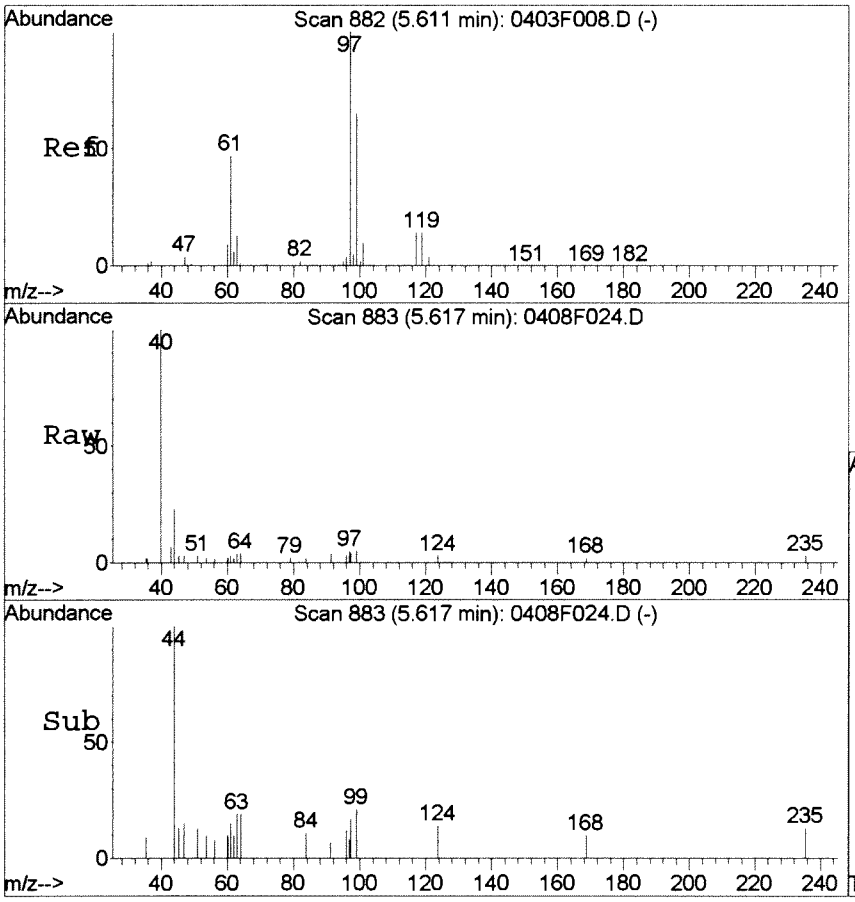


#40
Chloroform
Concen: 0.04 PPB
RT: 5.49 min Scan# 858
Delta R.T. 0.02 min
Lab File: 0408F024.D
Acq: 08 Apr 2015 07:15 pm

Tgt Ion: 83 Resp: 1318

Ion	Ratio	Lower	Upper
83	100		
85	38.2	33.1	93.1
47	27.6	0.0	54.1

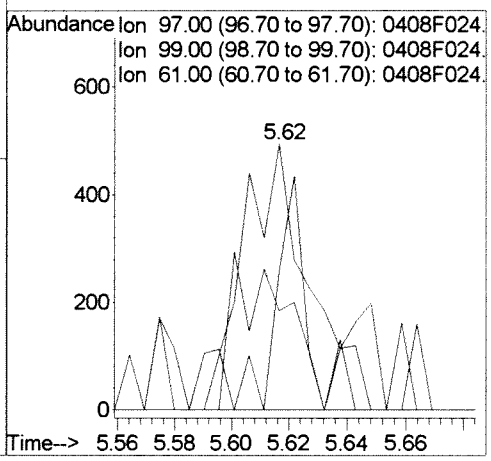


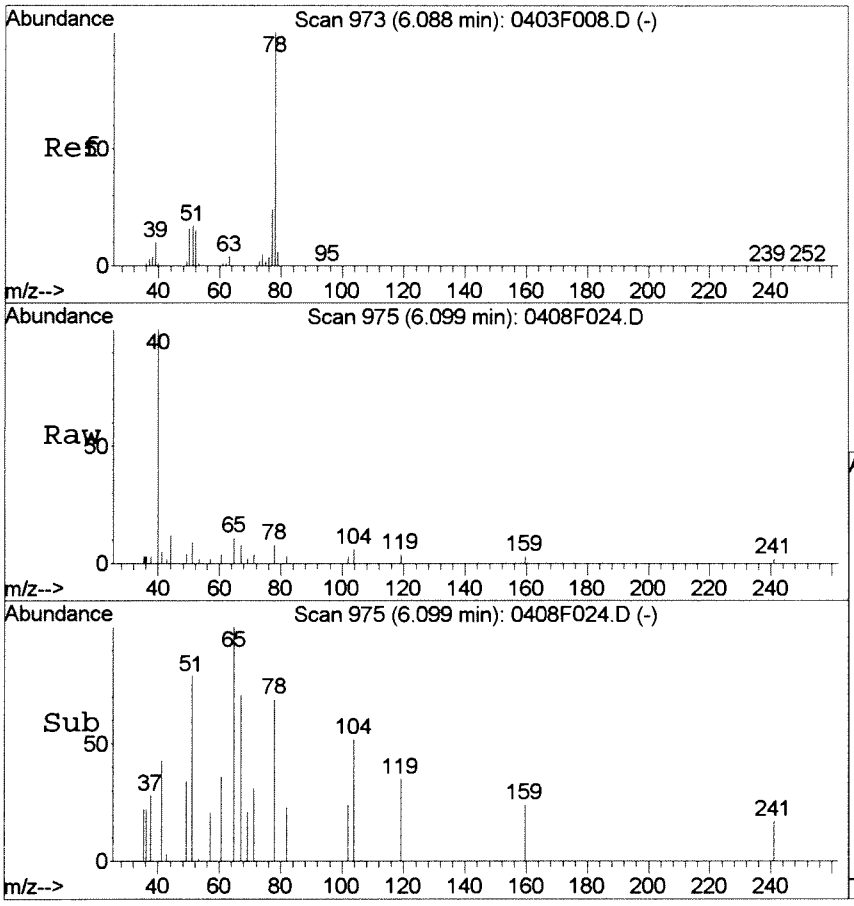


#42
1,1,1-Trichloroethane
Concen: 0.03 PPB
RT: 5.62 min Scan# 883
Delta R.T. 0.01 min
Lab File: 0408F024.D
Acq: 08 Apr 2015 07:15 pm

Tgt Ion: 97 Resp: 779

Ion	Ratio	Lower	Upper
97	100		
99	52.0	37.0	97.0
61	37.2	15.1	75.1

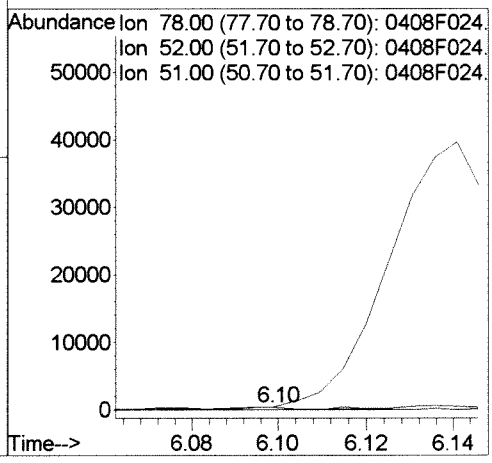


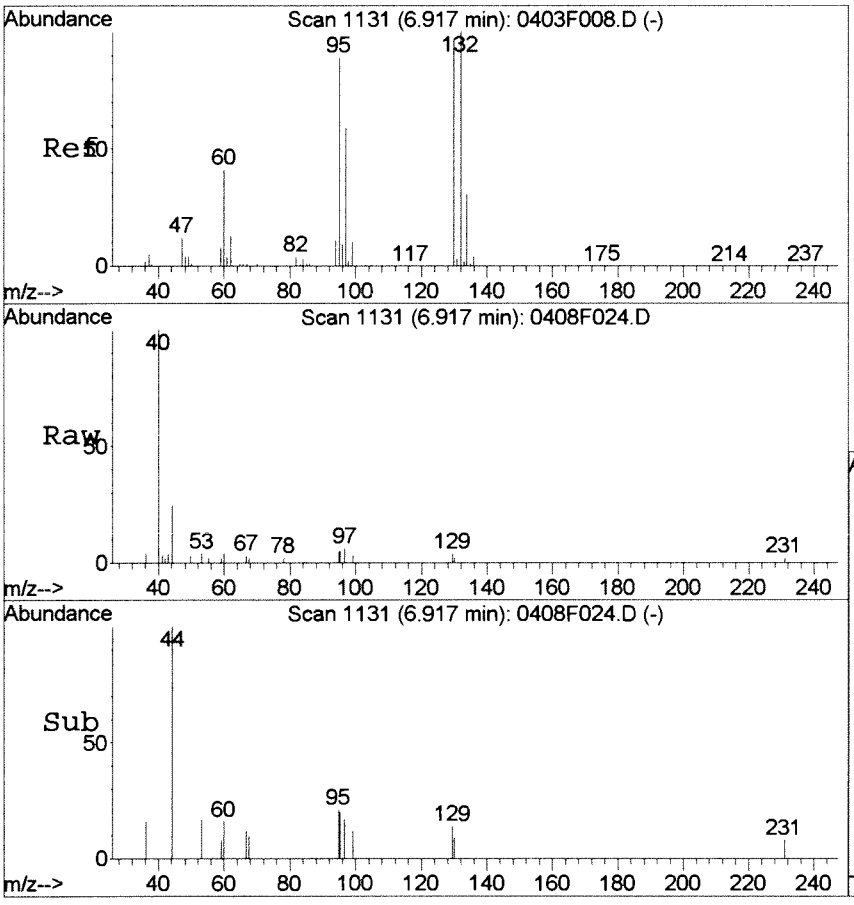


#48
Benzene
Concen: 0.01 PPB
RT: 6.10 min Scan# 975
Delta R.T. 0.01 min
Lab File: 0408F024.D
Acq: 08 Apr 2015 07:15 pm

Tgt Ion: 78 Resp: 530

Ion	Ratio	Lower	Upper
78	100		
52	0.0	0.0	46.3
51	114.4	0.0	47.5#

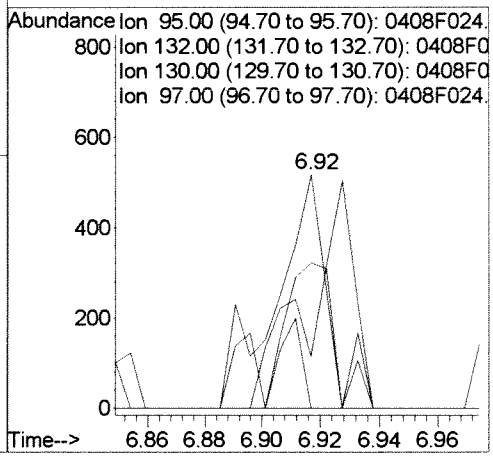


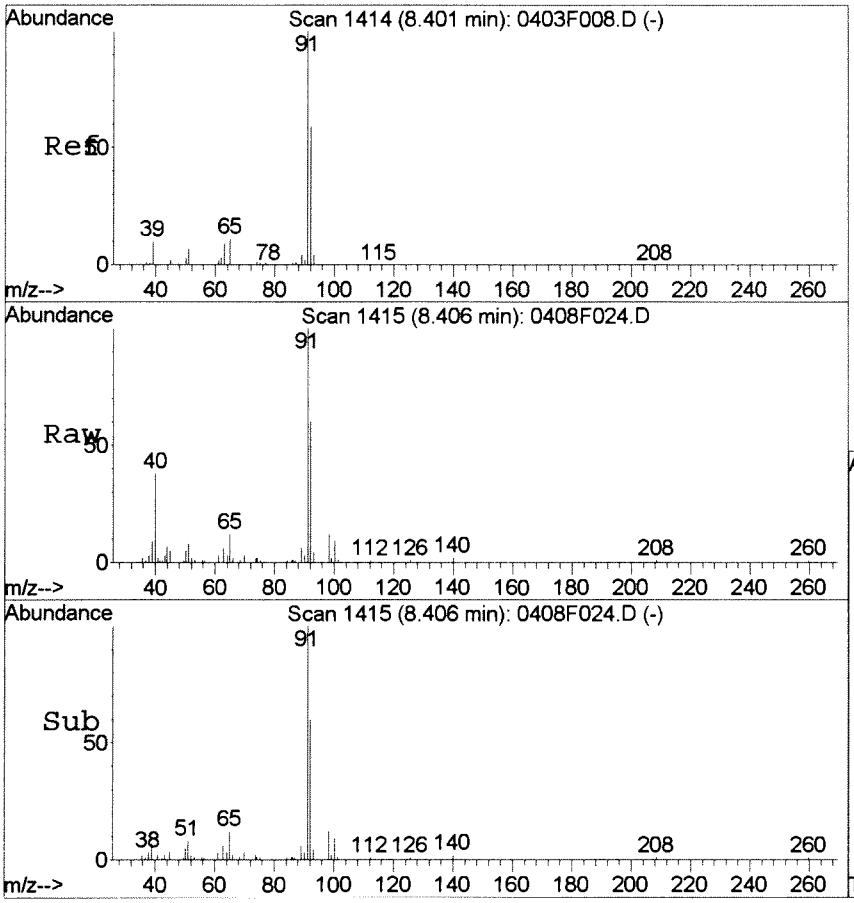


#51
Trichloroethene
Concen: 0.03 PPB
RT: 6.92 min Scan# 1131
Delta R.T. -0.00 min
Lab File: 0408F024.D
Acq: 08 Apr 2015 07:15 pm

Tgt Ion: 95 Resp: 627

Ion	Ratio	Lower	Upper
95	100		
132	0.0	72.9	132.9#
130	22.0	81.4	141.4#
97	62.2	32.1	92.1

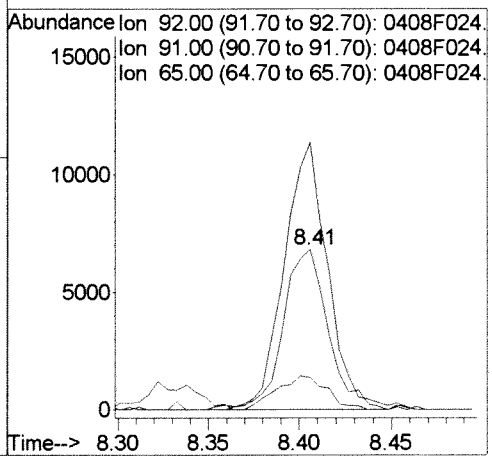




#63
Toluene
Concen: 0.26 PPB
RT: 8.41 min Scan# 1415
Delta R.T. 0.01 min
Lab File: 0408F024.D
Acq: 08 Apr 2015 07:15 pm

Tgt Ion: 92 Resp: 11633

Ion	Ratio	Lower	Upper
92	100		
91	166.2	139.2	199.2
65	20.0	0.0	50.2



Exception Report

Data File: J:\MS46\DATA\040815X\0408F025.D
Lab ID: K1503171-008
RunType: SMPL
Matrix: WATER

Date Acquired: 04/08/2015 19:38
Date Quantitated: 04/09/2015 14:55
Batch ID: KWG1503030
Analysis Method: 8260C
ListJoinID: LJ1423

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Duplicate Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 4/9/15

Secondary Review: 4.10.15

Printed: 04/09/2015 15:37:17
u:\Stealth\Crystal.rpt\except2.rpt

Page 1 of 1
04.10.15jal2ndRev

Quantitation Report

Data File:	J:\MS46\DATA\040815X\0408F025.D			**Instrument:**	GCMS46
Acqu Date:	04/08/2015 19:38	**Quant Date:**	04/09/2015 14:55	**Vial:**	25
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1503171-008			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	03/26/2015	**Receive Date:**	03/27/2015

Analysis Lot:	KWG1503030	**Prep Lot:**	kwg1503029	**Report Group:**	K1503171
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1426071	**Prep Date:**	04/08/2015		

Quant Method:	J:\MS46\METHODS\031615MS46_8	**Calibration ID:**	CAL13899
Title:	Volatile Organic Compounds	**Report List ID:**	LJ1423
Tune Ref:	J:\MS46\DATA\040815X\0408F003.D	**Method ID:**	MJ119
MB Ref:	J:\MS46\DATA\040815X\0408F011.D	**Quant based on Report List**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	6.49	0.00	96	700744	10.00	OK
2	Chlorobenzene-d5	9.96	0.00	82	286229	10.00	OK
3	1,4-Dichlorobenzene-d4	12.53	0.00	152	279493	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.69	0.00	0.00	113	183760	11.93	119	73-122	OK	
1	Toluene-d8	8.33	0.00	0.00	98	668678	11.26	113	65-144	OK	
2	4-Bromofluorobenzene	11.26	-0.01	0.00	95	238064	10.74	107	68-117	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Tetrachloride	5.77		0.00	117	7303	0.2900	0.29	J	

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\040815X\0408F025.D Vial: 25
Acq On : 08 Apr 2015 07:38 pm Operator: KR
Sample : K3171-008 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 09 07:58:13 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	6.49	96	700744	10.00	PPB		0.00
64) Chlorobenzene-d5	9.96	82	286229	10.00	PPB		0.00
85) 1,4-Dichlorobenzene-d4	12.53	152	279493	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.69	113	183760	11.93	PPB		0.00
Spiked Amount 10.000			Recovery =	119.30%			
47) 1,2-Dichloroethane-d4	6.14	65	209210	12.87	PPB		0.00
Spiked Amount 10.000			Recovery =	128.70%			
62) Toluene-d8	8.33	98	668678	11.26	PPB		0.00
Spiked Amount 10.000			Recovery =	112.60%			
84) 4-Bromofluorobenzene	11.26	95	238064	10.74	PPB		0.00
Spiked Amount 10.000			Recovery =	107.40%			
Target Compounds							Qvalue
14) Acetone	2.62	43	2598	1.12	PPB		81
21) Methylene Chloride	3.12	84	999	0.06	PPB	#	33
40) Chloroform	5.46	83	2738	0.09	PPB		81
42) 1,1,1-Trichloroethane	5.61	97	1443	0.05	PPB		85
44) Carbon Tetrachloride	5.77	117	7303	0.29	PPB		91
63) Toluene	8.41	92	7071	0.16	PPB		97
74) 1-Chlorohexane	9.95	91	1345	0.05	PPB		69

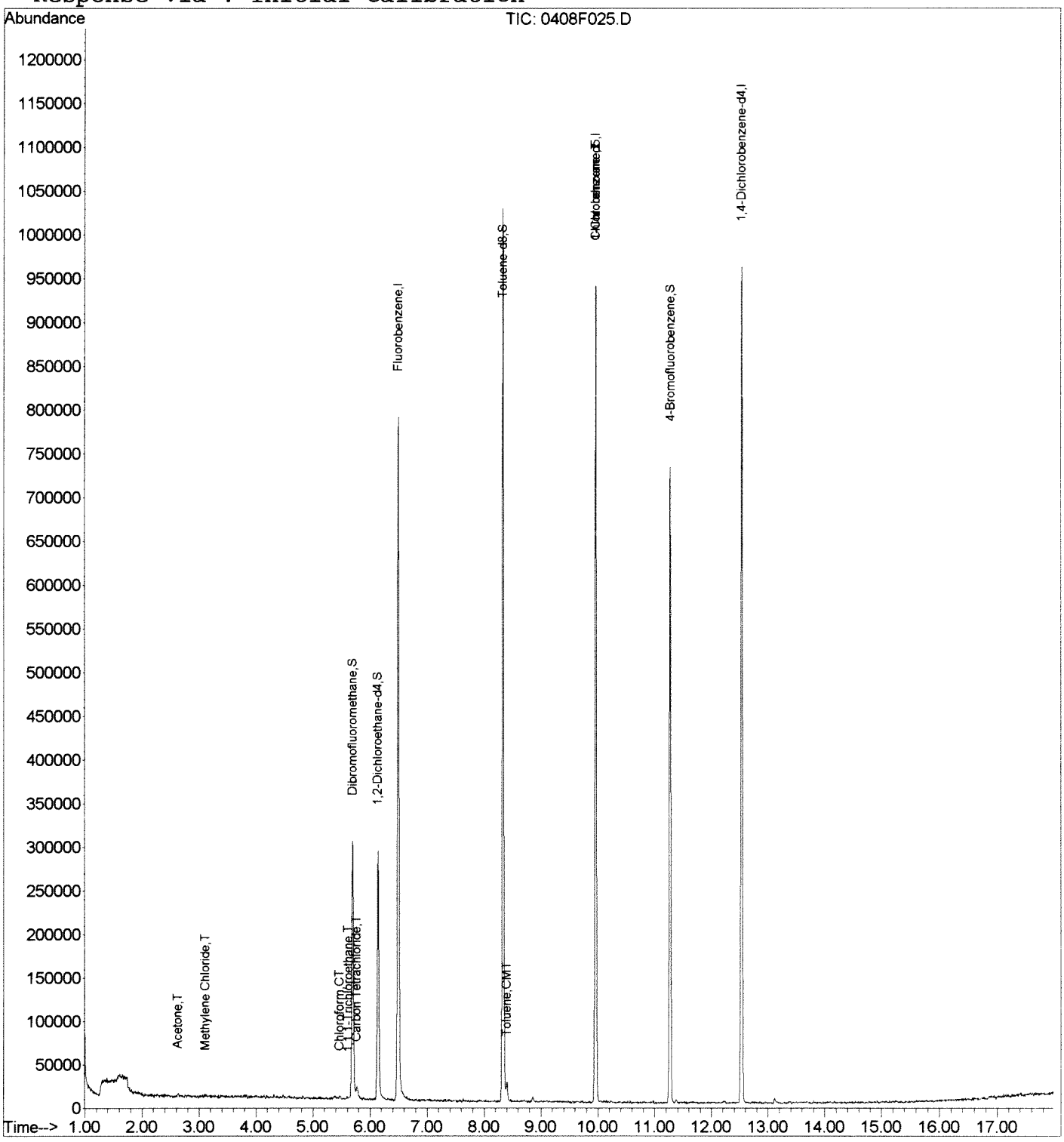
(#) = qualifier out of range (m) = manual integration

04.10.15jal2nd Rev

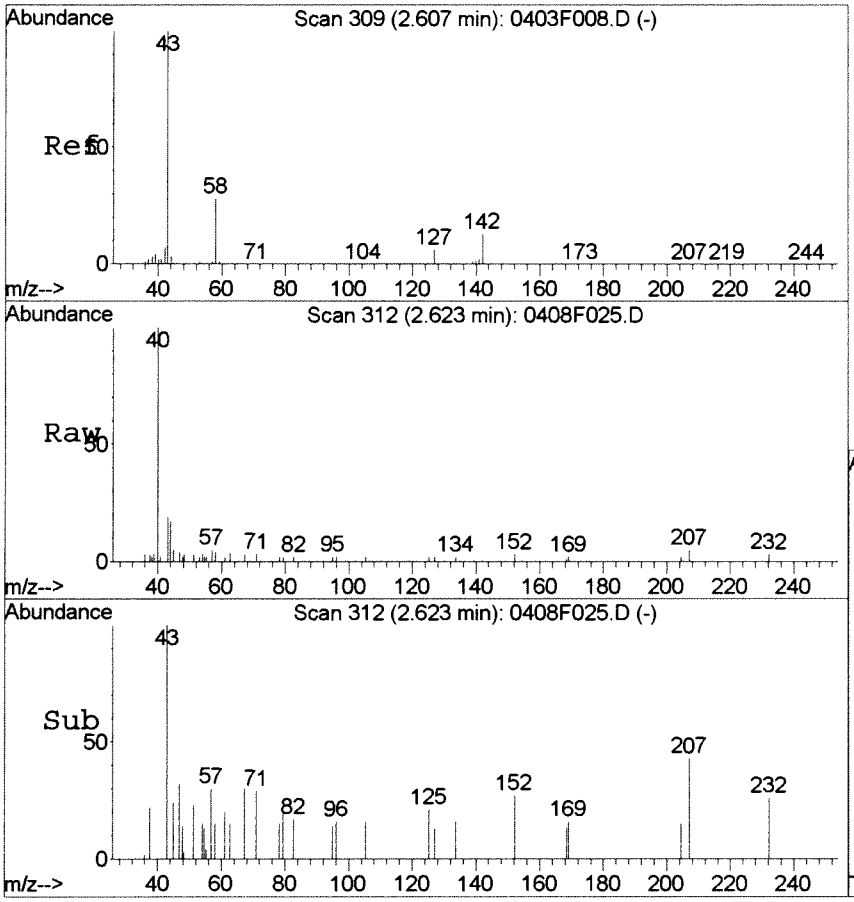
Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\040815X\0408F025.D Vial: 25
Acq On : 08 Apr 2015 07:38 pm Operator: KR
Sample : K3171-008 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 9 14:55 2015 Quant Results File: 031615MS46_8

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Initial Calibration



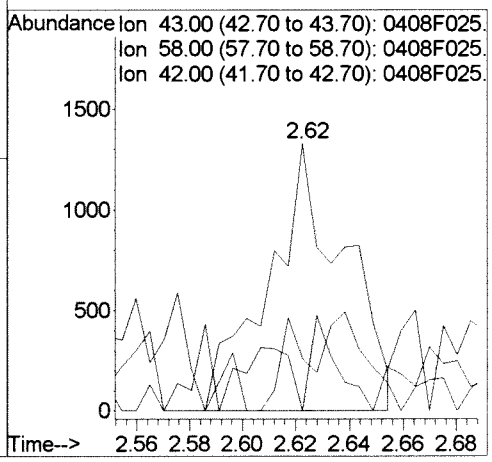
04.10.15jal2nd Rev

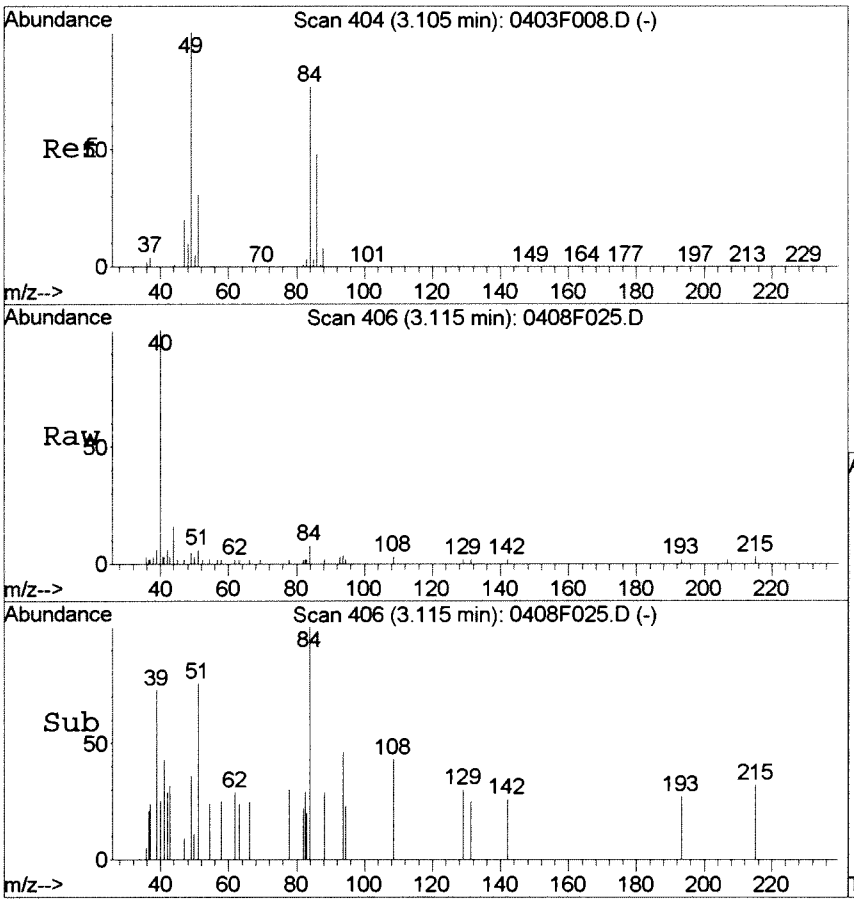


#14
Acetone
Concen: 1.12 PPB
RT: 2.62 min Scan# 312
Delta R.T. 0.01 min
Lab File: 0408F025.D
Acq: 08 Apr 2015 07:38 pm

Tgt Ion: 43 Resp: 2598

Ion	Ratio	Lower	Upper
43	100		
58	19.5	0.0	59.5
42	0.0	0.0	37.1

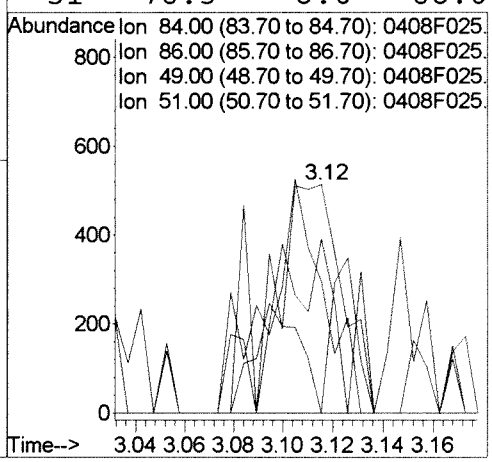


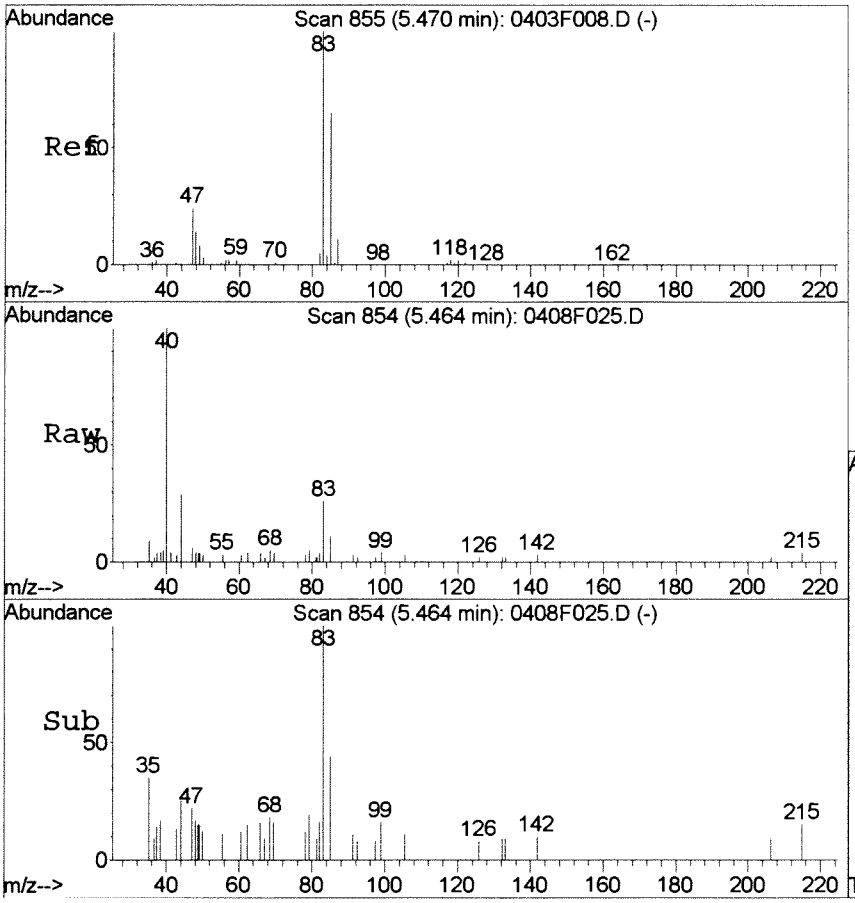


#21
Methylene Chloride
Concen: 0.06 PPB
RT: 3.12 min Scan# 406
Delta R.T. 0.01 min
Lab File: 0408F025.D
Acq: 08 Apr 2015 07:38 pm

Tgt Ion: 84 Resp: 999

Ion	Ratio	Lower	Upper
84	100		
86	0.0	33.1	93.1#
49	57.4	99.0	159.0#
51	76.3	8.0	68.0#

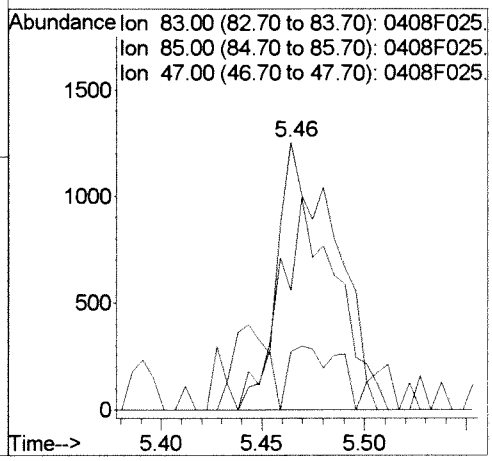


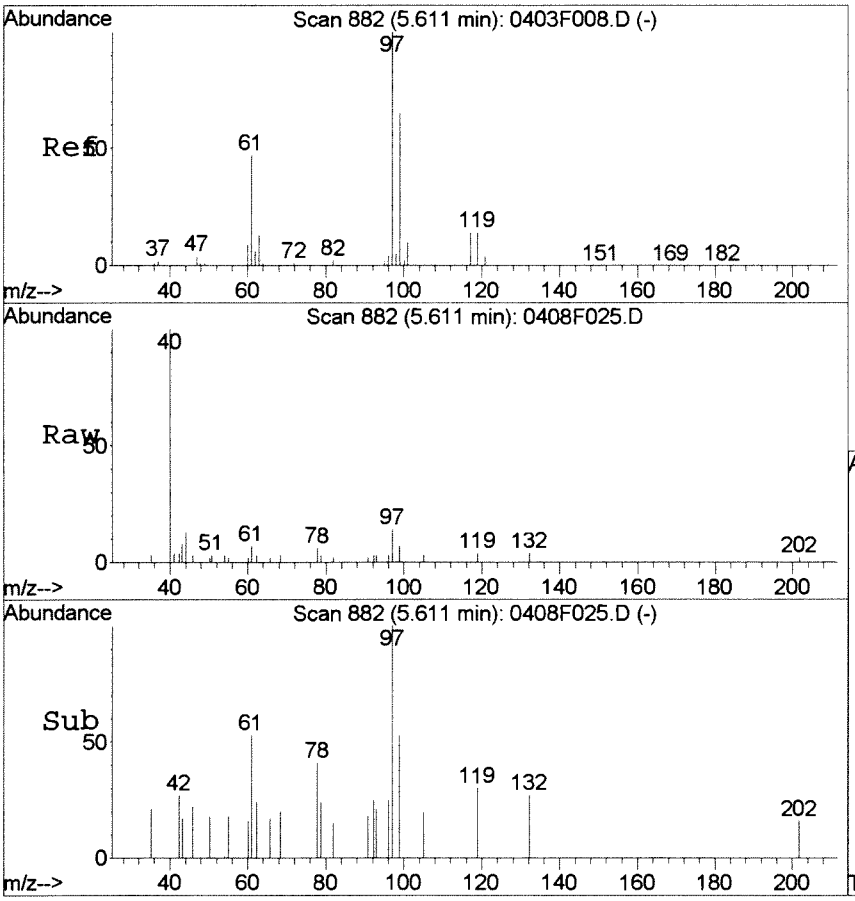


#40
Chloroform
Concen: 0.09 PPB
RT: 5.46 min Scan# 854
Delta R.T. -0.01 min
Lab File: 0408F025.D
Acq: 08 Apr 2015 07:38 pm

Tgt Ion: 83 Resp: 2738

Ion	Ratio	Lower	Upper
83	100		
85	44.3	33.1	93.1
47	21.7	0.0	54.1

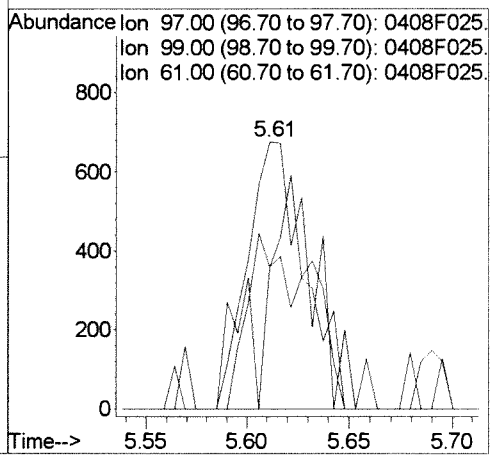


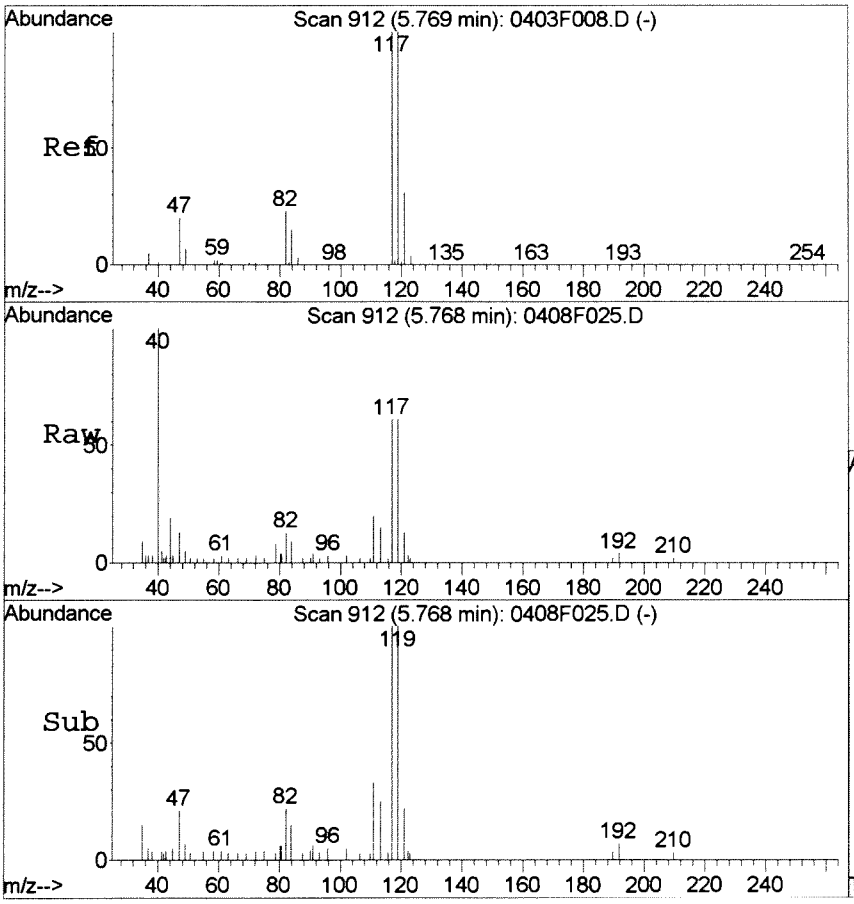


#42
1,1,1-Trichloroethane
Concen: 0.05 PPB
RT: 5.61 min Scan# 882
Delta R.T. -0.00 min
Lab File: 0408F025.D
Acq: 08 Apr 2015 07:38 pm

Tgt Ion: 97 Resp: 1443

Ion	Ratio	Lower	Upper
97	100		
99	53.0	37.0	97.0
61	53.3	15.1	75.1

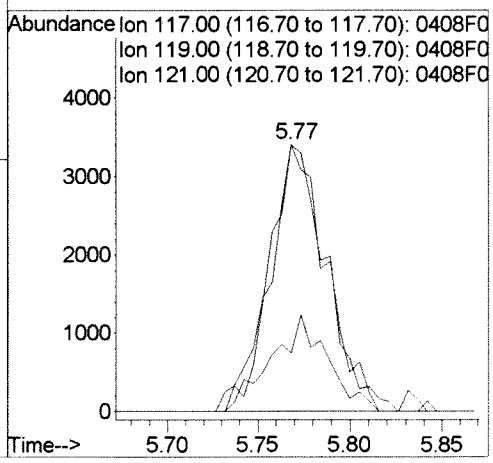


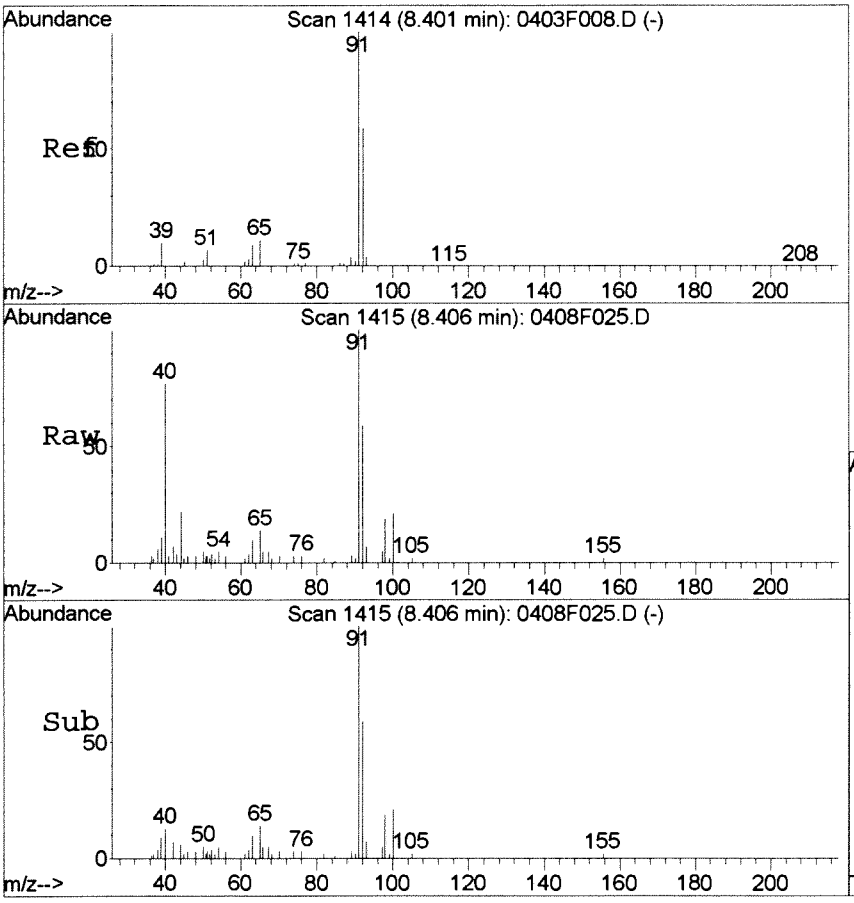


#44
Carbon Tetrachloride
Concen: 0.29 PPB
RT: 5.77 min Scan# 912
Delta R.T. -0.00 min
Lab File: 0408F025.D
Acq: 08 Apr 2015 07:38 pm

Tgt Ion:117 Resp: 7303

Ion	Ratio	Lower	Upper
117	100		
119	99.7	63.3	123.3
121	21.9	0.2	60.2

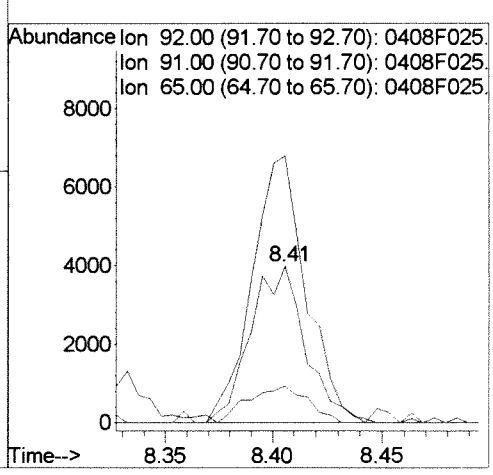


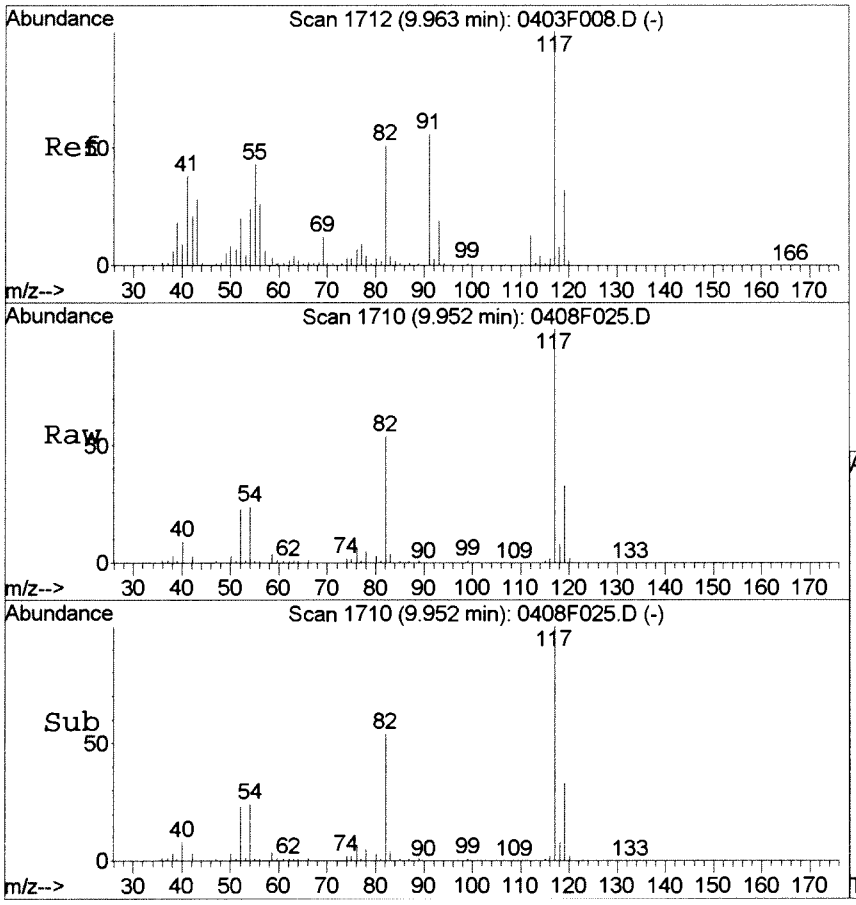


#63
Toluene
Concen: 0.16 PPB
RT: 8.41 min Scan# 1415
Delta R.T. 0.01 min
Lab File: 0408F025.D
Acq: 08 Apr 2015 07:38 pm

Tgt Ion: 92 Resp: 7071

Ion	Ratio	Lower	Upper
92	100		
91	170.4	139.2	199.2
65	31.4	0.0	50.2

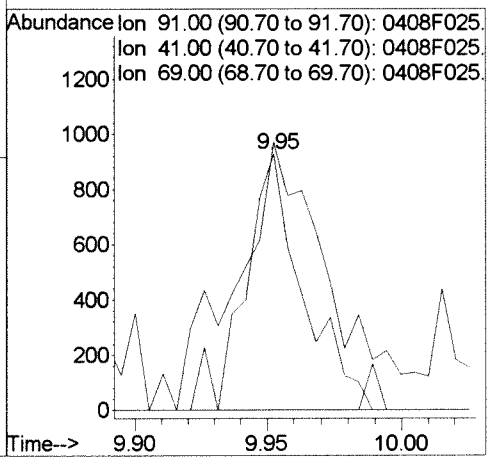




#74
1-Chlorohexane
Concen: 0.05 PPB
RT: 9.95 min Scan# 1710
Delta R.T. -0.01 min
Lab File: 0408F025.D
Acq: 08 Apr 2015 07:38 pm

Tgt Ion: 91 Resp: 1345

Ion	Ratio	Lower	Upper
91	100		
41	81.4	31.8	91.8
69	0.0	0.0	51.3



Exception Report

Data File: J:\MS46\DATA\040315\0403F024.D
Lab ID: K1503171-009
RunType: SMPL
Matrix: WATER

Date Acquired: 04/03/2015 17:44
Date Quantitated: 04/09/2015 08:38
Batch ID: KWG1502843
Analysis Method: 8260C
ListJoinID: LJ1423

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Duplicate Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 4/14/15

Secondary Review: 4/15/15

Quantitation Report

Data File:	J:\MS46\DATA\040315\0403F024.D			**Instrument:**	GCMS46
Acqu Date:	04/03/2015 17:44	**Quant Date:**	04/09/2015 08:38	**Vial:**	16
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1503171-009			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	03/25/2015	**Receive Date:**	03/27/2015

Analysis Lot:	KWG1502843	**Prep Lot:**	KWG1502844	**Report Group:**	K1503171
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1424887	**Prep Date:**	04/03/2015		

Quant Method:	J:\MS46\METHODS\031615MS46_8	**Calibration ID:**	CAL13899
Title:	Volatile Organic Compounds	**Report List ID:**	LJ1423
Tune Ref:	J:\MS46\DATA\040315\0403F007.D	**Method ID:**	MJ119
MB Ref:	J:\MS46\DATA\040315\0403F017.D	**Quant based on Report List**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	6.49	0.00	96	729115	10.00	OK
2	Chlorobenzene-d5	9.96	0.01	82	289185	10.00	OK
3	1,4-Dichlorobenzene-d4	12.53	0.00	152	283468	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.70	0.01	0.00	113	186146	11.62	116	73-122	OK	
1	Toluene-d8	8.33	0.00	0.00	98	684990	11.09	111	65-144	OK	
2	4-Bromofluorobenzene	11.26	-0.01	0.00	95	242515	10.83	108	68-117	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Tetrachloride	5.77		0.00	117	16702	0.6400	0.64		

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\040315\0403F024.D Vial: 16
Acq On : 03 Apr 2015 05:44 pm Operator: KR
Sample : K3171-009 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 09 08:37:06 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	6.49	96	729115	10.00	PPB		0.00
64) Chlorobenzene-d5	9.96	82	289185	10.00	PPB		0.00
85) 1,4-Dichlorobenzene-d4	12.53	152	283468	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.70	113	186146	11.62	PPB		0.00
Spiked Amount 10.000			Recovery =	116.20%			
47) 1,2-Dichloroethane-d4	6.14	65	216720	12.81	PPB		0.00
Spiked Amount 10.000			Recovery =	128.10%			
62) Toluene-d8	8.33	98	684990	11.09	PPB		0.00
Spiked Amount 10.000			Recovery =	110.90%			
84) 4-Bromofluorobenzene	11.26	95	242515	10.83	PPB		0.00
Spiked Amount 10.000			Recovery =	108.30%			
Target Compounds							Qvalue
14) Acetone	2.63	43	1618m	0.67	PPB		
16) Carbon Disulfide	2.65	76	2294	0.04	PPB		77
21) Methylene Chloride	3.11	84	685	0.04	PPB	#	51
40) Chloroform	5.48	83	2179	0.07	PPB		86
42) 1,1,1-Trichloroethane	5.61	97	586	0.02	PPB		90
44) Carbon Tetrachloride	5.77	117	16702	0.64	PPB		97
51) Trichloroethene	6.91	95	1073	0.06	PPB	#	63
63) Toluene	8.40	92	11597	0.25	PPB		83

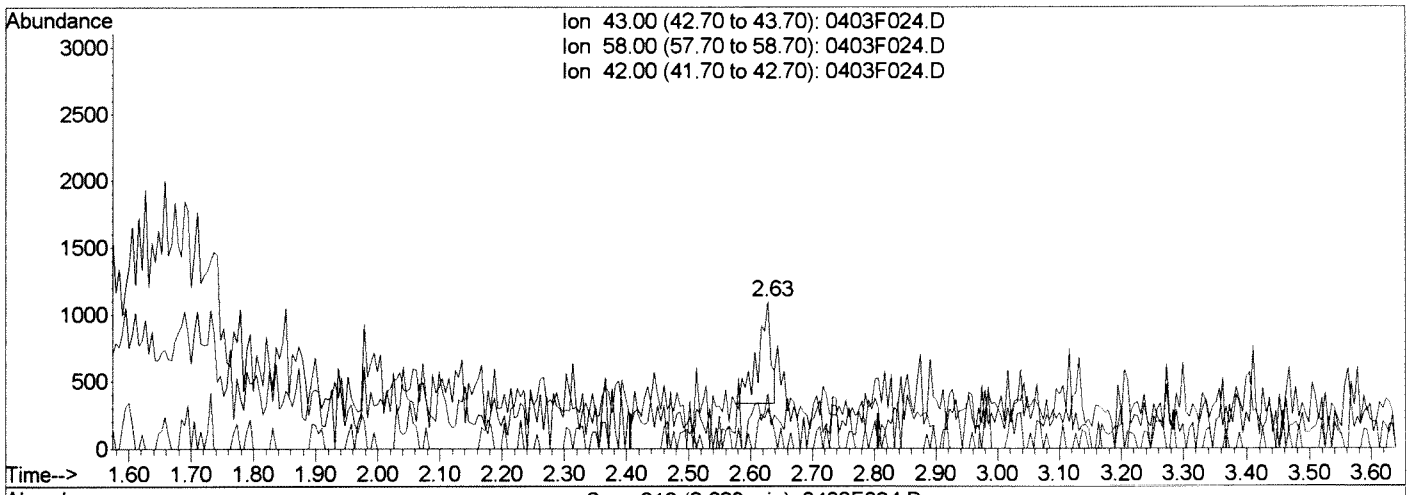
(#) = qualifier out of range (m) = manual integration
0403F024.D 031615MS46_8260.M Thu Apr 09 08:38:43 2015 Page 1

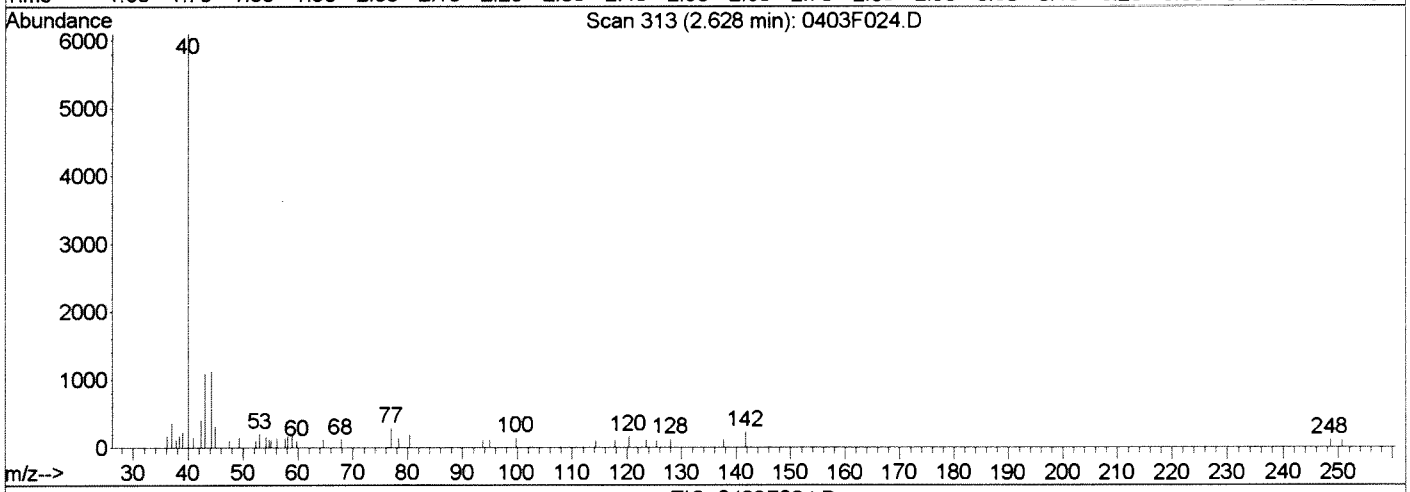
04.09.15jal2ndRev

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\040315\0403F024.D Vial: 16
Acq On : 03 Apr 2015 05:44 pm Operator: KR
Sample : K3171-009 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 9 8:37 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Multiple Level Calibration





TIC: 0403F024.D

(14) Acetone (T)

2.63min 0.45PPB

response 1095

Ion	Exp%	Act%
43.00	100	100
58.00	29.50	38.92
42.00	7.10	38.79#
0.00	0.00	0.00

Manual Integration:

Before

04/09/15

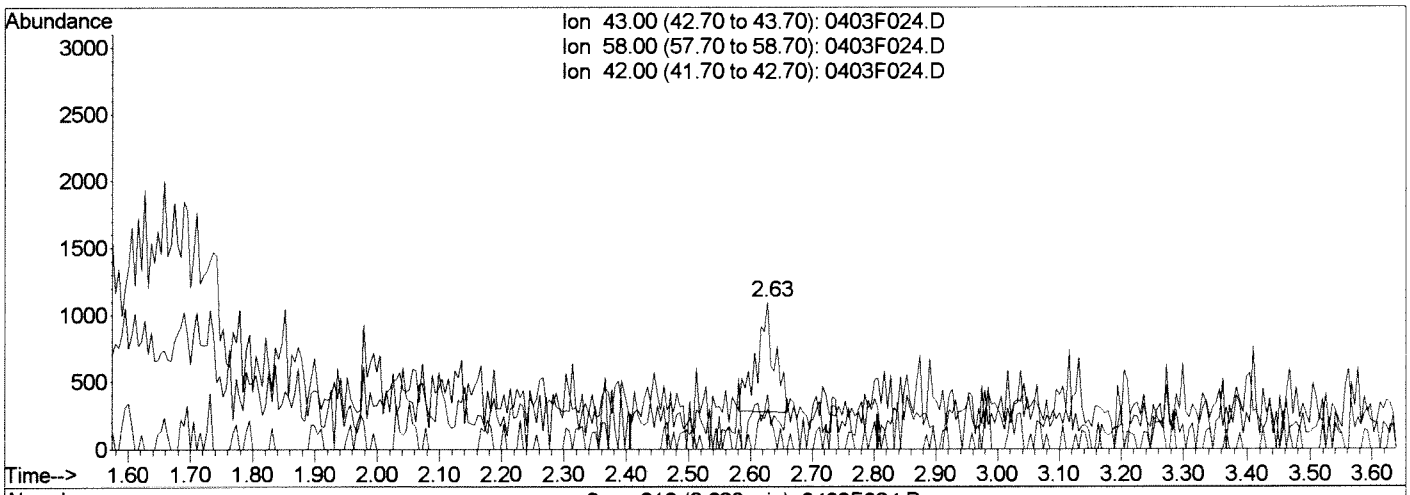
0403F024.D 031615MS46_8260.M Thu Apr 09 08:37:31 2015

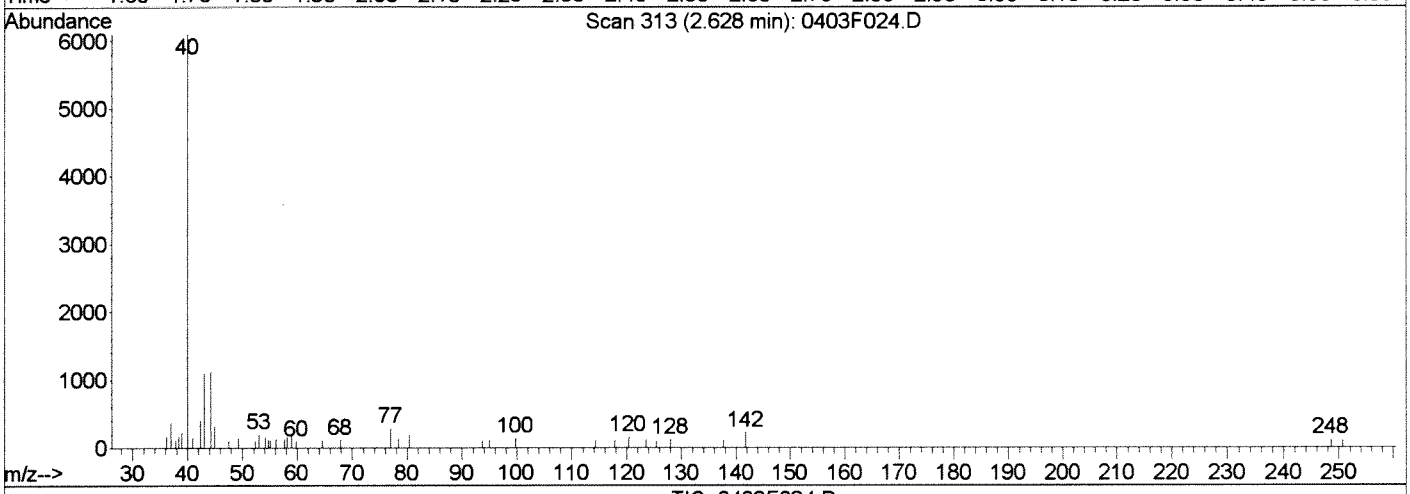
04.09.15jal2nd Rev

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\040315\0403F024.D Vial: 16
Acq On : 03 Apr 2015 05:44 pm Operator: KR
Sample : K3171-009 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 9 8:37 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Multiple Level Calibration





TIC: 0403F024.D

(14) Acetone (T)
2.63min 0.67PPB m
response 1618

Ion	Exp%	Act%
43.00	100	100
58.00	29.50	14.44
42.00	7.10	37.29#
0.00	0.00	0.00

Manual Integration:
After
Baseline correction
04/09/15

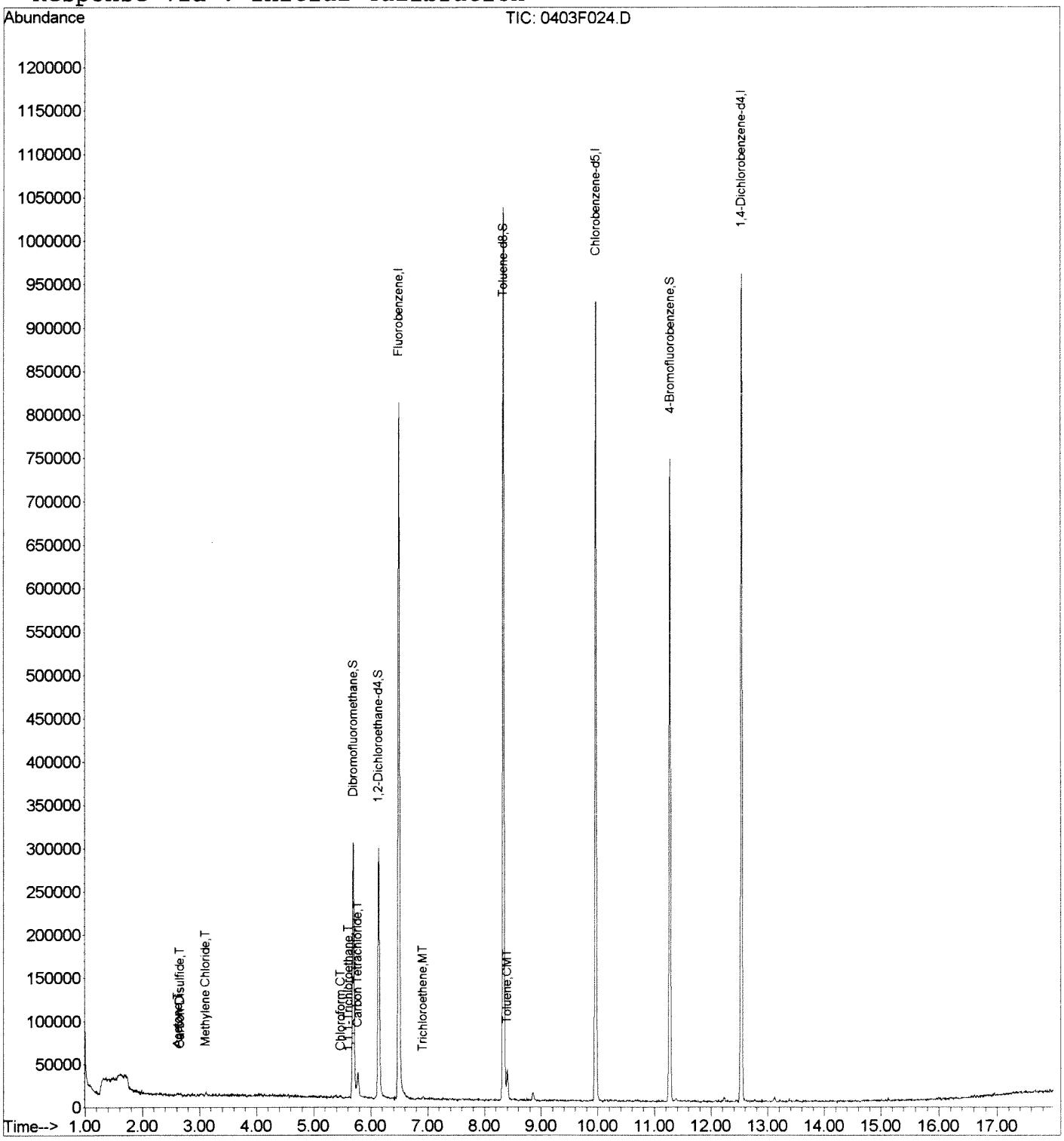
0403F024.D 031615MS46_8260.M Thu Apr 09 08:37:39 2015

04.09.15jal2nd Rev

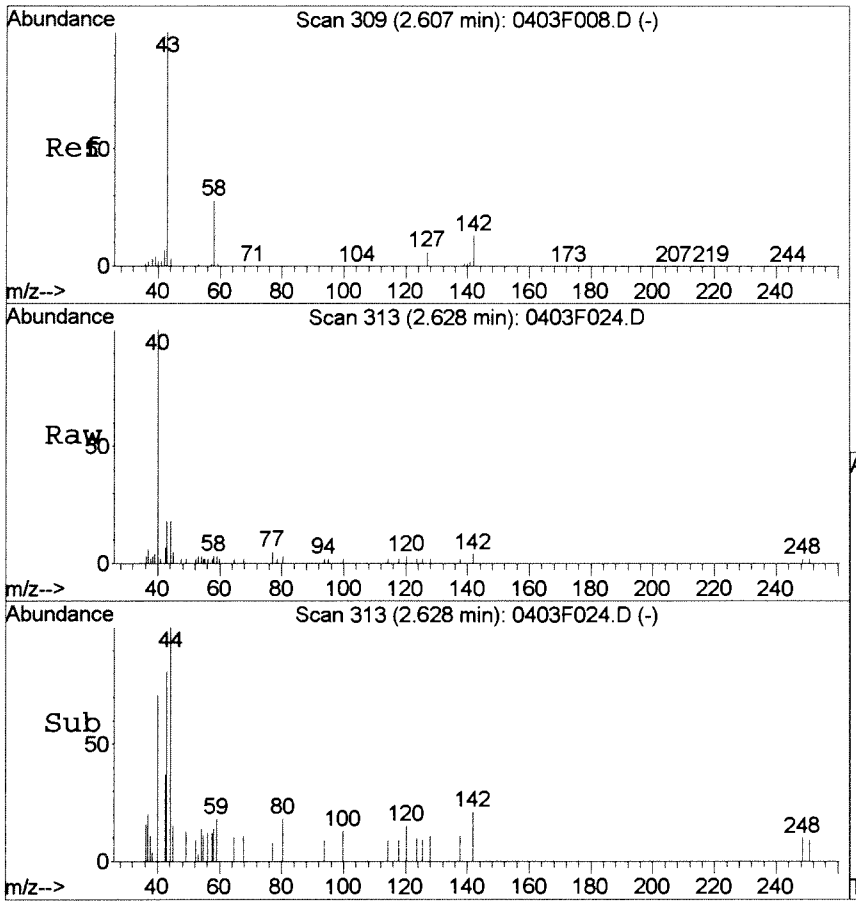
Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\040315\0403F024.D Vial: 16
Acq On : 03 Apr 2015 05:44 pm Operator: KR
Sample : K3171-009 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 9 8:38 2015 Quant Results File: 031615MS46_8

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Initial Calibration



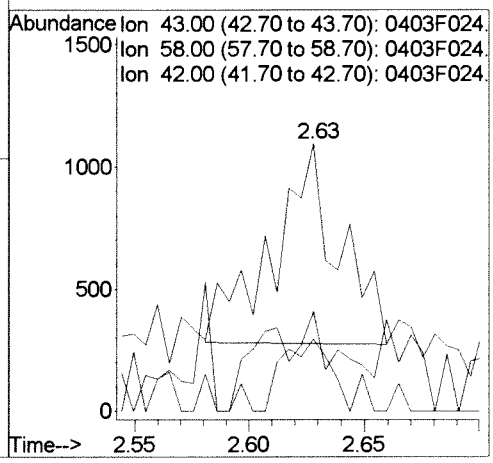
04.09.15jal2nd Rev

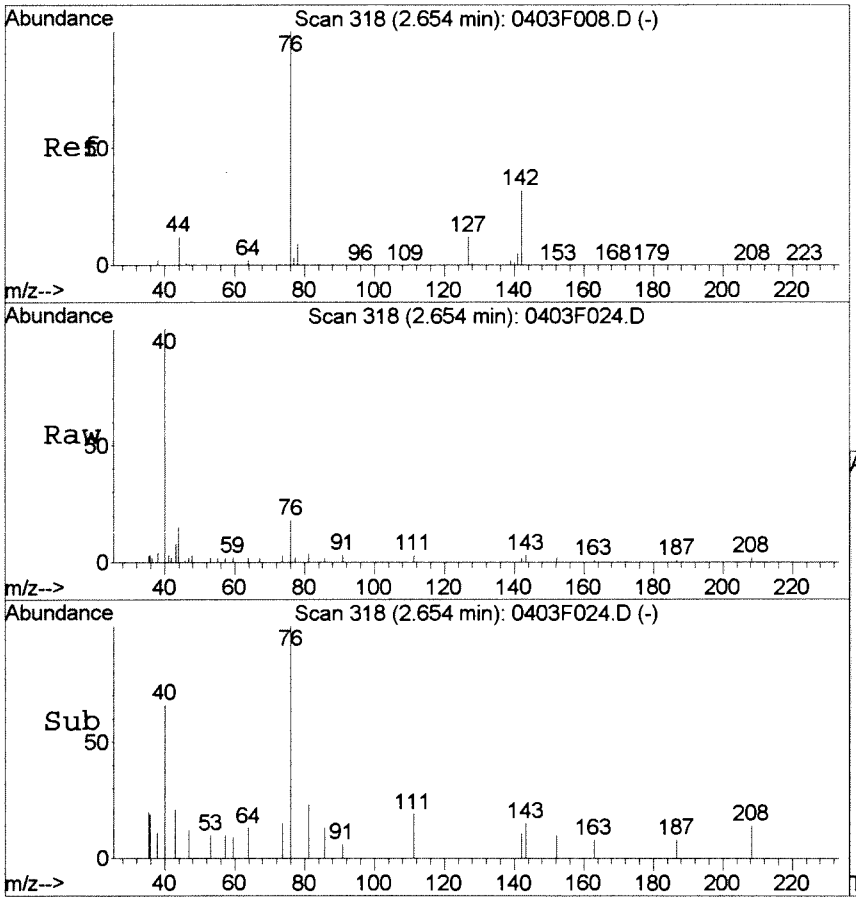


#14
Acetone
Concen: 0.67 PPB m
RT: 2.63 min Scan# 313
Delta R.T. 0.02 min
Lab File: 0403F024.D
Acq: 03 Apr 2015 05:44 pm

Tgt Ion: 43 Resp: 1618

Ion	Ratio	Lower	Upper
43	100		
58	14.4	0.0	59.5
42	37.3	0.0	37.1#

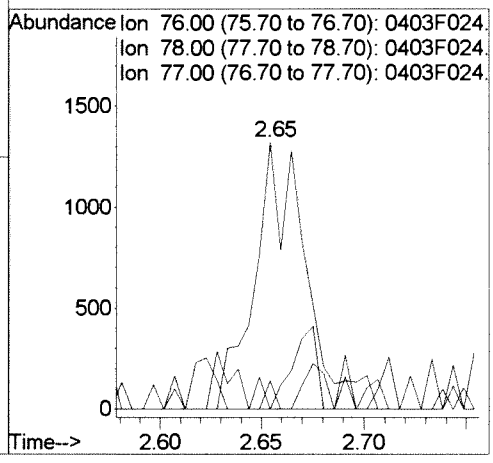


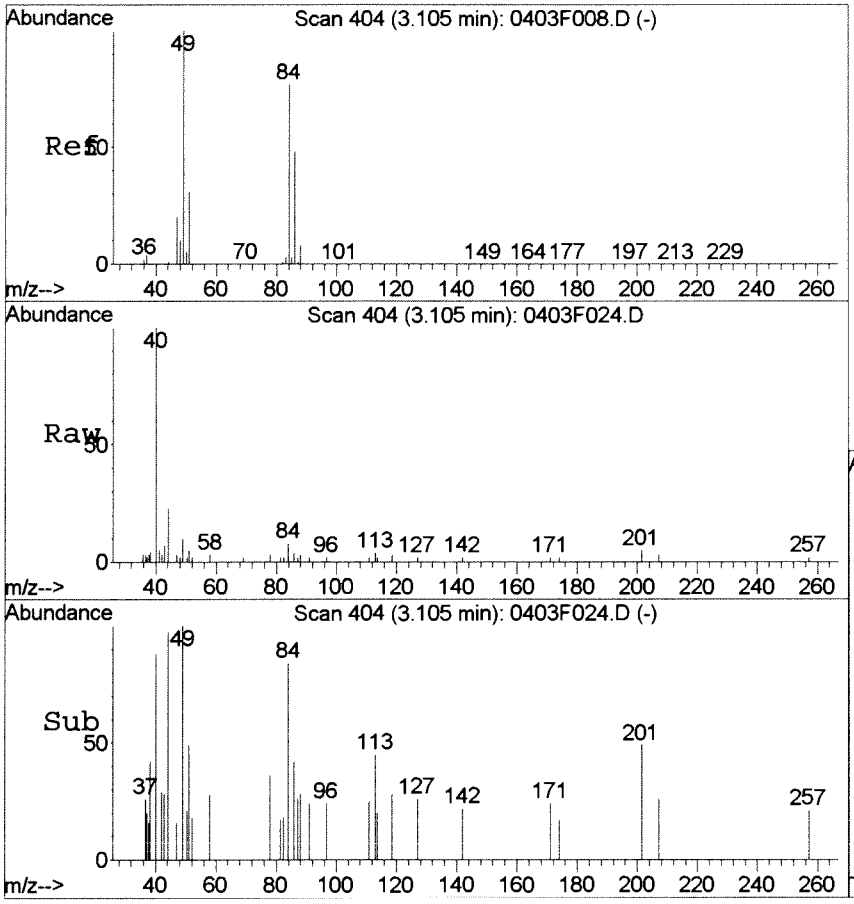


#16
Carbon Disulfide
Concen: 0.04 PPB
RT: 2.65 min Scan# 318
Delta R.T. 0.00 min
Lab File: 0403F024.D
Acq: 03 Apr 2015 05:44 pm

Tgt Ion: 76 Resp: 2294

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	38.4
77	10.7	0.0	32.9

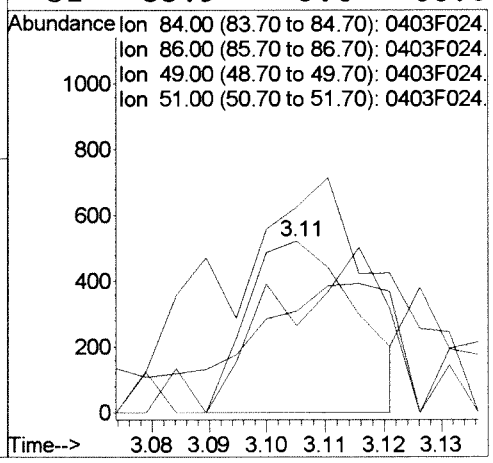


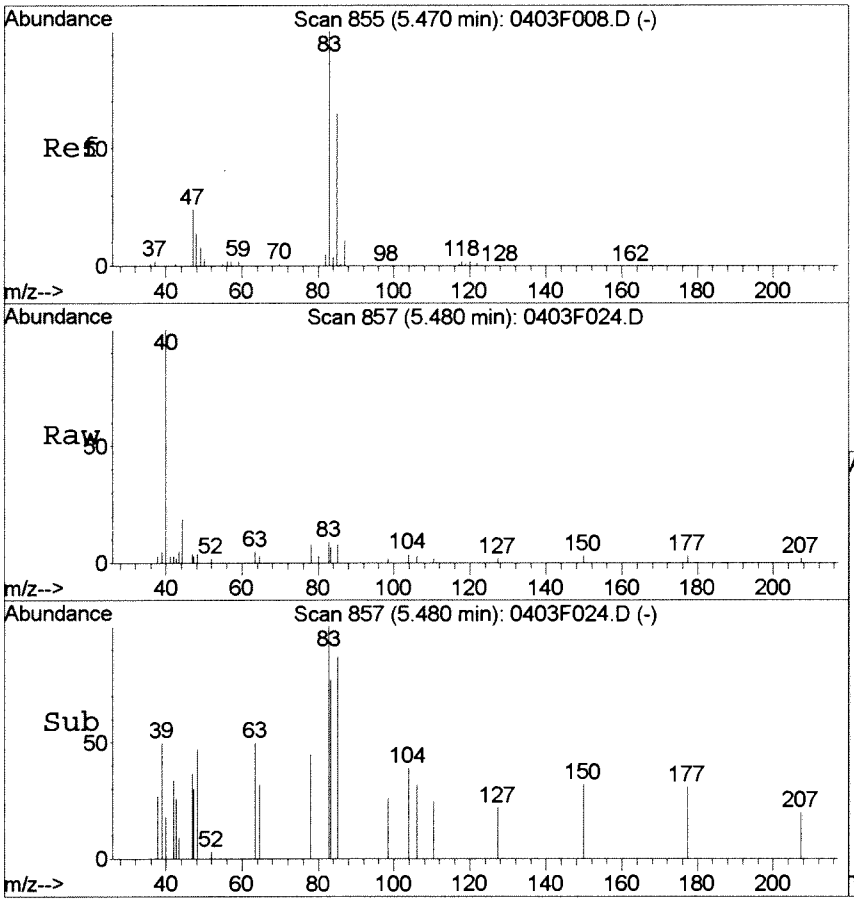


#21
Methylene Chloride
Concen: 0.04 PPB
RT: 3.11 min Scan# 404
Delta R.T. -0.00 min
Lab File: 0403F024.D
Acq: 03 Apr 2015 05:44 pm

Tgt Ion: 84 Resp: 685

Ion	Ratio	Lower	Upper
84	100		
86	50.8	33.1	93.1
49	38.3	99.0	159.0#
51	33.9	8.0	68.0

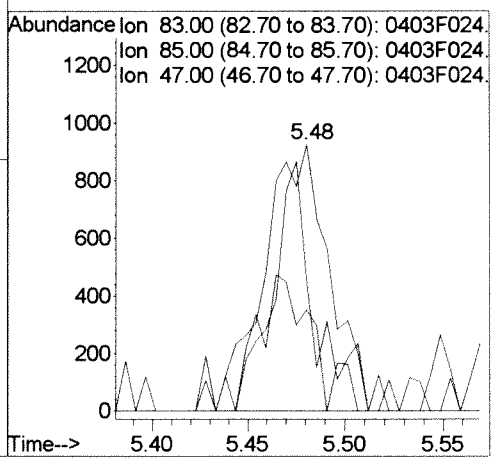


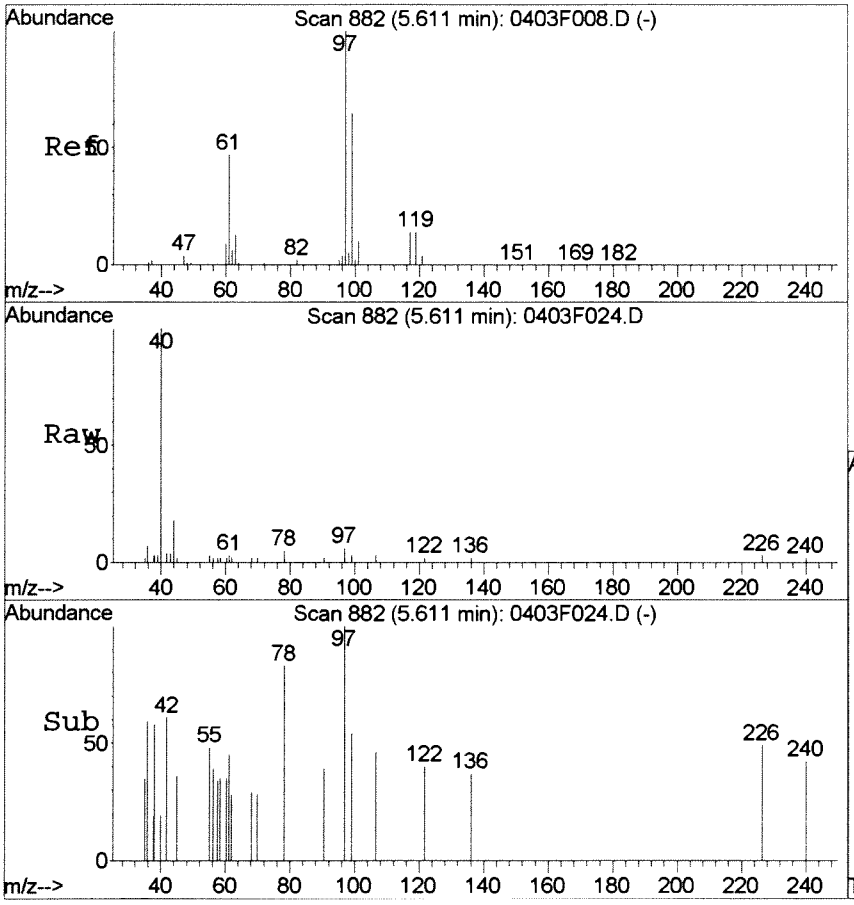


#40
Chloroform
Concen: 0.07 PPB
RT: 5.48 min Scan# 857
Delta R.T. 0.01 min
Lab File: 0403F024.D
Acq: 03 Apr 2015 05:44 pm

Tgt Ion: 83 Resp: 2179

Ion	Ratio	Lower	Upper
83	100		
85	49.4	33.1	93.1
47	26.5	0.0	54.1

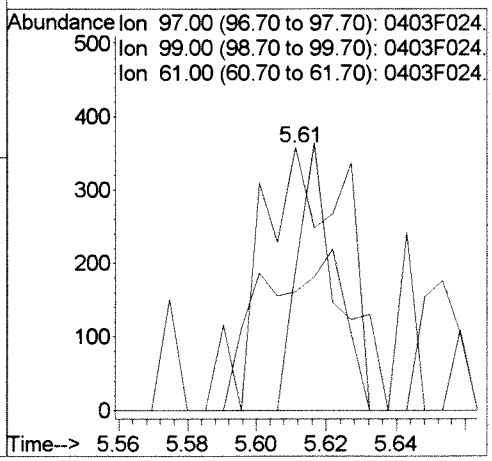


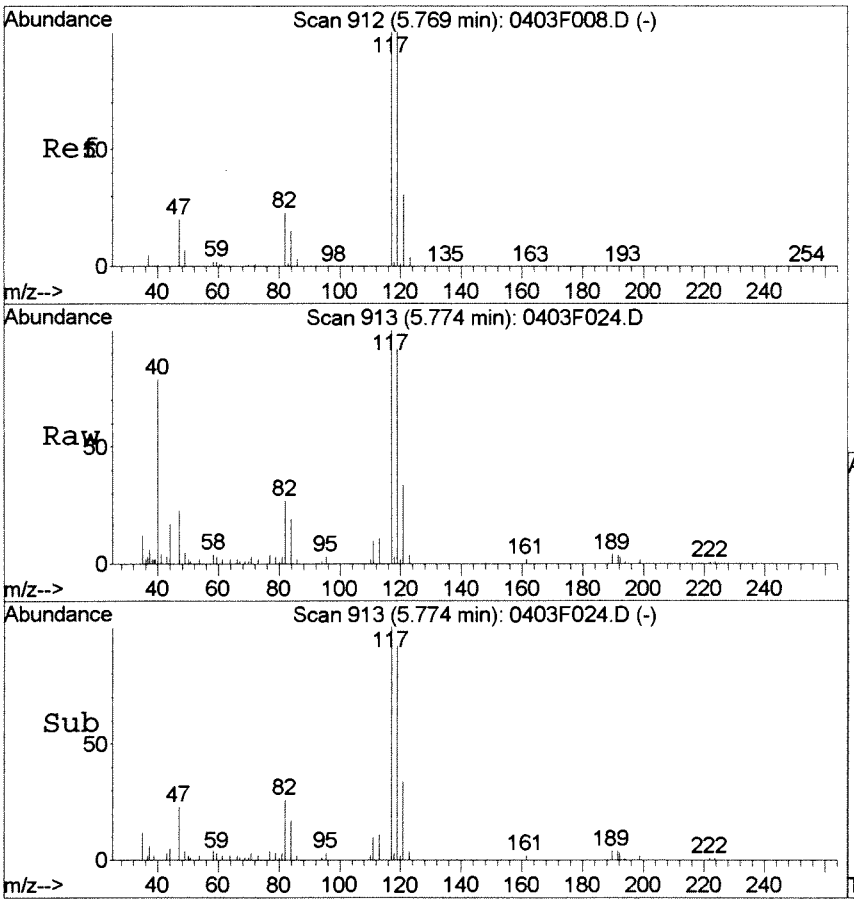


#42
1,1,1-Trichloroethane
Concen: 0.02 PPB
RT: 5.61 min Scan# 882
Delta R.T. -0.00 min
Lab File: 0403F024.D
Acq: 03 Apr 2015 05:44 pm

Tgt Ion: 97 Resp: 586

Ion	Ratio	Lower	Upper
97	100		
99	53.6	37.0	97.0
61	45.0	15.1	75.1

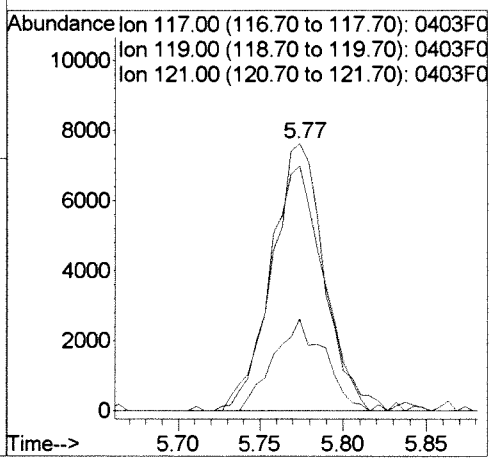


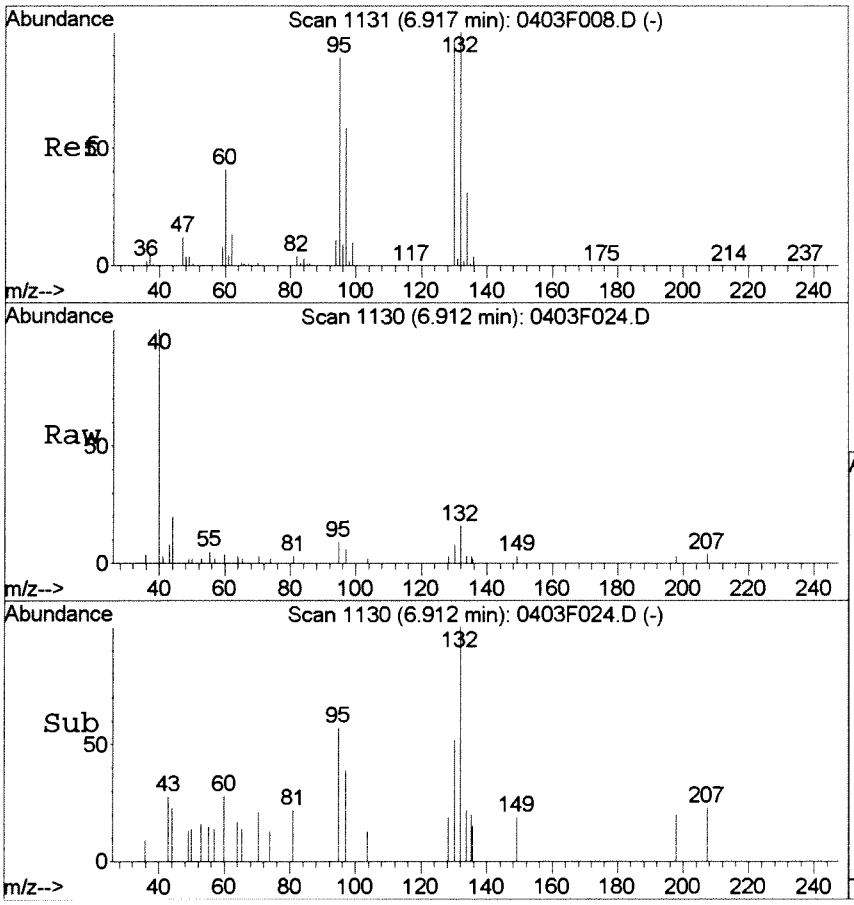


#44
Carbon Tetrachloride
Concen: 0.64 PPB
RT: 5.77 min Scan# 913
Delta R.T. 0.01 min
Lab File: 0403F024.D
Acq: 03 Apr 2015 05:44 pm

Tgt Ion:117 Resp: 16702

Ion	Ratio	Lower	Upper
117	100		
119	91.7	63.3	123.3
121	34.4	0.2	60.2

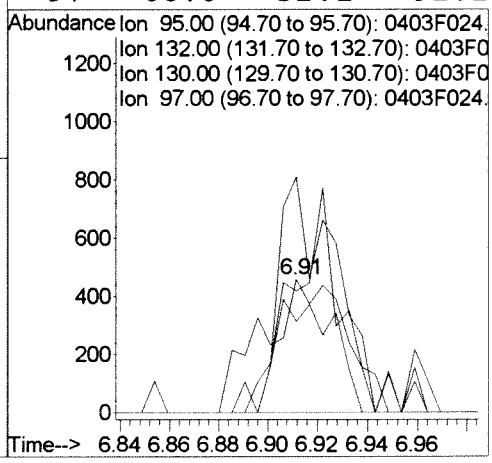


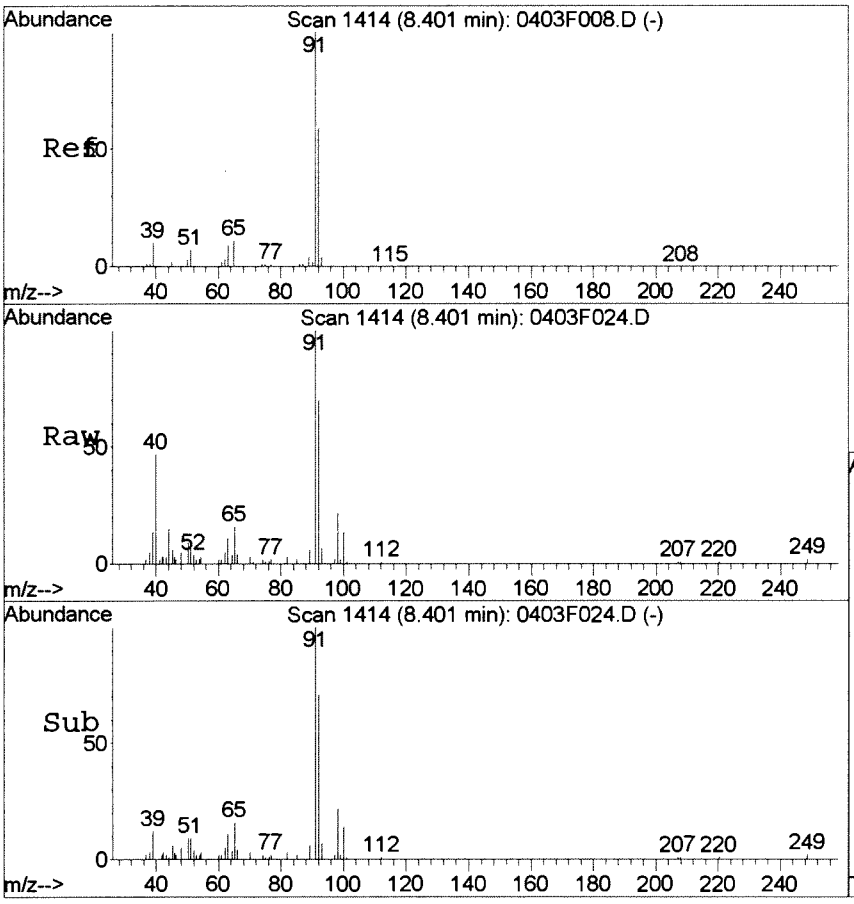


#51
Trichloroethene
Concen: 0.06 PPB
RT: 6.91 min Scan# 1130
Delta R.T. -0.01 min
Lab File: 0403F024.D
Acq: 03 Apr 2015 05:44 pm

Tgt Ion: 95 Resp: 1073

Ion	Ratio	Lower	Upper
95	100		
132	176.6	72.9	132.9#
130	91.3	81.4	141.4
97	68.6	32.1	92.1

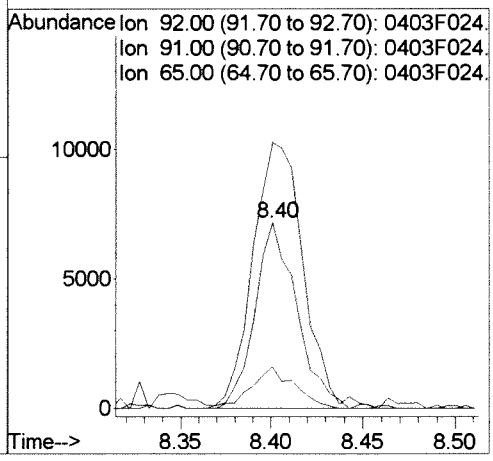




#63
Toluene
Concen: 0.25 PPB
RT: 8.40 min Scan# 1414
Delta R.T. -0.00 min
Lab File: 0403F024.D
Acq: 03 Apr 2015 05:44 pm

Tgt Ion: 92 Resp: 11597

Ion	Ratio	Lower	Upper
92	100		
91	143.2	139.2	199.2
65	20.7	0.0	50.2



Exception Report

Data File: J:\MS46\DATA\040315\0403F026.D
Lab ID: K1503171-010
RunType: SMPL
Matrix: WATER

Date Acquired: 04/03/2015 18:32
Date Quantitated: 04/09/2015 12:39
Batch ID: KWG1502843
Analysis Method: 8260C
ListJoinID: LJ1423

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Duplicate Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: KN 4/14/15

Secondary Review: 4.9.15

Quantitation Report

Data File:	J:\MS46\DATA\040315\0403F026.D			**Instrument:**	GCMS46
Acqu Date:	04/03/2015 18:32	**Quant Date:**	04/09/2015 12:39	**Vial:**	18
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1503171-010			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	03/25/2015	**Receive Date:**	03/27/2015

Analysis Lot:	KWG1502843	**Prep Lot:**	KWG1502844	**Report Group:**	K1503171
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1424888	**Prep Date:**	04/03/2015		

Quant Method:	J:\MS46\METHODS\031615MS46_8	**Calibration ID:**	CAL13899
Title:	Volatile Organic Compounds	**Report List ID:**	LJ1423
Tune Ref:	J:\MS46\DATA\040315\0403F007.D	**Method ID:**	MJ119
MB Ref:	J:\MS46\DATA\040315\0403F017.D	**Quant based on Report List**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	6.49	0.00	96	709588	10.00	OK
2	Chlorobenzene-d5	9.96	0.01	82	286435	10.00	OK
3	1,4-Dichlorobenzene-d4	12.53	0.00	152	284694	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.69	0.00	0.00	113	182693	11.72	117	73-122	OK	
1	Toluene-d8	8.33	0.00	0.00	98	680605	11.32	113	65-144	OK	
2	4-Bromofluorobenzene	11.27	0.00	0.00	95	241379	10.88	109	68-117	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Tetrachloride	5.77		0.00	117	108387	4.30	4.3		

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\040315\0403F026.D Vial: 18
Acq On : 03 Apr 2015 06:32 pm Operator: KR
Sample : K3171-010 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 08 17:10:14 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

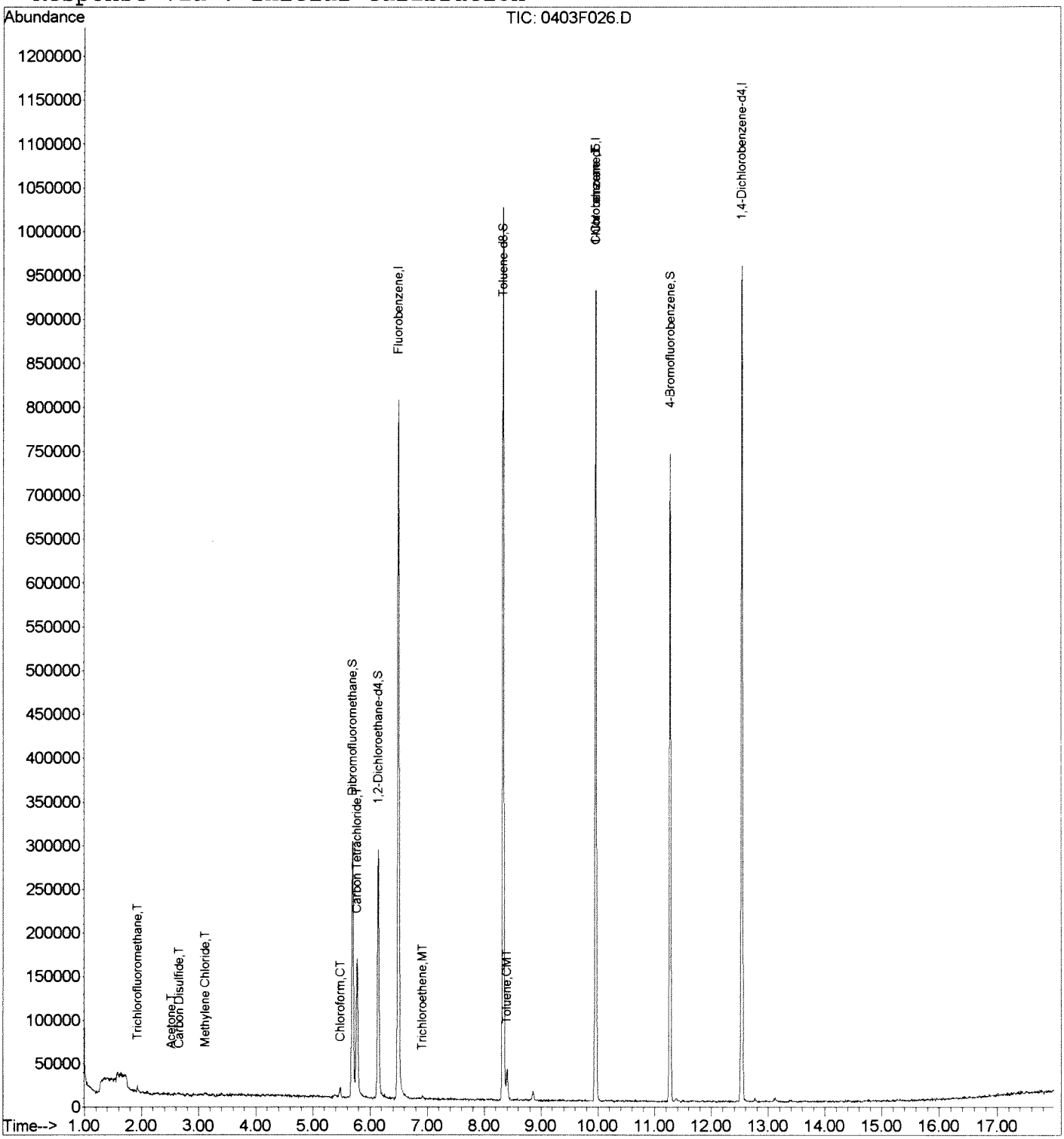
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	6.49	96	709588	10.00	PPB		0.00
64) Chlorobenzene-d5	9.96	82	286435	10.00	PPB		0.00
85) 1,4-Dichlorobenzene-d4	12.53	152	284694	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.69	113	182693	11.72	PPB		0.00
Spiked Amount 10.000			Recovery =	117.20%			
47) 1,2-Dichloroethane-d4	6.14	65	217375	13.20	PPB		0.00
Spiked Amount 10.000			Recovery =	132.00%			
62) Toluene-d8	8.33	98	680605	11.32	PPB		0.00
Spiked Amount 10.000			Recovery =	113.20%			
84) 4-Bromofluorobenzene	11.27	95	241379	10.88	PPB		0.00
Spiked Amount 10.000			Recovery =	108.80%			
Target Compounds							Qvalue
9) Trichlorofluoromethane	1.93	101	3202	0.12	PPB		95
14) Acetone	2.52	43	864	0.37	PPB		52
16) Carbon Disulfide	2.66	76	1891	0.04	PPB	#	33
21) Methylene Chloride	3.12	84	876	0.05	PPB	#	69
40) Chloroform	5.47	83	7902	0.26	PPB		84
44) Carbon Tetrachloride	5.77	117	108387	4.30	PPB		95
51) Trichloroethene	6.91	95	905	0.05	PPB		91
63) Toluene	8.41	92	12853	0.29	PPB		86
74) 1-Chlorohexane	9.96	91	1249	0.05	PPB		66

(#) = qualifier out of range (m) = manual integration

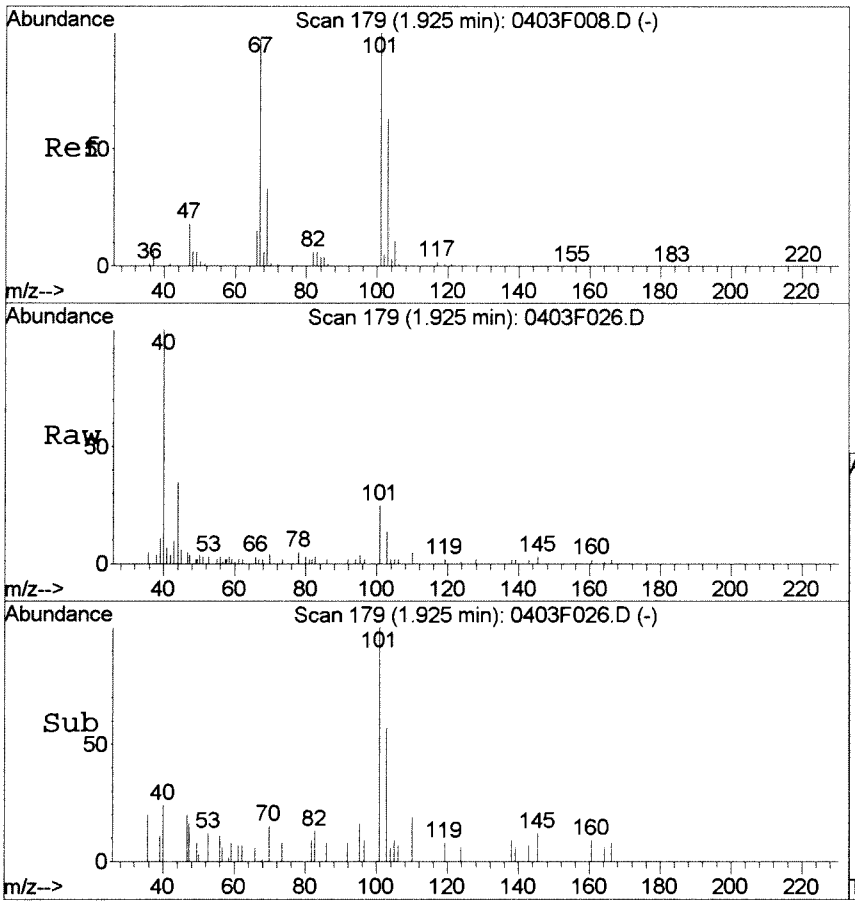
Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\040315\0403F026.D Vial: 18
Acq On : 03 Apr 2015 06:32 pm Operator: KR
Sample : K3171-010 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 9 12:39 2015 Quant Results File: 031615MS46_8

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Initial Calibration



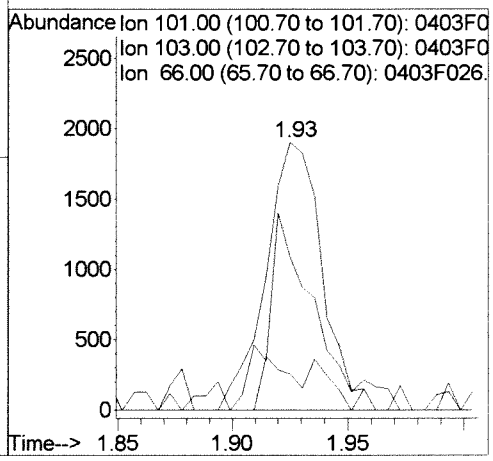
04.09.15jal2ndRev

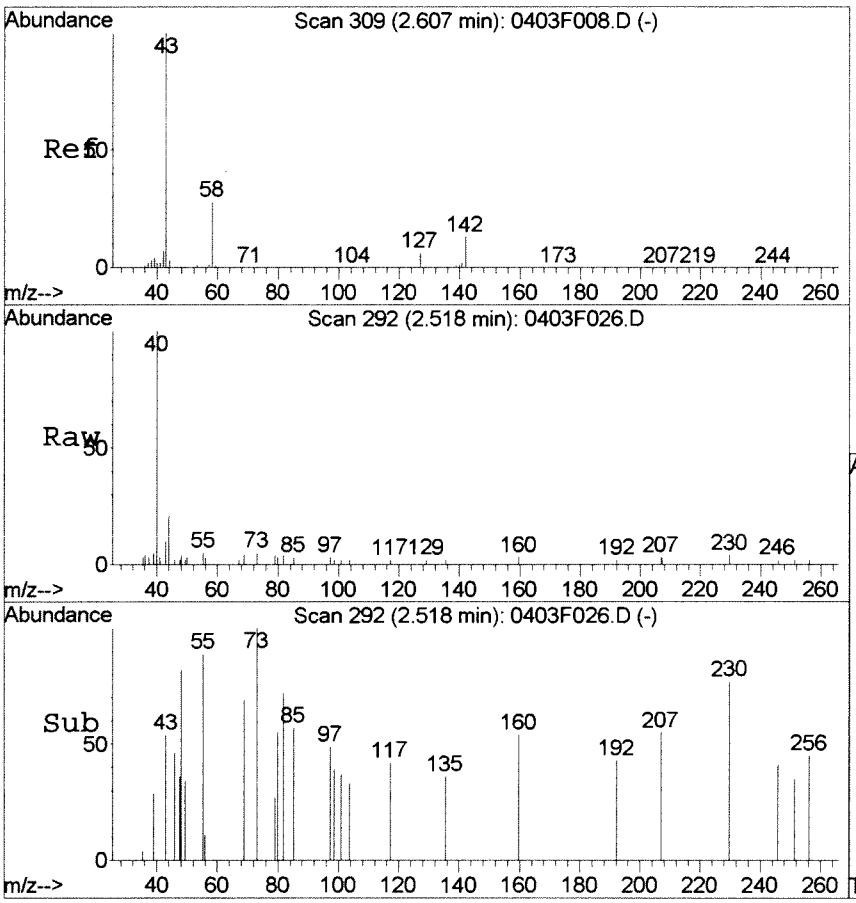


#9
Trichlorofluoromethane
Concen: 0.12 PPB
RT: 1.93 min Scan# 179
Delta R.T. -0.00 min
Lab File: 0403F026.D
Acq: 03 Apr 2015 06:32 pm

Tgt Ion:101 Resp: 3202

Ion	Ratio	Lower	Upper
101	100		
103	57.2	31.6	91.6
66	13.5	0.0	45.1

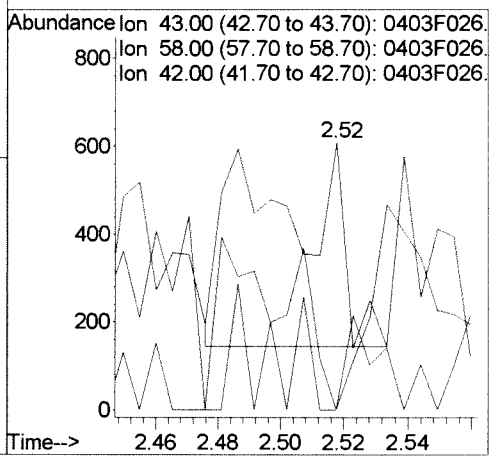


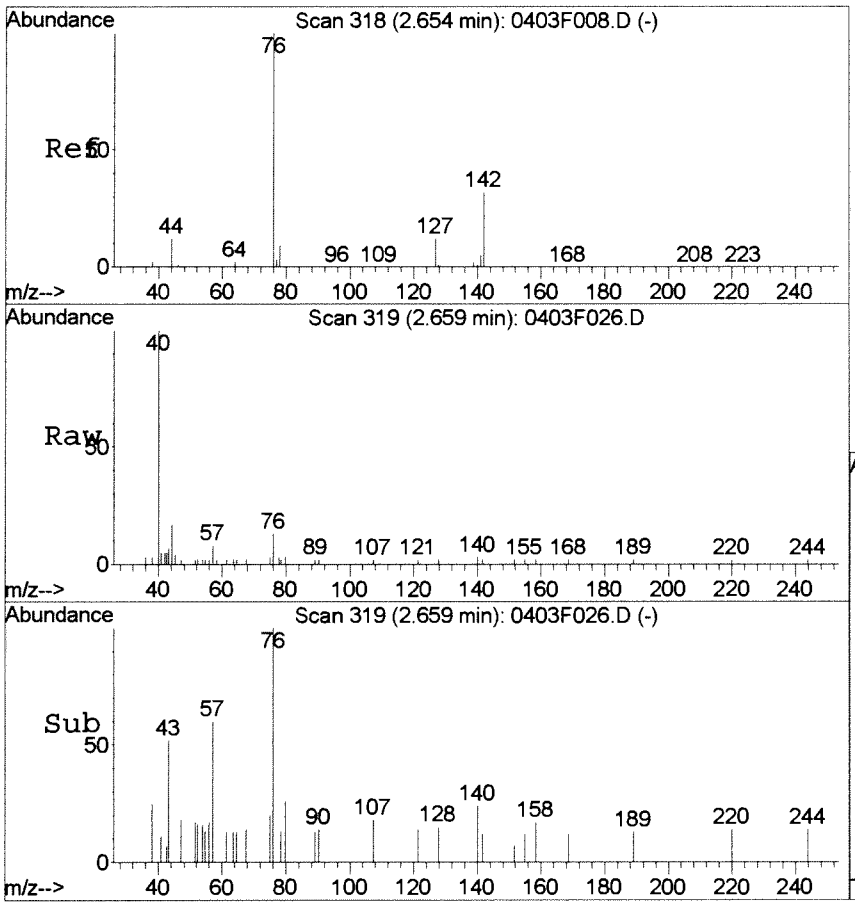


#14
Acetone
Concen: 0.37 PPB
RT: 2.52 min Scan# 292
Delta R.T. -0.09 min
Lab File: 0403F026.D
Acq: 03 Apr 2015 06:32 pm

Tgt Ion: 43 Resp: 864

Ion	Ratio	Lower	Upper
43	100		
58	0.0	0.0	59.5
42	0.0	0.0	37.1

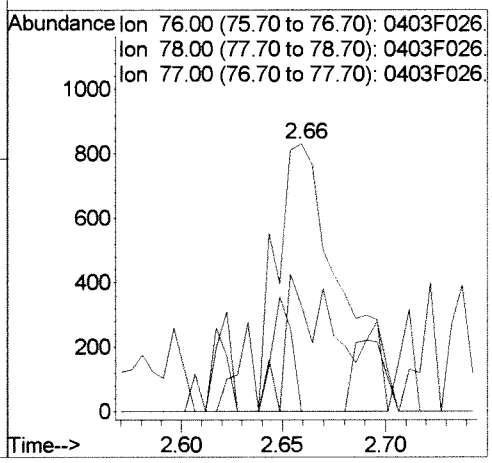


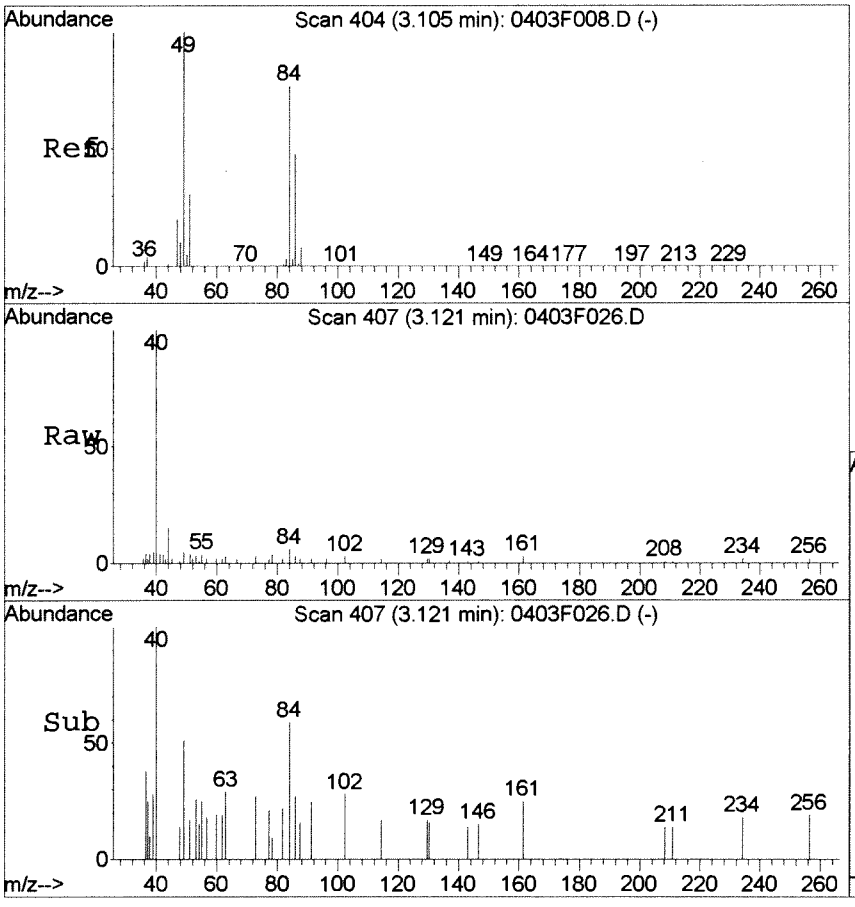


#16
Carbon Disulfide
Concen: 0.04 PPB
RT: 2.66 min Scan# 319
Delta R.T. -0.00 min
Lab File: 0403F026.D
Acq: 03 Apr 2015 06:32 pm

Tgt Ion: 76 Resp: 1891

Ion	Ratio	Lower	Upper
76	100		
78	39.6	0.0	38.4#
77	0.0	0.0	32.9

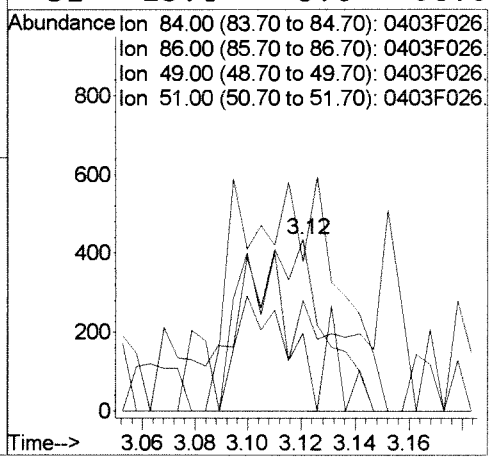


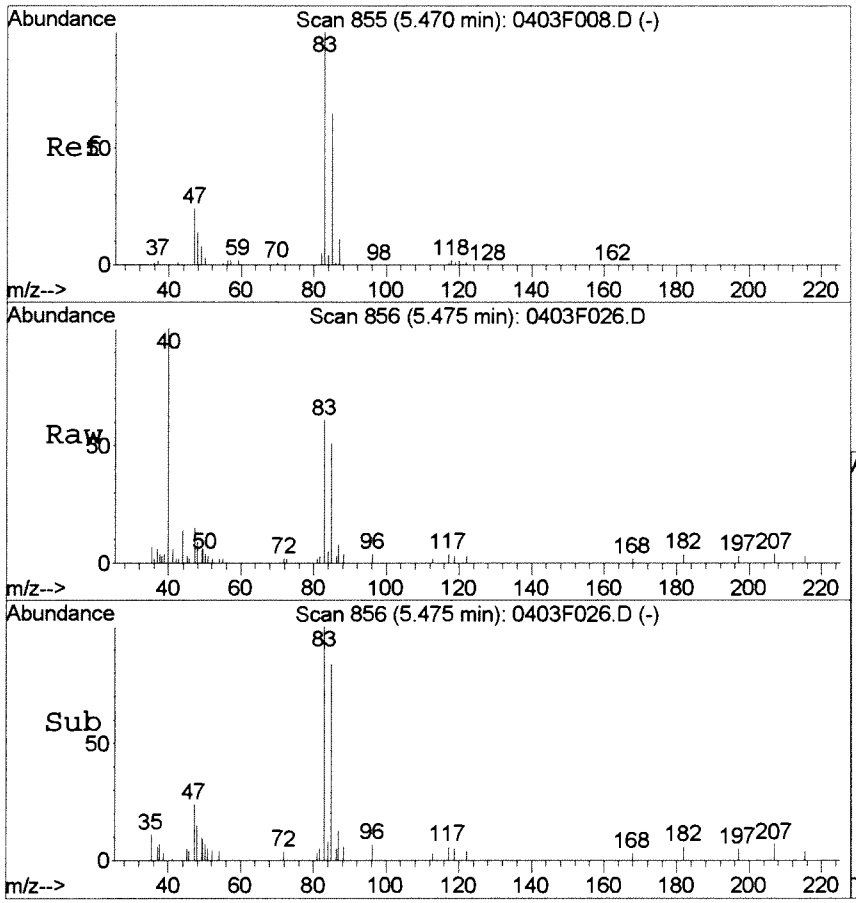


#21
Methylene Chloride
Concen: 0.05 PPB
RT: 3.12 min Scan# 407
Delta R.T. 0.02 min
Lab File: 0403F026.D
Acq: 03 Apr 2015 06:32 pm

Tgt Ion: 84 Resp: 876

Ion	Ratio	Lower	Upper
84	100		
86	45.3	33.1	93.1
49	86.9	99.0	159.0#
51	23.4	8.0	68.0

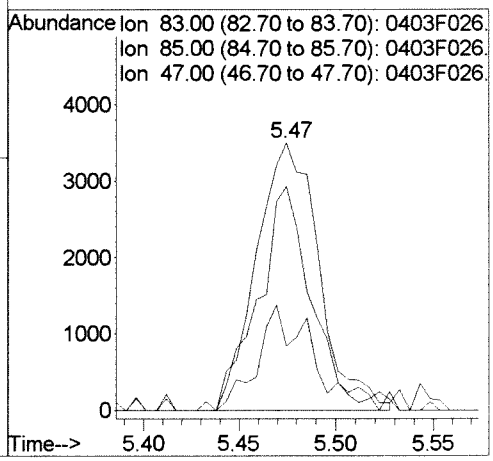


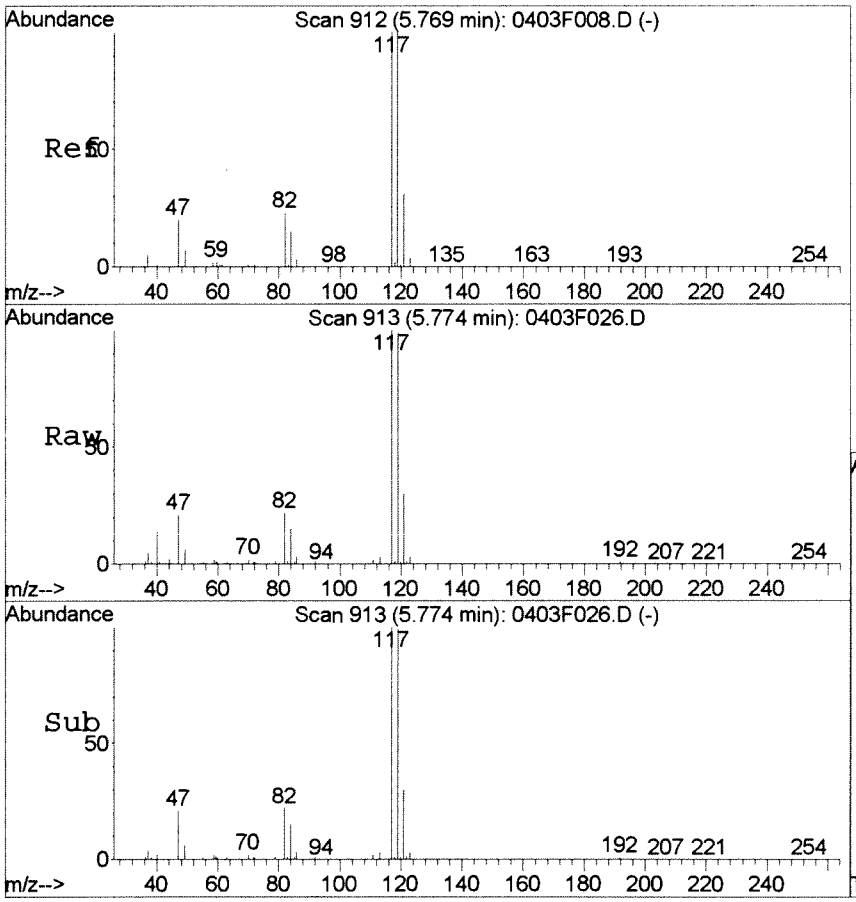


#40
Chloroform
Concen: 0.26 PPB
RT: 5.47 min Scan# 856
Delta R.T. -0.00 min
Lab File: 0403F026.D
Acq: 03 Apr 2015 06:32 pm

Tgt Ion: 83 Resp: 7902

Ion	Ratio	Lower	Upper
83	100		
85	80.4	33.1	93.1
47	24.0	0.0	54.1

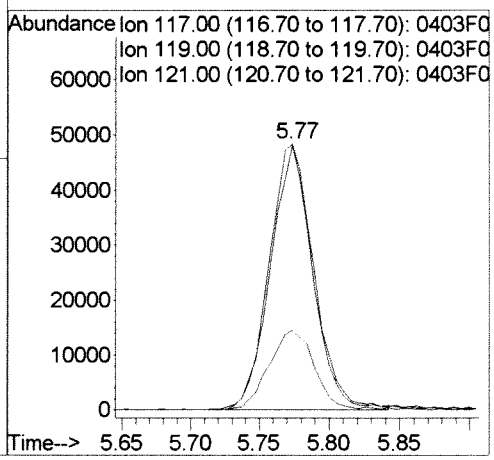


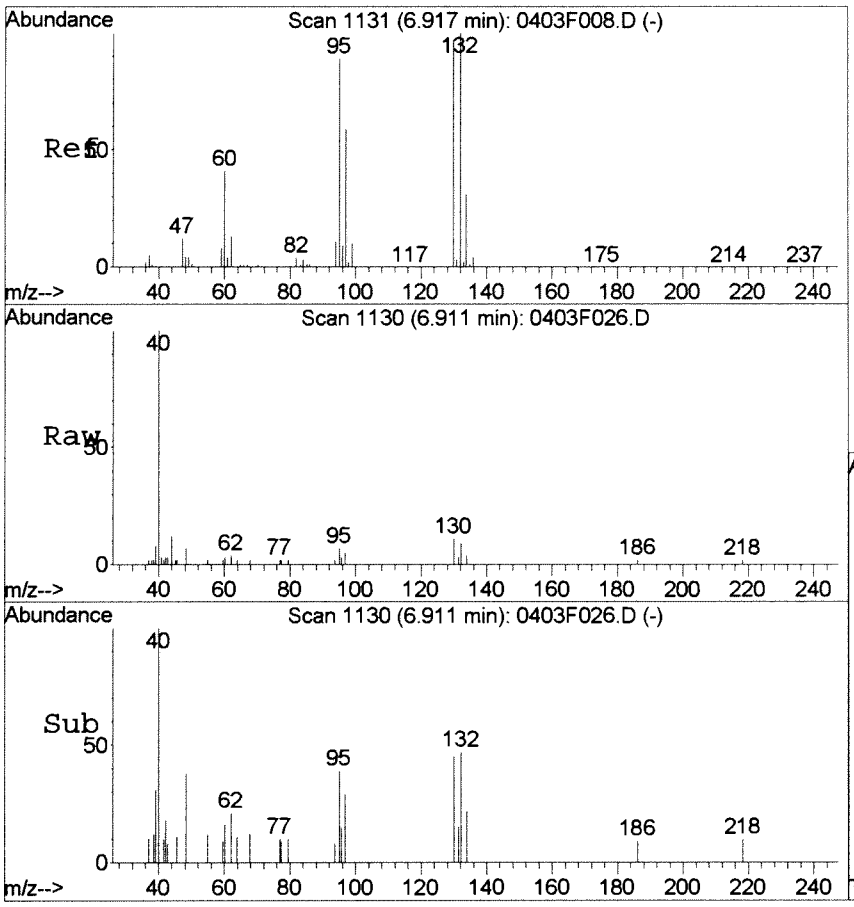


#44
Carbon Tetrachloride
Concen: 4.30 PPB
RT: 5.77 min Scan# 913
Delta R.T. 0.01 min
Lab File: 0403F026.D
Acq: 03 Apr 2015 06:32 pm

Tgt Ion:117 Resp: 108387

Ion	Ratio	Lower	Upper
117	100		
119	99.5	63.3	123.3
121	30.0	0.2	60.2

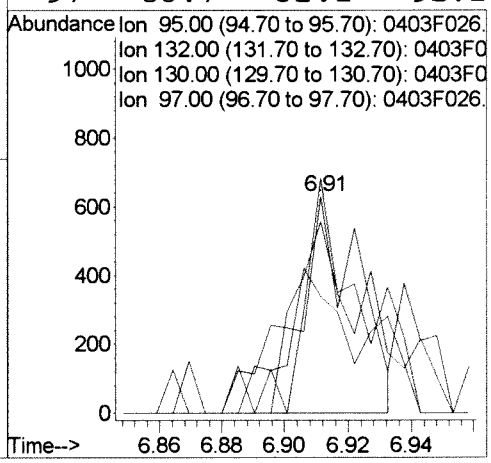


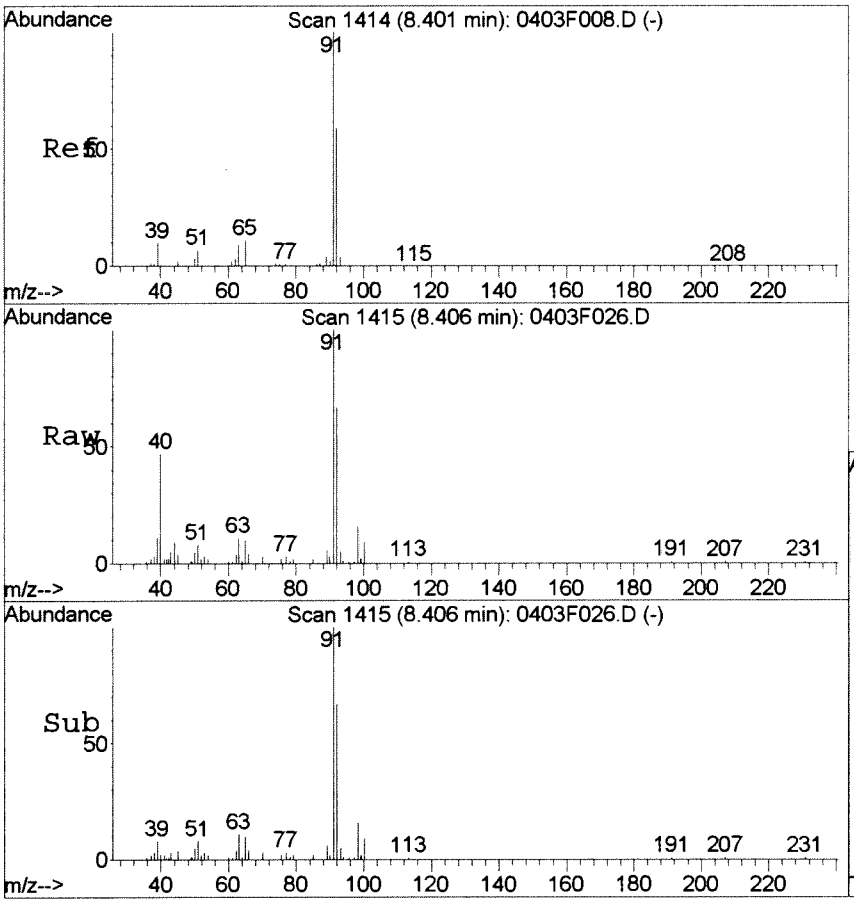


#51
Trichloroethene
Concen: 0.05 PPB
RT: 6.91 min Scan# 1130
Delta R.T. -0.01 min
Lab File: 0403F026.D
Acq: 03 Apr 2015 06:32 pm

Tgt Ion: 95 Resp: 905

Ion	Ratio	Lower	Upper
95	100		
132	88.3	72.9	132.9
130	108.4	81.4	141.4
97	53.7	32.1	92.1

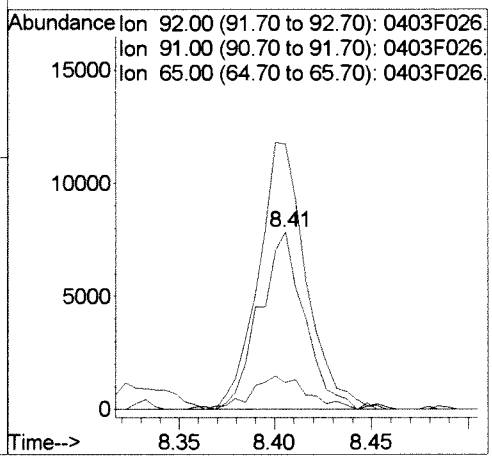


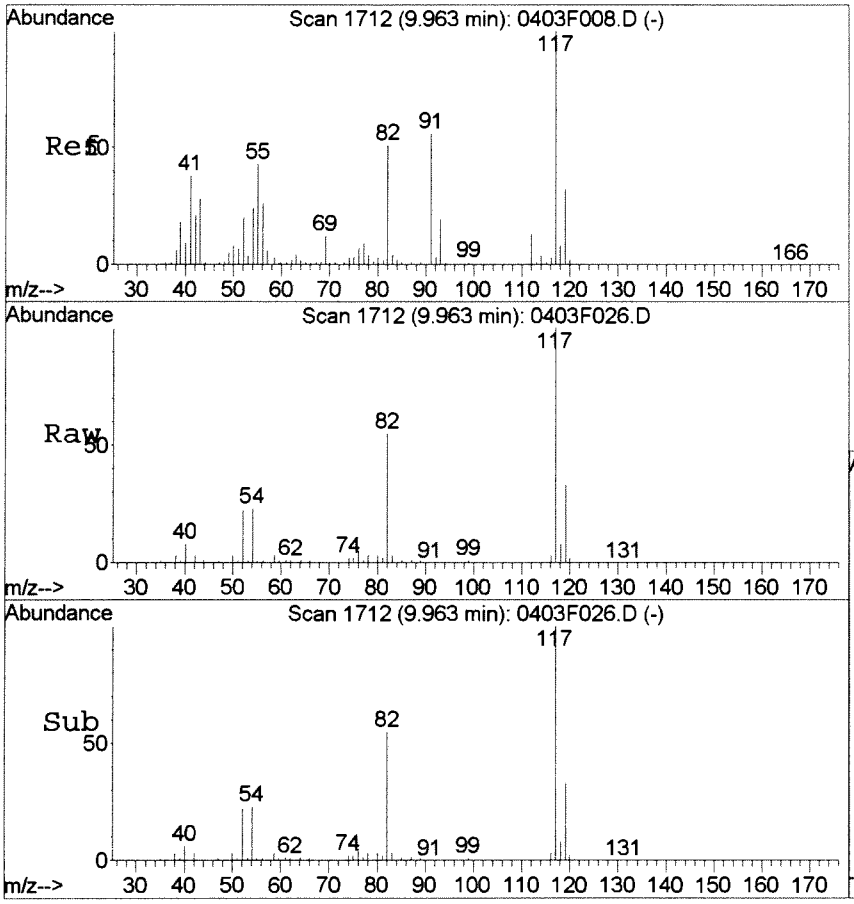


#63
Toluene
Concen: 0.29 PPB
RT: 8.41 min Scan# 1415
Delta R.T. 0.01 min
Lab File: 0403F026.D
Acq: 03 Apr 2015 06:32 pm

Tgt Ion: 92 Resp: 12853

Ion	Ratio	Lower	Upper
92	100		
91	149.6	139.2	199.2
65	15.2	0.0	50.2

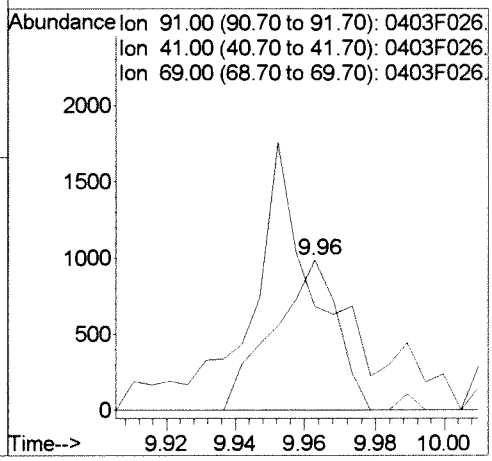




#74
1-Chlorohexane
Concen: 0.05 PPB
RT: 9.96 min Scan# 1712
Delta R.T. -0.00 min
Lab File: 0403F026.D
Acq: 03 Apr 2015 06:32 pm

Tgt Ion: 91 Resp: 1249

Ion	Ratio	Lower	Upper
91	100		
41	38.8	31.8	91.8
69	0.0	0.0	51.3



Exception Report

Data File: J:\MS46\DATA\040315\0403F027.D
Lab ID: K1503171-011
RunType: SMPL
Matrix: WATER

Date Acquired: 04/03/2015 18:55
Date Quantitated: 04/09/2015 12:41
Batch ID: KWG1502843
Analysis Method: 8260C
ListJoinID: LJ1423

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Duplicate Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 4/9/15

Secondary Review: 4/9/15

Quantitation Report

Data File:	J:\MS46\DATA\040315\0403F027.D			**Instrument:**	GCMS46
Acqu Date:	04/03/2015 18:55	**Quant Date:**	04/09/2015 12:41	**Vial:**	19
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1503171-011			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	03/25/2015	**Receive Date:**	03/27/2015

Analysis Lot:	KWG1502843	**Prep Lot:**	KWG1502844	**Report Group:**	K1503171
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1424889	**Prep Date:**	04/03/2015		

Quant Method:	J:\MS46\METHODS\031615MS46_8	**Calibration ID:**	CAL13899
Title:	Volatile Organic Compounds	**Report List ID:**	LJ1423
Tune Ref:	J:\MS46\DATA\040315\0403F007.D	**Method ID:**	MJ119
MB Ref:	J:\MS46\DATA\040315\0403F017.D	**Quant based on Report List**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	6.49	0.00	96	724148	10.00	OK
2	Chlorobenzene-d5	9.96	0.01	82	293820	10.00	OK
3	1,4-Dichlorobenzene-d4	12.53	0.00	152	288837	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.70	0.01	0.00	113	188896	11.87	119	73-122	OK	
1	Toluene-d8	8.33	0.00	0.00	98	692355	11.28	113	65-144	OK	
2	4-Bromofluorobenzene	11.27	0.00	0.00	95	249900	10.98	110	68-117	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Tetrachloride	5.77		0.00	117	112670	4.38	4.4		

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\040315\0403F027.D Vial: 19
Acq On : 03 Apr 2015 06:55 pm Operator: KR
Sample : K3171-011 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 08 17:10:24 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	6.49	96	724148	10.00	PPB		0.00
64) Chlorobenzene-d5	9.96	82	293820	10.00	PPB		0.00
85) 1,4-Dichlorobenzene-d4	12.53	152	288837	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.70	113	188896	11.87	PPB		0.00
Spiked Amount 10.000			Recovery =	118.70%			
47) 1,2-Dichloroethane-d4	6.14	65	216368	12.88	PPB		0.00
Spiked Amount 10.000			Recovery =	128.80%			
62) Toluene-d8	8.33	98	692355	11.28	PPB		0.00
Spiked Amount 10.000			Recovery =	112.80%			
84) 4-Bromofluorobenzene	11.27	95	249900	10.98	PPB		0.00
Spiked Amount 10.000			Recovery =	109.80%			
Target Compounds							Qvalue
9) Trichlorofluoromethane	1.92	101	2785	0.10	PPB		81
14) Acetone	2.62	43	1420	0.59	PPB		53
16) Carbon Disulfide	2.66	76	1839	0.03	PPB		95
40) Chloroform	5.48	83	9065	0.29	PPB		87
42) 1,1,1-Trichloroethane	5.61	97	738	0.03	PPB	#	58
44) Carbon Tetrachloride	5.77	117	112670	4.38	PPB		95
51) Trichloroethene	6.92	95	989	0.05	PPB	#	40
63) Toluene	8.40	92	4012	0.09	PPB		94
74) 1-Chlorohexane	9.95	91	1330	0.05	PPB	#	53

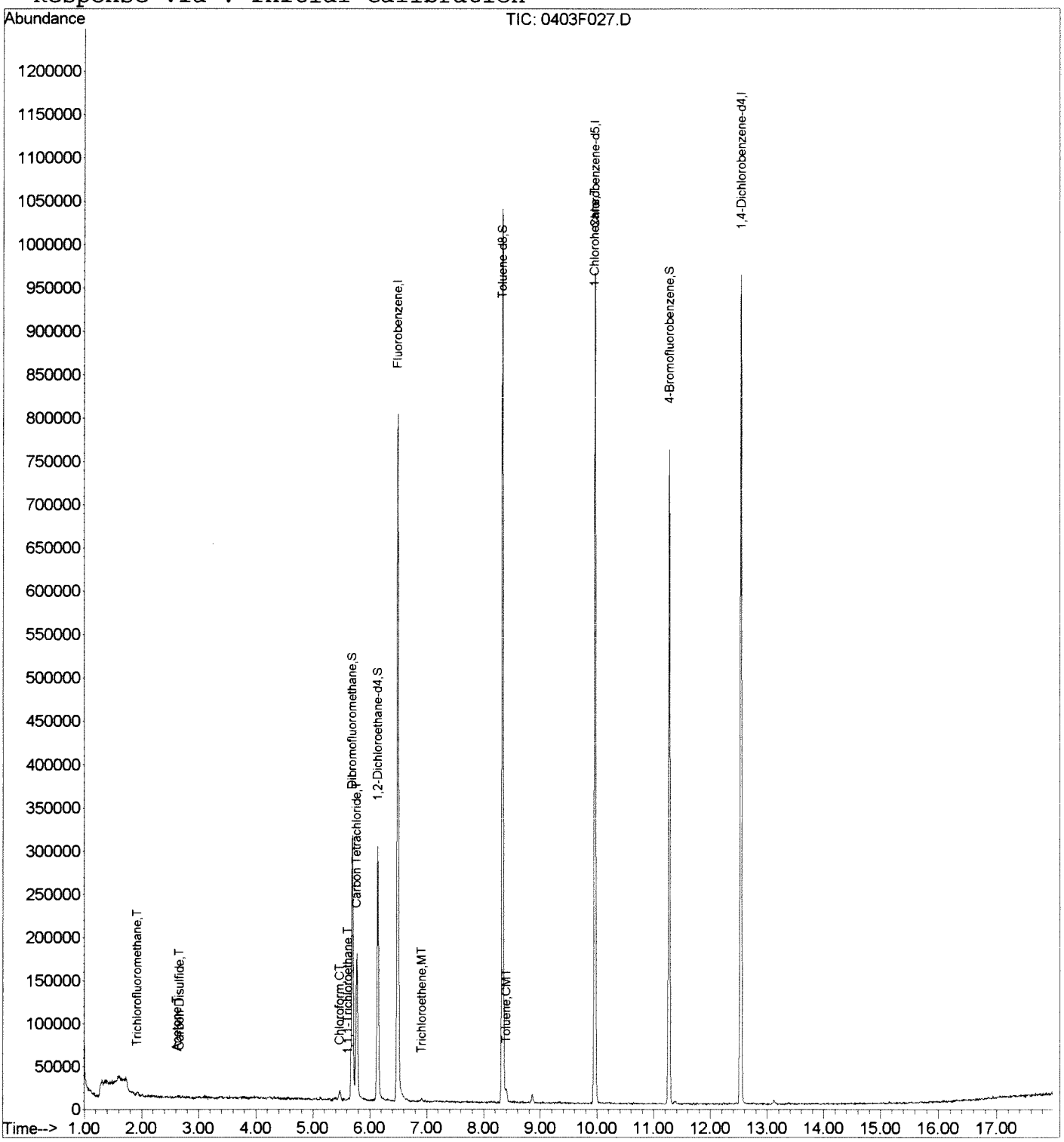
(#) = qualifier out of range (m) = manual integration
0403F027.D 031615MS46_8260.M Thu Apr 09 12:41:41 2015 Page 1

04.09.15jal2nd Rev

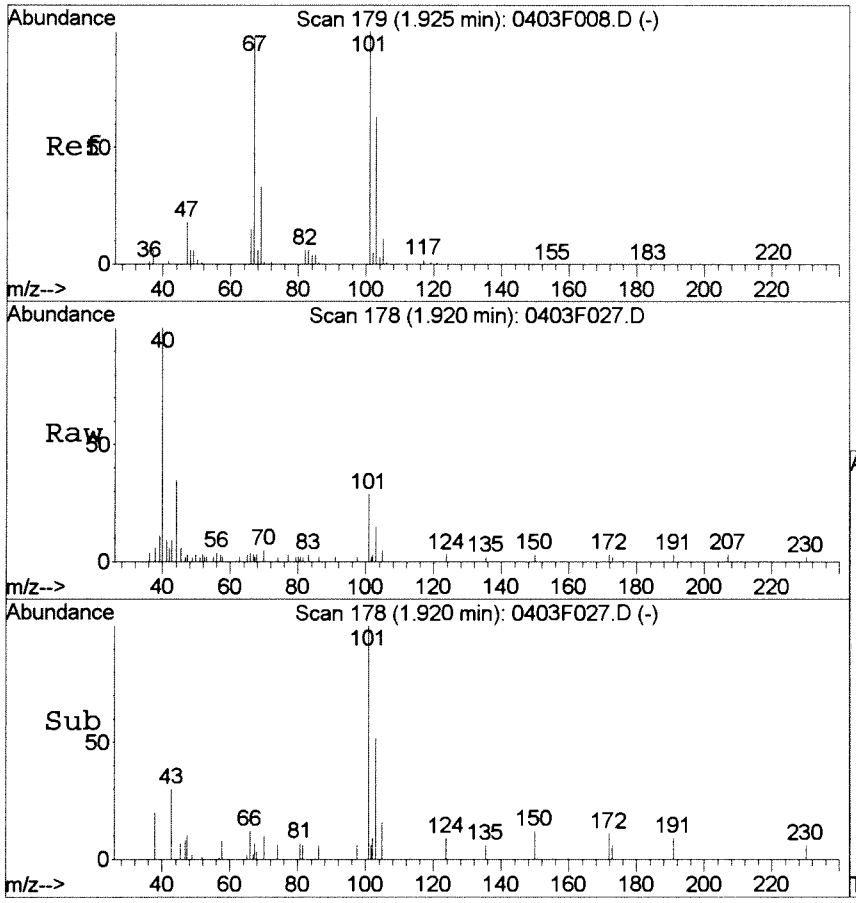
Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\040315\0403F027.D Vial: 19
Acq On : 03 Apr 2015 06:55 pm Operator: KR
Sample : K3171-011 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 9 12:41 2015 Quant Results File: 031615MS46_8

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Initial Calibration



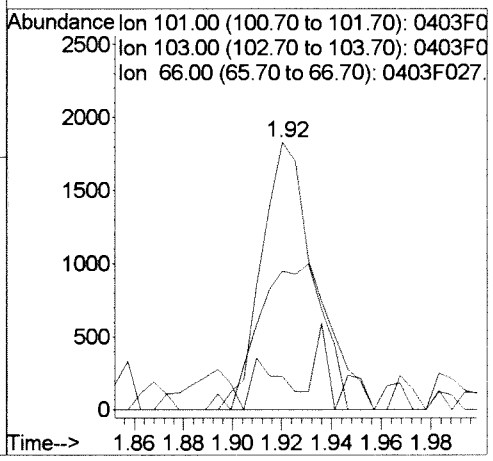
04.09.15jal2nd Rev

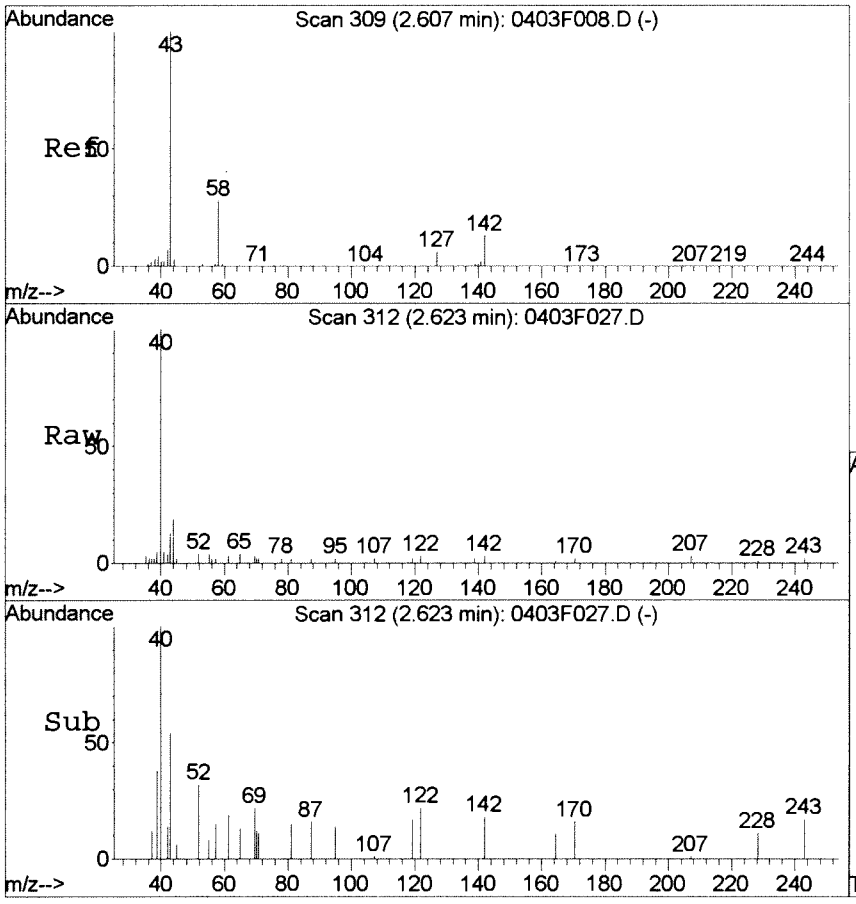


#9
Trichlorofluoromethane
Concen: 0.10 PPB
RT: 1.92 min Scan# 178
Delta R.T. -0.01 min
Lab File: 0403F027.D
Acq: 03 Apr 2015 06:55 pm

Tgt Ion:101 Resp: 2785

Ion	Ratio	Lower	Upper
101	100		
103	48.8	31.6	91.6
66	3.2	0.0	45.1

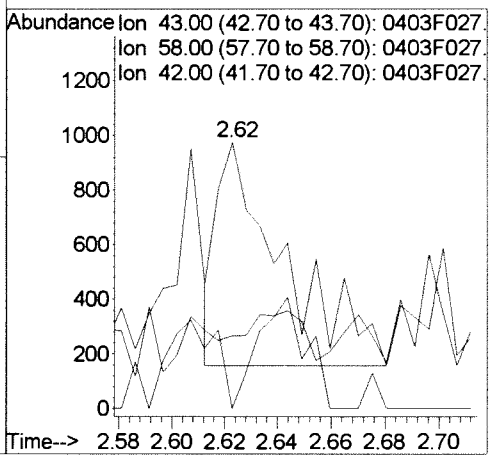


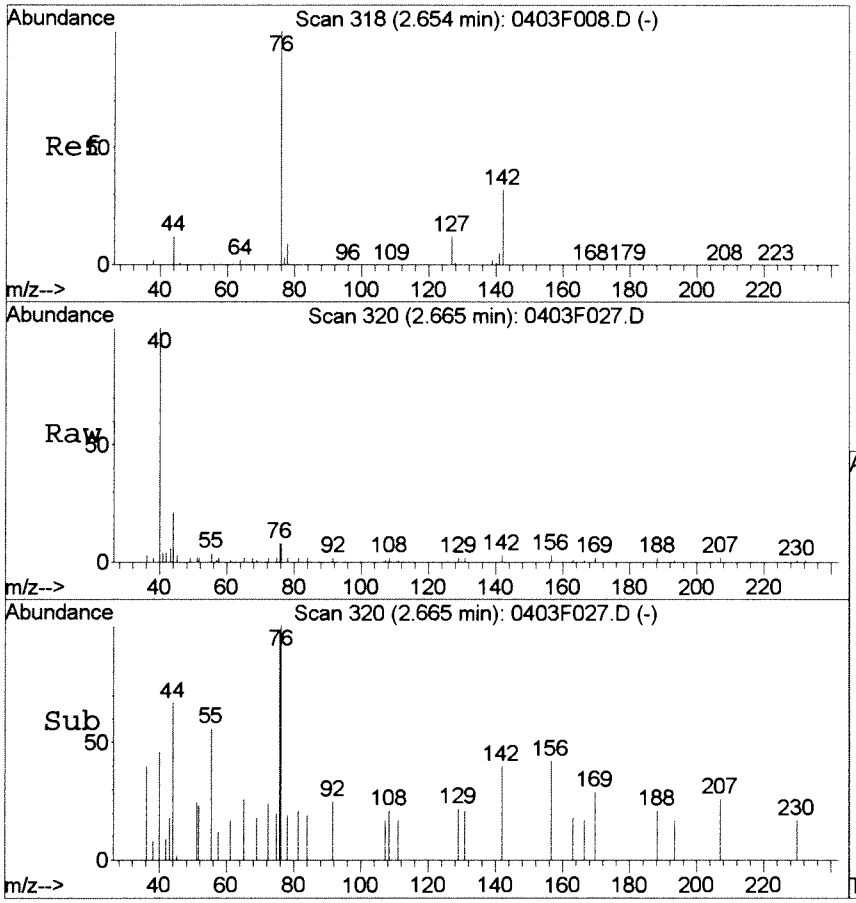


#14
Acetone
Concen: 0.59 PPB
RT: 2.62 min Scan# 312
Delta R.T. 0.01 min
Lab File: 0403F027.D
Acq: 03 Apr 2015 06:55 pm

Tgt Ion: 43 Resp: 1420

Ion	Ratio	Lower	Upper
43	100		
58	0.0	0.0	59.5
42	12.0	0.0	37.1

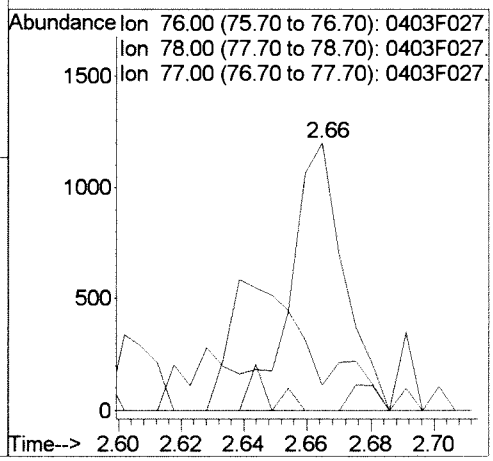


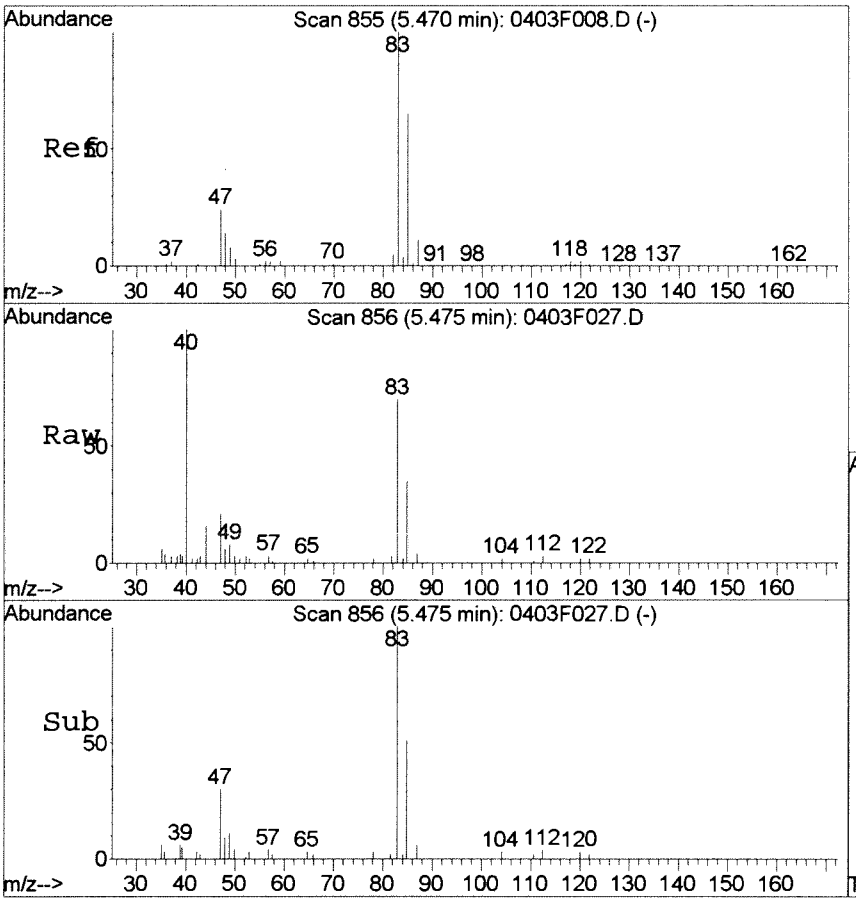


#16
Carbon Disulfide
Concen: 0.03 PPB
RT: 2.66 min Scan# 320
Delta R.T. 0.01 min
Lab File: 0403F027.D
Acq: 03 Apr 2015 06:55 pm

Tgt Ion: 76 Resp: 1839

Ion	Ratio	Lower	Upper
76	100		
78	9.5	0.0	38.4
77	0.0	0.0	32.9

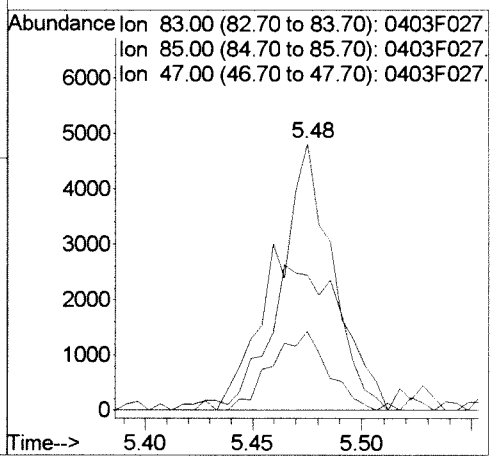


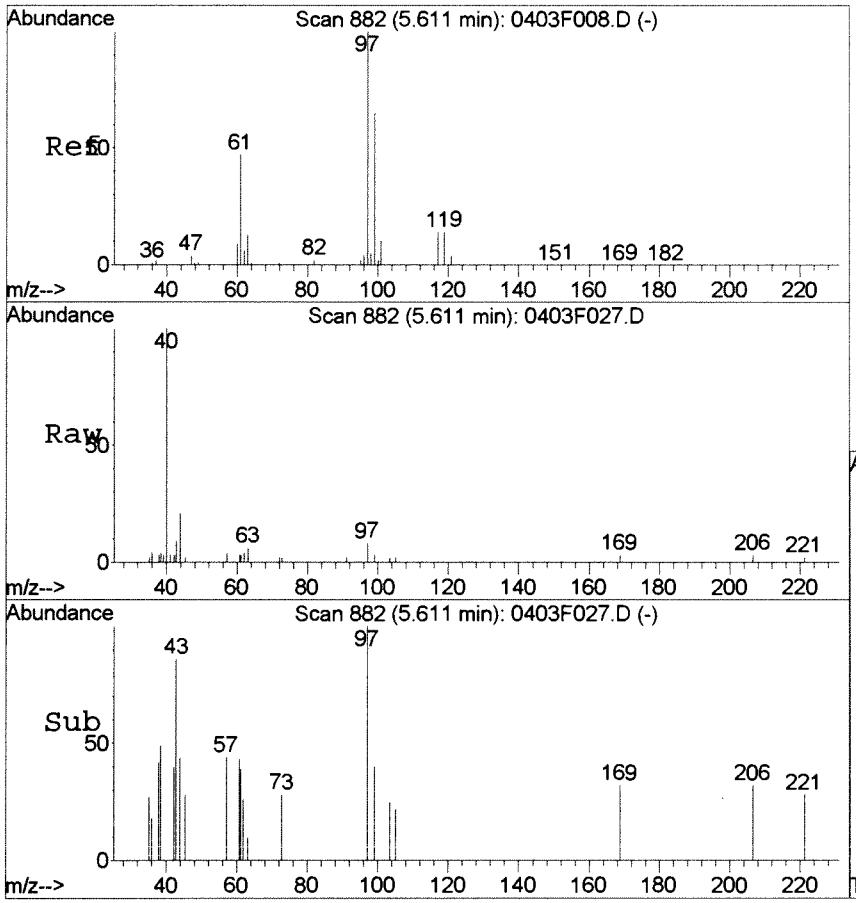


#40
Chloroform
Concen: 0.29 PPB
RT: 5.48 min Scan# 856
Delta R.T. 0.00 min
Lab File: 0403F027.D
Acq: 03 Apr 2015 06:55 pm

Tgt Ion: 83 Resp: 9065

Ion	Ratio	Lower	Upper
83	100		
85	50.7	33.1	93.1
47	27.0	0.0	54.1

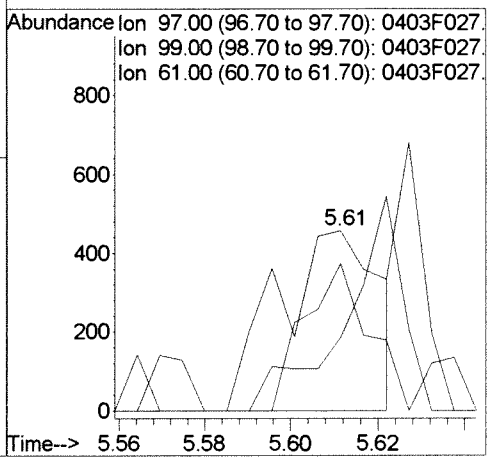


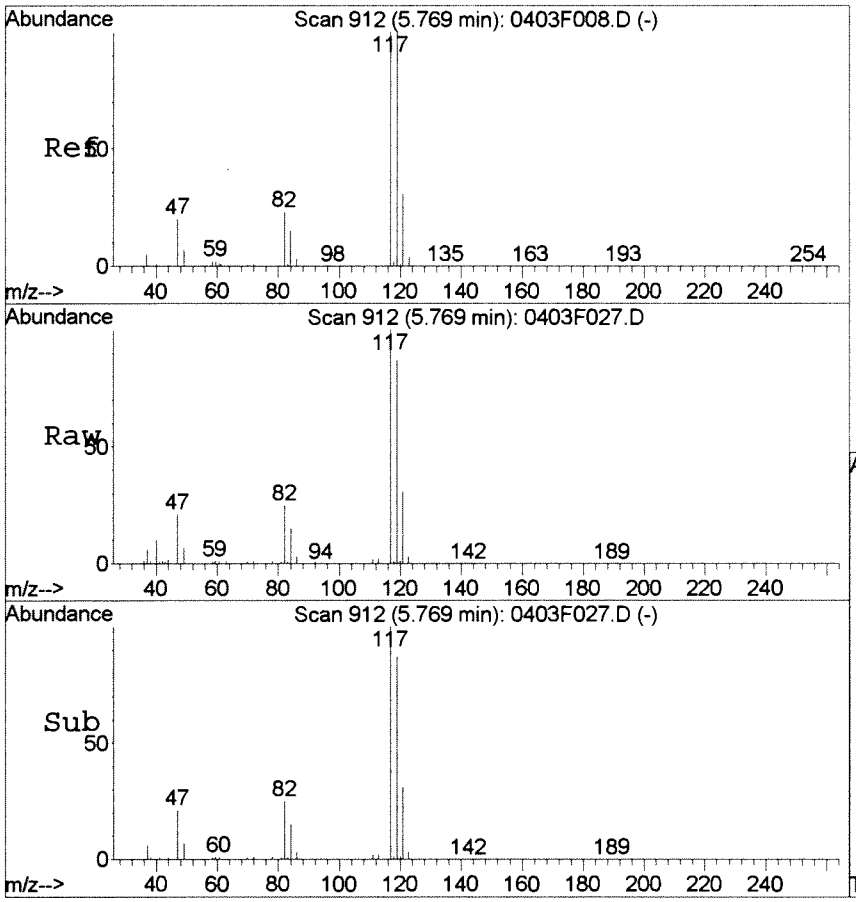


#42
1,1,1-Trichloroethane
Concen: 0.03 PPB
RT: 5.61 min Scan# 882
Delta R.T. -0.00 min
Lab File: 0403F027.D
Acq: 03 Apr 2015 06:55 pm

Tgt Ion: 97 Resp: 738

Ion	Ratio	Lower	Upper
97	100		
99	40.5	37.0	97.0
61	81.8	15.1	75.1#

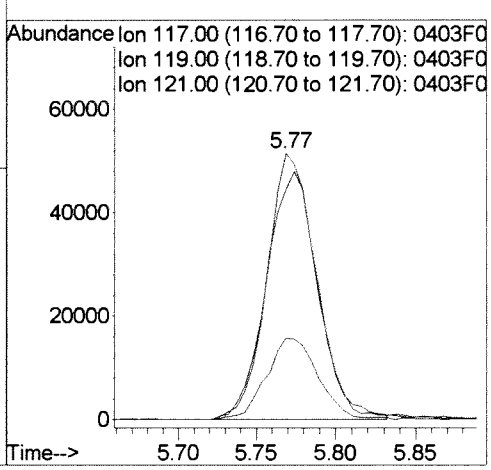


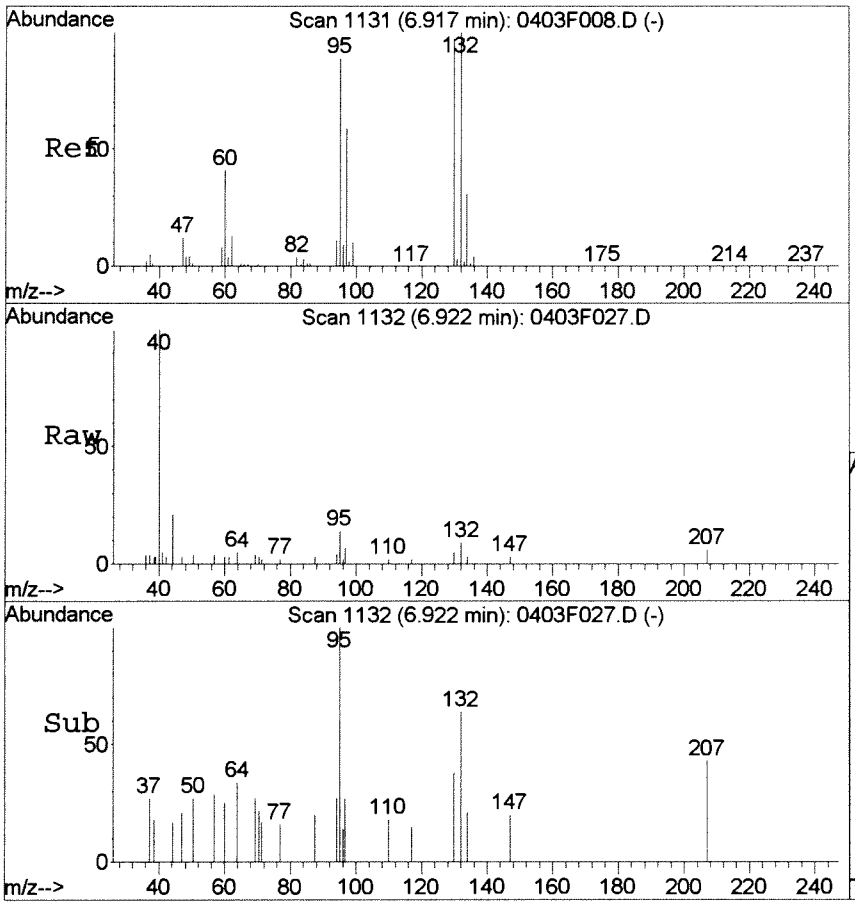


#44
Carbon Tetrachloride
Concen: 4.38 PPB
RT: 5.77 min Scan# 912
Delta R.T. 0.00 min
Lab File: 0403F027.D
Acq: 03 Apr 2015 06:55 pm

Tgt Ion:117 Resp: 112670

Ion	Ratio	Lower	Upper
117	100		
119	86.6	63.3	123.3
121	30.7	0.2	60.2

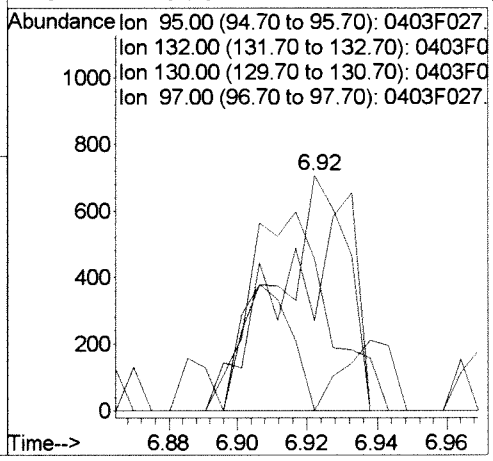


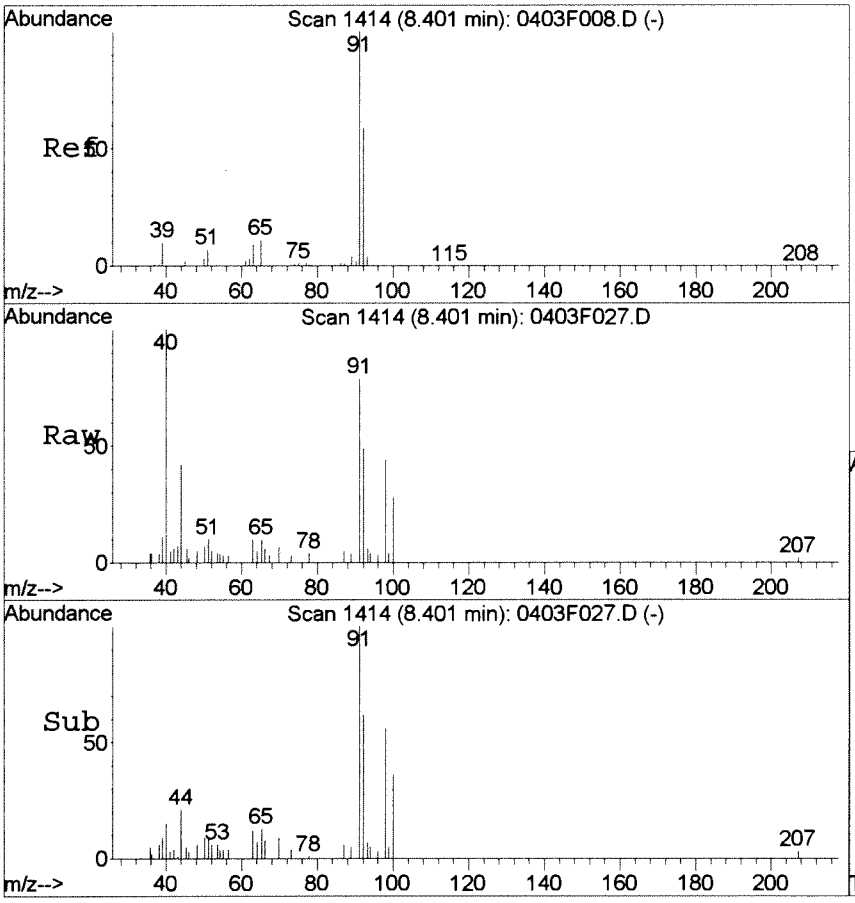


#51
Trichloroethene
Concen: 0.05 PPB
RT: 6.92 min Scan# 1132
Delta R.T. 0.01 min
Lab File: 0403F027.D
Acq: 03 Apr 2015 06:55 pm

Tgt Ion: 95 Resp: 989

Ion	Ratio	Lower	Upper
95	100		
132	64.2	72.9	132.9#
130	38.0	81.4	141.4#
97	0.0	32.1	92.1#

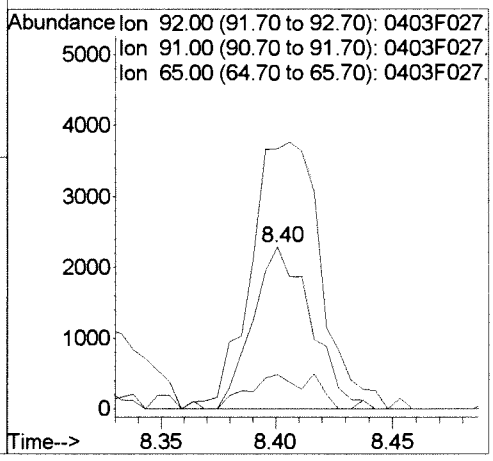


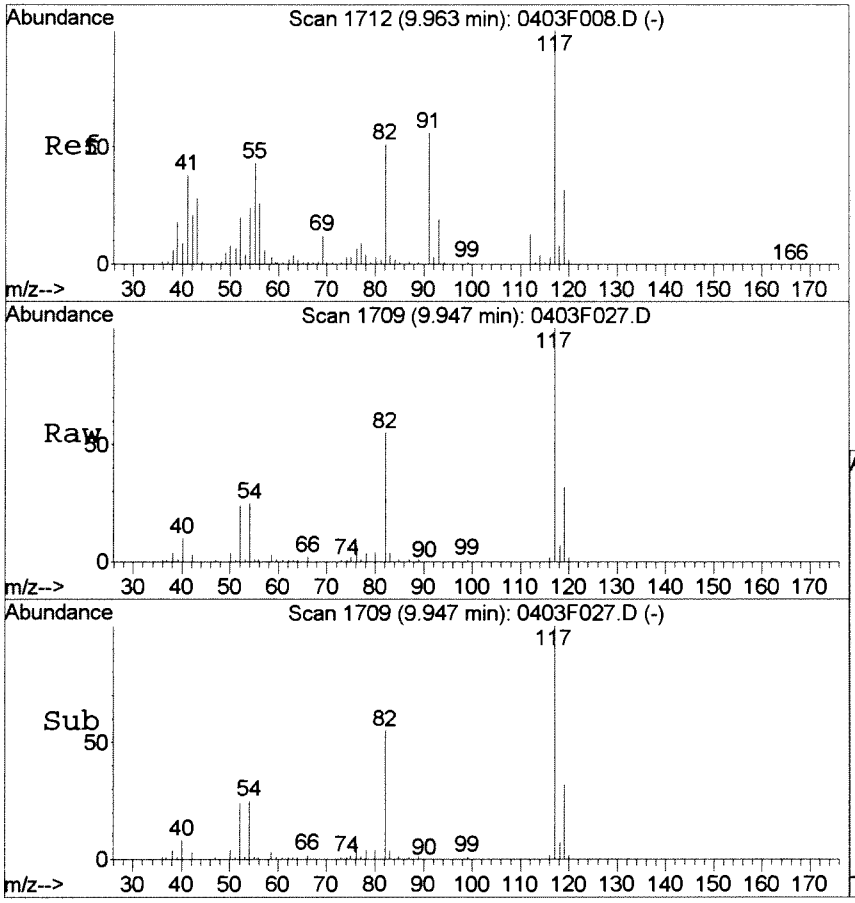


#63
Toluene
Concen: 0.09 PPB
RT: 8.40 min Scan# 1414
Delta R.T. 0.00 min
Lab File: 0403F027.D
Acq: 03 Apr 2015 06:55 pm

Tgt Ion: 92 Resp: 4012

Ion	Ratio	Lower	Upper
92	100		
91	160.2	139.2	199.2
65	21.2	0.0	50.2

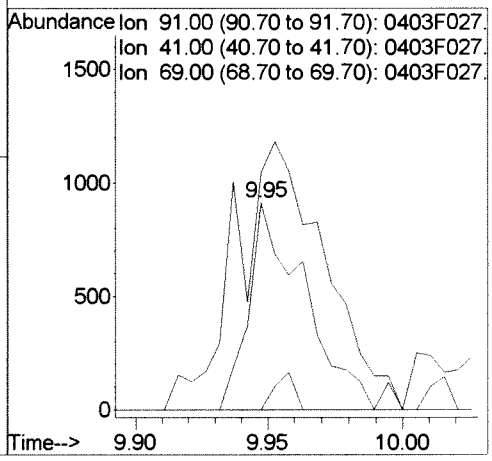




#74
1-Chlorohexane
Concen: 0.05 PPB
RT: 9.95 min Scan# 1709
Delta R.T. -0.02 min
Lab File: 0403F027.D
Acq: 03 Apr 2015 06:55 pm

Tgt Ion: 91 Resp: 1330

Ion	Ratio	Lower	Upper
91	100		
41	98.4	31.8	91.8#
69	0.0	0.0	51.3



Exception Report

Data File: J:\MS46\DATA\040315\0403F028.D
Lab ID: K1503171-012
RunType: SMPL
Matrix: WATER

Date Acquired: 04/03/2015 19:20
Date Quantitated: 04/09/2015 12:43
Batch ID: KWG1502843
Analysis Method: 8260C
ListJoinID: LJ1423

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Duplicate Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: KM 4/9/15

Secondary Review: 4915

Quantitation Report

Data File:	J:\MS46\DATA\040315\0403F028.D			**Instrument:**	GCMS46
Acqu Date:	04/03/2015 19:20	**Quant Date:**	04/09/2015 12:43	**Vial:**	20
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1503171-012			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	03/25/2015	**Receive Date:**	03/27/2015

Analysis Lot:	KWG1502843	**Prep Lot:**	KWG1502844	**Report Group:**	K1503171
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1424890	**Prep Date:**	04/03/2015		

Quant Method:	J:\MS46\METHODS\031615MS46_8	**Calibration ID:**	CAL13899
Title:	Volatile Organic Compounds	**Report List ID:**	LJ1423
Tune Ref:	J:\MS46\DATA\040315\0403F007.D	**Method ID:**	MJ119
MB Ref:	J:\MS46\DATA\040315\0403F017.D	**Quant based on Report List**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	6.49	0.00	96	741694	10.00	OK
2	Chlorobenzene-d5	9.96	0.01	82	293309	10.00	OK
3	1,4-Dichlorobenzene-d4	12.53	0.00	152	292002	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.70	0.01	0.00	113	192430	11.81	118	73-122	OK	
1	Toluene-d8	8.33	0.00	0.00	98	700267	11.14	111	65-144	OK	
2	4-Bromofluorobenzene	11.27	0.00	0.00	95	250879	11.04	110	68-117	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Tetrachloride	5.77		0.00	117	108381	4.11	4.1		

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\040315\0403F028.D Vial: 20
Acq On : 03 Apr 2015 07:20 pm Operator: KR
Sample : K3171-012 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 08 17:10:36 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.49	96	741694	10.00	PPB	0.00
64) Chlorobenzene-d5	9.96	82	293309	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	12.53	152	292002	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.70	113	192430	11.81	PPB	0.00
Spiked Amount 10.000			Recovery =	118.10%		
47) 1,2-Dichloroethane-d4	6.14	65	221499	12.87	PPB	0.00
Spiked Amount 10.000			Recovery =	128.70%		
62) Toluene-d8	8.33	98	700267	11.14	PPB	0.00
Spiked Amount 10.000			Recovery =	111.40%		
84) 4-Bromofluorobenzene	11.27	95	250879	11.04	PPB	0.00
Spiked Amount 10.000			Recovery =	110.40%		
Target Compounds						Qvalue
6) Bromomethane	1.69	96	503	0.04	PPB #	34
9) Trichlorofluoromethane	1.93	101	2609	0.09	PPB	94
15) Iodomethane	2.63	142	532	0.04	PPB #	68
16) Carbon Disulfide	2.66	76	1777	0.03	PPB	81
21) Methylene Chloride	3.12	84	918	0.05	PPB #	51
40) Chloroform	5.47	83	8476	0.27	PPB	76
42) 1,1,1-Trichloroethane	5.62	97	808	0.03	PPB #	46
44) Carbon Tetrachloride	5.77	117	108381	4.11	PPB	95
63) Toluene	8.40	92	6398	0.14	PPB	94
74) 1-Chlorohexane	9.95	91	1666	0.07	PPB	61

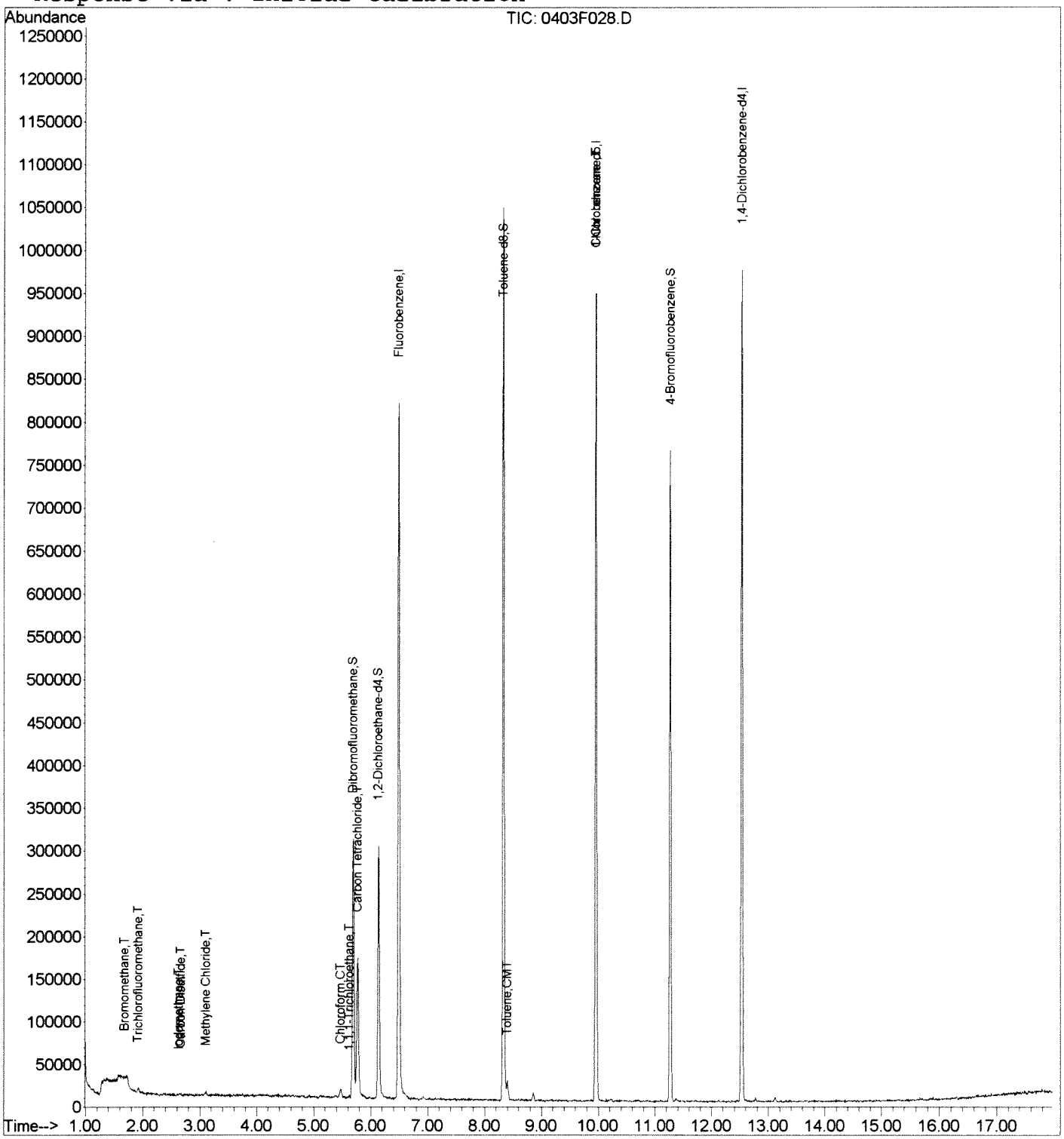
(#) = qualifier out of range (m) = manual integration
0403F028.D 031615MS46_8260.M Thu Apr 09 12:43:44 2015 Page 1

04.09.15jal2nd Rev

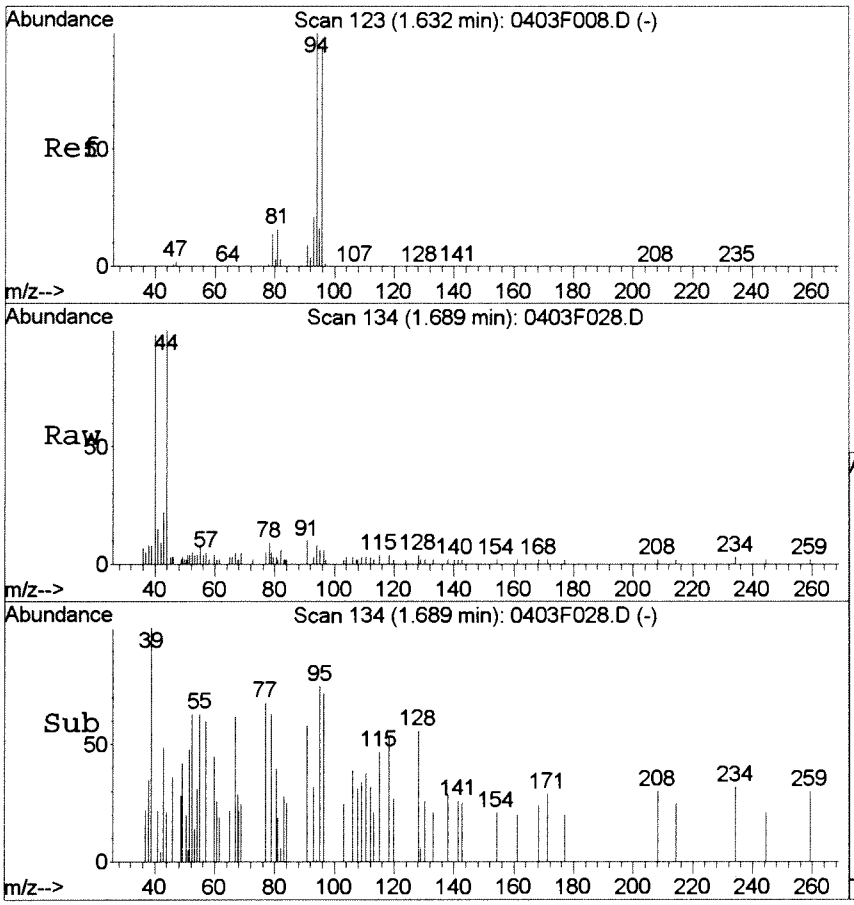
Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\040315\0403F028.D Vial: 20
Acq On : 03 Apr 2015 07:20 pm Operator: KR
Sample : K3171-012 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 9 12:43 2015 Quant Results File: 031615MS46_8

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Initial Calibration



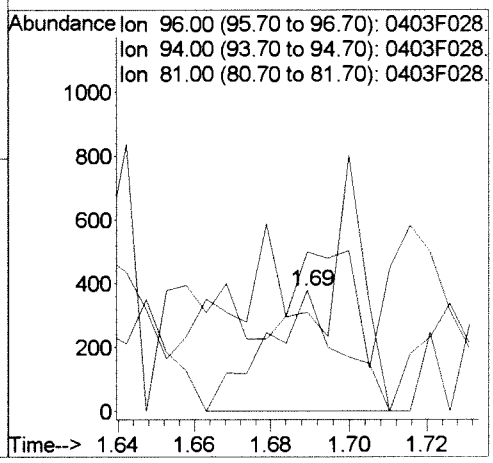
04.09.15jal2ndRev

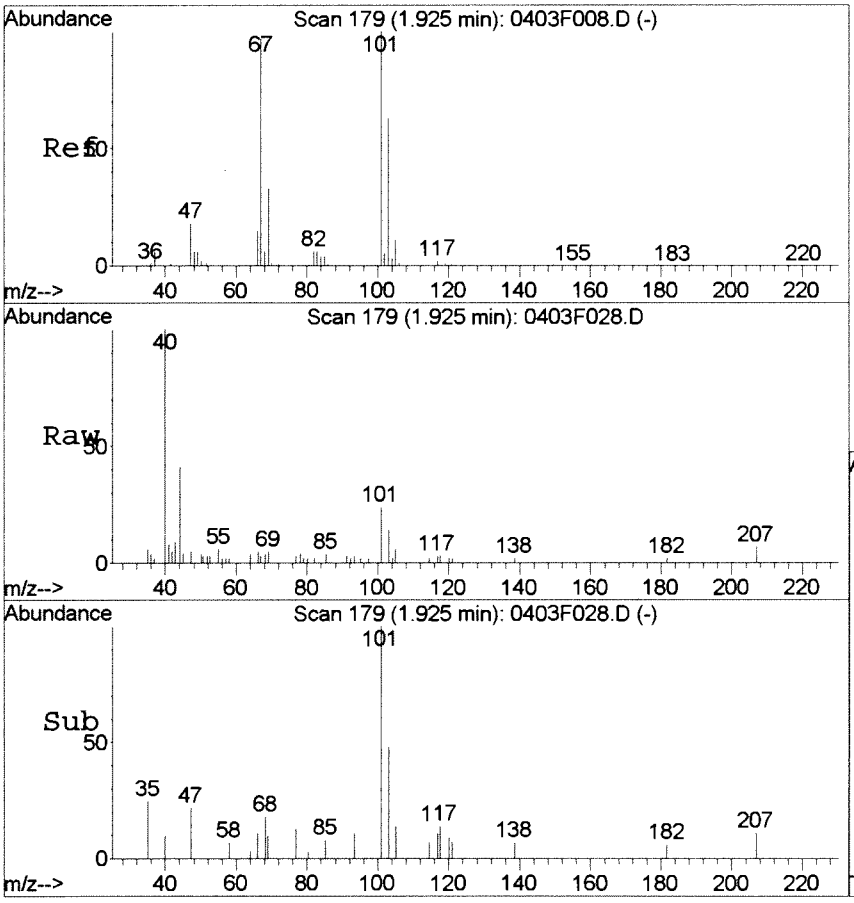


#6
Bromomethane
Concen: 0.04 PPB
RT: 1.69 min Scan# 134
Delta R.T. 0.06 min
Lab File: 0403F028.D
Acq: 03 Apr 2015 07:20 pm

Tgt Ion: 96 Resp: 503

Ion	Ratio	Lower	Upper
96	100		
94	50.1	74.2	134.2#
81	82.1	0.0	44.0#

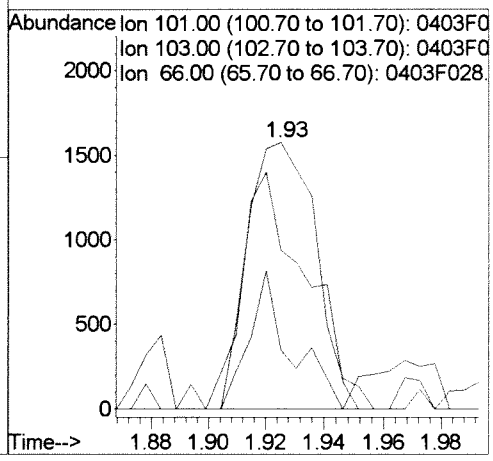


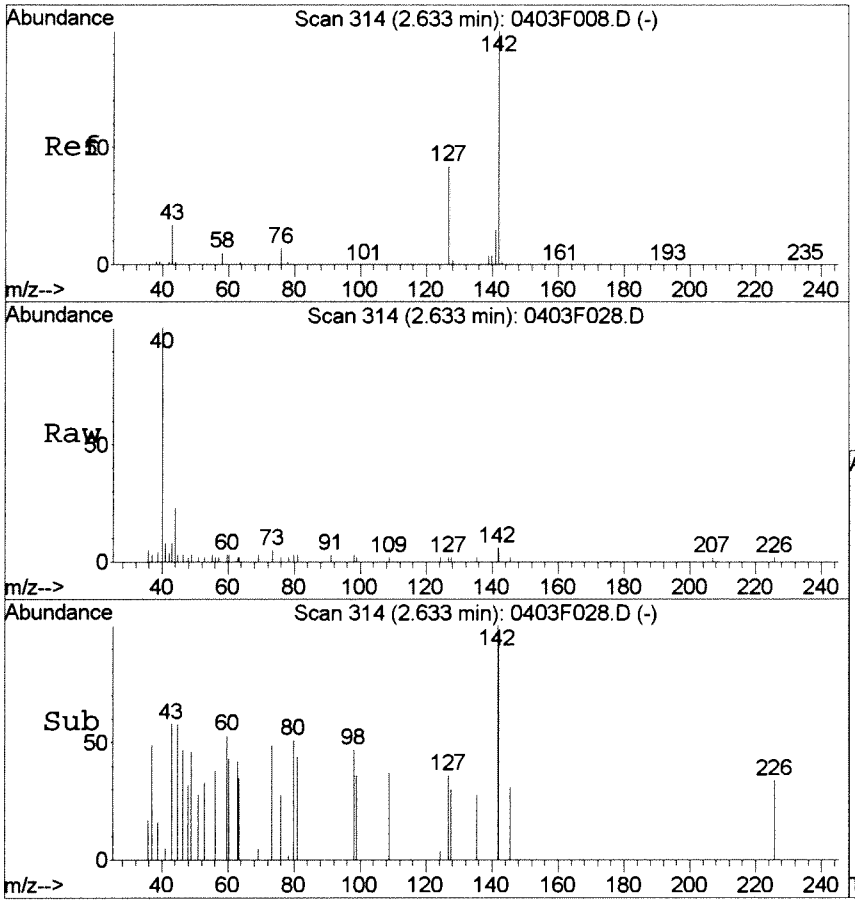


#9
Trichlorofluoromethane
Concen: 0.09 PPB
RT: 1.93 min Scan# 179
Delta R.T. -0.00 min
Lab File: 0403F028.D
Acq: 03 Apr 2015 07:20 pm

Tgt Ion:101 Resp: 2609

Ion	Ratio	Lower	Upper
101	100		
103	59.5	31.6	91.6
66	22.2	0.0	45.1

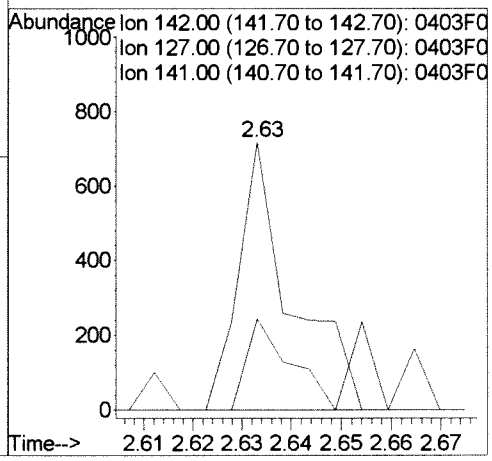


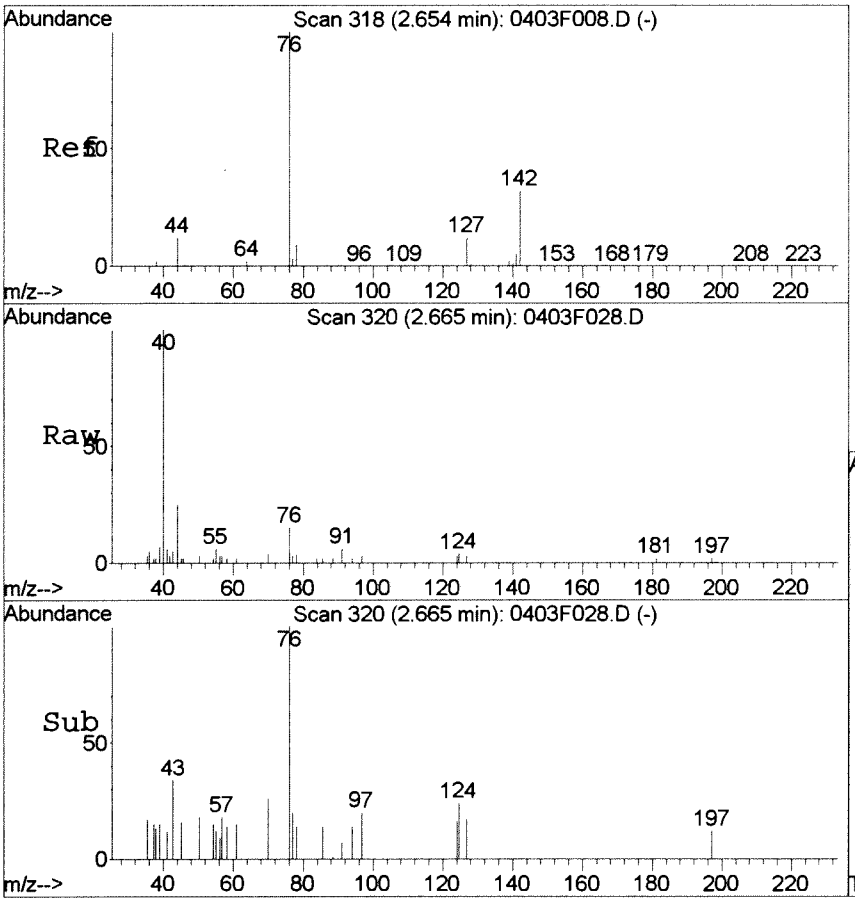


#15
Iodomethane
Concen: 0.04 PPB
RT: 2.63 min Scan# 314
Delta R.T. 0.00 min
Lab File: 0403F028.D
Acq: 03 Apr 2015 07:20 pm

Tgt Ion:142 Resp: 532

Ion	Ratio	Lower	Upper
142	100		
127	34.0	10.8	70.8
141	51.5	0.0	44.2#

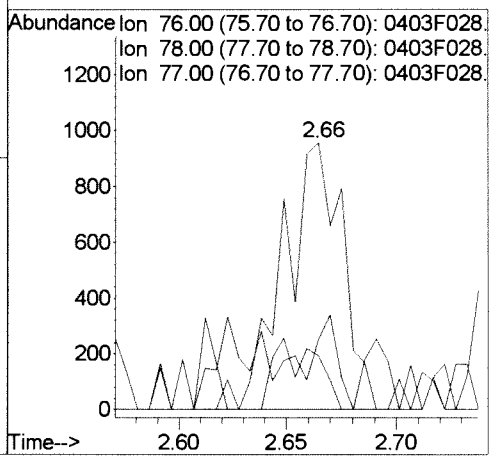


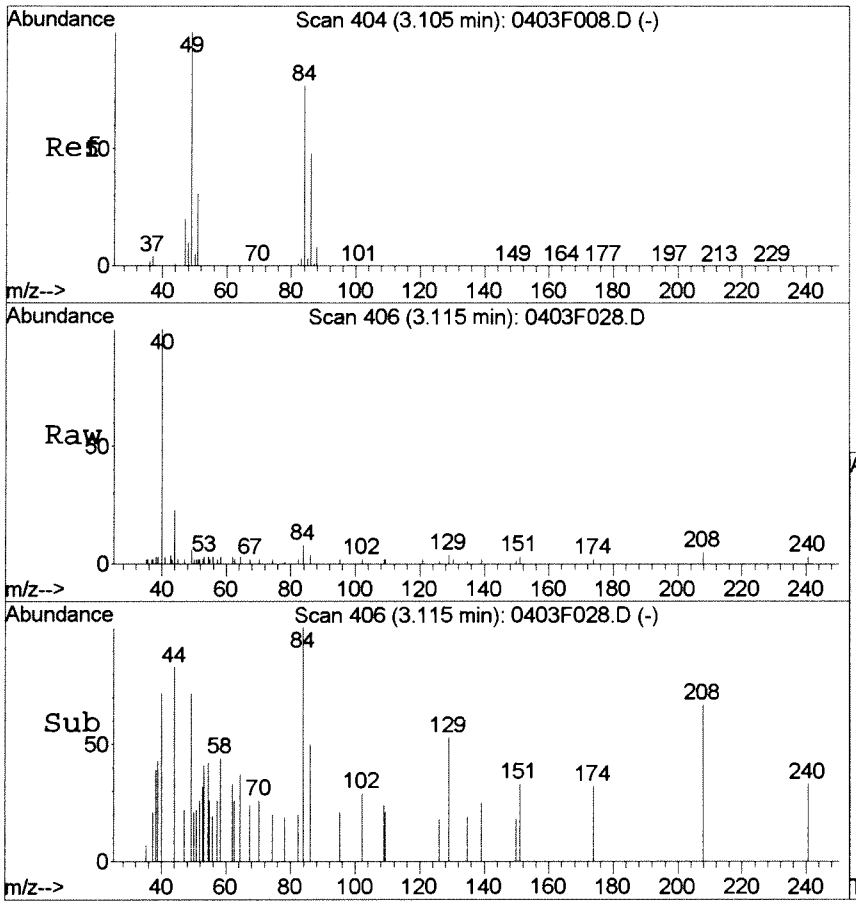


#16
Carbon Disulfide
Concen: 0.03 PPB
RT: 2.66 min Scan# 320
Delta R.T. 0.01 min
Lab File: 0403F028.D
Acq: 03 Apr 2015 07:20 pm

Tgt Ion: 76 Resp: 1777

Ion	Ratio	Lower	Upper
76	100		
78	10.9	0.0	38.4
77	20.3	0.0	32.9

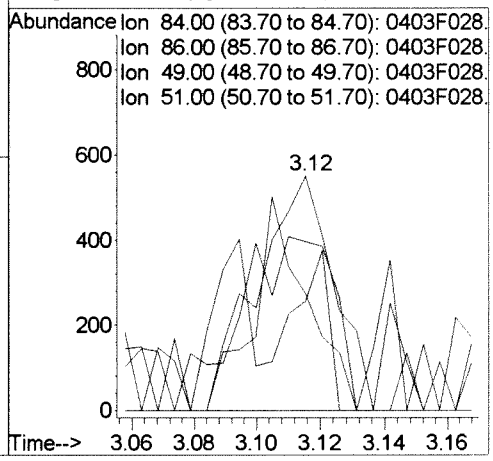


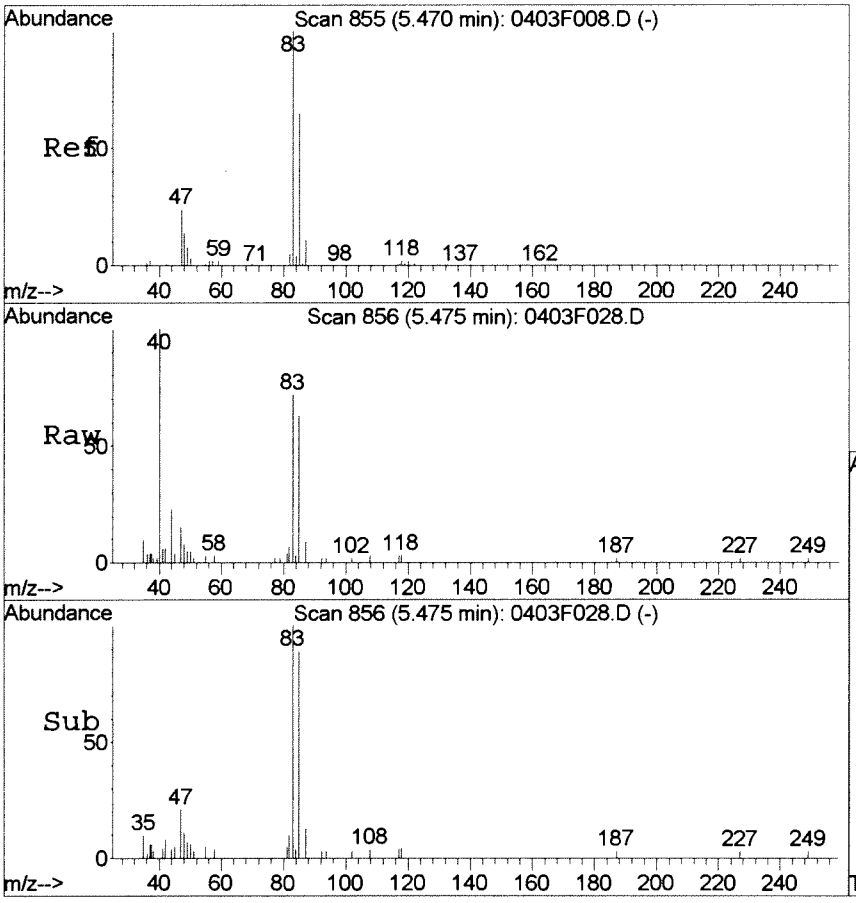


#21
Methylene Chloride
Concen: 0.05 PPB
RT: 3.12 min Scan# 406
Delta R.T. 0.01 min
Lab File: 0403F028.D
Acq: 03 Apr 2015 07:20 pm

Tgt Ion: 84 Resp: 918

Ion	Ratio	Lower	Upper
84	100		
86	49.7	33.1	93.1
49	52.5	99.0	159.0#
51	12.5	8.0	68.0

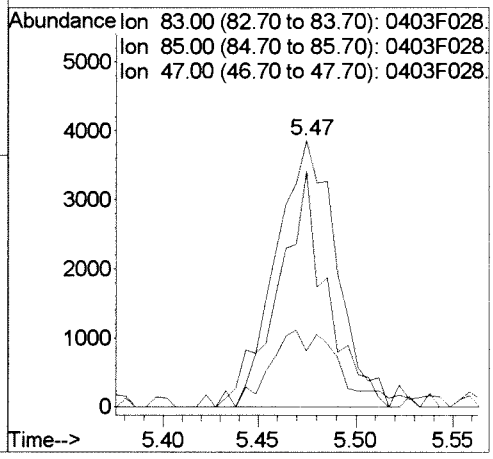


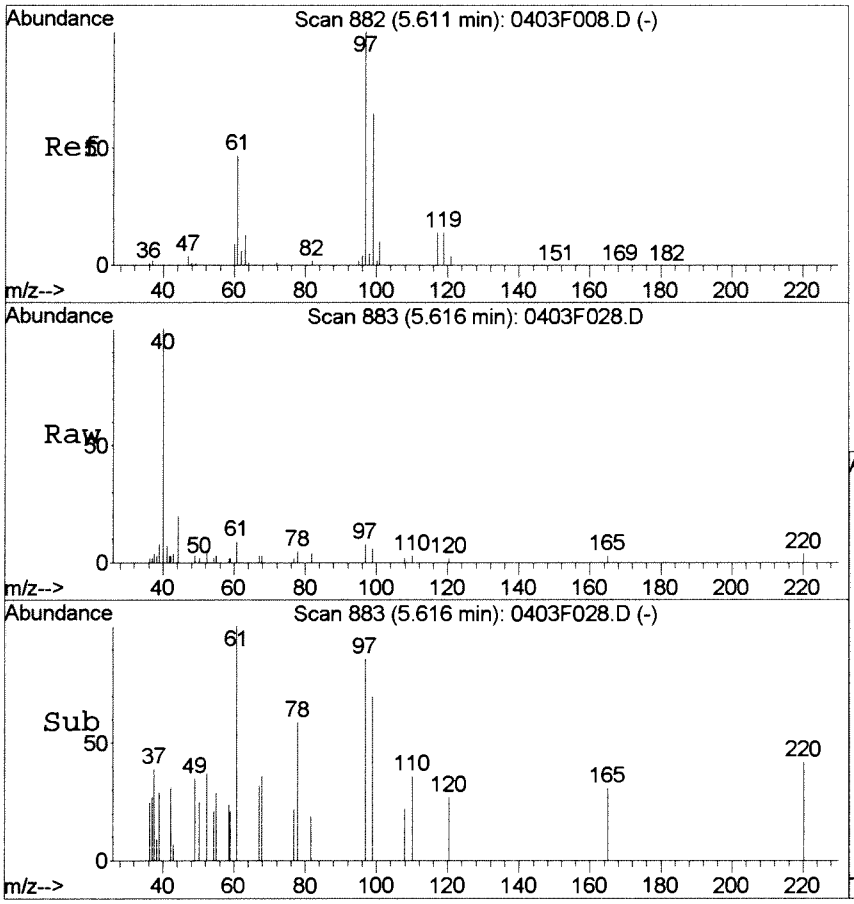


#40
Chloroform
Concen: 0.27 PPB
RT: 5.47 min Scan# 856
Delta R.T. -0.00 min
Lab File: 0403F028.D
Acq: 03 Apr 2015 07:20 pm

Tgt Ion: 83 Resp: 8476

Ion	Ratio	Lower	Upper
83	100		
85	84.8	33.1	93.1
47	16.9	0.0	54.1

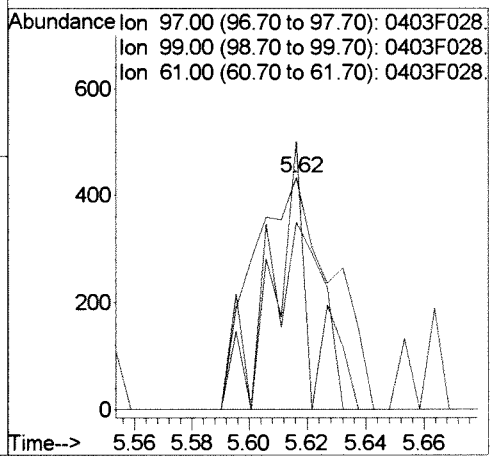


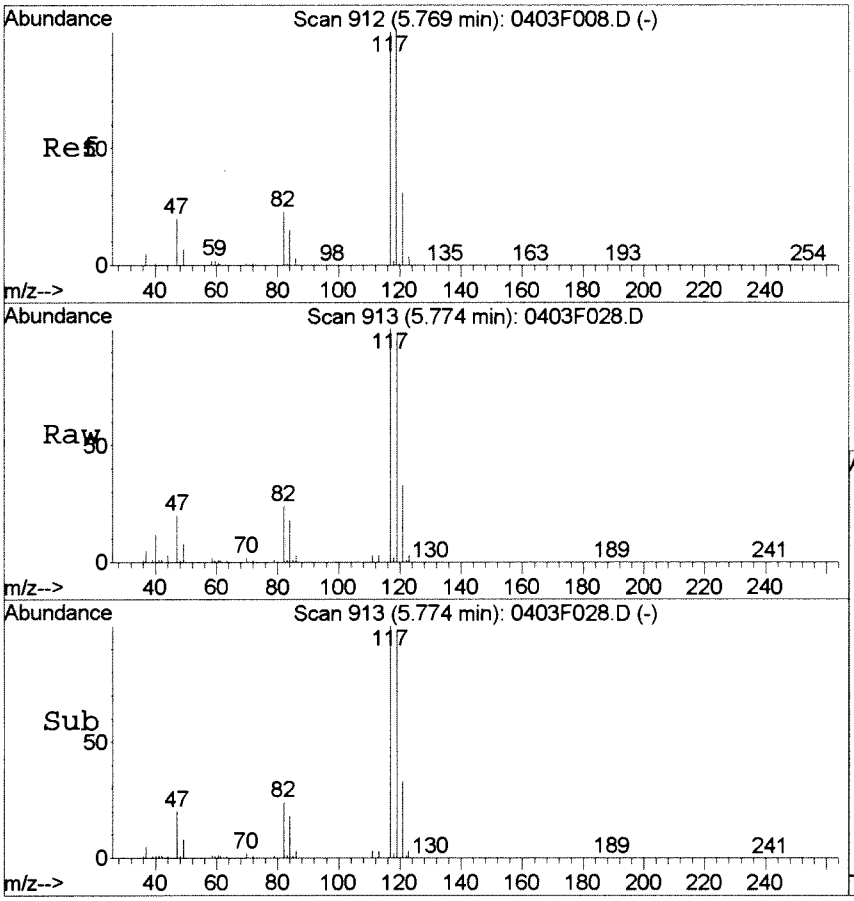


#42
1,1,1-Trichloroethane
Concen: 0.03 PPB
RT: 5.62 min Scan# 883
Delta R.T. 0.00 min
Lab File: 0403F028.D
Acq: 03 Apr 2015 07:20 pm

Tgt Ion: 97 Resp: 808

Ion	Ratio	Lower	Upper
97	100		
99	80.8	37.0	97.0
61	115.7	15.1	75.1#

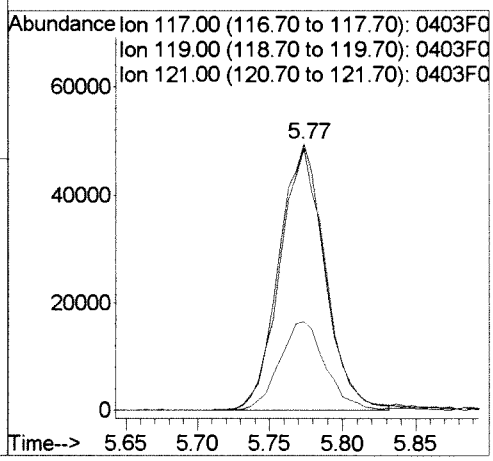


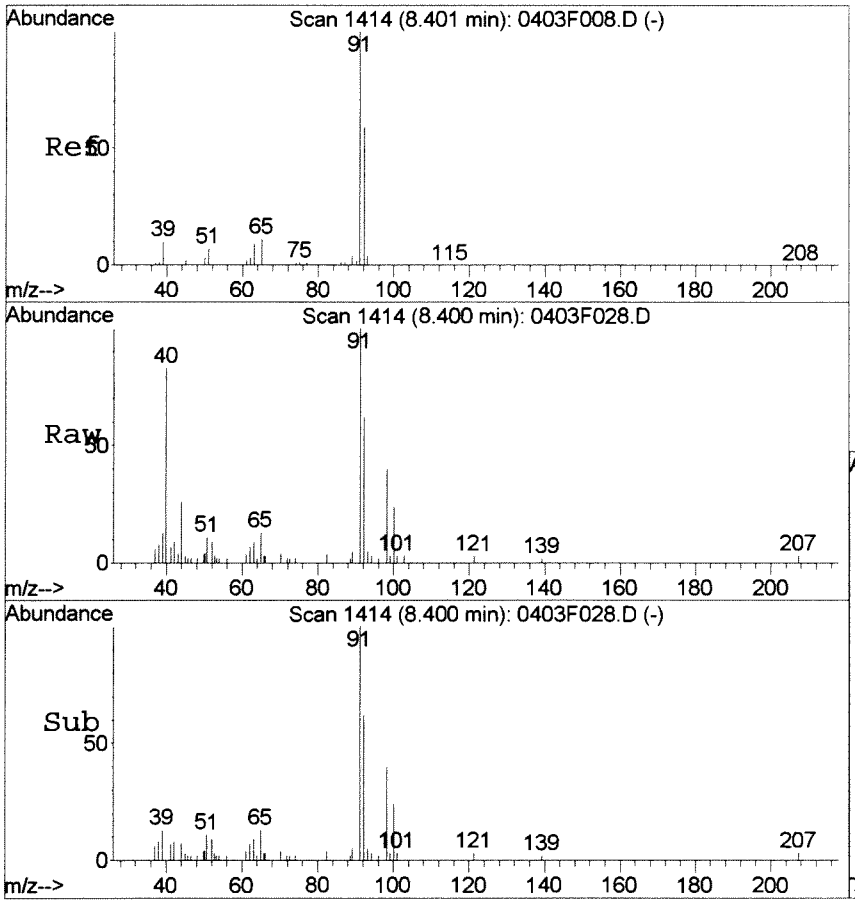


#44
Carbon Tetrachloride
Concen: 4.11 PPB
RT: 5.77 min Scan# 913
Delta R.T. 0.01 min
Lab File: 0403F028.D
Acq: 03 Apr 2015 07:20 pm

Tgt Ion:117 Resp: 108381

Ion	Ratio	Lower	Upper
117	100		
119	98.4	63.3	123.3
121	33.3	0.2	60.2

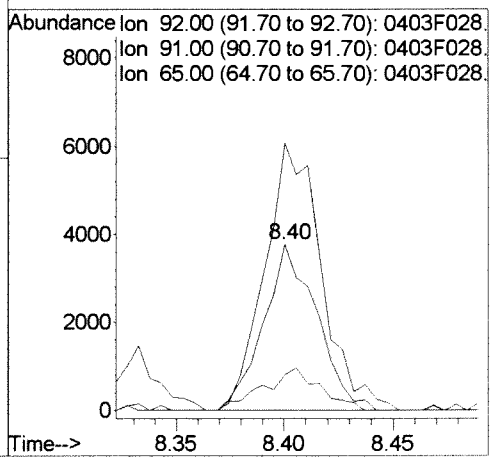


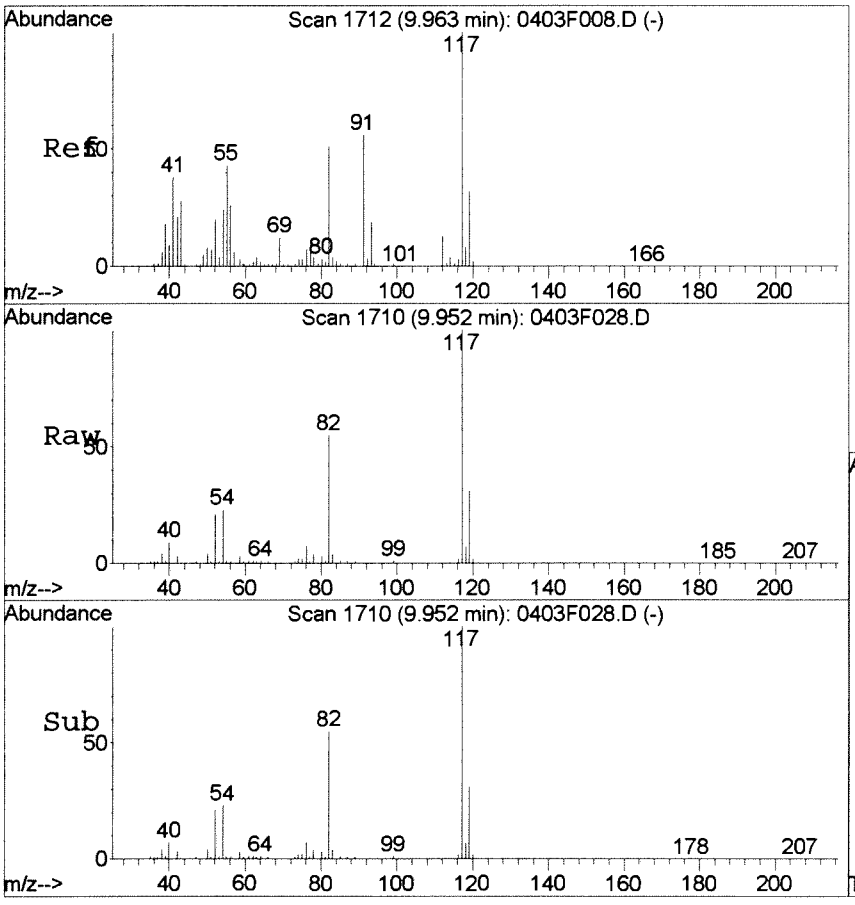


#63
Toluene
Concen: 0.14 PPB
RT: 8.40 min Scan# 1414
Delta R.T. -0.00 min
Lab File: 0403F028.D
Acq: 03 Apr 2015 07:20 pm

Tgt Ion: 92 Resp: 6398

Ion	Ratio	Lower	Upper
92	100		
91	160.8	139.2	199.2
65	21.3	0.0	50.2

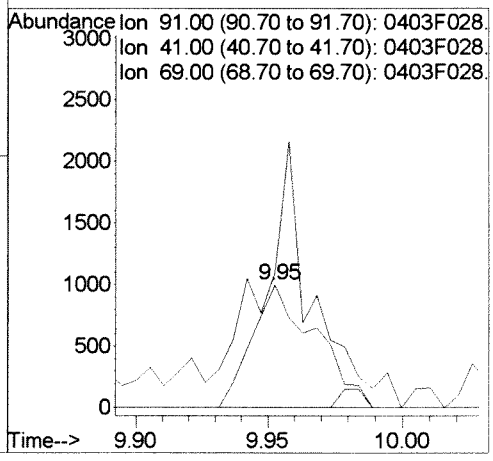




#74
1-Chlorohexane
Concen: 0.07 PPB
RT: 9.95 min Scan# 1710
Delta R.T. -0.01 min
Lab File: 0403F028.D
Acq: 03 Apr 2015 07:20 pm

Tgt Ion: 91 Resp: 1666

Ion	Ratio	Lower	Upper
91	100		
41	89.7	31.8	91.8
69	0.0	0.0	51.3



Exception Report

Data File: J:\MS46\DATA\040315\0403F025.D
Lab ID: K1503171-013
RunType: SMPL
Matrix: WATER

Date Acquired: 04/03/2015 18:08
Date Quantitated: 04/09/2015 12:37
Batch ID: KWG1502843
Analysis Method: 8260C
ListJoinID: LJ1423

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Duplicate Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 4/9/15

Secondary Review: 4/9/15

Quantitation Report

Data File:	J:\MS46\DATA\040315\0403F025.D			**Instrument:**	GCMS46
Acqu Date:	04/03/2015 18:08	**Quant Date:**	04/09/2015 12:37	**Vial:**	17
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1503171-013			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	03/25/2015	**Receive Date:**	03/27/2015

Analysis Lot:	KWG1502843	**Prep Lot:**	KWG1502844	**Report Group:**	K1503171
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1424872	**Prep Date:**	04/03/2015		

Quant Method:	J:\MS46\METHODS\031615MS46_8	**Calibration ID:**	CAL13899
Title:	Volatile Organic Compounds	**Report List ID:**	LJ1423
Tune Ref:	J:\MS46\DATA\040315\0403F007.D	**Method ID:**	MJ119
MB Ref:	J:\MS46\DATA\040315\0403F017.D	**Quant based on Report List**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	6.49	0.00	96	738819	10.00	OK
2	Chlorobenzene-d5	9.95	0.00	82	291206	10.00	OK
3	1,4-Dichlorobenzene-d4	12.53	0.00	152	292392	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.69	0.00	0.00	113	184562	11.37	114	73-122	OK	
1	Toluene-d8	8.33	0.00	0.00	98	694014	11.09	111	65-144	OK	
2	4-Bromofluorobenzene	11.27	0.00	0.00	95	248162	11.00	110	68-117	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Tetrachloride				117	0		0.096	U	

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\040315\0403F025.D Vial: 17
Acq On : 03 Apr 2015 06:08 pm Operator: KR
Sample : K3171-013 TB031115 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 09 10:56:51 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	6.49	96	738819	10.00	PPB		0.00
64) Chlorobenzene-d5	9.95	82	291206	10.00	PPB		0.00
85) 1,4-Dichlorobenzene-d4	12.53	152	292392	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.69	113	184562	11.37	PPB		0.00
Spiked Amount 10.000			Recovery =	113.70%			
47) 1,2-Dichloroethane-d4	6.14	65	216392	12.62	PPB		0.00
Spiked Amount 10.000			Recovery =	126.20%			
62) Toluene-d8	8.33	98	694014	11.09	PPB		0.00
Spiked Amount 10.000			Recovery =	110.90%			
84) 4-Bromofluorobenzene	11.27	95	248162	11.00	PPB		0.00
Spiked Amount 10.000			Recovery =	110.00%			
Target Compounds							Qvalue
14) Acetone	2.62	43	4960	2.03	PPB		90
15) Iodomethane	2.64	142	598	0.04	PPB		65
16) Carbon Disulfide	2.65	76	1658	0.03	PPB		51
17) 2-Propanol (Isopropyl Alco	2.80	45	1513	3.79	PPB	#	1
21) Methylene Chloride	3.11	84	3127	0.18	PPB	#	73
40) Chloroform	5.47	83	2718	0.09	PPB		75
42) 1,1,1-Trichloroethane	5.62	97	516	0.02	PPB	#	51
48) Benzene	6.09	78	766	0.01	PPB		61
51) Trichloroethene	6.92	95	765	0.04	PPB	#	81
63) Toluene	8.40	92	3502	0.08	PPB	#	73

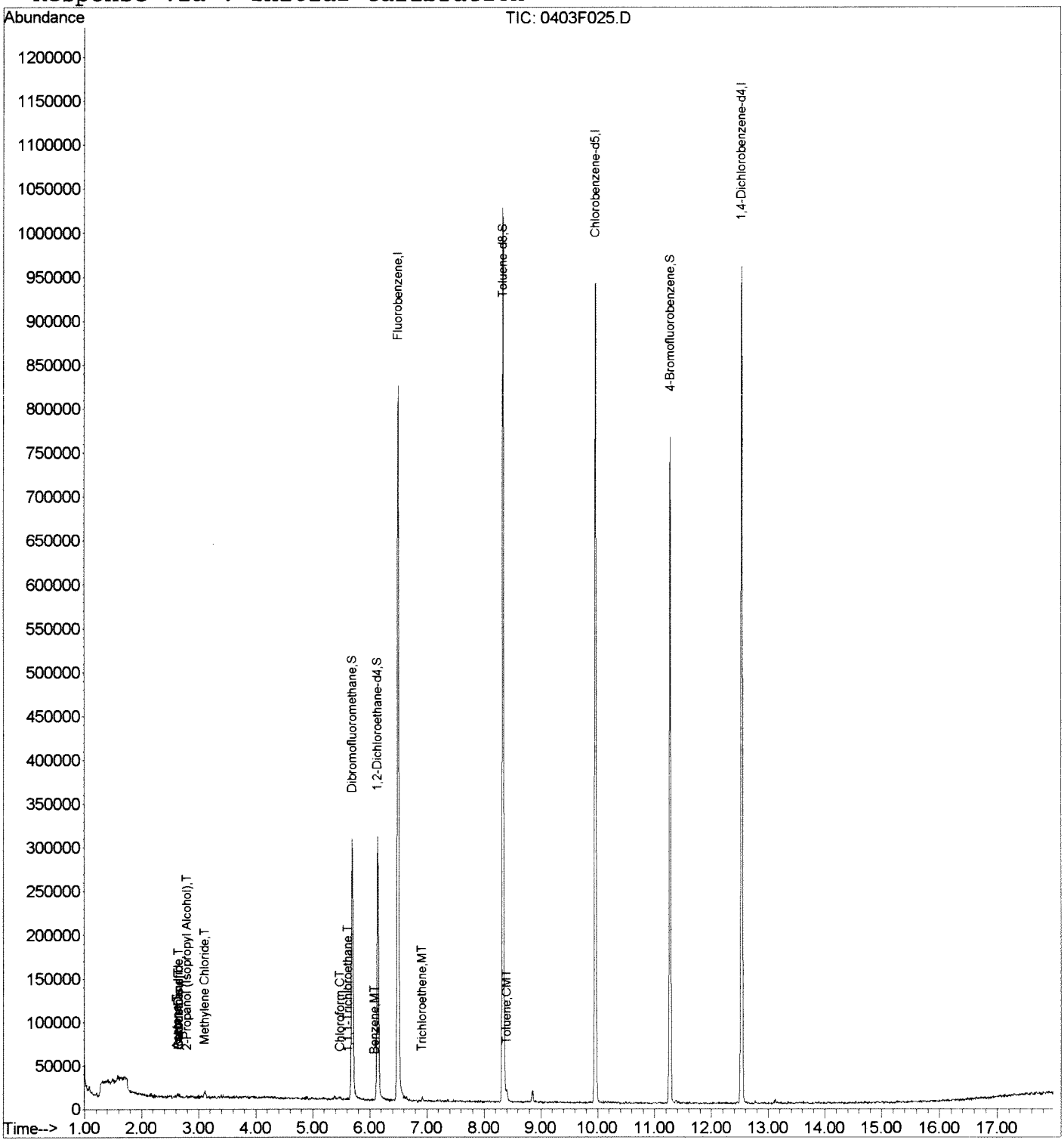
(#) = qualifier out of range (m) = manual integration
0403F025.D 031615MS46_8260.M Thu Apr 09 12:37:58 2015 Page 1

04.09.15jal2nd Rev

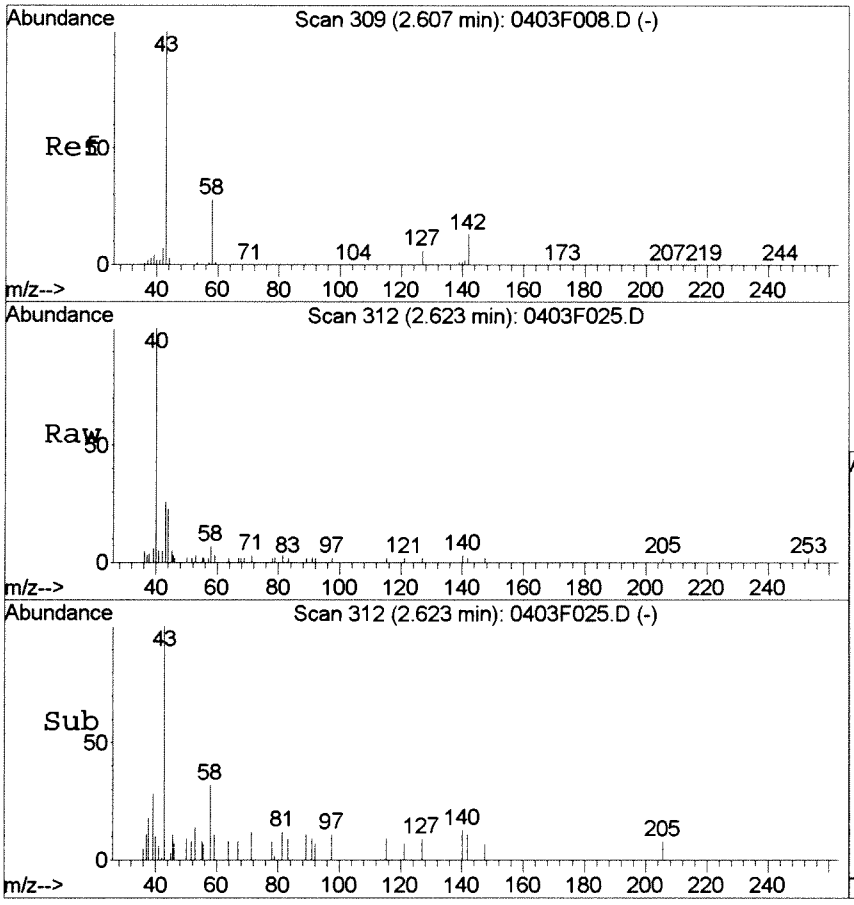
Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\040315\0403F025.D Vial: 17
Acq On : 03 Apr 2015 06:08 pm Operator: KR
Sample : K3171-013 TB031115 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 9 12:37 2015 Quant Results File: 031615MS46_8

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Initial Calibration



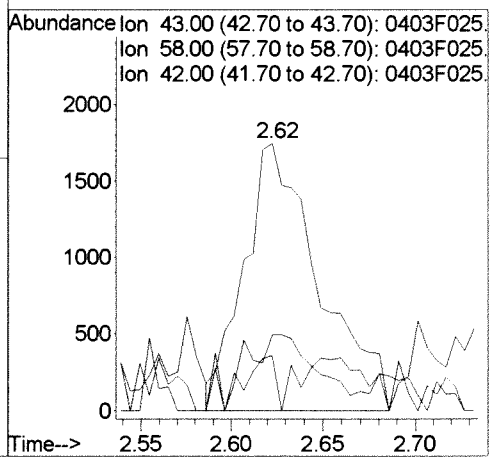
04.09.15jal2nd Rev

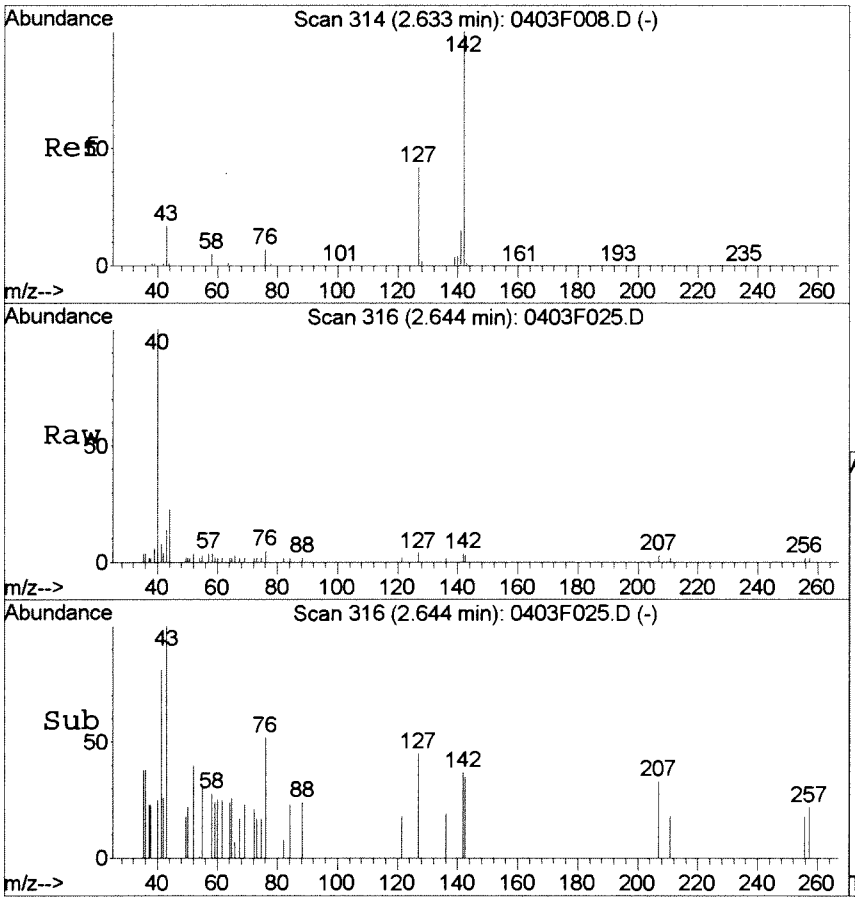


#14
Acetone
Concen: 2.03 PPB
RT: 2.62 min Scan# 312
Delta R.T. 0.02 min
Lab File: 0403F025.D
Acq: 03 Apr 2015 06:08 pm

Tgt Ion: 43 Resp: 4960

Ion	Ratio	Lower	Upper
43	100		
58	28.2	0.0	59.5
42	20.5	0.0	37.1

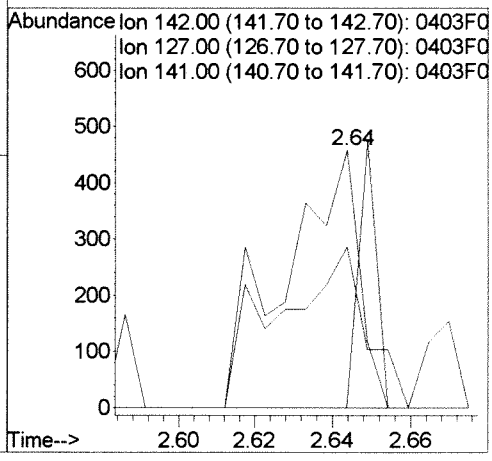


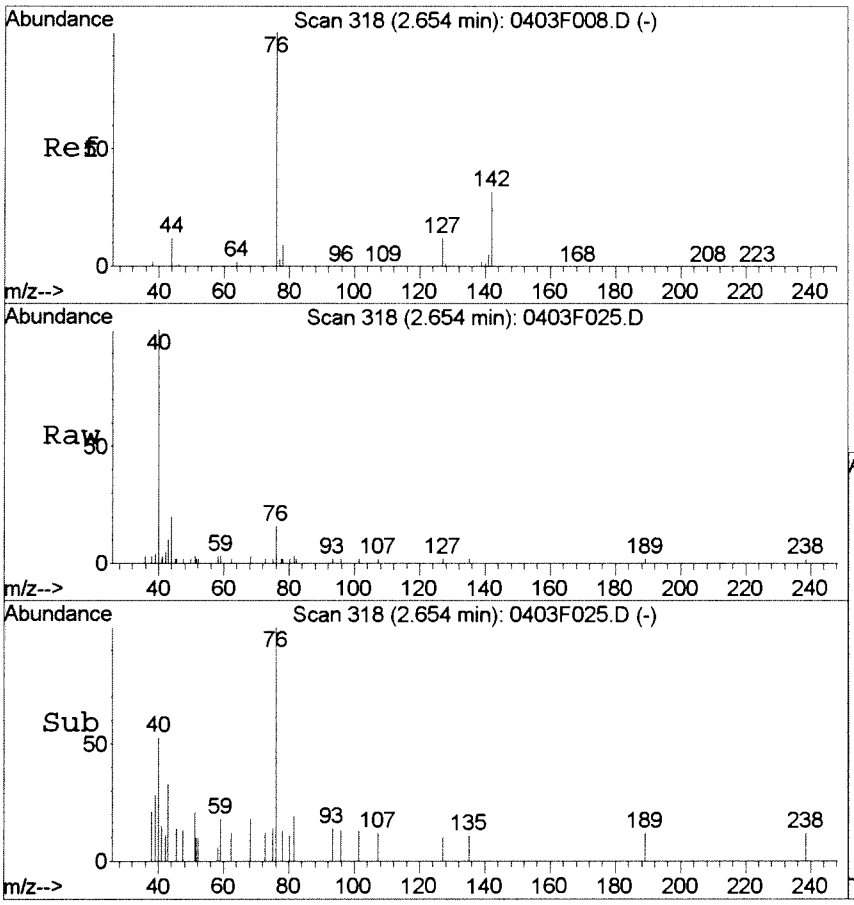


#15
Iodomethane
Concen: 0.04 PPB
RT: 2.64 min Scan# 316
Delta R.T. 0.01 min
Lab File: 0403F025.D
Acq: 03 Apr 2015 06:08 pm

Tgt Ion:142 Resp: 598

Ion	Ratio	Lower	Upper
142	100		
127	62.4	10.8	70.8
141	0.0	0.0	44.2

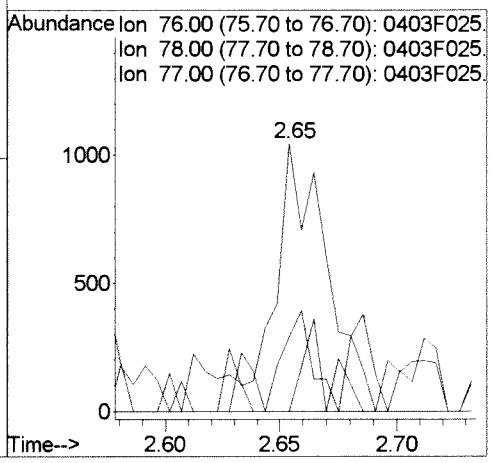


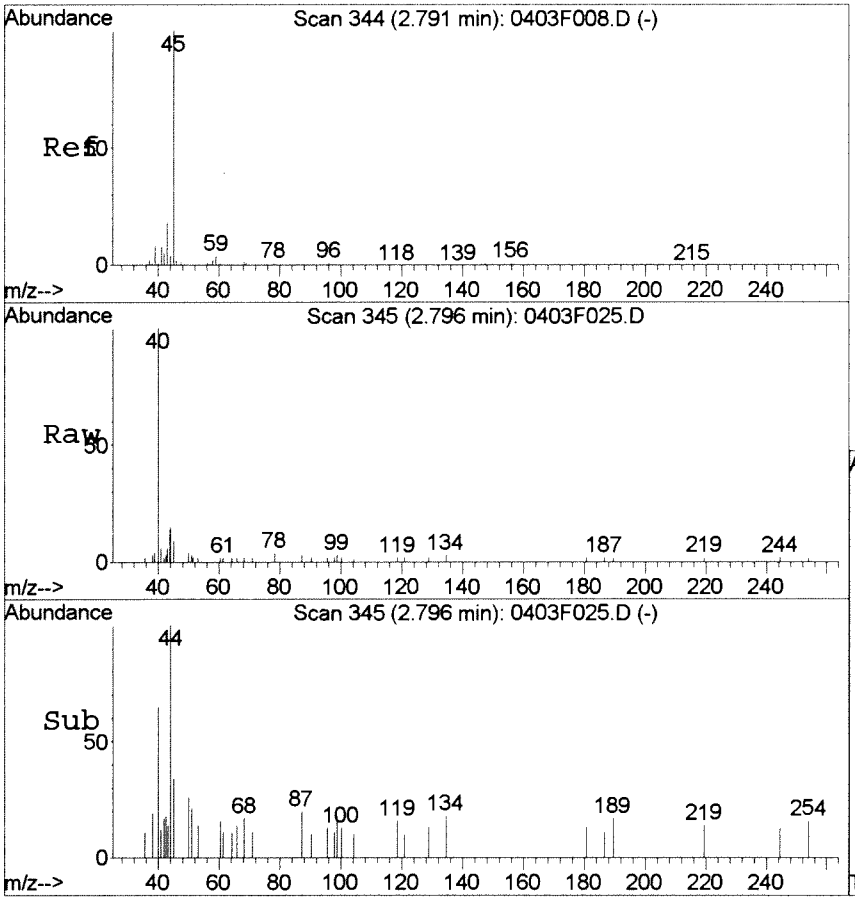


#16
Carbon Disulfide
Concen: 0.03 PPB
RT: 2.65 min Scan# 318
Delta R.T. -0.00 min
Lab File: 0403F025.D
Acq: 03 Apr 2015 06:08 pm

Tgt Ion: 76 Resp: 1658

Ion	Ratio	Lower	Upper
76	100		
78	27.7	0.0	38.4
77	14.6	0.0	32.9

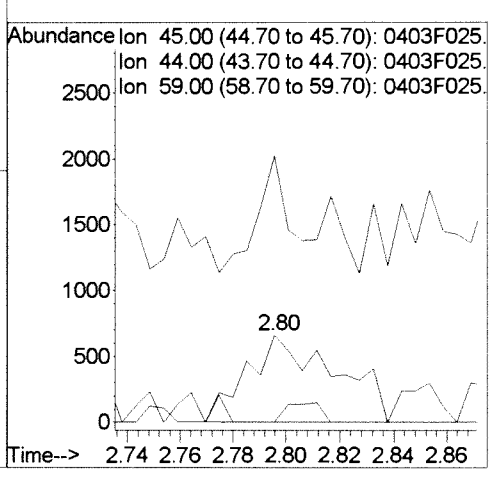


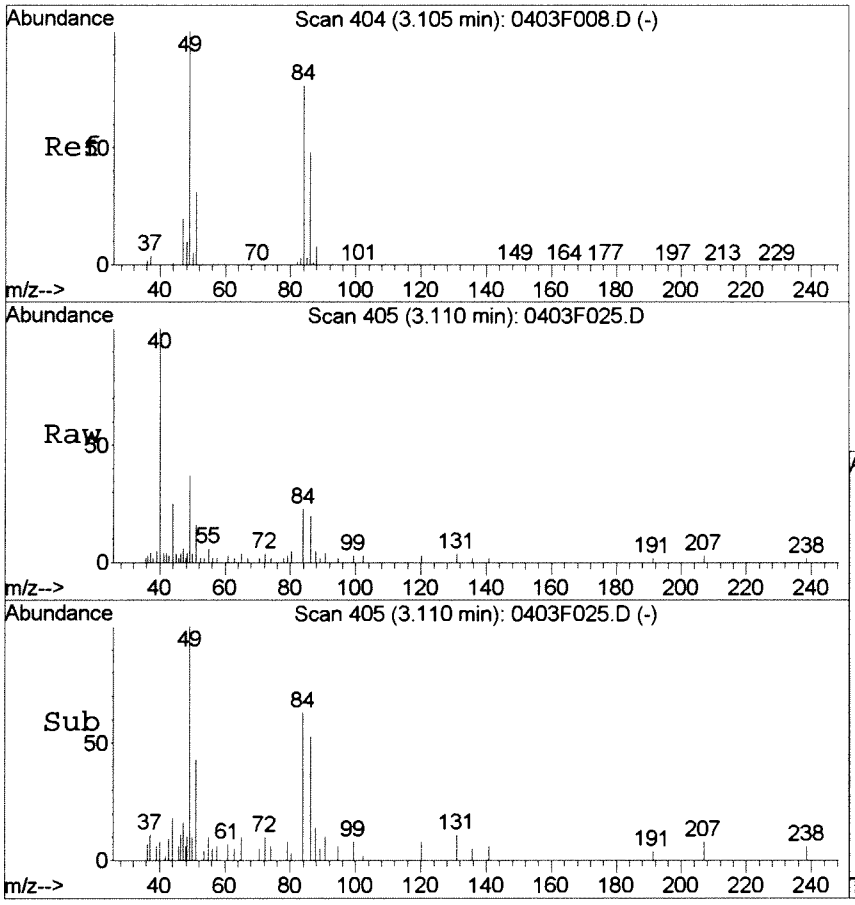


#17
2-Propanol (Isopropyl Alcohol
Concen: 3.79 PPB
RT: 2.80 min Scan# 345
Delta R.T. 0.01 min
Lab File: 0403F025.D
Acq: 03 Apr 2015 06:08 pm

Tgt Ion: 45 Resp: 1513

Ion	Ratio	Lower	Upper
45	100		
44	127.1	0.0	33.4#
59	0.0	0.0	34.6

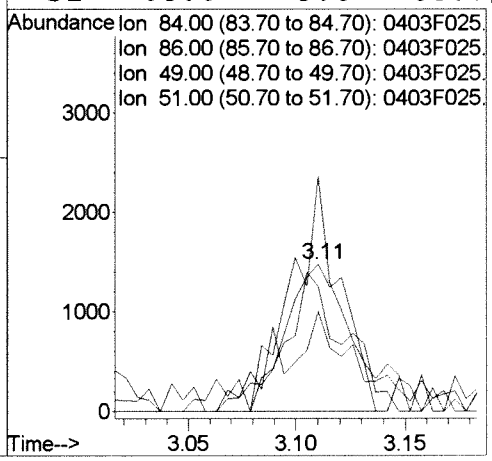


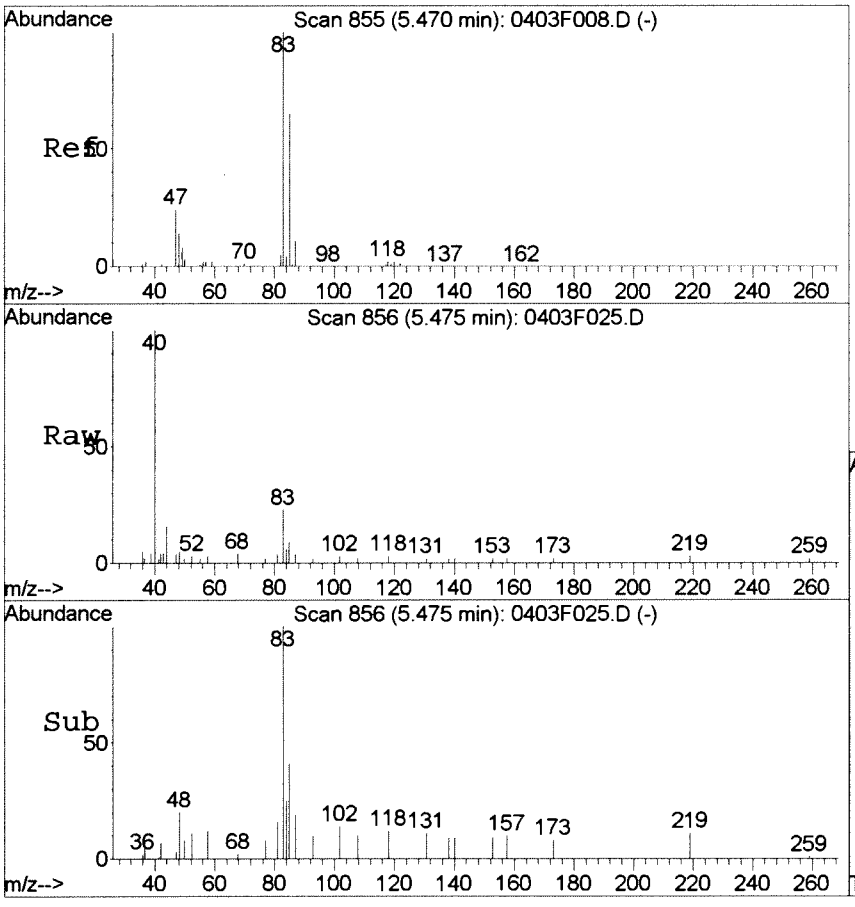


#21
Methylene Chloride
Concen: 0.18 PPB
RT: 3.11 min Scan# 405
Delta R.T. 0.01 min
Lab File: 0403F025.D
Acq: 03 Apr 2015 06:08 pm

Tgt Ion: 84 Resp: 3127

Ion	Ratio	Lower	Upper
84	100		
86	84.7	33.1	93.1
49	152.4	99.0	159.0
51	68.0	8.0	68.0#

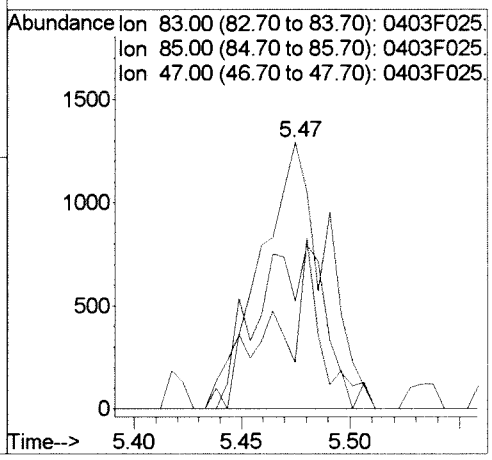


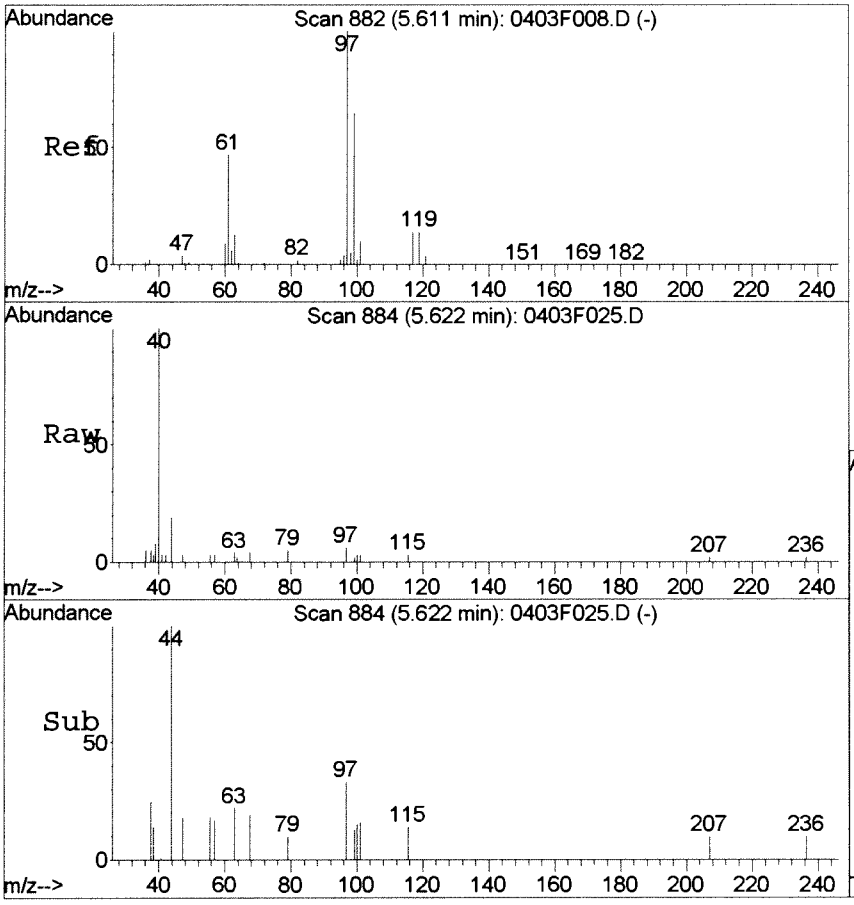


#40
Chloroform
Concen: 0.09 PPB
RT: 5.47 min Scan# 856
Delta R.T. 0.01 min
Lab File: 0403F025.D
Acq: 03 Apr 2015 06:08 pm

Tgt Ion: 83 Resp: 2718

Ion	Ratio	Lower	Upper
83	100		
85	40.5	33.1	93.1
47	17.3	0.0	54.1

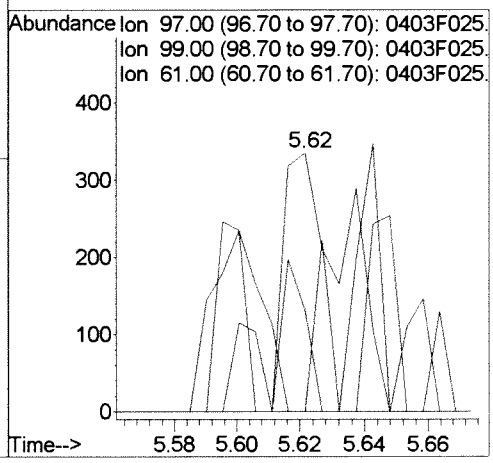


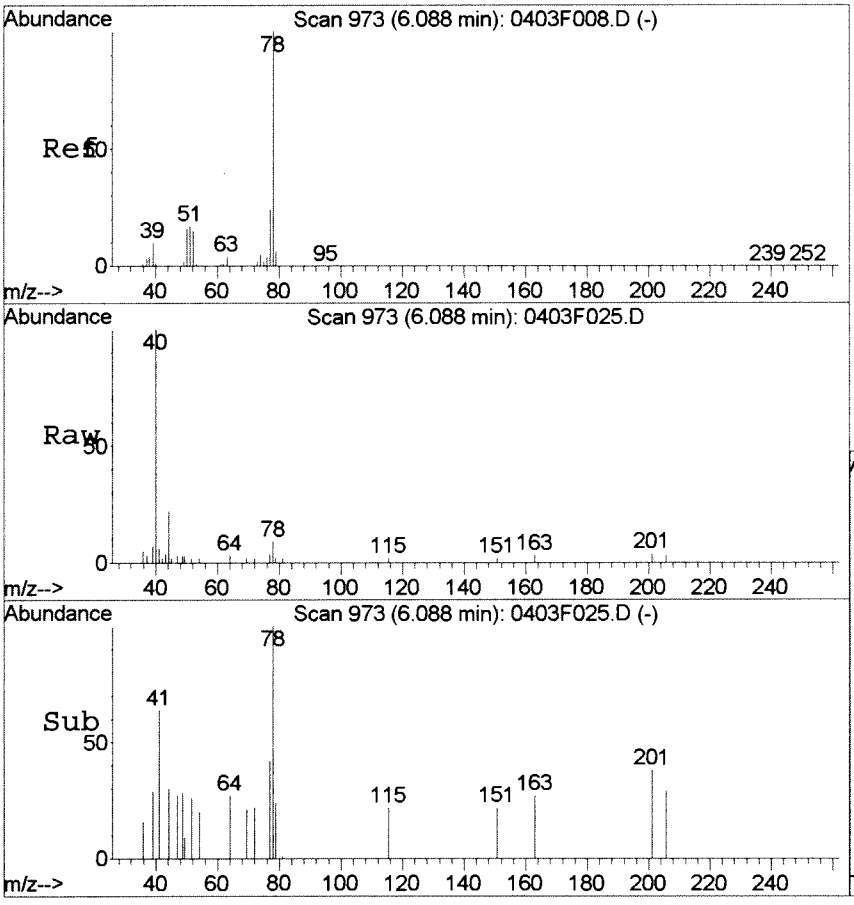


#42
1,1,1-Trichloroethane
Concen: 0.02 PPB
RT: 5.62 min Scan# 884
Delta R.T. 0.01 min
Lab File: 0403F025.D
Acq: 03 Apr 2015 06:08 pm

Tgt Ion: 97 Resp: 516

Ion	Ratio	Lower	Upper
97	100		
99	39.1	37.0	97.0
61	0.0	15.1	75.1#

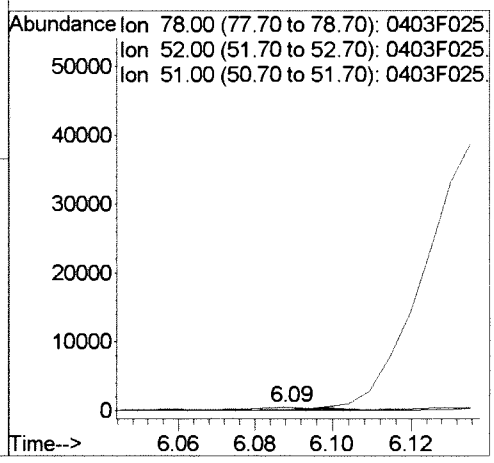


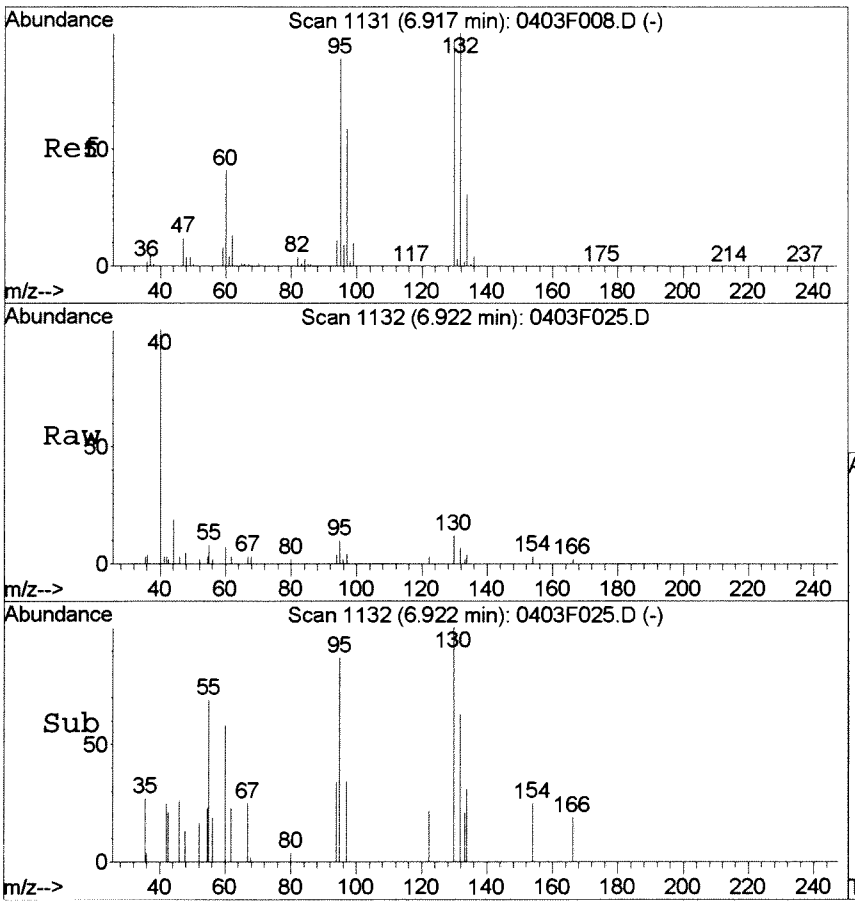


#48
Benzene
Concen: 0.01 PPB
RT: 6.09 min Scan# 973
Delta R.T. -0.00 min
Lab File: 0403F025.D
Acq: 03 Apr 2015 06:08 pm

Tgt Ion: 78 Resp: 766

Ion	Ratio	Lower	Upper
78	100		
52	0.0	0.0	46.3
51	0.0	0.0	47.5

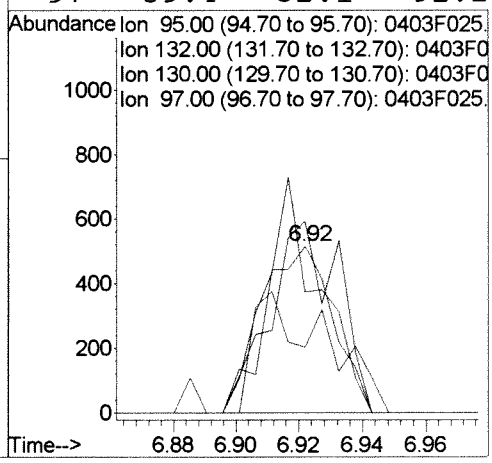


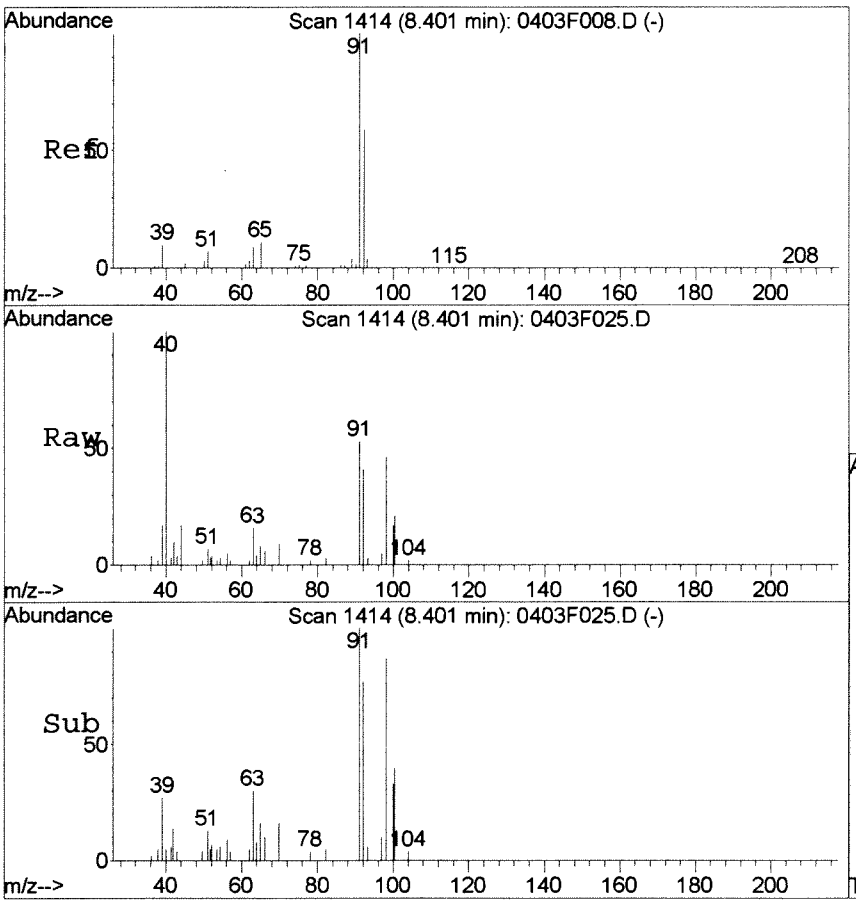


#51
Trichloroethene
Concen: 0.04 PPB
RT: 6.92 min Scan# 1132
Delta R.T. 0.01 min
Lab File: 0403F025.D
Acq: 03 Apr 2015 06:08 pm

Tgt Ion: 95 Resp: 765

Ion	Ratio	Lower	Upper
95	100		
132	72.4	72.9	132.9#
130	115.0	81.4	141.4
97	39.4	32.1	92.1

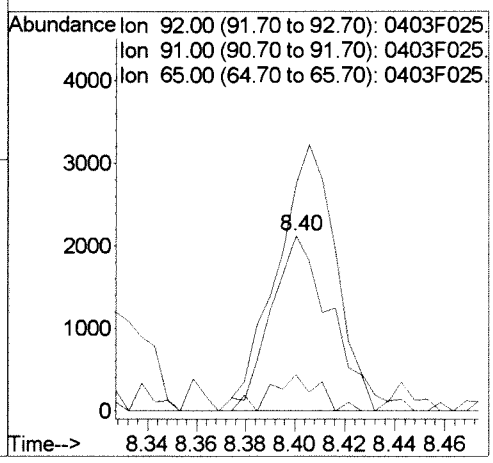




#63
Toluene
Concen: 0.08 PPB
RT: 8.40 min Scan# 1414
Delta R.T. -0.00 min
Lab File: 0403F025.D
Acq: 03 Apr 2015 06:08 pm

Tgt Ion: 92 Resp: 3502

Ion	Ratio	Lower	Upper
92	100		
91	129.7	139.2	199.2#
65	14.9	0.0	50.2



Exception Report

Data File: J:\MS46\DATA\040815X\0408F026.D
Lab ID: K1503171-014
RunType: SMPL
Matrix: WATER

Date Acquired: 04/08/2015 20:02
Date Quantitated: 04/09/2015 14:56
Batch ID: KWG1503030
Analysis Method: 8260C
ListJoinID: LJ1423

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Duplicate Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 4/9/15

Secondary Review: 4/10/15

Quantitation Report

Data File:	J:\MS46\DATA\040815X\0408F026.D			**Instrument:**	GCMS46
Acqu Date:	04/08/2015 20:02	**Quant Date:**	04/09/2015 14:56	**Vial:**	26
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1503171-014			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	03/26/2015	**Receive Date:**	03/27/2015

Analysis Lot:	KWG1503030	**Prep Lot:**	kwg1503029	**Report Group:**	K1503171
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1426067	**Prep Date:**	04/08/2015		

Quant Method:	J:\MS46\METHODS\031615MS46_8	**Calibration ID:**	CAL13899
Title:	Volatile Organic Compounds	**Report List ID:**	LJ1423
Tune Ref:	J:\MS46\DATA\040815X\0408F003.D	**Method ID:**	MJ119
MB Ref:	J:\MS46\DATA\040815X\0408F011.D	**Quant based on Report List**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	6.49	0.00	96	698148	10.00	OK
2	Chlorobenzene-d5	9.96	0.00	82	279294	10.00	OK
3	1,4-Dichlorobenzene-d4	12.53	0.00	152	271931	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.69	0.00	0.00	113	180844	11.79	118	73-122	OK	
1	Toluene-d8	8.33	0.00	0.00	98	656344	11.10	111	65-144	OK	
2	4-Bromofluorobenzene	11.27	0.00	0.00	95	228805	10.58	106	68-117	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Tetrachloride				117	0		0.096	U	

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\040815X\0408F026.D Vial: 26
Acq On : 08 Apr 2015 08:02 pm Operator: KR
Sample : K3171-014 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 09 07:58:21 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	6.49	96	698148	10.00	PPB		0.00
64) Chlorobenzene-d5	9.96	82	279294	10.00	PPB		0.00
85) 1,4-Dichlorobenzene-d4	12.53	152	271931	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.69	113	180844	11.79	PPB		0.00
Spiked Amount 10.000			Recovery =	117.90%			
47) 1,2-Dichloroethane-d4	6.14	65	206419	12.74	PPB		0.00
Spiked Amount 10.000			Recovery =	127.40%			
62) Toluene-d8	8.33	98	656344	11.10	PPB		0.00
Spiked Amount 10.000			Recovery =	111.00%			
84) 4-Bromofluorobenzene	11.27	95	228805	10.58	PPB		0.00
Spiked Amount 10.000			Recovery =	105.80%			
Target Compounds							Qvalue
14) Acetone	2.62	43	1973	0.85	PPB		82
16) Carbon Disulfide	2.66	76	828	0.02	PPB		89
21) Methylene Chloride	3.11	84	678	0.04	PPB	#	59
39) Tetrahydrofuran	5.39	71	898	0.77	PPB	#	28
42) 1,1,1-Trichloroethane	5.62	97	525	0.02	PPB	#	45
48) Benzene	6.08	78	1042	0.02	PPB		65
63) Toluene	8.40	92	7706	0.18	PPB		93
106) Naphthalene	15.00	128	5328	0.12	PPB		93

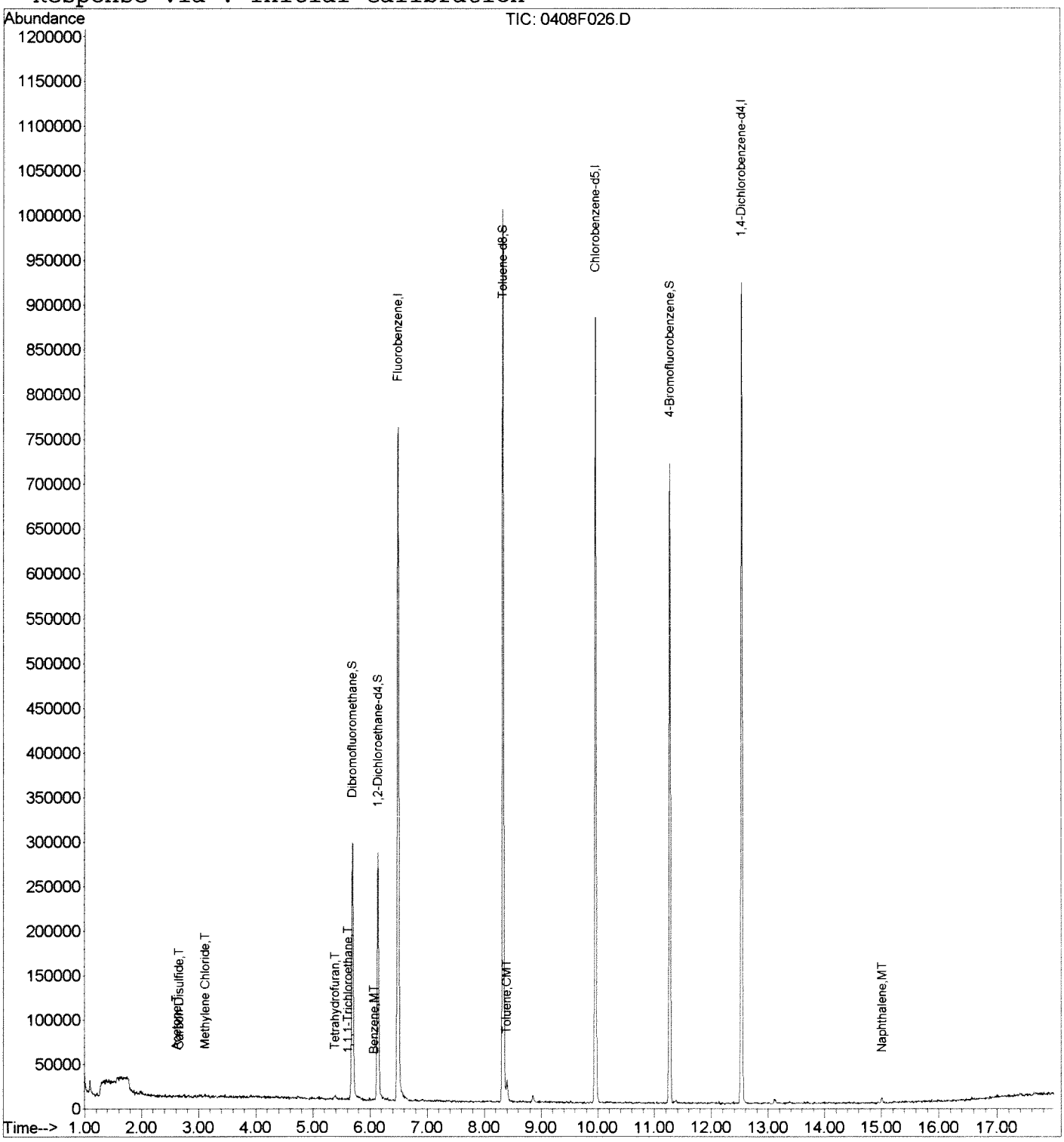
(#) = qualifier out of range (m) = manual integration

04.10.15jal2nd Rev

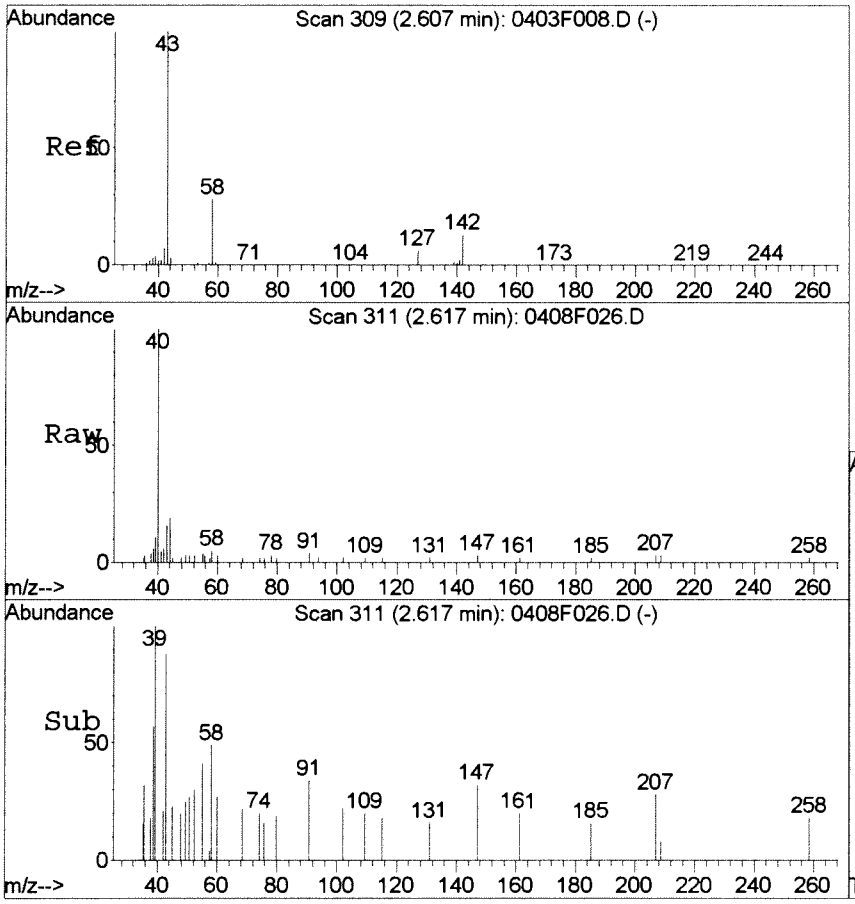
Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\040815X\0408F026.D Vial: 26
Acq On : 08 Apr 2015 08:02 pm Operator: KR
Sample : K3171-014 Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 9 14:56 2015 Quant Results File: 031615MS46_8

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Initial Calibration



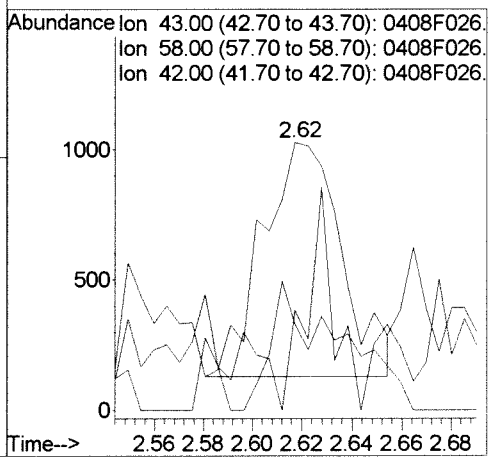
04.10.15jal2nd Rev

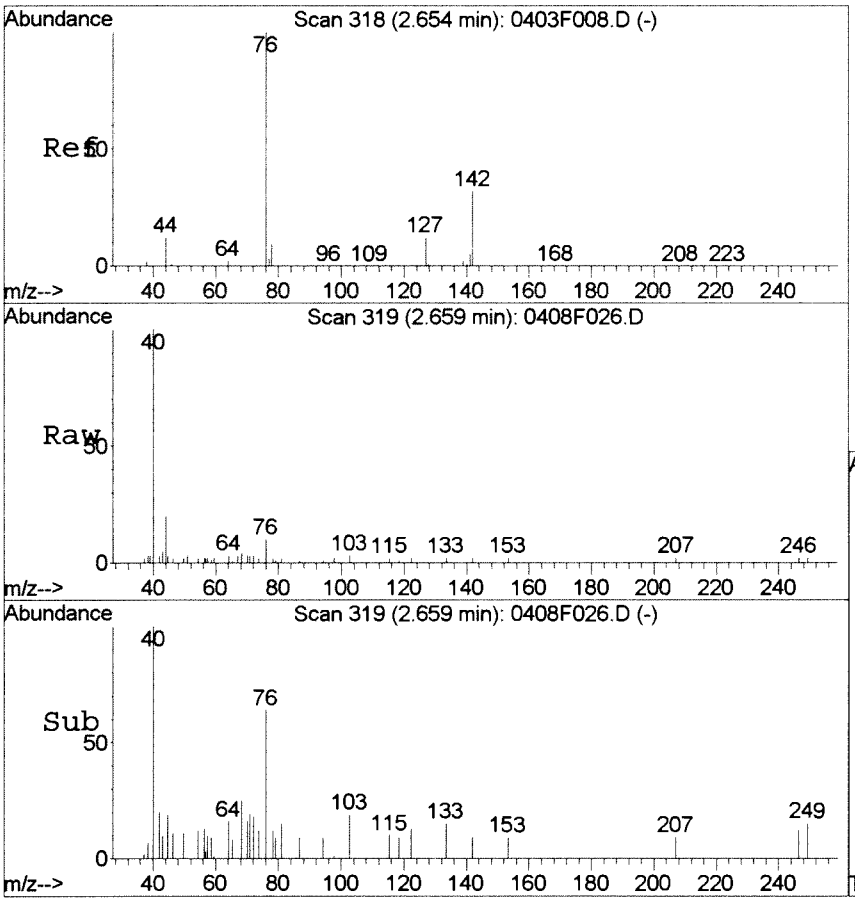


#14
Acetone
Concen: 0.85 PPB
RT: 2.62 min Scan# 311
Delta R.T. 0.01 min
Lab File: 0408F026.D
Acq: 08 Apr 2015 08:02 pm

Tgt Ion: 43 Resp: 1973

Ion	Ratio	Lower	Upper
43	100		
58	17.7	0.0	59.5
42	6.0	0.0	37.1

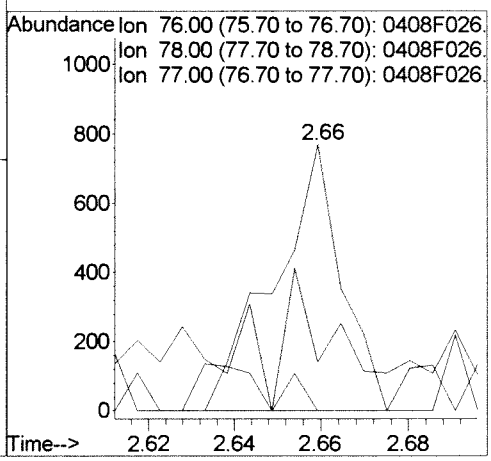


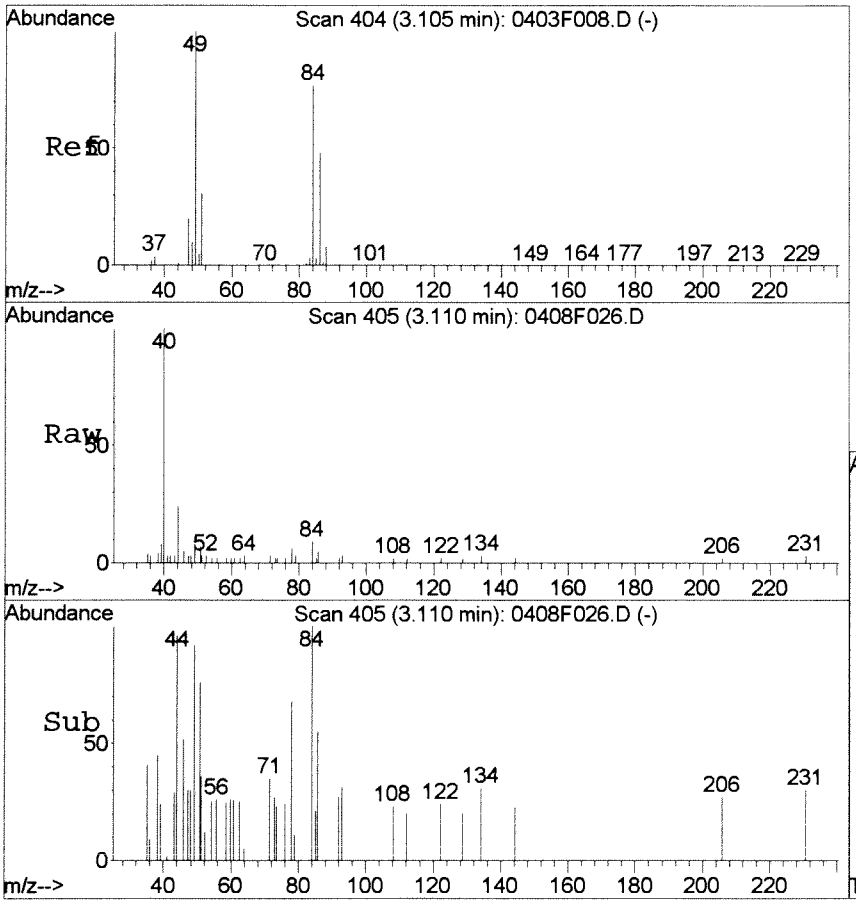


#16
Carbon Disulfide
Concen: 0.02 PPB
RT: 2.66 min Scan# 319
Delta R.T. -0.00 min
Lab File: 0408F026.D
Acq: 08 Apr 2015 08:02 pm

Tgt Ion: 76 Resp: 828

Ion	Ratio	Lower	Upper
76	100		
78	4.2	0.0	38.4
77	0.0	0.0	32.9

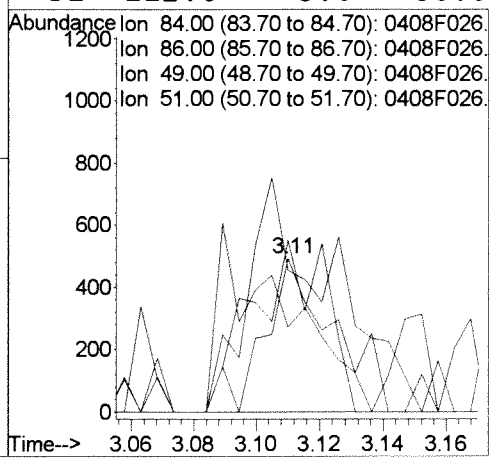


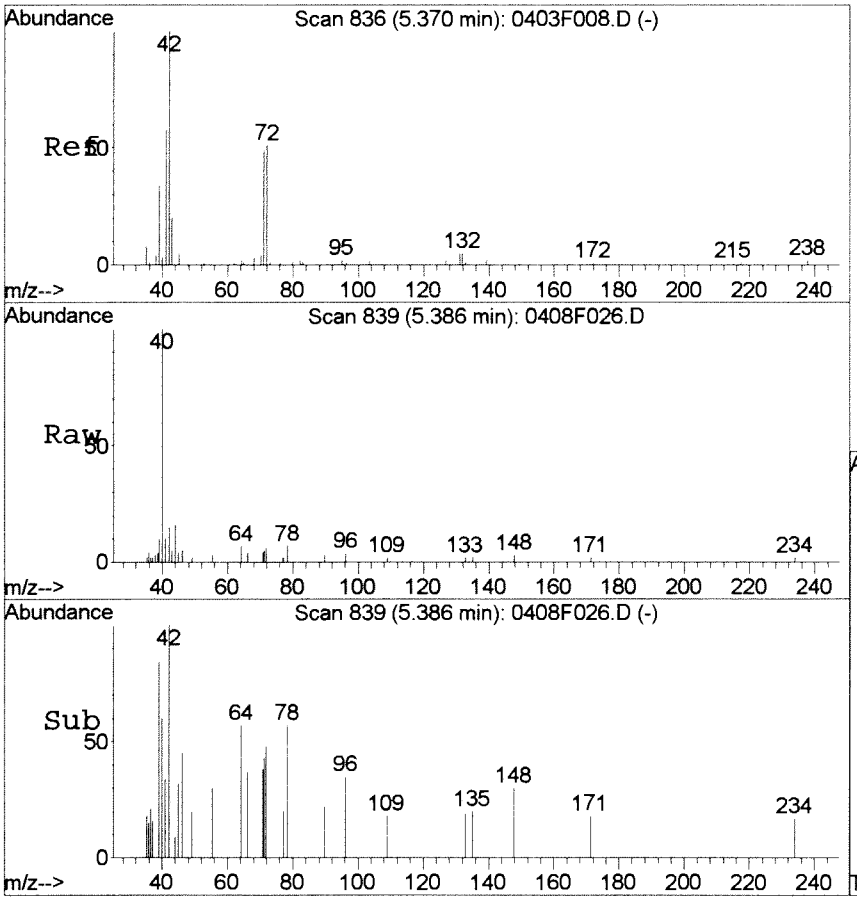


#21
Methylene Chloride
Concen: 0.04 PPB
RT: 3.11 min Scan# 405
Delta R.T. 0.01 min
Lab File: 0408F026.D
Acq: 08 Apr 2015 08:02 pm

Tgt Ion: 84 Resp: 678

Ion	Ratio	Lower	Upper
84	100		
86	55.0	33.1	93.1
49	92.1	99.0	159.0#
51	112.0	8.0	68.0#

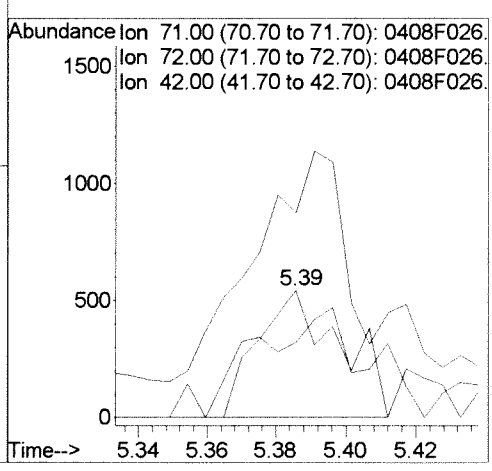


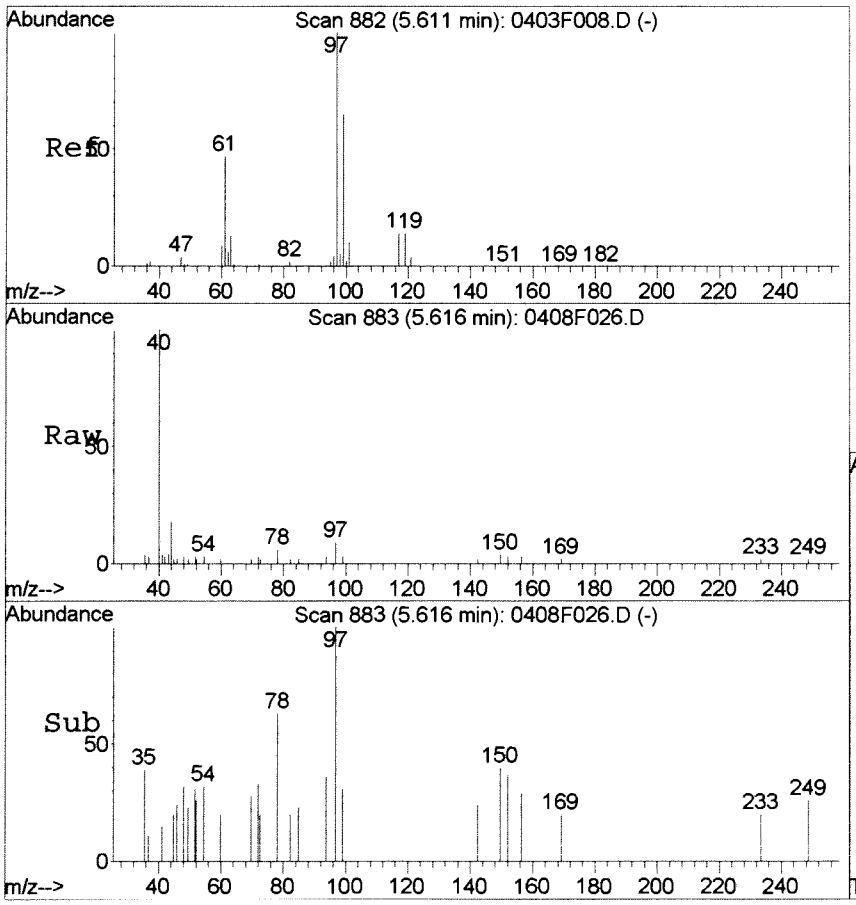


#39
Tetrahydrofuran .
Concen: 0.77 PPB
RT: 5.39 min Scan# 839
Delta R.T. 0.01 min
Lab File: 0408F026.D
Acq: 08 Apr 2015 08:02 pm

Tgt Ion: 71 Resp: 898

Ion	Ratio	Lower	Upper
71	100		
72	58.9	66.0	126.0#
42	92.3	207.4	267.4#

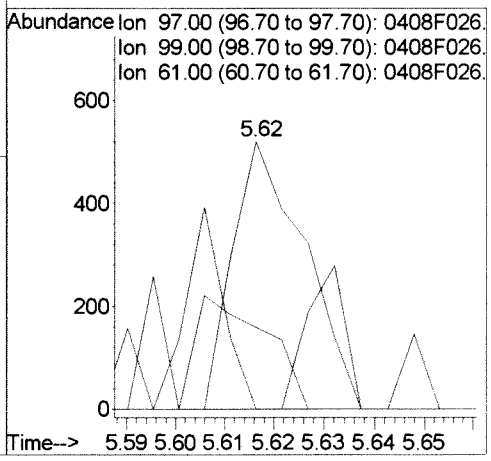


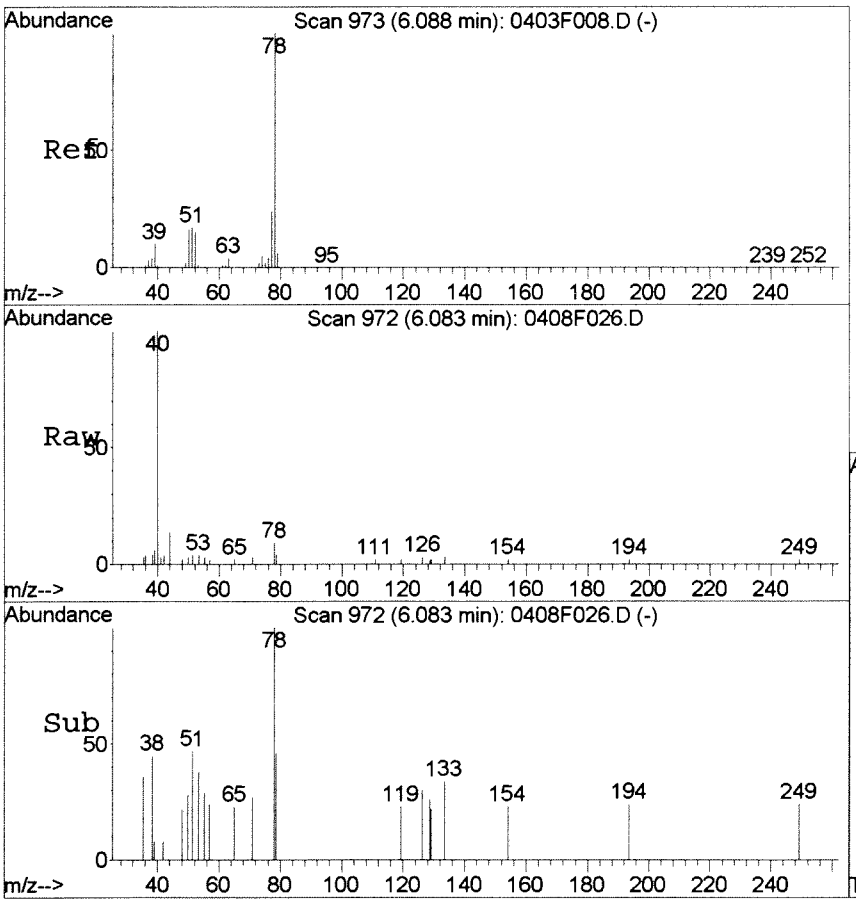


#42
1,1,1-Trichloroethane
Concen: 0.02 PPB
RT: 5.62 min Scan# 883
Delta R.T. 0.00 min
Lab File: 0408F026.D
Acq: 08 Apr 2015 08:02 pm

Tgt Ion: 97 Resp: 525

Ion	Ratio	Lower	Upper
97	100		
99	30.6	37.0	97.0#
61	0.0	15.1	75.1#

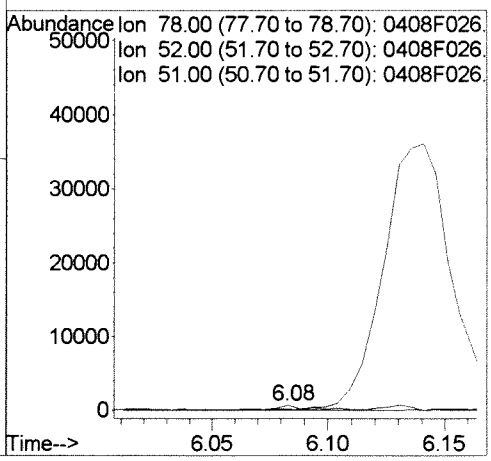


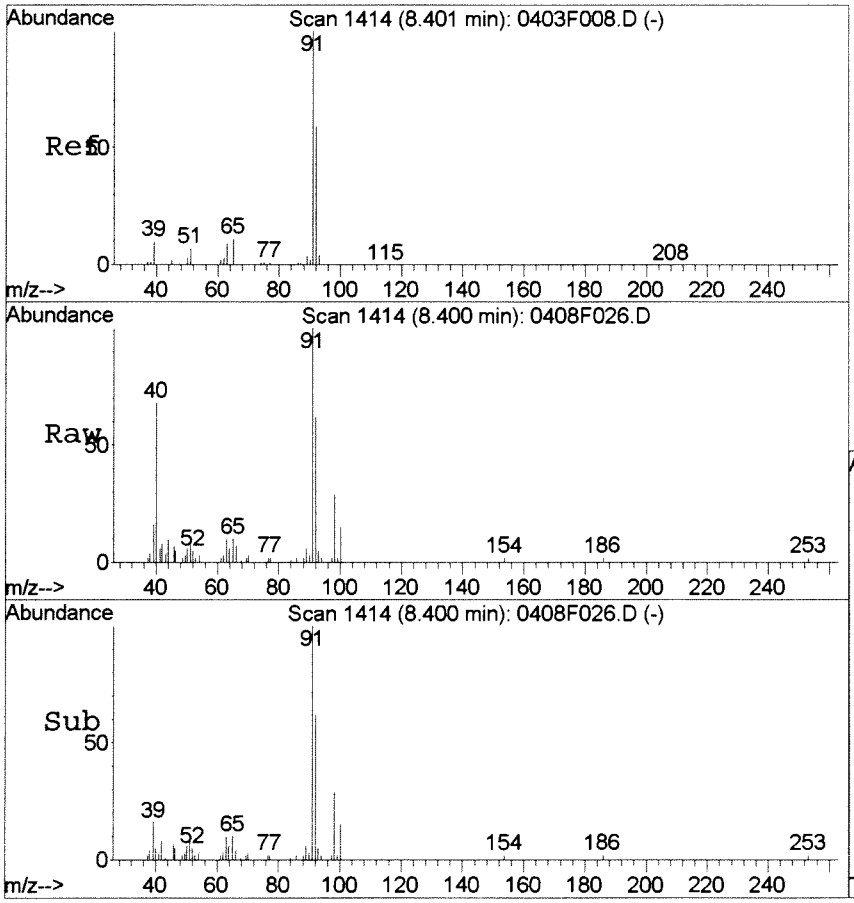


#48
Benzene
Concen: 0.02 PPB
RT: 6.08 min Scan# 972
Delta R.T. -0.01 min
Lab File: 0408F026.D
Acq: 08 Apr 2015 08:02 pm

Tgt Ion: 78 Resp: 1042

Ion	Ratio	Lower	Upper
78	100		
52	0.0	0.0	46.3
51	31.9	0.0	47.5

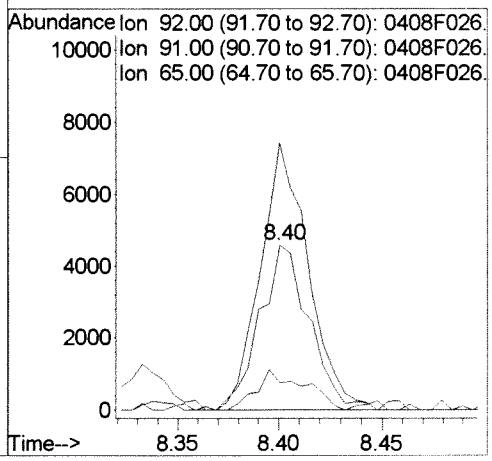


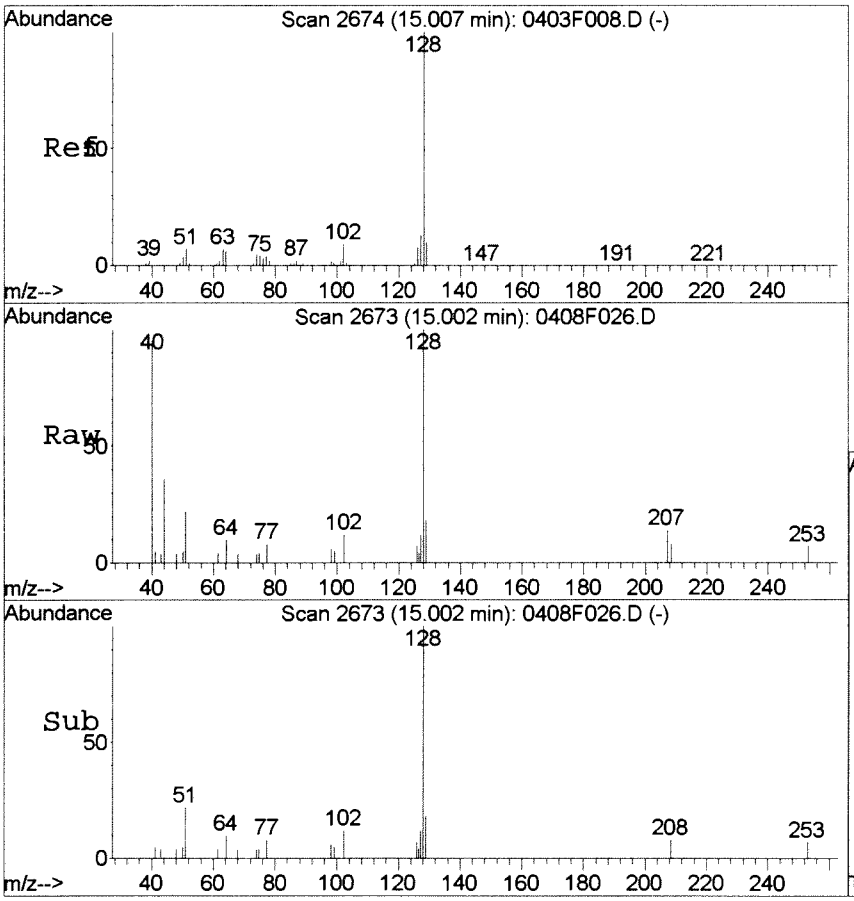


#63
Toluene
Concen: 0.18 PPB
RT: 8.40 min Scan# 1414
Delta R.T. -0.00 min
Lab File: 0408F026.D
Acq: 08 Apr 2015 08:02 pm

Tgt Ion: 92 Resp: 7706

Ion	Ratio	Lower	Upper
92	100		
91	160.1	139.2	199.2
65	16.3	0.0	50.2

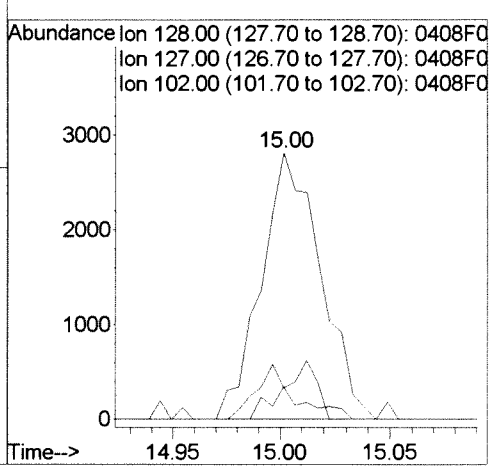




#106
Naphthalene
Concen: 0.12 PPB
RT: 15.00 min Scan# 2673
Delta R.T. -0.00 min
Lab File: 0408F026.D
Acq: 08 Apr 2015 08:02 pm

Tgt Ion:128 Resp: 5328

Ion	Ratio	Lower	Upper
128	100		
127	11.8	0.0	43.8
102	12.3	0.0	38.7



Exception Report

Data File: J:\MS46\DATA\040315\0403F017.D
Lab ID: KWG1502844-3
RunType: MB
Matrix: WATER

Date Acquired: 04/03/2015 14:57
Date Quantitated: 04/08/2015 16:55
Batch ID: KWG1502843
Analysis Method: 8260C
MethodJoinID: MJ119

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA		x
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA		x
Continuing Calibration Minimum RF	NA	NA	NA		x
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	2-Propanol	0.0054	0.01	NA	NC
	Acetonitrile	0.0084	0.01	NA	
	tert-Butyl Alcohol	0.0090	0.01	NA	
	Isobutyl Alcohol	0.0039	0.01	NA	
	1,4-Dioxane	0.0009	0.01	NA	
Second Source ICAL Verification	1,4-Dioxane	-40.6	NA	30	
Continuing Calibration Recovery	Acrolein	-67.7	NA	20	
	2-Propanol	-36.2	NA	20	
	tert-Butyl Alcohol	-29.4	NA	20	
	1,4-Dioxane	-49.7	NA	20	
	trans-1,4-Dichloro-2-butene	-22.3	NA	20	
	1,2-Dibromo-3-chloropropane	-26.0	NA	20	CCV01L
Continuing Calibration Minimum RF	Acrolein	0.0065	0.01	NA	NC

Primary Review: KW 4/8/15

Secondary Review: 4/9/15

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
	2-Propanol	0.0035	0.01	NA	NA
	Methyl Acetate	0.0934	0.100	NA	
	tert-Butyl Alcohol	0.0064	0.01	NA	
	1,4-Dioxane	0.0004	0.01	NA	

Primary Review: [illegible] 4/8/15

Secondary Review: [illegible] 4/9/15

Quantitation Report

Data File:	J:\MS46\DATA\040315\0403F017.D			**Instrument:**	GCMS46
Acqu Date:	04/03/2015 14:57	**Quant Date:**	04/08/2015 16:55	**Vial:**	9
Run Type:	MB			**Dilution:**	1.0
Lab ID:	KWG1502844-3			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**		**Receive Date:**	04/03/2015

Analysis Lot:	KWG1502843	**Prep Lot:**	KWG1502844	**Report Group:**	
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1424773	**Prep Date:**	04/03/2015		

Quant Method:	J:\MS46\METHODS\031615MS46_8	**Calibration ID:**	CAL13899
Title:			
Tune Ref:	J:\MS46\DATA\040315\0403F007.D	**Method ID:**	MJ119
MB Ref:		**Quant based on Method**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	6.49	0.00	96	773562	10.00	OK
2	Chlorobenzene-d5	9.96	0.01	82	304584	10.00	OK
3	1,4-Dichlorobenzene-d4	12.53	0.00	152	298424	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.70	0.01	0.00	113	189723	11.16	112	73-122	OK	
1	1,2-Dichloroethane-d4	6.14	0.00	0.00	65	222841	12.42	124	59-127	OK	
1	Toluene-d8	8.33	0.00	0.00	98	723838	11.04	110	65-144	OK	
2	4-Bromofluorobenzene	11.27	0.00	0.00	95	265880	11.27	113	68-117	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane				85	0		0.13	U	
1	Chloromethane				50	0d		0.068	U	
1	Vinyl Chloride				62	0		0.075	U	
1	1,3-Butadiene				54	0d		0.50	U	
1	Bromomethane				96	0d		0.10	U	
1	Chloroethane				64	0d		0.16	U	
1	Dichlorofluoromethane (CFC 21				67	0d		0.065	U	
1	Trichlorofluoromethane				101	0		0.12	U	
1	Ethyl Ether				59	0		0.075	U	
1	Acrolein				56	0		1.2	U	
1	Trichlorotrifluoroethane				151	0		0.13	U	
1	1,1-Dichloroethene				96	0		0.080	U	
1	Acetone	2.62	0.01	0.00	43	4992	1.95	3.3	U	
1	Iodomethane	2.64	0.01	0.00	142	1379	0.0900	0.12	U	

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS46\DATA\040315\0403F017.D			**Instrument:**	GCMS46
Acqu Date:	04/03/2015 14:57	**Quant Date:**	04/08/2015 16:55	**Vial:**	9
Run Type:	MB			**Dilution:**	1.0
Lab ID:	KWG1502844-3			**Soln Conc. Units:**	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Disulfide	2.65		0.00	76	4379	0.0800	0.0800	J	
1	2-Propanol				45	0d		17	U	
1	3-Chloro-1-propene				76	0d		0.094	U	
1	Methyl Acetate				43	0d		0.38	U	
1	Acetonitrile				40	0d		4.5	U	
1	Methylene Chloride	3.11		0.00	84	3310	0.1800	0.180	J	
1	tert-Butyl Alcohol				59	0		4.4	U	
1	Acrylonitrile				53	0		0.28	U	
1	Methyl tert-Butyl Ether				73	0d		0.11	U	
1	trans-1,2-Dichloroethene				96	0		0.072	U	
1	n-Hexane				57	0		0.090	U	
1	Diisopropyl Ether				45	0d		0.048	U	
1	1,1-Dichloroethane				63	0		0.077	U	
1	Vinyl Acetate				86	0		0.43	U	
1	Chloroprene				53	0		3.6	U	
1	tert-Butyl Ethyl Ether				59	0		0.048	U	
1	2,2-Dichloropropane				77	0		0.060	U	
1	cis-1,2-Dichloroethene				96	0		0.067	U	
1	2-Butanone (MEK)				72	0		1.9	U	
1	Ethyl Acetate				61	0d		0.57	U	
1	Propionitrile				54	0		1.1	U	
1	Methacrylonitrile				67	0		0.32	U	
1	Bromochloromethane				128	0		0.16	U	
1	Tetrahydrofuran				71	0		0.94	U	
1	Chloroform	5.47		0.00	83	863	0.0300	0.072	U	
1	Cyclohexane				56	0		0.36	U	
1	1,1,1-Trichloroethane (TCA)	5.62	0.01	0.00	97	532	0.0200	0.075	U	
1	Carbon Tetrachloride				117	0		0.096	U	
1	1,1-Dichloropropene				75	0		0.089	U	
1	Isobutyl Alcohol				43	0d		6.9	U	
1	Benzene				78	0		0.062	U	
1	1,2-Dichloroethane (EDC)				62	0		0.080	U	
1	tert-Amyl Methyl Ether				55	0d		0.098	U	
1	Trichloroethene (TCE)	6.92		0.00	95	1227	0.0600	0.10	U	
1	Methylcyclohexane				83	0		0.33	U	
1	1,2-Dichloropropane				63	0		0.095	U	
1	Dibromomethane				93	0		0.15	U	
1	Methyl Methacrylate				69	0		0.13	U	
1	1,4-Dioxane				88	0		11	U	
1	Bromodichloromethane				83	0		0.091	U	
1	2-Nitropropane				41	0d		0.96	U	
1	2-Chloroethyl Vinyl Ether				63	0		0.16	U	

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS46\DATA\040315\0403F017.D			**Instrument:**	GCMS46
Acqu Date:	04/03/2015 14:57	**Quant Date:**	04/08/2015 16:55	**Vial:**	9
Run Type:	MB			**Dilution:**	1.0
Lab ID:	KWG1502844-3			**Soln Conc. Units:**	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	cis-1,3-Dichloropropene				75	0		0.18	U	
1	4-Methyl-2-pentanone (MIBK)				58	0**d**		2.6	U	
1	Toluene				92	0**d**		0.054	U	
2	n-Octane				85	0		0.16	U	
2	trans-1,3-Dichloropropene				75	0		0.068	U	
2	Ethyl Methacrylate				69	0		0.15	U	
2	1,1,2-Trichloroethane				83	0		0.14	U	
2	Tetrachloroethene (PCE)				164	0		0.099	U	
2	2-Hexanone				57	0		2.7	U	
2	1,3-Dichloropropane				76	0		0.14	U	
2	Dibromochloromethane				129	0		0.14	U	
2	1,2-Dibromoethane (EDB)				107	0		0.10	U	
2	1-Chlorohexane				91	0**d**		0.058	U	
2	Chlorobenzene				112	0**d**		0.11	U	
2	Ethylbenzene				106	0		0.050	U	
2	1,1,1,2-Tetrachloroethane				131	0		0.11	U	
2	m,p-Xylenes				106	0		0.11	U	
2	o-Xylene				106	0		0.074	U	
2	Styrene				103	0		0.089	U	
2	Bromoform				173	0		0.16	U	
2	Isopropylbenzene				105	0		0.051	U	
2	cis-1,4-Dichloro-2-butene				89	0		1.4	U	
3	1,1,2,2-Tetrachloroethane				83	0		0.16	U	
3	trans-1,4-Dichloro-2-butene				53	0**d**		0.35	U	
3	Bromobenzene				156	0		0.12	U	
3	n-Propylbenzene				91	0**d**		0.054	U	
3	1,2,3-Trichloropropane				110	0		0.20	U	
3	2-Chlorotoluene				91	0		0.10	U	
3	1,3,5-Trimethylbenzene				105	0**d**		0.089	U	
3	4-Chlorotoluene				91	0**d**		0.13	U	
3	tert-Butylbenzene				119	0		0.059	U	
3	1,2,4-Trimethylbenzene				105	0		0.069	U	
3	sec-Butylbenzene				105	0**d**		0.062	U	
3	4-Isopropyltoluene				119	0**d**		0.060	U	
3	1,3-Dichlorobenzene				146	0**d**		0.10	U	
3	1,4-Dichlorobenzene				146	0**d**		0.12	U	
3	n-Butylbenzene				91	0		0.054	U	
3	1,2-Dichlorobenzene				146	0**d**		0.12	U	
3	1,2-Dibromo-3-chloropropane				155	0		0.20	U	
3	1,3,5-Trichlorobenzene	14.03	0.01	0.00	180	743	0.0200	0.10	U	
3	1,2,4-Trichlorobenzene	14.73	0.01	0.00	180	896	0.0300	0.096	U	
3	Hexachlorobutadiene				225	0		0.11	U	

U: Undetected at or above MDL
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N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS46\DATA\040315\0403F017.D			**Instrument:**	GCMS46
Acqu Date:	04/03/2015 14:57	**Quant Date:**	04/08/2015 16:55	**Vial:**	9
Run Type:	MB			**Dilution:**	1.0
Lab ID:	KWG1502844-3			**Soln Conc. Units:**	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Naphthalene	15.01		0.00	128	811	0.0200	0.088	U	
3	1,2,3-Trichlorobenzene				180	0		0.11	U	
	Benzyl Chloride				0	0		1.0	U	NR
	Isopropyl Acetate				0	0		20	U	NR
	Cyclohexanone				0	0		1.0	U	NR
	2-Ethoxyethanol				0	0		1.0	U	NR
	Bis(2-chloroethyl) Ether				0	0		20	U	NR
	beta-Pinene				0	0		1.0	U	NR
	1,1,2-Trifluoroethane				0	0		1.0	U	NR
	2,2,4-Trimethylpentane				0	0		1.0	U	NR
	Bis(chloromethyl) Ether				0	0		1.0	U	NR
	Amyl Acetate				0	0		20	U	NR
	Bromoethane				0	0		1.0	U	NR
	Pentachloroethane				0	0		5.0	U	NR
	1,1-Dichloropropane				0	0		1.0	U	NR
	alpha-Pinene				0	0		1.0	U	NR
	1,1,1,2-Tetrafluoroethane				0	0		1.0	U	NR
	Nitrobenzene				0	0		20	U	NR

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File : J:\MS46\DATA\040315\0403F017.D Vial: 9
Acq On : 03 Apr 2015 02:57 pm Operator: KR
Sample : MB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 08 16:53:40 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

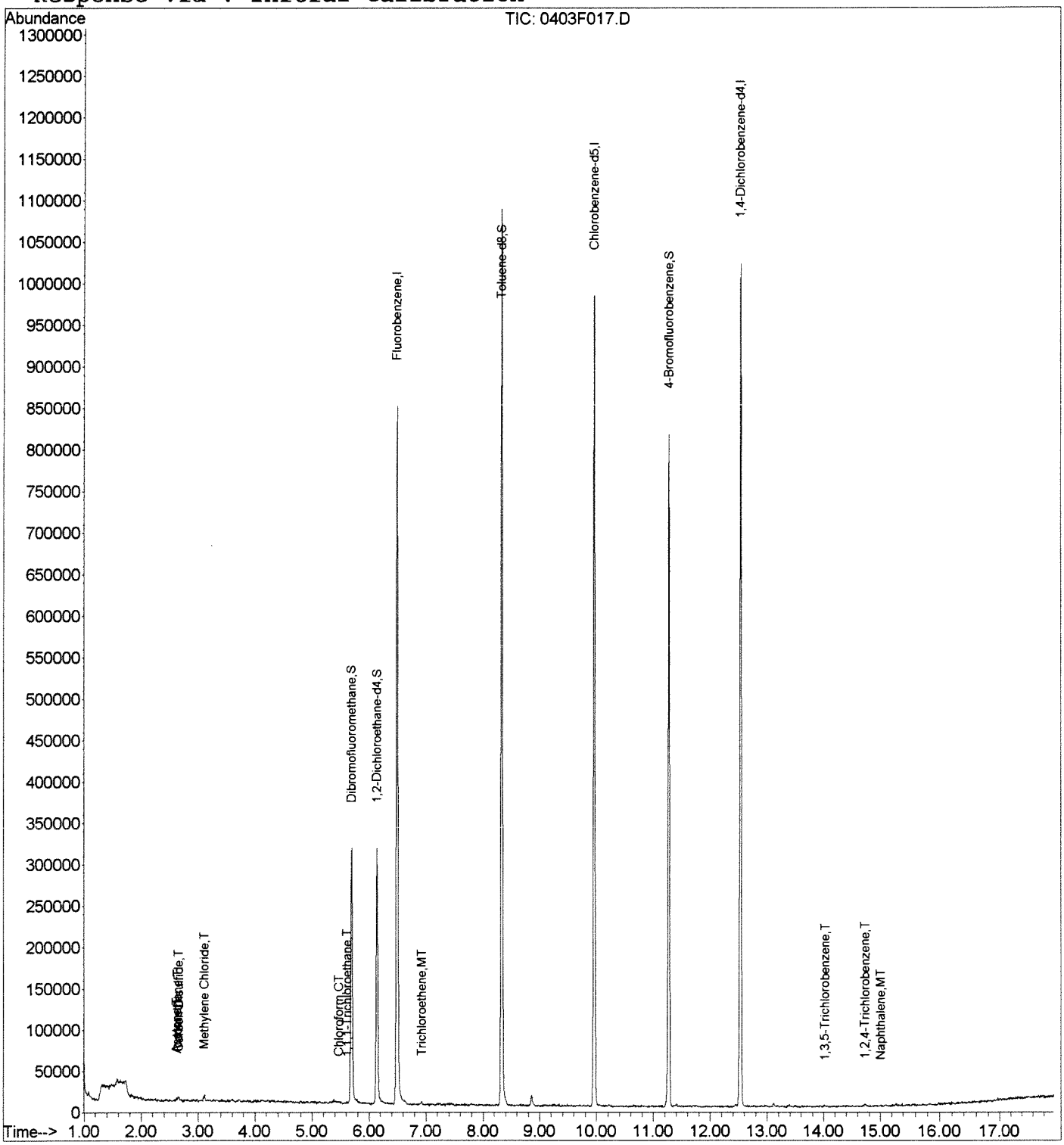
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	6.49	96	773562	10.00	PPB		0.00
64) Chlorobenzene-d5	9.96	82	304584	10.00	PPB		0.00
85) 1,4-Dichlorobenzene-d4	12.53	152	298424	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.70	113	189723	11.16	PPB		0.00
Spiked Amount 10.000			Recovery =	111.60%			
47) 1,2-Dichloroethane-d4	6.14	65	222841	12.42	PPB		0.00
Spiked Amount 10.000			Recovery =	124.20%			
62) Toluene-d8	8.33	98	723838	11.04	PPB		0.00
Spiked Amount 10.000			Recovery =	110.40%			
84) 4-Bromofluorobenzene	11.27	95	265880	11.27	PPB		0.00
Spiked Amount 10.000			Recovery =	112.70%			
Target Compounds							Qvalue
14) Acetone	2.62	43	4992	1.95	PPB		85
15) Iodomethane	2.64	142	1379	0.09	PPB		65
16) Carbon Disulfide	2.65	76	4379	0.08	PPB		93
21) Methylene Chloride	3.11	84	3310	0.18	PPB		93
40) Chloroform	5.47	83	863	0.03	PPB		69
42) 1,1,1-Trichloroethane	5.62	97	532	0.02	PPB	#	31
51) Trichloroethene	6.92	95	1227	0.06	PPB	#	72
103) 1,3,5-Trichlorobenzene	14.03	180	743	0.02	PPB		82
104) 1,2,4-Trichlorobenzene	14.73	180	896	0.03	PPB	#	64
106) Naphthalene	15.01	128	811	0.02	PPB		70

(#) = qualifier out of range (m) = manual integration

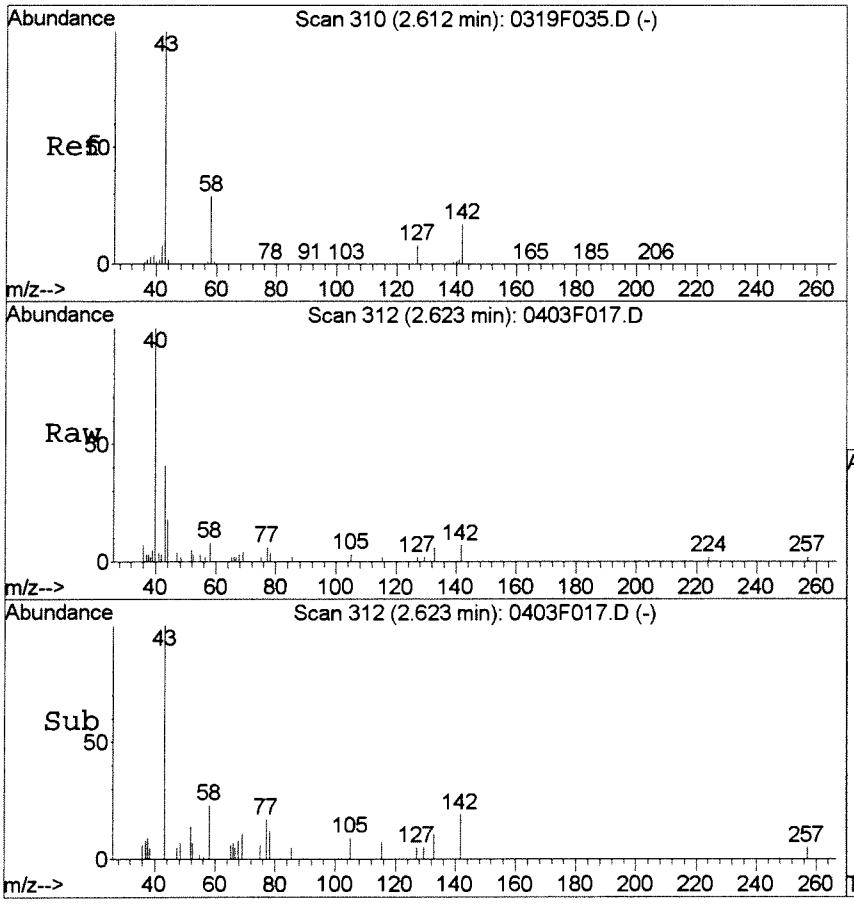
04.09.15jal2nd Rev

Data File : J:\MS46\DATA\040315\0403F017.D Vial: 9
Acq On : 03 Apr 2015 02:57 pm Operator: KR
Sample : MB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 8 16:55 2015 Quant Results File: 031615MS46_8

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Initial Calibration



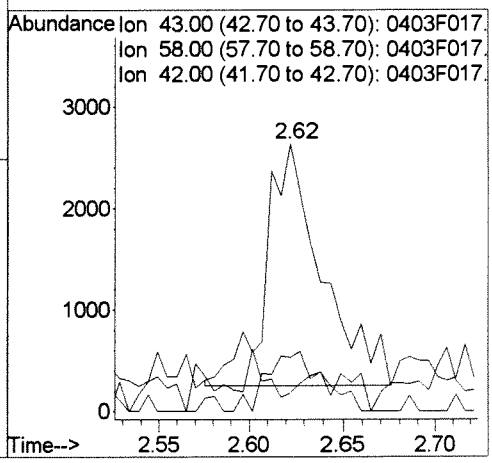
04.09.15jal2nd Rev

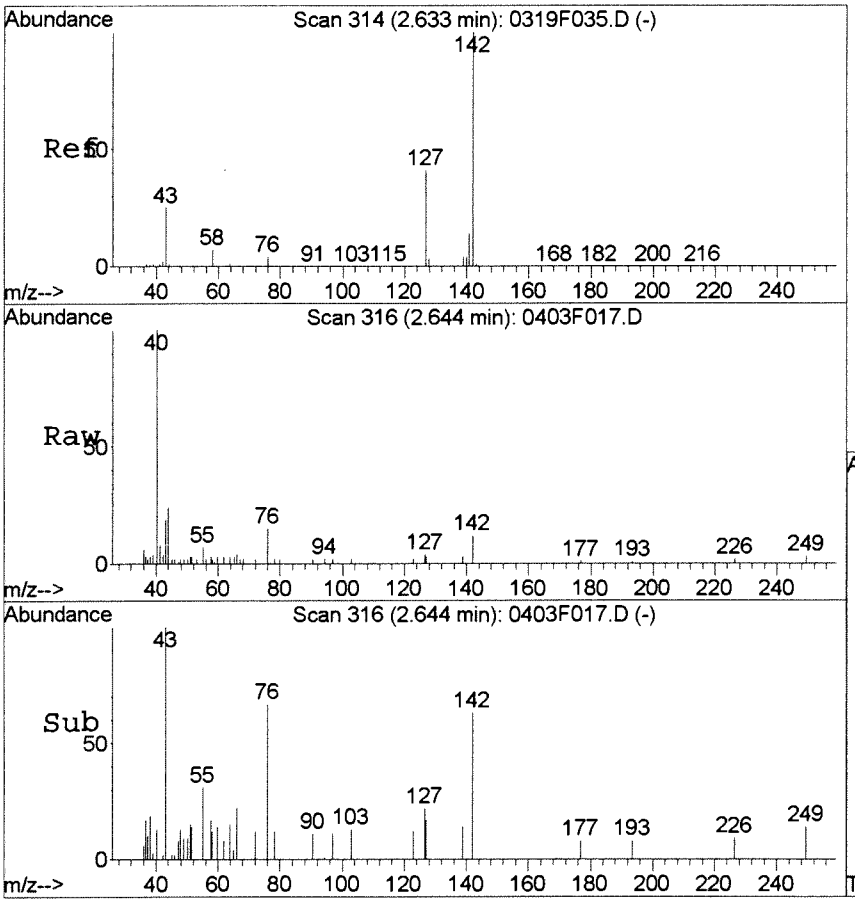


#14
Acetone
Concen: 1.95 PPB
RT: 2.62 min Scan# 312
Delta R.T. 0.01 min
Lab File: 0403F017.D
Acq: 03 Apr 2015 02:57 pm

Tgt Ion: 43 Resp: 4992

Ion	Ratio	Lower	Upper
43	100		
58	22.3	0.0	59.5
42	0.0	0.0	37.1

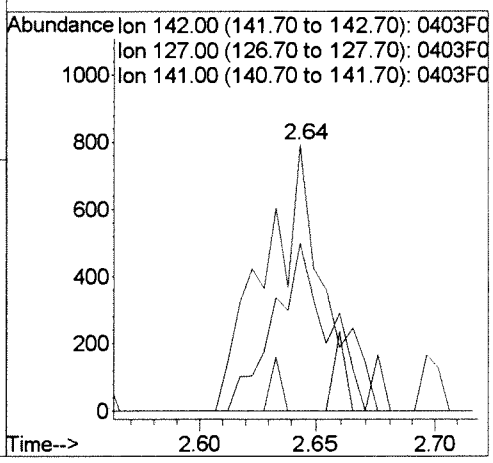


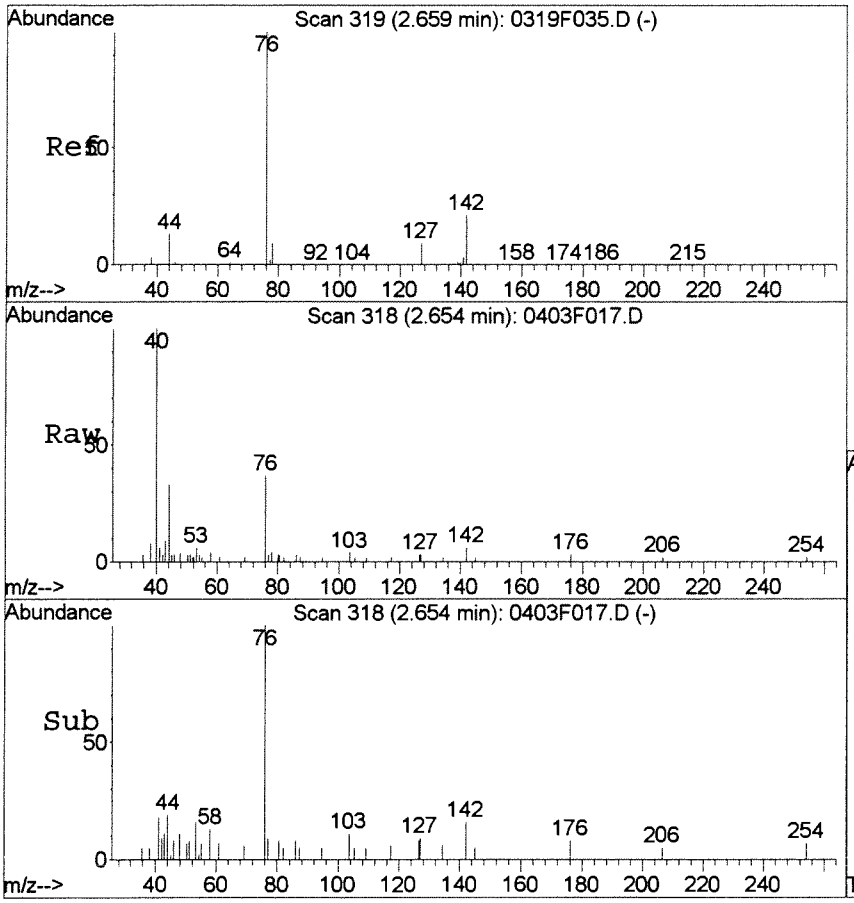


#15
Iodomethane
Concen: 0.09 PPB
RT: 2.64 min Scan# 316
Delta R.T. 0.01 min
Lab File: 0403F017.D
Acq: 03 Apr 2015 02:57 pm

Tgt Ion:142 Resp: 1379

Ion	Ratio	Lower	Upper
142	100		
127	63.1	10.8	70.8
141	0.0	0.0	44.2

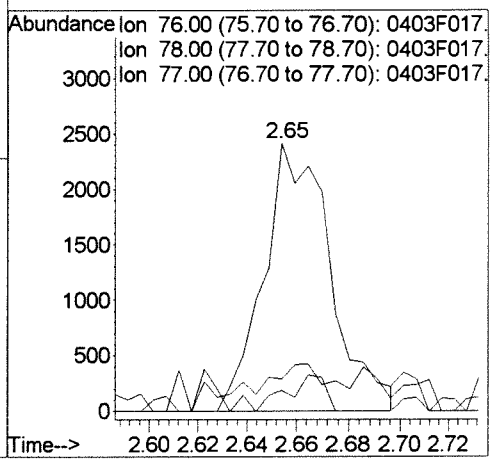


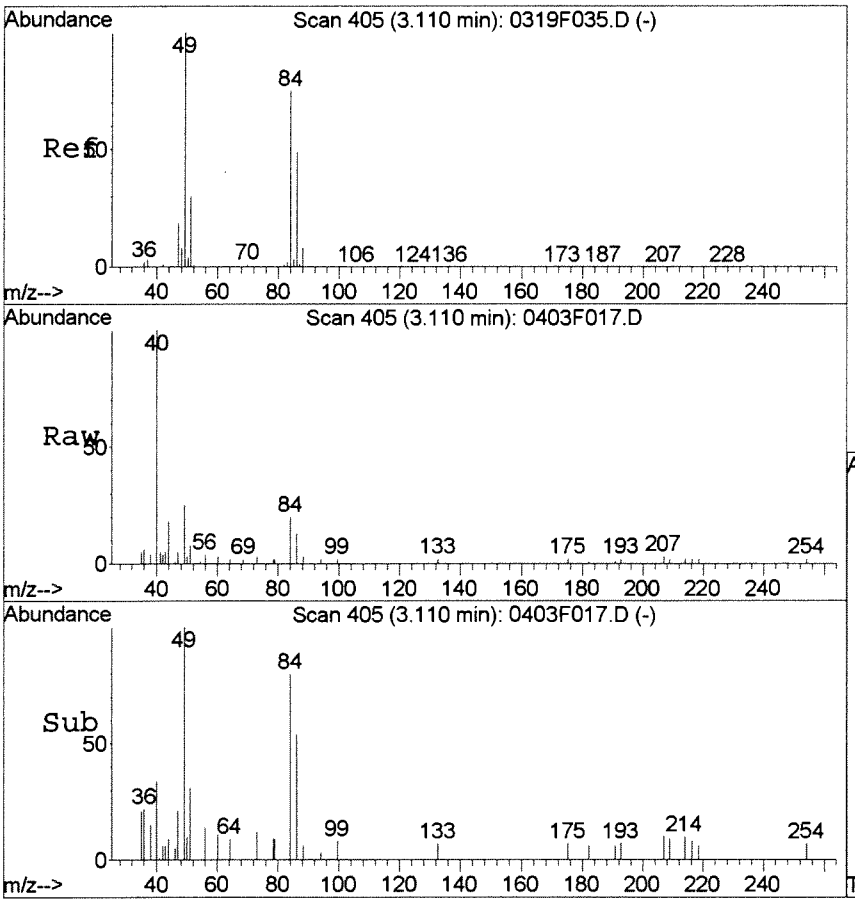


#16
Carbon Disulfide
Concen: 0.08 PPB
RT: 2.65 min Scan# 318
Delta R.T. -0.01 min
Lab File: 0403F017.D
Acq: 03 Apr 2015 02:57 pm

Tgt Ion: 76 Resp: 4379

Ion	Ratio	Lower	Upper
76	100		
78	7.0	0.0	38.4
77	7.8	0.0	32.9

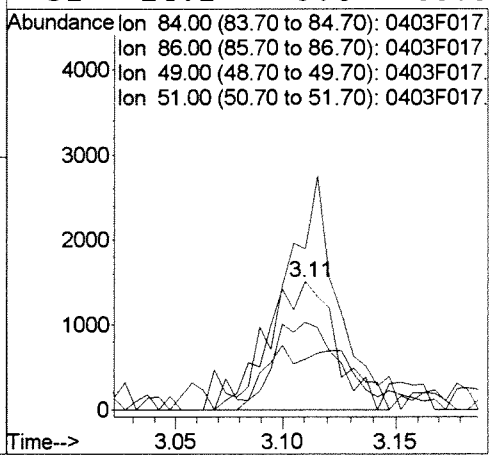


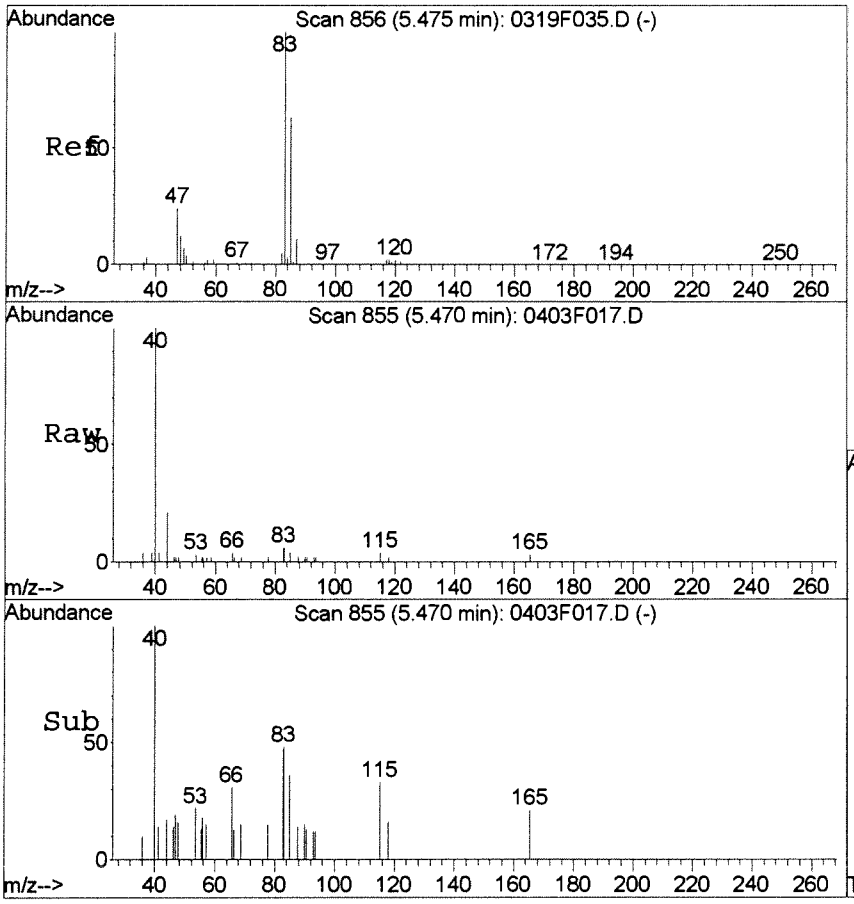


#21
Methylene Chloride
Concen: 0.18 PPB
RT: 3.11 min Scan# 405
Delta R.T. 0.01 min
Lab File: 0403F017.D
Acq: 03 Apr 2015 02:57 pm

Tgt Ion: 84 Resp: 3310

Ion	Ratio	Lower	Upper
84	100		
86	68.2	33.1	93.1
49	125.7	99.0	159.0
51	24.1	8.0	68.0

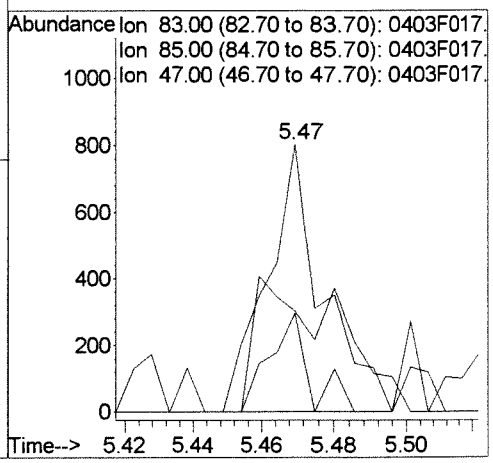


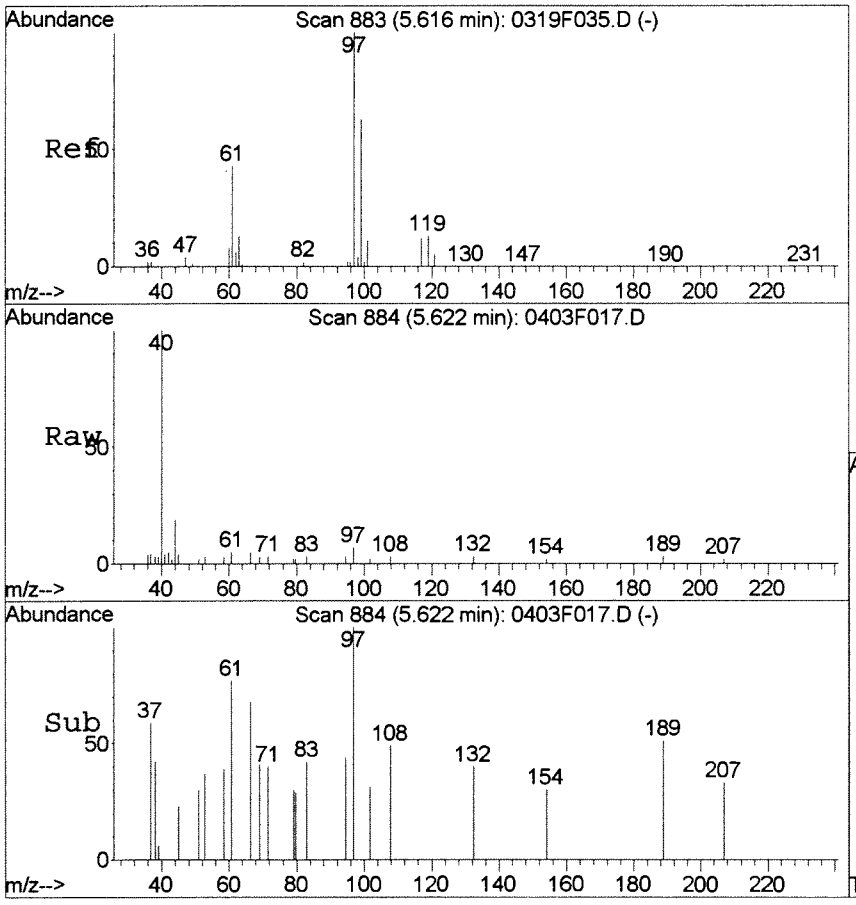


#40
Chloroform
Concen: 0.03 PPB
RT: 5.47 min Scan# 855
Delta R.T. -0.01 min
Lab File: 0403F017.D
Acq: 03 Apr 2015 02:57 pm

Tgt Ion: 83 Resp: 863

Ion	Ratio	Lower	Upper
83	100		
85	37.8	33.1	93.1
47	36.9	0.0	54.1

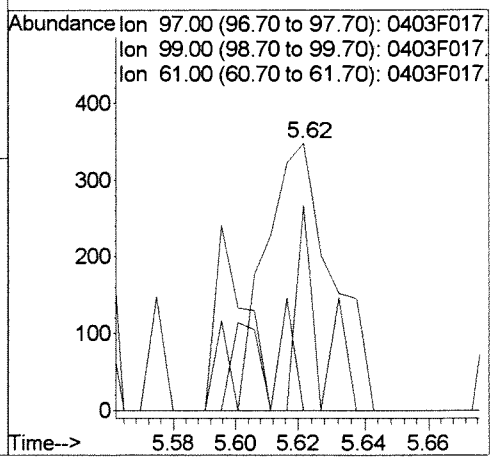


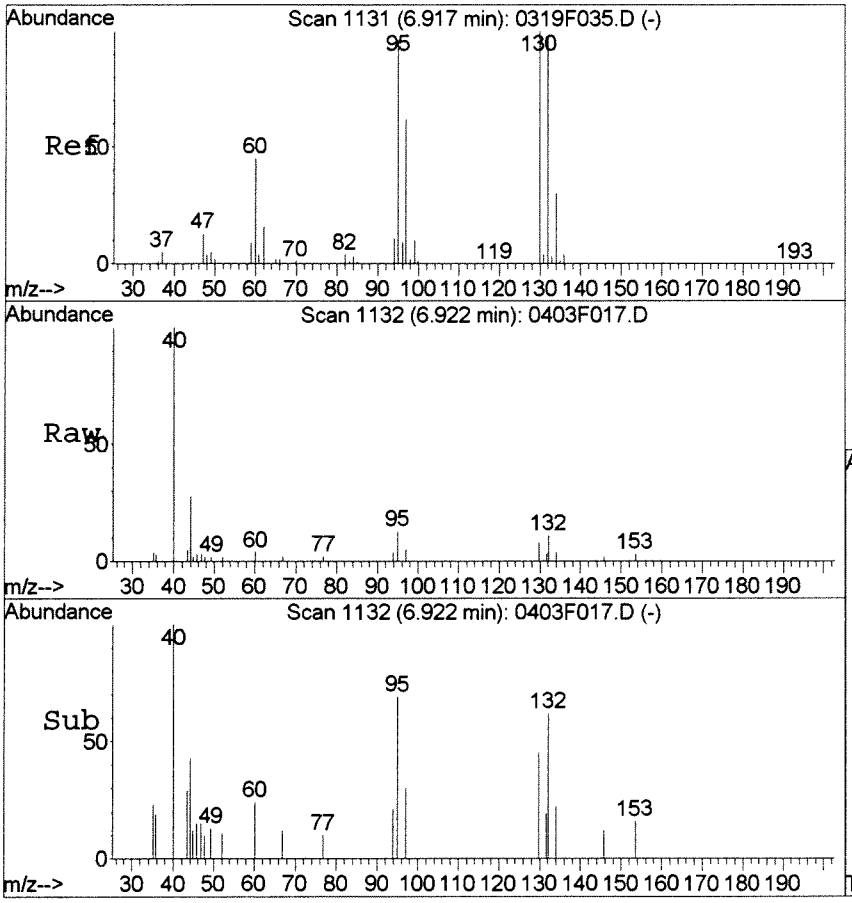


#42
1,1,1-Trichloroethane
Concen: 0.02 PPB
RT: 5.62 min Scan# 884
Delta R.T. 0.01 min
Lab File: 0403F017.D
Acq: 03 Apr 2015 02:57 pm

Tgt Ion: 97 Resp: 532

Ion	Ratio	Lower	Upper
97	100		
99	0.0	37.0	97.0#
61	76.7	15.1	75.1#

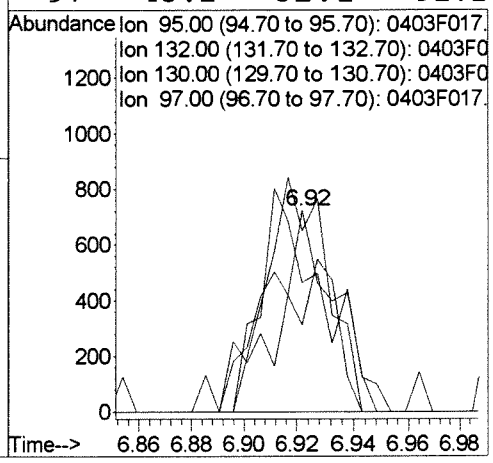


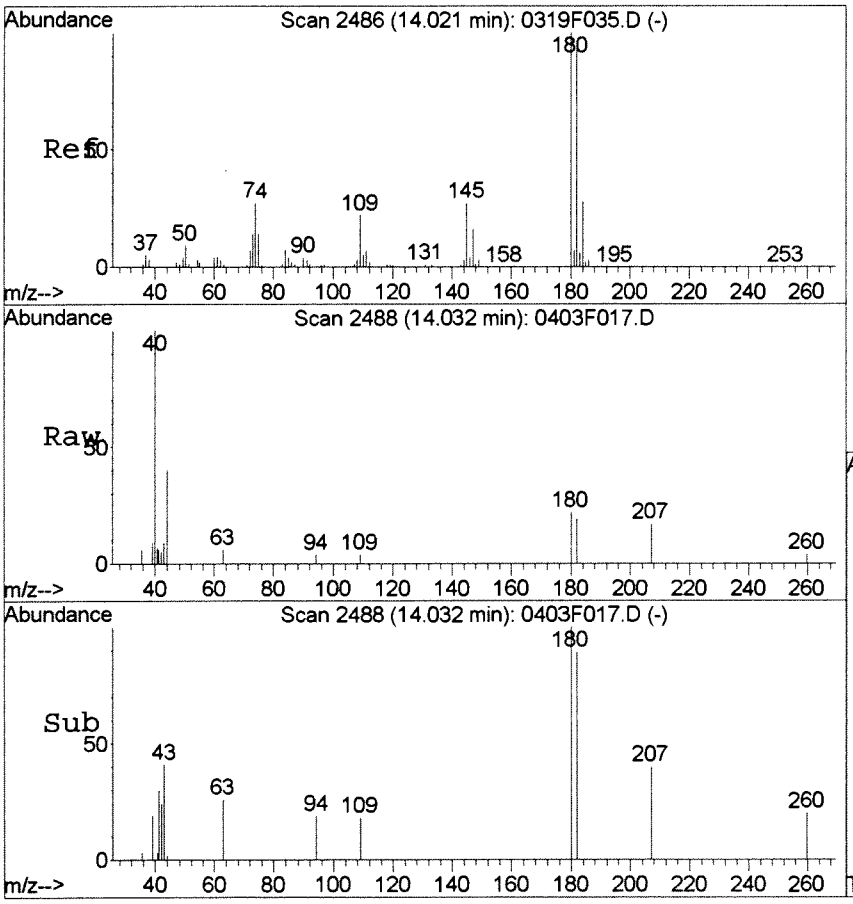


#51
Trichloroethene
Concen: 0.06 PPB
RT: 6.92 min Scan# 1132
Delta R.T. 0.01 min
Lab File: 0403F017.D
Acq: 03 Apr 2015 02:57 pm

Tgt Ion: 95 Resp: 1227

Ion	Ratio	Lower	Upper
95	100		
132	89.8	72.9	132.9
130	64.1	81.4	141.4#
97	43.2	32.1	92.1

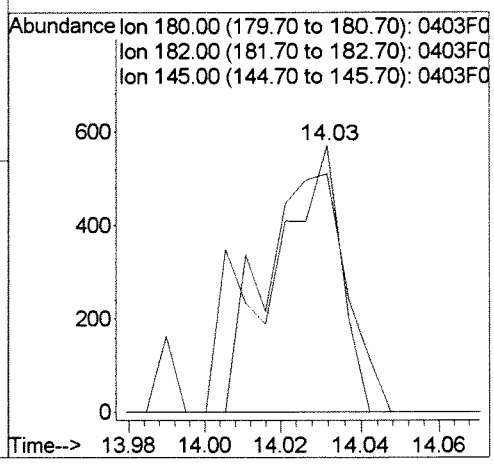


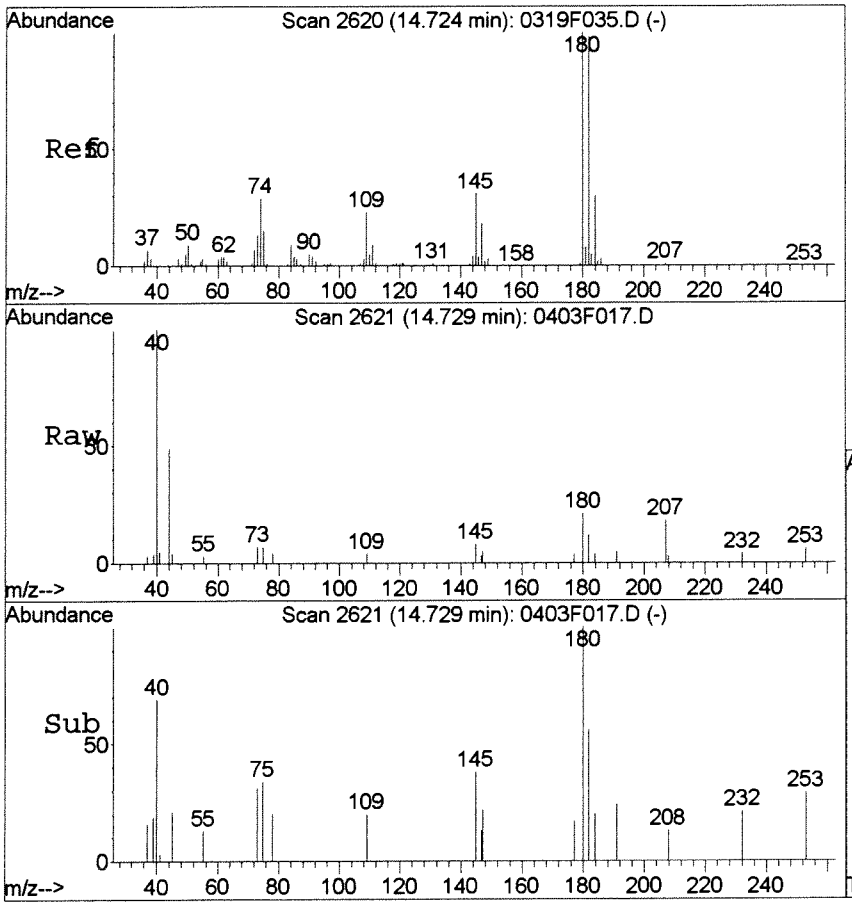


#103
1,3,5-Trichlorobenzene
Concen: 0.02 PPB
RT: 14.03 min Scan# 2488
Delta R.T. 0.01 min
Lab File: 0403F017.D
Acq: 03 Apr 2015 02:57 pm

Tgt Ion:180 Resp: 743

Ion	Ratio	Lower	Upper
180	100		
182	89.5	67.5	127.5
145	0.0	0.0	57.3

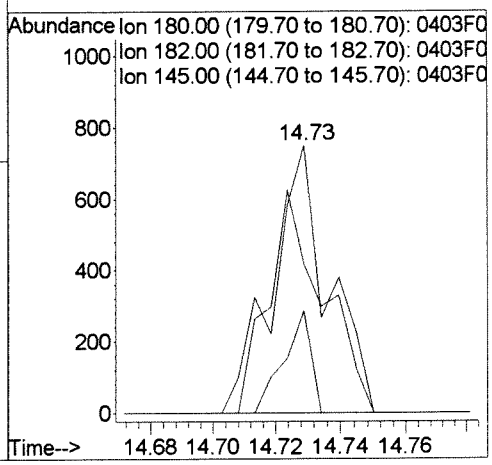


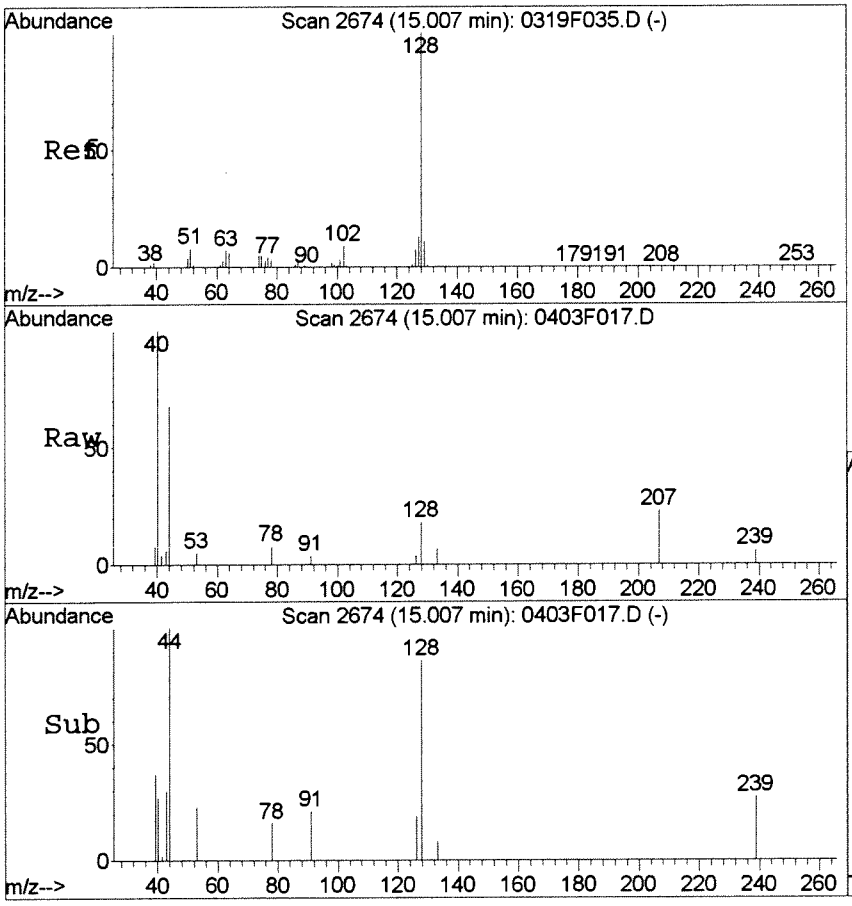


#104
1,2,4-Trichlorobenzene
Concen: 0.03 PPB
RT: 14.73 min Scan# 2621
Delta R.T. 0.01 min
Lab File: 0403F017.D
Acq: 03 Apr 2015 02:57 pm

Tgt Ion:180 Resp: 896

Ion	Ratio	Lower	Upper
180	100		
182	55.6	64.6	124.6#
145	38.1	0.0	57.2

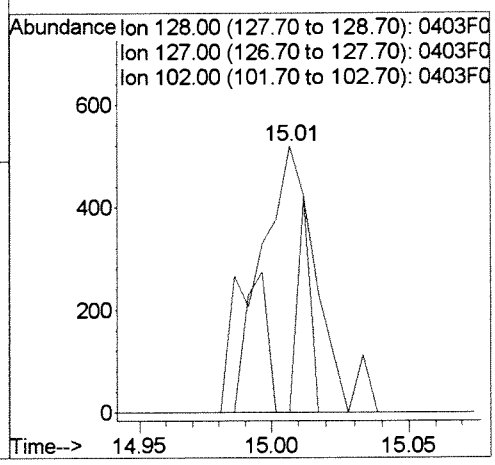




#106
Naphthalene
Concen: 0.02 PPB
RT: 15.01 min Scan# 2674
Delta R.T. 0.00 min
Lab File: 0403F017.D
Acq: 03 Apr 2015 02:57 pm

Tgt Ion:128 Resp: 811

Ion	Ratio	Lower	Upper
128	100		
127	0.0	0.0	43.8
102	0.0	0.0	38.7



Exception Report

Data File: J:\MS46\DATA\040815X\0408F011.D
Lab ID: KWG1503029-5
RunType: MB
Matrix: WATER

Date Acquired: 04/08/2015 14:07
Date Quantitated: 04/09/2015 14:27
Batch ID: KWG1503030
Analysis Method: 8260C
MethodJoinID: MJ119

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA		x
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA		x
Continuing Calibration Minimum RF	NA	NA	NA		x
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	2-Propanol	0.0054	0.01	NA	MT
	Acetonitrile	0.0084	0.01	NA	
	tert-Butyl Alcohol	0.0090	0.01	NA	
	Isobutyl Alcohol	0.0039	0.01	NA	
	1,4-Dioxane	0.0009	0.01	NA	
Second Source ICAL Verification	1,4-Dioxane	-40.6	NA	30	
Continuing Calibration Recovery	Dichlorodifluoromethane	-28.0	NA	20	CCVOL
	1,3-Butadiene	-29.8	NA	20	MT
	2-Propanol	-53.6	NA	20	
	Methyl Acetate	-24.2	NA	20	
	tert-Butyl Alcohol	-42.4	NA	20	
	2-Butanone (MEK)	-27.0	NA	20	CCVOL
	Methyl Methacrylate	-25.3	NA	20	MT

Primary Review: _____

Secondary Review: _____ 4/10/15

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
	1,4-Dioxane	-70.8	NA	20	NF
	2-Chloroethyl Vinyl Ether	-22.0	NA	20	
	n-Octane	-96.5	NA	20	
	2-Hexanone	-23.9	NA	20	Reanalyze
	trans-1,4-Dichloro-2-butene	-51.9	NA	20	NF
	1,2-Dibromo-3-chloropropane	-29.4	NA	20	CWC
Continuing Calibration Minimum RF	2-Propanol	0.0025	0.01	NA	NF
	Methyl Acetate	0.0881	0.100	NA	
	tert-Butyl Alcohol	0.0052	0.01	NA	
	1,4-Dioxane	0.0003	0.01	NA	

Primary Review: [signature]

Secondary Review: [signature] 4/10/15

Quantitation Report

Data File:	J:\MS46\DATA\040815X\0408F011.D			**Instrument:**	GCMS46
Acqu Date:	04/08/2015 14:07	**Quant Date:**	04/09/2015 14:27	**Vial:**	9
Run Type:	MB			**Dilution:**	1.0
Lab ID:	KWG1503029-5			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**		**Receive Date:**	04/08/2015

Analysis Lot:	KWG1503030	**Prep Lot:**	KWG1503029	**Report Group:**	
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
		Prep Date:	04/08/2015		
Prep Ref:	1425875				

Quant Method:	J:\MS46\METHODS\031615MS46_8			**Calibration ID:**	CAL13899
Title:					
Tune Ref:	J:\MS46\DATA\040815X\0408F003.D			**Method ID:**	MJ119
MB Ref:				**Quant based on Method**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	6.49	0.00	96	734408	10.00	OK
2	Chlorobenzene-d5	9.95	-0.01	82	294950	10.00	OK
3	1,4-Dichlorobenzene-d4	12.53	0.00	152	290964	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.69	0.00	0.00	113	186889	11.58	116	73-122	OK	
1	1,2-Dichloroethane-d4	6.14	0.00	0.00	65	215499	12.65	127	59-127	OK	
1	Toluene-d8	8.33	0.00	0.00	98	680859	10.94	109	65-144	OK	
2	4-Bromofluorobenzene	11.27	0.00	0.00	95	244364	10.70	107	68-117	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane				85	0		0.13	U	
1	Chloromethane				50	0**d**		0.068	U	
1	Vinyl Chloride				62	0		0.075	U	
1	1,3-Butadiene				54	0		0.50	U	
1	Bromomethane				96	0**d**		0.10	U	
1	Chloroethane				64	0**d**		0.16	U	
1	Dichlorofluoromethane (CFC 21				67	0**d**		0.065	U	
1	Trichlorofluoromethane				101	0		0.12	U	
1	Ethyl Ether				59	0		0.075	U	
1	Acrolein				56	0		1.2	U	
1	Trichlorotrifluoroethane				151	0		0.13	U	
1	1,1-Dichloroethene				96	0		0.080	U	
1	Acetone	2.64	0.03	0.00	43	4999	2.05	3.3	U	
1	Iodomethane	2.63		0.00	142	604	0.0400	0.12	U	

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J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS46\DATA\040815X\0408F011.D			**Instrument:**	GCMS46
Acqu Date:	04/08/2015 14:07	**Quant Date:**	04/09/2015 14:27	**Vial:**	9
Run Type:	MB			**Dilution:**	1.0
Lab ID:	KWG1503029-5			**Soln Conc. Units:**	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Disulfide	2.65	-0.01	0.00	76	1454	0.0300	0.069	U	
1	2-Propanol				45	0**d**		17	U	
1	3-Chloro-1-propene				76	0**d**		0.094	U	
1	Methyl Acetate				43	0**d**		0.38	U	
1	Acetonitrile				40	0**d**		4.5	U	
1	Methylene Chloride	3.10	-0.01	0.00	84	2314	0.1300	0.130	J	
1	tert-Butyl Alcohol				59	0		4.4	U	
1	Acrylonitrile				53	0		0.28	U	
1	Methyl tert-Butyl Ether				73	0		0.11	U	
1	trans-1,2-Dichloroethene				96	0		0.072	U	
1	n-Hexane				57	0		0.090	U	
1	Diisopropyl Ether				45	0**d**		0.048	U	
1	1,1-Dichloroethane				63	0		0.077	U	
1	Vinyl Acetate				86	0		0.43	U	
1	Chloroprene				53	0		3.6	U	
1	tert-Butyl Ethyl Ether				59	0		0.048	U	
1	2,2-Dichloropropane				77	0		0.060	U	
1	cis-1,2-Dichloroethene				96	0		0.067	U	
1	2-Butanone (MEK)	5.12	0.02	0.00	72	729	0.7100	1.9	U	
1	Ethyl Acetate				61	0		0.57	U	
1	Propionitrile				54	0		1.1	U	
1	Methacrylonitrile				67	0		0.32	U	
1	Bromochloromethane				128	0		0.16	U	
1	Tetrahydrofuran				71	0		0.94	U	
1	Chloroform				83	0		0.072	U	
1	Cyclohexane				56	0		0.36	U	
1	1,1,1-Trichloroethane (TCA)				97	0		0.075	U	
1	Carbon Tetrachloride				117	0		0.096	U	
1	1,1-Dichloropropene				75	0		0.089	U	
1	Isobutyl Alcohol				43	0**d**		6.9	U	
1	Benzene	6.09		0.00	78	814	0.0100	0.062	U	
1	1,2-Dichloroethane (EDC)				62	0		0.080	U	
1	tert-Amyl Methyl Ether				55	0**d**		0.098	U	
1	Trichloroethene (TCE)	6.91	-0.01	0.00	95	570	0.0300	0.10	U	
1	Methylcyclohexane				83	0		0.33	U	
1	1,2-Dichloropropane				63	0		0.095	U	
1	Dibromomethane				93	0		0.15	U	
1	Methyl Methacrylate				69	0		0.13	U	
1	1,4-Dioxane				88	0		11	U	
1	Bromodichloromethane				83	0		0.091	U	
1	2-Nitropropane				41	0**d**		0.96	U	
1	2-Chloroethyl Vinyl Ether				63	0		0.16	U	

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?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS46\DATA\040815X\0408F011.D			**Instrument:**	GCMS46
Acqu Date:	04/08/2015 14:07	**Quant Date:**	04/09/2015 14:27	**Vial:**	9
Run Type:	MB			**Dilution:**	1.0
Lab ID:	KWG1503029-5			**Soln Conc. Units:**	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	cis-1,3-Dichloropropene				75	0		0.18	U	
1	4-Methyl-2-pentanone (MIBK)				58	0d		2.6	U	
1	Toluene	8.40		0.00	92	723m	0.0200	0.054	U	
2	n-Octane				85	0		0.16	U	
2	trans-1,3-Dichloropropene				75	0		0.068	U	
2	Ethyl Methacrylate				69	0d		0.15	U	
2	1,1,2-Trichloroethane				83	0		0.14	U	
2	Tetrachloroethene (PCE)				164	0		0.099	U	
2	2-Hexanone				57	0		2.7	U	
2	1,3-Dichloropropane				76	0		0.14	U	
2	Dibromochloromethane				129	0		0.14	U	
2	1,2-Dibromoethane (EDB)				107	0		0.10	U	
2	1-Chlorohexane	9.95	-0.01	0.00	91	1512	0.0600	0.0600	J	
2	Chlorobenzene				112	0		0.11	U	
2	Ethylbenzene				106	0		0.050	U	
2	1,1,1,2-Tetrachloroethane				131	0		0.11	U	
2	m,p-Xylenes				106	0		0.11	U	
2	o-Xylene				106	0		0.074	U	
2	Styrene				103	0		0.089	U	
2	Bromoform				173	0		0.16	U	
2	Isopropylbenzene				105	0		0.051	U	
2	cis-1,4-Dichloro-2-butene				89	0		1.4	U	
3	1,1,2,2-Tetrachloroethane				83	0		0.16	U	
3	trans-1,4-Dichloro-2-butene				53	0		0.35	U	
3	Bromobenzene				156	0		0.12	U	
3	n-Propylbenzene				91	0		0.054	U	
3	1,2,3-Trichloropropane				110	0		0.20	U	
3	2-Chlorotoluene				91	0		0.10	U	
3	1,3,5-Trimethylbenzene				105	0		0.089	U	
3	4-Chlorotoluene				91	0		0.13	U	
3	tert-Butylbenzene				119	0		0.059	U	
3	1,2,4-Trimethylbenzene				105	0		0.069	U	
3	sec-Butylbenzene				105	0		0.062	U	
3	4-Isopropyltoluene				119	0		0.060	U	
3	1,3-Dichlorobenzene				146	0		0.10	U	
3	1,4-Dichlorobenzene				146	0		0.12	U	
3	n-Butylbenzene				91	0		0.054	U	
3	1,2-Dichlorobenzene				146	0		0.12	U	
3	1,2-Dibromo-3-chloropropane				155	0		0.20	U	
3	1,3,5-Trichlorobenzene				180	0		0.10	U	
3	1,2,4-Trichlorobenzene				180	0		0.096	U	
3	Hexachlorobutadiene				225	0		0.11	U	

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c: check for co-elution

Data File:	J:\MS46\DATA\040815X\0408F011.D			**Instrument:**	GCMS46
Acqu Date:	04/08/2015 14:07	**Quant Date:**	04/09/2015 14:27	**Vial:**	9
Run Type:	MB			**Dilution:**	1.0
Lab ID:	KWG1503029-5			**Soln Conc. Units:**	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Naphthalene				128	0		0.088	U	
3	1,2,3-Trichlorobenzene				180	0		0.11	U	
	Benzyl Chloride				0	0		1.0	U	NR
	Isopropyl Acetate				0	0		20	U	NR
	Cyclohexanone				0	0		1.0	U	NR
	2-Ethoxyethanol				0	0		1.0	U	NR
	Bis(2-chloroethyl) Ether				0	0		20	U	NR
	beta-Pinene				0	0		1.0	U	NR
	1,1,2-Trifluoroethane				0	0		1.0	U	NR
	2,2,4-Trimethylpentane				0	0		1.0	U	NR
	Bis(chloromethyl) Ether				0	0		1.0	U	NR
	Amyl Acetate				0	0		20	U	NR
	Bromoethane				0	0		1.0	U	NR
	Pentachloroethane				0	0		5.0	U	NR
	1,1-Dichloropropane				0	0		1.0	U	NR
	alpha-Pinene				0	0		1.0	U	NR
	1,1,1,2-Tetrafluoroethane				0	0		1.0	U	NR
	Nitrobenzene				0	0		20	U	NR

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\040815X\0408F011.D Vial: 9
Acq On : 08 Apr 2015 02:07 pm Operator: KR
Sample : MB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 09 14:25:57 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

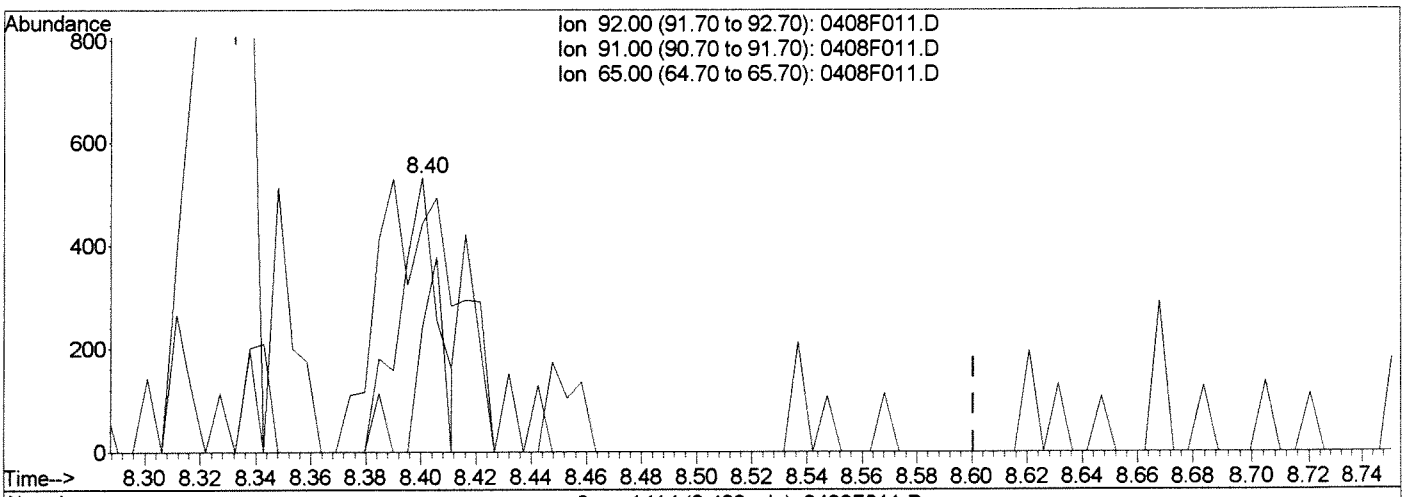
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	6.49	96	734408	10.00	PPB		0.00
64) Chlorobenzene-d5	9.95	82	294950	10.00	PPB		0.00
85) 1,4-Dichlorobenzene-d4	12.53	152	290964	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.69	113	186889	11.58	PPB		0.00
Spiked Amount 10.000			Recovery =	115.80%			
47) 1,2-Dichloroethane-d4	6.14	65	215499	12.65	PPB		0.00
Spiked Amount 10.000			Recovery =	126.50%			
62) Toluene-d8	8.33	98	680859	10.94	PPB		0.00
Spiked Amount 10.000			Recovery =	109.40%			
84) 4-Bromofluorobenzene	11.27	95	244364	10.70	PPB		0.00
Spiked Amount 10.000			Recovery =	107.00%			
Target Compounds							Qvalue
14) Acetone	2.64	43	4999	2.05	PPB		75
15) Iodomethane	2.63	142	604	0.04	PPB	#	28
16) Carbon Disulfide	2.65	76	1454	0.03	PPB		65
21) Methylene Chloride	3.10	84	2314	0.13	PPB	#	62
34) 2-Butanone	5.12	72	729	0.71	PPB	#	52
48) Benzene	6.09	78	814	0.01	PPB		70
51) Trichloroethene	6.91	95	570	0.03	PPB	#	48
63) Toluene	8.40	92	723m	0.02	PPB		
74) 1-Chlorohexane	9.95	91	1512	0.06	PPB		66

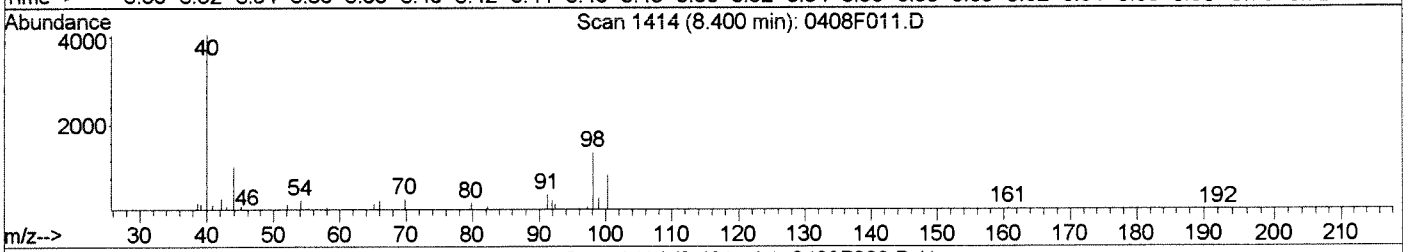
(#) = qualifier out of range (m) = manual integration

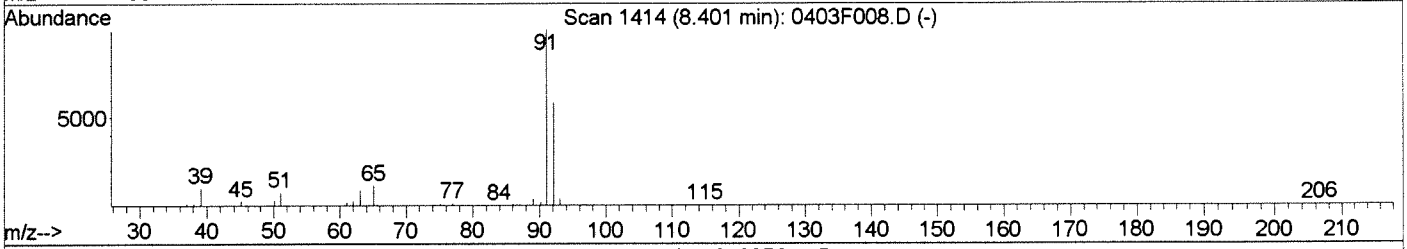
04.10.15jal2nd Rev

Data File : J:\MS46\DATA\040815X\0408F011.D Vial: 9
Acq On : 08 Apr 2015 02:07 pm Operator: KR
Sample : MB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 9 14:26 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Multiple Level Calibration







TIC: 0408F011.D

(63) Toluene (CMT)

8.40min 0.01PPB

response 525

Ion	Exp%	Act%
92.00	100	100
91.00	169.20	62.66#
65.00	20.20	45.40
0.00	0.00	0.00

Manual Integration:

Before

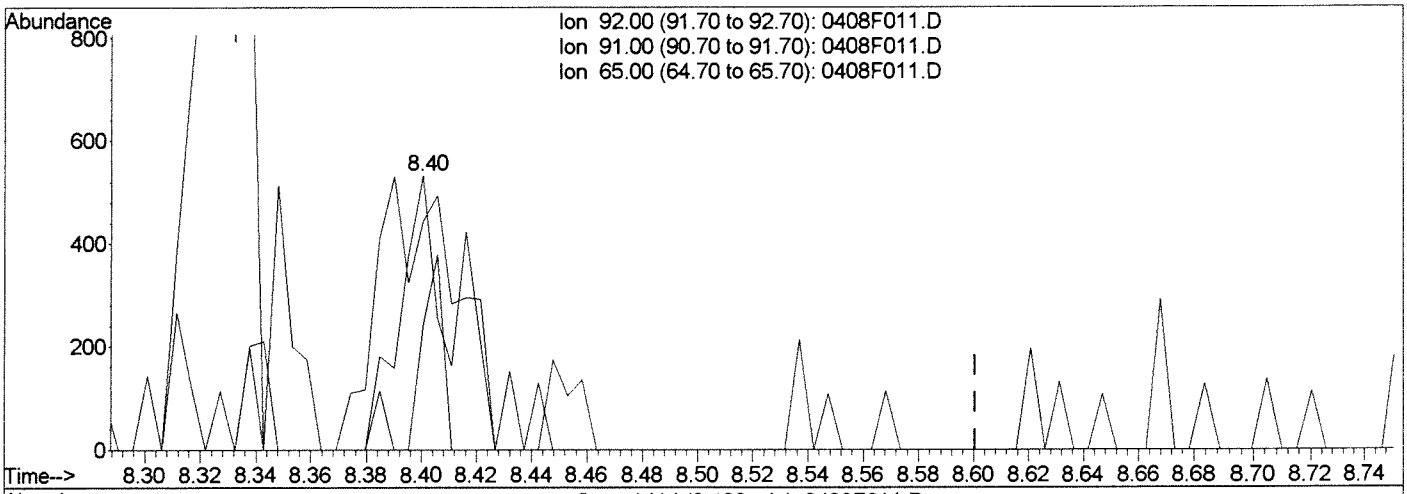
04/09/15

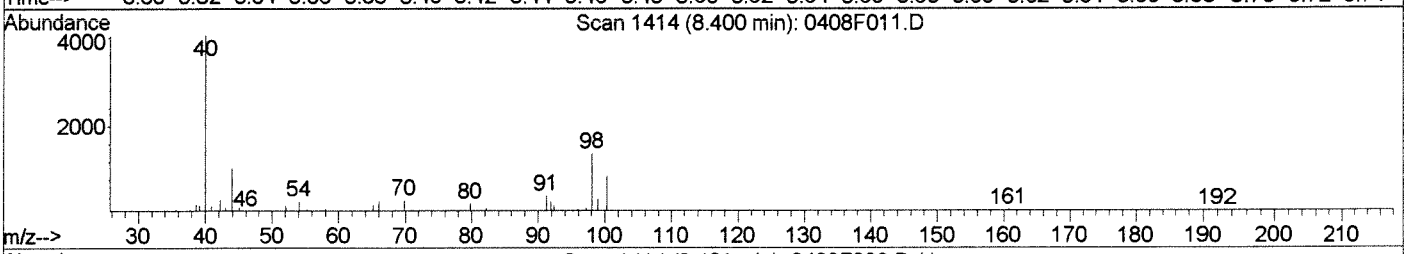
0408F011.D 031615MS46_8260.M Thu Apr 09 14:27:00 2015

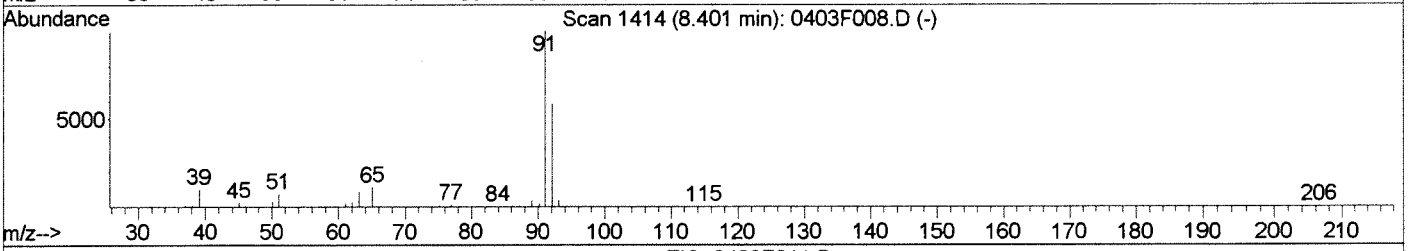
04.10.15jal2nd Rev

Data File : J:\MS46\DATA\040815X\0408F011.D Vial: 9
Acq On : 08 Apr 2015 02:07 pm Operator: KR
Sample : MB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 9 14:26 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Multiple Level Calibration







TIC: 0408F011.D

(63) Toluene (CMT)
8.40min 0.02PPB m
response 723

Ion	Exp%	Act%
92.00	100	100
91.00	169.20	140.95
65.00	20.20	76.83#
0.00	0.00	0.00

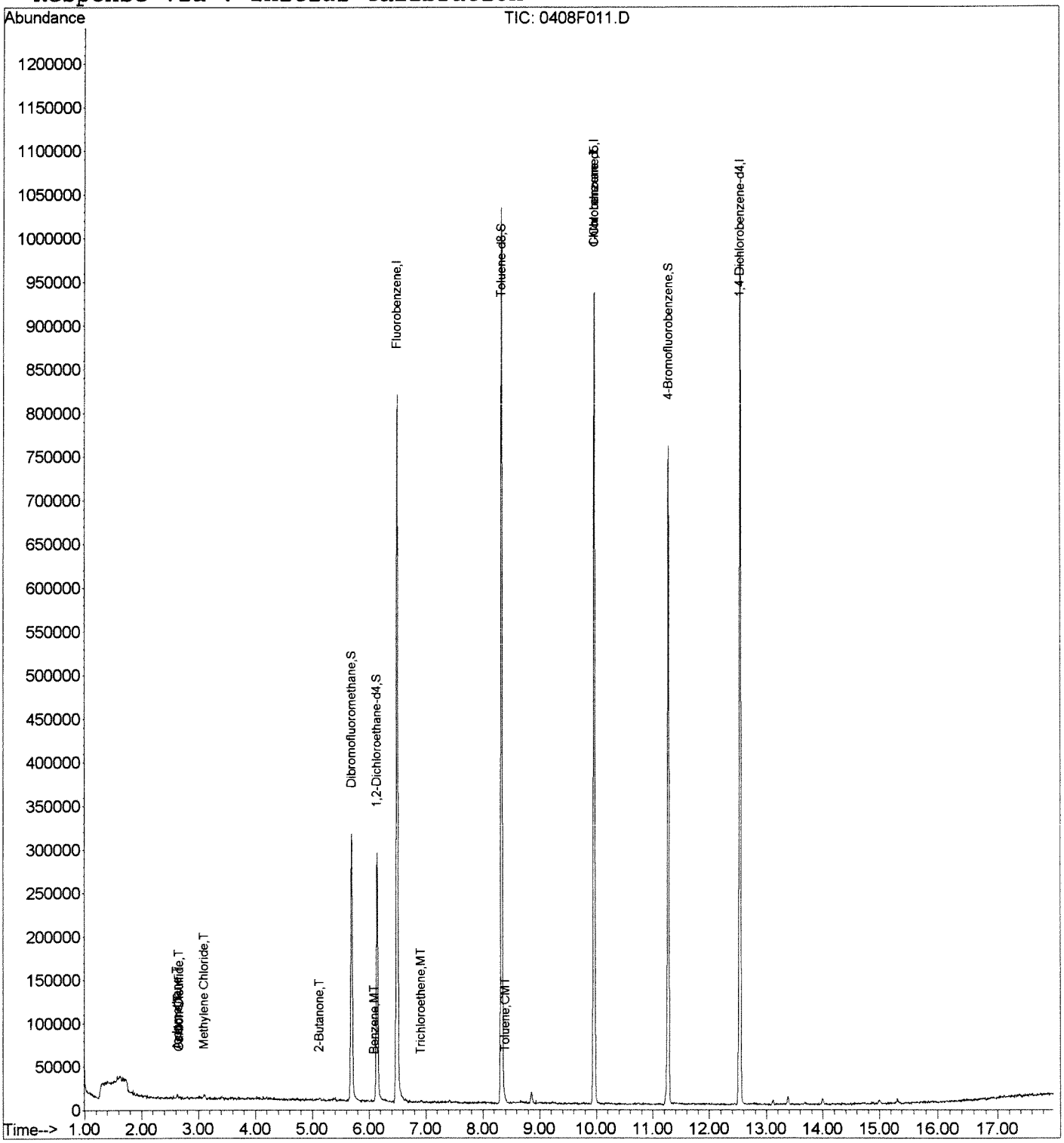
Manual Integration:
After
Baseline correction
04/09/15

0408F011.D 031615MS46_8260.M Thu Apr 09 14:27:04 2015

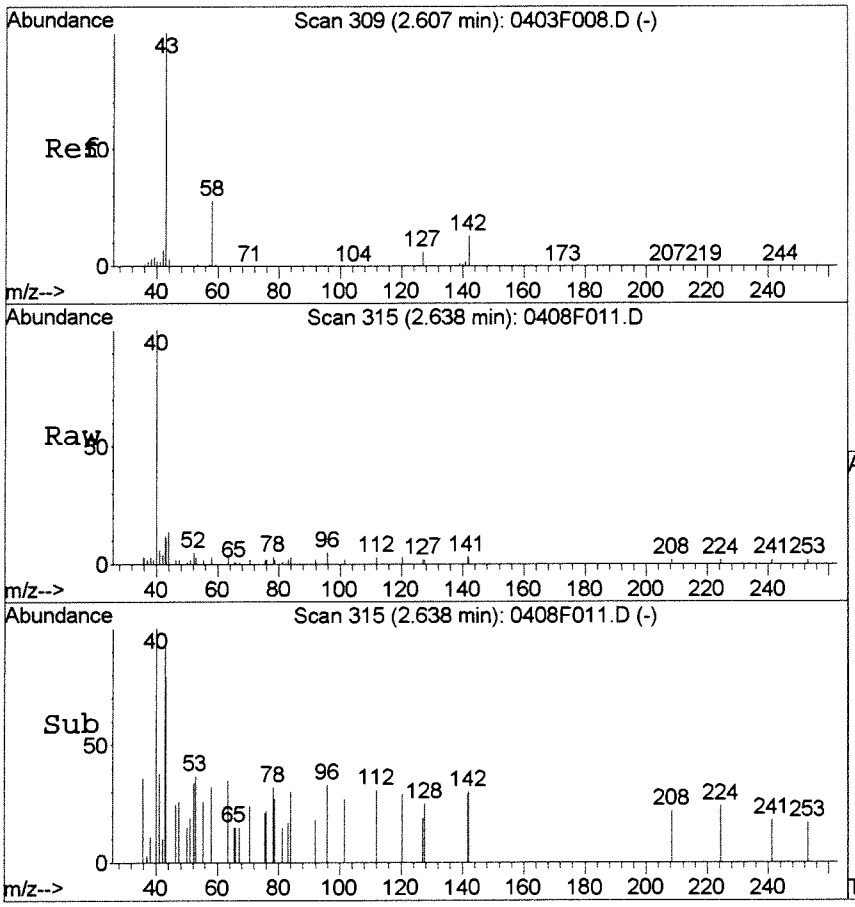
04.10.15jal2nd Rev

Data File : J:\MS46\DATA\040815X\0408F011.D Vial: 9
Acq On : 08 Apr 2015 02:07 pm Operator: KR
Sample : MB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 9 14:27 2015 Quant Results File: 031615MS46_8

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Initial Calibration



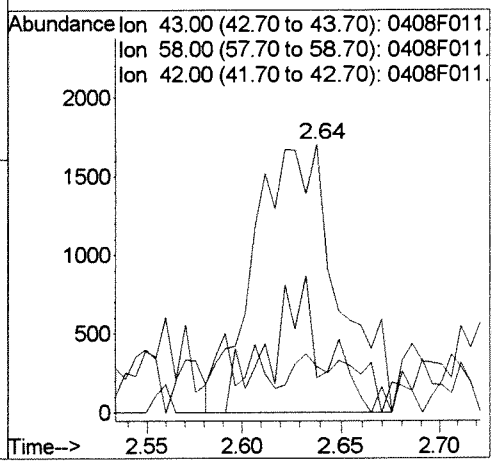
04.10.15jal2nd Rev

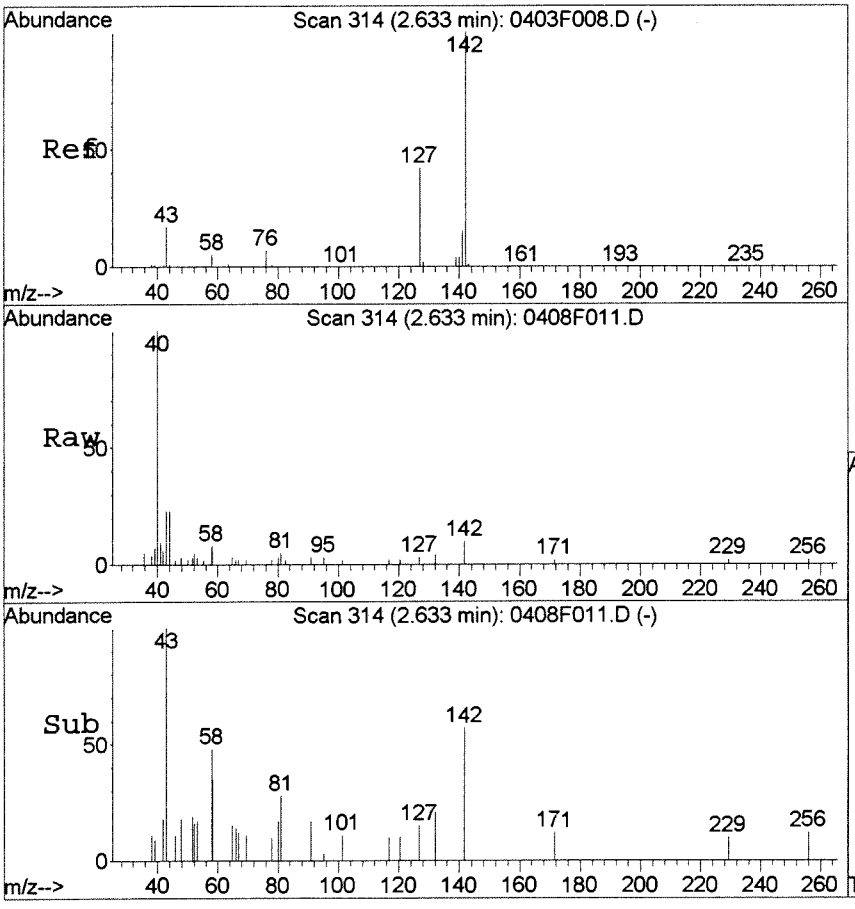


#14
Acetone
Concen: 2.05 PPB
RT: 2.64 min Scan# 315
Delta R.T. 0.03 min
Lab File: 0408F011.D
Acq: 08 Apr 2015 02:07 pm

Tgt Ion: 43 Resp: 4999

Ion	Ratio	Lower	Upper
43	100		
58	13.0	0.0	59.5
42	6.6	0.0	37.1

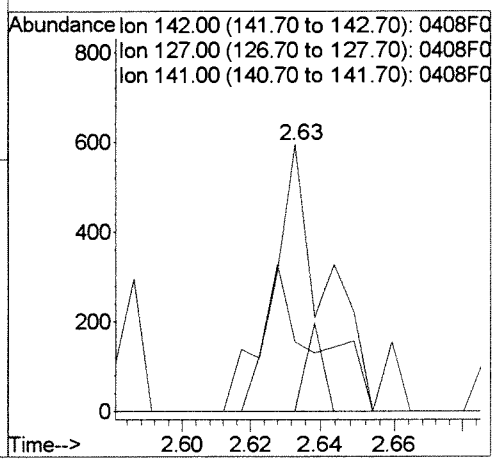


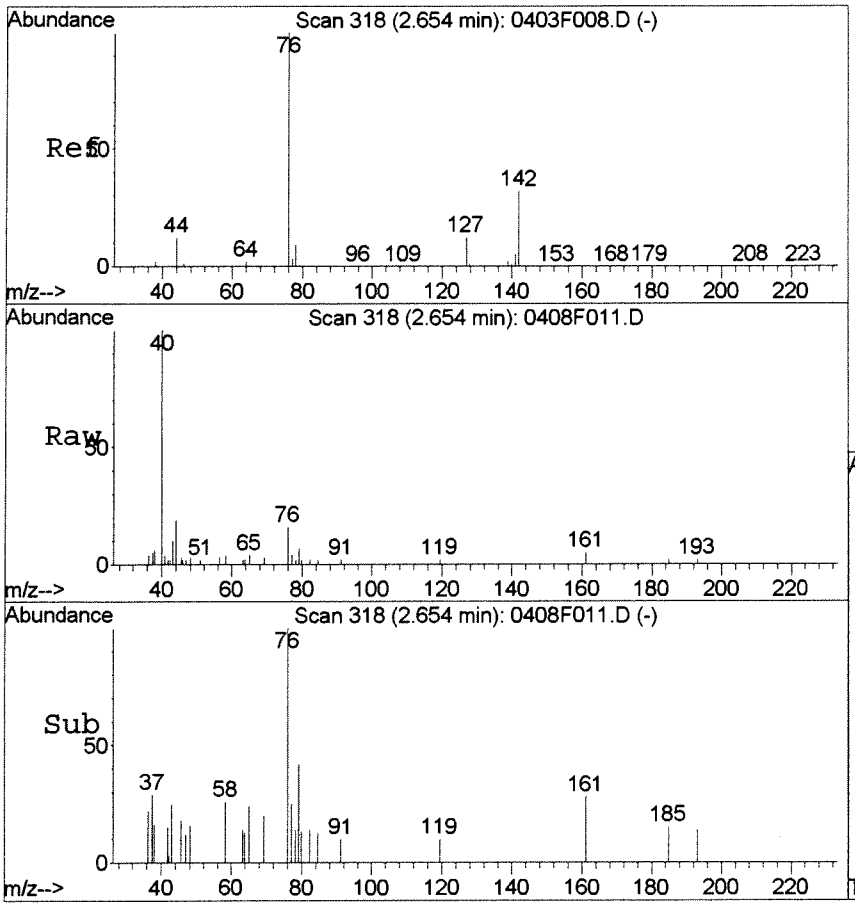


#15
Iodomethane
Concen: 0.04 PPB
RT: 2.63 min Scan# 314
Delta R.T. -0.00 min
Lab File: 0408F011.D
Acq: 08 Apr 2015 02:07 pm

Tgt Ion:142 Resp: 604

Ion	Ratio	Lower	Upper
142	100		
127	26.1	10.8	70.8
141	100.0	0.0	44.2#

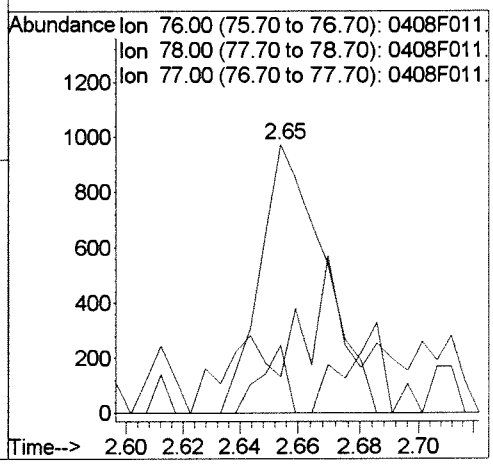


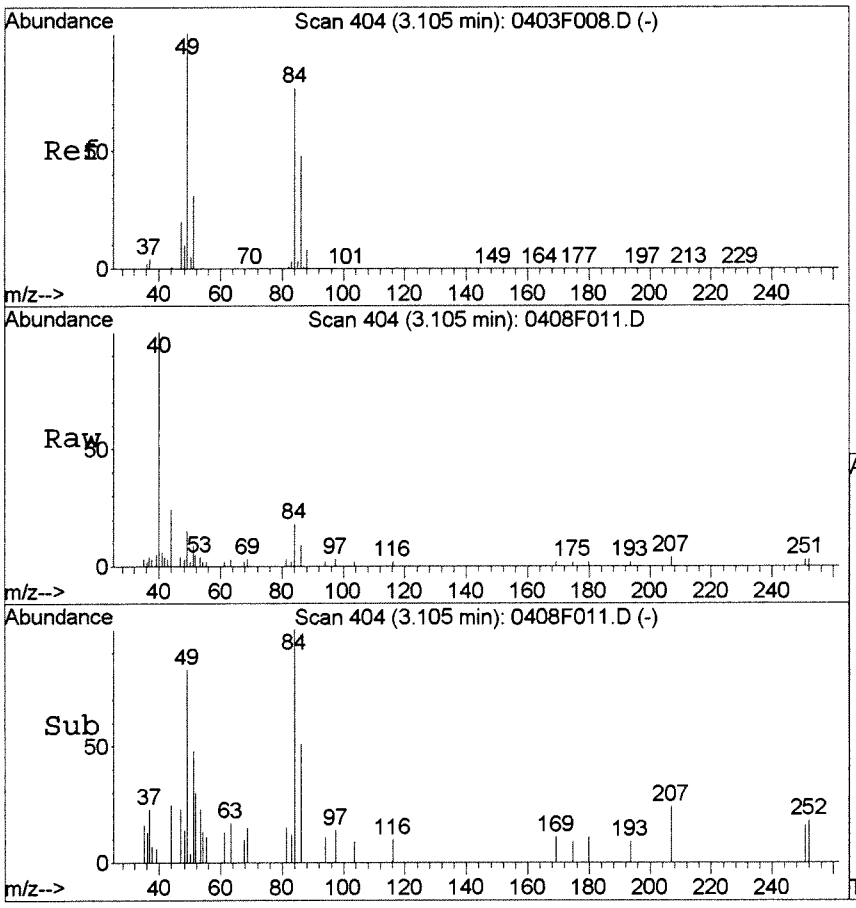


#16
Carbon Disulfide
Concen: 0.03 PPB
RT: 2.65 min Scan# 318
Delta R.T. -0.00 min
Lab File: 0408F011.D
Acq: 08 Apr 2015 02:07 pm

Tgt Ion: 76 Resp: 1454

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	38.4
77	25.5	0.0	32.9

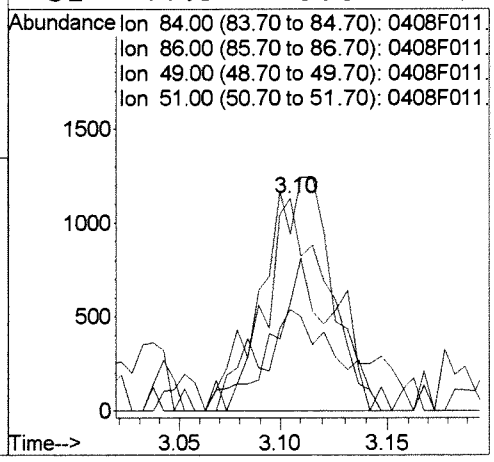


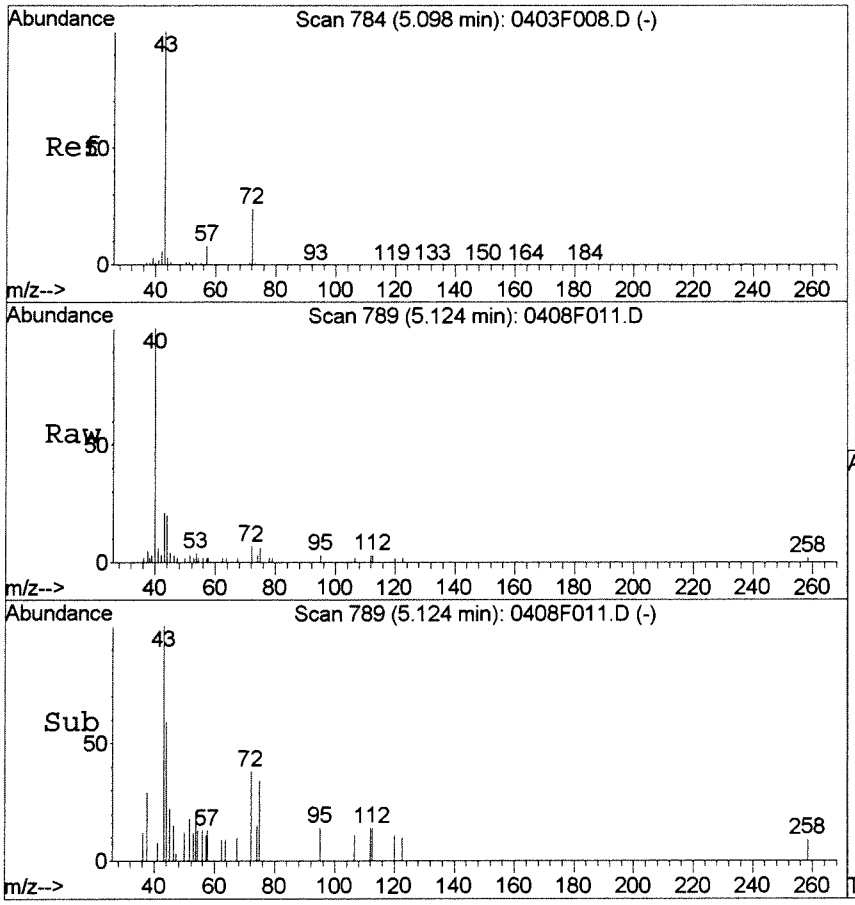


#21
Methylene Chloride
Concen: 0.13 PPB
RT: 3.10 min Scan# 404
Delta R.T. -0.00 min
Lab File: 0408F011.D
Acq: 08 Apr 2015 02:07 pm

Tgt Ion: 84 Resp: 2314

Ion	Ratio	Lower	Upper
84	100		
86	50.6	33.1	93.1
49	82.9	99.0	159.0#
51	77.9	8.0	68.0#

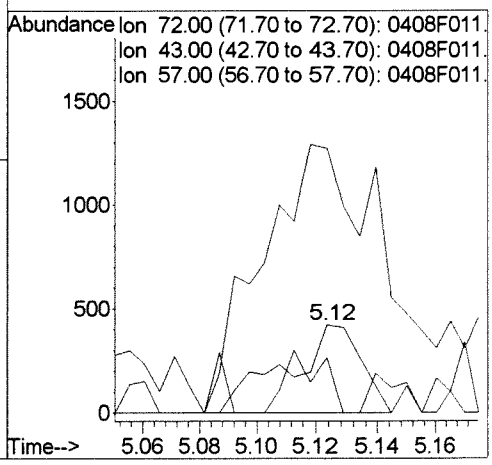


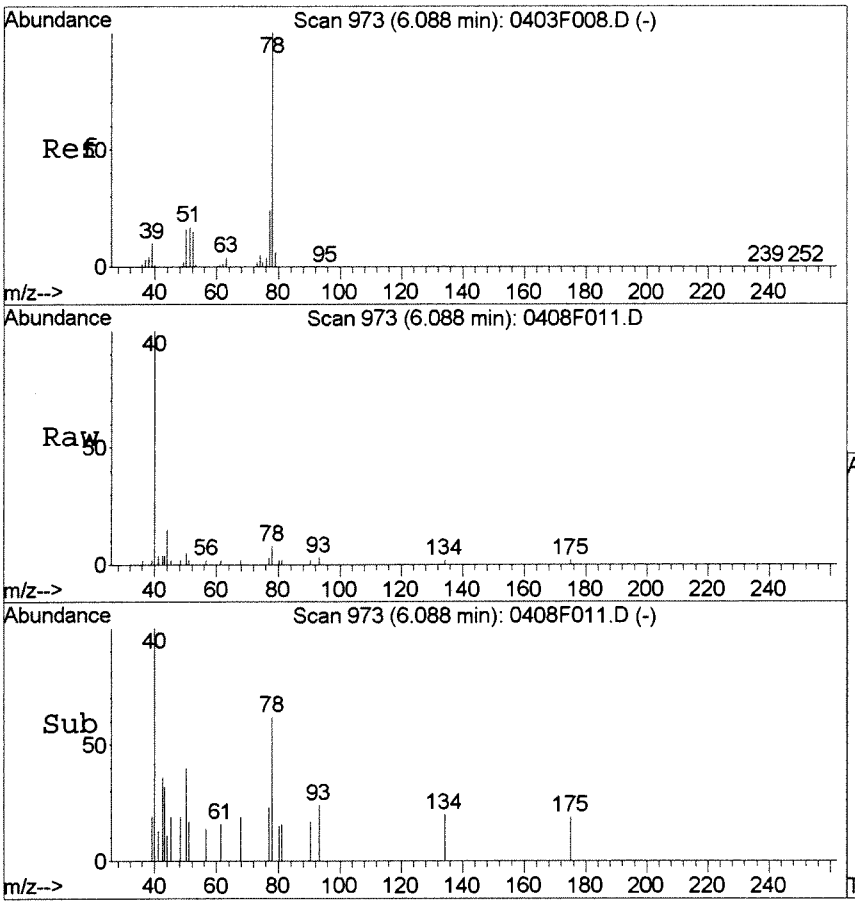


#34
2-Butanone
Concen: 0.71 PPB
RT: 5.12 min Scan# 789
Delta R.T. 0.03 min
Lab File: 0408F011.D
Acq: 08 Apr 2015 02:07 pm

Tgt Ion: 72 Resp: 729

Ion	Ratio	Lower	Upper
72	100		
43	301.4	386.3	446.3#
57	62.8	1.3	61.3#

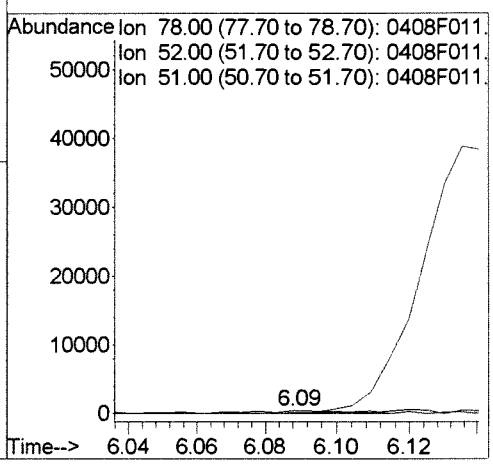


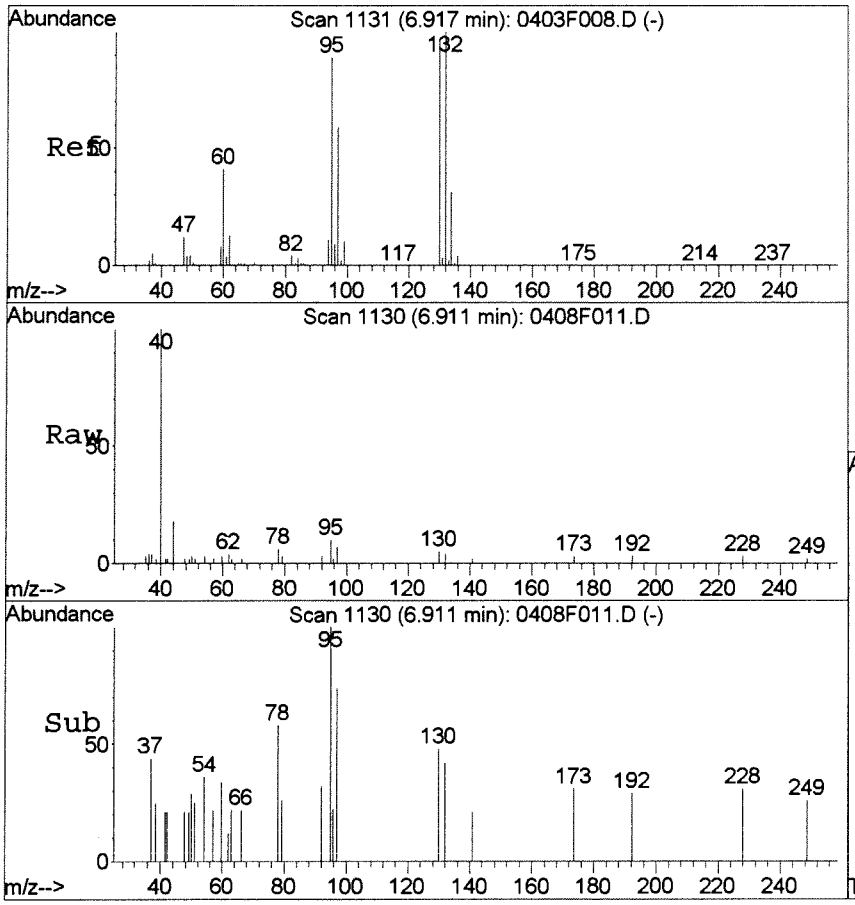


#48
Benzene
Concen: 0.01 PPB
RT: 6.09 min Scan# 973
Delta R.T. -0.00 min
Lab File: 0408F011.D
Acq: 08 Apr 2015 02:07 pm

Tgt Ion: 78 Resp: 814

Ion	Ratio	Lower	Upper
78	100		
52	0.0	0.0	46.3
51	27.2	0.0	47.5

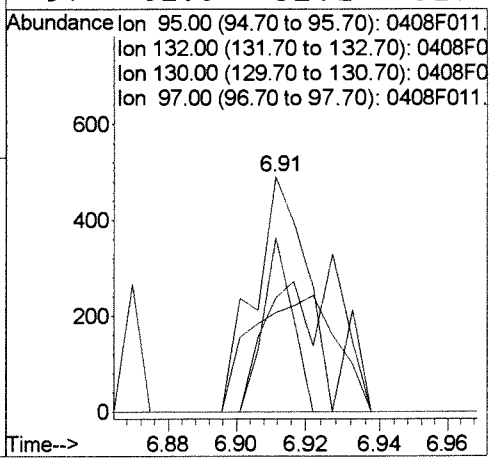


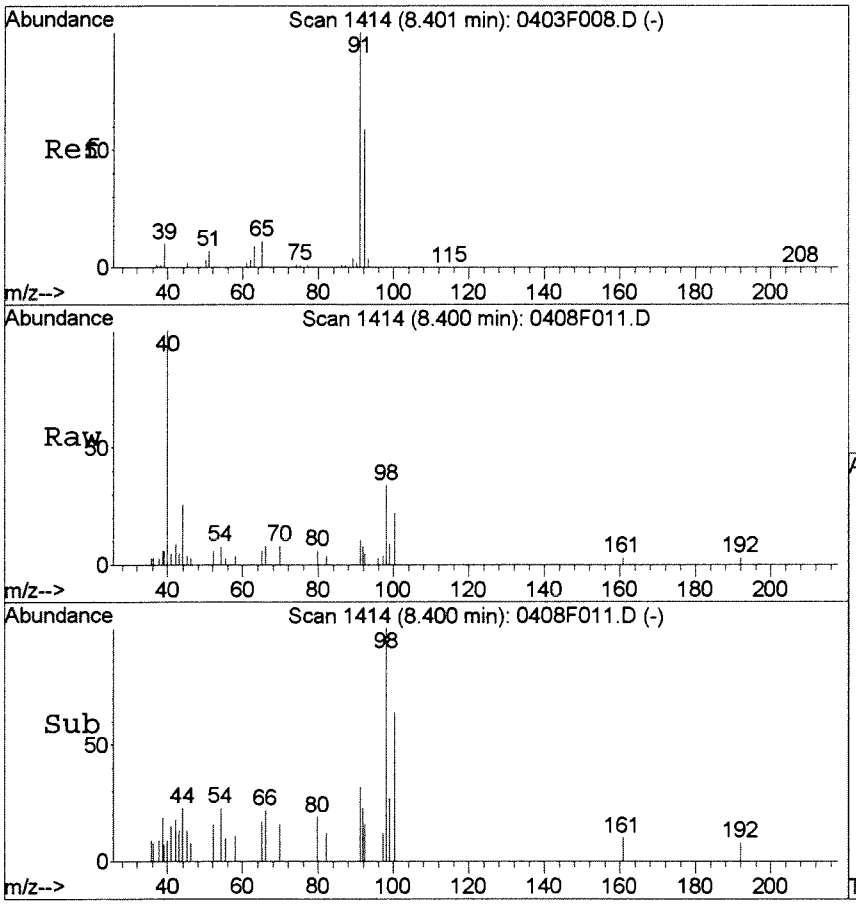


#51
Trichloroethene
Concen: 0.03 PPB
RT: 6.91 min Scan# 1130
Delta R.T. -0.01 min
Lab File: 0408F011.D
Acq: 08 Apr 2015 02:07 pm

Tgt Ion: 95 Resp: 570

Ion	Ratio	Lower	Upper
95	100		
132	34.7	72.9	132.9#
130	39.9	81.4	141.4#
97	61.0	32.1	92.1

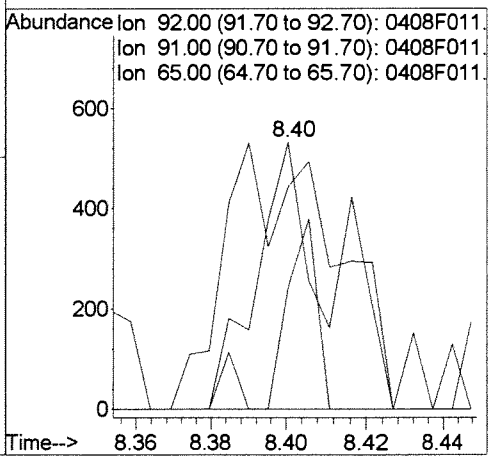


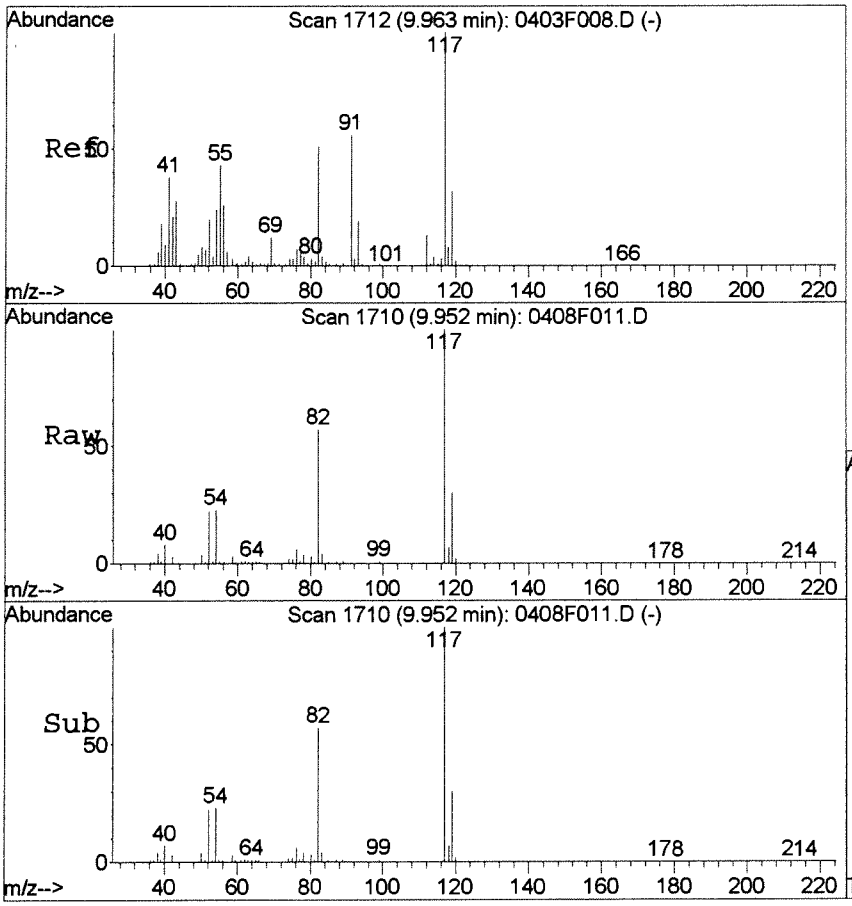


#63
Toluene
Concen: 0.02 PPB m
RT: 8.40 min Scan# 1414
Delta R.T. -0.00 min
Lab File: 0408F011.D
Acq: 08 Apr 2015 02:07 pm

Tgt Ion: 92 Resp: 723

Ion	Ratio	Lower	Upper
92	100		
91	141.0	139.2	199.2
65	76.8	0.0	50.2#

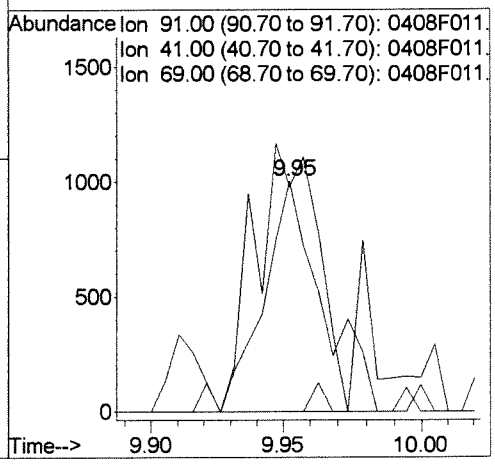




#74
1-Chlorohexane
Concen: 0.06 PPB
RT: 9.95 min Scan# 1710
Delta R.T. -0.01 min
Lab File: 0408F011.D
Acq: 08 Apr 2015 02:07 pm

Tgt Ion: 91 Resp: 1512

Ion	Ratio	Lower	Upper
91	100		
41	84.6	31.8	91.8
69	0.0	0.0	51.3



Tentatively Identified Compound (LBG) Summary

Operator ID: KR Date Acquired: 08 Apr 2015 02:07 pm
Data File: J:\MS46\DATA\040815X\0408F011.D
Name: MB
Misc:
Method: J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title: VOA MS27 EPA Method 8260B
Library Searched: L:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Response	--Internal Standard--- #	RT	Resp	Conc

kr 4/9/15

Exception Report

Data File: J:\MS46\DATA\040315\0403F011.D
Lab ID: KWG1502844-4 -- K153171-006MS
RunType: MS
Matrix: WATER

Date Acquired: 04/03/2015 12:34
Date Quantitated: 04/03/2015 13:48
Batch ID: KWG1502843
Analysis Method: 8260C
MethodJoinID: MJ119

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA		x
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA		x
Continuing Calibration Minimum RF	NA	NA	NA		x
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	2-Propanol	0.0054	0.01	NA	NC
	Acetonitrile	0.0084	0.01	NA	
	tert-Butyl Alcohol	0.0090	0.01	NA	
	Isobutyl Alcohol	0.0039	0.01	NA	
	1,4-Dioxane	0.0009	0.01	NA	
Second Source ICAL Verification	1,4-Dioxane	-40.6	NA	30	
Continuing Calibration Recovery	Acrolein	-67.7	NA	20	
	2-Propanol	-36.2	NA	20	
	tert-Butyl Alcohol	-29.4	NA	20	
	1,4-Dioxane	-49.7	NA	20	
	trans-1,4-Dichloro-2-butene	-22.3	NA	20	
	1,2-Dibromo-3-chloropropane	-26.0	NA	20	CCVOK
Continuing Calibration Minimum RF	Acrolein	0.0065	0.01	NA	NC

Primary Review: KA 4/3/15

Secondary Review: 4.9.15

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
	2-Propanol	0.0035	0.01	NA	NR
	Methyl Acetate	0.0934	0.100	NA	
	tert-Butyl Alcohol	0.0064	0.01	NA	
	1,4-Dioxane	0.0004	0.01	NA	

Primary Review: 4/3/15

Secondary Review: 4.9.15

Quantitation Report

Data File:	J:\MS46\DATA\040315\0403F011.D			**Instrument:**	GCMS46
Acqu Date:	04/03/2015 12:34	**Quant Date:**	04/03/2015 13:48	**Vial:**	6
Run Type:	MS			**Dilution:**	1.0
Lab ID:	KWG1502844-4 -- K153171-006MS			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**		**Receive Date:**	04/03/2015

Analysis Lot:	KWG1502843	**Prep Lot:**	KWG1502844	**Report Group:**	
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1424891	**Prep Date:**	04/03/2015		

Quant Method:	J:\MS46\METHODS\031615MS46_8	**Calibration ID:**	CAL13899
Title:			
Tune Ref:	J:\MS46\DATA\040315\0403F007.D	**Method ID:**	MJ119
MB Ref:		**Quant based on Method**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	6.49	0.00	96	812546	10.00	OK
2	Chlorobenzene-d5	9.96	0.01	82	324583	10.00	OK
3	1,4-Dichlorobenzene-d4	12.53	0.00	152	336680	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.69	0.00	0.00	113	206488	11.56	116	73-122	OK	
1	1,2-Dichloroethane-d4	6.14	0.00	0.00	65	226666	12.02	120	59-127	OK	
1	Toluene-d8	8.33	0.00	0.00	98	778663	11.31	113	65-144	OK	
2	4-Bromofluorobenzene	11.27	0.00	0.00	95	287298	11.43	114	68-117	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane	1.10		0.00	85	189974	7.16	7.16		
1	Chloromethane	1.26		0.00	50	207508	8.03	8.03		
1	Vinyl Chloride	1.34		0.00	62	204095	8.51	8.51		
1	1,3-Butadiene				54	0d		0.50	U	
1	Bromomethane	1.63		0.00	96	167911	12.04	12.0		
1	Chloroethane	1.72		0.00	64	122866	9.66	9.66		
1	Dichlorofluoromethane (CFC 21)	1.93		0.00	67	355609	9.25	9.25		
1	Trichlorofluoromethane	1.92	-0.01	0.00	101	252178	7.96	7.96		
1	Ethyl Ether	2.23		0.00	59	112411	8.38	8.38		
1	Acrolein	2.43		0.00	56	233660	142.99	143		
1	Trichlorotrifluoroethane	2.44	0.01	0.00	151	172429	10.02	10.0		
1	1,1-Dichloroethene	2.46		0.00	96	153489	9.37	9.37		
1	Acetone	2.61		0.00	43	146619	54.45	54.5		
1	Iodomethane	2.63		0.00	142	559068	33.96	34.0		

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS46\DATA\040315\0403F011.D			**Instrument:**	GCMS46
Acqu Date:	04/03/2015 12:34	**Quant Date:**	04/03/2015 13:48	**Vial:**	6
Run Type:	MS			**Dilution:**	1.0
Lab ID:	KWG1502844-4 -- K153171-006MS			**Soln Conc. Units:**	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Disulfide	2.66	0.01	0.00	76	1073646	18.13	18.1		
1	2-Propanol				45	0d		17	U	
1	3-Chloro-1-propene	2.92	0.01	0.00	76	309018	29.74	29.7		
1	Methyl Acetate				43	0d		0.38	U	
1	Acetonitrile	3.03	0.01	0.00	40	212073	311.71	312		
1	Methylene Chloride	3.11		0.00	84	152826	7.89	7.89		
1	tert-Butyl Alcohol	3.31		0.00	59	74258	101.01	101		
1	Acrylonitrile	3.56		0.00	53	171467	41.49	41.5		
1	Methyl tert-Butyl Ether	3.40	0.01	0.00	73	408587	9.50	9.50		
1	trans-1,2-Dichloroethene	3.40		0.00	96	170883	8.86	8.86		
1	n-Hexane	3.71		0.00	57	889729	29.24	29.2		
1	Diisopropyl Ether	4.17	0.01	0.00	45	1101326	18.02	18.0		
1	1,1-Dichloroethane	4.12		0.00	63	304636	9.18	9.18		
1	Vinyl Acetate	4.24	-0.01	0.00	86	158328	48.52	48.5		
1	Chloroprene	4.20		0.00	53	917587	33.88	33.9		
1	tert-Butyl Ethyl Ether	4.73	0.01	0.00	59	985324	18.91	18.9		
1	2,2-Dichloropropane	4.95		0.00	77	263665	8.61	8.61		
1	cis-1,2-Dichloroethene	5.01		0.00	96	182346	8.60	8.60		
1	2-Butanone (MEK)	5.10		0.00	72	61284	54.07	54.1		
1	Ethyl Acetate	5.17	0.01	0.00	61	47479	30.74	30.7		
1	Propionitrile	5.28		0.00	54	46786	32.09	32.1		
1	Methacrylonitrile	5.43		0.00	67	155136	30.50	30.5		
1	Bromochloromethane	5.35	0.01	0.00	128	79884	8.88	8.88		
1	Tetrahydrofuran				71	0d		0.94	U	
1	Chloroform	5.47		0.00	83	321451	9.29	9.29		
1	Cyclohexane				56	0d		0.36	U	
1	1,1,1-Trichloroethane (TCA)	5.62	0.01	0.00	97	283605	8.66	8.66		
1	Carbon Tetrachloride	5.77		0.00	117	384299	13.30	13.3		
1	1,1-Dichloropropene	5.84		0.00	75	254773	9.37	9.37		
1	Isobutyl Alcohol	6.19	0.01	0.00	43	90168	287.21	287		
1	Benzene	6.09		0.00	78	703936	8.73	8.73		
1	1,2-Dichloroethane (EDC)	6.24		0.00	62	216631	8.82	8.82		
1	tert-Amyl Methyl Ether	6.26		0.00	55	221935	19.93	19.9		
1	Trichloroethene (TCE)	6.92		0.00	95	189538	8.94	8.94		
1	Methylcyclohexane				83	0d		0.33	U	
1	1,2-Dichloropropane	7.24		0.00	63	166690	8.39	8.39		
1	Dibromomethane	7.37		0.00	93	92944	9.09	9.09		
1	Methyl Methacrylate	7.41		0.00	69	271846	28.55	28.6		
1	1,4-Dioxane	7.41		0.00	88	34397	475.96	476		
1	Bromodichloromethane	7.57		0.00	83	222851	8.58	8.58		
1	2-Nitropropane	7.93		0.00	41	85797	24.78	24.8		
1	2-Chloroethyl Vinyl Ether	8.09	0.12	0.02	63	1436	0.1500	0.16	U	

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS46\DATA\040315\0403F011.D			**Instrument:**	GCMS46
Acqu Date:	04/03/2015 12:34	**Quant Date:**	04/03/2015 13:48	**Vial:**	6
Run Type:	MS			**Dilution:**	1.0
Lab ID:	KWG1502844-4 -- K153171-006MS			**Soln Conc. Units:**	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	cis-1,3-Dichloropropene	8.10		0.00	75	255296	8.69	8.69		
1	4-Methyl-2-pentanone (MIBK)	8.29		0.00	58	231099	57.97	58.0		
1	Toluene	8.40		0.00	92	461106	9.01	9.01		
2	n-Octane				85	0d		0.16	U	
2	trans-1,3-Dichloropropene	8.77	0.01	0.00	75	206793	8.32	8.32		
2	Ethyl Methacrylate	8.83	0.01	0.00	69	534866	30.35	30.4		
2	1,1,2-Trichloroethane	8.96		0.00	83	114748	9.12	9.12		
2	Tetrachloroethene (PCE)	8.98	0.01	0.00	164	187470	9.35	9.35		
2	2-Hexanone	9.23		0.00	57	76533	57.97	58.0		
2	1,3-Dichloropropane	9.14		0.00	76	236036	9.20	9.20		
2	Dibromochloromethane	9.34		0.00	129	158377	9.05	9.05		
2	1,2-Dibromoethane (EDB)	9.47		0.00	107	130506	9.28	9.28		
2	1-Chlorohexane	9.96		0.00	91	279399	9.93	9.93		
2	Chlorobenzene	9.99	0.01	0.00	112	504947	9.16	9.16		
2	Ethylbenzene	10.08		0.00	106	270798	8.98	8.98		
2	1,1,1,2-Tetrachloroethane	10.10	0.01	0.00	131	175846	9.04	9.04		
2	m,p-Xylenes	10.22		0.00	106	682348	18.67	18.7		
2	o-Xylene	10.66		0.00	106	320735	9.06	9.06		
2	Styrene	10.69		0.00	103	247606m	9.35	9.35		
2	Bromoform	10.91		0.00	173	96145	9.17	9.17		
2	Isopropylbenzene	11.05		0.00	105	887128	9.24	9.24		
2	cis-1,4-Dichloro-2-butene	11.22		0.00	89	62052	32.45	32.5		
3	1,1,2,2-Tetrachloroethane	11.47		0.00	83	148227	9.48	9.48		
3	trans-1,4-Dichloro-2-butene	11.55		0.00	53	151016	31.37	31.4		
3	Bromobenzene	11.42		0.00	156	218427	9.04	9.04		
3	n-Propylbenzene	11.50		0.00	91	1085404	9.61	9.61		
3	1,2,3-Trichloropropane	11.53	0.01	0.00	110	50157	9.55	9.55		
3	2-Chlorotoluene	11.62		0.00	91	604480	8.99	8.99		
3	1,3,5-Trimethylbenzene	11.71		0.00	105	736975	9.22	9.22		
3	4-Chlorotoluene	11.75		0.00	91	622597	8.75	8.75		
3	tert-Butylbenzene	12.05		0.00	119	667461	9.04	9.04		
3	1,2,4-Trimethylbenzene	12.12		0.00	105	719655	9.00	9.00		
3	sec-Butylbenzene	12.29		0.00	105	961449	9.07	9.07		
3	4-Isopropyltoluene	12.45		0.00	119	831889	9.57	9.57		
3	1,3-Dichlorobenzene	12.45		0.00	146	434722	8.92	8.92		
3	1,4-Dichlorobenzene	12.56	0.01	0.00	146	440210	9.10	9.10		
3	n-Butylbenzene	12.90		0.00	91	746962	9.22	9.22		
3	1,2-Dichlorobenzene	12.97		0.00	146	394755	9.12	9.12		
3	1,2-Dibromo-3-chloropropane	13.85		0.00	155	23221	8.81	8.81		
3	1,3,5-Trichlorobenzene	14.02		0.00	180	346935	9.67	9.67		
3	1,2,4-Trichlorobenzene	14.73	0.01	0.00	180	286169	9.46	9.46		
3	Hexachlorobutadiene	14.85		0.00	225	149235	9.34	9.34		

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D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS46\DATA\040315\0403F011.D			**Instrument:**	GCMS46
Acqu Date:	04/03/2015 12:34	**Quant Date:**	04/03/2015 13:48	**Vial:**	6
Run Type:	MS			**Dilution:**	1.0
Lab ID:	KWG1502844-4 -- K153171-006MS			**Soln Conc. Units:**	PPB

Target Compounds **Final Conc. Units:** ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Naphthalene	15.01		0.00	128	517907	9.63	9.63		
3	1,2,3-Trichlorobenzene	15.27		0.00	180	261192	9.65	9.65		
	Benzyl Chloride				0	0		1.0	U	NR
	Isopropyl Acetate				0	0		20	U	NR
	Cyclohexanone				0	0		1.0	U	NR
	2-Ethoxyethanol				0	0		1.0	U	NR
	Bis(2-chloroethyl) Ether				0	0		20	U	NR
	beta-Pinene				0	0		1.0	U	NR
	1,1,2-Trifluoroethane				0	0		1.0	U	NR
	2,2,4-Trimethylpentane				0	0		1.0	U	NR
	Bis(chloromethyl) Ether				0	0		1.0	U	NR
	Amyl Acetate				0	0		20	U	NR
	Bromoethane				0	0		1.0	U	NR
	Pentachloroethane				0	0		5.0	U	NR
	1,1-Dichloropropane				0	0		1.0	U	NR
	alpha-Pinene				0	0		1.0	U	NR
	1,1,1,2-Tetrafluoroethane				0	0		1.0	U	NR
	Nitrobenzene				0	0		20	U	NR

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\040315\0403F011.D Vial: 6
Acq On : 03 Apr 2015 12:34 pm Operator: KR
Sample : K3171-006MS Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 03 13:48:11 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	6.49	96	812546	10.00	PPB		0.00
64) Chlorobenzene-d5	9.96	82	324583	10.00	PPB		0.00
85) 1,4-Dichlorobenzene-d4	12.53	152	336680	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.69	113	206488	11.56	PPB		0.00
Spiked Amount 10.000			Recovery =	115.60%			
47) 1,2-Dichloroethane-d4	6.14	65	226666	12.02	PPB		0.00
Spiked Amount 10.000			Recovery =	120.20%			
62) Toluene-d8	8.33	98	778663	11.31	PPB		0.00
Spiked Amount 10.000			Recovery =	113.10%			
84) 4-Bromofluorobenzene	11.27	95	287298	11.43	PPB		0.00
Spiked Amount 10.000			Recovery =	114.30%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.10	85	189974	7.16	PPB		98
3) Chloromethane	1.26	50	207508	8.03	PPB		98
4) Vinyl Chloride	1.34	62	204095	8.51	PPB		99
6) Bromomethane	1.63	96	167911	12.04	PPB		96
7) Chloroethane	1.72	64	122866	9.66	PPB		98
8) Dichlorofluoromethane	1.93	67	355609	9.25	PPB		99
9) Trichlorofluoromethane	1.92	101	252178	7.96	PPB		96
10) Ethyl Ether	2.23	59	112411	8.38	PPB		93
11) Acrolein	2.43	56	233660	142.99	PPB		98
12) Trichlorotrifluoroethane	2.44	151	172429	10.02	PPB		94
13) 1,1-Dichloroethene	2.46	96	153489	9.37	PPB		92
14) Acetone	2.61	43	146619	54.45	PPB		97
15) Iodomethane	2.63	142	559068	33.96	PPB		97
16) Carbon Disulfide	2.66	76	1073646	18.13	PPB		98
18) 3-Chloro-1-propene	2.92	76	309018	29.74	PPB	#	85
20) Acetonitrile	3.03	40	212073	311.71	PPB		96
21) Methylene Chloride	3.11	84	152826	7.89	PPB		96
22) tert-Butyl Alcohol	3.31	59	74258	101.01	PPB		96
23) Acrylonitrile	3.56	53	171467	41.49	PPB		99
24) Methyl tert-Butyl Ether	3.40	73	408587	9.50	PPB		96
25) trans-1,2-Dichloroethene	3.40	96	170883	8.86	PPB		89
26) Hexane	3.71	57	889729	29.24	PPB		98
27) Diisopropyl Ether	4.17	45	1101326	18.02	PPB		99
28) 1,1-Dichloroethane	4.12	63	304636	9.18	PPB		97
29) Vinyl Acetate	4.24	86	158328	48.52	PPB		97
30) Chloroprene	4.20	53	917587	33.88	PPB		99
31) tert-Butyl Ethyl Ether	4.73	59	985324	18.91	PPB		99

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS46\DATA\040315\0403F011.D Vial: 6
Acq On : 03 Apr 2015 12:34 pm Operator: KR
Sample : K3171-006MS Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 03 13:48:11 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
32)	2,2-Dichloropropane	4.95	77	263665	8.61	PPB		99
33)	cis-1,2-Dichloroethene	5.01	96	182346	8.60	PPB		96
34)	2-Butanone	5.10	72	61284	54.07	PPB		99
35)	Ethyl Acetate	5.17	61	47479	30.74	PPB		86
36)	Propionitrile	5.28	54	46786	32.09	PPB		95
37)	Methacrylonitrile	5.43	67	155136	30.50	PPB		96
38)	Bromochloromethane	5.35	128	79884	8.88	PPB		98
40)	Chloroform	5.47	83	321451	9.29	PPB		96
42)	1,1,1-Trichloroethane	5.62	97	283605	8.66	PPB		97
44)	Carbon Tetrachloride	5.77	117	384299	13.30	PPB		96
45)	1,1-Dichloropropene	5.84	75	254773	9.37	PPB		97
46)	Isobutyl Alcohol	6.19	43	90168	287.21	PPB		97
48)	Benzene	6.09	78	703936	8.73	PPB		99
49)	1,2-Dichloroethane	6.24	62	216631	8.82	PPB		99
50)	tert-Amyl Methyl Ether	6.26	55	221935	19.93	PPB		90
51)	Trichloroethene	6.92	95	189538	8.94	PPB		97
53)	1,2-Dichloropropane	7.24	63	166690	8.39	PPB		98
54)	Dibromomethane	7.37	93	92944	9.09	PPB		93
55)	Methyl methacrylate	7.41	69	271846	28.55	PPB		97
56)	1,4-Dioxane	7.41	88	34397	475.96	PPB		77
57)	Bromodichloromethane	7.57	83	222851	8.58	PPB		98
58)	2-Nitropropane	7.93	41	85797	24.78	PPB		96
59)	2-Chloroethyl Vinyl Ether	8.09	63	1436	0.15	PPB	#	44
60)	cis-1,3-Dichloropropene	8.10	75	255296	8.69	PPB		98
61)	4-Methyl-2-pentanone (MIBK	8.29	58	231099	57.97	PPB		97
63)	Toluene	8.40	92	461106	9.01	PPB		98
66)	trans-1,3-Dichloropropene	8.77	75	206793	8.32	PPB		98
67)	Ethyl methacrylate	8.83	69	534866	30.35	PPB		97
68)	1,1,2-Trichloroethane	8.96	83	114748	9.12	PPB		97
69)	Tetrachloroethene	8.98	164	187470	9.35	PPB		97
70)	2-Hexanone	9.23	57	76533	57.97	PPB		94
71)	1,3-Dichloropropane	9.14	76	236036	9.20	PPB		97
72)	Dibromochloromethane	9.34	129	158377	9.05	PPB		98
73)	1,2-Dibromoethane (EDB)	9.47	107	130506	9.28	PPB		98
74)	1-Chlorohexane	9.96	91	279399	9.93	PPB		98
75)	Chlorobenzene	9.99	112	504947	9.16	PPB		97
76)	Ethylbenzene	10.08	106	270798	8.98	PPB		98
77)	1,1,1,2-Tetrachloroethane	10.10	131	175846	9.04	PPB		97
78)	m,p-Xylenes	10.22	106	682348	18.67	PPB		97
79)	o-Xylene	10.66	106	320735	9.06	PPB		99
80)	Styrene	10.69	103	247606m	9.35	PPB		

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS46\DATA\040315\0403F011.D Vial: 6
Acq On : 03 Apr 2015 12:34 pm Operator: KR
Sample : K3171-006MS Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 03 13:48:11 2015 Quant Results File: 031615MS46_8260

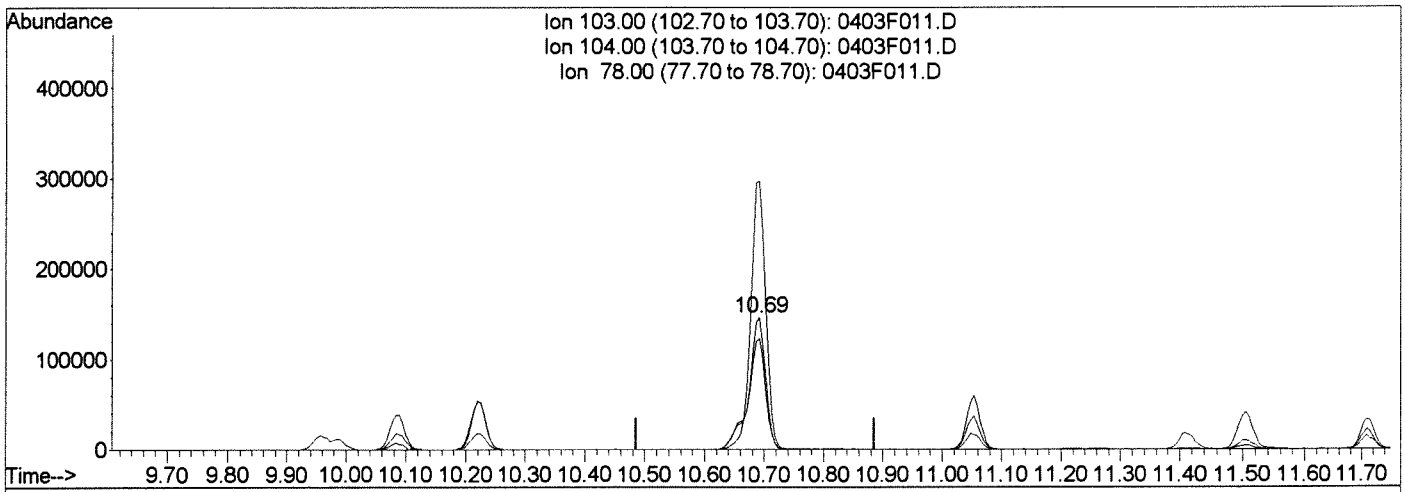
Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

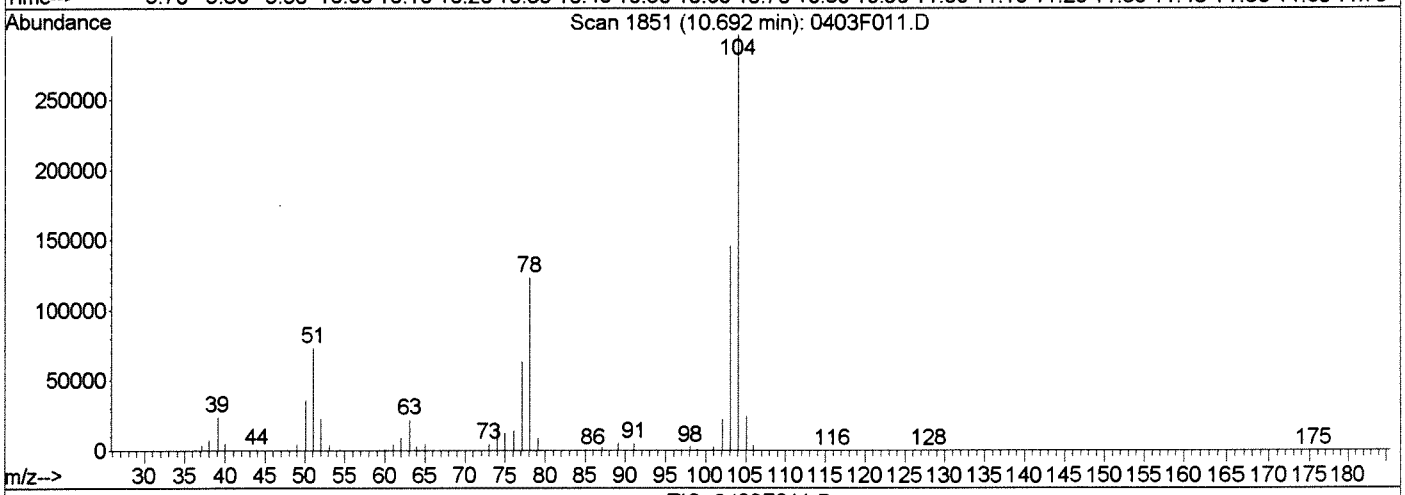
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
81)	Bromoform	10.91	173	96145	9.17	PPB		96
82)	Isopropylbenzene	11.05	105	887128	9.24	PPB		100
83)	cis-1,4-Dichloro-2-butene	11.22	89	62052	32.45	PPB		88
86)	1,1,2,2-Tetrachloroethane	11.47	83	148227	9.48	PPB		94
87)	trans-1,4-Dichloro-2-buten	11.55	53	151016	31.37	PPB		95
88)	Bromobenzene	11.42	156	218427	9.04	PPB		96
89)	n-Propylbenzene	11.50	91	1085404	9.61	PPB		98
90)	1,2,3-Trichloropropane	11.53	110	50157	9.55	PPB		92
91)	2-Chlorotoluene	11.62	91	604480	8.99	PPB		97
92)	1,3,5-Trimethylbenzene	11.71	105	736975	9.22	PPB		97
93)	4-Chlorotoluene	11.75	91	622597	8.75	PPB		99
94)	tert-Butylbenzene	12.05	119	667461	9.04	PPB		99
95)	1,2,4-Trimethylbenzene	12.12	105	719655	9.00	PPB		98
96)	sec-Butylbenzene	12.29	105	961449	9.07	PPB		98
97)	p-Isopropyltoluene	12.45	119	831889	9.57	PPB		99
98)	1,3-Dichlorobenzene	12.45	146	434722	8.92	PPB		98
99)	1,4-Dichlorobenzene	12.56	146	440210	9.10	PPB		97
100)	n-Butylbenzene	12.90	91	746962	9.22	PPB		97
101)	1,2-Dichlorobenzene	12.97	146	394755	9.12	PPB		99
102)	1,2-Dibromo-3-chloropropan	13.85	155	23221	8.81	PPB	#	80
103)	1,3,5-Trichlorobenzene	14.02	180	346935	9.67	PPB		98
104)	1,2,4-Trichlorobenzene	14.73	180	286169	9.46	PPB		100
105)	Hexachlorobutadiene	14.85	225	149235	9.34	PPB		98
106)	Naphthalene	15.01	128	517907	9.63	PPB		99
107)	1,2,3-Trichlorobenzene	15.27	180	261192	9.65	PPB		93

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS46\DATA\040315\0403F011.D Vial: 6
Acq On : 03 Apr 2015 12:34 pm Operator: KR
Sample : K3171-006MS Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 3 13:48 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Multiple Level Calibration





TIC: 0403F011.D

(80) Styrene (T)

10.69min 10.94PPB

response 289752

Ion	Exp%	Act%
103.00	100	100
104.00	198.60	202.84
78.00	88.20	84.28
0.00	0.00	0.00

Manual Integration:

Before

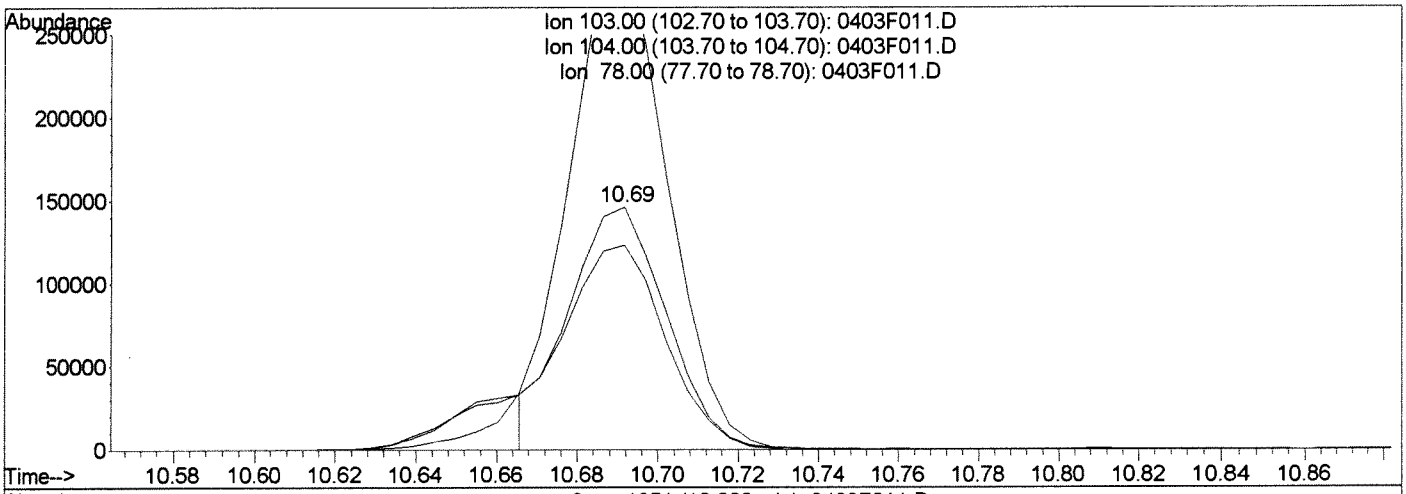
04/03/15

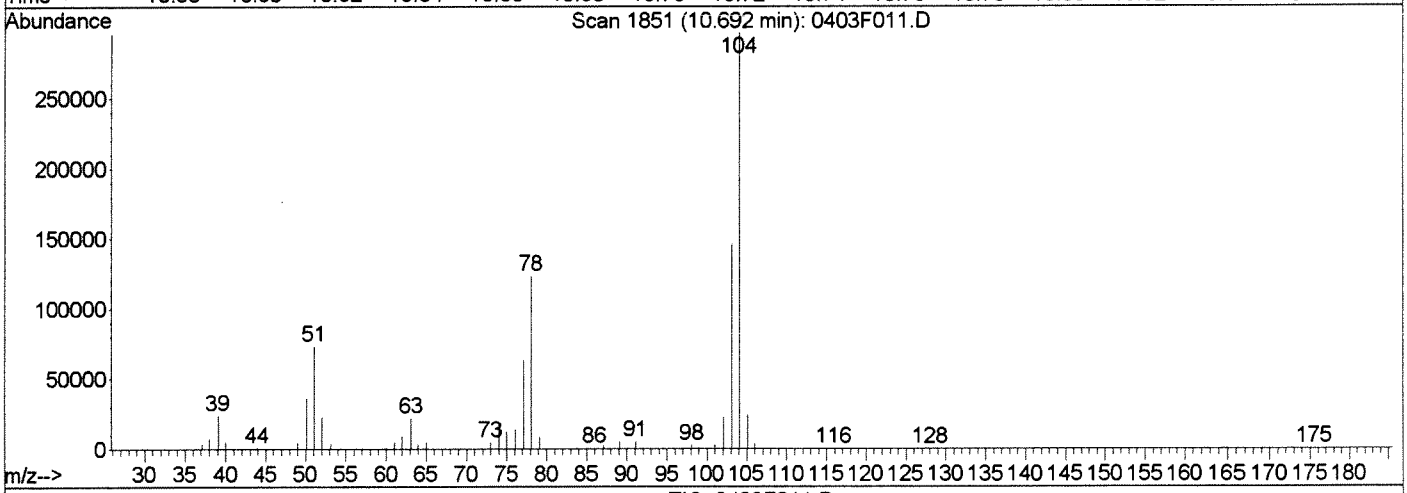
0403F011.D 031615MS46_8260.M Fri Apr 03 13:48:32 2015

04.09.15jal2ndRev

Data File : J:\MS46\DATA\040315\0403F011.D Vial: 6
Acq On : 03 Apr 2015 12:34 pm Operator: KR
Sample : K3171-006MS Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 3 13:48 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Multiple Level Calibration





TIC: 0403F011.D

(80) Styrene (T)
10.69min 9.35PPB m
response 247606

Ion	Exp%	Act%
103.00	100	100
104.00	198.60	202.84
78.00	88.20	84.28
0.00	0.00	0.00

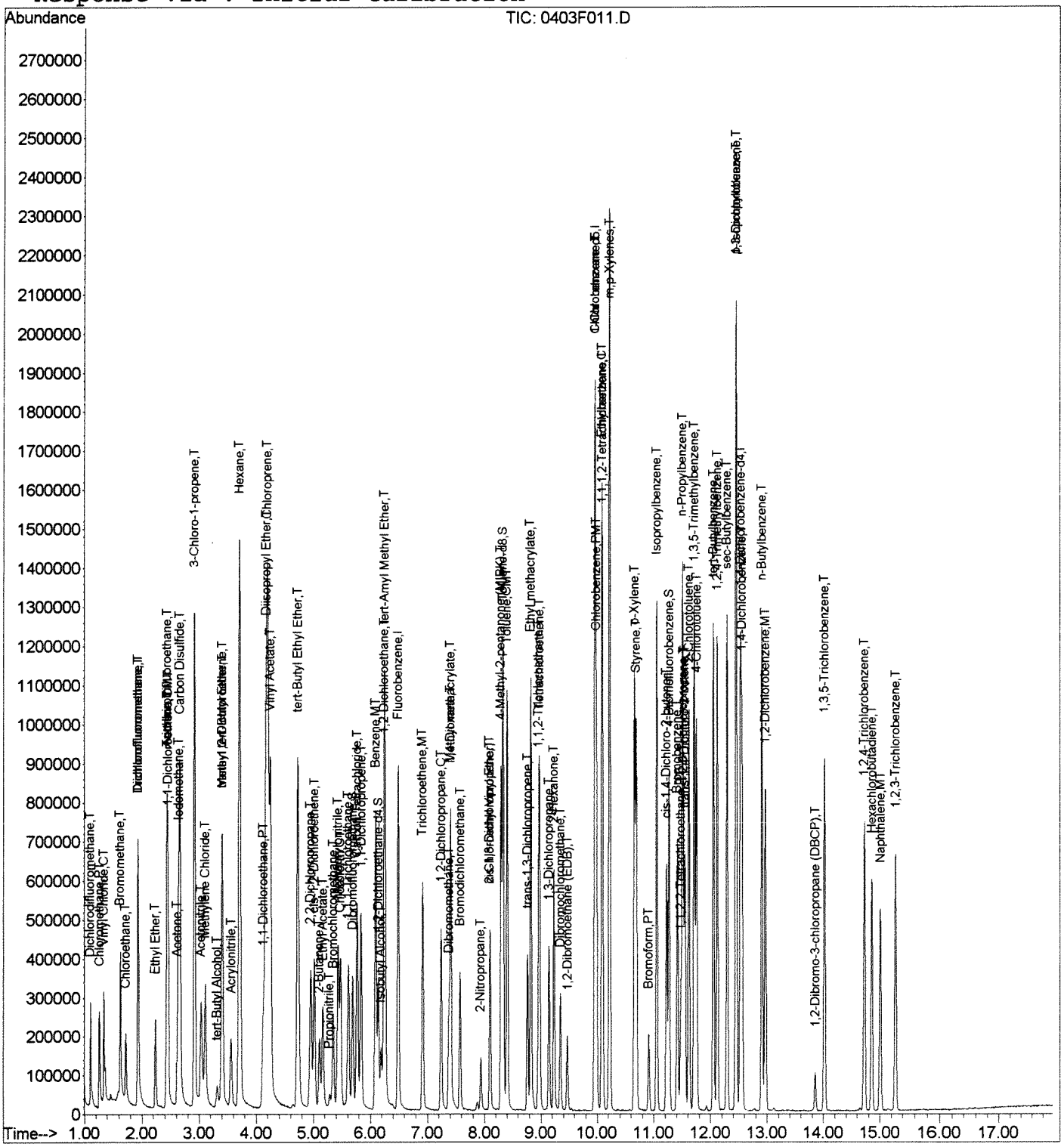
Manual Integration:
After
Baseline correction
04/03/15

0403F011.D 031615MS46_8260.M Fri Apr 03 13:48:36 2015

04.09.15jal2nd Rev

Data File : J:\MS46\DATA\040315\0403F011.D Vial: 6
Acq On : 03 Apr 2015 12:34 pm Operator: KR
Sample : K3171-006MS Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 3 13:48 2015 Quant Results File: 031615MS46_8

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Initial Calibration



04.09.15jal2nd Rev

Exception Report

Data File: J:\MS46\DATA\040315\0403F012.D
Lab ID: KWG1502844-5 -- K153171-006DMS
RunType: DMS
Matrix: WATER

Date Acquired: 04/03/2015 12:58
Date Quantitated: 04/03/2015 13:49
Batch ID: KWG1502843
Analysis Method: 8260C
MethodJoinID: MJ119

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA		x
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA		x
Continuing Calibration Minimum RF	NA	NA	NA		x
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	2-Propanol	0.0054	0.01	NA	NJ
	Acetonitrile	0.0084	0.01	NA	
	tert-Butyl Alcohol	0.0090	0.01	NA	
	Isobutyl Alcohol	0.0039	0.01	NA	
	1,4-Dioxane	0.0009	0.01	NA	
Second Source ICAL Verification	1,4-Dioxane	-40.6	NA	30	
Continuing Calibration Recovery	Acrolein	-67.7	NA	20	
	2-Propanol	-36.2	NA	20	
	tert-Butyl Alcohol	-29.4	NA	20	
	1,4-Dioxane	-49.7	NA	20	
	trans-1,4-Dichloro-2-butene	-22.3	NA	20	
	1,2-Dibromo-3-chloropropane	-26.0	NA	20	CCV01C
Continuing Calibration Minimum RF	Acrolein	0.0065	0.01	NA	NJ

Primary Review: KM 4/3/15

Secondary Review: 4/9/15

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
	2-Propanol	0.0035	0.01	NA	NR
	Methyl Acetate	0.0934	0.100	NA	
	tert-Butyl Alcohol	0.0064	0.01	NA	
	1,4-Dioxane	0.0004	0.01	NA	

Primary Review: 4/5/15

Secondary Review: 4/5/15

Quantitation Report

Data File:	J:\MS46\DATA\040315\0403F012.D			**Instrument:**	GCMS46
Acqu Date:	04/03/2015 12:58	**Quant Date:**	04/03/2015 13:49	**Vial:**	6
Run Type:	DMS			**Dilution:**	1.0
Lab ID:	KWG1502844-5 -- K153171-006DMS			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**		**Receive Date:**	04/03/2015

Analysis Lot:	KWG1502843	**Prep Lot:**	KWG1502844	**Report Group:**	
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1424892	**Prep Date:**	04/03/2015		

Quant Method:	J:\MS46\METHODS\031615MS46_8	**Calibration ID:**	CAL13899
Title:			
Tune Ref:	J:\MS46\DATA\040315\0403F007.D	**Method ID:**	MJ119
MB Ref:		**Quant based on Method**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	6.49	0.00	96	819391	10.00	OK
2	Chlorobenzene-d5	9.96	0.01	82	324328	10.00	OK
3	1,4-Dichlorobenzene-d4	12.53	0.00	152	336089	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.70	0.01	0.00	113	204844	11.38	114	73-122	OK	
1	1,2-Dichloroethane-d4	6.14	0.00	0.00	65	231086	12.16	122	59-127	OK	
1	Toluene-d8	8.33	0.00	0.00	98	780603	11.24	112	65-144	OK	
2	4-Bromofluorobenzene	11.27	0.00	0.00	95	289877	11.54	115	68-117	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane	1.10		0.00	85	183466	6.86	6.86		
1	Chloromethane	1.26		0.00	50	198148	7.60	7.60		
1	Vinyl Chloride	1.34		0.00	62	194296	8.03	8.03		
1	1,3-Butadiene				54	0d		0.50	U	
1	Bromomethane	1.63		0.00	96	131052	9.32	9.32		
1	Chloroethane	1.72		0.00	64	118880	9.27	9.27		
1	Dichlorofluoromethane (CFC 21	1.93		0.00	67	334459	8.63	8.63		
1	Trichlorofluoromethane	1.93		0.00	101	238810	7.48	7.48		
1	Ethyl Ether	2.23		0.00	59	110025	8.13	8.13		
1	Acrolein	2.43		0.00	56	236663	143.62	144		
1	Trichlorotrifluoroethane	2.44	0.01	0.00	151	156244	9.00	9.00		
1	1,1-Dichloroethene	2.46		0.00	96	147626	8.94	8.94		
1	Acetone	2.61		0.00	43	150101	55.28	55.3		
1	Iodomethane	2.63		0.00	142	597031	35.96	36.0		

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B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS46\DATA\040315\0403F012.D			**Instrument:**	GCMS46
Acqu Date:	04/03/2015 12:58	**Quant Date:**	04/03/2015 13:49	**Vial:**	6
Run Type:	DMS			**Dilution:**	1.0
Lab ID:	KWG1502844-5 -- K153171-006DMS			**Soln Conc. Units:**	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Disulfide	2.66	0.01	0.00	76	972423	16.29	16.3		
1	2-Propanol				45	0d		17	U	
1	3-Chloro-1-propene	2.92	0.01	0.00	76	296750	28.32	28.3		
1	Methyl Acetate				43	0d		0.38	U	
1	Acetonitrile	3.04	0.02	0.00	40	205928	300.15	300		
1	Methylene Chloride	3.11		0.00	84	142585	7.30	7.30		
1	tert-Butyl Alcohol	3.31		0.00	59	75857	102.32	102		
1	Acrylonitrile	3.56		0.00	53	167611	40.22	40.2		
1	Methyl tert-Butyl Ether	3.40	0.01	0.00	73	406689	9.37	9.37		
1	trans-1,2-Dichloroethene	3.41	0.01	0.00	96	165550	8.51	8.51		
1	n-Hexane	3.71		0.00	57	855114	27.87	27.9		
1	Diisopropyl Ether	4.17	0.01	0.00	45	1070410	17.37	17.4		
1	1,1-Dichloroethane	4.12		0.00	63	294951	8.82	8.82		
1	Vinyl Acetate	4.24	-0.01	0.00	86	154234	46.87	46.9		
1	Chloroprene	4.20		0.00	53	869370	31.83	31.8		
1	tert-Butyl Ethyl Ether	4.73	0.01	0.00	59	966600	18.40	18.4		
1	2,2-Dichloropropane	4.95		0.00	77	251516	8.14	8.14		
1	cis-1,2-Dichloroethene	5.01		0.00	96	179224	8.38	8.38		
1	2-Butanone (MEK)	5.10		0.00	72	64806	56.70	56.7		
1	Ethyl Acetate	5.16		0.00	61	44989	28.89	28.9		
1	Propionitrile	5.29	0.01	0.00	54	46948	31.93	31.9		
1	Methacrylonitrile	5.43		0.00	67	159329	31.06	31.1		
1	Bromochloromethane	5.35	0.01	0.00	128	79417	8.75	8.75		
1	Tetrahydrofuran				71	0d		0.94	U	
1	Chloroform	5.47		0.00	83	311482	8.93	8.93		
1	Cyclohexane				56	0d		0.36	U	
1	1,1,1-Trichloroethane (TCA)	5.61		0.00	97	274031	8.30	8.30		
1	Carbon Tetrachloride	5.77		0.00	117	363830	12.49	12.5		
1	1,1-Dichloropropene	5.84		0.00	75	241502	8.81	8.81		
1	Isobutyl Alcohol	6.19	0.01	0.00	43	88537	279.66	280		
1	Benzene	6.09		0.00	78	673033	8.28	8.28		
1	1,2-Dichloroethane (EDC)	6.24		0.00	62	214084	8.64	8.64		
1	tert-Amyl Methyl Ether	6.26		0.00	55	227018	20.21	20.2		
1	Trichloroethene (TCE)	6.92		0.00	95	180398	8.44	8.44		
1	Methylcyclohexane				83	0d		0.33	U	
1	1,2-Dichloropropane	7.24		0.00	63	162487	8.11	8.11		
1	Dibromomethane	7.37		0.00	93	90342	8.77	8.77		
1	Methyl Methacrylate	7.41		0.00	69	270598	28.19	28.2		
1	1,4-Dioxane	7.41		0.00	88	34232	469.72	470		
1	Bromodichloromethane	7.57		0.00	83	212708	8.12	8.12		
1	2-Nitropropane	7.94	0.01	0.00	41	81941	23.47	23.5		
1	2-Chloroethyl Vinyl Ether	8.10	0.13	0.02	63	988	0.1100	0.16	U	

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D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS46\DATA\040315\0403F012.D			**Instrument:**	GCMS46
Acqu Date:	04/03/2015 12:58	**Quant Date:**	04/03/2015 13:49	**Vial:**	6
Run Type:	DMS			**Dilution:**	1.0
Lab ID:	KWG1502844-5 -- K153171-006DMS			**Soln Conc. Units:**	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	cis-1,3-Dichloropropene	8.10		0.00	75	245419	8.28	8.28		
1	4-Methyl-2-pentanone (MIBK)	8.29		0.00	58	232515	57.84	57.8		
1	Toluene	8.40		0.00	92	449078	8.70	8.70		
2	n-Octane				85	0d		0.16	U	
2	trans-1,3-Dichloropropene	8.76		0.00	75	198620	7.99	7.99		
2	Ethyl Methacrylate	8.83	0.01	0.00	69	534393	30.34	30.3		
2	1,1,2-Trichloroethane	8.96		0.00	83	109998	8.75	8.75		
2	Tetrachloroethene (PCE)	8.98	0.01	0.00	164	175785	8.77	8.77		
2	2-Hexanone	9.23		0.00	57	76845	58.25	58.3		
2	1,3-Dichloropropane	9.14		0.00	76	236994	9.24	9.24		
2	Dibromochloromethane	9.34		0.00	129	153782	8.80	8.80		
2	1,2-Dibromoethane (EDB)	9.47		0.00	107	130155	9.26	9.26		
2	1-Chlorohexane	9.96		0.00	91	268977	9.56	9.56		
2	Chlorobenzene	9.98		0.00	112	485559	8.82	8.82		
2	Ethylbenzene	10.08		0.00	106	267980	8.90	8.90		
2	1,1,1,2-Tetrachloroethane	10.10	0.01	0.00	131	168527	8.67	8.67		
2	m,p-Xylenes	10.22		0.00	106	655444	17.95	18.0		
2	o-Xylene	10.66		0.00	106	309810	8.76	8.76		
2	Styrene	10.69		0.00	103	236665m	8.94	8.94		
2	Bromoform	10.91		0.00	173	95677	9.13	9.13		
2	Isopropylbenzene	11.05		0.00	105	856523	8.93	8.93		
2	cis-1,4-Dichloro-2-butene	11.23	0.01	0.00	89	64168	33.52	33.5		
3	1,1,2,2-Tetrachloroethane	11.47		0.00	83	145660	9.33	9.33		
3	trans-1,4-Dichloro-2-butene	11.55		0.00	53	151105	31.44	31.4		
3	Bromobenzene	11.42		0.00	156	211964	8.79	8.79		
3	n-Propylbenzene	11.50		0.00	91	1042543	9.25	9.25		
3	1,2,3-Trichloropropane	11.53	0.01	0.00	110	47974	9.15	9.15		
3	2-Chlorotoluene	11.62		0.00	91	592609	8.83	8.83		
3	1,3,5-Trimethylbenzene	11.71		0.00	105	709496	8.89	8.89		
3	4-Chlorotoluene	11.75		0.00	91	604319m	8.51	8.51		
3	tert-Butylbenzene	12.05		0.00	119	647761	8.79	8.79		
3	1,2,4-Trimethylbenzene	12.12		0.00	105	696446	8.73	8.73		
3	sec-Butylbenzene	12.29		0.00	105	937083	8.85	8.85		
3	4-Isopropyltoluene	12.45		0.00	119	821305	9.47	9.47		
3	1,3-Dichlorobenzene	12.45		0.00	146	423341	8.70	8.70		
3	1,4-Dichlorobenzene	12.55		0.00	146	421370	8.73	8.73		
3	n-Butylbenzene	12.90		0.00	91	735122	9.09	9.09		
3	1,2-Dichlorobenzene	12.97		0.00	146	383424	8.88	8.88		
3	1,2-Dibromo-3-chloropropane	13.86	0.01	0.00	155	22837	8.68	8.68		
3	1,3,5-Trichlorobenzene	14.02		0.00	180	338779	9.46	9.46		
3	1,2,4-Trichlorobenzene	14.72		0.00	180	285032	9.44	9.44		
3	Hexachlorobutadiene	14.86	0.01	0.00	225	144999	9.10	9.10		

U: Undetected at or above MDL
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B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS46\DATA\040315\0403F012.D			**Instrument:**	GCMS46
Acqu Date:	04/03/2015 12:58	**Quant Date:**	04/03/2015 13:49	**Vial:**	6
Run Type:	DMS			**Dilution:**	1.0
Lab ID:	KWG1502844-5 -- K153171-006DMS			**Soln Conc. Units:**	PPB

Target Compounds **Final Conc. Units:** ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Naphthalene	15.01		0.00	128	510520	9.51	9.51		
3	1,2,3-Trichlorobenzene	15.27		0.00	180	259485	9.60	9.60		
	Benzyl Chloride				0	0		1.0	U	NR
	Isopropyl Acetate				0	0		20	U	NR
	Cyclohexanone				0	0		1.0	U	NR
	2-Ethoxyethanol				0	0		1.0	U	NR
	Bis(2-chloroethyl) Ether				0	0		20	U	NR
	beta-Pinene				0	0		1.0	U	NR
	1,1,2-Trifluoroethane				0	0		1.0	U	NR
	2,2,4-Trimethylpentane				0	0		1.0	U	NR
	Bis(chloromethyl) Ether				0	0		1.0	U	NR
	Amyl Acetate				0	0		20	U	NR
	Bromoethane				0	0		1.0	U	NR
	Pentachloroethane				0	0		5.0	U	NR
	1,1-Dichloropropane				0	0		1.0	U	NR
	alpha-Pinene				0	0		1.0	U	NR
	1,1,1,2-Tetrafluoroethane				0	0		1.0	U	NR
	Nitrobenzene				0	0		20	U	NR

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File : J:\MS46\DATA\040315\0403F012.D Vial: 6
Acq On : 03 Apr 2015 12:58 pm Operator: KR
Sample : K3171-006DMS Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 03 13:48:51 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	6.49	96	819391	10.00	PPB		0.00
64) Chlorobenzene-d5	9.96	82	324328	10.00	PPB		0.00
85) 1,4-Dichlorobenzene-d4	12.53	152	336089	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.70	113	204844	11.38	PPB		0.00
Spiked Amount 10.000			Recovery =	113.80%			
47) 1,2-Dichloroethane-d4	6.14	65	231086	12.16	PPB		0.00
Spiked Amount 10.000			Recovery =	121.60%			
62) Toluene-d8	8.33	98	780603	11.24	PPB		0.00
Spiked Amount 10.000			Recovery =	112.40%			
84) 4-Bromofluorobenzene	11.27	95	289877	11.54	PPB		0.00
Spiked Amount 10.000			Recovery =	115.40%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.10	85	183466	6.86	PPB		97
3) Chloromethane	1.26	50	198148	7.60	PPB		98
4) Vinyl Chloride	1.34	62	194296	8.03	PPB		99
6) Bromomethane	1.63	96	131052	9.32	PPB		93
7) Chloroethane	1.72	64	118880	9.27	PPB		99
8) Dichlorofluoromethane	1.93	67	334459	8.63	PPB		97
9) Trichlorofluoromethane	1.93	101	238810	7.48	PPB		94
10) Ethyl Ether	2.23	59	110025	8.13	PPB		95
11) Acrolein	2.43	56	236663	143.62	PPB		97
12) Trichlorotrifluoroethane	2.44	151	156244	9.00	PPB		99
13) 1,1-Dichloroethene	2.46	96	147626	8.94	PPB		89
14) Acetone	2.61	43	150101	55.28	PPB		98
15) Iodomethane	2.63	142	597031	35.96	PPB		99
16) Carbon Disulfide	2.66	76	972423	16.29	PPB		98
18) 3-Chloro-1-propene	2.92	76	296750	28.32	PPB		90
20) Acetonitrile	3.04	40	205928	300.15	PPB		95
21) Methylene Chloride	3.11	84	142585	7.30	PPB		97
22) tert-Butyl Alcohol	3.31	59	75857	102.32	PPB		92
23) Acrylonitrile	3.56	53	167611	40.22	PPB		95
24) Methyl tert-Butyl Ether	3.40	73	406689	9.37	PPB		99
25) trans-1,2-Dichloroethene	3.41	96	165550	8.51	PPB		95
26) Hexane	3.71	57	855114	27.87	PPB		99
27) Diisopropyl Ether	4.17	45	1070410	17.37	PPB		99
28) 1,1-Dichloroethane	4.12	63	294951	8.82	PPB		98
29) Vinyl Acetate	4.24	86	154234	46.87	PPB	#	91
30) Chloroprene	4.20	53	869370	31.83	PPB		97
31) tert-Butyl Ethyl Ether	4.73	59	966600	18.40	PPB		97

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS46\DATA\040315\0403F012.D Vial: 6
Acq On : 03 Apr 2015 12:58 pm Operator: KR
Sample : K3171-006DMS Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 03 13:48:51 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
32)	2,2-Dichloropropane	4.95	77	251516	8.14	PPB		96
33)	cis-1,2-Dichloroethene	5.01	96	179224	8.38	PPB		97
34)	2-Butanone	5.10	72	64806	56.70	PPB		97
35)	Ethyl Acetate	5.16	61	44989	28.89	PPB		86
36)	Propionitrile	5.29	54	46948	31.93	PPB		95
37)	Methacrylonitrile	5.43	67	159329	31.06	PPB		98
38)	Bromochloromethane	5.35	128	79417	8.75	PPB		90
40)	Chloroform	5.47	83	311482	8.93	PPB		97
42)	1,1,1-Trichloroethane	5.61	97	274031	8.30	PPB		97
44)	Carbon Tetrachloride	5.77	117	363830	12.49	PPB		98
45)	1,1-Dichloropropene	5.84	75	241502	8.81	PPB		95
46)	Isobutyl Alcohol	6.19	43	88537	279.66	PPB		97
48)	Benzene	6.09	78	673033	8.28	PPB		97
49)	1,2-Dichloroethane	6.24	62	214084	8.64	PPB		95
50)	tert-Amyl Methyl Ether	6.26	55	227018	20.21	PPB		95
51)	Trichloroethene	6.92	95	180398	8.44	PPB		97
53)	1,2-Dichloropropane	7.24	63	162487	8.11	PPB		97
54)	Dibromomethane	7.37	93	90342	8.77	PPB		97
55)	Methyl methacrylate	7.41	69	270598	28.19	PPB		96
56)	1,4-Dioxane	7.41	88	34232	469.72	PPB		79
57)	Bromodichloromethane	7.57	83	212708	8.12	PPB		96
58)	2-Nitropropane	7.94	41	81941	23.47	PPB		97
59)	2-Chloroethyl Vinyl Ether	8.10	63	988	0.11	PPB	#	44
60)	cis-1,3-Dichloropropene	8.10	75	245419	8.28	PPB		97
61)	4-Methyl-2-pentanone (MIBK	8.29	58	232515	57.84	PPB		99
63)	Toluene	8.40	92	449078	8.70	PPB		97
66)	trans-1,3-Dichloropropene	8.76	75	198620	7.99	PPB		100
67)	Ethyl methacrylate	8.83	69	534393	30.34	PPB		98
68)	1,1,2-Trichloroethane	8.96	83	109998	8.75	PPB		91
69)	Tetrachloroethene	8.98	164	175785	8.77	PPB		99
70)	2-Hexanone	9.23	57	76845	58.25	PPB	#	86
71)	1,3-Dichloropropane	9.14	76	236994	9.24	PPB		100
72)	Dibromochloromethane	9.34	129	153782	8.80	PPB		99
73)	1,2-Dibromoethane (EDB)	9.47	107	130155	9.26	PPB		94
74)	1-Chlorohexane	9.96	91	268977	9.56	PPB		97
75)	Chlorobenzene	9.98	112	485559	8.82	PPB		99
76)	Ethylbenzene	10.08	106	267980	8.90	PPB		98
77)	1,1,1,2-Tetrachloroethane	10.10	131	168527	8.67	PPB		96
78)	m,p-Xylenes	10.22	106	655444	17.95	PPB		98
79)	o-Xylene	10.66	106	309810	8.76	PPB		99
80)	Styrene	10.69	103	236665m	8.94	PPB		

(#) = qualifier out of range (m) = manual integration

04.09.15jal2ndRev

Data File : J:\MS46\DATA\040315\0403F012.D Vial: 6
Acq On : 03 Apr 2015 12:58 pm Operator: KR
Sample : K3171-006DMS Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 03 13:48:51 2015 Quant Results File: 031615MS46_8260

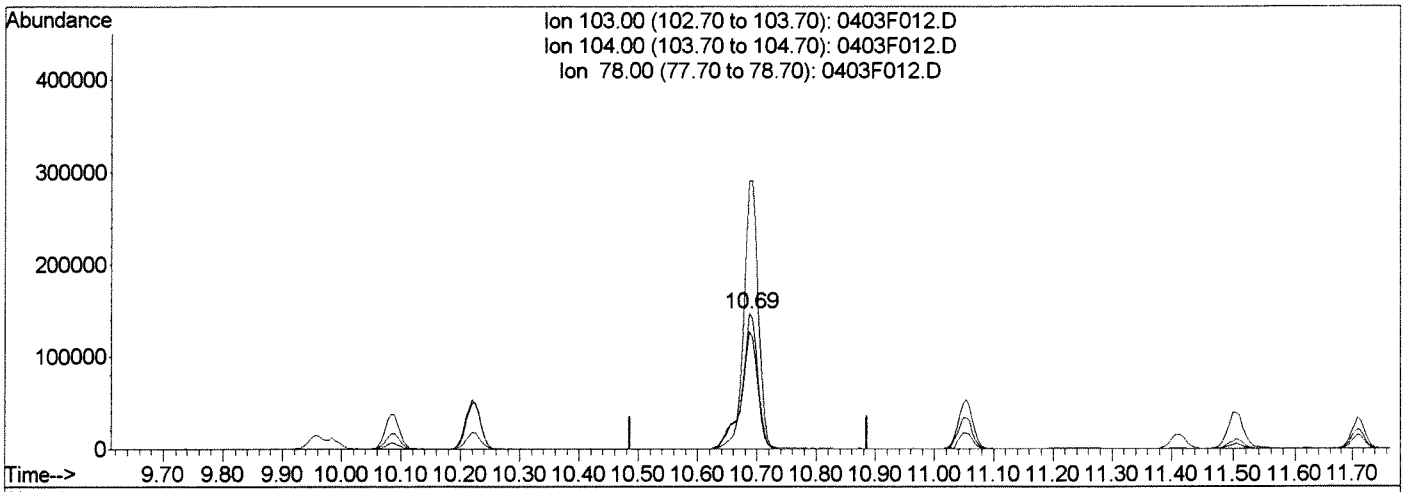
Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

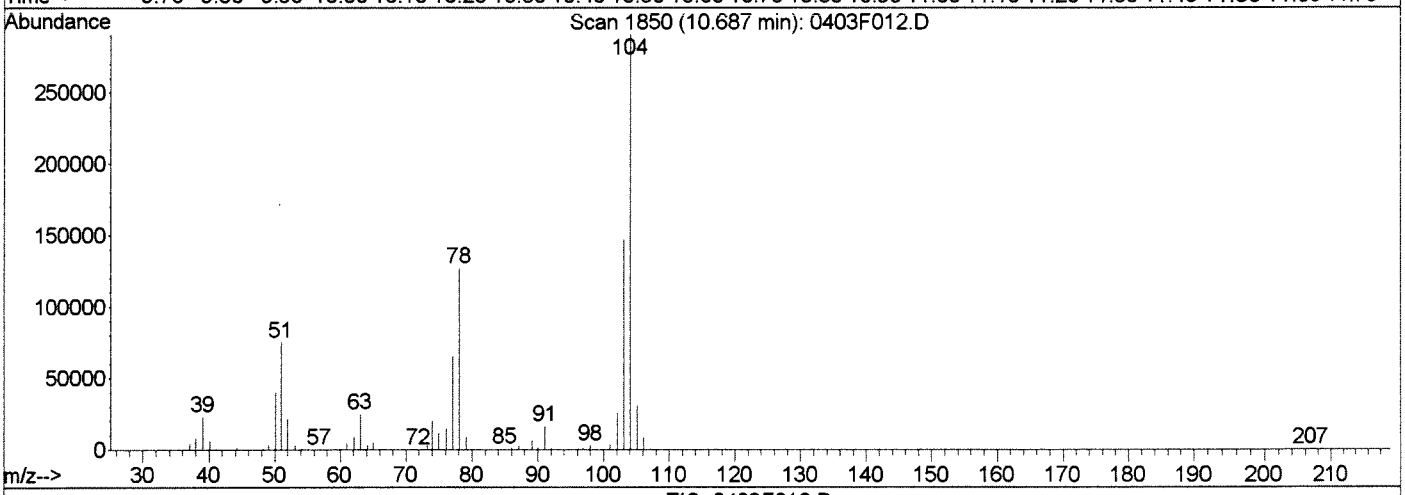
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
81)	Bromoform	10.91	173	95677	9.13	PPB		95
82)	Isopropylbenzene	11.05	105	856523	8.93	PPB		98
83)	cis-1,4-Dichloro-2-butene	11.23	89	64168	33.52	PPB		97
86)	1,1,2,2-Tetrachloroethane	11.47	83	145660	9.33	PPB		98
87)	trans-1,4-Dichloro-2-buten	11.55	53	151105	31.44	PPB		94
88)	Bromobenzene	11.42	156	211964	8.79	PPB		97
89)	n-Propylbenzene	11.50	91	1042543	9.25	PPB		98
90)	1,2,3-Trichloropropane	11.53	110	47974	9.15	PPB	#	74
91)	2-Chlorotoluene	11.62	91	592609	8.83	PPB		99
92)	1,3,5-Trimethylbenzene	11.71	105	709496	8.89	PPB		97
93)	4-Chlorotoluene	11.75	91	604319m	8.51	PPB		
94)	tert-Butylbenzene	12.05	119	647761	8.79	PPB		99
95)	1,2,4-Trimethylbenzene	12.12	105	696446	8.73	PPB		99
96)	sec-Butylbenzene	12.29	105	937083	8.85	PPB		98
97)	p-Isopropyltoluene	12.45	119	821305	9.47	PPB		98
98)	1,3-Dichlorobenzene	12.45	146	423341	8.70	PPB		99
99)	1,4-Dichlorobenzene	12.55	146	421370	8.73	PPB		98
100)	n-Butylbenzene	12.90	91	735122	9.09	PPB		98
101)	1,2-Dichlorobenzene	12.97	146	383424	8.88	PPB		99
102)	1,2-Dibromo-3-chloropropan	13.86	155	22837	8.68	PPB	#	70
103)	1,3,5-Trichlorobenzene	14.02	180	338779	9.46	PPB		96
104)	1,2,4-Trichlorobenzene	14.72	180	285032	9.44	PPB		97
105)	Hexachlorobutadiene	14.86	225	144999	9.10	PPB		93
106)	Naphthalene	15.01	128	510520	9.51	PPB		97
107)	1,2,3-Trichlorobenzene	15.27	180	259485	9.60	PPB		98

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS46\DATA\040315\0403F012.D Vial: 6
Acq On : 03 Apr 2015 12:58 pm Operator: KR
Sample : K3171-006DMS Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 3 13:49 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Multiple Level Calibration





TIC: 0403F012.D

(80) Styrene (T)

10.69min 10.49PPB

response 277489

Ion	Exp%	Act%
103.00	100	100
104.00	198.60	198.26
78.00	88.20	86.42
0.00	0.00	0.00

Manual Integration:

Before

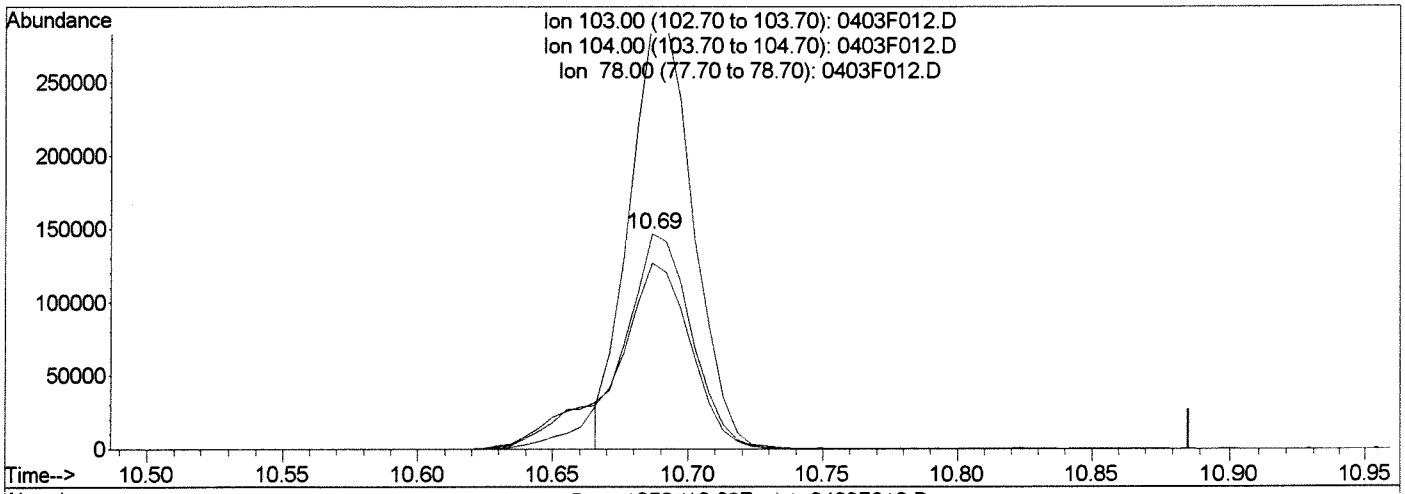
04/03/15

0403F012.D 031615MS46_8260.M Fri Apr 03 13:49:06 2015

04.09.15jal2nd Rev

Data File : J:\MS46\DATA\040315\0403F012.D Vial: 6
Acq On : 03 Apr 2015 12:58 pm Operator: KR
Sample : K3171-006DMS Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 3 13:49 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Multiple Level Calibration



TIC: 0403F012.D

(80) Styrene (T)
10.69min 8.94PPB m
response 236665

Ion	Exp%	Act%
103.00	100	100
104.00	198.60	198.26
78.00	88.20	86.42
0.00	0.00	0.00

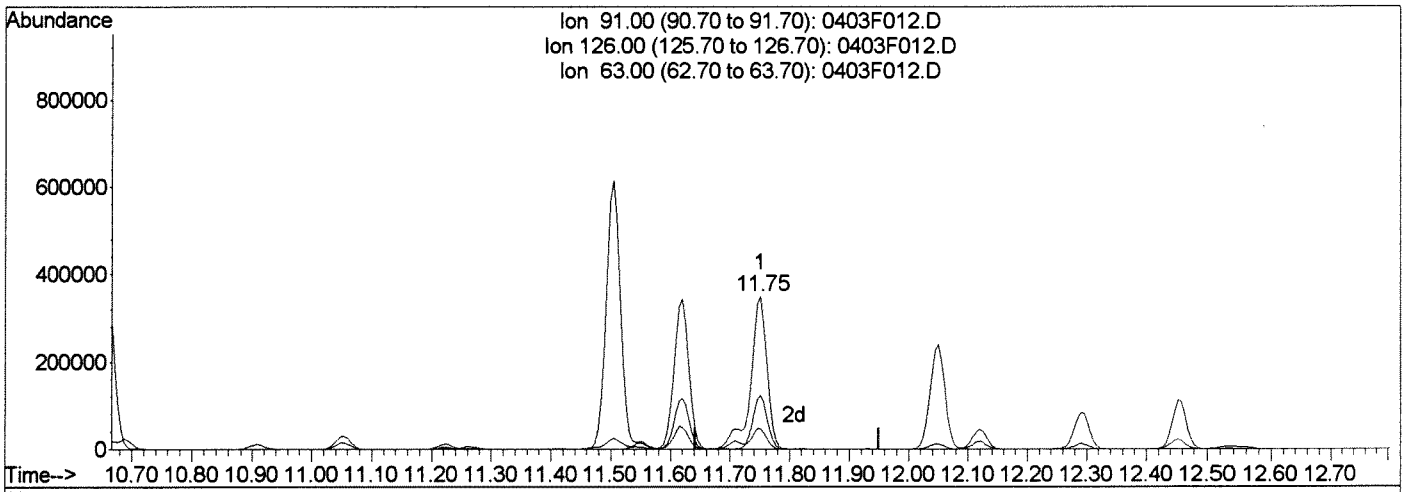
Manual Integration:
After
Baseline correction
04/03/15

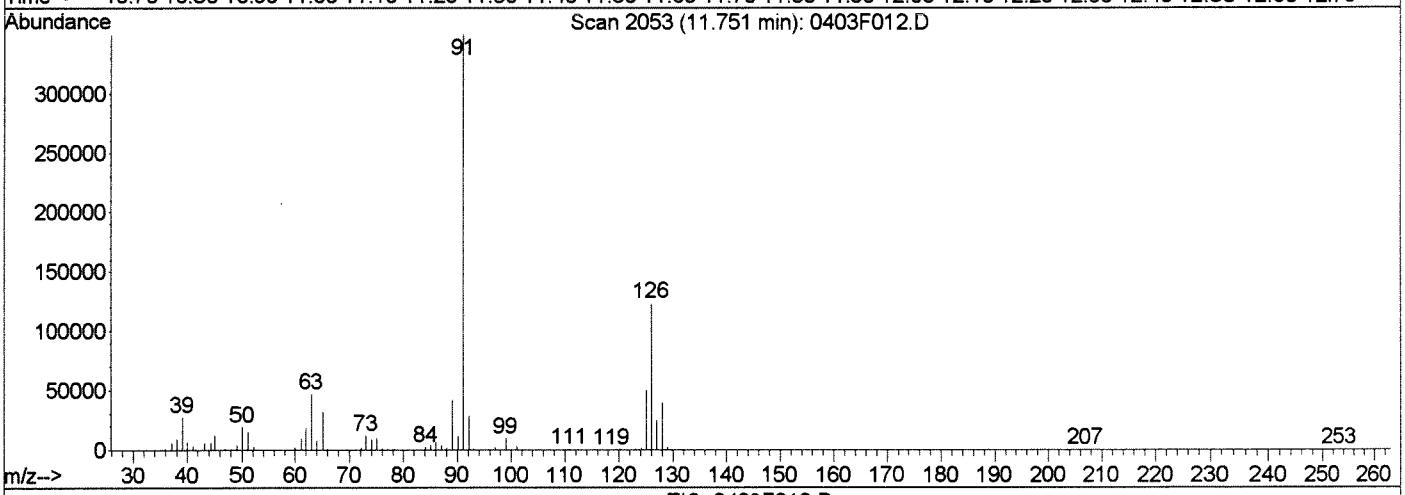
0403F012.D 031615MS46_8260.M Fri Apr 03 13:49:11 2015

04.09.15jal2nd Rev

Data File : J:\MS46\DATA\040315\0403F012.D Vial: 6
Acq On : 03 Apr 2015 12:58 pm Operator: KR
Sample : K3171-006DMS Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 3 13:49 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Multiple Level Calibration





TIC: 0403F012.D

(93) 4-Chlorotoluene (T)
11.75min 9.51PPB
response 675664

Ion	Exp%	Act%
91.00	100	100
126.00	34.80	35.27
63.00	12.80	13.42
0.00	0.00	0.00

Manual Integration:
Before

04/03/15

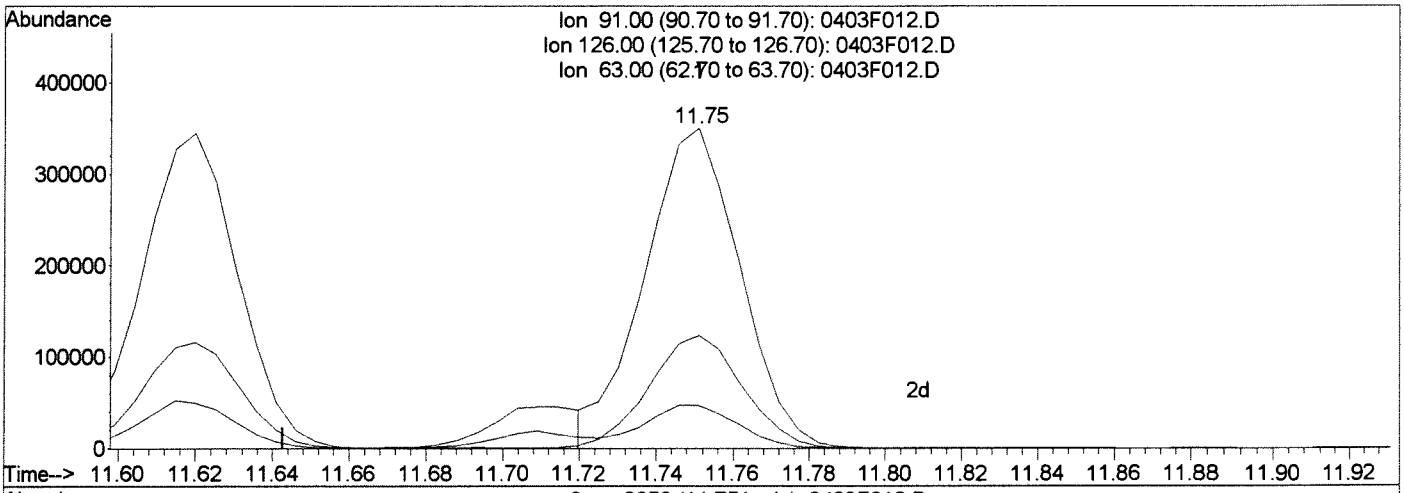
0403F012.D 031615MS46_8260.M Fri Apr 03 13:49:13 2015

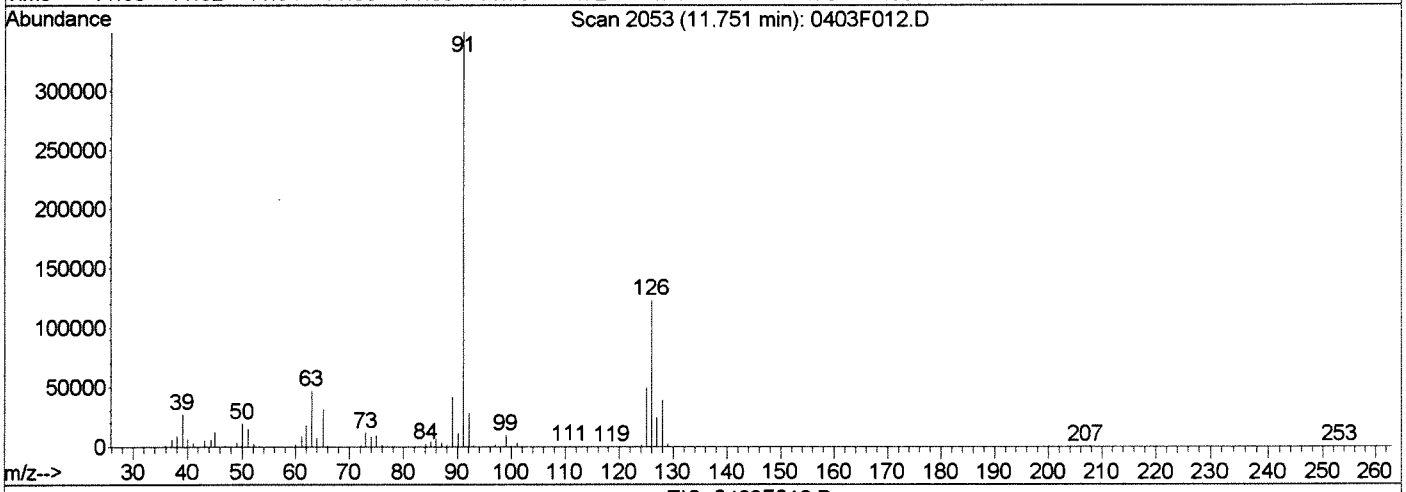
04.09.15jal2ndRev

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\040315\0403F012.D Vial: 6
Acq On : 03 Apr 2015 12:58 pm Operator: KR
Sample : K3171-006DMS Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 3 13:49 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Multiple Level Calibration





TIC: 0403F012.D

(93) 4-Chlorotoluene (T)
11.75min 8.51PPB m
response 604319

Ion	Exp%	Act%
91.00	100	100
126.00	34.80	35.27
63.00	12.80	13.40
0.00	0.00	0.00

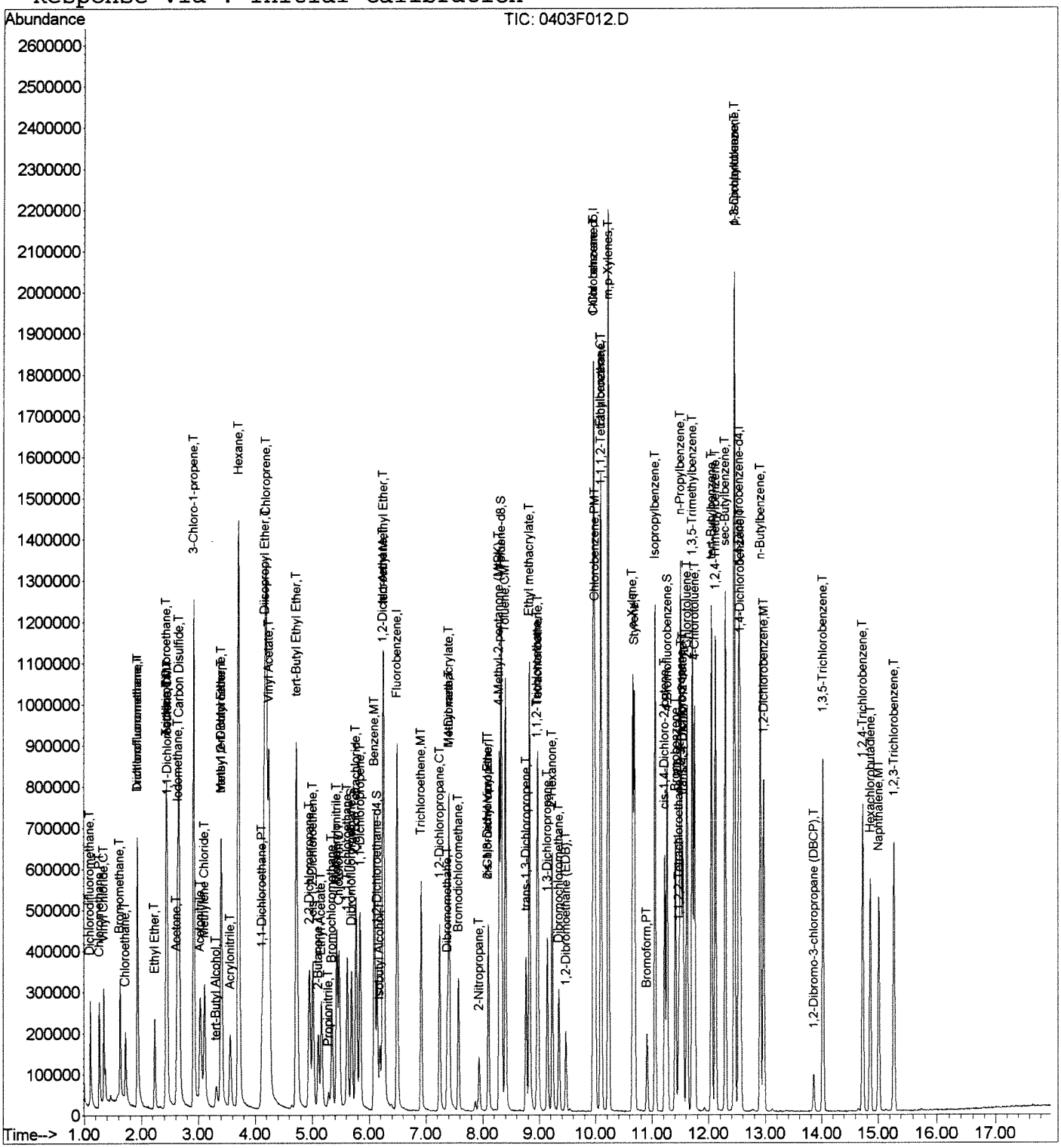
Manual Integration:
After
Baseline correction
04/03/15

0403F012.D 031615MS46_8260.M Fri Apr 03 13:49:18 2015

04.09.15jal2nd Rev

Data File : J:\MS46\DATA\040315\0403F012.D Vial: 6
Acq On : 03 Apr 2015 12:58 pm Operator: KR
Sample : K3171-006DMS Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 3 13:49 2015 Quant Results File: 031615MS46_8

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Initial Calibration



04.09.15jal2nd Rev

Exception Report

Data File: J:\MS46\DATA\040315\0403F013.D
Lab ID: KWG1502844-1
RunType: LCS
Matrix: WATER

Date Acquired: 04/03/2015 13:22
Date Quantitated: 04/03/2015 13:49
Batch ID: KWG1502843
Analysis Method: 8260C
MethodJoinID: MJ119

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA		x
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA		x
Continuing Calibration Minimum RF	NA	NA	NA		x
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	2-Propanol	0.0054	0.01	NA	NF
	Acetonitrile	0.0084	0.01	NA	
	tert-Butyl Alcohol	0.0090	0.01	NA	
	Isobutyl Alcohol	0.0039	0.01	NA	
	1,4-Dioxane	0.0009	0.01	NA	
Second Source ICAL Verification	1,4-Dioxane	-40.6	NA	30	
Continuing Calibration Recovery	Acrolein	-67.7	NA	20	
	2-Propanol	-36.2	NA	20	
	tert-Butyl Alcohol	-29.4	NA	20	
	1,4-Dioxane	-49.7	NA	20	
	trans-1,4-Dichloro-2-butene	-22.3	NA	20	L
	1,2-Dibromo-3-chloropropane	-26.0	NA	20	CCVOA
Continuing Calibration Minimum RF	Acrolein	0.0065	0.01	NA	NF

Primary Review: KMS/15

Secondary Review: 4/9/15

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
	2-Propanol	0.0035	0.01	NA	NA
	Methyl Acetate	0.0934	0.100	NA	
	tert-Butyl Alcohol	0.0064	0.01	NA	
	1,4-Dioxane	0.0004	0.01	NA	

Primary Review: KM 4/13/15

Secondary Review: 4/15/15

Quantitation Report

Data File:	J:\MS46\DATA\040315\0403F013.D			**Instrument:**	GCMS46
Acqu Date:	04/03/2015 13:22	**Quant Date:**	04/03/2015 13:49	**Vial:**	51
Run Type:	LCS			**Dilution:**	1.0
Lab ID:	KWG1502844-1			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**		**Receive Date:**	04/03/2015

Analysis Lot:	KWG1502843	**Prep Lot:**	KWG1502844	**Report Group:**	
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
		Prep Date:	04/03/2015		
Prep Ref:	1424771				

Quant Method:	J:\MS46\METHODS\031615MS46_8			**Calibration ID:**	CAL13899
Title:					
Tune Ref:	J:\MS46\DATA\040315\0403F007.D			**Method ID:**	MJ119
MB Ref:				**Quant based on Method**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	6.49	0.00	96	821256	10.00	OK
2	Chlorobenzene-d5	9.96	0.01	82	334235	10.00	OK
3	1,4-Dichlorobenzene-d4	12.53	0.00	152	339417	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.69	0.00	0.00	113	207478	11.50	115	73-122	OK	
1	1,2-Dichloroethane-d4	6.14	0.00	0.00	65	229009	12.02	120	59-127	OK	
1	Toluene-d8	8.33	0.00	0.00	98	788369	11.33	113	65-144	OK	
2	4-Bromofluorobenzene	11.26	-0.01	0.00	95	295414	11.41	114	68-117	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane	1.10		0.00	85	171150	6.39	6.39		
1	Chloromethane	1.26		0.00	50	189620	7.26	7.26		
1	Vinyl Chloride	1.34		0.00	62	186528	7.69	7.69		
1	1,3-Butadiene				54	0d		0.50	U	
1	Bromomethane	1.63		0.00	96	123177	8.74	8.74		
1	Chloroethane	1.72		0.00	64	113690	8.85	8.85		
1	Dichlorofluoromethane (CFC 21	1.93		0.00	67	316925	8.15	8.15		
1	Trichlorofluoromethane	1.93		0.00	101	232992	7.28	7.28		
1	Ethyl Ether	2.23		0.00	59	108881	8.03	8.03		
1	Acrolein	2.43		0.00	56	218392	132.23	132		
1	Trichlorotrifluoroethane	2.43		0.00	151	147100	8.46	8.46		
1	1,1-Dichloroethene	2.46		0.00	96	139750	8.44	8.44		
1	Acetone	2.61		0.00	43	143603	52.77	52.8		
1	Iodomethane	2.63		0.00	142	567063	34.08	34.1		

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS46\DATA\040315\0403F013.D			**Instrument:**	GCMS46
Acqu Date:	04/03/2015 13:22	**Quant Date:**	04/03/2015 13:49	**Vial:**	51
Run Type:	LCS			**Dilution:**	1.0
Lab ID:	KWG1502844-1			**Soln Conc. Units:**	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Disulfide	2.66	0.01	0.00	76	951486	15.90	15.9		
1	2-Propanol				45	0d		17	U	
1	3-Chloro-1-propene	2.92	0.01	0.00	76	248583	23.67	23.7		
1	Methyl Acetate				43	0d		0.38	U	
1	Acetonitrile	3.03	0.01	0.00	40	207960	302.42	302		
1	Methylene Chloride	3.11		0.00	84	153418	7.84	7.84		
1	tert-Butyl Alcohol	3.31		0.00	59	76014	102.30	102		
1	Acrylonitrile	3.56		0.00	53	168579	40.36	40.4		
1	Methyl tert-Butyl Ether	3.40	0.01	0.00	73	405437	9.32	9.32		
1	trans-1,2-Dichloroethene	3.41	0.01	0.00	96	159520	8.18	8.18		
1	n-Hexane	3.71		0.00	57	700523	22.78	22.8		
1	Diisopropyl Ether	4.17	0.01	0.00	45	1076411	17.42	17.4		
1	1,1-Dichloroethane	4.12		0.00	63	288161	8.59	8.59		
1	Vinyl Acetate	4.25		0.00	86	147090	44.60	44.6		
1	Chloroprene	4.20		0.00	53	745597	27.24	27.2		
1	tert-Butyl Ethyl Ether	4.73	0.01	0.00	59	985578	18.72	18.7		
1	2,2-Dichloropropane	4.96	0.01	0.00	77	250530	8.09	8.09		
1	cis-1,2-Dichloroethene	5.02	0.01	0.00	96	169195	7.90	7.90		
1	2-Butanone (MEK)	5.10		0.00	72	61809	53.95	54.0		
1	Ethyl Acetate	5.16		0.00	61	50967	32.65	32.7		
1	Propionitrile	5.29	0.01	0.00	54	45193	30.67	30.7		
1	Methacrylonitrile	5.43		0.00	67	153203	29.80	29.8		
1	Bromochloromethane	5.34		0.00	128	78958	8.68	8.68		
1	Tetrahydrofuran				71	0d		0.94	U	
1	Chloroform	5.47		0.00	83	298116	8.53	8.53		
1	Cyclohexane				56	0d		0.36	U	
1	1,1,1-Trichloroethane (TCA)	5.62	0.01	0.00	97	254000	7.67	7.67		
1	Carbon Tetrachloride	5.77		0.00	117	233530	8.00	8.00		
1	1,1-Dichloropropene	5.84		0.00	75	228490	8.31	8.31		
1	Isobutyl Alcohol	6.19	0.01	0.00	43	88002	277.34	277		
1	Benzene	6.09		0.00	78	659550	8.09	8.09		
1	1,2-Dichloroethane (EDC)	6.24		0.00	62	210952	8.50	8.50		
1	tert-Amyl Methyl Ether	6.25	-0.01	0.00	55	215762	19.17	19.2		
1	Trichloroethene (TCE)	6.92		0.00	95	174415	8.14	8.14		
1	Methylcyclohexane				83	0d		0.33	U	
1	1,2-Dichloropropane	7.24		0.00	63	165306	8.23	8.23		
1	Dibromomethane	7.38	0.01	0.00	93	88939	8.61	8.61		
1	Methyl Methacrylate	7.41		0.00	69	257992	26.81	26.8		
1	1,4-Dioxane	7.41		0.00	88	31418	430.13	430		
1	Bromodichloromethane	7.57		0.00	83	213570	8.13	8.13		
1	2-Nitropropane	7.94	0.01	0.00	41	84988	24.29	24.3		
1	2-Chloroethyl Vinyl Ether	7.97		0.00	63	87140	9.28	9.28		

U: Undetected at or above MDL
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d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS46\DATA\040315\0403F013.D			**Instrument:**	GCMS46
Acqu Date:	04/03/2015 13:22	**Quant Date:**	04/03/2015 13:49	**Vial:**	51
Run Type:	LCS			**Dilution:**	1.0
Lab ID:	KWG1502844-1			**Soln Conc. Units:**	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	cis-1,3-Dichloropropene	8.10		0.00	75	250089	8.42	8.42		
1	4-Methyl-2-pentanone (MIBK)	8.30	0.01	0.00	58	227275	56.41	56.4		
1	Toluene	8.40		0.00	92	428533	8.29	8.29		
2	n-Octane				85	0**d**		0.16	U	
2	trans-1,3-Dichloropropene	8.77	0.01	0.00	75	201797	7.88	7.88		
2	Ethyl Methacrylate	8.83	0.01	0.00	69	521725	28.75	28.8		
2	1,1,2-Trichloroethane	8.96		0.00	83	111701	8.62	8.62		
2	Tetrachloroethene (PCE)	8.97		0.00	164	171381	8.30	8.30		
2	2-Hexanone	9.23		0.00	57	73547	54.10	54.1		
2	1,3-Dichloropropane	9.15	0.01	0.00	76	233409	8.83	8.83		
2	Dibromochloromethane	9.34		0.00	129	154112	8.56	8.56		
2	1,2-Dibromoethane (EDB)	9.46	-0.01	0.00	107	126250	8.72	8.72		
2	1-Chlorohexane	9.96		0.00	91	257014	8.87	8.87		
2	Chlorobenzene	9.99	0.01	0.00	112	480960	8.48	8.48		
2	Ethylbenzene	10.08		0.00	106	258819	8.34	8.34		
2	1,1,1,2-Tetrachloroethane	10.10	0.01	0.00	131	166290	8.30	8.30		
2	m,p-Xylenes	10.22		0.00	106	642184	17.06	17.1		
2	o-Xylene	10.66		0.00	106	301871	8.28	8.28		
2	Styrene	10.69		0.00	103	229962**m**	8.43	8.43		
2	Bromoform	10.91		0.00	173	93175	8.63	8.63		
2	Isopropylbenzene	11.05		0.00	105	823763	8.33	8.33		
2	cis-1,4-Dichloro-2-butene	11.22		0.00	89	59584	30.38	30.4		
3	1,1,2,2-Tetrachloroethane	11.47		0.00	83	149152	9.46	9.46		
3	trans-1,4-Dichloro-2-butene	11.55		0.00	53	137992	28.43	28.4		
3	Bromobenzene	11.42		0.00	156	211116	8.67	8.67		
3	n-Propylbenzene	11.50		0.00	91	1001412	8.80	8.80		
3	1,2,3-Trichloropropane	11.52		0.00	110	48263	9.12	9.12		
3	2-Chlorotoluene	11.62		0.00	91	571318	8.43	8.43		
3	1,3,5-Trimethylbenzene	11.71		0.00	105	684730	8.49	8.49		
3	4-Chlorotoluene	11.75		0.00	91	594152	8.28	8.28		
3	tert-Butylbenzene	12.05		0.00	119	617457	8.30	8.30		
3	1,2,4-Trimethylbenzene	12.12		0.00	105	686570	8.52	8.52		
3	sec-Butylbenzene	12.29		0.00	105	876133	8.20	8.20		
3	4-Isopropyltoluene	12.45		0.00	119	767735	8.76	8.76		
3	1,3-Dichlorobenzene	12.45		0.00	146	415601	8.45	8.45		
3	1,4-Dichlorobenzene	12.56	0.01	0.00	146	422334	8.66	8.66		
3	n-Butylbenzene	12.90		0.00	91	690469	8.45	8.45		
3	1,2-Dichlorobenzene	12.97		0.00	146	386446	8.86	8.86		
3	1,2-Dibromo-3-chloropropane	13.85		0.00	155	22959	8.64	8.64		
3	1,3,5-Trichlorobenzene	14.02		0.00	180	332258	9.19	9.19		
3	1,2,4-Trichlorobenzene	14.72		0.00	180	276209	9.05	9.05		
3	Hexachlorobutadiene	14.86	0.01	0.00	225	135664	8.43	8.43		

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Data File:	J:\MS46\DATA\040315\0403F013.D			**Instrument:**	GCMS46
Acqu Date:	04/03/2015 13:22	**Quant Date:**	04/03/2015 13:49	**Vial:**	51
Run Type:	LCS			**Dilution:**	1.0
Lab ID:	KWG1502844-1			**Soln Conc. Units:**	PPB

Target Compounds **Final Conc. Units:** ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Naphthalene	15.01		0.00	128	503646	9.29	9.29		
3	1,2,3-Trichlorobenzene	15.27		0.00	180	251887	9.23	9.23		
	Benzyl Chloride				0	0		1.0	U	NR
	Isopropyl Acetate				0	0		20	U	NR
	Cyclohexanone				0	0		1.0	U	NR
	2-Ethoxyethanol				0	0		1.0	U	NR
	Bis(2-chloroethyl) Ether				0	0		20	U	NR
	beta-Pinene				0	0		1.0	U	NR
	1,1,2-Trifluoroethane				0	0		1.0	U	NR
	2,2,4-Trimethylpentane				0	0		1.0	U	NR
	Bis(chloromethyl) Ether				0	0		1.0	U	NR
	Amyl Acetate				0	0		20	U	NR
	Bromoethane				0	0		1.0	U	NR
	Pentachloroethane				0	0		5.0	U	NR
	1,1-Dichloropropane				0	0		1.0	U	NR
	alpha-Pinene				0	0		1.0	U	NR
	1,1,1,2-Tetrafluoroethane				0	0		1.0	U	NR
	Nitrobenzene				0	0		20	U	NR

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

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m: Manual integration performed
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NR: Analyte not reported from this analysis

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#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File : J:\MS46\DATA\040315\0403F013.D Vial: 51
Acq On : 03 Apr 2015 01:22 pm Operator: KR
Sample : LCS Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 03 13:49:32 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	6.49	96	821256	10.00	PPB		0.00
64) Chlorobenzene-d5	9.96	82	334235	10.00	PPB		0.00
85) 1,4-Dichlorobenzene-d4	12.53	152	339417	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.69	113	207478	11.50	PPB		0.00
Spiked Amount 10.000			Recovery =	115.00%			
47) 1,2-Dichloroethane-d4	6.14	65	229009	12.02	PPB		0.00
Spiked Amount 10.000			Recovery =	120.20%			
62) Toluene-d8	8.33	98	788369	11.33	PPB		0.00
Spiked Amount 10.000			Recovery =	113.30%			
84) 4-Bromofluorobenzene	11.26	95	295414	11.41	PPB		0.00
Spiked Amount 10.000			Recovery =	114.10%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.10	85	171150	6.39	PPB		99
3) Chloromethane	1.26	50	189620	7.26	PPB		99
4) Vinyl Chloride	1.34	62	186528	7.69	PPB		97
6) Bromomethane	1.63	96	123177	8.74	PPB		99
7) Chloroethane	1.72	64	113690	8.85	PPB		96
8) Dichlorofluoromethane	1.93	67	316925	8.15	PPB		98
9) Trichlorofluoromethane	1.93	101	232992	7.28	PPB		98
10) Ethyl Ether	2.23	59	108881	8.03	PPB		97
11) Acrolein	2.43	56	218392	132.23	PPB		98
12) Trichlorotrifluoroethane	2.43	151	147100	8.46	PPB		96
13) 1,1-Dichloroethene	2.46	96	139750	8.44	PPB		89
14) Acetone	2.61	43	143603	52.77	PPB		98
15) Iodomethane	2.63	142	567063	34.08	PPB		99
16) Carbon Disulfide	2.66	76	951486	15.90	PPB		98
18) 3-Chloro-1-propene	2.92	76	248583	23.67	PPB		90
20) Acetonitrile	3.03	40	207960	302.42	PPB		98
21) Methylene Chloride	3.11	84	153418	7.84	PPB		99
22) tert-Butyl Alcohol	3.31	59	76014	102.30	PPB		90
23) Acrylonitrile	3.56	53	168579	40.36	PPB		97
24) Methyl tert-Butyl Ether	3.40	73	405437	9.32	PPB		99
25) trans-1,2-Dichloroethene	3.41	96	159520	8.18	PPB		94
26) Hexane	3.71	57	700523	22.78	PPB		99
27) Diisopropyl Ether	4.17	45	1076411	17.42	PPB		99
28) 1,1-Dichloroethane	4.12	63	288161	8.59	PPB		98
29) Vinyl Acetate	4.25	86	147090	44.60	PPB	#	93
30) Chloroprene	4.20	53	745597	27.24	PPB		99
31) tert-Butyl Ethyl Ether	4.73	59	985578	18.72	PPB		98

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS46\DATA\040315\0403F013.D Vial: 51
Acq On : 03 Apr 2015 01:22 pm Operator: KR
Sample : LCS Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 03 13:49:32 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
32)	2,2-Dichloropropane	4.96	77	250530	8.09	PPB		99
33)	cis-1,2-Dichloroethene	5.02	96	169195	7.90	PPB		98
34)	2-Butanone	5.10	72	61809	53.95	PPB		97
35)	Ethyl Acetate	5.16	61	50967	32.65	PPB		97
36)	Propionitrile	5.29	54	45193	30.67	PPB		97
37)	Methacrylonitrile	5.43	67	153203	29.80	PPB		97
38)	Bromochloromethane	5.34	128	78958	8.68	PPB		92
40)	Chloroform	5.47	83	298116	8.53	PPB		96
42)	1,1,1-Trichloroethane	5.62	97	254000	7.67	PPB		98
44)	Carbon Tetrachloride	5.77	117	233530	8.00	PPB		99
45)	1,1-Dichloropropene	5.84	75	228490	8.31	PPB		98
46)	Isobutyl Alcohol	6.19	43	88002	277.34	PPB		97
48)	Benzene	6.09	78	659550	8.09	PPB		98
49)	1,2-Dichloroethane	6.24	62	210952	8.50	PPB		99
50)	tert-Amyl Methyl Ether	6.25	55	215762	19.17	PPB	#	87
51)	Trichloroethene	6.92	95	174415	8.14	PPB		95
53)	1,2-Dichloropropane	7.24	63	165306	8.23	PPB		94
54)	Dibromomethane	7.38	93	88939	8.61	PPB		97
55)	Methyl methacrylate	7.41	69	257992	26.81	PPB		99
56)	1,4-Dioxane	7.41	88	31418	430.13	PPB		71
57)	Bromodichloromethane	7.57	83	213570	8.13	PPB		98
58)	2-Nitropropane	7.94	41	84988	24.29	PPB		93
59)	2-Chloroethyl Vinyl Ether	7.97	63	87140	9.28	PPB		98
60)	cis-1,3-Dichloropropene	8.10	75	250089	8.42	PPB		99
61)	4-Methyl-2-pentanone (MIBK	8.30	58	227275	56.41	PPB		95
63)	Toluene	8.40	92	428533	8.29	PPB		97
66)	trans-1,3-Dichloropropene	8.77	75	201797	7.88	PPB		99
67)	Ethyl methacrylate	8.83	69	521725	28.75	PPB		98
68)	1,1,2-Trichloroethane	8.96	83	111701	8.62	PPB		97
69)	Tetrachloroethene	8.97	164	171381	8.30	PPB		97
70)	2-Hexanone	9.23	57	73547	54.10	PPB		97
71)	1,3-Dichloropropane	9.15	76	233409	8.83	PPB		98
72)	Dibromochloromethane	9.34	129	154112	8.56	PPB		99
73)	1,2-Dibromoethane (EDB)	9.46	107	126250	8.72	PPB		95
74)	1-Chlorohexane	9.96	91	257014	8.87	PPB		97
75)	Chlorobenzene	9.99	112	480960	8.48	PPB		100
76)	Ethylbenzene	10.08	106	258819	8.34	PPB		94
77)	1,1,1,2-Tetrachloroethane	10.10	131	166290	8.30	PPB		98
78)	m,p-Xylenes	10.22	106	642184	17.06	PPB		99
79)	o-Xylene	10.66	106	301871	8.28	PPB		95
80)	Styrene	10.69	103	229962m	8.43	PPB		

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS46\DATA\040315\0403F013.D Vial: 51
Acq On : 03 Apr 2015 01:22 pm Operator: KR
Sample : LCS Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 03 13:49:32 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
81)	Bromoform	10.91	173	93175	8.63	PPB		99
82)	Isopropylbenzene	11.05	105	823763	8.33	PPB		99
83)	cis-1,4-Dichloro-2-butene	11.22	89	59584	30.38	PPB		94
86)	1,1,2,2-Tetrachloroethane	11.47	83	149152	9.46	PPB		94
87)	trans-1,4-Dichloro-2-buten	11.55	53	137992	28.43	PPB		88
88)	Bromobenzene	11.42	156	211116	8.67	PPB		96
89)	n-Propylbenzene	11.50	91	1001412	8.80	PPB		98
90)	1,2,3-Trichloropropane	11.52	110	48263	9.12	PPB	#	85
91)	2-Chlorotoluene	11.62	91	571318	8.43	PPB		97
92)	1,3,5-Trimethylbenzene	11.71	105	684730	8.49	PPB		100
93)	4-Chlorotoluene	11.75	91	594152	8.28	PPB		99
94)	tert-Butylbenzene	12.05	119	617457	8.30	PPB		97
95)	1,2,4-Trimethylbenzene	12.12	105	686570	8.52	PPB		100
96)	sec-Butylbenzene	12.29	105	876133	8.20	PPB		99
97)	p-Isopropyltoluene	12.45	119	767735	8.76	PPB		99
98)	1,3-Dichlorobenzene	12.45	146	415601	8.45	PPB		99
99)	1,4-Dichlorobenzene	12.56	146	422334	8.66	PPB		99
100)	n-Butylbenzene	12.90	91	690469	8.45	PPB		98
101)	1,2-Dichlorobenzene	12.97	146	386446	8.86	PPB		99
102)	1,2-Dibromo-3-chloropropan	13.85	155	22959	8.64	PPB		99
103)	1,3,5-Trichlorobenzene	14.02	180	332258	9.19	PPB		100
104)	1,2,4-Trichlorobenzene	14.72	180	276209	9.05	PPB		97
105)	Hexachlorobutadiene	14.86	225	135664	8.43	PPB		97
106)	Naphthalene	15.01	128	503646	9.29	PPB		100
107)	1,2,3-Trichlorobenzene	15.27	180	251887	9.23	PPB		94

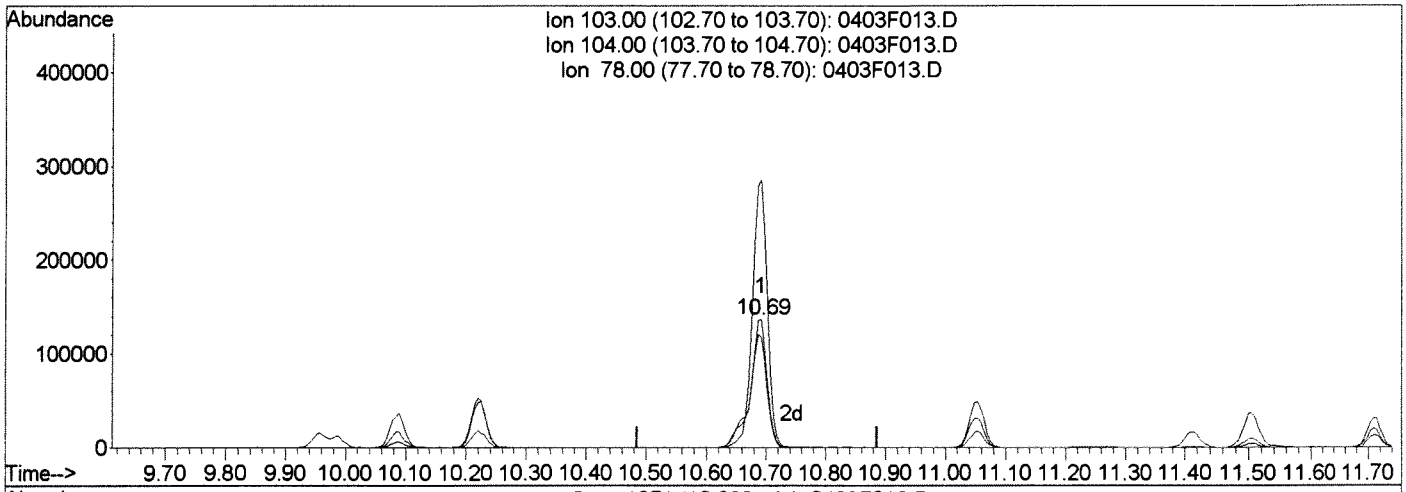
(#) = qualifier out of range (m) = manual integration

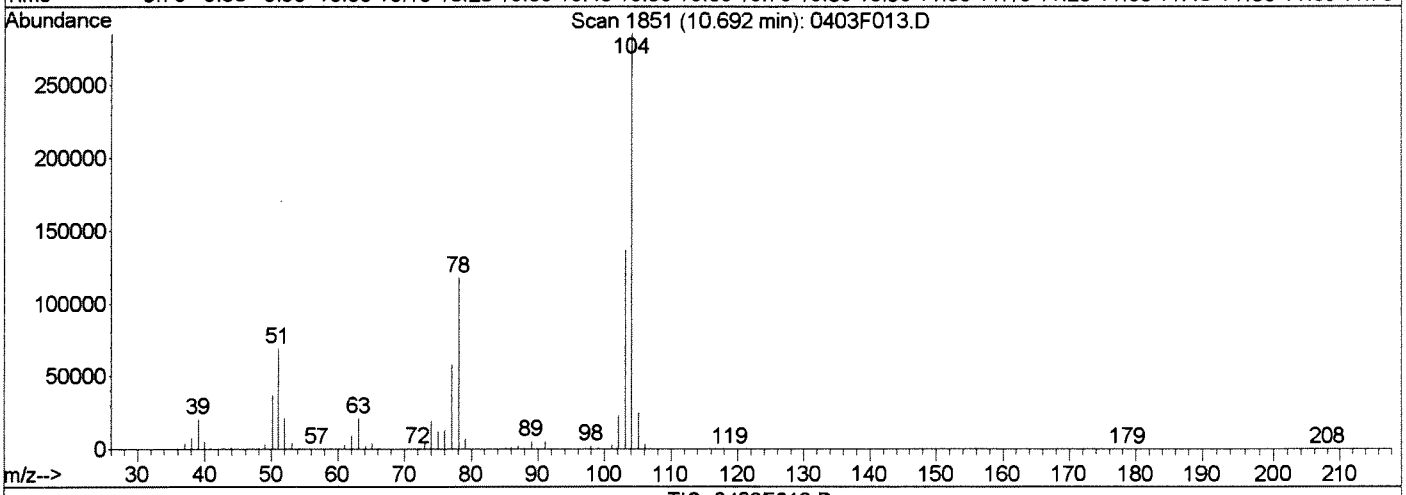
04.09.15jal2nd Rev

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\040315\0403F013.D Vial: 51
Acq On : 03 Apr 2015 01:22 pm Operator: KR
Sample : LCS Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 3 13:49 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Multiple Level Calibration





TIC: 0403F013.D

(80) Styrene (T)

10.69min 9.84PPB

response 268377

Ion	Exp%	Act%
103.00	100	100
104.00	198.60	208.74
78.00	88.20	86.10
0.00	0.00	0.00

Manual Integration:

Before

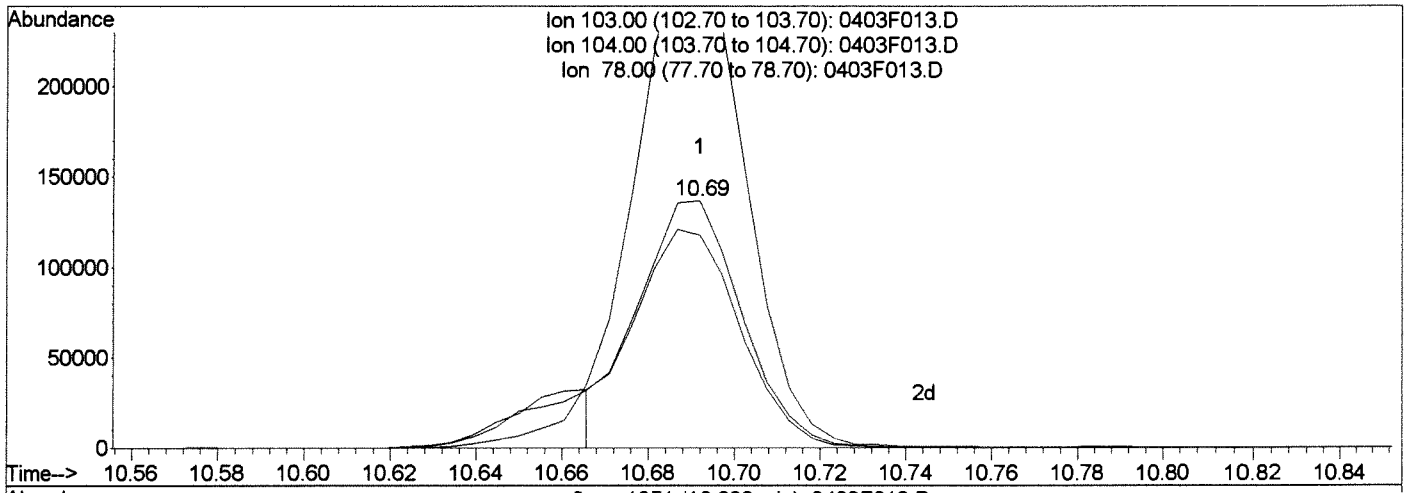
04/03/15

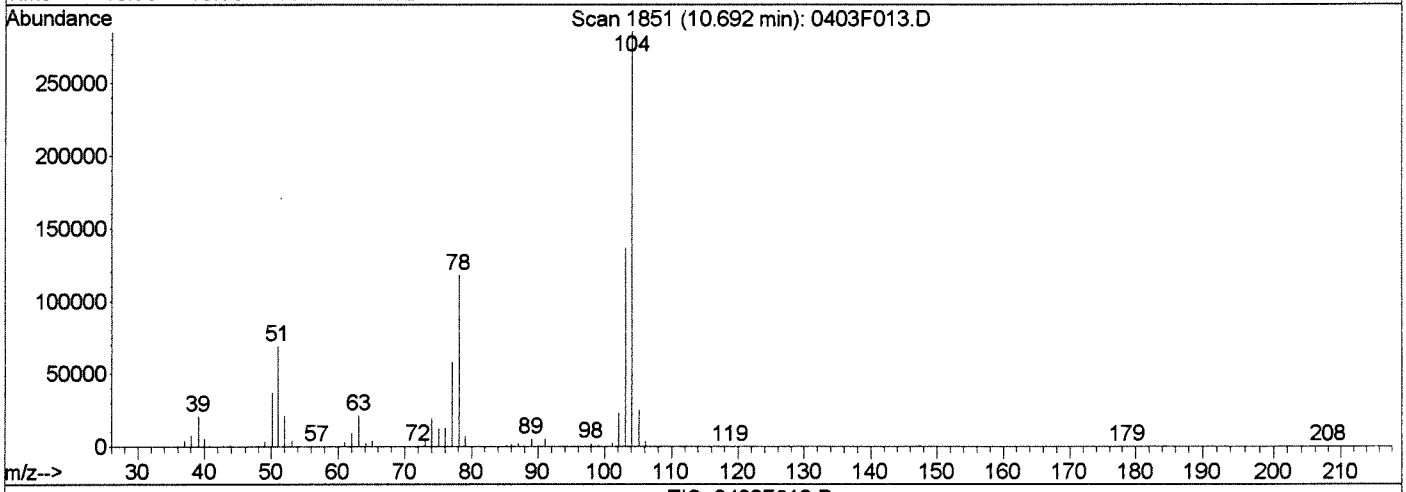
0403F013.D 031615MS46_8260.M Fri Apr 03 13:49:52 2015

04.09.15jal2nd Rev

Data File : J:\MS46\DATA\040315\0403F013.D Vial: 51
Acq On : 03 Apr 2015 01:22 pm Operator: KR
Sample : LCS Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 3 13:49 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Multiple Level Calibration





TIC: 0403F013.D

(80) Styrene (T)
10.69min 8.43PPB m
response 229962

Ion	Exp%	Act%
103.00	100	100
104.00	198.60	208.74
78.00	88.20	86.10
0.00	0.00	0.00

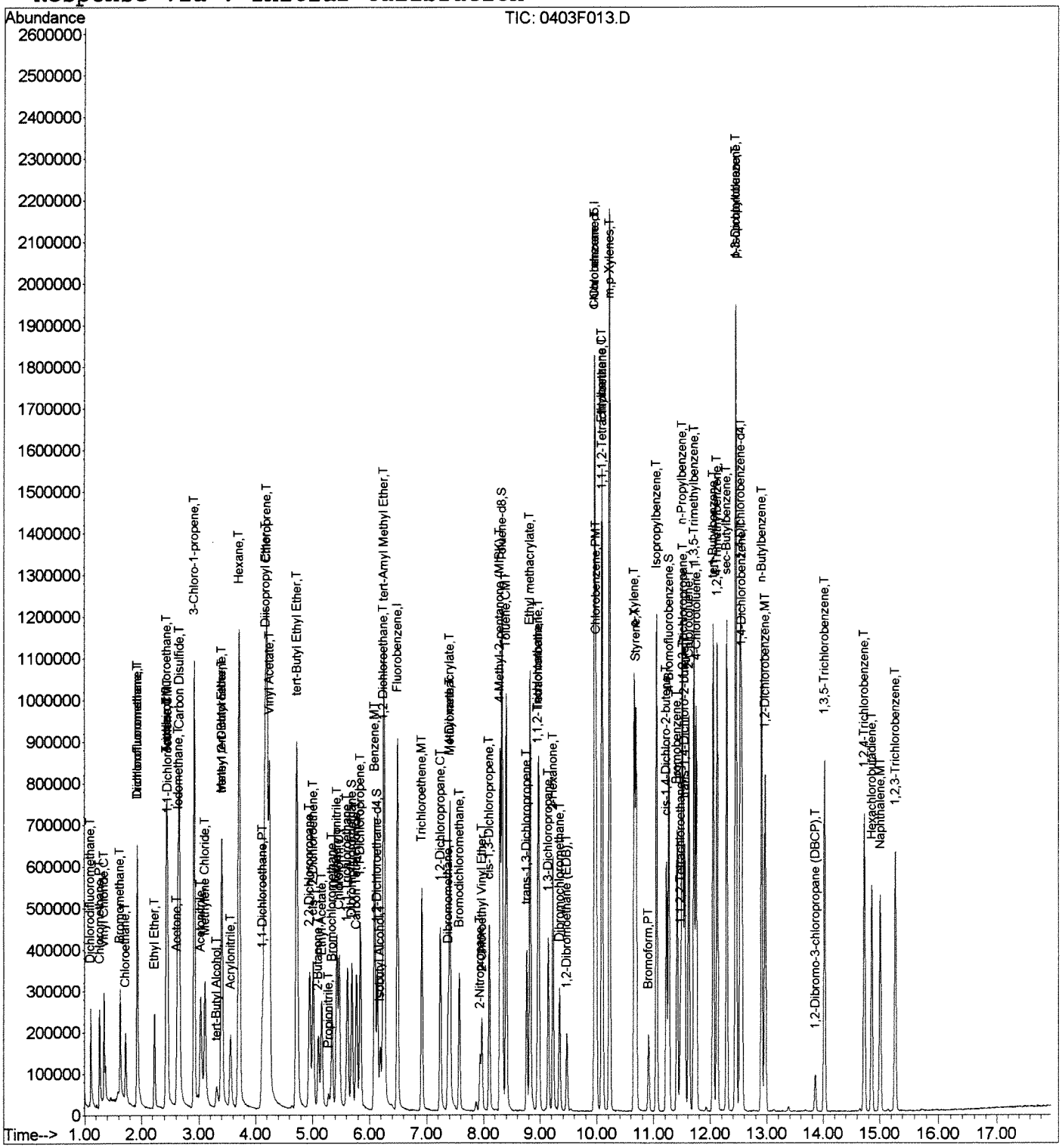
Manual Integration:
After
Baseline correction
04/03/15

0403F013.D 031615MS46_8260.M Fri Apr 03 13:49:57 2015

04.09.15jal2nd Rev

Data File : J:\MS46\DATA\040315\0403F013.D Vial: 51
Acq On : 03 Apr 2015 01:22 pm Operator: KR
Sample : LCS Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 3 13:49 2015 Quant Results File: 031615MS46_8

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Initial Calibration



04.09.15jal2nd Rev

Exception Report

Data File: J:\MS46\DATA\040315\0403F014.D
Lab ID: KWG1502844-2
RunType: DLCS
Matrix: WATER

Date Acquired: 04/03/2015 13:45
Date Quantitated: 04/08/2015 16:53
Batch ID: KWG1502843
Analysis Method: 8260C
MethodJoinID: MJ119

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA		x
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA		x
Continuing Calibration Minimum RF	NA	NA	NA		x
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	2-Propanol	0.0054	0.01	NA	NC
	Acetonitrile	0.0084	0.01	NA	
	tert-Butyl Alcohol	0.0090	0.01	NA	
	Isobutyl Alcohol	0.0039	0.01	NA	
	1,4-Dioxane	0.0009	0.01	NA	
Second Source ICAL Verification	1,4-Dioxane	-40.6	NA	30	
Continuing Calibration Recovery	Acrolein	-67.7	NA	20	
	2-Propanol	-36.2	NA	20	
	tert-Butyl Alcohol	-29.4	NA	20	
	1,4-Dioxane	-49.7	NA	20	
	trans-1,4-Dichloro-2-butene	-22.3	NA	20	
	1,2-Dibromo-3-chloropropane	-26.0	NA	20	CCV01c
Continuing Calibration Minimum RF	Acrolein	0.0065	0.01	NA	NC

Primary Review: kmn 4/8/15

Secondary Review: [illegible] 4/9/15

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
	2-Propanol	0.0035	0.01	NA	M
	Methyl Acetate	0.0934	0.100	NA	
	tert-Butyl Alcohol	0.0064	0.01	NA	
	1,4-Dioxane	0.0004	0.01	NA	

Primary Review: 4/8/15

Secondary Review: 4/9/15

Quantitation Report

Data File:	J:\MS46\DATA\040315\0403F014.D			**Instrument:**	GCMS46
Acqu Date:	04/03/2015 13:45	**Quant Date:**	04/08/2015 16:53	**Vial:**	51
Run Type:	DLCS			**Dilution:**	1.0
Lab ID:	KWG1502844-2			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**		**Receive Date:**	04/03/2015

Analysis Lot:	KWG1502843	**Prep Lot:**	KWG1502844	**Report Group:**	
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
		Prep Date:	04/03/2015		
Prep Ref:	1424772				

Quant Method:	J:\MS46\METHODS\031615MS46_8			**Calibration ID:**	CAL13899
Title:					
Tune Ref:	J:\MS46\DATA\040315\0403F007.D			**Method ID:**	MJ119
MB Ref:	J:\MS46\DATA\040315\0403F017.D			**Quant based on Method**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	6.49	0.00	96	812939	10.00	OK
2	Chlorobenzene-d5	9.96	0.01	82	322679	10.00	OK
3	1,4-Dichlorobenzene-d4	12.53	0.00	152	332206	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.69	0.00	0.00	113	205161	11.48	115	73-122	OK	
1	1,2-Dichloroethane-d4	6.14	0.00	0.00	65	228887	12.14	121	59-127	OK	
1	Toluene-d8	8.33	0.00	0.00	98	776100	11.27	113	65-144	OK	
2	4-Bromofluorobenzene	11.27	0.00	0.00	95	290464	11.62	116	68-117	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane	1.10		0.00	85	163281	6.16	6.16		
1	Chloromethane	1.26		0.00	50	181046	7.00	7.00		
1	Vinyl Chloride	1.34		0.00	62	171006	7.13	7.13		
1	1,3-Butadiene				54	0d		0.50	U	
1	Bromomethane	1.63		0.00	96	112758	8.08	8.08		
1	Chloroethane	1.72		0.00	64	108757	8.55	8.55		
1	Dichlorofluoromethane (CFC 21	1.93		0.00	67	309432	8.04	8.04		
1	Trichlorofluoromethane	1.93		0.00	101	218352	6.89	6.89		
1	Ethyl Ether	2.23		0.00	59	107946	8.04	8.04		
1	Acrolein	2.43		0.00	56	221674	135.59	136		
1	Trichlorotrifluoroethane	2.44	0.01	0.00	151	138246	8.03	8.03		
1	1,1-Dichloroethene	2.46		0.00	96	130839	7.98	7.98		
1	Acetone	2.62	0.01	0.00	43	159257	59.12	59.1		
1	Iodomethane	2.63		0.00	142	554903	33.69	33.7		

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS46\DATA\040315\0403F014.D			**Instrument:**	GCMS46
Acqu Date:	04/03/2015 13:45	**Quant Date:**	04/08/2015 16:53	**Vial:**	51
Run Type:	DLCS			**Dilution:**	1.0
Lab ID:	KWG1502844-2			**Soln Conc. Units:**	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Disulfide	2.66	0.01	0.00	76	873579	14.75	14.8		
1	2-Propanol				45	0d		17	U	
1	3-Chloro-1-propene	2.92	0.01	0.00	76	232495	22.36	22.4		
1	Methyl Acetate				43	0d		0.38	U	
1	Acetonitrile	3.03	0.01	0.00	40	209942	308.43	308		
1	Methylene Chloride	3.11		0.00	84	149494	7.72	7.72		
1	tert-Butyl Alcohol	3.31		0.00	59	76391	103.86	104		
1	Acrylonitrile	3.56		0.00	53	167323	40.47	40.5		
1	Methyl tert-Butyl Ether	3.40	0.01	0.00	73	401273	9.32	9.32		
1	trans-1,2-Dichloroethene	3.41	0.01	0.00	96	151153	7.83	7.83		
1	n-Hexane	3.71		0.00	57	674226	22.15	22.2		
1	Diisopropyl Ether	4.17	0.01	0.00	45	1055618	17.26	17.3		
1	1,1-Dichloroethane	4.12		0.00	63	278099	8.38	8.38		
1	Vinyl Acetate	4.24	-0.01	0.00	86	141508	43.34	43.3		
1	Chloroprene	4.20		0.00	53	712178	26.29	26.3		
1	tert-Butyl Ethyl Ether	4.73	0.01	0.00	59	964582	18.51	18.5		
1	2,2-Dichloropropane	4.96	0.01	0.00	77	233424	7.62	7.62		
1	cis-1,2-Dichloroethene	5.02	0.01	0.00	96	162173	7.65	7.65		
1	2-Butanone (MEK)	5.10		0.00	72	62697	55.29	55.3		
1	Ethyl Acetate	5.17	0.01	0.00	61	48603	31.45	31.5		
1	Propionitrile	5.29	0.01	0.00	54	45906	31.47	31.5		
1	Methacrylonitrile	5.43		0.00	67	153258	30.11	30.1		
1	Bromochloromethane	5.35	0.01	0.00	128	77214	8.58	8.58		
1	Tetrahydrofuran				71	0d		0.94	U	
1	Chloroform	5.47		0.00	83	284903	8.23	8.23		
1	Cyclohexane				56	0d		0.36	U	
1	1,1,1-Trichloroethane (TCA)	5.62	0.01	0.00	97	247061	7.54	7.54		
1	Carbon Tetrachloride	5.77		0.00	117	221793	7.67	7.67		
1	1,1-Dichloropropene	5.84		0.00	75	217307	7.99	7.99		
1	Isobutyl Alcohol	6.19	0.01	0.00	43	92607	294.84	295		
1	Benzene	6.09		0.00	78	634789	7.87	7.87		
1	1,2-Dichloroethane (EDC)	6.24		0.00	62	207369	8.44	8.44		
1	tert-Amyl Methyl Ether	6.25	-0.01	0.00	55	218470	19.61	19.6		
1	Trichloroethene (TCE)	6.92		0.00	95	169550	7.99	7.99		
1	Methylcyclohexane				83	0d		0.33	U	
1	1,2-Dichloropropane	7.24		0.00	63	154836	7.79	7.79		
1	Dibromomethane	7.38	0.01	0.00	93	86056	8.42	8.42		
1	Methyl Methacrylate	7.41		0.00	69	256509	26.93	26.9		
1	1,4-Dioxane	7.40	-0.01	0.00	88	34431	476.20	476		
1	Bromodichloromethane	7.57		0.00	83	205026	7.89	7.89		
1	2-Nitropropane	7.94	0.01	0.00	41	85036	24.55	24.6		
1	2-Chloroethyl Vinyl Ether	7.97		0.00	63	88226	9.49	9.49		

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS46\DATA\040315\0403F014.D			**Instrument:**	GCMS46
Acqu Date:	04/03/2015 13:45	**Quant Date:**	04/08/2015 16:53	**Vial:**	51
Run Type:	DLCS			**Dilution:**	1.0
Lab ID:	KWG1502844-2			**Soln Conc. Units:**	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	cis-1,3-Dichloropropene	8.10		0.00	75	242185	8.24	8.24		
1	4-Methyl-2-pentanone (MIBK)	8.30	0.01	0.00	58	229518	57.55	57.6		
1	Toluene	8.40		0.00	92	411419	8.04	8.04		
2	n-Octane				85	0**d**		0.16	U	
2	trans-1,3-Dichloropropene	8.77	0.01	0.00	75	194738	7.88	7.88		
2	Ethyl Methacrylate	8.83	0.01	0.00	69	518246	29.58	29.6		
2	1,1,2-Trichloroethane	8.96		0.00	83	109464	8.75	8.75		
2	Tetrachloroethene (PCE)	8.97		0.00	164	160946	8.07	8.07		
2	2-Hexanone	9.23		0.00	57	74027	56.40	56.4		
2	1,3-Dichloropropane	9.14		0.00	76	231354	9.07	9.07		
2	Dibromochloromethane	9.34		0.00	129	154219	8.87	8.87		
2	1,2-Dibromoethane (EDB)	9.47		0.00	107	125918	9.01	9.01		
2	1-Chlorohexane	9.96		0.00	91	245475	8.77	8.77		
2	Chlorobenzene	9.99	0.01	0.00	112	469464	8.57	8.57		
2	Ethylbenzene	10.08		0.00	106	247544	8.26	8.26		
2	1,1,1,2-Tetrachloroethane	10.10	0.01	0.00	131	159966	8.27	8.27		
2	m,p-Xylenes	10.22		0.00	106	629415	17.32	17.3		
2	o-Xylene	10.66		0.00	106	291577	8.29	8.29		
2	Styrene	10.69		0.00	103	224780**m**	8.54	8.54		
2	Bromoform	10.91		0.00	173	89304	8.56	8.56		
2	Isopropylbenzene	11.05		0.00	105	794201	8.32	8.32		
2	cis-1,4-Dichloro-2-butene	11.22		0.00	89	57745	30.49	30.5		
3	1,1,2,2-Tetrachloroethane	11.47		0.00	83	139633	9.05	9.05		
3	trans-1,4-Dichloro-2-butene	11.55		0.00	53	134481	28.31	28.3		
3	Bromobenzene	11.42		0.00	156	206531	8.66	8.66		
3	n-Propylbenzene	11.50		0.00	91	967457	8.68	8.68		
3	1,2,3-Trichloropropane	11.53	0.01	0.00	110	49158	9.49	9.49		
3	2-Chlorotoluene	11.62		0.00	91	566555	8.54	8.54		
3	1,3,5-Trimethylbenzene	11.71		0.00	105	671013	8.51	8.51		
3	4-Chlorotoluene	11.75		0.00	91	573011**m**	8.16	8.16		
3	tert-Butylbenzene	12.05		0.00	119	604246	8.30	8.30		
3	1,2,4-Trimethylbenzene	12.12		0.00	105	669650	8.49	8.49		
3	sec-Butylbenzene	12.29		0.00	105	871868	8.33	8.33		
3	4-Isopropyltoluene	12.45		0.00	119	754508	8.80	8.80		
3	1,3-Dichlorobenzene	12.45		0.00	146	406814	8.46	8.46		
3	1,4-Dichlorobenzene	12.55		0.00	146	410567	8.61	8.61		
3	n-Butylbenzene	12.90		0.00	91	675298	8.45	8.45		
3	1,2-Dichlorobenzene	12.97		0.00	146	382799	8.97	8.97		
3	1,2-Dibromo-3-chloropropane	13.86	0.01	0.00	155	23254	8.94	8.94		
3	1,3,5-Trichlorobenzene	14.02		0.00	180	329187	9.30	9.30		
3	1,2,4-Trichlorobenzene	14.72		0.00	180	278906	9.34	9.34		
3	Hexachlorobutadiene	14.85		0.00	225	133573	8.48	8.48		

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS46\DATA\040315\0403F014.D			**Instrument:**	GCMS46
Acqu Date:	04/03/2015 13:45	**Quant Date:**	04/08/2015 16:53	**Vial:**	51
Run Type:	DLCS			**Dilution:**	1.0
Lab ID:	KWG1502844-2			**Soln Conc. Units:**	PPB

Target Compounds **Final Conc. Units:** ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Naphthalene	15.01		0.00	128	494747	9.33	9.33		
3	1,2,3-Trichlorobenzene	15.27		0.00	180	253123	9.47	9.47		
	Benzyl Chloride				0	0		1.0	U	NR
	Isopropyl Acetate				0	0		20	U	NR
	Cyclohexanone				0	0		1.0	U	NR
	2-Ethoxyethanol				0	0		1.0	U	NR
	Bis(2-chloroethyl) Ether				0	0		20	U	NR
	beta-Pinene				0	0		1.0	U	NR
	1,1,2-Trifluoroethane				0	0		1.0	U	NR
	2,2,4-Trimethylpentane				0	0		1.0	U	NR
	Bis(chloromethyl) Ether				0	0		1.0	U	NR
	Amyl Acetate				0	0		20	U	NR
	Bromoethane				0	0		1.0	U	NR
	Pentachloroethane				0	0		5.0	U	NR
	1,1-Dichloropropane				0	0		1.0	U	NR
	alpha-Pinene				0	0		1.0	U	NR
	1,1,1,2-Tetrafluoroethane				0	0		1.0	U	NR
	Nitrobenzene				0	0		20	U	NR

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File : J:\MS46\DATA\040315\0403F014.D Vial: 51
Acq On : 03 Apr 2015 01:45 pm Operator: KR
Sample : DLCS Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 08 16:52:48 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.49	96	812939	10.00	PPB	0.00
64) Chlorobenzene-d5	9.96	82	322679	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	12.53	152	332206	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.69	113	205161	11.48	PPB	0.00
Spiked Amount 10.000			Recovery =	114.80%		
47) 1,2-Dichloroethane-d4	6.14	65	228887	12.14	PPB	0.00
Spiked Amount 10.000			Recovery =	121.40%		
62) Toluene-d8	8.33	98	776100	11.27	PPB	0.00
Spiked Amount 10.000			Recovery =	112.70%		
84) 4-Bromofluorobenzene	11.27	95	290464	11.62	PPB	0.00
Spiked Amount 10.000			Recovery =	116.20%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.10	85	163281	6.16	PPB	98
3) Chloromethane	1.26	50	181046	7.00	PPB	98
4) Vinyl Chloride	1.34	62	171006	7.13	PPB	100
6) Bromomethane	1.63	96	112758	8.08	PPB	95
7) Chloroethane	1.72	64	108757	8.55	PPB	94
8) Dichlorofluoromethane	1.93	67	309432	8.04	PPB	98
9) Trichlorofluoromethane	1.93	101	218352	6.89	PPB	96
10) Ethyl Ether	2.23	59	107946	8.04	PPB	95
11) Acrolein	2.43	56	221674	135.59	PPB	98
12) Trichlorotrifluoroethane	2.44	151	138246	8.03	PPB	97
13) 1,1-Dichloroethene	2.46	96	130839	7.98	PPB	95
14) Acetone	2.62	43	159257	59.12	PPB	99
15) Iodomethane	2.63	142	554903	33.69	PPB	97
16) Carbon Disulfide	2.66	76	873579	14.75	PPB	99
18) 3-Chloro-1-propene	2.92	76	232495	22.36	PPB	87
20) Acetonitrile	3.03	40	209942	308.43	PPB	99
21) Methylene Chloride	3.11	84	149494	7.72	PPB	99
22) tert-Butyl Alcohol	3.31	59	76391	103.86	PPB	99
23) Acrylonitrile	3.56	53	167323	40.47	PPB	98
24) Methyl tert-Butyl Ether	3.40	73	401273	9.32	PPB	98
25) trans-1,2-Dichloroethene	3.41	96	151153	7.83	PPB	92
26) Hexane	3.71	57	674226	22.15	PPB	100
27) Diisopropyl Ether	4.17	45	1055618	17.26	PPB	98
28) 1,1-Dichloroethane	4.12	63	278099	8.38	PPB	98
29) Vinyl Acetate	4.24	86	141508	43.34	PPB	97
30) Chloroprene	4.20	53	712178	26.29	PPB	99
31) tert-Butyl Ethyl Ether	4.73	59	964582	18.51	PPB	99

(#) = qualifier out of range (m) = manual integration

04.09.15jal2ndRev

Data File : J:\MS46\DATA\040315\0403F014.D Vial: 51
Acq On : 03 Apr 2015 01:45 pm Operator: KR
Sample : DLCS Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 08 16:52:48 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
32)	2,2-Dichloropropane	4.96	77	233424	7.62	PPB		96
33)	cis-1,2-Dichloroethene	5.02	96	162173	7.65	PPB		96
34)	2-Butanone	5.10	72	62697	55.29	PPB		89
35)	Ethyl Acetate	5.17	61	48603	31.45	PPB		87
36)	Propionitrile	5.29	54	45906	31.47	PPB		97
37)	Methacrylonitrile	5.43	67	153258	30.11	PPB		96
38)	Bromochloromethane	5.35	128	77214	8.58	PPB		91
40)	Chloroform	5.47	83	284903	8.23	PPB		97
42)	1,1,1-Trichloroethane	5.62	97	247061	7.54	PPB		95
44)	Carbon Tetrachloride	5.77	117	221793	7.67	PPB		99
45)	1,1-Dichloropropene	5.84	75	217307	7.99	PPB		95
46)	Isobutyl Alcohol	6.19	43	92607	294.84	PPB		94
48)	Benzene	6.09	78	634789	7.87	PPB		99
49)	1,2-Dichloroethane	6.24	62	207369	8.44	PPB		98
50)	tert-Amyl Methyl Ether	6.25	55	218470	19.61	PPB		89
51)	Trichloroethene	6.92	95	169550	7.99	PPB		99
53)	1,2-Dichloropropane	7.24	63	154836	7.79	PPB		98
54)	Dibromomethane	7.38	93	86056	8.42	PPB		92
55)	Methyl methacrylate	7.41	69	256509	26.93	PPB		97
56)	1,4-Dioxane	7.40	88	34431	476.20	PPB	#	58
57)	Bromodichloromethane	7.57	83	205026	7.89	PPB		99
58)	2-Nitropropane	7.94	41	85036	24.55	PPB		98
59)	2-Chloroethyl Vinyl Ether	7.97	63	88226	9.49	PPB		96
60)	cis-1,3-Dichloropropene	8.10	75	242185	8.24	PPB		99
61)	4-Methyl-2-pentanone (MIBK	8.30	58	229518	57.55	PPB		97
63)	Toluene	8.40	92	411419	8.04	PPB		99
66)	trans-1,3-Dichloropropene	8.77	75	194738	7.88	PPB		93
67)	Ethyl methacrylate	8.83	69	518246	29.58	PPB		98
68)	1,1,2-Trichloroethane	8.96	83	109464	8.75	PPB		97
69)	Tetrachloroethene	8.97	164	160946	8.07	PPB		98
70)	2-Hexanone	9.23	57	74027	56.40	PPB		99
71)	1,3-Dichloropropane	9.14	76	231354	9.07	PPB		97
72)	Dibromochloromethane	9.34	129	154219	8.87	PPB		98
73)	1,2-Dibromoethane (EDB)	9.47	107	125918	9.01	PPB		100
74)	1-Chlorohexane	9.96	91	245475	8.77	PPB		97
75)	Chlorobenzene	9.99	112	469464	8.57	PPB		99
76)	Ethylbenzene	10.08	106	247544	8.26	PPB		89
77)	1,1,1,2-Tetrachloroethane	10.10	131	159966	8.27	PPB		94
78)	m,p-Xylenes	10.22	106	629415	17.32	PPB		96
79)	o-Xylene	10.66	106	291577	8.29	PPB		99
80)	Styrene	10.69	103	224780m	8.54	PPB		

(#) = qualifier out of range (m) = manual integration

04.09.15jal2ndRev

Data File : J:\MS46\DATA\040315\0403F014.D Vial: 51
Acq On : 03 Apr 2015 01:45 pm Operator: KR
Sample : DLCS Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 08 16:52:48 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

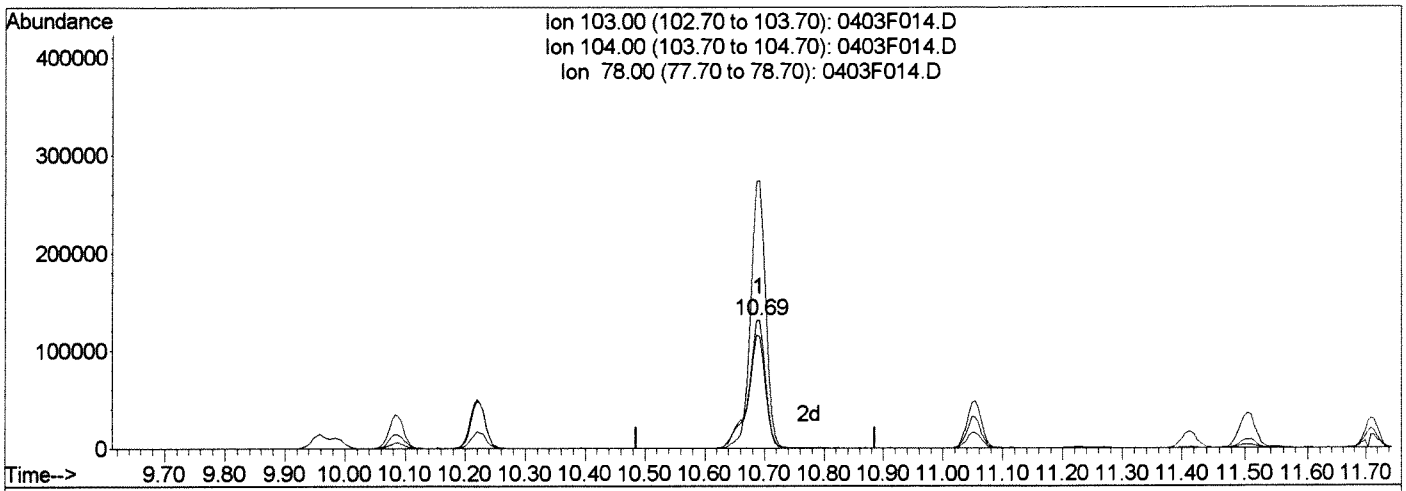
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
81)	Bromoform	10.91	173	89304	8.56	PPB		95
82)	Isopropylbenzene	11.05	105	794201	8.32	PPB		99
83)	cis-1,4-Dichloro-2-butene	11.22	89	57745	30.49	PPB		91
86)	1,1,2,2-Tetrachloroethane	11.47	83	139633	9.05	PPB		98
87)	trans-1,4-Dichloro-2-buten	11.55	53	134481	28.31	PPB		98
88)	Bromobenzene	11.42	156	206531	8.66	PPB		98
89)	n-Propylbenzene	11.50	91	967457	8.68	PPB		99
90)	1,2,3-Trichloropropane	11.53	110	49158	9.49	PPB	#	81
91)	2-Chlorotoluene	11.62	91	566555	8.54	PPB		98
92)	1,3,5-Trimethylbenzene	11.71	105	671013	8.51	PPB		98
93)	4-Chlorotoluene	11.75	91	573011m	8.16	PPB		
94)	tert-Butylbenzene	12.05	119	604246	8.30	PPB		97
95)	1,2,4-Trimethylbenzene	12.12	105	669650	8.49	PPB		98
96)	sec-Butylbenzene	12.29	105	871868	8.33	PPB		99
97)	p-Isopropyltoluene	12.45	119	754508	8.80	PPB		97
98)	1,3-Dichlorobenzene	12.45	146	406814	8.46	PPB		98
99)	1,4-Dichlorobenzene	12.55	146	410567	8.61	PPB		99
100)	n-Butylbenzene	12.90	91	675298	8.45	PPB		98
101)	1,2-Dichlorobenzene	12.97	146	382799	8.97	PPB		99
102)	1,2-Dibromo-3-chloropropan	13.86	155	23254	8.94	PPB		76
103)	1,3,5-Trichlorobenzene	14.02	180	329187	9.30	PPB		98
104)	1,2,4-Trichlorobenzene	14.72	180	278906	9.34	PPB		98
105)	Hexachlorobutadiene	14.85	225	133573	8.48	PPB		96
106)	Naphthalene	15.01	128	494747	9.33	PPB		97
107)	1,2,3-Trichlorobenzene	15.27	180	253123	9.47	PPB		97

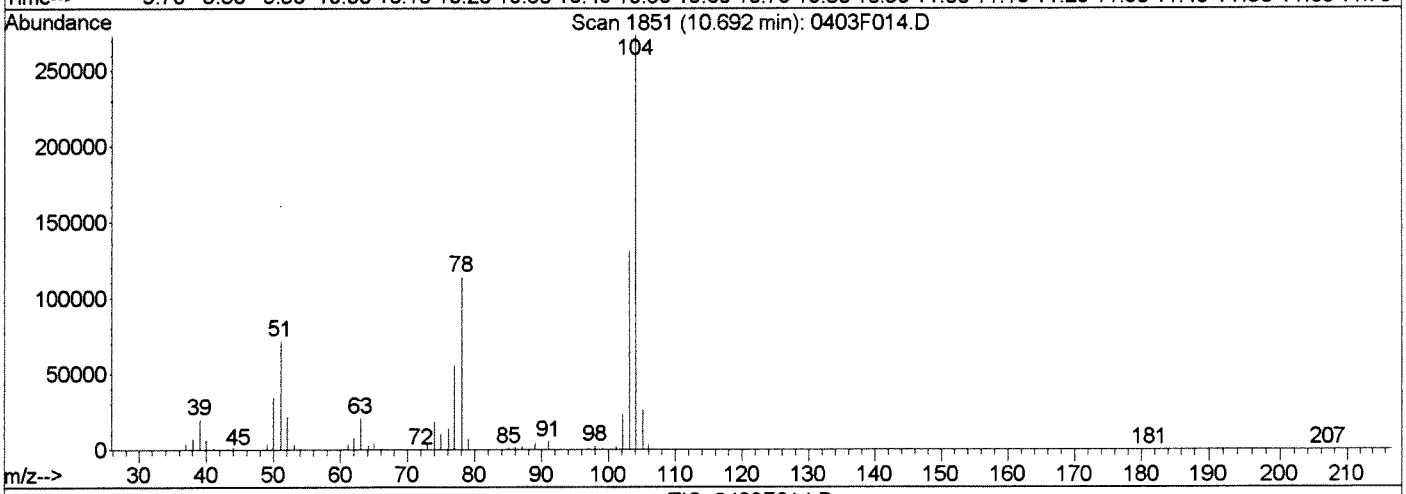
(#) = qualifier out of range (m) = manual integration

04.09.15jal2nd Rev

Data File : J:\MS46\DATA\040315\0403F014.D Vial: 51
Acq On : 03 Apr 2015 01:45 pm Operator: KR
Sample : DLCS Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 8 16:52 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Multiple Level Calibration





TIC: 0403F014.D

(80) Styrene (T)

10.69min 10.00PPB

response 263256

Ion	Exp%	Act%
103.00	100	100
104.00	198.60	208.89
78.00	88.20	87.11
0.00	0.00	0.00

Manual Integration:

Before

04/08/15

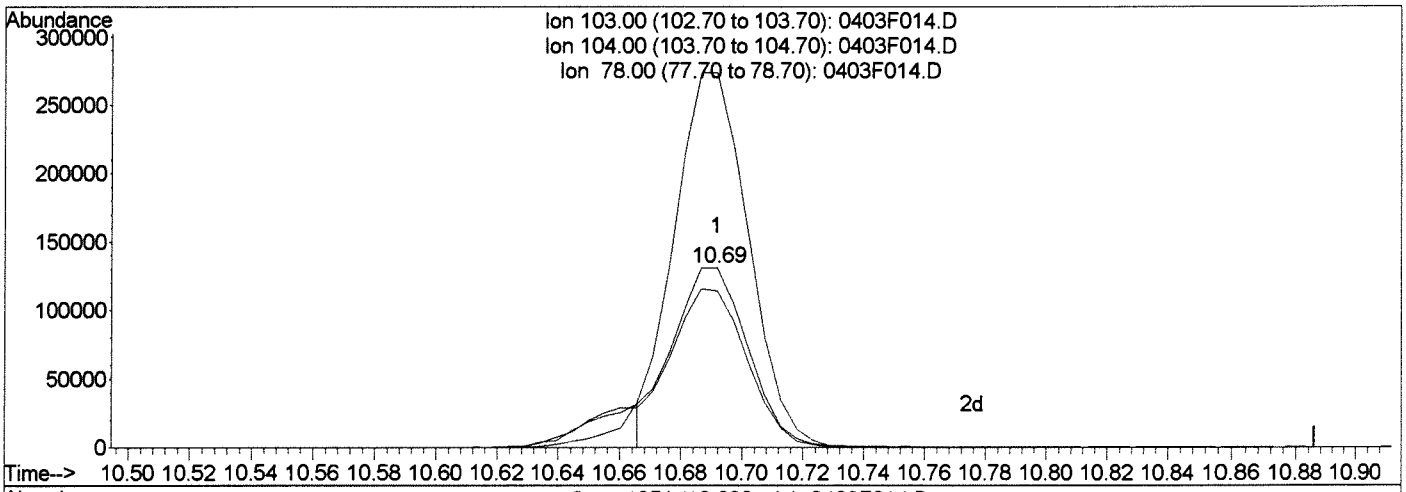
KR

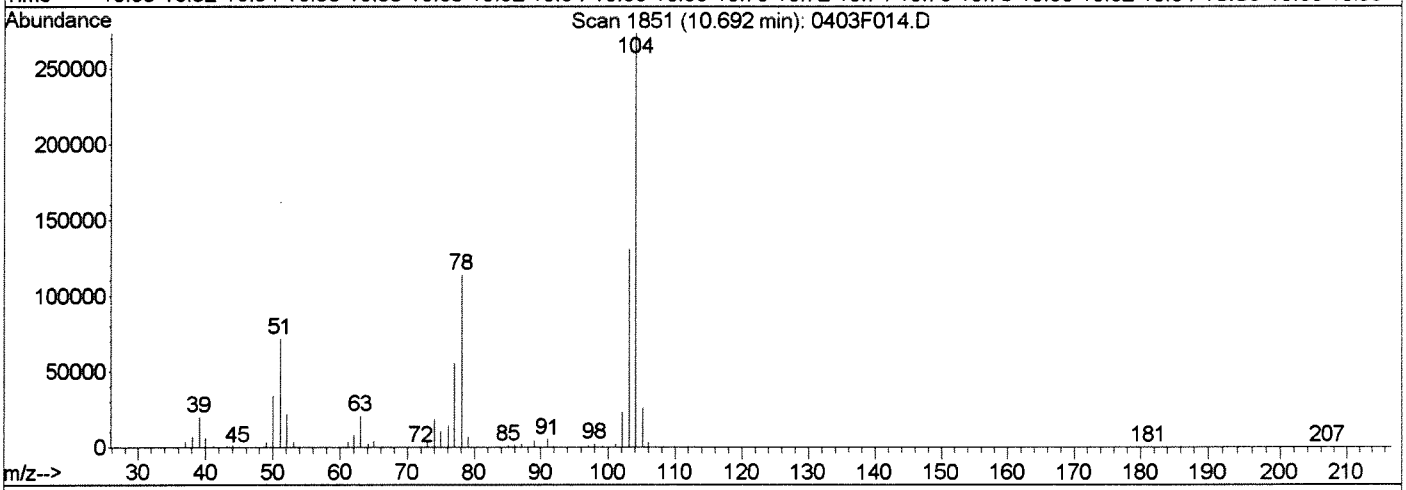
0403F014.D 031615MS46_8260.M Wed Apr 08 16:53:11 2015

04.09.15jal2nd Review

Data File : J:\MS46\DATA\040315\0403F014.D Vial: 51
Acq On : 03 Apr 2015 01:45 pm Operator: KR
Sample : DLCS Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 8 16:53 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Multiple Level Calibration





TIC: 0403F014.D

(80) Styrene (T)
10.69min 8.54PPB m
response 224780

Ion	Exp%	Act%
103.00	100	100
104.00	198.60	209.13
78.00	88.20	87.11
0.00	0.00	0.00

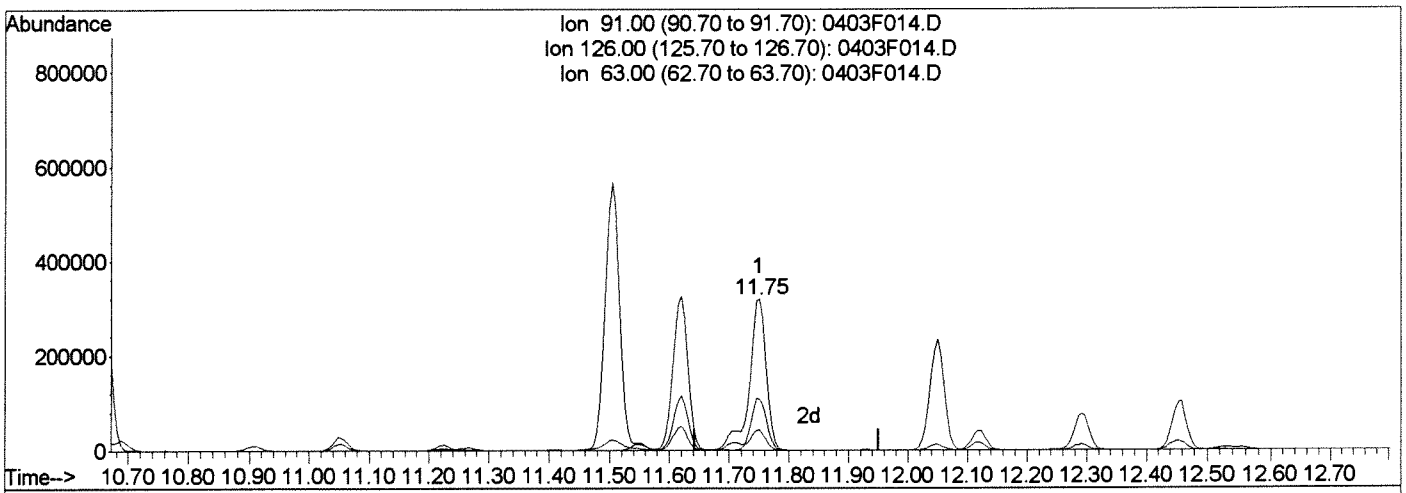
Manual Integration:
After
Baseline correction
04/08/15

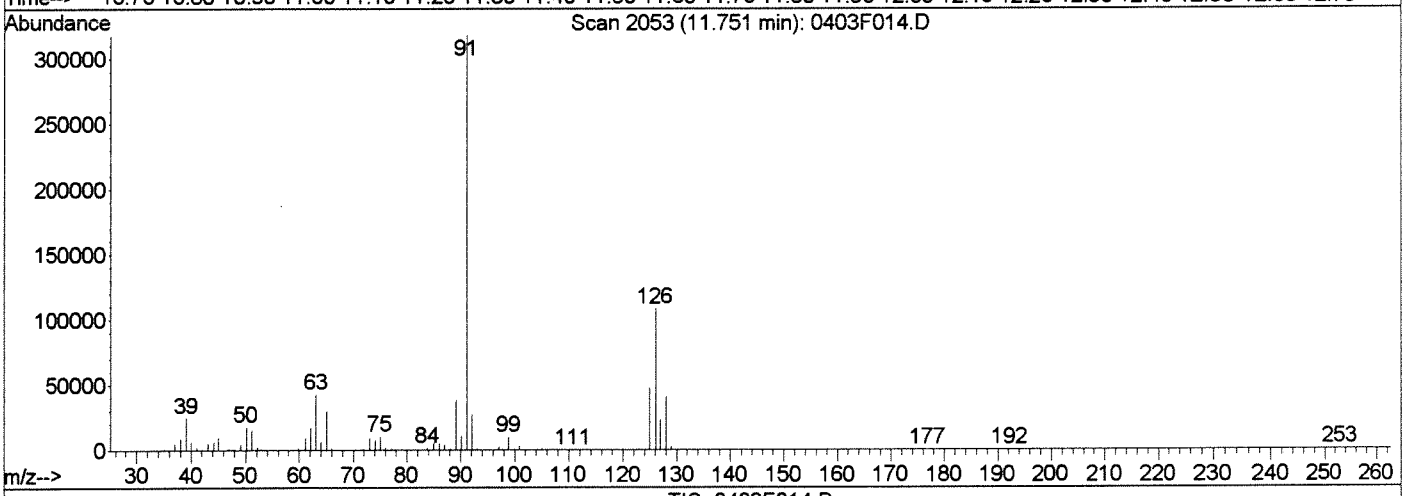
0403F014.D 031615MS46_8260.M Wed Apr 08 16:53:16 2015

04.09.15jal2nd Rev

Data File : J:\MS46\DATA\040315\0403F014.D Vial: 51
Acq On : 03 Apr 2015 01:45 pm Operator: KR
Sample : DLCS Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 8 16:53 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Multiple Level Calibration





TIC: 0403F014.D

(93) 4-Chlorotoluene (T)

11.75min 9.09PPB

response 638166

Ion	Exp%	Act%
91.00	100	100
126.00	34.80	34.03
63.00	12.80	13.50
0.00	0.00	0.00

Manual Integration:

Before

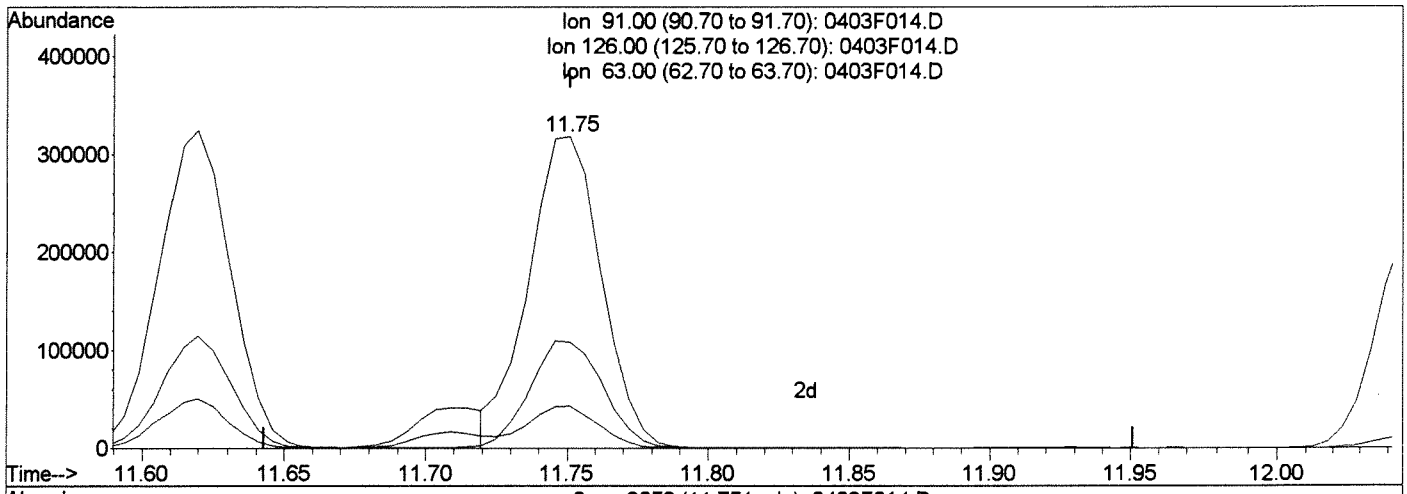
04/08/15

0403F014.D 031615MS46_8260.M Wed Apr 08 16:53:21 2015

04.09.15jal2nd Rev

Data File : J:\MS46\DATA\040315\0403F014.D Vial: 51
Acq On : 03 Apr 2015 01:45 pm Operator: KR
Sample : DLCS Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 8 16:53 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Multiple Level Calibration



TIC: 0403F014.D

(93) 4-Chlorotoluene (T)
11.75min 8.16PPB m
response 573011

Ion	Exp%	Act%
91.00	100	100
126.00	34.80	33.97
63.00	12.80	13.48
0.00	0.00	0.00

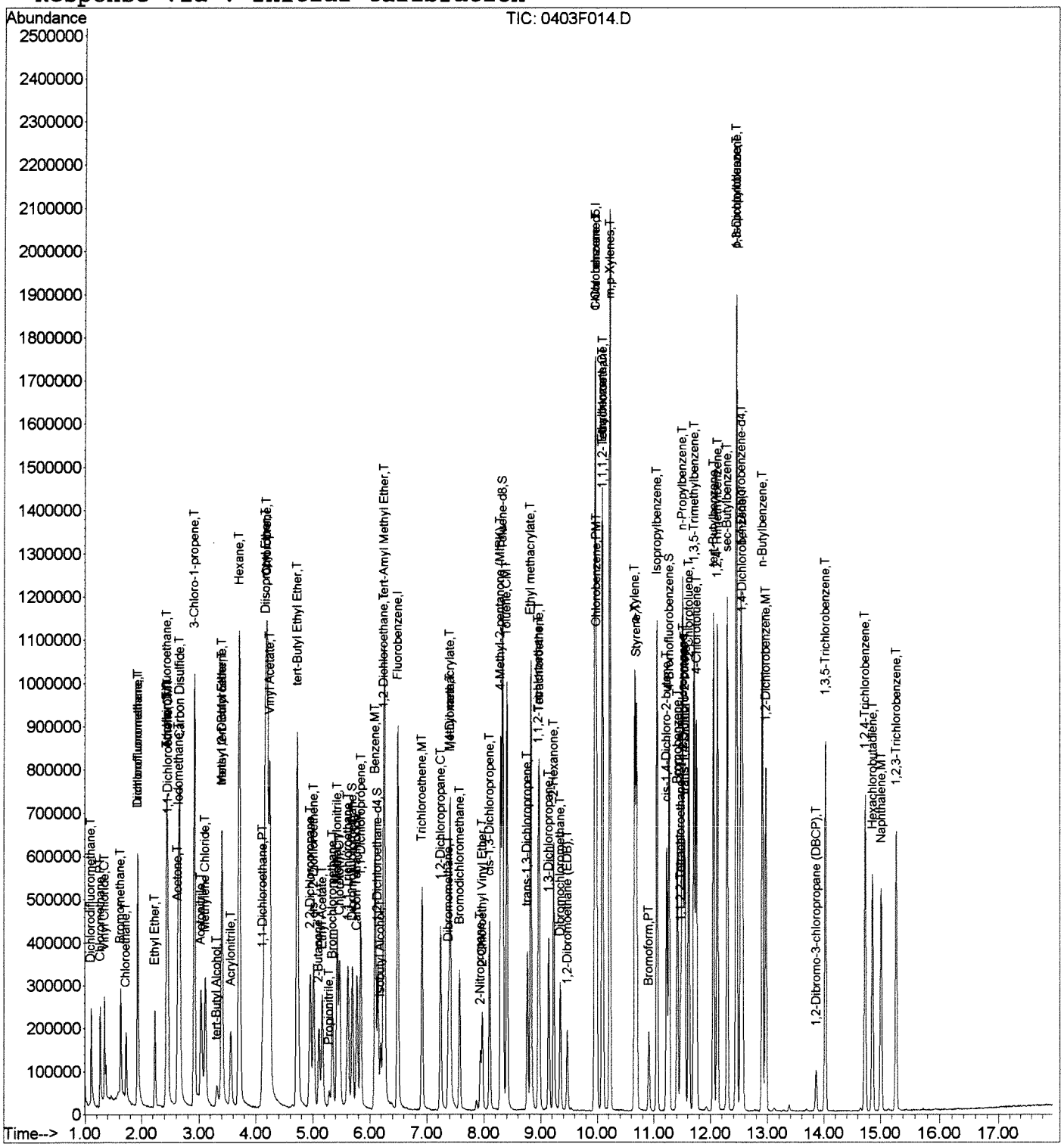
Manual Integration:
After
Baseline correction
04/08/15

0403F014.D 031615MS46_8260.M Wed Apr 08 16:53:26 2015

04.09.15jal2nd Rev

Data File : J:\MS46\DATA\040315\0403F014.D Vial: 51
Acq On : 03 Apr 2015 01:45 pm Operator: KR
Sample : DLCS Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 8 16:53 2015 Quant Results File: 031615MS46_8

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Initial Calibration



04.09.15jal2nd Rev

Exception Report

Data File: J:\MS46\DATA\040815X\0408F005.D
Lab ID: KWG1503029-3
RunType: LCS
Matrix: WATER

Date Acquired: 04/08/2015 11:46
Date Quantitated: 04/09/2015 14:24
Batch ID: KWG1503030
Analysis Method: 8260C
MethodJoinID: MJ119

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA		x
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA		x
Continuing Calibration Minimum RF	NA	NA	NA		x
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	2-Propanol	0.0054	0.01	NA	NR
	Acetonitrile	0.0084	0.01	NA	
	tert-Butyl Alcohol	0.0090	0.01	NA	
	Isobutyl Alcohol	0.0039	0.01	NA	
	1,4-Dioxane	0.0009	0.01	NA	
Second Source ICAL Verification	1,4-Dioxane	-40.6	NA	30	
Continuing Calibration Recovery	Dichlorodifluoromethane	-28.0	NA	20	CCV ON
	1,3-Butadiene	-29.8	NA	20	
	2-Propanol	-53.6	NA	20	NR
	Methyl Acetate	-24.2	NA	20	
	tert-Butyl Alcohol	-42.4	NA	20	NR
	2-Butanone (MEK)	-27.0	NA	20	
	Methyl Methacrylate	-25.3	NA	20	

Primary Review: KA 4/9/15

Secondary Review: 4/10/15

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
	1,4-Dioxane	-70.8	NA	20	M
	2-Chloroethyl Vinyl Ether	-22.0	NA	20	"
	n-Octane	-96.5	NA	20	"
	2-Hexanone	-23.9	NA	20	CCVL
	trans-1,4-Dichloro-2-butene	-51.9	NA	20	MT
	1,2-Dibromo-3-chloropropane	-29.4	NA	20	CCVL
Continuing Calibration Minimum RF	2-Propanol	0.0025	0.01	NA	MT
	Methyl Acetate	0.0881	0.100	NA	"
	tert-Butyl Alcohol	0.0052	0.01	NA	"
	1,4-Dioxane	0.0003	0.01	NA	"

Primary Review: [signature] 4/10/15

Secondary Review: [signature] 4/10/15

Quantitation Report

Data File:	J:\MS46\DATA\040815X\0408F005.D			**Instrument:**	GCMS46
Acqu Date:	04/08/2015 11:46	**Quant Date:**	04/09/2015 14:24	**Vial:**	5
Run Type:	LCS			**Dilution:**	1.0
Lab ID:	KWG1503029-3			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**		**Receive Date:**	04/08/2015

Analysis Lot:	KWG1503030	**Prep Lot:**	KWG1503029	**Report Group:**	
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1425873	**Prep Date:**	04/08/2015		

Quant Method:	J:\MS46\METHODS\031615MS46_8	**Calibration ID:**	CAL13899
Title:			
Tune Ref:	J:\MS46\DATA\040815X\0408F003.D	**Method ID:**	MJ119
MB Ref:	J:\MS46\DATA\040815X\0408F011.D	**Quant based on Method**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	6.49	0.00	96	760520	10.00	OK
2	Chlorobenzene-d5	9.95	-0.01	82	309546	10.00	OK
3	1,4-Dichlorobenzene-d4	12.53	0.00	152	324541	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.68	-0.01	0.00	113	199303	11.93	119	73-122	OK	
1	1,2-Dichloroethane-d4	6.14	0.00	0.00	65	211331	11.98	120	59-127	OK	
1	Toluene-d8	8.33	0.00	0.00	98	736025	11.42	114	65-144	OK	
2	4-Bromofluorobenzene	11.27	0.00	0.00	95	274318	11.44	114	68-117	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane	1.10		0.00	85	184979	7.45	7.45		
1	Chloromethane	1.26		0.00	50	197444	8.16	8.16		
1	Vinyl Chloride	1.34		0.00	62	199653	8.89	8.89		
1	1,3-Butadiene				54	0d		0.50	U	
1	Bromomethane	1.63		0.00	96	109194	8.37	8.37		
1	Chloroethane	1.72	-0.01	0.00	64	118591	9.96	9.96		
1	Dichlorofluoromethane (CFC 21	1.93		0.00	67	338663	9.41	9.41		
1	Trichlorofluoromethane	1.93		0.00	101	245162	8.27	8.27		
1	Ethyl Ether	2.23		0.00	59	96549	7.69	7.69		
1	Acrolein	2.43		0.00	56	165326	108.09	108		
1	Trichlorotrifluoroethane	2.43		0.00	151	158502	9.84	9.84		
1	1,1-Dichloroethene	2.46	0.01	0.00	96	149614	9.76	9.76		
1	Acetone	2.61		0.00	43	110512	43.85	43.9		
1	Iodomethane	2.63		0.00	142	509603	33.07	33.1		

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS46\DATA\040815X\0408F005.D			**Instrument:**	GCMS46
Acqu Date:	04/08/2015 11:46	**Quant Date:**	04/09/2015 14:24	**Vial:**	5
Run Type:	LCS			**Dilution:**	1.0
Lab ID:	KWG1503029-3			**Soln Conc. Units:**	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Disulfide	2.65	-0.01	0.00	76	1041568	18.79	18.8		
1	2-Propanol				45	0d		17	U	
1	3-Chloro-1-propene	2.91		0.00	76	204718	21.05	21.1		
1	Methyl Acetate				43	0d		0.38	U	
1	Acetonitrile	3.03		0.00	40	136828	214.87	215		
1	Methylene Chloride	3.11		0.00	84	155417	8.58	8.58		
1	tert-Butyl Alcohol	3.31	0.01	0.00	59	41029	59.63	59.6		
1	Acrylonitrile	3.56		0.00	53	122585	31.69	31.7		
1	Methyl tert-Butyl Ether	3.39		0.00	73	356139	8.84	8.84		
1	trans-1,2-Dichloroethene	3.40		0.00	96	168549	9.34	9.34		
1	n-Hexane	3.71		0.00	57	545497	19.15	19.2		
1	Diisopropyl Ether	4.16		0.00	45	967453	16.91	16.9		
1	1,1-Dichloroethane	4.12		0.00	63	300224	9.67	9.67		
1	Vinyl Acetate	4.24		0.00	86	81327	26.63	26.6		
1	Chloroprene	4.20		0.00	53	637446	25.15	25.2		
1	tert-Butyl Ethyl Ether	4.72		0.00	59	839488	17.22	17.2		
1	2,2-Dichloropropane	4.95		0.00	77	255380	8.91	8.91		
1	cis-1,2-Dichloroethene	5.01		0.00	96	177405	8.94	8.94		
1	2-Butanone (MEK)	5.10		0.00	72	42645	40.20	40.2		
1	Ethyl Acetate	5.16		0.00	61	32219	22.29	22.3		
1	Propionitrile	5.28	-0.01	0.00	54	29865	21.89	21.9		
1	Methacrylonitrile	5.43		0.00	67	110875	23.29	23.3		
1	Bromochloromethane	5.34		0.00	128	77426	9.19	9.19		
1	Tetrahydrofuran				71	0d		0.94	U	
1	Chloroform	5.47		0.00	83	305113	9.42	9.42		
1	Cyclohexane				56	0d		0.36	U	
1	1,1,1-Trichloroethane (TCA)	5.61	-0.01	0.00	97	274200	8.94	8.94		
1	Carbon Tetrachloride	5.77		0.00	117	244638	9.05	9.05		
1	1,1-Dichloropropene	5.84		0.00	75	242215	9.51	9.51		
1	Isobutyl Alcohol	6.18	-0.01	0.00	43	48571	165.30	165		
1	Benzene	6.09		0.00	78	687383	9.11	9.11		
1	1,2-Dichloroethane (EDC)	6.24		0.00	62	205224	8.93	8.93		
1	tert-Amyl Methyl Ether	6.25		0.00	55	188964	18.13	18.1		
1	Trichloroethene (TCE)	6.91	-0.01	0.00	95	184454	9.29	9.29		
1	Methylcyclohexane				83	0d		0.33	U	
1	1,2-Dichloropropane	7.24		0.00	63	155059	8.34	8.34		
1	Dibromomethane	7.37		0.00	93	82301	8.60	8.60		
1	Methyl Methacrylate	7.40	-0.01	0.00	69	182856	20.52	20.5		
1	1,4-Dioxane	7.41		0.00	88	28731	424.75	425		
1	Bromodichloromethane	7.57		0.00	83	206687	8.50	8.50		
1	2-Nitropropane	7.93		0.00	41	62239	19.21	19.2		
1	2-Chloroethyl Vinyl Ether	7.97		0.00	63	70939	8.15	8.15		

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#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS46\DATA\040815X\0408F005.D			**Instrument:**	GCMS46
Acqu Date:	04/08/2015 11:46	**Quant Date:**	04/09/2015 14:24	**Vial:**	5
Run Type:	LCS			**Dilution:**	1.0
Lab ID:	KWG1503029-3			**Soln Conc. Units:**	PPB

Target Compounds **Final Conc. Units:** ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	cis-1,3-Dichloropropene	8.10		0.00	75	234090	8.51	8.51		
1	4-Methyl-2-pentanone (MIBK)	8.29		0.00	58	152720	40.93	40.9		
1	Toluene	8.40		0.00	92	424501	8.86	8.86		
2	n-Octane				85	0**d**		0.16	U	
2	trans-1,3-Dichloropropene	8.76		0.00	75	181038	7.63	7.63		
2	Ethyl Methacrylate	8.83		0.00	69	371720	22.11	22.1		
2	1,1,2-Trichloroethane	8.96		0.00	83	97753	8.15	8.15		
2	Tetrachloroethene (PCE)	8.97		0.00	164	173810	9.09	9.09		
2	2-Hexanone	9.23		0.00	57	46582	37.00	37.0		
2	1,3-Dichloropropane	9.14		0.00	76	203059	8.30	8.30		
2	Dibromochloromethane	9.34		0.00	129	139197	8.34	8.34		
2	1,2-Dibromoethane (EDB)	9.47	0.01	0.00	107	112654	8.40	8.40		
2	1-Chlorohexane	9.96		0.00	91	242378	9.03	9.03		
2	Chlorobenzene	9.99		0.00	112	465591	8.86	8.86		
2	Ethylbenzene	10.08	-0.01	0.00	106	250480	8.71	8.71		
2	1,1,1,2-Tetrachloroethane	10.10		0.00	131	159272	8.59	8.59		
2	m,p-Xylenes	10.22		0.00	106	627273	18.00	18.0		
2	o-Xylene	10.66		0.00	106	290623	8.61	8.61		
2	Styrene	10.69		0.00	103	233765**m**	9.26	9.26		
2	Bromoform	10.91		0.00	173	81591	8.16	8.16		
2	Isopropylbenzene	11.05		0.00	105	795045	8.68	8.68		
2	cis-1,4-Dichloro-2-butene	11.22	-0.01	0.00	89	45324	25.20	25.2		
3	1,1,2,2-Tetrachloroethane	11.47		0.00	83	109360	7.26	7.26		
3	trans-1,4-Dichloro-2-butene	11.55	-0.16	-0.01	53	109700	23.64	23.6		
3	Bromobenzene	11.42		0.00	156	198244	8.51	8.51		
3	n-Propylbenzene	11.50		0.00	91	971843	8.93	8.93		
3	1,2,3-Trichloropropane	11.53	0.01	0.00	110	38402	7.59	7.59		
3	2-Chlorotoluene	11.62		0.00	91	559181	8.63	8.63		
3	1,3,5-Trimethylbenzene	11.71		0.00	105	668339	8.67	8.67		
3	4-Chlorotoluene	11.75		0.00	91	568291**m**	8.28	8.28		
3	tert-Butylbenzene	12.05		0.00	119	596408	8.38	8.38		
3	1,2,4-Trimethylbenzene	12.12		0.00	105	655254	8.50	8.50		
3	sec-Butylbenzene	12.29		0.00	105	857490	8.39	8.39		
3	4-Isopropyltoluene	12.45		0.00	119	741316	8.85	8.85		
3	1,3-Dichlorobenzene	12.45		0.00	146	395711	8.42	8.42		
3	1,4-Dichlorobenzene	12.56	0.01	0.00	146	398056	8.54	8.54		
3	n-Butylbenzene	12.90		0.00	91	656116	8.40	8.40		
3	1,2-Dichlorobenzene	12.97		0.00	146	354813	8.51	8.51		
3	1,2-Dibromo-3-chloropropane	13.86		0.00	155	16888	6.65	6.65		
3	1,3,5-Trichlorobenzene	14.02		0.00	180	304745	8.81	8.81		
3	1,2,4-Trichlorobenzene	14.72		0.00	180	243957	8.36	8.36		
3	Hexachlorobutadiene	14.85	-0.01	0.00	225	129943	8.44	8.44		

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D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS46\DATA\040815X\0408F005.D			**Instrument:**	GCMS46
Acqu Date:	04/08/2015 11:46	**Quant Date:**	04/09/2015 14:24	**Vial:**	5
Run Type:	LCS			**Dilution:**	1.0
Lab ID:	KWG1503029-3			**Soln Conc. Units:**	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Naphthalene	15.01		0.00	128	395469	7.63	7.63		
3	1,2,3-Trichlorobenzene	15.27		0.00	180	220132	8.43	8.43		
	Benzyl Chloride				0	0		1.0	U	NR
	Isopropyl Acetate				0	0		20	U	NR
	Cyclohexanone				0	0		1.0	U	NR
	2-Ethoxyethanol				0	0		1.0	U	NR
	Bis(2-chloroethyl) Ether				0	0		20	U	NR
	beta-Pinene				0	0		1.0	U	NR
	1,1,2-Trifluoroethane				0	0		1.0	U	NR
	2,2,4-Trimethylpentane				0	0		1.0	U	NR
	Bis(chloromethyl) Ether				0	0		1.0	U	NR
	Amyl Acetate				0	0		20	U	NR
	Bromoethane				0	0		1.0	U	NR
	Pentachloroethane				0	0		5.0	U	NR
	1,1-Dichloropropane				0	0		1.0	U	NR
	alpha-Pinene				0	0		1.0	U	NR
	1,1,1,2-Tetrafluoroethane				0	0		1.0	U	NR
	Nitrobenzene				0	0		20	U	NR

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

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E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File : J:\MS46\DATA\040815X\0408F005.D Vial: 5
Acq On : 08 Apr 2015 11:46 am Operator: KR
Sample : LCS Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 09 14:22:55 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	6.49	96	760520	10.00	PPB		0.00
64) Chlorobenzene-d5	9.95	82	309546	10.00	PPB		0.00
85) 1,4-Dichlorobenzene-d4	12.53	152	324541	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.68	113	199303	11.93	PPB		0.00
Spiked Amount 10.000			Recovery = 119.30%				
47) 1,2-Dichloroethane-d4	6.14	65	211331	11.98	PPB		0.00
Spiked Amount 10.000			Recovery = 119.80%				
62) Toluene-d8	8.33	98	736025	11.42	PPB		0.00
Spiked Amount 10.000			Recovery = 114.20%				
84) 4-Bromofluorobenzene	11.27	95	274318	11.44	PPB		0.00
Spiked Amount 10.000			Recovery = 114.40%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.10	85	184979	7.45	PPB		98
3) Chloromethane	1.26	50	197444	8.16	PPB		99
4) Vinyl Chloride	1.34	62	199653	8.89	PPB		96
6) Bromomethane	1.63	96	109194	8.37	PPB		95
7) Chloroethane	1.72	64	118591	9.96	PPB		99
8) Dichlorofluoromethane	1.93	67	338663	9.41	PPB		97
9) Trichlorofluoromethane	1.93	101	245162	8.27	PPB		97
10) Ethyl Ether	2.23	59	96549	7.69	PPB		93
11) Acrolein	2.43	56	165326	108.09	PPB		97
12) Trichlorotrifluoroethane	2.43	151	158502	9.84	PPB		99
13) 1,1-Dichloroethene	2.46	96	149614	9.76	PPB		97
14) Acetone	2.61	43	110512	43.85	PPB		98
15) Iodomethane	2.63	142	509603	33.07	PPB		99
16) Carbon Disulfide	2.65	76	1041568	18.79	PPB		99
18) 3-Chloro-1-propene	2.91	76	204718	21.05	PPB		91
20) Acetonitrile	3.03	40	136828	214.87	PPB		98
21) Methylene Chloride	3.11	84	155417	8.58	PPB		99
22) tert-Butyl Alcohol	3.31	59	41029	59.63	PPB		97
23) Acrylonitrile	3.56	53	122585	31.69	PPB		98
24) Methyl tert-Butyl Ether	3.39	73	356139	8.84	PPB		99
25) trans-1,2-Dichloroethene	3.40	96	168549	9.34	PPB		95
26) Hexane	3.71	57	545497	19.15	PPB		97
27) Diisopropyl Ether	4.16	45	967453	16.91	PPB		99
28) 1,1-Dichloroethane	4.12	63	300224	9.67	PPB		98
29) Vinyl Acetate	4.24	86	81327	26.63	PPB	#	80
30) Chloroprene	4.20	53	637446	25.15	PPB		98
31) tert-Butyl Ethyl Ether	4.72	59	839488	17.22	PPB		98

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS46\DATA\040815X\0408F005.D Vial: 5
Acq On : 08 Apr 2015 11:46 am Operator: KR
Sample : LCS Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 09 14:22:55 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
32)	2,2-Dichloropropane	4.95	77	255380	8.91	PPB		97
33)	cis-1,2-Dichloroethene	5.01	96	177405	8.94	PPB		97
34)	2-Butanone	5.10	72	42645	40.20	PPB		94
35)	Ethyl Acetate	5.16	61	32219	22.29	PPB		94
36)	Propionitrile	5.28	54	29865	21.89	PPB		93
37)	Methacrylonitrile	5.43	67	110875	23.29	PPB		91
38)	Bromochloromethane	5.34	128	77426	9.19	PPB		95
40)	Chloroform	5.47	83	305113	9.42	PPB		98
42)	1,1,1-Trichloroethane	5.61	97	274200	8.94	PPB		97
44)	Carbon Tetrachloride	5.77	117	244638	9.05	PPB		99
45)	1,1-Dichloropropene	5.84	75	242215	9.51	PPB		95
46)	Isobutyl Alcohol	6.18	43	48571	165.30	PPB		94
48)	Benzene	6.09	78	687383	9.11	PPB		98
49)	1,2-Dichloroethane	6.24	62	205224	8.93	PPB		97
50)	tert-Amyl Methyl Ether	6.25	55	188964	18.13	PPB	#	86
51)	Trichloroethene	6.91	95	184454	9.29	PPB		96
53)	1,2-Dichloropropane	7.24	63	155059	8.34	PPB		99
54)	Dibromomethane	7.37	93	82301	8.60	PPB		97
55)	Methyl methacrylate	7.40	69	182856	20.52	PPB		92
56)	1,4-Dioxane	7.41	88	28731	424.75	PPB		74
57)	Bromodichloromethane	7.57	83	206687	8.50	PPB		96
58)	2-Nitropropane	7.93	41	62239	19.21	PPB		98
59)	2-Chloroethyl Vinyl Ether	7.97	63	70939	8.15	PPB		96
60)	cis-1,3-Dichloropropene	8.10	75	234090	8.51	PPB		96
61)	4-Methyl-2-pentanone (MIBK	8.29	58	152720	40.93	PPB		99
63)	Toluene	8.40	92	424501	8.86	PPB		99
66)	trans-1,3-Dichloropropene	8.76	75	181038	7.63	PPB		99
67)	Ethyl methacrylate	8.83	69	371720	22.11	PPB		96
68)	1,1,2-Trichloroethane	8.96	83	97753	8.15	PPB		97
69)	Tetrachloroethene	8.97	164	173810	9.09	PPB		96
70)	2-Hexanone	9.23	57	46582	37.00	PPB		94
71)	1,3-Dichloropropane	9.14	76	203059	8.30	PPB		96
72)	Dibromochloromethane	9.34	129	139197	8.34	PPB		100
73)	1,2-Dibromoethane (EDB)	9.47	107	112654	8.40	PPB		95
74)	1-Chlorohexane	9.96	91	242378	9.03	PPB		98
75)	Chlorobenzene	9.99	112	465591	8.86	PPB		99
76)	Ethylbenzene	10.08	106	250480	8.71	PPB		88
77)	1,1,1,2-Tetrachloroethane	10.10	131	159272	8.59	PPB		98
78)	m,p-Xylenes	10.22	106	627273	18.00	PPB		95
79)	o-Xylene	10.66	106	290623	8.61	PPB		96
80)	Styrene	10.69	103	233765m	9.26	PPB		

(#) = qualifier out of range (m) = manual integration

04.10.15jal2nd Rev

Data File : J:\MS46\DATA\040815X\0408F005.D Vial: 5
Acq On : 08 Apr 2015 11:46 am Operator: KR
Sample : LCS Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 09 14:22:55 2015 Quant Results File: 031615MS46_8260

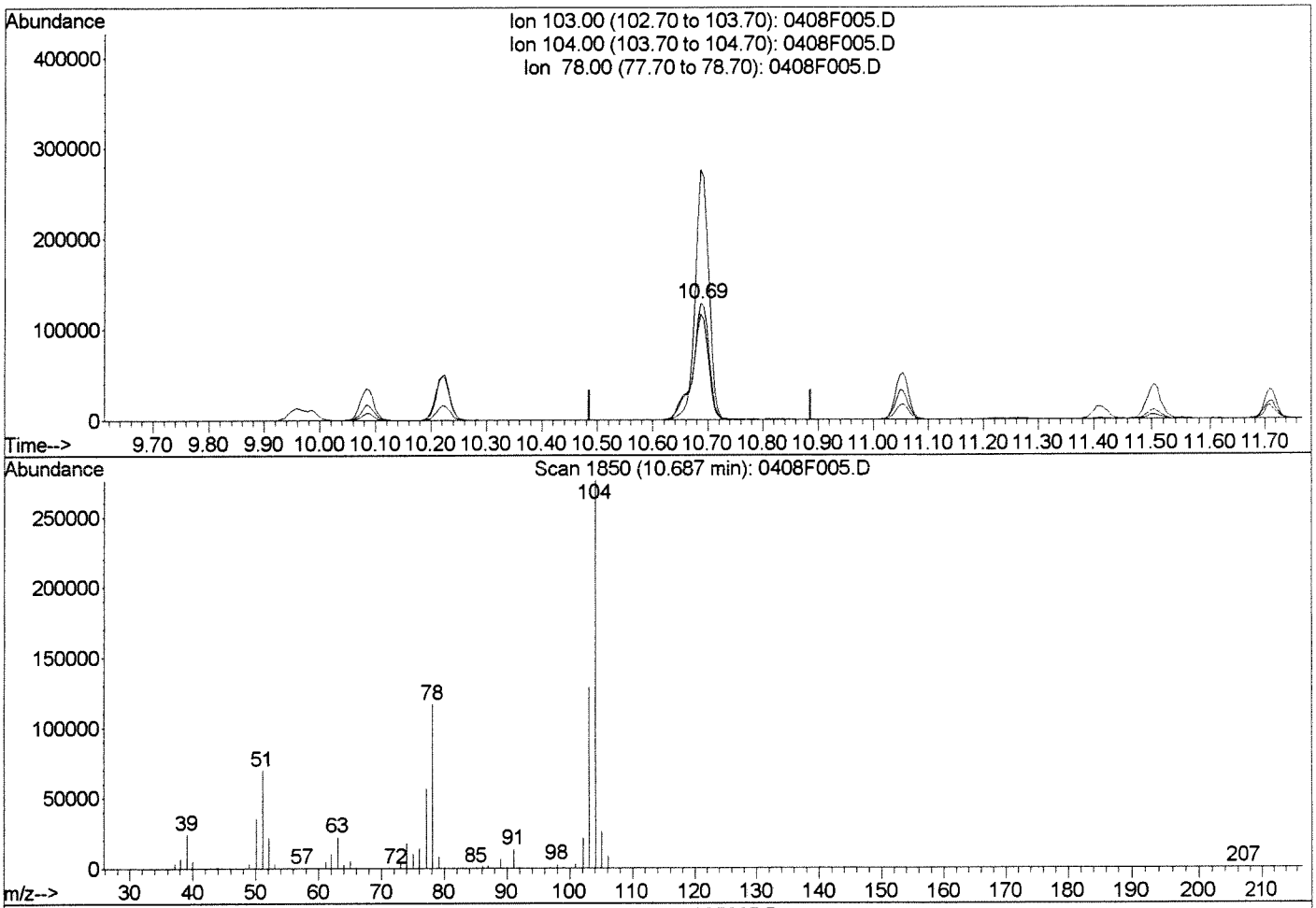
Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
81)	Bromoform	10.91	173	81591	8.16	PPB		97
82)	Isopropylbenzene	11.05	105	795045	8.68	PPB		98
83)	cis-1,4-Dichloro-2-butene	11.22	89	45324	25.20	PPB		97
86)	1,1,2,2-Tetrachloroethane	11.47	83	109360	7.26	PPB		98
87)	trans-1,4-Dichloro-2-buten	11.55	53	109700	23.64	PPB		96
88)	Bromobenzene	11.42	156	198244	8.51	PPB		96
89)	n-Propylbenzene	11.50	91	971843	8.93	PPB		98
90)	1,2,3-Trichloropropane	11.53	110	38402	7.59	PPB	#	83
91)	2-Chlorotoluene	11.62	91	559181	8.63	PPB		98
92)	1,3,5-Trimethylbenzene	11.71	105	668339	8.67	PPB		99
93)	4-Chlorotoluene	11.75	91	568291m	8.28	PPB		
94)	tert-Butylbenzene	12.05	119	596408	8.38	PPB		99
95)	1,2,4-Trimethylbenzene	12.12	105	655254	8.50	PPB		97
96)	sec-Butylbenzene	12.29	105	857490	8.39	PPB		99
97)	p-Isopropyltoluene	12.45	119	741316	8.85	PPB		99
98)	1,3-Dichlorobenzene	12.45	146	395711	8.42	PPB		99
99)	1,4-Dichlorobenzene	12.56	146	398056	8.54	PPB		96
100)	n-Butylbenzene	12.90	91	656116	8.40	PPB		100
101)	1,2-Dichlorobenzene	12.97	146	354813	8.51	PPB		98
102)	1,2-Dibromo-3-chloropropan	13.86	155	16888	6.65	PPB		92
103)	1,3,5-Trichlorobenzene	14.02	180	304745	8.81	PPB		97
104)	1,2,4-Trichlorobenzene	14.72	180	243957	8.36	PPB		99
105)	Hexachlorobutadiene	14.85	225	129943	8.44	PPB		96
106)	Naphthalene	15.01	128	395469	7.63	PPB		98
107)	1,2,3-Trichlorobenzene	15.27	180	220132	8.43	PPB		92

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS46\DATA\040815X\0408F005.D Vial: 5
Acq On : 08 Apr 2015 11:46 am Operator: KR
Sample : LCS Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 9 14:24 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Multiple Level Calibration



TIC: 0408F005.D

(80) Styrene (T)

10.69min 10.46PPB

response 264205

Ion	Exp%	Act%
103.00	100	100
104.00	198.60	214.26
78.00	88.20	90.53
0.00	0.00	0.00

Manual Integration:

Before

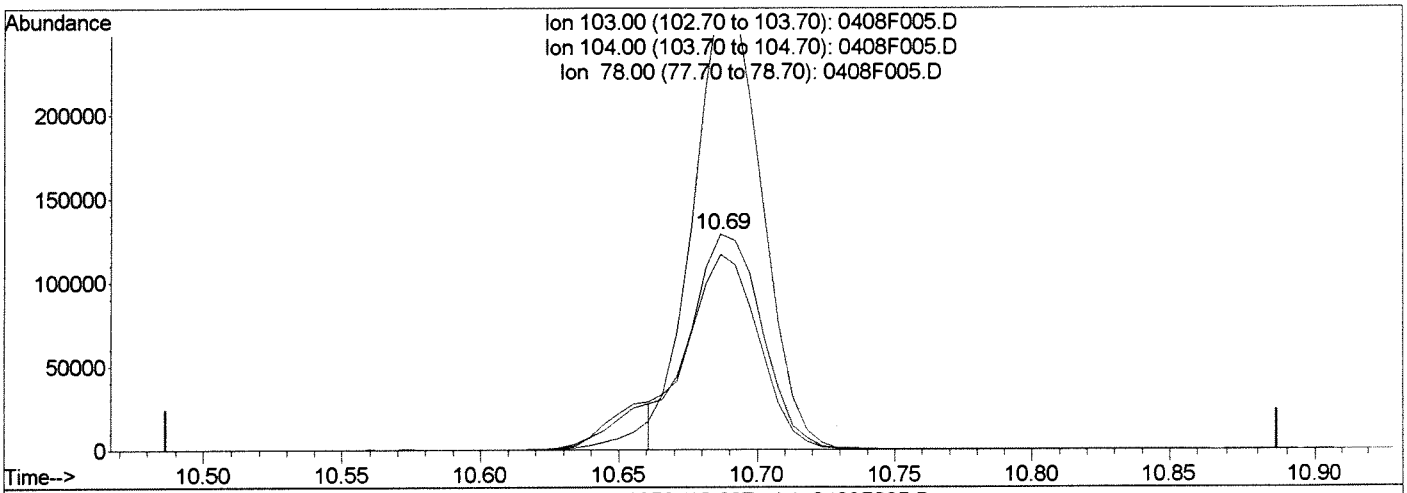
04/09/15

0408F005.D 031615MS46_8260.M Thu Apr 09 14:24:36 2015

04.10.15jal2nd Rev

Data File : J:\MS46\DATA\040815X\0408F005.D Vial: 5
Acq On : 08 Apr 2015 11:46 am Operator: KR
Sample : LCS Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 9 14:24 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Multiple Level Calibration



TIC: 0408F005.D

(80) Styrene (T)

10.69min 9.26PPB m

response 233765

Ion	Exp%	Act%
103.00	100	100
104.00	198.60	214.26
78.00	88.20	90.53
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

04/09/15

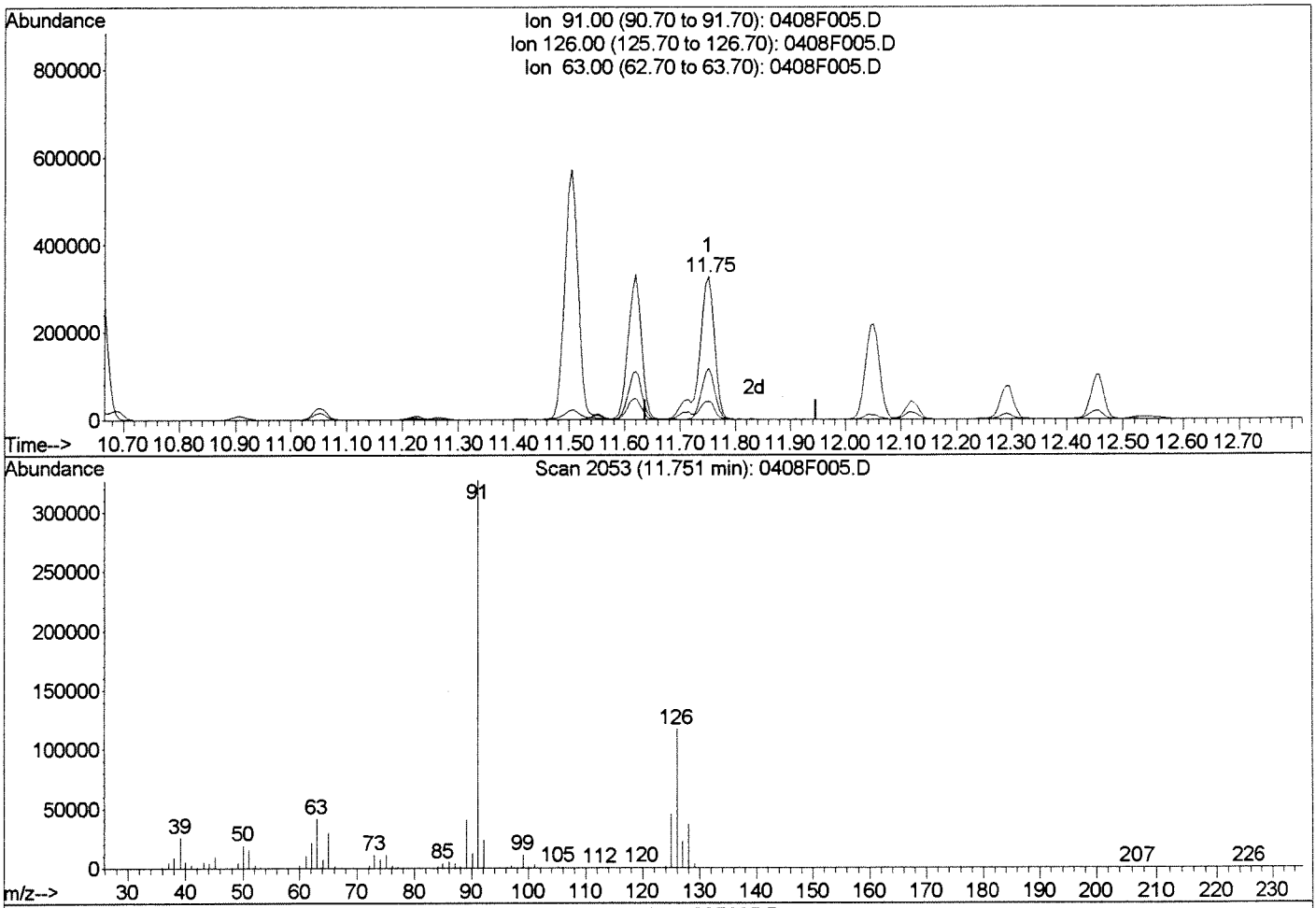
0408F005.D 031615MS46_8260.M Thu Apr 09 14:24:40 2015

04.10.15jal2nd Rev

Quantitation Report (Quan)

Data File : J:\MS46\DATA\040815X\0408F005.D Vial: 5
Acq On : 08 Apr 2015 11:46 am Operator: KR
Sample : LCS Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 9 14:24 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Multiple Level Calibration



TIC: 0408F005.D

(93) 4-Chlorotoluene (T)

11.75min 9.28PPB

response 636797

Ion	Exp%	Act%
91.00	100	100
126.00	34.80	35.85
63.00	12.80	12.74
0.00	0.00	0.00

Manual Integration:

Before

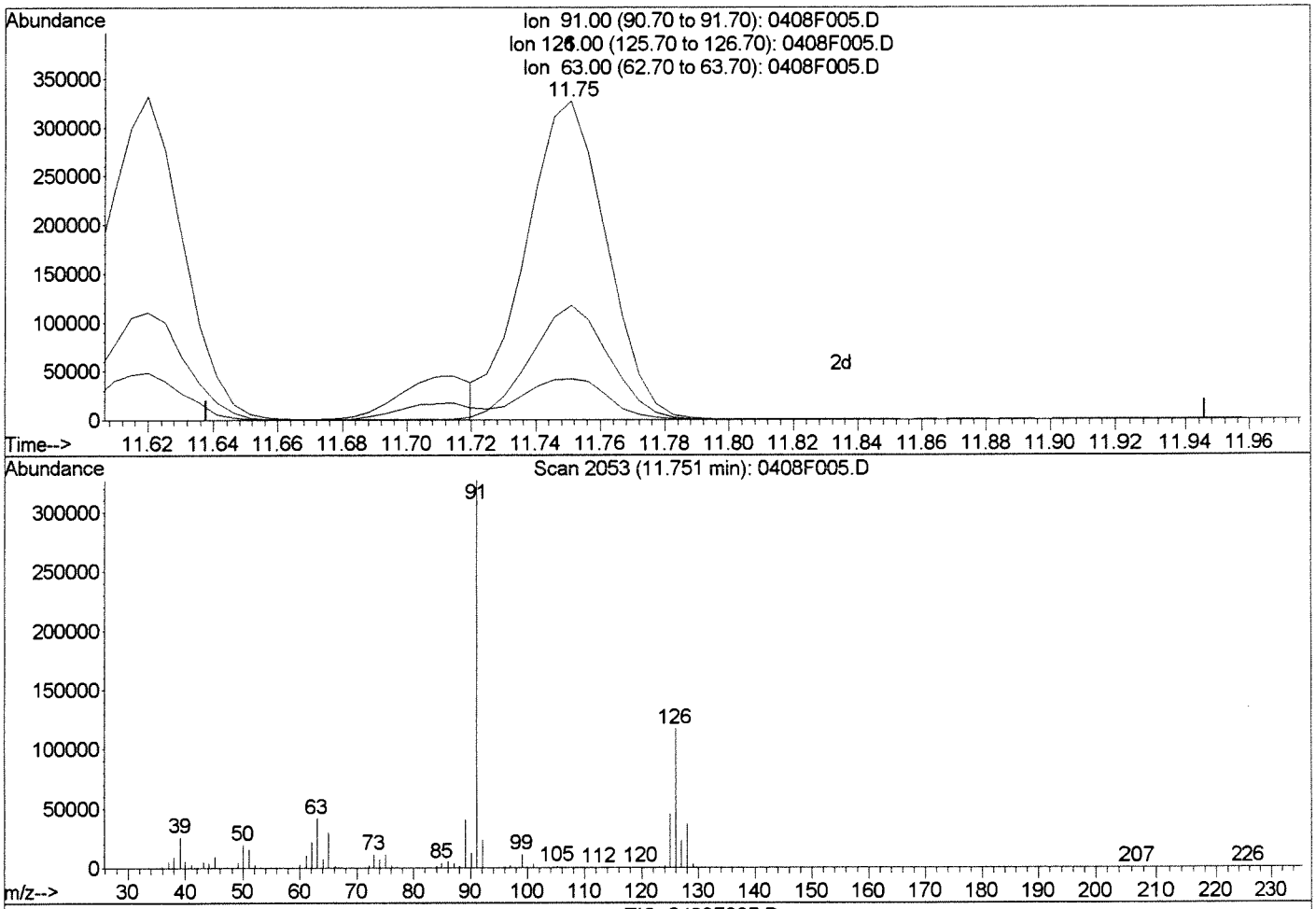
04/09/15

0408F005.D 031615MS46_8260.M Thu Apr 09 14:24:44 2015

04.10.15jal2ndRev

Data File : J:\MS46\DATA\040815X\0408F005.D Vial: 5
Acq On : 08 Apr 2015 11:46 am Operator: KR
Sample : LCS Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 9 14:24 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Multiple Level Calibration



TIC: 0408F005.D

(93) 4-Chlorotoluene (T)

11.75min 8.28PPB m

response 568291

Ion	Exp%	Act%
91.00	100	100
126.00	34.80	35.82
63.00	12.80	12.73
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

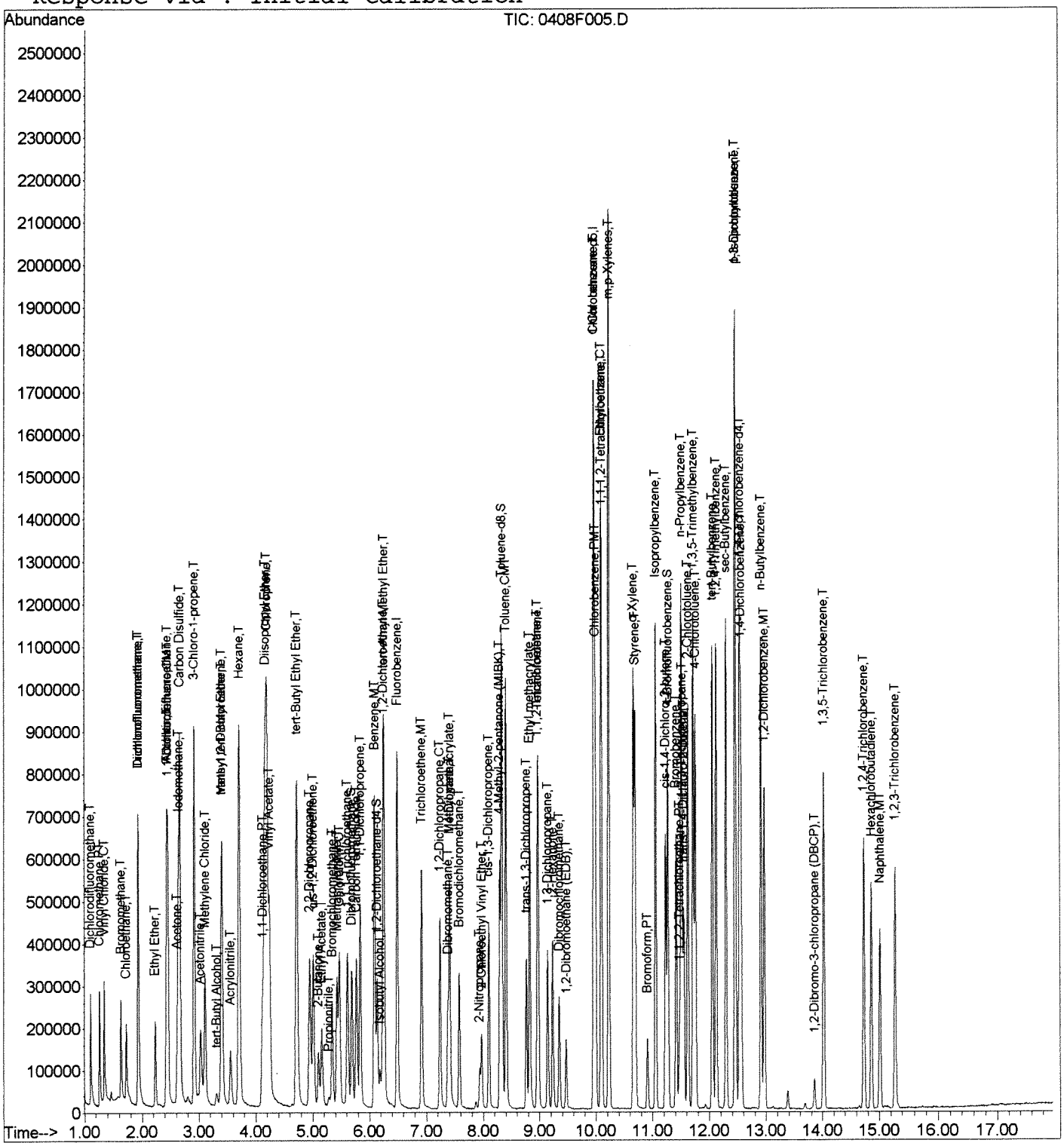
04/09/15

0408F005.D 031615MS46_8260.M Thu Apr 09 14:24:50 2015

04.10.15jal2nd Rev

Data File : J:\MS46\DATA\040815X\0408F005.D Vial: 5
Acq On : 08 Apr 2015 11:46 am Operator: KR
Sample : LCS Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 9 14:24 2015 Quant Results File: 031615MS46_8

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Initial Calibration



Data File : J:\MS46\DATA\040815X\0408F006.D Vial: 5
Acq On : 08 Apr 2015 12:09 pm Operator: KR
Sample : DLCS Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 09 14:25:09 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	6.49	96	759842	10.00	PPB		0.00
64) Chlorobenzene-d5	9.96	82	308631	10.00	PPB		0.00
85) 1,4-Dichlorobenzene-d4	12.53	152	317060	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.69	113	197785	11.85	PPB		0.00
Spiked Amount 10.000			Recovery =	118.50%			
47) 1,2-Dichloroethane-d4	6.14	65	214798	12.18	PPB		0.00
Spiked Amount 10.000			Recovery =	121.80%			
62) Toluene-d8	8.33	98	734278	11.41	PPB		0.00
Spiked Amount 10.000			Recovery =	114.10%			
84) 4-Bromofluorobenzene	11.27	95	273644	11.45	PPB		0.00
Spiked Amount 10.000			Recovery =	114.50%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.10	85	178303	7.19	PPB		98
3) Chloromethane	1.26	50	191855	7.93	PPB		99
4) Vinyl Chloride	1.34	62	188236	8.39	PPB		98
6) Bromomethane	1.63	96	104458	8.01	PPB		95
7) Chloroethane	1.72	64	118320	9.95	PPB		97
8) Dichlorofluoromethane	1.93	67	331543	9.22	PPB		97
9) Trichlorofluoromethane	1.93	101	241992	8.17	PPB		97
10) Ethyl Ether	2.23	59	103401	8.24	PPB		100
11) Acrolein	2.44	56	193510	126.63	PPB		96
12) Trichlorotrifluoroethane	2.43	151	154793	9.62	PPB		98
13) 1,1-Dichloroethene	2.45	96	148269	9.68	PPB		99
14) Acetone	2.62	43	141946	56.38	PPB		99
15) Iodomethane	2.63	142	484496	31.47	PPB		97
16) Carbon Disulfide	2.66	76	960852	17.35	PPB		99
18) 3-Chloro-1-propene	2.92	76	196341	20.21	PPB		90
20) Acetonitrile	3.03	40	173543	272.77	PPB		97
21) Methylene Chloride	3.11	84	154557	8.54	PPB		97
22) tert-Butyl Alcohol	3.32	59	61133	88.92	PPB		98
23) Acrylonitrile	3.56	53	144556	37.40	PPB		94
24) Methyl tert-Butyl Ether	3.40	73	399590	9.93	PPB		96
25) trans-1,2-Dichloroethene	3.41	96	166415	9.23	PPB		93
26) Hexane	3.71	57	539014	18.94	PPB		97
27) Diisopropyl Ether	4.17	45	1006944	17.62	PPB		99
28) 1,1-Dichloroethane	4.12	63	297303	9.58	PPB		98
29) Vinyl Acetate	4.25	86	86895	28.47	PPB	#	92
30) Chloroprene	4.20	53	613504	24.23	PPB		98
31) tert-Butyl Ethyl Ether	4.73	59	915884	18.80	PPB		99

(#) = qualifier out of range (m) = manual integration

Exception Report

Data File: J:\MS46\DATA\040815X\0408F006.D
Lab ID: KWG1503029-4
RunType: DLCS
Matrix: WATER

Date Acquired: 04/08/2015 12:09
Date Quantitated: 04/09/2015 14:25
Batch ID: KWG1503030
Analysis Method: 8260C
MethodJoinID: MJ119

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA		x
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA		x
Continuing Calibration Minimum RF	NA	NA	NA		x
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	2-Propanol	0.0054	0.01	NA	NS
	Acetonitrile	0.0084	0.01	NA	
	tert-Butyl Alcohol	0.0090	0.01	NA	
	Isobutyl Alcohol	0.0039	0.01	NA	
	1,4-Dioxane	0.0009	0.01	NA	
Second Source ICAL Verification	1,4-Dioxane	-40.6	NA	30	
Continuing Calibration Recovery	Dichlorodifluoromethane	-28.0	NA	20	CCVOL
	1,3-Butadiene	-29.8	NA	20	MF
	2-Propanol	-53.6	NA	20	
	Methyl Acetate	-24.2	NA	20	
	tert-Butyl Alcohol	-42.4	NA	20	
	2-Butanone (MEK)	-27.0	NA	20	CCVOL
	Methyl Methacrylate	-25.3	NA	20	MF

Primary Review: KWG 4/9/15

Secondary Review: [illegible] 4/10/15

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
	1,4-Dioxane	-70.8	NA	20	NT
	2-Chloroethyl Vinyl Ether	-22.0	NA	20	
	n-Octane	-96.5	NA	20	
	2-Hexanone	-23.9	NA	20	CCVK
	trans-1,4-Dichloro-2-butene	-51.9	NA	20	NT
	1,2-Dibromo-3-chloropropane	-29.4	NA	20	CCVK
Continuing Calibration Minimum RF	2-Propanol	0.0025	0.01	NA	NT
	Methyl Acetate	0.0881	0.100	NA	
	tert-Butyl Alcohol	0.0052	0.01	NA	
	1,4-Dioxane	0.0003	0.01	NA	

Primary Review: KM 4/9/15

Secondary Review: 4.10.15

Quantitation Report

Data File:	J:\MS46\DATA\040815X\0408F006.D			**Instrument:**	GCMS46
Acqu Date:	04/08/2015 12:09	**Quant Date:**	04/09/2015 14:25	**Vial:**	5
Run Type:	DLCS			**Dilution:**	1.0
Lab ID:	KWG1503029-4			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**		**Receive Date:**	04/08/2015

Analysis Lot:	KWG1503030	**Prep Lot:**	KWG1503029	**Report Group:**	
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
		Prep Date:	04/08/2015		
Prep Ref:	1425874				

Quant Method:	J:\MS46\METHODS\031615MS46_8	**Calibration ID:**	CAL13899
Title:			
Tune Ref:	J:\MS46\DATA\040815X\0408F003.D	**Method ID:**	MJ119
MB Ref:	J:\MS46\DATA\040815X\0408F011.D	**Quant based on Method**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	6.49	0.00	96	759842	10.00	OK
2	Chlorobenzene-d5	9.96	0.00	82	308631	10.00	OK
3	1,4-Dichlorobenzene-d4	12.53	0.00	152	317060	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.69	0.00	0.00	113	197785	11.85	119	73-122	OK	
1	1,2-Dichloroethane-d4	6.14	0.00	0.00	65	214798	12.18	122	59-127	OK	
1	Toluene-d8	8.33	0.00	0.00	98	734278	11.41	114	65-144	OK	
2	4-Bromofluorobenzene	11.27	0.00	0.00	95	273644	11.45	115	68-117	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane	1.10		0.00	85	178303	7.19	7.19		
1	Chloromethane	1.26		0.00	50	191855	7.93	7.93		
1	Vinyl Chloride	1.34		0.00	62	188236	8.39	8.39		
1	1,3-Butadiene				54	0d		0.50	U	
1	Bromomethane	1.63		0.00	96	104458	8.01	8.01		
1	Chloroethane	1.72	-0.01	0.00	64	118320	9.95	9.95		
1	Dichlorofluoromethane (CFC 21	1.93		0.00	67	331543	9.22	9.22		
1	Trichlorofluoromethane	1.93		0.00	101	241992	8.17	8.17		
1	Ethyl Ether	2.23		0.00	59	103401	8.24	8.24		
1	Acrolein	2.44	0.01	0.00	56	193510	126.63	127		
1	Trichlorotrifluoroethane	2.43		0.00	151	154793	9.62	9.62		
1	1,1-Dichloroethene	2.45		0.00	96	148269	9.68	9.68		
1	Acetone	2.62	0.01	0.00	43	141946	56.38	56.4		
1	Iodomethane	2.63		0.00	142	484496	31.47	31.5		

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS46\DATA\040815X\0408F006.D			**Instrument:**	GCMS46
Acqu Date:	04/08/2015 12:09	**Quant Date:**	04/09/2015 14:25	**Vial:**	5
Run Type:	DLCS			**Dilution:**	1.0
Lab ID:	KWG1503029-4			**Soln Conc. Units:**	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Disulfide	2.66		0.00	76	960852	17.35	17.4		
1	2-Propanol				45	0**d**		17	U	
1	3-Chloro-1-propene	2.92	0.01	0.00	76	196341	20.21	20.2		
1	Methyl Acetate				43	0**d**		0.38	U	
1	Acetonitrile	3.03		0.00	40	173543	272.77	273		
1	Methylene Chloride	3.11		0.00	84	154557	8.54	8.54		
1	tert-Butyl Alcohol	3.32	0.02	0.00	59	61133	88.92	88.9		
1	Acrylonitrile	3.56		0.00	53	144556	37.40	37.4		
1	Methyl tert-Butyl Ether	3.40	0.01	0.00	73	399590	9.93	9.93		
1	trans-1,2-Dichloroethene	3.41	0.01	0.00	96	166415	9.23	9.23		
1	n-Hexane	3.71		0.00	57	539014	18.94	18.9		
1	Diisopropyl Ether	4.17	0.01	0.00	45	1006944	17.62	17.6		
1	1,1-Dichloroethane	4.12		0.00	63	297303	9.58	9.58		
1	Vinyl Acetate	4.25	0.01	0.00	86	86895	28.47	28.5		
1	Chloroprene	4.20		0.00	53	613504	24.23	24.2		
1	tert-Butyl Ethyl Ether	4.73	0.01	0.00	59	915884	18.80	18.8		
1	2,2-Dichloropropane	4.95		0.00	77	248359	8.67	8.67		
1	cis-1,2-Dichloroethene	5.01		0.00	96	176541	8.91	8.91		
1	2-Butanone (MEK)	5.11	0.01	0.00	72	53354	50.34	50.3		
1	Ethyl Acetate	5.17	0.01	0.00	61	41457	28.70	28.7		
1	Propionitrile	5.29		0.00	54	36397	26.70	26.7		
1	Methacrylonitrile	5.43		0.00	67	127965	26.90	26.9		
1	Bromochloromethane	5.35	0.01	0.00	128	77463	9.20	9.20		
1	Tetrahydrofuran				71	0**d**		0.94	U	
1	Chloroform	5.47		0.00	83	293384	9.07	9.07		
1	Cyclohexane				56	0**d**		0.36	U	
1	1,1,1-Trichloroethane (TCA)	5.61	-0.01	0.00	97	268154	8.75	8.75		
1	Carbon Tetrachloride	5.77		0.00	117	238836	8.84	8.84		
1	1,1-Dichloropropene	5.84		0.00	75	233417	9.18	9.18		
1	Isobutyl Alcohol	6.19		0.00	43	65606	223.47	223		
1	Benzene	6.09		0.00	78	663685	8.80	8.80		
1	1,2-Dichloroethane (EDC)	6.24		0.00	62	210110	9.15	9.15		
1	tert-Amyl Methyl Ether	6.26	0.01	0.00	55	208386	20.01	20.0		
1	Trichloroethene (TCE)	6.92		0.00	95	180989	9.13	9.13		
1	Methylcyclohexane				83	0**d**		0.33	U	
1	1,2-Dichloropropane	7.24		0.00	63	158737	8.54	8.54		
1	Dibromomethane	7.38	0.01	0.00	93	88502	9.26	9.26		
1	Methyl Methacrylate	7.41		0.00	69	217078	24.38	24.4		
1	1,4-Dioxane	7.41		0.00	88	28357	419.60	420		
1	Bromodichloromethane	7.57		0.00	83	207456	8.54	8.54		
1	2-Nitropropane	7.93		0.00	41	76064	23.50	23.5		
1	2-Chloroethyl Vinyl Ether	7.97		0.00	63	78725	9.06	9.06		

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS46\DATA\040815X\0408F006.D			**Instrument:**	GCMS46
Acqu Date:	04/08/2015 12:09	**Quant Date:**	04/09/2015 14:25	**Vial:**	5
Run Type:	DLCS			**Dilution:**	1.0
Lab ID:	KWG1503029-4			**Soln Conc. Units:**	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	cis-1,3-Dichloropropene	8.10		0.00	75	239656	8.72	8.72		
1	4-Methyl-2-pentanone (MIBK)	8.29		0.00	58	188246	50.50	50.5		
1	Toluene	8.41	0.01	0.00	92	415314	8.68	8.68		
2	n-Octane				85	0**d**		0.16	U	
2	trans-1,3-Dichloropropene	8.77	0.01	0.00	75	189436	8.01	8.01		
2	Ethyl Methacrylate	8.83		0.00	69	436039	26.02	26.0		
2	1,1,2-Trichloroethane	8.96		0.00	83	106113	8.87	8.87		
2	Tetrachloroethene (PCE)	8.97		0.00	164	169568	8.89	8.89		
2	2-Hexanone	9.23		0.00	57	60916	48.52	48.5		
2	1,3-Dichloropropane	9.14		0.00	76	218006	8.94	8.94		
2	Dibromochloromethane	9.34		0.00	129	147674	8.88	8.88		
2	1,2-Dibromoethane (EDB)	9.47	0.01	0.00	107	120002	8.97	8.97		
2	1-Chlorohexane	9.96		0.00	91	241332	9.02	9.02		
2	Chlorobenzene	9.99		0.00	112	464286	8.86	8.86		
2	Ethylbenzene	10.08	-0.01	0.00	106	245805	8.58	8.58		
2	1,1,1,2-Tetrachloroethane	10.09	-0.01	0.00	131	162773	8.80	8.80		
2	m,p-Xylenes	10.22		0.00	106	621182	17.88	17.9		
2	o-Xylene	10.66		0.00	106	286908	8.53	8.53		
2	Styrene	10.69		0.00	103	223697**m**	8.88	8.88		
2	Bromoform	10.91		0.00	173	88560	8.88	8.88		
2	Isopropylbenzene	11.05		0.00	105	790360	8.66	8.66		
2	cis-1,4-Dichloro-2-butene	11.22	-0.01	0.00	89	53220	29.44	29.4		
3	1,1,2,2-Tetrachloroethane	11.47		0.00	83	124833	8.48	8.48		
3	trans-1,4-Dichloro-2-butene	11.55	-0.16	-0.01	53	126126	27.82	27.8		
3	Bromobenzene	11.42		0.00	156	202695	8.91	8.91		
3	n-Propylbenzene	11.50		0.00	91	957986	9.01	9.01		
3	1,2,3-Trichloropropane	11.52		0.00	110	44867	9.08	9.08		
3	2-Chlorotoluene	11.62		0.00	91	550230	8.69	8.69		
3	1,3,5-Trimethylbenzene	11.71		0.00	105	667559	8.87	8.87		
3	4-Chlorotoluene	11.75		0.00	91	567812**m**	8.47	8.47		
3	tert-Butylbenzene	12.05		0.00	119	595278	8.56	8.56		
3	1,2,4-Trimethylbenzene	12.12		0.00	105	652278	8.66	8.66		
3	sec-Butylbenzene	12.29		0.00	105	864436	8.66	8.66		
3	4-Isopropyltoluene	12.45		0.00	119	751546	9.18	9.18		
3	1,3-Dichlorobenzene	12.45		0.00	146	399920	8.71	8.71		
3	1,4-Dichlorobenzene	12.56	0.01	0.00	146	402171	8.83	8.83		
3	n-Butylbenzene	12.90		0.00	91	671378	8.80	8.80		
3	1,2-Dichlorobenzene	12.97		0.00	146	370406	9.09	9.09		
3	1,2-Dibromo-3-chloropropane	13.85	-0.01	0.00	155	20553	8.28	8.28		
3	1,3,5-Trichlorobenzene	14.02		0.00	180	318899	9.44	9.44		
3	1,2,4-Trichlorobenzene	14.72		0.00	180	264480	9.28	9.28		
3	Hexachlorobutadiene	14.86		0.00	225	132340	8.80	8.80		

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS46\DATA\040815X\0408F006.D			**Instrument:**	GCMS46
Acqu Date:	04/08/2015 12:09	**Quant Date:**	04/09/2015 14:25	**Vial:**	5
Run Type:	DLCS			**Dilution:**	1.0
Lab ID:	KWG1503029-4			**Soln Conc. Units:**	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Naphthalene	15.01		0.00	128	462052	9.13	9.13		
3	1,2,3-Trichlorobenzene	15.27		0.00	180	235698	9.24	9.24		
	Benzyl Chloride				0	0		1.0	U	NR
	Isopropyl Acetate				0	0		20	U	NR
	Cyclohexanone				0	0		1.0	U	NR
	2-Ethoxyethanol				0	0		1.0	U	NR
	Bis(2-chloroethyl) Ether				0	0		20	U	NR
	beta-Pinene				0	0		1.0	U	NR
	1,1,2-Trifluoroethane				0	0		1.0	U	NR
	2,2,4-Trimethylpentane				0	0		1.0	U	NR
	Bis(chloromethyl) Ether				0	0		1.0	U	NR
	Amyl Acetate				0	0		20	U	NR
	Bromoethane				0	0		1.0	U	NR
	Pentachloroethane				0	0		5.0	U	NR
	1,1-Dichloropropane				0	0		1.0	U	NR
	alpha-Pinene				0	0		1.0	U	NR
	1,1,1,2-Tetrafluoroethane				0	0		1.0	U	NR
	Nitrobenzene				0	0		20	U	NR

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File : J:\MS46\DATA\040815X\0408F006.D Vial: 5
Acq On : 08 Apr 2015 12:09 pm Operator: KR
Sample : DLCS Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 09 14:25:09 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
32)	2,2-Dichloropropane	4.95	77	248359	8.67	PPB		95
33)	cis-1,2-Dichloroethene	5.01	96	176541	8.91	PPB		99
34)	2-Butanone	5.11	72	53354	50.34	PPB		92
35)	Ethyl Acetate	5.17	61	41457	28.70	PPB		97
36)	Propionitrile	5.29	54	36397	26.70	PPB		98
37)	Methacrylonitrile	5.43	67	127965	26.90	PPB		97
38)	Bromochloromethane	5.35	128	77463	9.20	PPB		93
40)	Chloroform	5.47	83	293384	9.07	PPB		100
42)	1,1,1-Trichloroethane	5.61	97	268154	8.75	PPB		98
44)	Carbon Tetrachloride	5.77	117	238836	8.84	PPB		98
45)	1,1-Dichloropropene	5.84	75	233417	9.18	PPB		94
46)	Isobutyl Alcohol	6.19	43	65606	223.47	PPB		94
48)	Benzene	6.09	78	663685	8.80	PPB		98
49)	1,2-Dichloroethane	6.24	62	210110	9.15	PPB		97
50)	tert-Amyl Methyl Ether	6.26	55	208386	20.01	PPB	#	87
51)	Trichloroethene	6.92	95	180989	9.13	PPB		97
53)	1,2-Dichloropropane	7.24	63	158737	8.54	PPB		93
54)	Dibromomethane	7.38	93	88502	9.26	PPB		98
55)	Methyl methacrylate	7.41	69	217078	24.38	PPB		98
56)	1,4-Dioxane	7.41	88	28357	419.60	PPB		71
57)	Bromodichloromethane	7.57	83	207456	8.54	PPB		99
58)	2-Nitropropane	7.93	41	76064	23.50	PPB		100
59)	2-Chloroethyl Vinyl Ether	7.97	63	78725	9.06	PPB		95
60)	cis-1,3-Dichloropropene	8.10	75	239656	8.72	PPB		99
61)	4-Methyl-2-pentanone (MIBK	8.29	58	188246	50.50	PPB		99
63)	Toluene	8.41	92	415314	8.68	PPB		96
66)	trans-1,3-Dichloropropene	8.77	75	189436	8.01	PPB		97
67)	Ethyl methacrylate	8.83	69	436039	26.02	PPB		99
68)	1,1,2-Trichloroethane	8.96	83	106113	8.87	PPB		99
69)	Tetrachloroethene	8.97	164	169568	8.89	PPB		98
70)	2-Hexanone	9.23	57	60916	48.52	PPB		99
71)	1,3-Dichloropropane	9.14	76	218006	8.94	PPB		99
72)	Dibromochloromethane	9.34	129	147674	8.88	PPB		98
73)	1,2-Dibromoethane (EDB)	9.47	107	120002	8.97	PPB		97
74)	1-Chlorohexane	9.96	91	241332	9.02	PPB		95
75)	Chlorobenzene	9.99	112	464286	8.86	PPB		99
76)	Ethylbenzene	10.08	106	245805	8.58	PPB		98
77)	1,1,1,2-Tetrachloroethane	10.09	131	162773	8.80	PPB		98
78)	m,p-Xylenes	10.22	106	621182	17.88	PPB		100
79)	o-Xylene	10.66	106	286908	8.53	PPB		99
80)	Styrene	10.69	103	223697m	8.88	PPB		

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS46\DATA\040815X\0408F006.D Vial: 5
Acq On : 08 Apr 2015 12:09 pm Operator: KR
Sample : DLCS Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 09 14:25:09 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

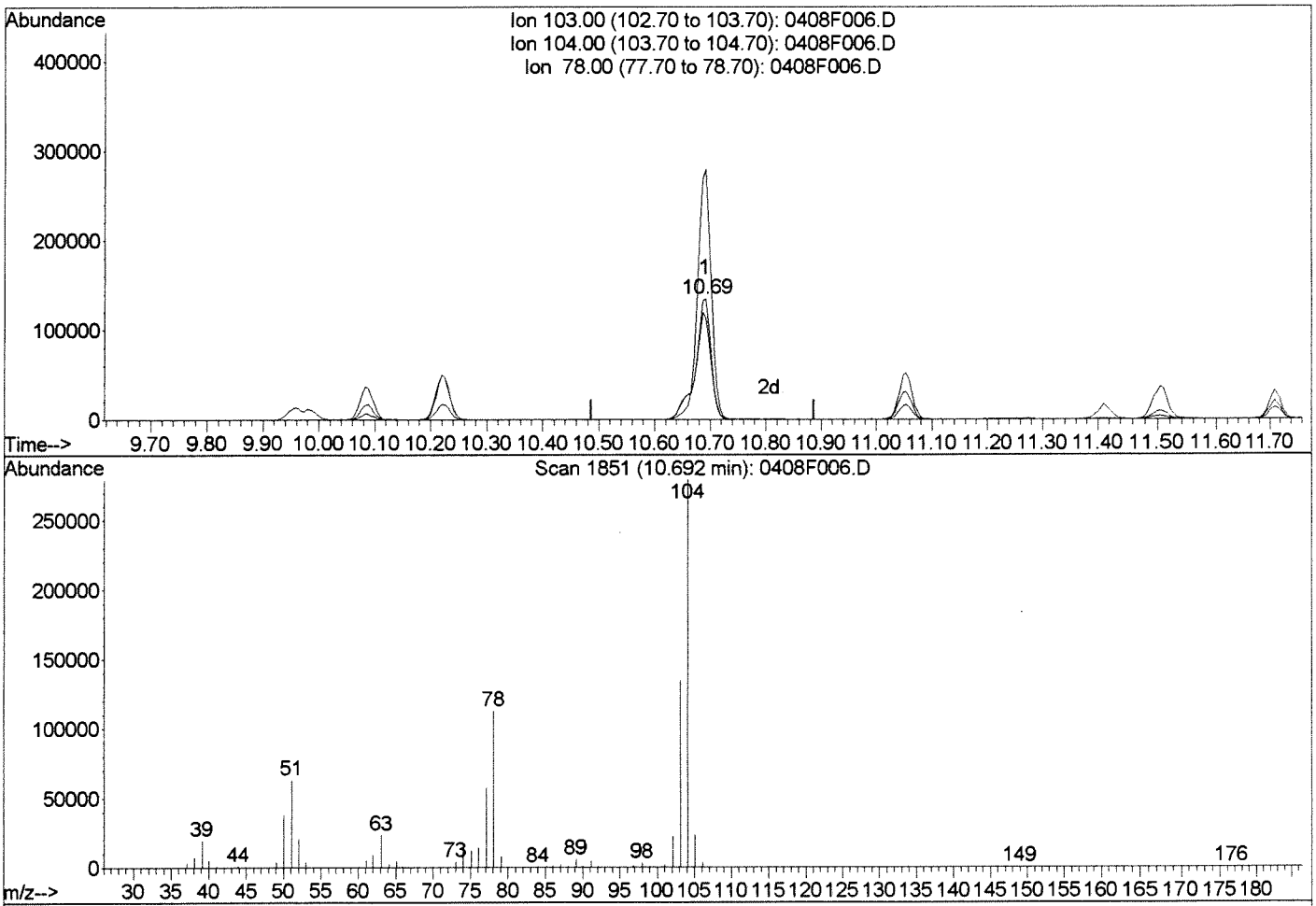
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
81)	Bromoform	10.91	173	88560	8.88	PPB		99
82)	Isopropylbenzene	11.05	105	790360	8.66	PPB		98
83)	cis-1,4-Dichloro-2-butene	11.22	89	53220	29.44	PPB		95
86)	1,1,2,2-Tetrachloroethane	11.47	83	124833	8.48	PPB		97
87)	trans-1,4-Dichloro-2-buten	11.55	53	126126	27.82	PPB		94
88)	Bromobenzene	11.42	156	202695	8.91	PPB		94
89)	n-Propylbenzene	11.50	91	957986	9.01	PPB		98
90)	1,2,3-Trichloropropane	11.52	110	44867	9.08	PPB	#	84
91)	2-Chlorotoluene	11.62	91	550230	8.69	PPB		98
92)	1,3,5-Trimethylbenzene	11.71	105	667559	8.87	PPB		100
93)	4-Chlorotoluene	11.75	91	567812m	8.47	PPB		
94)	tert-Butylbenzene	12.05	119	595278	8.56	PPB		100
95)	1,2,4-Trimethylbenzene	12.12	105	652278	8.66	PPB		99
96)	sec-Butylbenzene	12.29	105	864436	8.66	PPB		98
97)	p-Isopropyltoluene	12.45	119	751546	9.18	PPB		98
98)	1,3-Dichlorobenzene	12.45	146	399920	8.71	PPB		99
99)	1,4-Dichlorobenzene	12.56	146	402171	8.83	PPB		96
100)	n-Butylbenzene	12.90	91	671378	8.80	PPB		97
101)	1,2-Dichlorobenzene	12.97	146	370406	9.09	PPB		97
102)	1,2-Dibromo-3-chloropropan	13.85	155	20553	8.28	PPB		80
103)	1,3,5-Trichlorobenzene	14.02	180	318899	9.44	PPB		99
104)	1,2,4-Trichlorobenzene	14.72	180	264480	9.28	PPB		97
105)	Hexachlorobutadiene	14.86	225	132340	8.80	PPB		95
106)	Naphthalene	15.01	128	462052	9.13	PPB		97
107)	1,2,3-Trichlorobenzene	15.27	180	235698	9.24	PPB		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qual)

Data File : J:\MS46\DATA\040815X\0408F006.D Vial: 5
Acq On : 08 Apr 2015 12:09 pm Operator: KR
Sample : DLCS Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 9 14:25 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Multiple Level Calibration



TIC: 0408F006.D

(80) Styrene (T)

10.69min 10.43PPB

response 262603

Ion	Exp%	Act%
103.00	100	100
104.00	198.60	207.56
78.00	88.20	83.63
0.00	0.00	0.00

Manual Integration:

Before

04/09/15

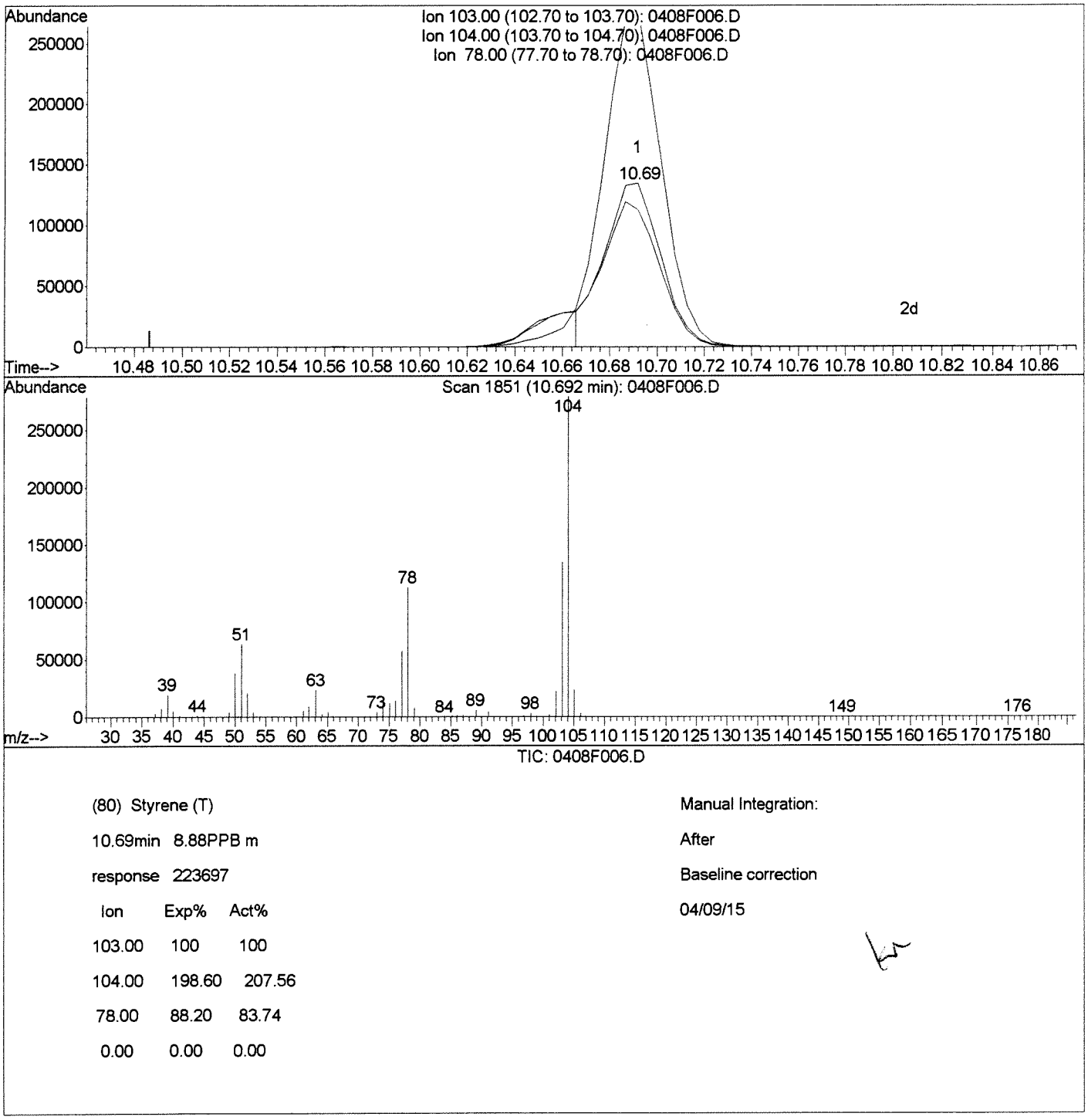
0408F006.D 031615MS46_8260.M Thu Apr 09 14:25:26 2015

04.10.15jal2ndRev

Quantitation Report (Quan)

Data File : J:\MS46\DATA\040815X\0408F006.D Vial: 5
Acq On : 08 Apr 2015 12:09 pm Operator: KR
Sample : DLCS Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 9 14:25 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Multiple Level Calibration



TIC: 0408F006.D

(80) Styrene (T)

10.69min 8.88PPB m

response 223697

Ion	Exp%	Act%
103.00	100	100
104.00	198.60	207.56
78.00	88.20	83.74
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

04/09/15

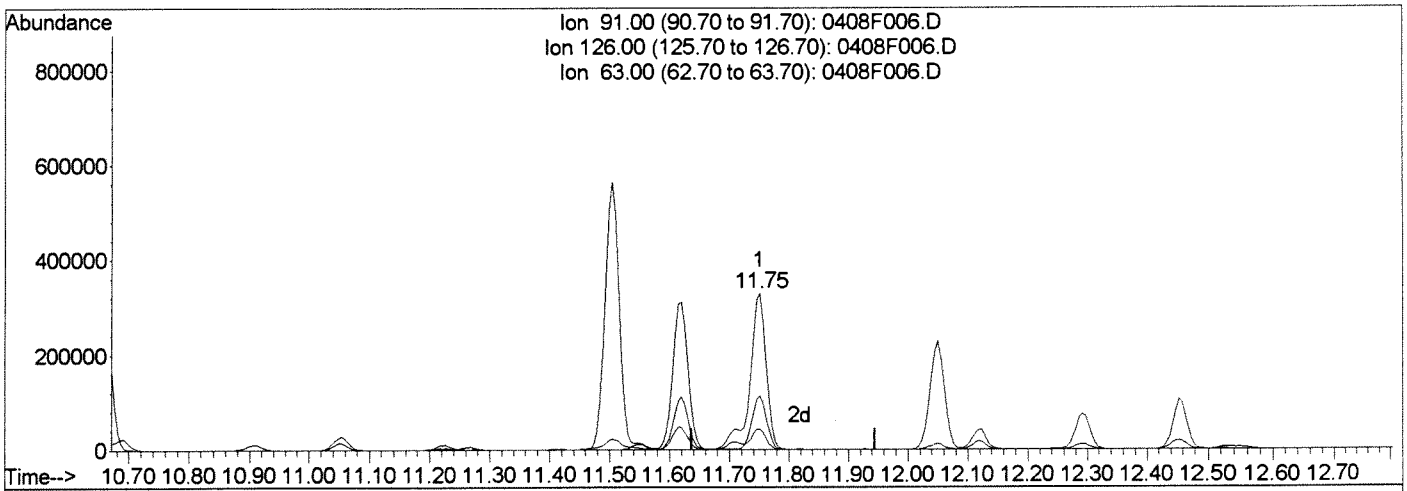
0408F006.D 031615MS46_8260.M Thu Apr 09 14:25:31 2015

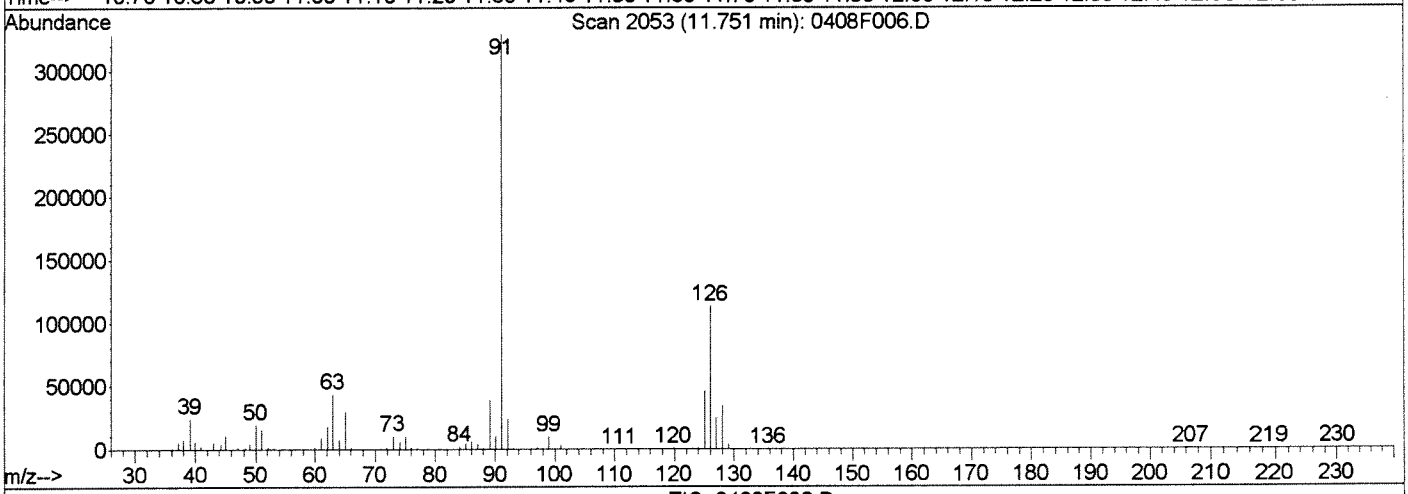
04.10.15jal2ndRev

Quantitation Report (Quan)

Data File : J:\MS46\DATA\040815X\0408F006.D Vial: 5
Acq On : 08 Apr 2015 12:09 pm Operator: KR
Sample : DLCS Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 9 14:25 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Multiple Level Calibration





TIC: 0408F006.D

(93) 4-Chlorotoluene (T)

11.75min 9.45PPB

response 633654

Ion	Exp%	Act%
91.00	100	100
126.00	34.80	34.41
63.00	12.80	13.29
0.00	0.00	0.00

Manual Integration:

Before

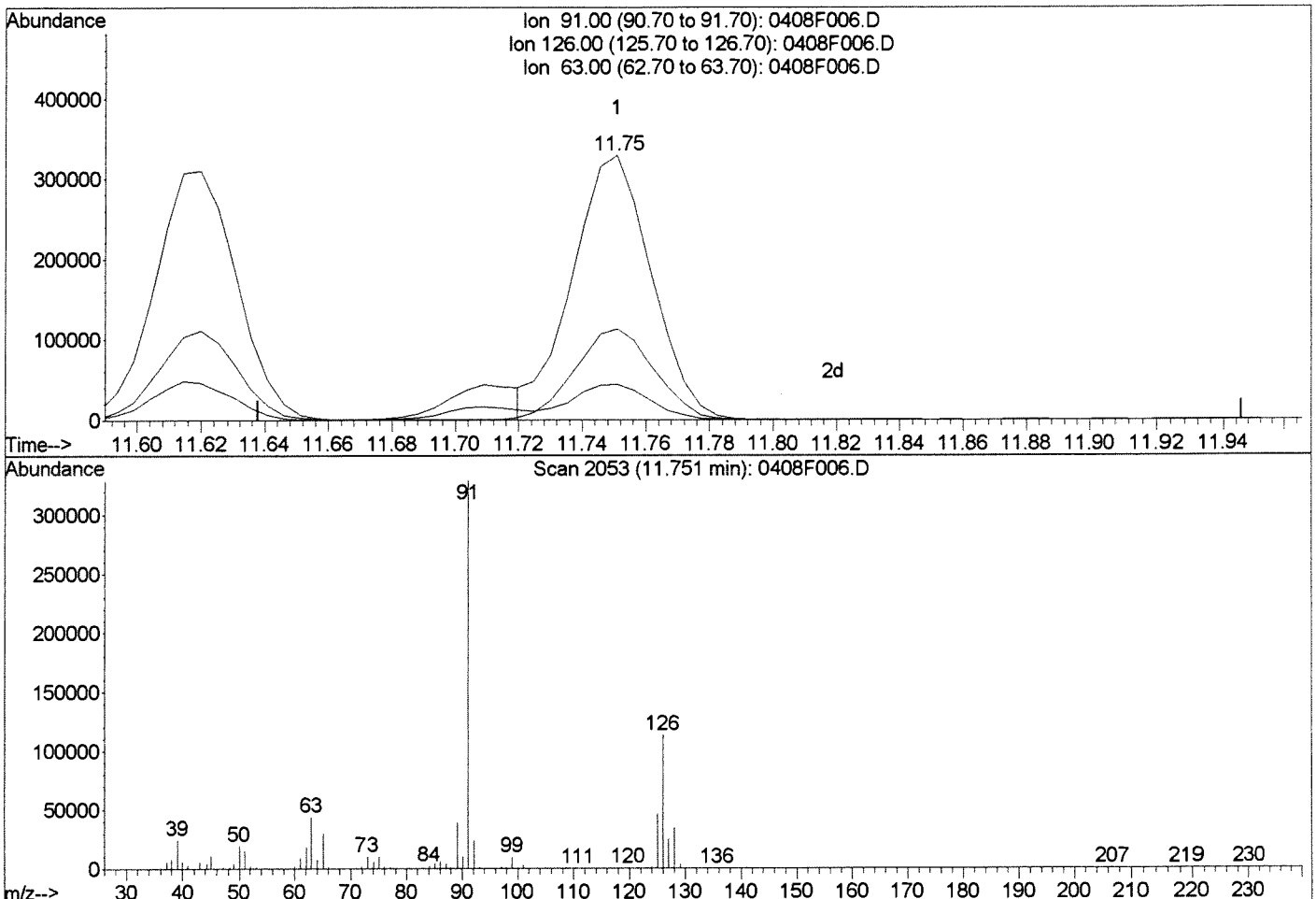
04/09/15

0408F006.D 031615MS46_8260.M Thu Apr 09 14:25:34 2015

04.10.15jal2nd Rev

Data File : J:\MS46\DATA\040815X\0408F006.D Vial: 5
Acq On : 08 Apr 2015 12:09 pm Operator: KR
Sample : DLCS Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 9 14:25 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Multiple Level Calibration



TIC: 0408F006.D

(93) 4-Chlorotoluene (T)

11.75min 8.47PPB m

response 567812

Ion	Exp%	Act%
91.00	100	100
126.00	34.80	34.41
63.00	12.80	13.32
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

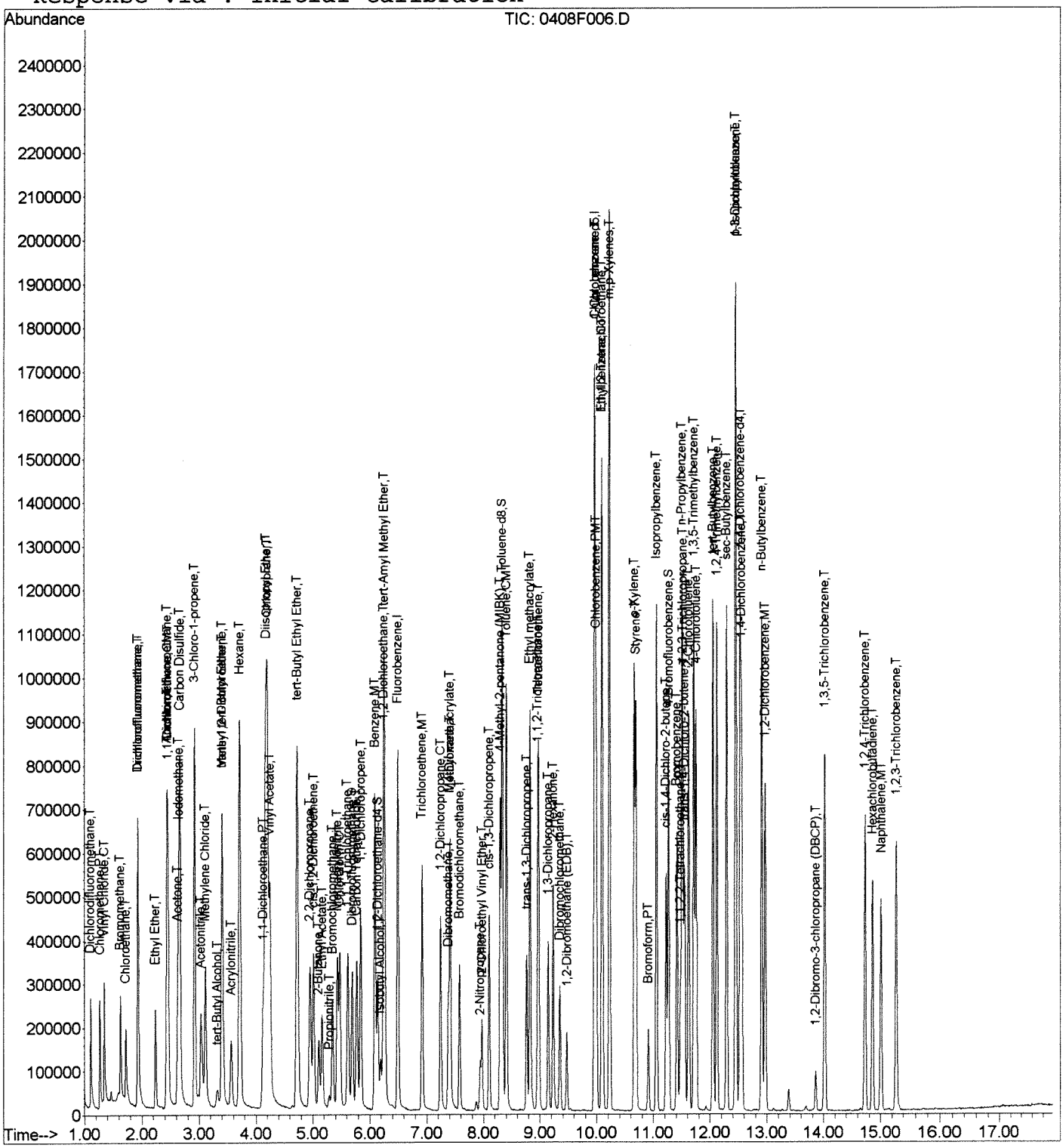
04/09/15

0408F006.D 031615MS46_8260.M Thu Apr 09 14:25:39 2015

04.10.15jal2nd Rev

Data File : J:\MS46\DATA\040815X\0408F006.D Vial: 5
Acq On : 08 Apr 2015 12:09 pm Operator: KR
Sample : DLCS Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 9 14:25 2015 Quant Results File: 031615MS46_8

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Initial Calibration



Date: 3/16/15

ALS Environmental
Injection Log
MS46 - Agilent 5977A

Tune File: BFBtune

By: KR

New Tune: Yes

IS/SS Std. ID: 70uSA - 17C 4/13/13044 13899

CCV Std ID: See prepsheet

ICAL Date: 3/4/15 Cal 13018

MS/DMS/LCS/ICV Std ID: 2

Second RV: 3/20/15 MM 42.15

BFB Std. ID: 70uSA - 21A 4/14

LIMS ID: —

	Sample Name	File Name	Method	Dilution	pH<2	Comments
1	BFB	0316F007	8260.M	4.4µL+44mL		
2	IB	8				
3	8260 Ical 0.1	9				See prepsheet
4	0.2	10				for Stds
5	0.5	11				
6	1	12				
7	2	13				
8	5	14				
9	10	15				
10	20	16				
11	40	17				
12	60	18				
13	80	19				
14	IB	20				
15	IB	21				
16	ICV	22				See prepsheet for Stds
17	BFB	0317F003		4.4µL+44mL		
18	ICV - Mix 6	4				Mix 6 only/Diethyl Ether
19	ICV - Acrolein	5				Acrolein Only (NA) not needed
20						
21						
22						
23						
24						
25						
26						
27						

INTIAL CALIBRATION CURVE

Date 3/16/15 Analysis: 8260

Prepared By KL Instrument: MS4L

Matrix: Water

Stock Solution #78VOA-19E 3/23 Analytes: Surrogate Init. Concentration: 100ppm

Stock Solution #2 20B 3/23 Analytes: Low 8260 Init. Concentration: 5/10/20/100/200ppm

Stock Solution #3 20A 3/23 Analytes: 8260 Init. Concentration: 50/100/200/1000/2000ppm

Stock Solution #4 19D 3/23 Analytes: Low Ketones Init. Concentration: 200ppm

Stock Solution #5 16B 4/15 Analytes: Ketones Init. Concentration: 2000ppm

Aliquot of Stock Solution #1 (µL)	Final Conc. of #1 (µg/L)	Aliquot of Stock Solution #2 (µL)	Final Conc. of #2 (µg/L)	Aliquot of Stock Solution #3 (µL)	Final Conc. of #3 (µg/L)	Aliquot of Stock Solution #4 (µL)	Final Conc. of #4 (µg/L)	Aliquot of Stock Solution #5 (µL)	Final Conc. of #5 (µg/L)	Final Volume (mL)
		1	0.1			1	4			50
		2	0.2			2	8			50
		5.0	0.5			5	20			50
2.0	4	10	1			10	40			50
3.0	6			2.0	2			2	80	50
4.0	8			5.0	5			2.5	100	50
5.0	10			10	10			5.0	200	50
6	12			20	20			10	400	50
7	14			40	40			20	800	50
8	16			60	60			40	1600	50
10	20			80	80			50	2000	50

8260 ICV: 10uL of 50/250ppm Accustd ICV (78VOA 18A 3/20) + 50uL of 100ppm Acrolein (78VOA 13D 3/19) +

5uL of 100ppm Dichlorofluoromethane (78VOA-17C 3/20) + 5uL of 200ppm n-Octane/TBF/Tetrahydrafuran (78VOA 21C 3/21)

5uL of 100ppm Oxygenates (78VOA 17H 3/20) + 7.5uL of Appendix ICV mix(78VOA 17I 3/20) + 25uL of 1000ppm 2-Propanol(78VOA-85D 4/19)

5uL of 100ppm CLP ICV (78VOA 21B 3/21)

5µL of 50ppm 1,3 Butadiene ~~78VOA-19C KL 3/16-15~~ 78VOA 21E 3/23/15

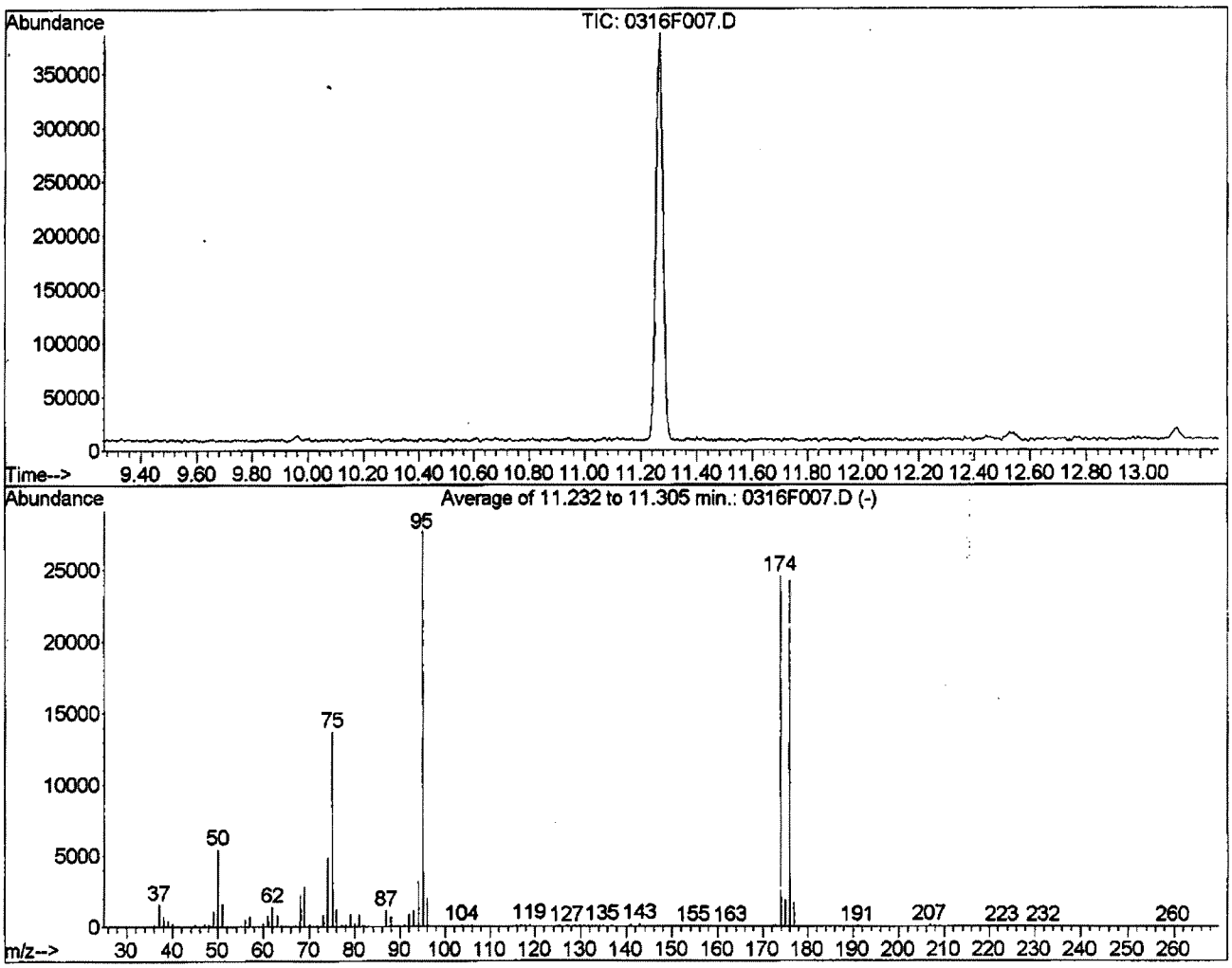
10µL of Mix6 ICV 78VOA-22C 3/24

50µL of Acrolein ICV 78VOA-13D 3/19 } Reran ICV 3/17/15

3/26/15

BFB

Data File : J:\MS46\DATA\031615\0316F007.D Vial: 1
Acq On : 16 Mar 2015 01:24 pm Operator:
Sample : BFB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B



Spectrum Information: Average of 11.232 to 11.305 min. Whole Peak – KGS2 scan

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.5	5441	PASS
75	95	30	60	49.1	13676	PASS
95	95	100	100	100.0	27846	PASS
96	95	5	9	7.2	2016	PASS
173	174	0.00	2	0.6	145	PASS
174	95	50	120	88.3	24597	PASS
175	174	5	9	7.7	1888	PASS
176	174	95	101	98.7	24289	PASS
177	176	5	9	6.9	1671	PASS

KA 3/16/15

0316F007.D 031615MS46_8260.M Mon Mar 16 14:30:51 2015

3/16/15

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\031615\0316F008.D Vial: 2
Acq On : 16 Mar 2015 01:48 pm Operator:
Sample : IB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 16 14:36:37 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Mar 13 08:56:01 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.49	96	796492	10.00	PPB	0.00
64) Chlorobenzene-d5	9.96	82	316718	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	12.53	152	312949	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	0.00	113	0	0.00	PPB	
Spiked Amount 10.000			Recovery =	0.00%		
47) 1,2-Dichloroethane-d4	0.00	65	0	0.00	PPB	
Spiked Amount 10.000			Recovery =	0.00%		
62) Toluene-d8	8.33	98	765	0.01	PPB	0.00
Spiked Amount 10.000			Recovery =	0.10%		
84) 4-Bromofluorobenzene	11.27	95	1018	0.04	PPB	0.00
Spiked Amount 10.000			Recovery =	0.40%		
Target Compounds						Qvalue
16) Carbon Disulfide	2.66	76	1841	0.03	PPB	# 32
17) 2-Propanol (Isopropyl Alco	2.81	45	4118	8.10	PPB	63
21) Methylene Chloride	3.12	84	3565	0.17	PPB	# 69
74) 1-Chlorohexane	9.95	91	1561	0.06	PPB	88
98) 1,3-Dichlorobenzene	12.45	146	1139	0.03	PPB	# 59
99) 1,4-Dichlorobenzene	12.54	146	298m	0.01	PPB	

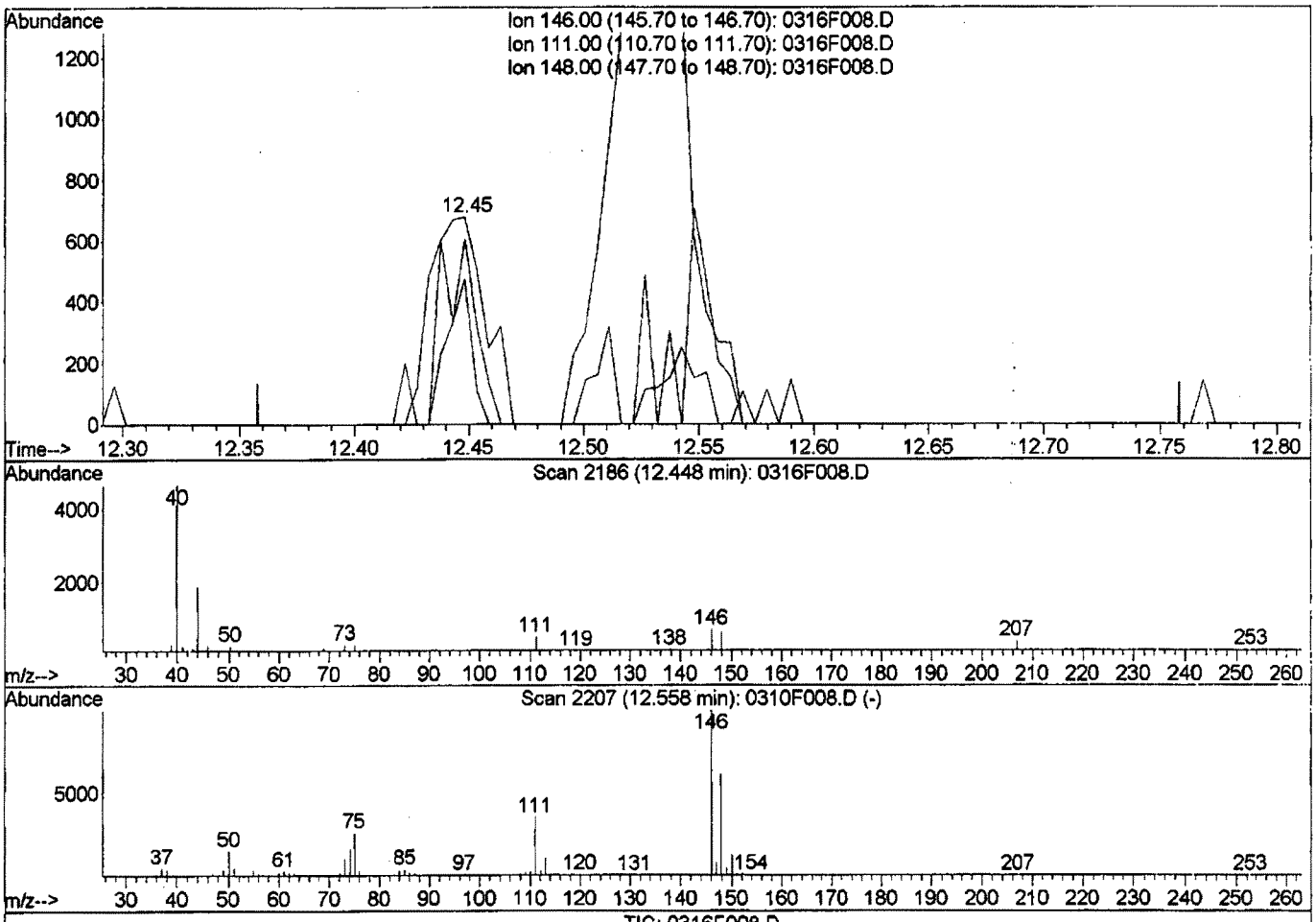
KT 3/17/15

(#) = qualifier out of range (m) = manual integration
0316F008.D 031615MS46_8260.M Tue Mar 17 12:05:37 2015 Page 1

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F008.D Vial: 2
Acq On : 16 Mar 2015 01:48 pm Operator:
Sample : IB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:05 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Mar 13 08:56:01 2015
Response via : Multiple Level Calibration



TIC: 0316F008.D

(99) 1,4-Dichlorobenzene (T)

12.45min 0.03PPB

response 1139

Ion	Exp%	Act%
146.00	100	100
111.00	36.50	69.91#
148.00	62.50	89.38
0.00	0.00	0.00

Manual Integration:

Before

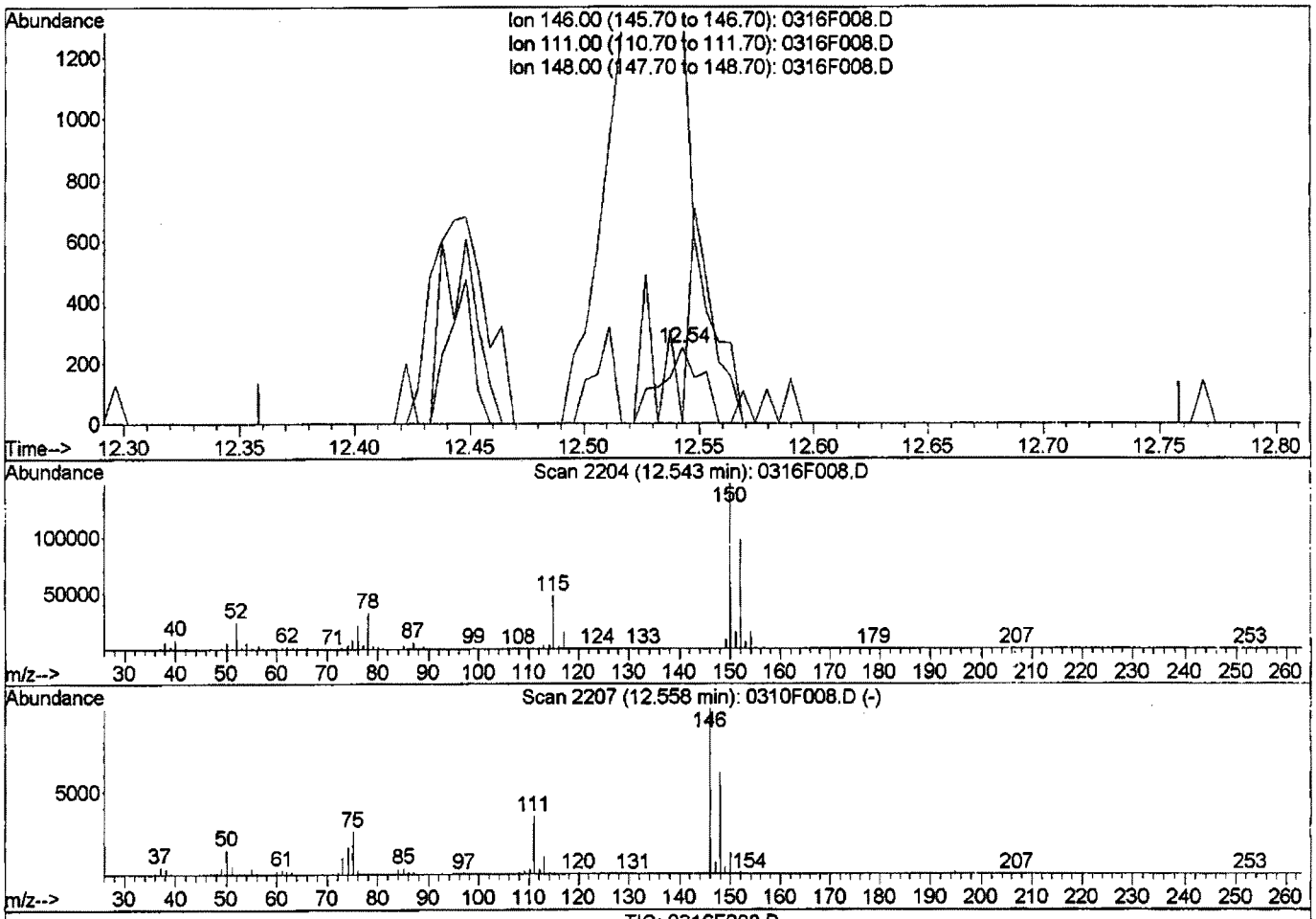
03/17/15

0316F008.D 031615MS46_8260.M Tue Mar 17 12:05:23 2015

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F008.D Vial: 2
Acq On : 16 Mar 2015 01:48 pm Operator:
Sample : IB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:05 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Mar 13 08:56:01 2015
Response via : Multiple Level Calibration



TIC: 0316F008.D

(99) 1,4-Dichlorobenzene (T)

12.54min 0.01PPB m

response 298

Ion	Exp%	Act%
146.00	100	100
111.00	36.50	565.46#
148.00	62.50	0.00#
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

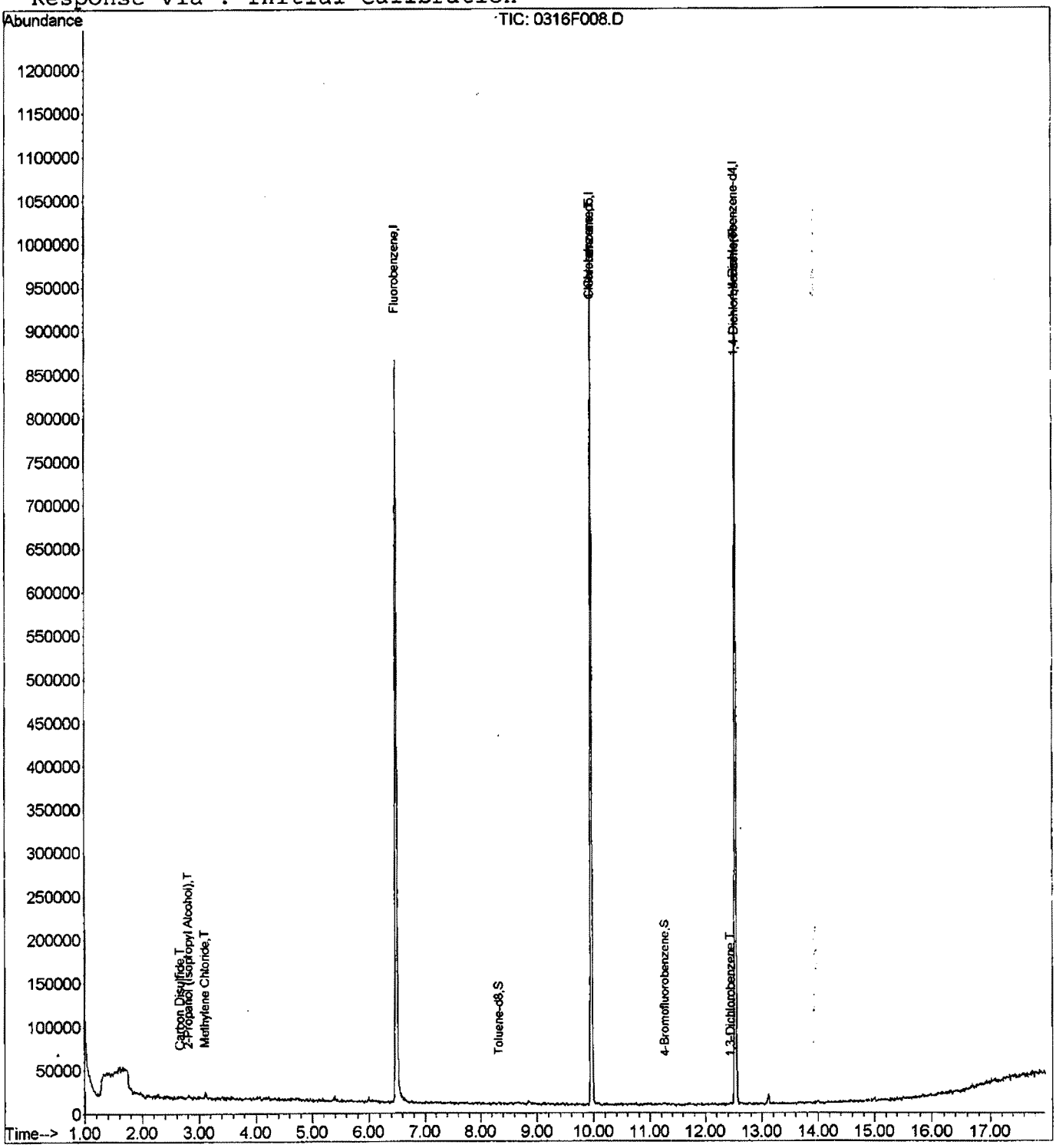
03/17/15

0316F008.D 031615MS46_8260.M Tue Mar 17 12:05:26 2015

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\031615\0316F008.D Vial: 2
Acq On : 16 Mar 2015 01:48 pm Operator:
Sample : IB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:05 2015 Quant Results File: 031615MS46_8

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Fri Mar 13 08:56:01 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\031615\0316F009.D Vial: 2
Acq On : 16 Mar 2015 02:52 pm Operator:
Sample : ICAL 0.1PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:07:43 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

KM 3/17/15

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	6.49	96	792246	10.00	PPB		0.00
64) Chlorobenzene-d5	9.96	82	310877	10.00	PPB		0.00
85) 1,4-Dichlorobenzene-d4	12.53	152	305203	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	0.00	113	0	0.00	PPB		
Spiked Amount 10.000			Recovery =	0.00%			
47) 1,2-Dichloroethane-d4	0.00	65	0	0.00	PPB		
Spiked Amount 10.000			Recovery =	0.00%			
62) Toluene-d8	0.00	98	0d	0.00	PPB		
Spiked Amount 10.000			Recovery =	0.00%			
84) 4-Bromofluorobenzene	11.26	95	592	0.02	PPB		-0.01
Spiked Amount 10.000			Recovery =	0.20%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.10	85	2656	0.10	PPB		92
3) Chloromethane	1.26	50	3545	0.13	PPB		72
4) Vinyl Chloride	1.34	62	3024	0.12	PPB		83
6) Bromomethane	1.64	96	2347	0.15	PPB		92
8) Dichlorofluoromethane	1.94	67	3949	0.11	PPB		64
9) Trichlorofluoromethane	1.93	101	3144	0.10	PPB		82
11) Acrolein	2.44	56	4189	2.28	PPB		69
12) Trichlorotrifluoroethane	2.44	151	1357	0.09	PPB		77
14) Acetone	2.62	43	9764	3.46	PPB		91
15) Iodomethane	2.64	142	5659	0.35	PPB		86
16) Carbon Disulfide	2.65	76	7457	0.14	PPB		90
17) 2-Propanol (Isopropyl Alco	2.81	45	5241	10.36	PPB		80
21) Methylene Chloride	3.11	84	7684	0.37	PPB		92
24) Methyl tert-Butyl Ether	3.40	73	7744	0.17	PPB		92
27) Diisopropyl Ether	4.17	45	7260	0.11	PPB		95
30) Chloroprene	4.20	53	12091	0.45	PPB		96
32) 2,2-Dichloropropane	4.94	77	3921	0.13	PPB		97
34) 2-Butanone	5.11	72	3886	3.22	PPB	#	75
38) Bromochloromethane	5.34	128	1577	0.16	PPB	#	63
40) Chloroform	5.47	83	3905	0.11	PPB		85
42) 1,1,1-Trichloroethane	5.60	97	7115	0.22	PPB		81
44) Carbon Tetrachloride	5.77	117	3238	0.12	PPB		88
45) 1,1-Dichloropropene	5.83	75	2751	0.10	PPB		91
48) Benzene	6.09	78	9762	0.12	PPB		98
49) 1,2-Dichloroethane	6.24	62	3057	0.13	PPB		86
51) Trichloroethene	6.92	95	2534	0.12	PPB		79
52) Methylcyclohexane	7.03	83	3820	0.11	PPB	#	61

(#) = qualifier out of range (m) = manual integration
0316F009.D 031615MS46_8260.M Tue Mar 17 12:11:18 2015 Page 1

3/26/15

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\031615\0316F009.D Vial: 2
Acq On : 16 Mar 2015 02:52 pm Operator:
Sample : ICAL 0.1PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:07:43 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
53)	1,2-Dichloropropane	7.24	63	2117	0.10	PPB		93
54)	Dibromomethane	7.38	93	1190	0.11	PPB	#	58
57)	Bromodichloromethane	7.57	83	3250	0.12	PPB		78
60)	cis-1,3-Dichloropropene	8.10	75	3019	0.10	PPB		87
61)	4-Methyl-2-pentanone (MIBK	8.30	58	13252	2.71	PPB	#	81
63)	Toluene	8.40	92	6060	0.12	PPB		89
65)	n-Octane	8.50	85	1351	0.08	PPB		87
66)	trans-1,3-Dichloropropene	8.76	75	2614	0.11	PPB		91
68)	1,1,2-Trichloroethane	8.95	83	1376	0.11	PPB	#	56
69)	Tetrachloroethene	8.97	164	2480	0.14	PPB	#	49
70)	2-Hexanone	9.23	57	4583	3.54	PPB	#	74
71)	1,3-Dichloropropane	9.15	76	2431	0.10	PPB		81
72)	Dibromochloromethane	9.34	129	1569	0.09	PPB		78
73)	1,2-Dibromoethane (EDB)	9.47	107	1245	0.09	PPB	#	35
74)	1-Chlorohexane	9.96	91	4390	0.16	PPB		66
75)	Chlorobenzene	9.99	112	6066	0.11	PPB		93
76)	Ethylbenzene	10.08	106	3013	0.11	PPB	#	51
77)	1,1,1,2-Tetrachloroethane	10.09	131	1957	0.10	PPB		93
78)	m,p-Xylenes	10.22	106	7785	0.22	PPB		89
79)	o-Xylene	10.66	106	3926	0.11	PPB	#	59
80)	Styrene	10.69	103	3333m	0.13	PPB		
81)	Bromoform	10.91	173	994	0.09	PPB		79
82)	Isopropylbenzene	11.05	105	9809	0.11	PPB		98
86)	1,1,2,2-Tetrachloroethane	11.48	83	1338	0.10	PPB	#	62
88)	Bromobenzene	11.41	156	2394	0.11	PPB		82
89)	n-Propylbenzene	11.50	91	10628	0.11	PPB		98
91)	2-Chlorotoluene	11.61	91	6045	0.11	PPB		93
92)	1,3,5-Trimethylbenzene	11.71	105	6950	0.10	PPB		95
93)	4-Chlorotoluene	11.75	91	7584	0.13	PPB		95
94)	tert-Butylbenzene	12.05	119	7308	0.12	PPB		84
95)	1,2,4-Trimethylbenzene	12.12	105	7042	0.10	PPB		96
96)	sec-Butylbenzene	12.29	105	8687	0.10	PPB		81
97)	p-Isopropyltoluene	12.46	119	7092	0.09	PPB		85
98)	1,3-Dichlorobenzene	12.44	146	5243	0.12	PPB		91
99)	1,4-Dichlorobenzene	12.55	146	4941m	0.12	PPB		
100)	n-Butylbenzene	12.91	91	7427	0.11	PPB		87
101)	1,2-Dichlorobenzene	12.97	146	4485	0.12	PPB		95
103)	1,3,5-Trichlorobenzene	14.02	180	3358	0.10	PPB		94
104)	1,2,4-Trichlorobenzene	14.73	180	2891	0.10	PPB		89
105)	Hexachlorobutadiene	14.86	225	1509	0.09	PPB		73
106)	Naphthalene	15.01	128	4609	0.09	PPB		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\031615\0316F009.D Vial: 2
Acq On : 16 Mar 2015 02:52 pm Operator:
Sample : ICAL 0.1PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:07:43 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

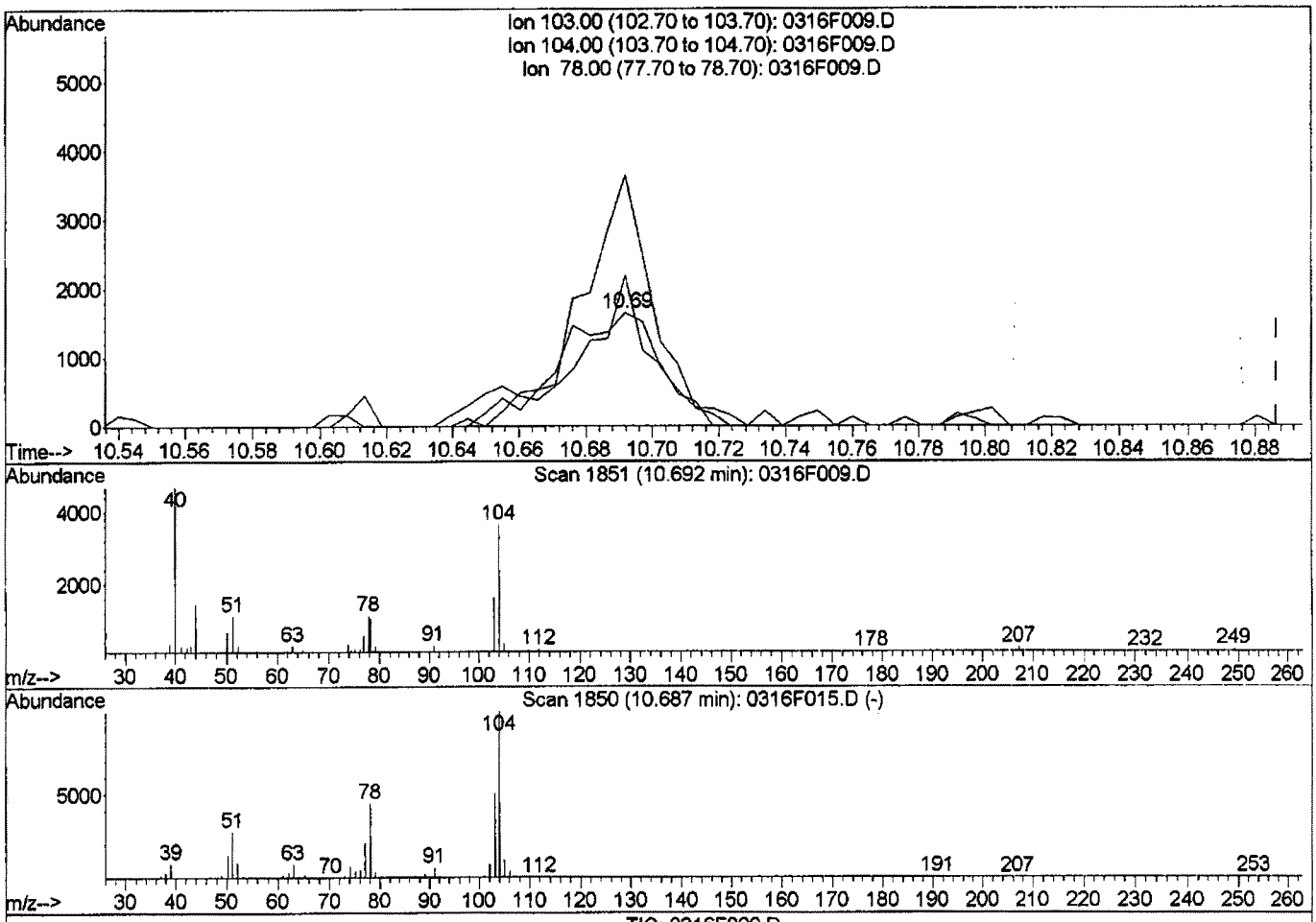
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
107) 1,2,3-Trichlorobenzene	15.27	180	2284	0.09	PPB	91

(#) = qualifier out of range (m) = manual integration
0316F009.D 031615MS46_8260.M Tue Mar 17 12:11:18 2015 Page 3

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F009.D Vial: 2
Acq On : 16 Mar 2015 02:52 pm Operator:
Sample : ICAL 0.1PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:10 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Multiple Level Calibration



TIC: 0316F009.D

(80) Styrene (T)

10.69min 0.14PPB

response 3589

Ion	Exp%	Act%
103.00	100	100
104.00	198.60	221.74
78.00	88.20	123.75#
0.00	0.00	0.00

Manual Integration:

Before

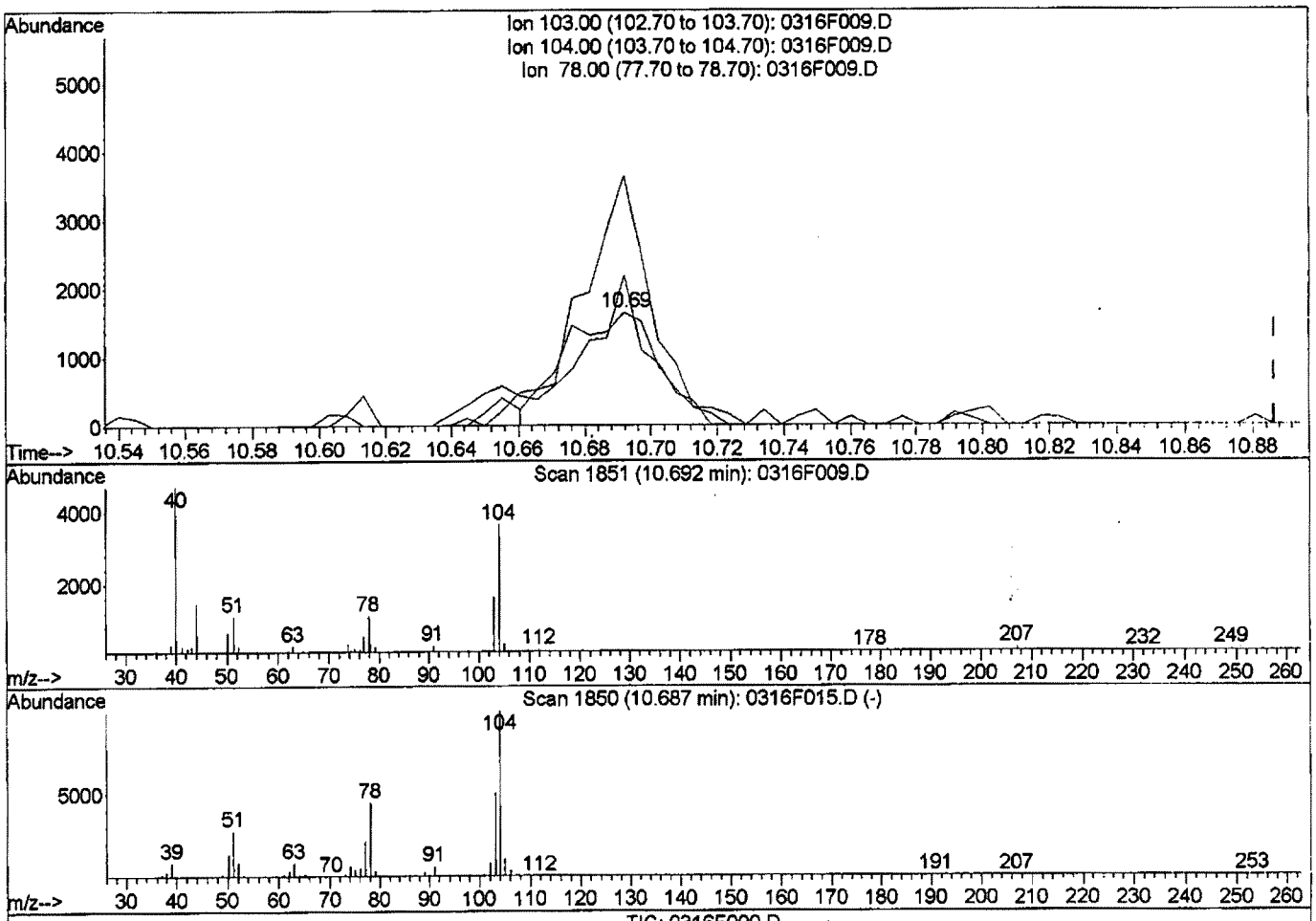
03/17/15

0316F009.D 031615MS46_8260.M Tue Mar 17 12:10:34 2015

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F009.D Vial: 2
Acq On : 16 Mar 2015 02:52 pm Operator:
Sample : ICAL 0.1PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:10 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Multiple Level Calibration



TIC: 0316F009.D

(80) Styrene (T)

10.69min 0.13PPB m

response 3333

Ion	Exp%	Act%
103.00	100	100
104.00	198.60	221.74
78.00	88.20	68.45
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

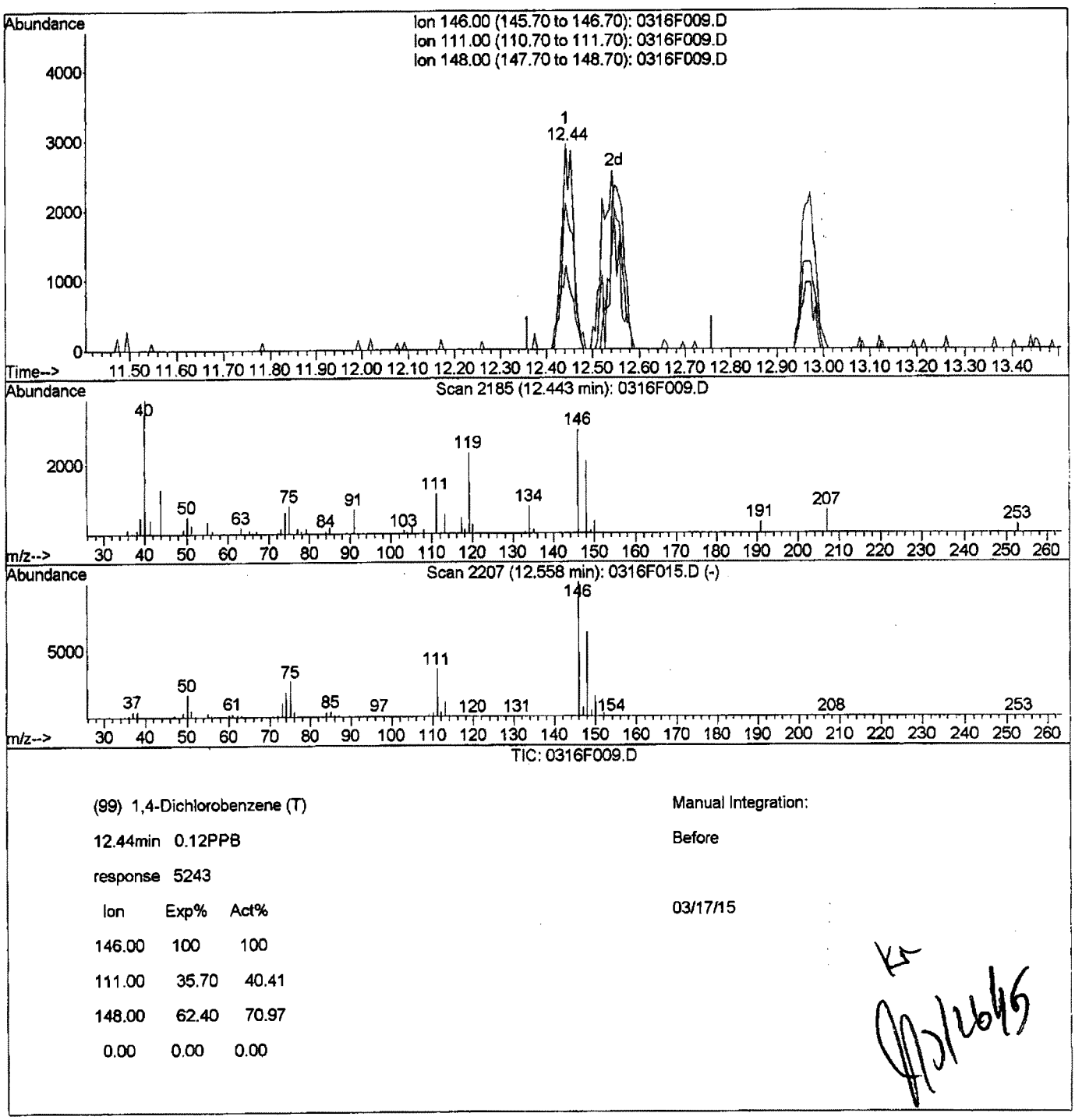
03/17/15

0316F009.D 031615MS46_8260.M Tue Mar 17 12:10:38 2015

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F009.D Vial: 2
Acq On : 16 Mar 2015 02:52 pm Operator:
Sample : ICAL 0.1PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:10 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Multiple Level Calibration



TIC: 0316F009.D

(99) 1,4-Dichlorobenzene (T)

12.44min 0.12PPB

response 5243

Ion	Exp%	Act%
146.00	100	100
111.00	35.70	40.41
148.00	62.40	70.97
0.00	0.00	0.00

Manual Integration:

Before

03/17/15

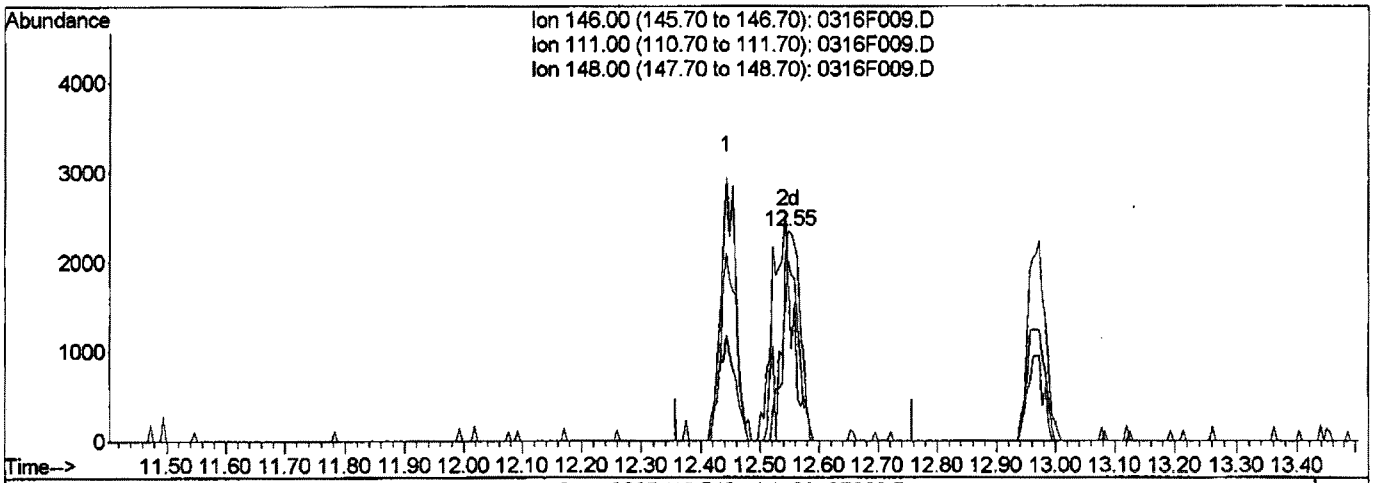
KF

0316F009.D 031615MS46_8260.M Tue Mar 17 12:11:03 2015

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F009.D Vial: 2
Acq On : 16 Mar 2015 02:52 pm Operator:
Sample : ICAL 0.1PPB Inst :.GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:11 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Multiple Level Calibration



TIC: 0316F009.D

(99) 1,4-Dichlorobenzene (T)

12.55min 0.12PPB m

response 4941

Ion	Exp%	Act%
146.00	100	100
111.00	35.70	83.62#
148.00	62.40	94.00#
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

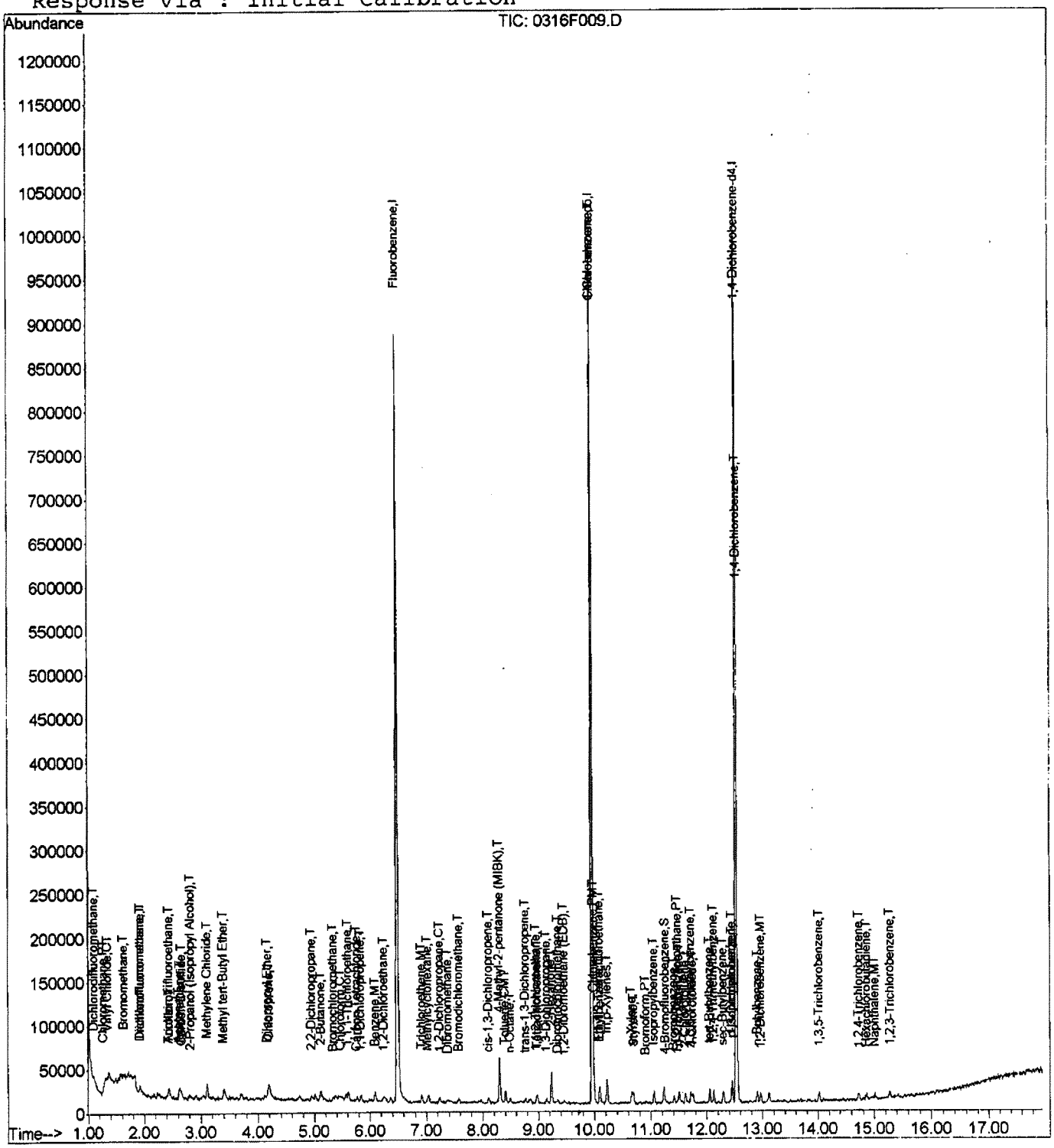
03/17/15

0316F009.D 031615MS46_8260.M Tue Mar 17 12:11:07 2015

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\031615\0316F009.D Vial: 2
Acq On : 16 Mar 2015 02:52 pm Operator:
Sample : ICAL 0.1PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:11 2015 Quant Results File: 031615MS46_8

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\031615\0316F010.D Vial: 2
Acq On : 16 Mar 2015 03:16 pm Operator:
Sample : ICAL 0.2PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:11:24 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

KA 3/17/16

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	6.49	96	803478	10.00	PPB		0.00
64) Chlorobenzene-d5	9.96	82	316775	10.00	PPB		0.00
85) 1,4-Dichlorobenzene-d4	12.53	152	318192	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	0.00	113	0	0.00	PPB		
Spiked Amount 10.000			Recovery =	0.00%			
47) 1,2-Dichloroethane-d4	0.00	65	0	0.00	PPB		
Spiked Amount 10.000			Recovery =	0.00%			
62) Toluene-d8	0.00	98	0d	0.00	PPB		
Spiked Amount 10.000			Recovery =	0.00%			
84) 4-Bromofluorobenzene	0.00	95	0	0.00	PPB		
Spiked Amount 10.000			Recovery =	0.00%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.11	85	5059	0.19	PPB		79
3) Chloromethane	1.26	50	5370	0.19	PPB		87
4) Vinyl Chloride	1.34	62	5185	0.21	PPB		90
6) Bromomethane	1.63	96	3544m	0.22	PPB		
7) Chloroethane	1.72	64	3111	0.23	PPB		87
8) Dichlorofluoromethane	1.93	67	8453	0.24	PPB		96
9) Trichlorofluoromethane	1.93	101	5579	0.17	PPB		88
10) Ethyl Ether	2.24	59	2927	0.21	PPB		80
11) Acrolein	2.44	56	7620	4.09	PPB		78
12) Trichlorotrifluoroethane	2.44	151	4088	0.25	PPB		87
13) 1,1-Dichloroethene	2.46	96	3506	0.21	PPB	#	62
14) Acetone	2.62	43	22470	7.86	PPB		93
15) Iodomethane	2.64	142	9217	0.56	PPB		96
16) Carbon Disulfide	2.66	76	12952	0.23	PPB		91
17) 2-Propanol (Isopropyl Alco	2.81	45	10312	20.10	PPB		89
21) Methylene Chloride	3.12	84	10078	0.48	PPB		92
24) Methyl tert-Butyl Ether	3.41	73	15839	0.35	PPB		96
25) trans-1,2-Dichloroethene	3.40	96	4630	0.24	PPB	#	64
26) Hexane	3.71	57	6675	0.23	PPB		86
28) 1,1-Dichloroethane	4.12	63	6544	0.19	PPB		90
30) Chloroprene	4.20	53	19671	0.72	PPB		94
31) tert-Butyl Ethyl Ether	4.74	59	9008	0.16	PPB		88
32) 2,2-Dichloropropane	4.94	77	6119	0.20	PPB		90
33) cis-1,2-Dichloroethene	5.02	96	4934	0.23	PPB	#	67
34) 2-Butanone	5.11	72	9698	7.93	PPB	#	85
38) Bromochloromethane	5.34	128	1959	0.20	PPB	#	67
40) Chloroform	5.48	83	6874	0.19	PPB	#	68

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\031615\0316F010.D Vial: 2
Acq On : 16 Mar 2015 03:16 pm Operator:
Sample : ICAL 0.2PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:11:24 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
41) Cyclohexane	5.56	56	7284	0.21	PPB		90
42) 1,1,1-Trichloroethane	5.61	97	7394	0.23	PPB		83
44) Carbon Tetrachloride	5.77	117	5333	0.19	PPB		91
45) 1,1-Dichloropropene	5.84	75	4947	0.18	PPB		95
48) Benzene	6.09	78	15479	0.19	PPB		95
49) 1,2-Dichloroethane	6.24	62	4861	0.20	PPB		79
51) Trichloroethene	6.91	95	4215	0.20	PPB		83
52) Methylcyclohexane	7.03	83	6203	0.17	PPB		80
53) 1,2-Dichloropropane	7.24	63	4101	0.20	PPB		90
54) Dibromomethane	7.38	93	2175	0.20	PPB		82
57) Bromodichloromethane	7.57	83	4959	0.19	PPB		90
59) 2-Chloroethyl Vinyl Ether	7.97	63	1727	0.18	PPB		96
60) cis-1,3-Dichloropropene	8.10	75	5359	0.17	PPB		76
61) 4-Methyl-2-pentanone (MIBK	8.30	58	30132	6.07	PPB		88
63) Toluene	8.41	92	9235	0.18	PPB		85
65) n-Octane	8.49	85	2921	0.18	PPB		80
66) trans-1,3-Dichloropropene	8.76	75	4905	0.19	PPB		86
67) Ethyl methacrylate	8.82	69	3404	0.19	PPB		75
68) 1,1,2-Trichloroethane	8.96	83	2695	0.22	PPB	#	71
69) Tetrachloroethene	8.97	164	3843	0.21	PPB		84
70) 2-Hexanone	9.23	57	9908	7.52	PPB	#	85
71) 1,3-Dichloropropane	9.14	76	4637	0.18	PPB		95
72) Dibromochloromethane	9.35	129	3116	0.18	PPB		94
73) 1,2-Dibromoethane (EDB)	9.47	107	2815	0.20	PPB	#	67
74) 1-Chlorohexane	9.96	91	6947	0.25	PPB		94
75) Chlorobenzene	9.99	112	10296	0.19	PPB		92
76) Ethylbenzene	10.08	106	5652	0.19	PPB	#	64
77) 1,1,1,2-Tetrachloroethane	10.09	131	3639	0.19	PPB		95
78) m,p-Xylenes	10.23	106	14784	0.42	PPB	#	71
79) o-Xylene	10.66	106	6107	0.17	PPB		89
80) Styrene	10.69	103	4492	0.17	PPB		91
81) Bromoform	10.92	173	1963	0.18	PPB		88
82) Isopropylbenzene	11.05	105	17451	0.19	PPB		92
83) cis-1,4-Dichloro-2-butene	11.23	89	1590	0.67	PPB		99
86) 1,1,2,2-Tetrachloroethane	11.47	83	2840	0.20	PPB		65
88) Bromobenzene	11.42	156	4145	0.19	PPB	#	66
89) n-Propylbenzene	11.50	91	19528	0.19	PPB		96
90) 1,2,3-Trichloropropane	11.52	110	1126	0.24	PPB	#	33
91) 2-Chlorotoluene	11.61	91	12479	0.21	PPB		90
92) 1,3,5-Trimethylbenzene	11.71	105	13792	0.19	PPB		85
93) 4-Chlorotoluene	11.76	91	12909	0.21	PPB		87

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\031615\0316F010.D Vial: 2
Acq On : 16 Mar 2015 03:16 pm Operator:
Sample : ICAL 0.2PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:11:24 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

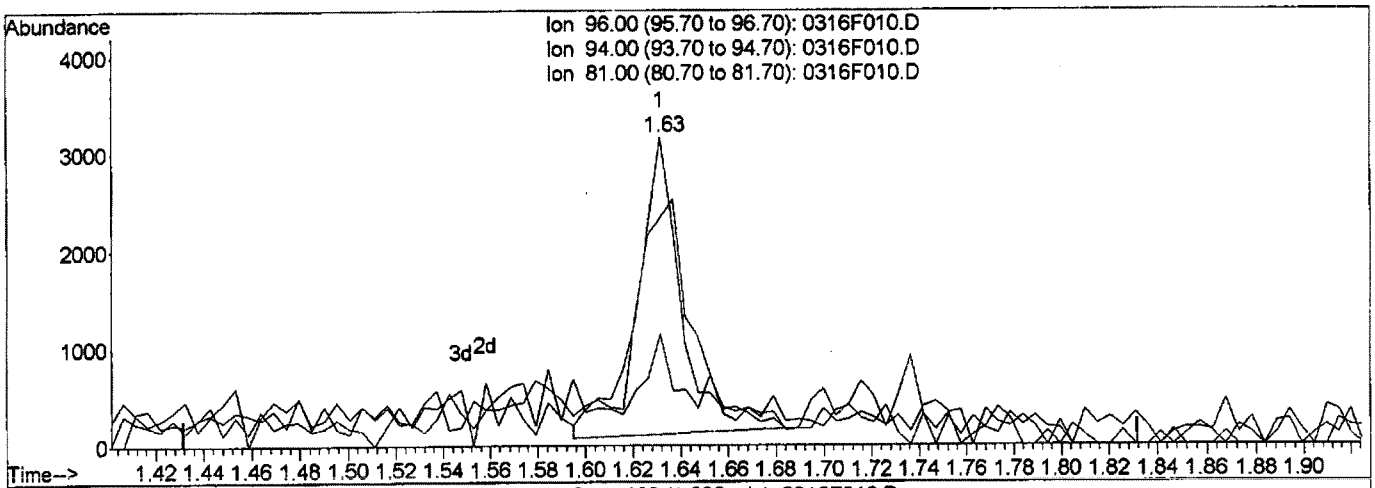
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
94)	tert-Butylbenzene	12.05	119	12588	0.19	PPB	90
95)	1,2,4-Trimethylbenzene	12.12	105	13243	0.18	PPB	86
96)	sec-Butylbenzene	12.29	105	18146	0.19	PPB	96
97)	p-Isopropyltoluene	12.45	119	14281	0.18	PPB	94
98)	1,3-Dichlorobenzene	12.45	146	8745	0.20	PPB	85
99)	1,4-Dichlorobenzene	12.55	146	9114	0.21	PPB	85
100)	n-Butylbenzene	12.90	91	13180	0.18	PPB	94
101)	1,2-Dichlorobenzene	12.97	146	7779	0.20	PPB	88
103)	1,3,5-Trichlorobenzene	14.02	180	6311	0.19	PPB	79
104)	1,2,4-Trichlorobenzene	14.72	180	5182	0.17	PPB	90
105)	Hexachlorobutadiene	14.86	225	2748	0.16	PPB	94
106)	Naphthalene	15.01	128	8874	0.17	PPB	96
107)	1,2,3-Trichlorobenzene	15.27	180	4673	0.17	PPB	95

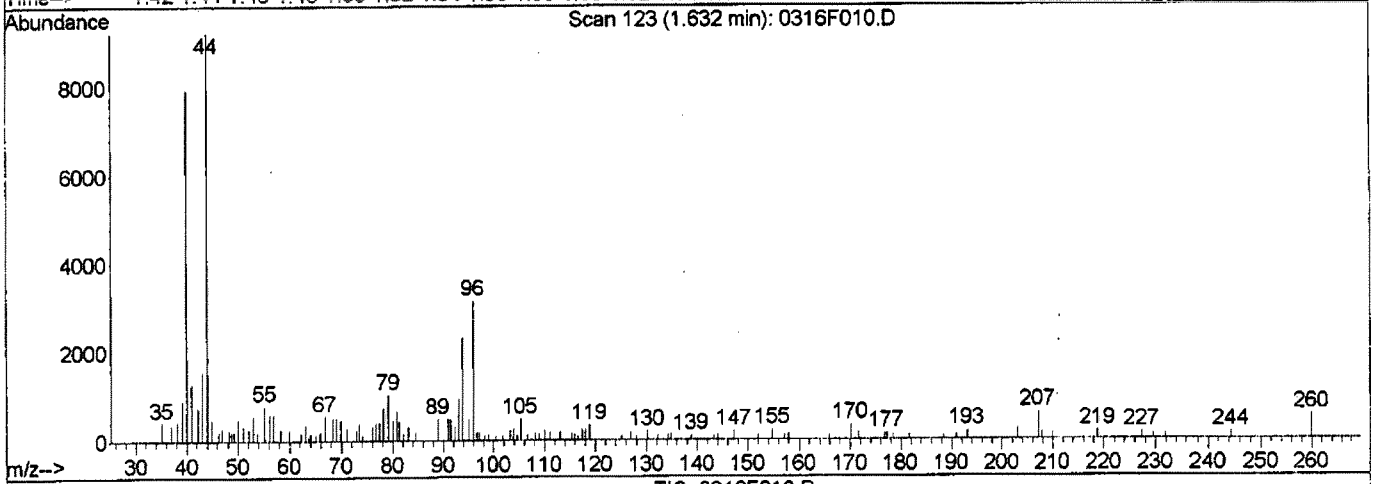
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F010.D Vial: 2
Acq On : 16 Mar 2015 03:16 pm Operator:
Sample : ICAL 0.2PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:11 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Single Level Calibration





TIC: 0316F010.D

(6) Bromomethane (T)

1.63min 0.25PPB

response 4050

Ion	Exp%	Act%
96.00	100	100
94.00	104.20	65.61#
81.00	14.00	31.19
0.00	0.00	0.00

Manual Integration:

Before

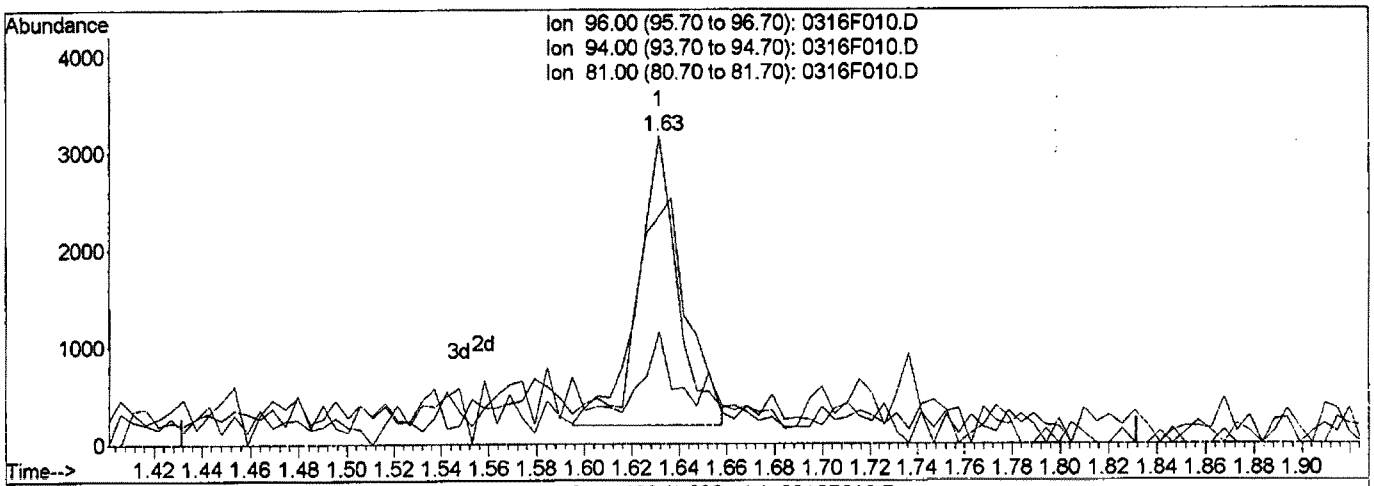
03/17/15

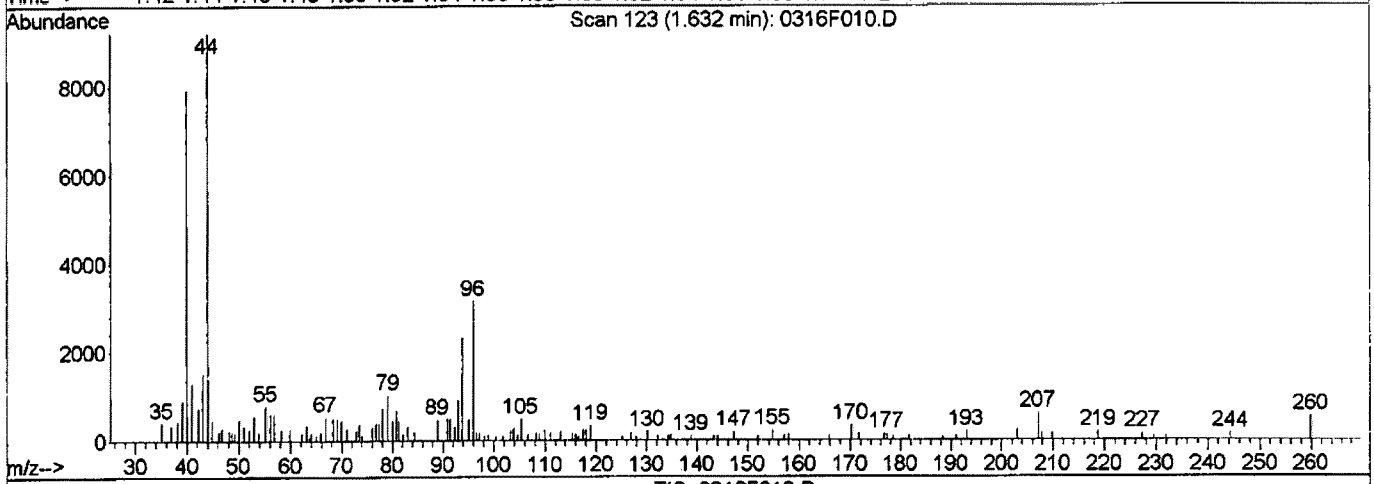
0316F010.D 031615MS46_8260.M Tue Mar 17 12:11:57 2015

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F010.D Vial: 2
Acq On : 16 Mar 2015 03:16 pm Operator:
Sample : ICAL 0.2PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:12 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Single Level Calibration





TIC: 0316F010.D

(6) Bromomethane (T)

1.63min 0.22PPB m

response 3544

Ion	Exp%	Act%
96.00	100	100
94.00	104.20	73.82#
81.00	14.00	21.57
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

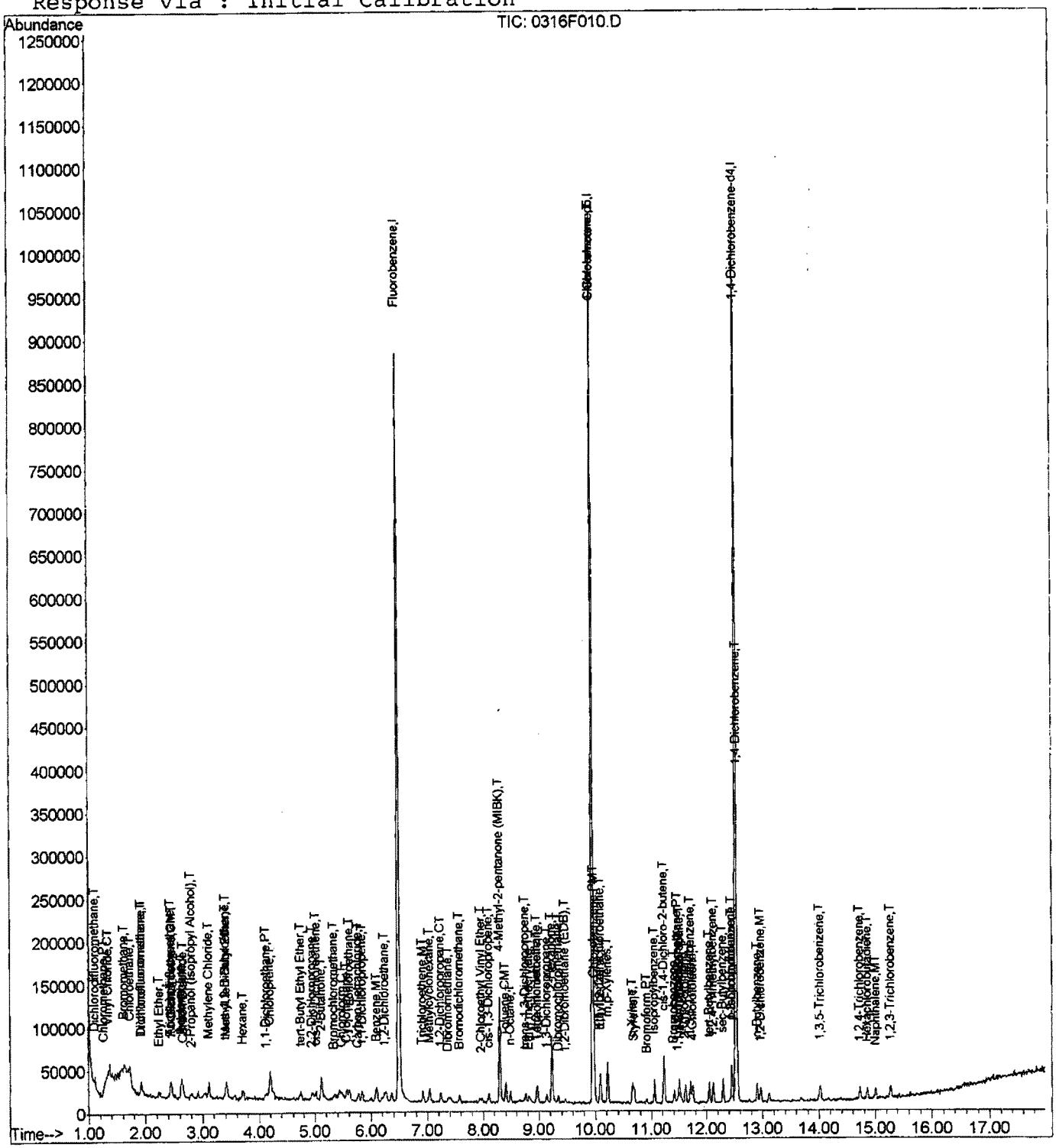
03/17/15

0316F010.D 031615MS46_8260.M Tue Mar 17 12:12:05 2015

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\031615\0316F010.D Vial: 2
Acq On : 16 Mar 2015 03:16 pm Operator:
Sample : ICAL 0.2PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:14 2015 Quant Results File: 031615MS46_8

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\031615\0316F011.D Vial: 2
Acq On : 16 Mar 2015 03:40 pm Operator:
Sample : ICAL 0.5PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:14:54 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	6.49	96	822669	10.00	PPB		0.00
64) Chlorobenzene-d5	9.96	82	325128	10.00	PPB		0.00
85) 1,4-Dichlorobenzene-d4	12.53	152	327769	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	0.00	113	0	0.00	PPB		
Spiked Amount 10.000			Recovery =	0.00%			
47) 1,2-Dichloroethane-d4	0.00	65	0d	0.00	PPB		
Spiked Amount 10.000			Recovery =	0.00%			
62) Toluene-d8	0.00	98	0d	0.00	PPB		
Spiked Amount 10.000			Recovery =	0.00%			
84) 4-Bromofluorobenzene	0.00	95	0	0.00	PPB		
Spiked Amount 10.000			Recovery =	0.00%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.10	85	12482	0.46	PPB		89
3) Chloromethane	1.26	50	13186	0.47	PPB		92
4) Vinyl Chloride	1.34	62	10808	0.42	PPB		89
5) 1,3-Butadiene	1.37	54	9677m	0.47	PPB		
6) Bromomethane	1.63	96	7706	0.46	PPB		90
7) Chloroethane	1.73	64	6182	0.44	PPB		67
8) Dichlorofluoromethane	1.93	67	18847	0.52	PPB		91
9) Trichlorofluoromethane	1.93	101	16138	0.49	PPB		96
10) Ethyl Ether	2.23	59	6704	0.47	PPB		80
11) Acrolein	2.44	56	16021	8.39	PPB		88
12) Trichlorotrifluoroethane	2.43	151	7940	0.48	PPB		89
13) 1,1-Dichloroethene	2.46	96	7833	0.46	PPB	#	77
14) Acetone	2.62	43	53415	18.24	PPB		94
15) Iodomethane	2.63	142	22260	1.32	PPB		99
16) Carbon Disulfide	2.66	76	27030	0.47	PPB		92
17) 2-Propanol (Isopropyl Alco	2.80	45	11281	21.48	PPB		60
18) 3-Chloro-1-propene	2.92	76	5120	0.47	PPB	#	73
19) Methyl Acetate	2.98	43	6390	0.60	PPB		80
20) Acetonitrile	3.04	40	14819	20.78	PPB	#	54
21) Methylene Chloride	3.11	84	12961	0.60	PPB		87
23) Acrylonitrile	3.57	53	8789	1.91	PPB		97
24) Methyl tert-Butyl Ether	3.41	73	38531	0.83	PPB		98
25) trans-1,2-Dichloroethene	3.41	96	9709	0.49	PPB	#	70
26) Hexane	3.71	57	12998	0.44	PPB		95
27) Diisopropyl Ether	4.18	45	26190	0.40	PPB		93
28) 1,1-Dichloroethane	4.12	63	15928	0.45	PPB		94
29) Vinyl Acetate	4.25	86	3228	0.89	PPB	#	26

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\031615\0316F011.D Vial: 2
Acq On : 16 Mar 2015 03:40 pm Operator:
Sample : ICAL 0.5PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:14:54 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
30)	Chloroprene	4.20	53	47946	1.70	PPB		93
31)	tert-Butyl Ethyl Ether	4.73	59	23297	0.41	PPB		89
32)	2,2-Dichloropropane	4.95	77	14807	0.48	PPB		99
33)	cis-1,2-Dichloroethene	5.02	96	10380	0.47	PPB	#	80
34)	2-Butanone	5.11	72	21738	17.36	PPB	#	81
35)	Ethyl Acetate	5.17	61	1985	1.08	PPB		79
37)	Methacrylonitrile	5.43	67	9604	1.67	PPB		85
38)	Bromochloromethane	5.35	128	4594	0.46	PPB	#	48
39)	Tetrahydrofuran	5.38	71	1851m	1.25	PPB		
40)	Chloroform	5.47	83	14697	0.40	PPB		93
41)	Cyclohexane	5.56	56	17060	0.47	PPB		87
42)	1,1,1-Trichloroethane	5.62	97	15899	0.48	PPB		85
44)	Carbon Tetrachloride	5.77	117	12961	0.45	PPB		95
45)	1,1-Dichloropropene	5.84	75	13104	0.47	PPB		97
46)	Isobutyl Alcohol	6.20	43	6369	18.59	PPB		85
48)	Benzene	6.09	78	37216	0.44	PPB		99
49)	1,2-Dichloroethane	6.24	62	11713	0.46	PPB		90
50)	tert-Amyl Methyl Ether	6.27	55	5699	0.48	PPB	#	85
51)	Trichloroethene	6.91	95	9245	0.43	PPB		91
52)	Methylcyclohexane	7.03	83	17045	0.46	PPB		96
53)	1,2-Dichloropropane	7.24	63	9154	0.43	PPB		99
54)	Dibromomethane	7.38	93	4621	0.42	PPB		79
55)	Methyl methacrylate	7.41	69	4121	0.39	PPB		82
57)	Bromodichloromethane	7.58	83	11351	0.42	PPB		89
58)	2-Nitropropane	7.94	41	8280	2.24	PPB	#	77
59)	2-Chloroethyl Vinyl Ether	7.97	63	4259	0.43	PPB		77
60)	cis-1,3-Dichloropropene	8.10	75	12476	0.38	PPB		93
61)	4-Methyl-2-pentanone (MIBK	8.29	58	75988	14.94	PPB		98
63)	Toluene	8.41	92	23504	0.44	PPB		98
65)	n-Octane	8.48	85	6653	0.39	PPB		73
66)	trans-1,3-Dichloropropene	8.77	75	10348	0.40	PPB		91
67)	Ethyl methacrylate	8.82	69	7974	0.43	PPB		87
68)	1,1,2-Trichloroethane	8.96	83	5251	0.41	PPB		84
69)	Tetrachloroethene	8.97	164	8168	0.43	PPB		93
70)	2-Hexanone	9.23	57	26750	19.77	PPB	#	80
71)	1,3-Dichloropropane	9.14	76	11985	0.46	PPB		98
72)	Dibromochloromethane	9.35	129	7255	0.40	PPB		97
73)	1,2-Dibromoethane (EDB)	9.46	107	6227	0.43	PPB		75
74)	1-Chlorohexane	9.97	91	13588	0.47	PPB		84
75)	Chlorobenzene	9.99	112	23886	0.43	PPB		95
76)	Ethylbenzene	10.09	106	13177	0.44	PPB		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\031615\0316F011.D Vial: 2
Acq On : 16 Mar 2015 03:40 pm Operator:
Sample : ICAL 0.5PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:14:54 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

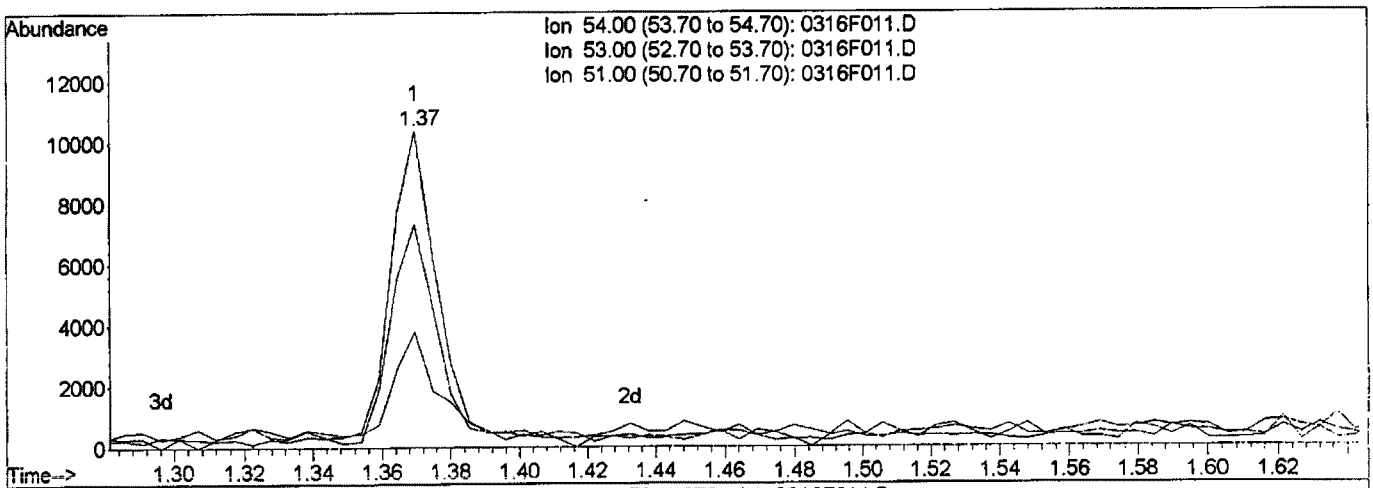
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
77)	1,1,1,2-Tetrachloroethane	10.09	131	7859	0.39	PPB		89
78)	m,p-Xylenes	10.22	106	32709	0.90	PPB		98
79)	o-Xylene	10.66	106	15899	0.44	PPB	#	78
80)	Styrene	10.69	103	10879m	0.39	PPB		
81)	Bromoform	10.91	173	4168	0.36	PPB		81
82)	Isopropylbenzene	11.05	105	41565	0.44	PPB		98
83)	cis-1,4-Dichloro-2-butene	11.22	89	3391	1.39	PPB		93
86)	1,1,2,2-Tetrachloroethane	11.47	83	6525	0.45	PPB		78
87)	trans-1,4-Dichloro-2-buten	11.54	53	2210	0.52	PPB		77
88)	Bromobenzene	11.41	156	10490	0.47	PPB		90
89)	n-Propylbenzene	11.50	91	47098	0.45	PPB		97
90)	1,2,3-Trichloropropane	11.52	110	2302	0.47	PPB		99
91)	2-Chlorotoluene	11.62	91	29675	0.49	PPB		87
92)	1,3,5-Trimethylbenzene	11.71	105	30787	0.42	PPB		85
93)	4-Chlorotoluene	11.75	91	30140	0.48	PPB		97
94)	tert-Butylbenzene	12.05	119	30766	0.46	PPB		94
95)	1,2,4-Trimethylbenzene	12.12	105	31666	0.43	PPB		97
96)	sec-Butylbenzene	12.29	105	42366	0.43	PPB		98
97)	p-Isopropyltoluene	12.46	119	33433	0.40	PPB		96
98)	1,3-Dichlorobenzene	12.45	146	20920	0.46	PPB		90
99)	1,4-Dichlorobenzene	12.55	146	20394	0.45	PPB		89
100)	n-Butylbenzene	12.90	91	31937	0.43	PPB		97
101)	1,2-Dichlorobenzene	12.97	146	17876	0.44	PPB		95
102)	1,2-Dibromo-3-chloropropan	13.86	155	1300	0.52	PPB	#	53
103)	1,3,5-Trichlorobenzene	14.02	180	15379	0.44	PPB		97
104)	1,2,4-Trichlorobenzene	14.73	180	12446	0.40	PPB		94
105)	Hexachlorobutadiene	14.85	225	6344	0.35	PPB		91
106)	Naphthalene	15.01	128	21486	0.40	PPB		94
107)	1,2,3-Trichlorobenzene	15.27	180	11027	0.40	PPB		94

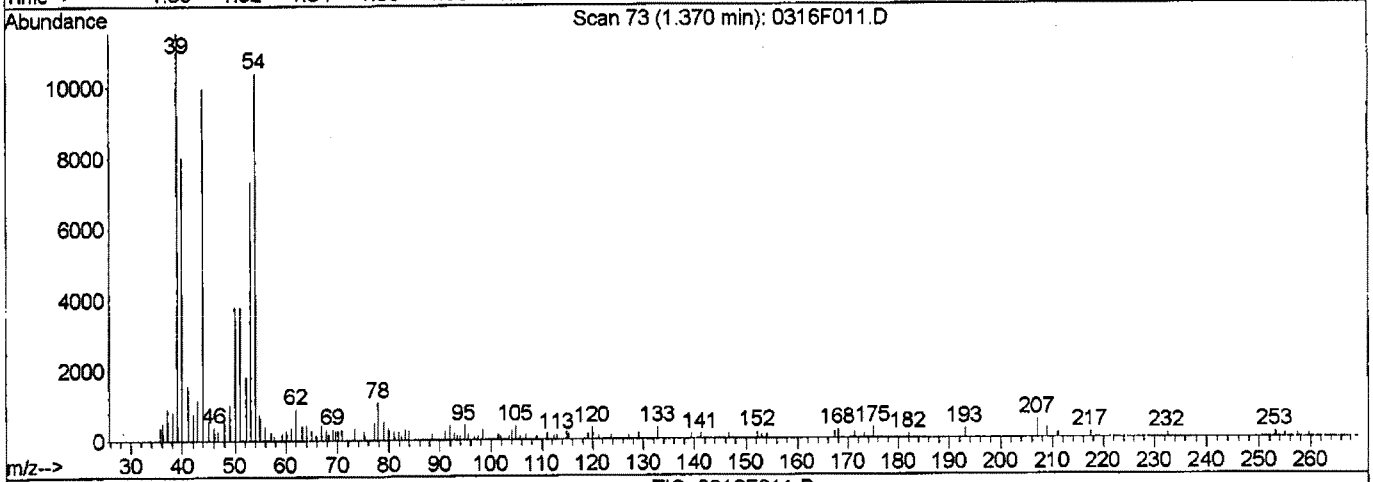
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F011.D Vial: 2
Acq On : 16 Mar 2015 03:40 pm Operator:
Sample : ICAL 0.5PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:14 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Multiple Level Calibration





TIC: 0316F011.D

(5) 1,3-Butadiene (T)

1.37min 0.53PPB

response 10787

Ion	Exp%	Act%
54.00	100	100
53.00	69.50	66.28
51.00	28.30	33.56
0.00	0.00	0.00

Manual Integration:

Before

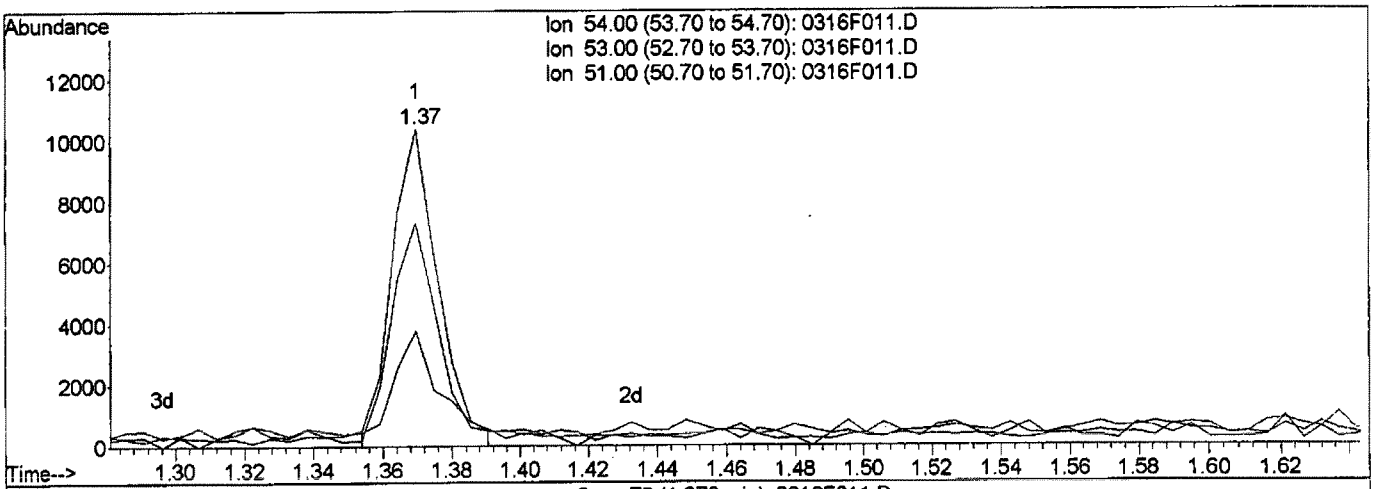
03/17/15

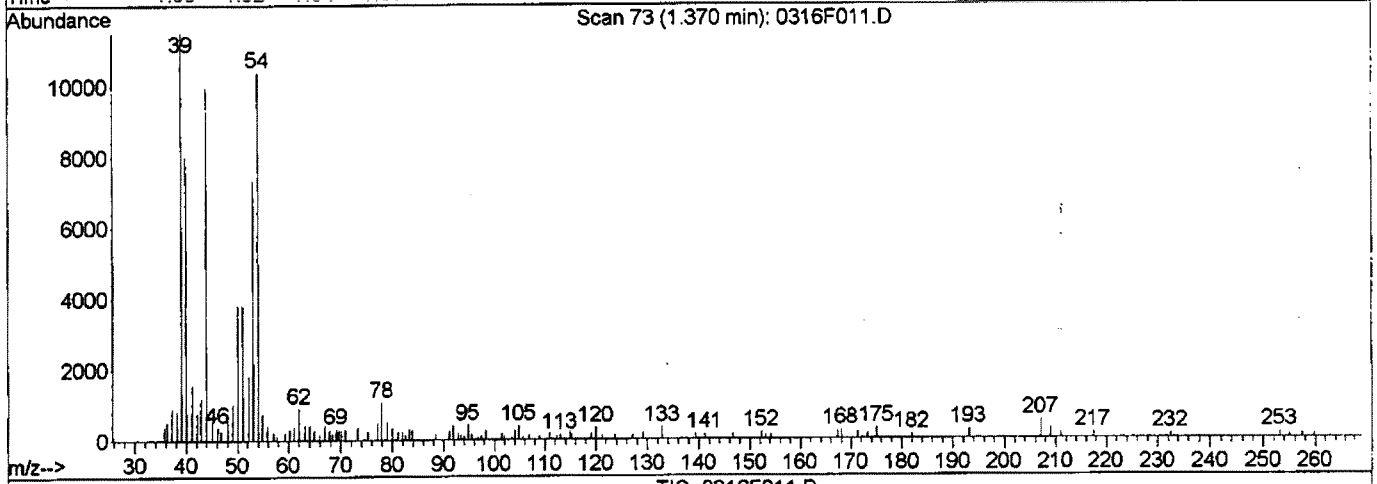
0316F011.D 031615MS46_8260.M Tue Mar 17 12:15:04 2015

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F011.D Vial: 2
Acq On : 16 Mar 2015 03:40 pm Operator:
Sample : ICAL 0.5PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:15 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Multiple Level Calibration





TIC: 0316F011.D

(5) 1,3-Butadiene (T)

1.37min 0.47PPB m

response 9677

Ion	Exp%	Act%
54.00	100	100
53.00	69.50	70.55
51.00	28.30	36.53
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

03/17/15

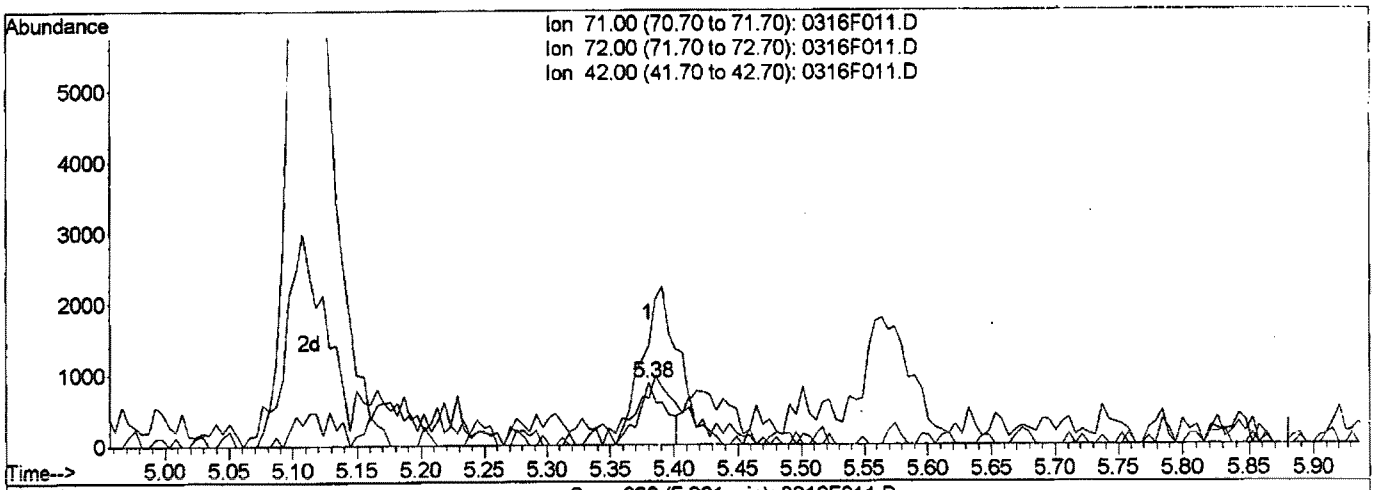
KR 3/26/15

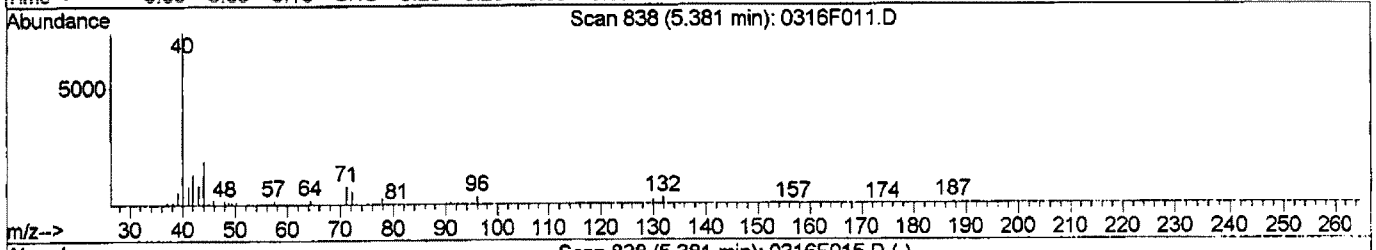
0316F011.D 031615MS46_8260.M Tue Mar 17 12:15:09 2015

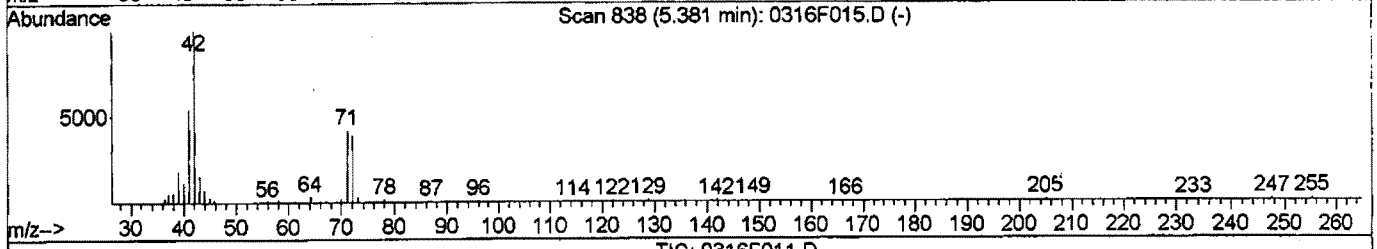
Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F011.D Vial: 2
Acq On : 16 Mar 2015 03:40 pm Operator:
Sample : ICAL 0.5PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:15 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Single Level Calibration







TIC: 0316F011.D

(39) Tetrahydrofuran (T)

5.38min 0.87PPB

response 1292

Ion	Exp%	Act%
71.00	100	100
72.00	96.00	56.72#
42.00	237.40	159.47#
0.00	0.00	0.00

Manual Integration:

Before

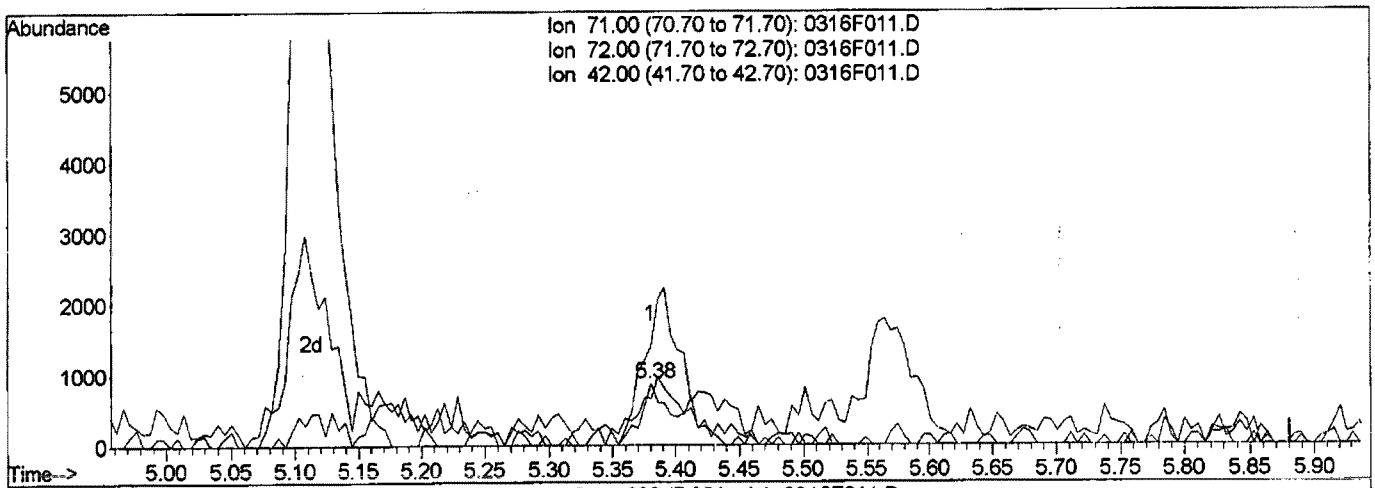
03/17/15

0316F011.D 031615MS46_8260.M Tue Mar 17 12:15:51 2015

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F011.D Vial: 2
Acq On : 16 Mar 2015 03:40 pm Operator:
Sample : ICAL 0.5PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:15 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Single Level Calibration



TIC: 0316F011.D

(39) Tetrahydrofuran (T)

5.38min 1.25PPB m

response 1851

Ion	Exp%	Act%
71.00	100	100
72.00	96.00	75.09
42.00	237.40	159.47#
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

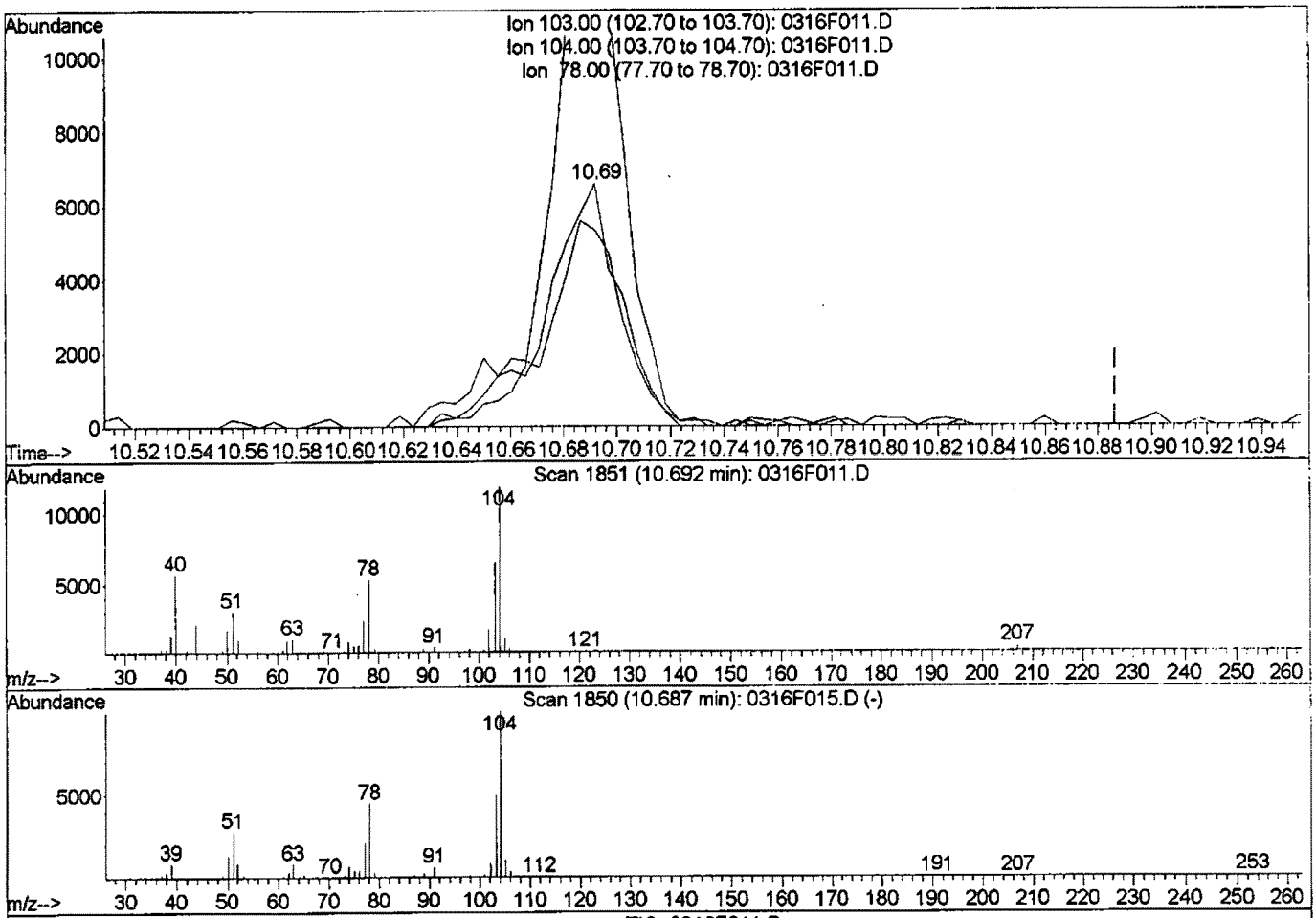
03/17/15

0316F011.D 031615MS46_8260.M Tue Mar 17 12:15:55 2015

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F011.D Vial: 2
Acq On : 16 Mar 2015 03:40 pm Operator:
Sample : ICAL 0.5PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:16 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Multiple Level Calibration



TIC: 0316F011.D

(80) Styrene (T)

10.69min 0.46PPB

response 12745

Ion	Exp%	Act%
103.00	100	100
104.00	198.60	181.53
78.00	88.20	80.90
0.00	0.00	0.00

Manual Integration:

Before

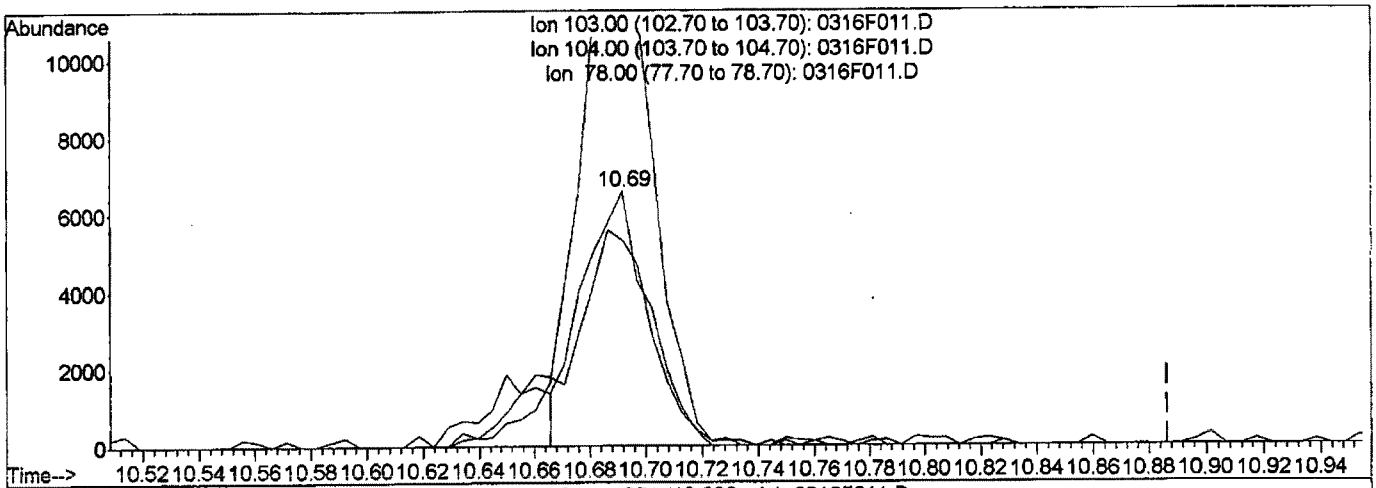
03/17/15

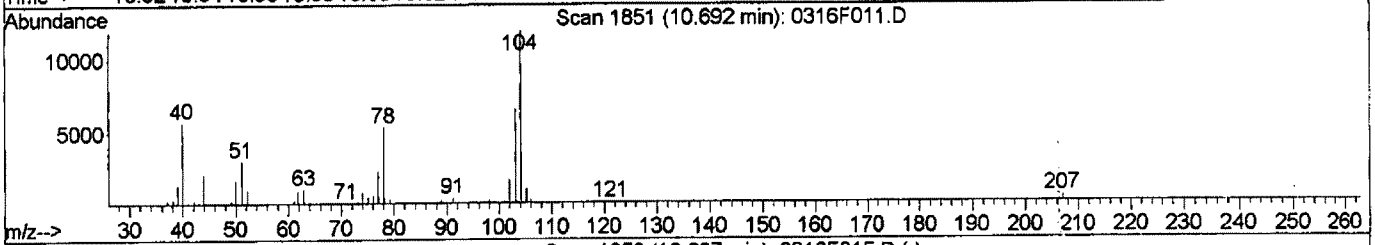
0316F011.D 031615MS46_8260.M Tue Mar 17 12:16:32 2015

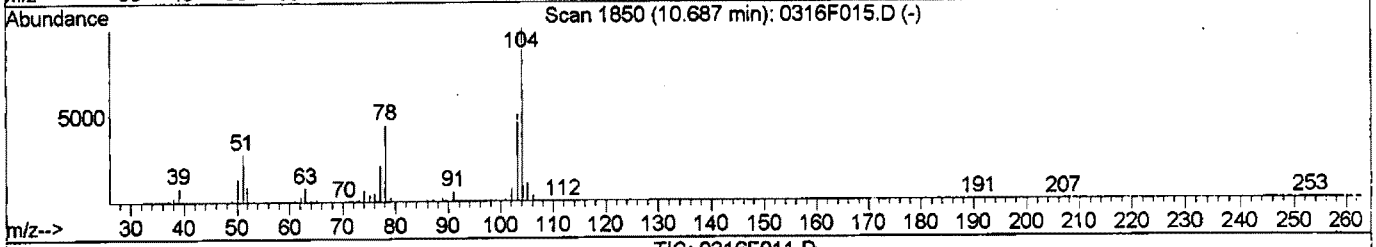
Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F011.D Vial: 2
Acq On : 16 Mar 2015 03:40 pm Operator:
Sample : ICAL 0.5PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:16 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Multiple Level Calibration







TIC: 0316F011.D

(80) Styrene (T)

10.69min 0.39PPB m

response 10879

Ion	Exp%	Act%
103.00	100	100
104.00	198.60	181.53
78.00	88.20	80.90
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

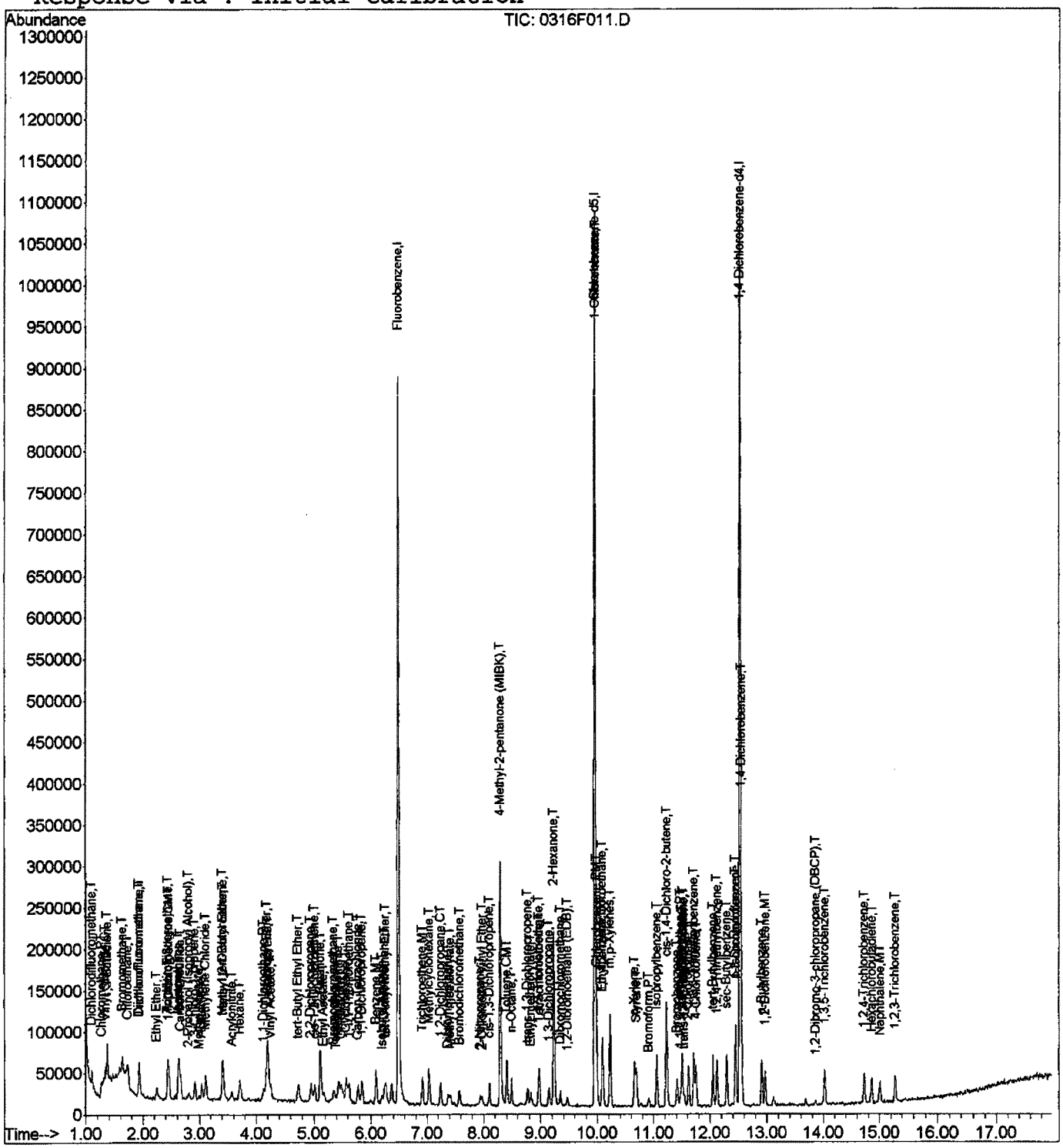
03/17/15

0316F011.D 031615MS46_8260.M Tue Mar 17 12:16:35 2015

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\031615\0316F011.D Vial: 2
Acq On : 16 Mar 2015 03:40 pm Operator:
Sample : ICAL 0.5PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:16 2015 Quant Results File: 031615MS46_8

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\031615\0316F012.D Vial: 2
Acq On : 16 Mar 2015 04:03 pm Operator:
Sample : ICAL 1PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:17:20 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

KL 3/17/15

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	6.49	96	806564	10.00	PPB		0.00
64) Chlorobenzene-d5	9.96	82	319752	10.00	PPB		0.00
85) 1,4-Dichlorobenzene-d4	12.53	152	318275	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.70	113	68083	3.47	PPB		0.00
Spiked Amount 10.000			Recovery =	34.70%			
47) 1,2-Dichloroethane-d4	6.14	65	75003	3.69	PPB		0.00
Spiked Amount 10.000			Recovery =	36.90%			
62) Toluene-d8	8.33	98	258426	3.44	PPB		0.00
Spiked Amount 10.000			Recovery =	34.40%			
84) 4-Bromofluorobenzene	11.26	95	93158	3.38	PPB		0.00
Spiked Amount 10.000			Recovery =	33.80%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.10	85	26017	0.97	PPB		98
3) Chloromethane	1.26	50	26041	0.94	PPB		95
4) Vinyl Chloride	1.34	62	21299	0.85	PPB		97
5) 1,3-Butadiene	1.37	54	19477	0.97	PPB		94
6) Bromomethane	1.63	96	15500	0.95	PPB		99
7) Chloroethane	1.73	64	12494	0.91	PPB		87
8) Dichlorofluoromethane	1.93	67	35627	1.00	PPB		95
9) Trichlorofluoromethane	1.92	101	31507	0.98	PPB		96
10) Ethyl Ether	2.23	59	12722	0.91	PPB		87
11) Acrolein	2.44	56	33892	18.10	PPB		92
12) Trichlorotrifluoroethane	2.44	151	16684	1.03	PPB		93
13) 1,1-Dichloroethene	2.46	96	16279	0.98	PPB	#	82
14) Acetone	2.62	43	112112	39.06	PPB		99
15) Iodomethane	2.64	142	48828	2.95	PPB		99
16) Carbon Disulfide	2.66	76	56878	1.02	PPB		97
17) 2-Propanol (Isopropyl Alco	2.80	45	23707	46.04	PPB		95
18) 3-Chloro-1-propene	2.92	76	10231	0.96	PPB	#	67
19) Methyl Acetate	2.98	43	8042	0.78	PPB		89
20) Acetonitrile	3.03	40	27273	39.00	PPB	#	75
21) Methylene Chloride	3.11	84	23524	1.12	PPB		93
23) Acrylonitrile	3.56	53	14770	3.27	PPB		93
24) Methyl tert-Butyl Ether	3.41	73	82128	1.79	PPB		98
25) trans-1,2-Dichloroethene	3.41	96	18409	0.95	PPB		88
26) Hexane	3.71	57	29169	1.00	PPB		97
27) Diisopropyl Ether	4.17	45	55869	0.86	PPB		95
28) 1,1-Dichloroethane	4.12	63	33080	0.96	PPB		98
29) Vinyl Acetate	4.25	86	6299	1.77	PPB	#	56

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\031615\0316F012.D Vial: 2
Acq On : 16 Mar 2015 04:03 pm Operator:
Sample : ICAL 1PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:17:20 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
30)	Chloroprene	4.20	53	101386	3.67	PPB		99
31)	tert-Butyl Ethyl Ether	4.74	59	49966	0.90	PPB		99
32)	2,2-Dichloropropane	4.96	77	28799	0.96	PPB		97
33)	cis-1,2-Dichloroethene	5.02	96	19914	0.92	PPB		90
34)	2-Butanone	5.11	72	46157	37.59	PPB		96
35)	Ethyl Acetate	5.17	61	3700m	2.06	PPB		
36)	Propionitrile	5.29	54	6348	3.99	PPB		82
37)	Methacrylonitrile	5.43	67	18627	3.31	PPB		96
38)	Bromochloromethane	5.35	128	8867	0.91	PPB	#	66
39)	Tetrahydrofuran	5.39	71	2563	1.76	PPB	#	69
40)	Chloroform	5.47	83	33671	0.94	PPB		98
41)	Cyclohexane	5.57	56	32518	0.92	PPB		95
42)	1,1,1-Trichloroethane	5.61	97	31873	0.99	PPB		97
44)	Carbon Tetrachloride	5.77	117	27582	0.97	PPB		96
45)	1,1-Dichloropropene	5.84	75	26611	0.97	PPB		94
46)	Isobutyl Alcohol	6.19	43	12982	38.65	PPB		87
48)	Benzene	6.09	78	75040	0.91	PPB		98
49)	1,2-Dichloroethane	6.24	62	23837	0.96	PPB		93
50)	tert-Amyl Methyl Ether	6.26	55	11817	1.01	PPB	#	80
51)	Trichloroethene	6.92	95	21067	1.00	PPB		85
52)	Methylcyclohexane	7.04	83	33073	0.90	PPB		96
53)	1,2-Dichloropropane	7.24	63	19690	0.95	PPB		91
54)	Dibromomethane	7.38	93	9624	0.90	PPB		91
55)	Methyl methacrylate	7.41	69	9621	0.92	PPB		83
56)	1,4-Dioxane	7.43	88	2802m	28.24	PPB		
57)	Bromodichloromethane	7.57	83	23089	0.86	PPB		97
58)	2-Nitropropane	7.93	41	16030	4.43	PPB		96
59)	2-Chloroethyl Vinyl Ether	7.97	63	8348	0.85	PPB		93
60)	cis-1,3-Dichloropropene	8.10	75	26870	0.84	PPB		95
61)	4-Methyl-2-pentanone (MIBK	8.30	58	161297	32.34	PPB		99
63)	Toluene	8.41	92	45988	0.88	PPB		97
65)	n-Octane	8.49	85	14075	0.84	PPB		93
66)	trans-1,3-Dichloropropene	8.76	75	23069	0.91	PPB		91
67)	Ethyl methacrylate	8.83	69	16095	0.89	PPB		91
68)	1,1,2-Trichloroethane	8.96	83	12028	0.96	PPB		92
69)	Tetrachloroethene	8.97	164	18561	1.00	PPB		97
70)	2-Hexanone	9.23	57	52285	39.30	PPB		93
71)	1,3-Dichloropropane	9.15	76	24685	0.97	PPB		92
72)	Dibromochloromethane	9.35	129	15967	0.89	PPB		86
73)	1,2-Dibromoethane (EDB)	9.46	107	13363	0.94	PPB		92
74)	1-Chlorohexane	9.96	91	26405	0.93	PPB		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\031615\0316F012.D Vial: 2
Acq On : 16 Mar 2015 04:03 pm Operator:
Sample : ICAL 1PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:17:20 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

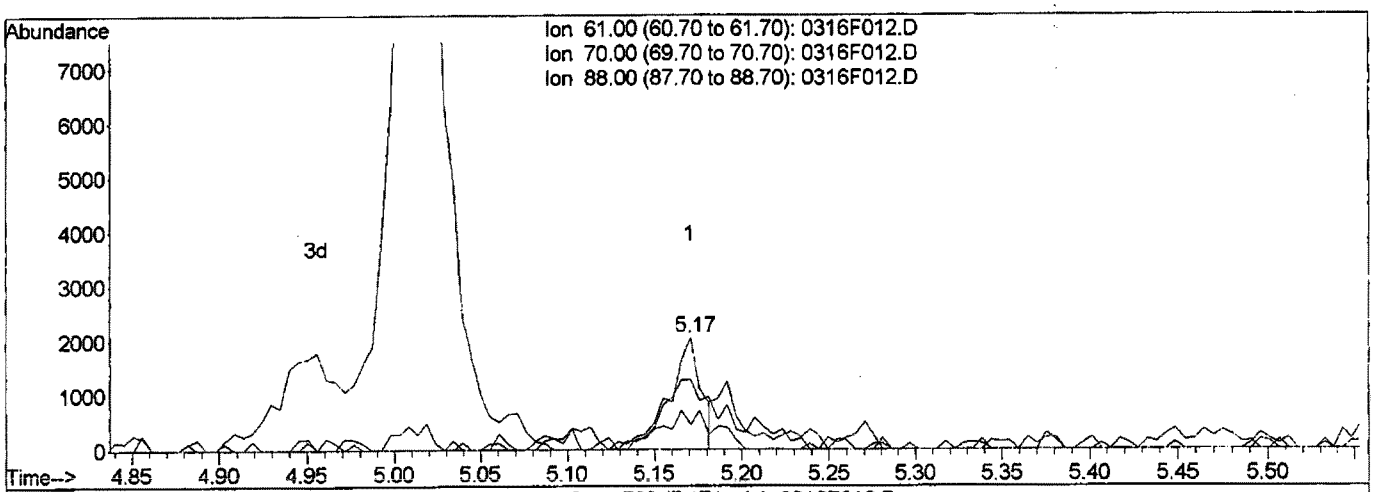
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
75)	Chlorobenzene	9.98	112	51099	0.94	PPB	98
76)	Ethylbenzene	10.08	106	28975	0.98	PPB	89
77)	1,1,1,2-Tetrachloroethane	10.09	131	17899	0.91	PPB	95
78)	m,p-Xylenes	10.22	106	69533	1.94	PPB	88
79)	o-Xylene	10.66	106	32815	0.93	PPB	88
80)	Styrene	10.69	103	24687m	0.91	PPB	
81)	Bromoform	10.91	173	8986	0.80	PPB	95
82)	Isopropylbenzene	11.05	105	84794	0.91	PPB	95
83)	cis-1,4-Dichloro-2-butene	11.22	89	7176	2.98	PPB	90
86)	1,1,2,2-Tetrachloroethane	11.47	83	13466	0.96	PPB	96
88)	Bromobenzene	11.41	156	21477	0.99	PPB	98
89)	n-Propylbenzene	11.50	91	104194	1.03	PPB	99
90)	1,2,3-Trichloropropane	11.52	110	4309	0.91	PPB	94
91)	2-Chlorotoluene	11.62	91	59436	1.00	PPB	99
92)	1,3,5-Trimethylbenzene	11.71	105	68384	0.96	PPB	99
93)	4-Chlorotoluene	11.75	91	63752m	1.04	PPB	
94)	tert-Butylbenzene	12.05	119	66367	1.03	PPB	93
95)	1,2,4-Trimethylbenzene	12.12	105	69274	0.96	PPB	94
96)	sec-Butylbenzene	12.29	105	94742	0.99	PPB	95
97)	p-Isopropyltoluene	12.46	119	75398	0.94	PPB	97
98)	1,3-Dichlorobenzene	12.45	146	43548	0.98	PPB	96
99)	1,4-Dichlorobenzene	12.55	146	41458	0.94	PPB	95
100)	n-Butylbenzene	12.90	91	67908	0.93	PPB	98
101)	1,2-Dichlorobenzene	12.97	146	40349	1.02	PPB	97
102)	1,2-Dibromo-3-chloropropan	13.85	155	2644	1.08	PPB	90
103)	1,3,5-Trichlorobenzene	14.02	180	29642	0.87	PPB	87
104)	1,2,4-Trichlorobenzene	14.72	180	26406	0.88	PPB	96
105)	Hexachlorobutadiene	14.86	225	13616	0.78	PPB	94
106)	Naphthalene	15.01	128	46751	0.90	PPB	100
107)	1,2,3-Trichlorobenzene	15.27	180	23803	0.89	PPB	92

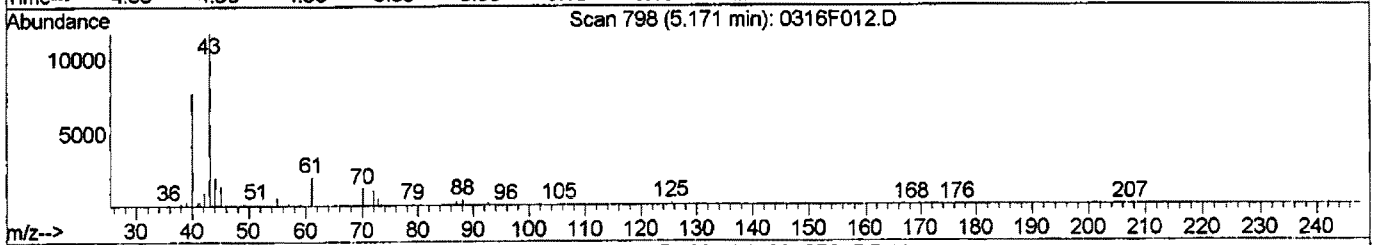
(#) = qualifier out of range (m) = manual integration

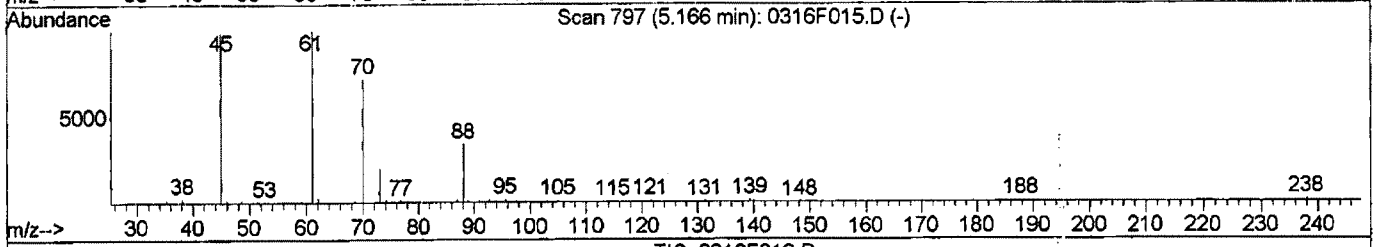
Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F012.D Vial: 2
Acq On : 16 Mar 2015 04:03 pm Operator:
Sample : ICAL 1PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:18 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Single Level Calibration







TIC: 0316F012.D

(35) Ethyl Acetate (T)

5.17min 1.51PPB

response 2723

Ion	Exp%	Act%
61.00	100	100
70.00	69.80	51.46
88.00	33.30	21.66
0.00	0.00	0.00

Manual Integration:

Before

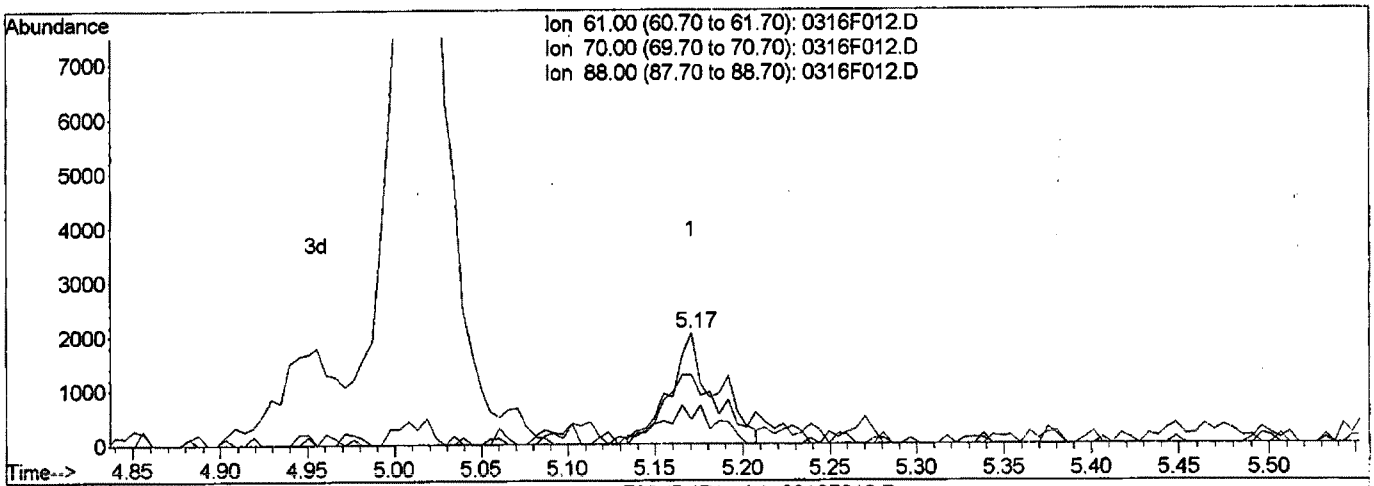
03/17/15

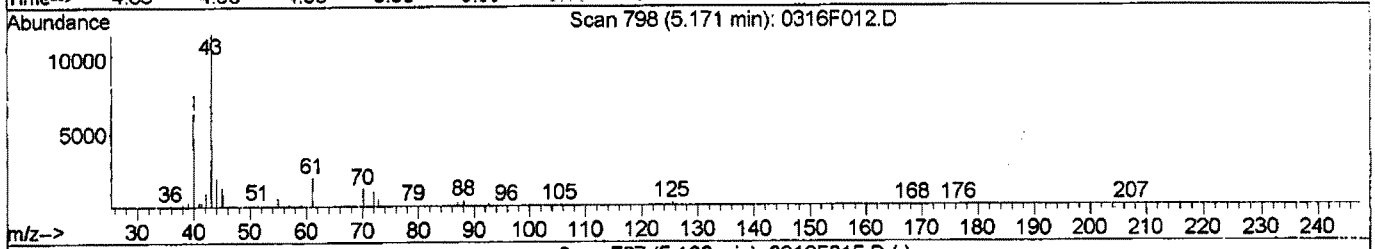
0316F012.D 031615MS46_8260.M Tue Mar 17 12:18:28 2015

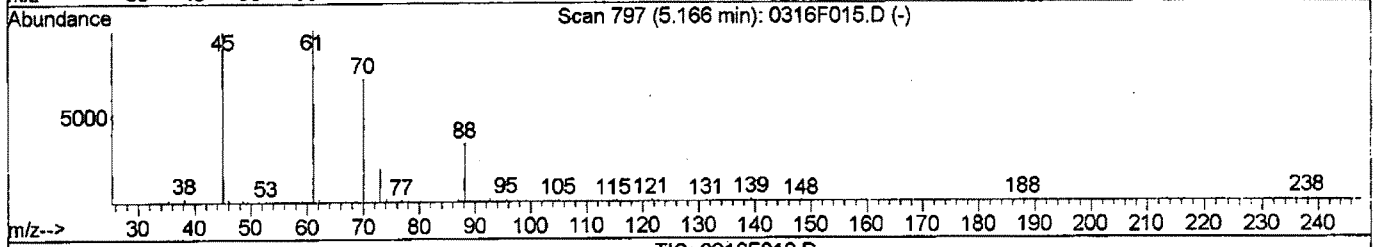
Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F012.D Vial: 2
Acq On : 16 Mar 2015 04:03 pm Operator:
Sample : ICAL 1PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:18 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Single Level Calibration







TIC: 0316F012.D

(35) Ethyl Acetate (T)
5.17min 2.06PPB m
response 3700

Ion	Exp%	Act%
61.00	100	100
70.00	69.80	62.05
88.00	33.30	21.66
0.00	0.00	0.00

Manual Integration:
After
Baseline correction
03/17/15

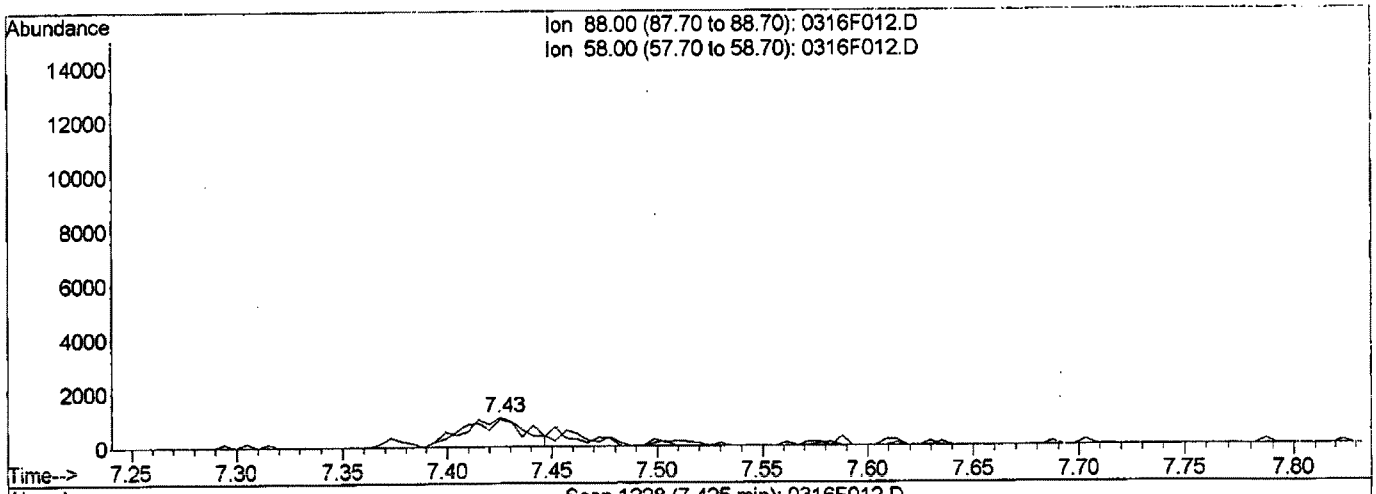
0316F012.D 031615MS46_8260.M Tue Mar 17 12:18:35 2015

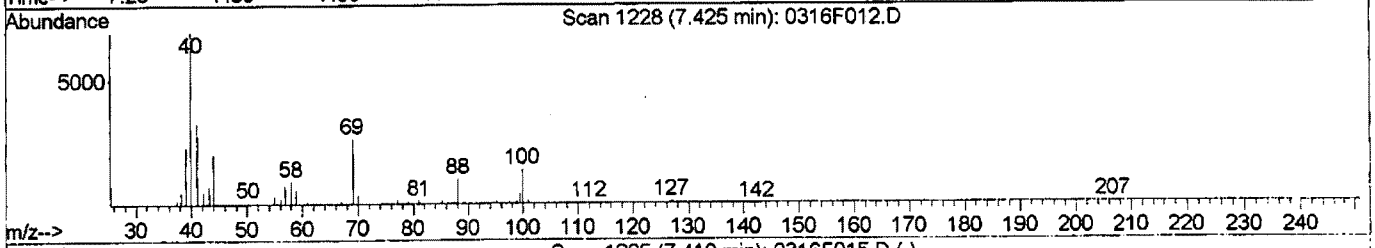
Quantitation Report (Qedit)

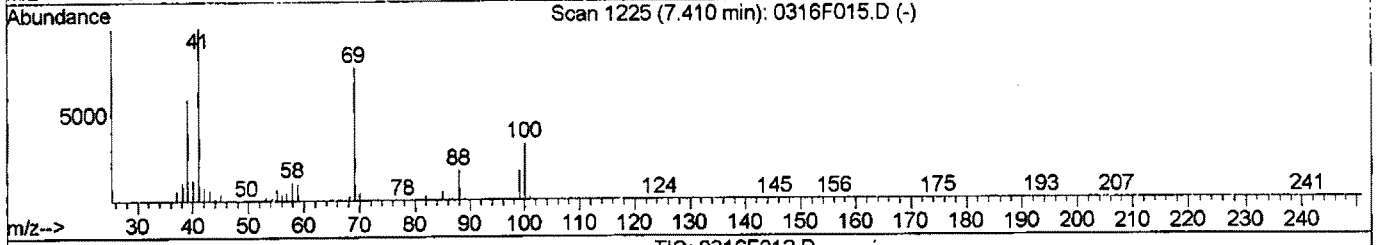
Data File : J:\MS46\DATA\031615\0316F012.D
Acq On : 16 Mar 2015 04:03 pm
Sample : ICAL 1PPB
Misc :
MS Integration Params: rteint.p
Quant Time: Mar 17 12:18 2015

Vial: 2
Operator:
Inst : GCMS46
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Single Level Calibration







TIC: 0316F012.D

(56) 1,4-Dioxane (T)

7.43min 21.96PPB

response 2179

Ion	Exp%	Act%
88.00	100	100
58.00	59.90	81.53
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

03/17/15

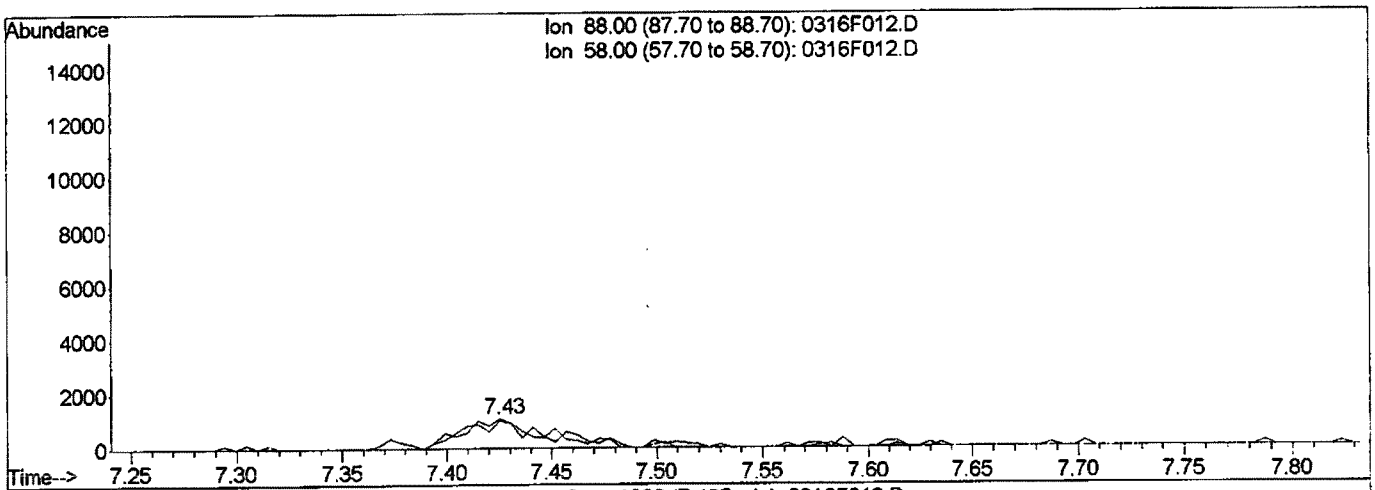
0316F012.D 031615MS46_8260.M Tue Mar 17 12:19:03 2015

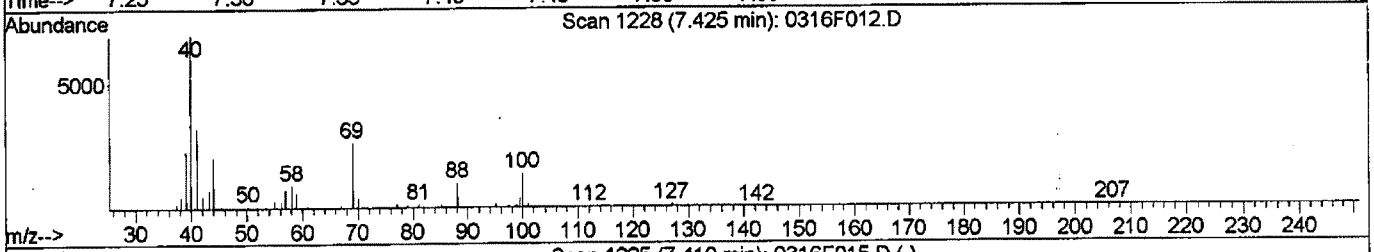
Quantitation Report (Qedit)

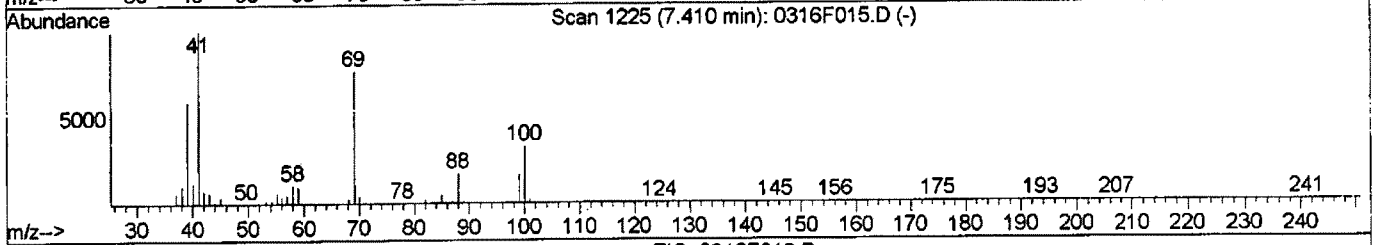
Data File : J:\MS46\DATA\031615\0316F012.D
Acq On : 16 Mar 2015 04:03 pm
Sample : ICAL 1PPB
Misc :
MS Integration Params: rteint.p
Quant Time: Mar 17 12:19 2015

Vial: 2
Operator:
Inst : GCMS46
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Single Level Calibration







TIC: 0316F012.D

(56) 1,4-Dioxane (T)

7.43min 28.24PPB m

response 2802

Ion	Exp%	Act%
88.00	100	100
58.00	59.90	93.75#
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

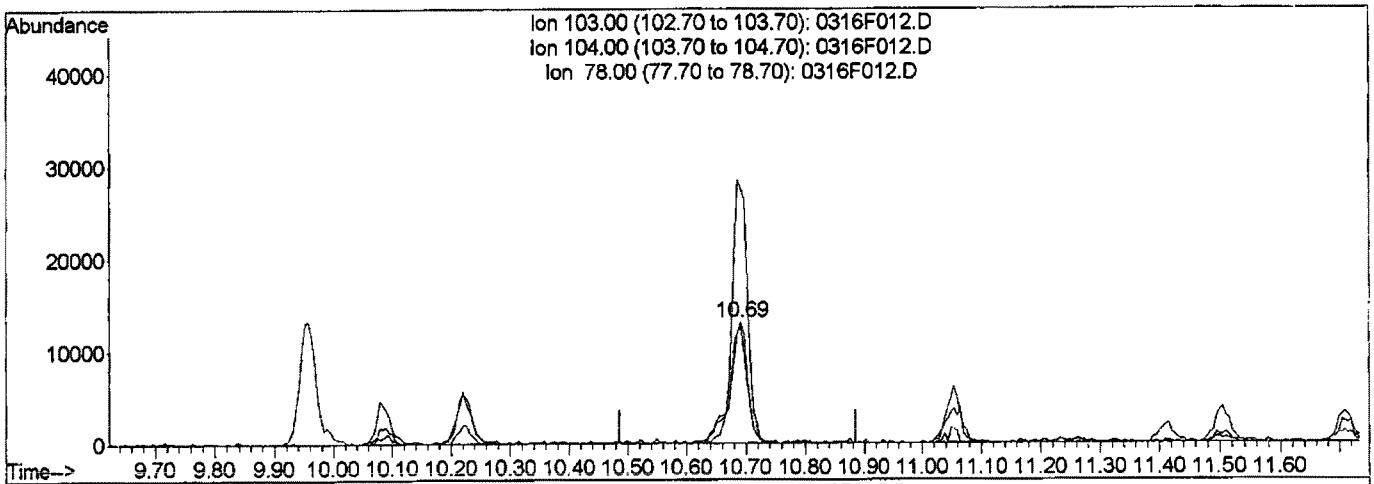
03/17/15

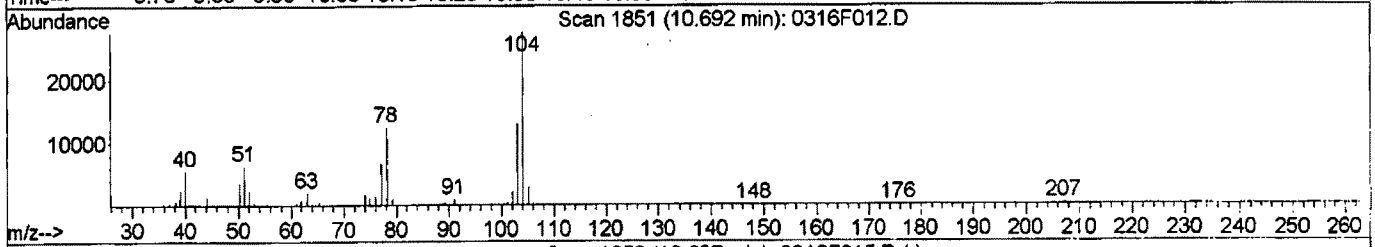
0316F012.D 031615MS46_8260.M Tue Mar 17 12:19:07 2015

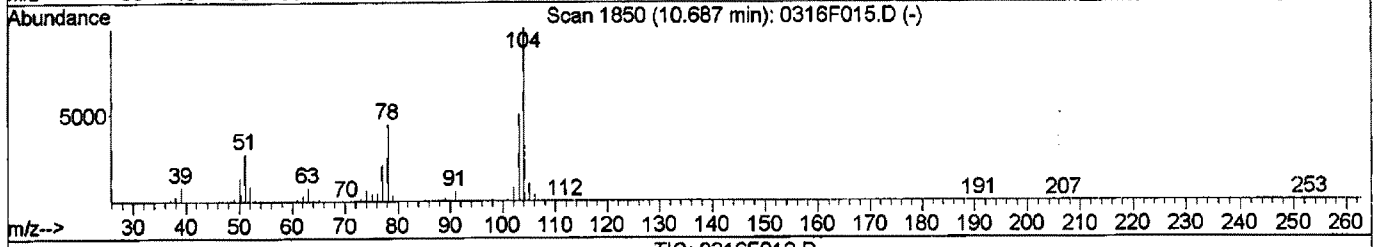
Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F012.D Vial: 2
Acq On : 16 Mar 2015 04:03 pm Operator:
Sample : ICAL 1PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:19 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Multiple Level Calibration







TIC: 0316F012.D

(80) Styrene (T)

10.69min 1.02PPB

response 27642

Ion	Exp%	Act%
103.00	100	100
104.00	198.60	209.34
78.00	88.20	95.54
0.00	0.00	0.00

Manual Integration:

Before

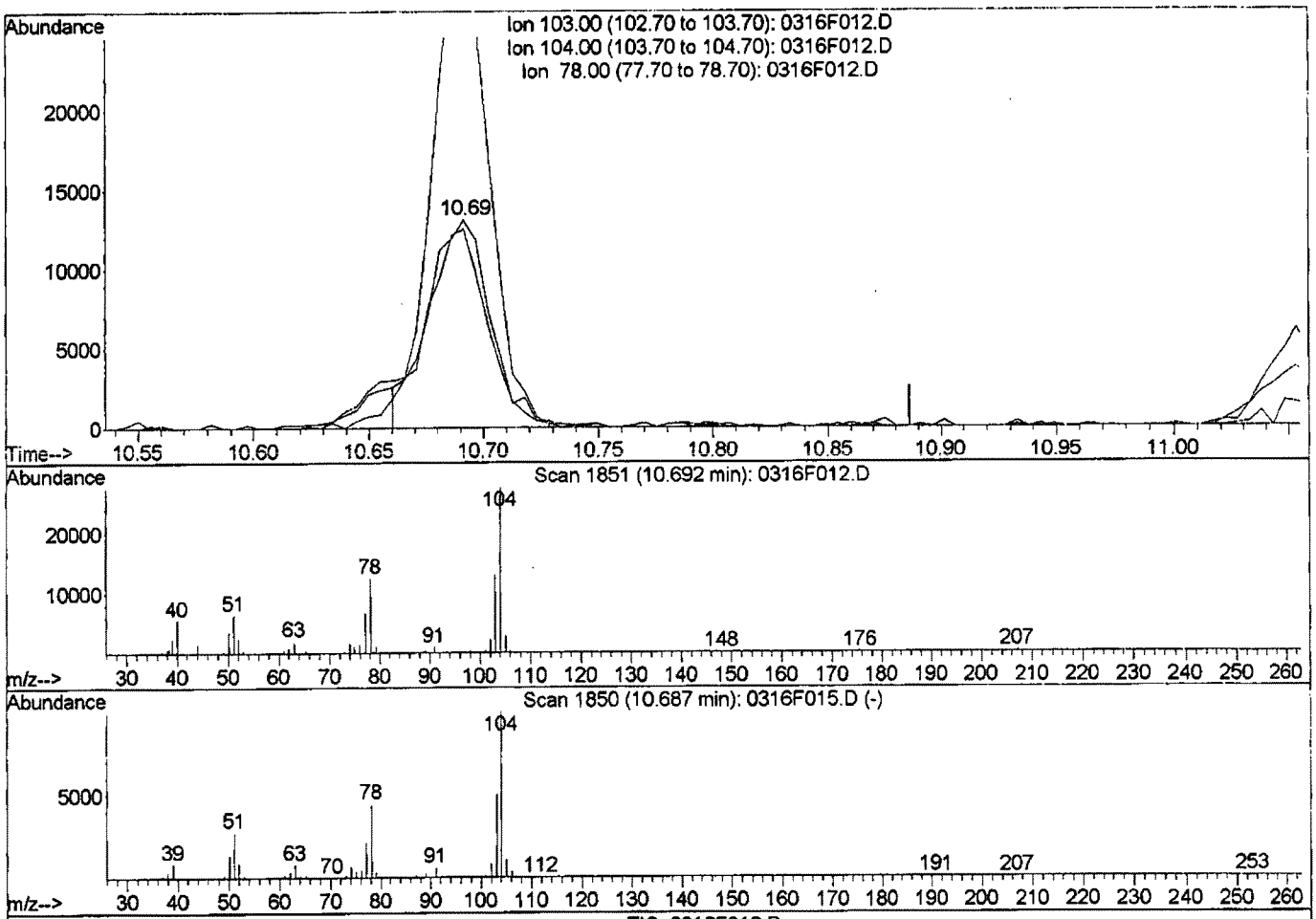
03/17/15

0316F012.D 031615MS46_8260.M Tue Mar 17 12:19:27 2015

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F012.D Vial: 2
Acq On : 16 Mar 2015 04:03 pm Operator:
Sample : ICAL 1PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:19 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Multiple Level Calibration



TIC: 0316F012.D

(80) Styrene (T)
10.69min 0.91PPB m
response 24687

Ion	Exp%	Act%
103.00	100	100
104.00	198.60	210.28
78.00	88.20	95.54
0.00	0.00	0.00

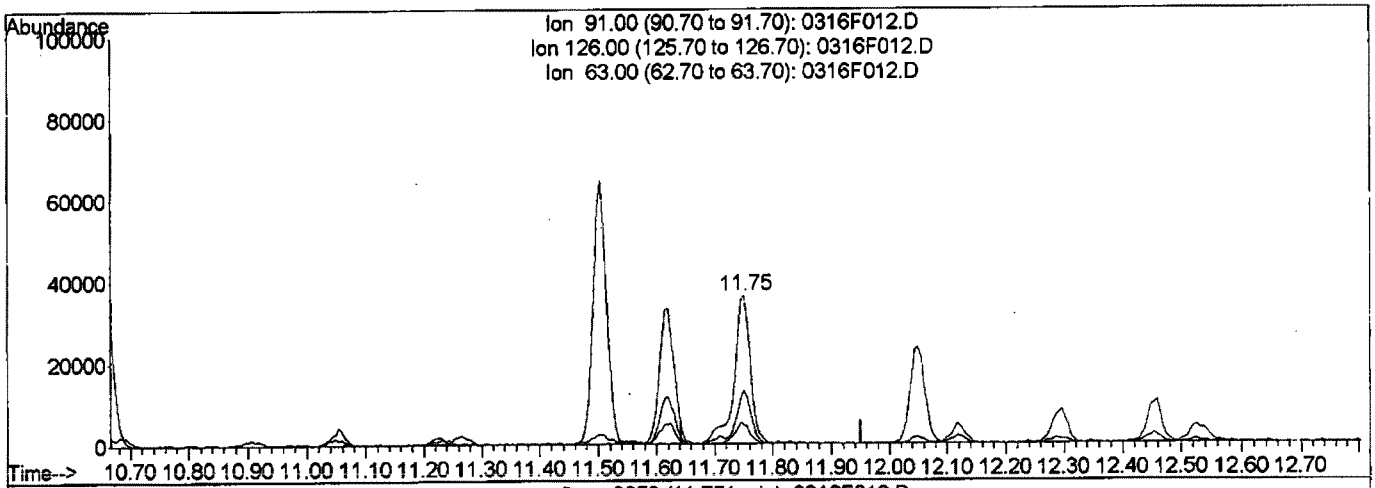
Manual Integration:
After
Baseline correction
03/17/15

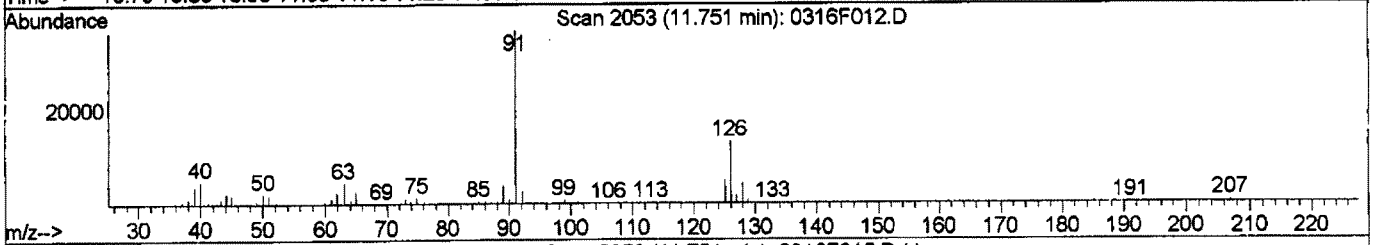
0316F012.D 031615MS46_8260.M Tue Mar 17 12:19:35 2015

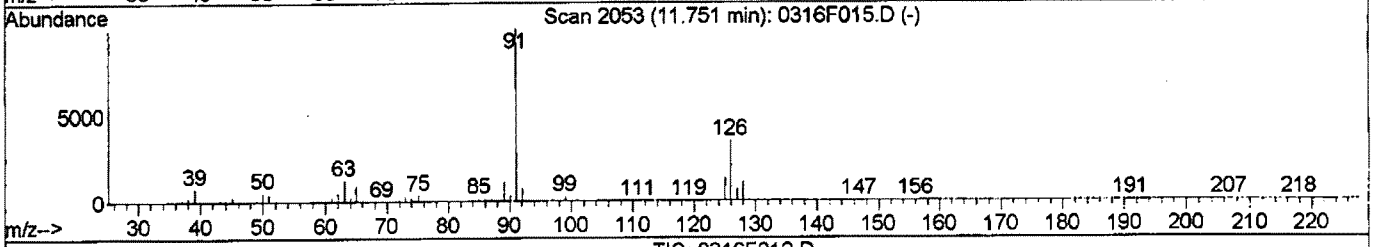
Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F012.D Vial: 2
Acq On : 16 Mar 2015 04:03 pm Operator:
Sample : ICAL 1PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:19 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Multiple Level Calibration







TIC: 0316F012.D

(93) 4-Chlorotoluene (T)

11.75min 1.16PPB

response 71198

Ion	Exp%	Act%
91.00	100	100
126.00	34.80	36.14
63.00	12.80	12.44
0.00	0.00	0.00

Manual Integration:

Before

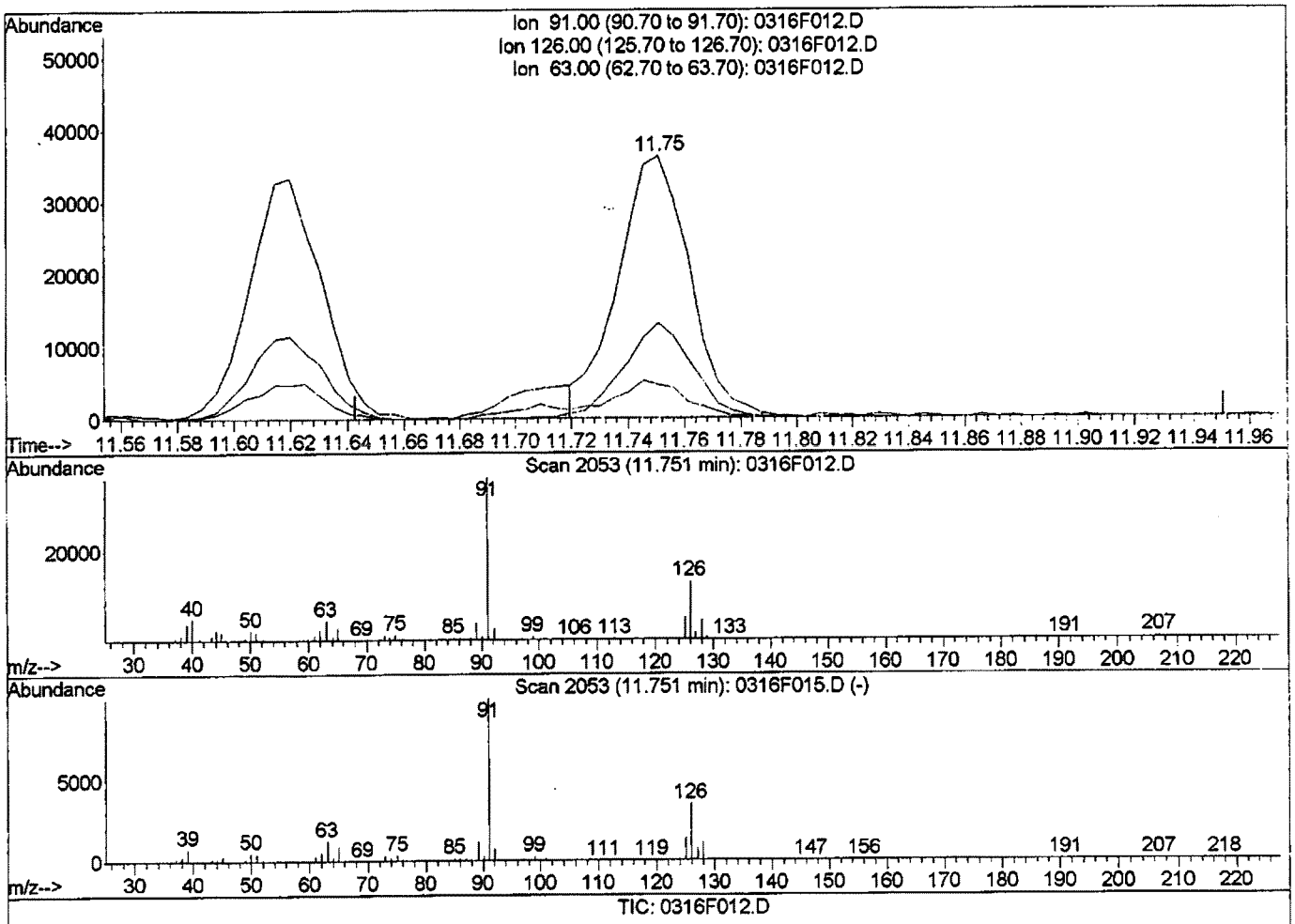
03/17/15

0316F012.D 031615MS46_8260.M Tue Mar 17 12:19:51 2015

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F012.D Vial: 2
Acq On : 16 Mar 2015 04:03 pm Operator:
Sample : ICAL 1PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:19 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Multiple Level Calibration



TIC: 0316F012.D

(93) 4-Chlorotoluene (T)

11.75min 1.04PPB m

response 63752

Ion	Exp%	Act%
91.00	100	100
126.00	34.80	36.14
63.00	12.80	12.44
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

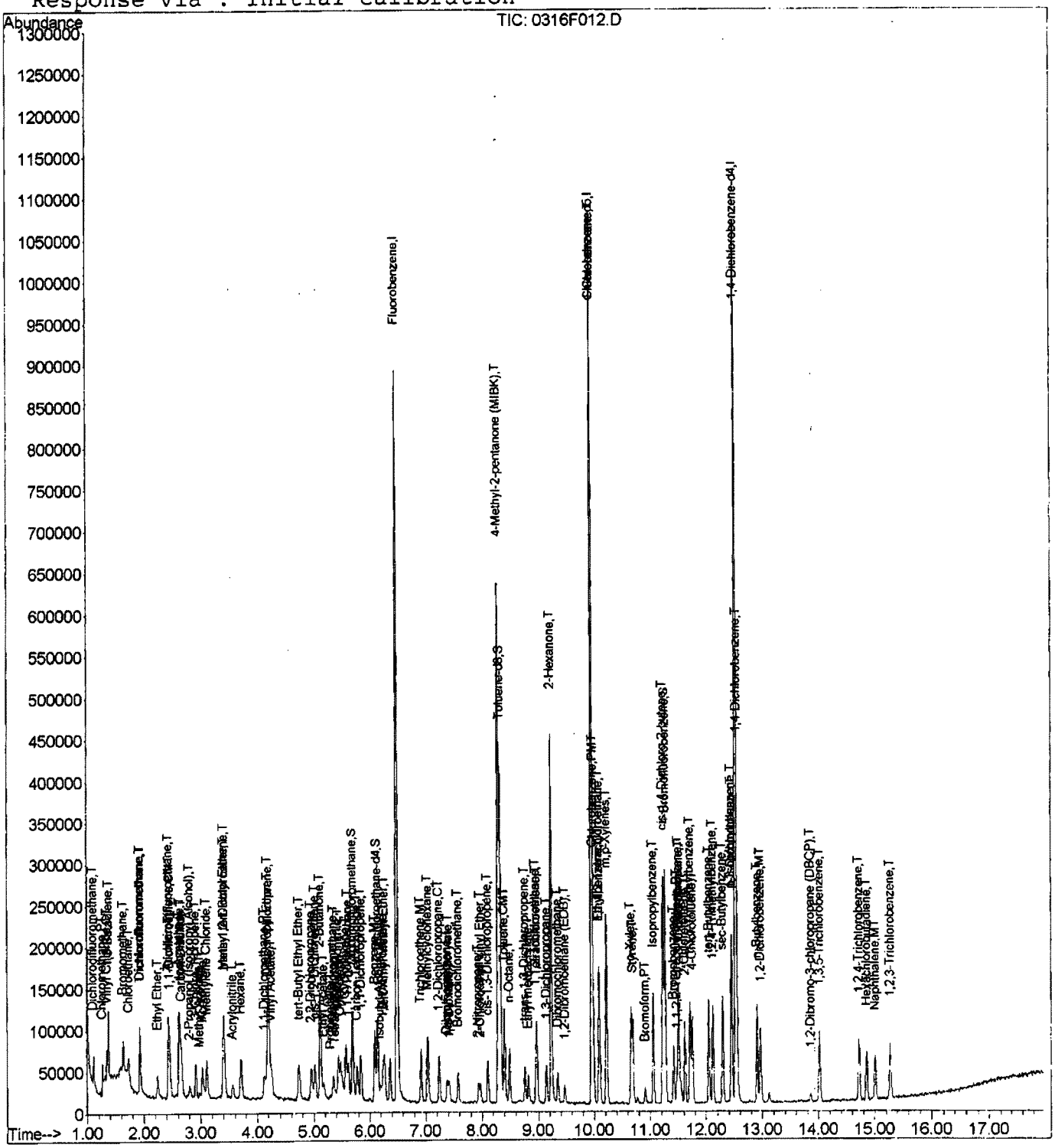
03/17/15

0316F012.D 031615MS46_8260.M Tue Mar 17 12:19:57 2015

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\031615\0316F012.D Vial: 2
Acq On : 16 Mar 2015 04:03 pm Operator:
Sample : ICAL 1PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:19 2015 Quant Results File: 031615MS46_8

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\031615\0316F013.D Vial: 2
Acq On : 16 Mar 2015 04:27 pm Operator:
Sample : ICAL 2PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:33:15 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

KM 3/17/16

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.49	96	814514	10.00	PPB	0.00
64) Chlorobenzene-d5	9.96	82	317416	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	12.53	152	317561	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.70	113	100494	5.08	PPB	0.00
Spiked Amount 10.000			Recovery =	50.80%		
47) 1,2-Dichloroethane-d4	6.14	65	110164	5.37	PPB	0.00
Spiked Amount 10.000			Recovery =	53.70%		
62) Toluene-d8	8.33	98	384088	5.06	PPB	0.00
Spiked Amount 10.000			Recovery =	50.60%		
84) 4-Bromofluorobenzene	11.27	95	144320	5.27	PPB	0.00
Spiked Amount 10.000			Recovery =	52.70%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.10	85	55374	2.05	PPB	97
3) Chloromethane	1.26	50	56403	2.01	PPB	97
4) Vinyl Chloride	1.34	62	48068	1.91	PPB	100
5) 1,3-Butadiene	1.37	54	39976	1.97	PPB	98
6) Bromomethane	1.63	96	31951	1.94	PPB	95
7) Chloroethane	1.72	64	25853	1.87	PPB	92
8) Dichlorofluoromethane	1.93	67	80328	2.23	PPB	100
9) Trichlorofluoromethane	1.93	101	63039	1.94	PPB	99
10) Ethyl Ether	2.23	59	27990	1.98	PPB	98
11) Acrolein	2.44	56	68865	36.42	PPB	99
12) Trichlorotrifluoroethane	2.43	151	34879	2.14	PPB	88
13) 1,1-Dichloroethene	2.45	96	34970	2.09	PPB	94
14) Acetone	2.61	43	202226	69.76	PPB	99
15) Iodomethane	2.63	142	117645	7.03	PPB	100
16) Carbon Disulfide	2.66	76	115821	2.06	PPB	97
17) 2-Propanol (Isopropyl Alco	2.80	45	47542	91.43	PPB	97
18) 3-Chloro-1-propene	2.92	76	22431	2.09	PPB	86
19) Methyl Acetate	2.98	43	20813	1.99	PPB	98
20) Acetonitrile	3.03	40	64170	90.87	PPB	87
21) Methylene Chloride	3.11	84	42856	2.01	PPB	94
22) tert-Butyl Alcohol	3.33	59	7825	9.17	PPB	71
23) Acrylonitrile	3.56	53	36410	7.99	PPB	91
24) Methyl tert-Butyl Ether	3.40	73	185048	4.00	PPB	99
25) trans-1,2-Dichloroethene	3.41	96	39260	2.01	PPB	96
26) Hexane	3.71	57	62136	2.11	PPB	92
27) Diisopropyl Ether	4.17	45	123013	1.89	PPB	98
28) 1,1-Dichloroethane	4.12	63	68649	1.98	PPB	89

(#) = qualifier out of range (m) = manual integration
0316F013.D 031615MS46_8260.M Tue Mar 17 12:34:43 2015 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\031615\0316F013.D Vial: 2
Acq On : 16 Mar 2015 04:27 pm Operator:
Sample : ICAL 2PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:33:15 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29) Vinyl Acetate	4.24	86	12362	3.45	PPB	#	81
30) Chloroprene	4.20	53	217348	7.80	PPB		98
31) tert-Butyl Ethyl Ether	4.73	59	112994	2.01	PPB		93
32) 2,2-Dichloropropane	4.95	77	60694	1.99	PPB		93
33) cis-1,2-Dichloroethene	5.01	96	44716	2.05	PPB		91
34) 2-Butanone	5.11	72	80598	65.00	PPB		88
35) Ethyl Acetate	5.17	61	6342	3.49	PPB		93
36) Propionitrile	5.29	54	12950	8.06	PPB		100
37) Methacrylonitrile	5.43	67	43157	7.58	PPB		99
38) Bromochloromethane	5.35	128	20485	2.08	PPB		87
39) Tetrahydrofuran	5.39	71	3601	2.45	PPB		86
40) Chloroform	5.47	83	74611	2.07	PPB		99
41) Cyclohexane	5.57	56	68938	1.93	PPB		92
42) 1,1,1-Trichloroethane	5.62	97	66222	2.03	PPB		90
44) Carbon Tetrachloride	5.77	117	59274	2.06	PPB		95
45) 1,1-Dichloropropene	5.84	75	56502	2.04	PPB		91
46) Isobutyl Alcohol	6.19	43	26639	78.53	PPB		92
48) Benzene	6.09	78	165497	1.98	PPB		99
49) 1,2-Dichloroethane	6.24	62	50697	2.03	PPB		97
50) tert-Amyl Methyl Ether	6.26	55	23423	1.99	PPB		90
51) Trichloroethene	6.92	95	41854	1.96	PPB		92
52) Methylcyclohexane	7.04	83	68593	1.86	PPB		96
53) 1,2-Dichloropropane	7.24	63	40506	1.94	PPB		94
54) Dibromomethane	7.38	93	21106	1.95	PPB		95
55) Methyl methacrylate	7.41	69	19305	1.83	PPB		92
56) 1,4-Dioxane	7.41	88	5971	59.59	PPB		72
57) Bromodichloromethane	7.57	83	51728	1.92	PPB		97
58) 2-Nitropropane	7.94	41	35302	9.66	PPB		99
59) 2-Chloroethyl Vinyl Ether	7.97	63	19199	1.94	PPB		98
60) cis-1,3-Dichloropropene	8.10	75	60578	1.88	PPB		95
61) 4-Methyl-2-pentanone (MIBK	8.30	58	292804	58.14	PPB		96
63) Toluene	8.41	92	102390	1.94	PPB		97
65) n-Octane	8.49	85	28066	1.68	PPB		88
66) trans-1,3-Dichloropropene	8.76	75	49311	1.95	PPB		98
67) Ethyl methacrylate	8.83	69	35348	1.97	PPB		93
68) 1,1,2-Trichloroethane	8.96	83	26082	2.09	PPB		93
69) Tetrachloroethene	8.98	164	38161	2.07	PPB		91
70) 2-Hexanone	9.23	57	94439	71.51	PPB		98
71) 1,3-Dichloropropane	9.14	76	56210	2.23	PPB		98
72) Dibromochloromethane	9.34	129	36522	2.06	PPB		99
73) 1,2-Dibromoethane (EDB)	9.47	107	31016	2.19	PPB		91

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\031615\0316F013.D Vial: 2
Acq On : 16 Mar 2015 04:27 pm Operator:
Sample : ICAL 2PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:33:15 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

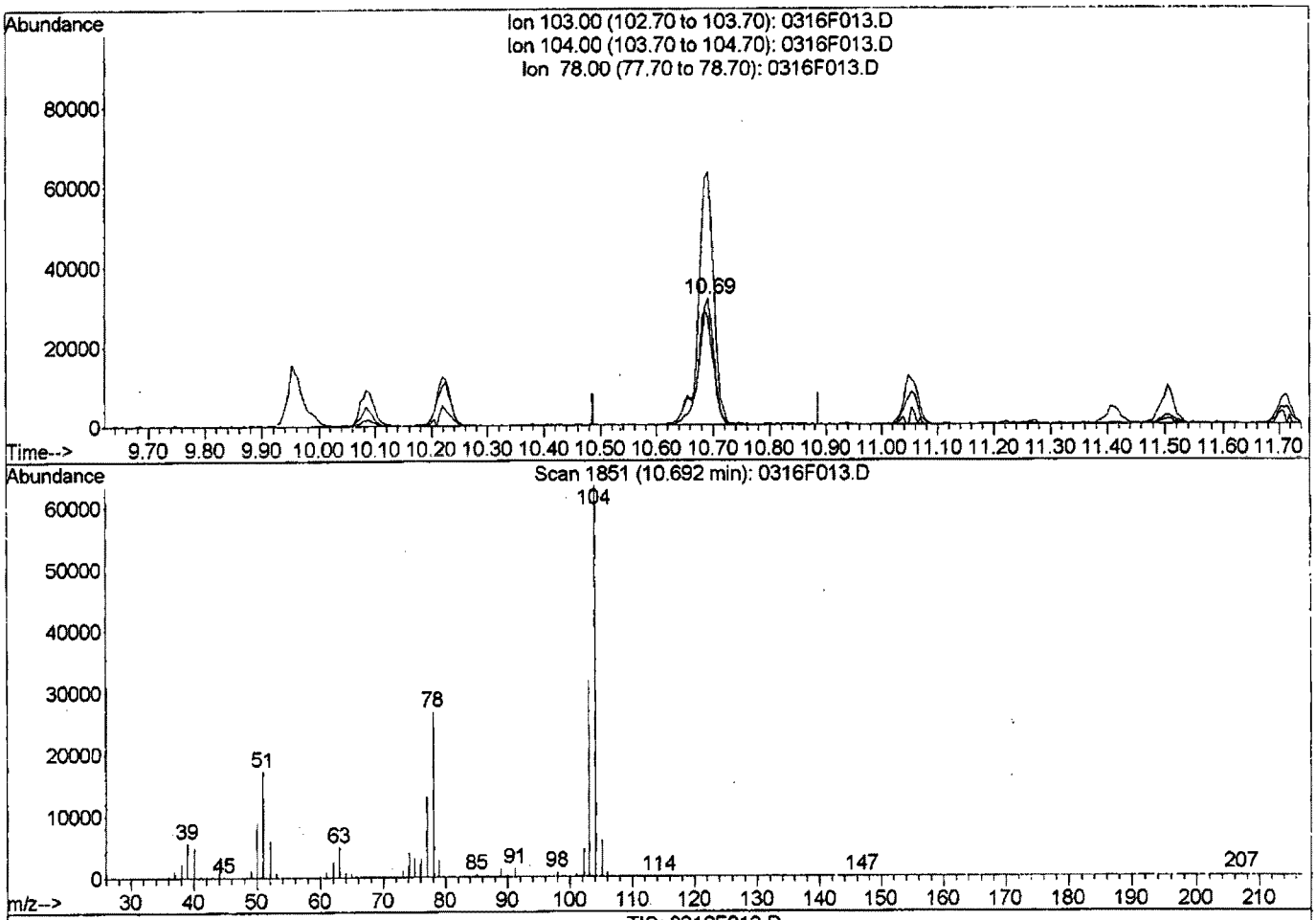
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
74)	1-Chlorohexane	9.97	91	56020	1.99	PPB		95
75)	Chlorobenzene	9.99	112	112380	2.08	PPB		98
76)	Ethylbenzene	10.08	106	60585	2.07	PPB		91
77)	1,1,1,2-Tetrachloroethane	10.10	131	39519	2.02	PPB		92
78)	m,p-Xylenes	10.23	106	149259	4.20	PPB		92
79)	o-Xylene	10.66	106	72627	2.07	PPB		91
80)	Styrene	10.69	103	53875m	2.00	PPB		
81)	Bromoform	10.91	173	21782	1.94	PPB		93
82)	Isopropylbenzene	11.05	105	194844	2.11	PPB		99
83)	cis-1,4-Dichloro-2-butene	11.23	89	18028	7.55	PPB		93
86)	1,1,2,2-Tetrachloroethane	11.47	83	30994	2.21	PPB		94
87)	trans-1,4-Dichloro-2-buten	11.55	53	10248	2.50	PPB		72
88)	Bromobenzene	11.42	156	47247	2.18	PPB		95
89)	n-Propylbenzene	11.50	91	229223	2.27	PPB		100
90)	1,2,3-Trichloropropane	11.53	110	10581	2.25	PPB		85
91)	2-Chlorotoluene	11.62	91	134621	2.27	PPB		96
92)	1,3,5-Trimethylbenzene	11.71	105	158790	2.23	PPB		98
93)	4-Chlorotoluene	11.75	91	137792	2.24	PPB		95
94)	tert-Butylbenzene	12.05	119	141779	2.19	PPB		99
95)	1,2,4-Trimethylbenzene	12.12	105	160157	2.22	PPB		97
96)	sec-Butylbenzene	12.29	105	211981	2.23	PPB		97
97)	p-Isopropyltoluene	12.45	119	172366	2.15	PPB		100
98)	1,3-Dichlorobenzene	12.45	146	94524	2.14	PPB		98
99)	1,4-Dichlorobenzene	12.56	146	93848	2.13	PPB		92
100)	n-Butylbenzene	12.90	91	153078	2.10	PPB		96
101)	1,2-Dichlorobenzene	12.97	146	87086	2.20	PPB		99
102)	1,2-Dibromo-3-chloropropan	13.86	155	5151	2.11	PPB	#	73
103)	1,3,5-Trichlorobenzene	14.02	180	68662	2.02	PPB		89
104)	1,2,4-Trichlorobenzene	14.72	180	59928	2.01	PPB		93
105)	Hexachlorobutadiene	14.85	225	30974	1.78	PPB		99
106)	Naphthalene	15.00	128	107449	2.08	PPB		97
107)	1,2,3-Trichlorobenzene	15.27	180	53792	2.01	PPB		92

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F013.D Vial: 2
Acq On : 16 Mar 2015 04:27 pm Operator:
Sample : ICAL 2PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:33 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Multiple Level Calibration



(80) Styrene (T)

10.69min 2.35PPB

response 63412

Ion	Exp%	Act%
103.00	100	100
104.00	198.60	200.10
78.00	88.20	83.76
0.00	0.00	0.00

Manual Integration:

Before

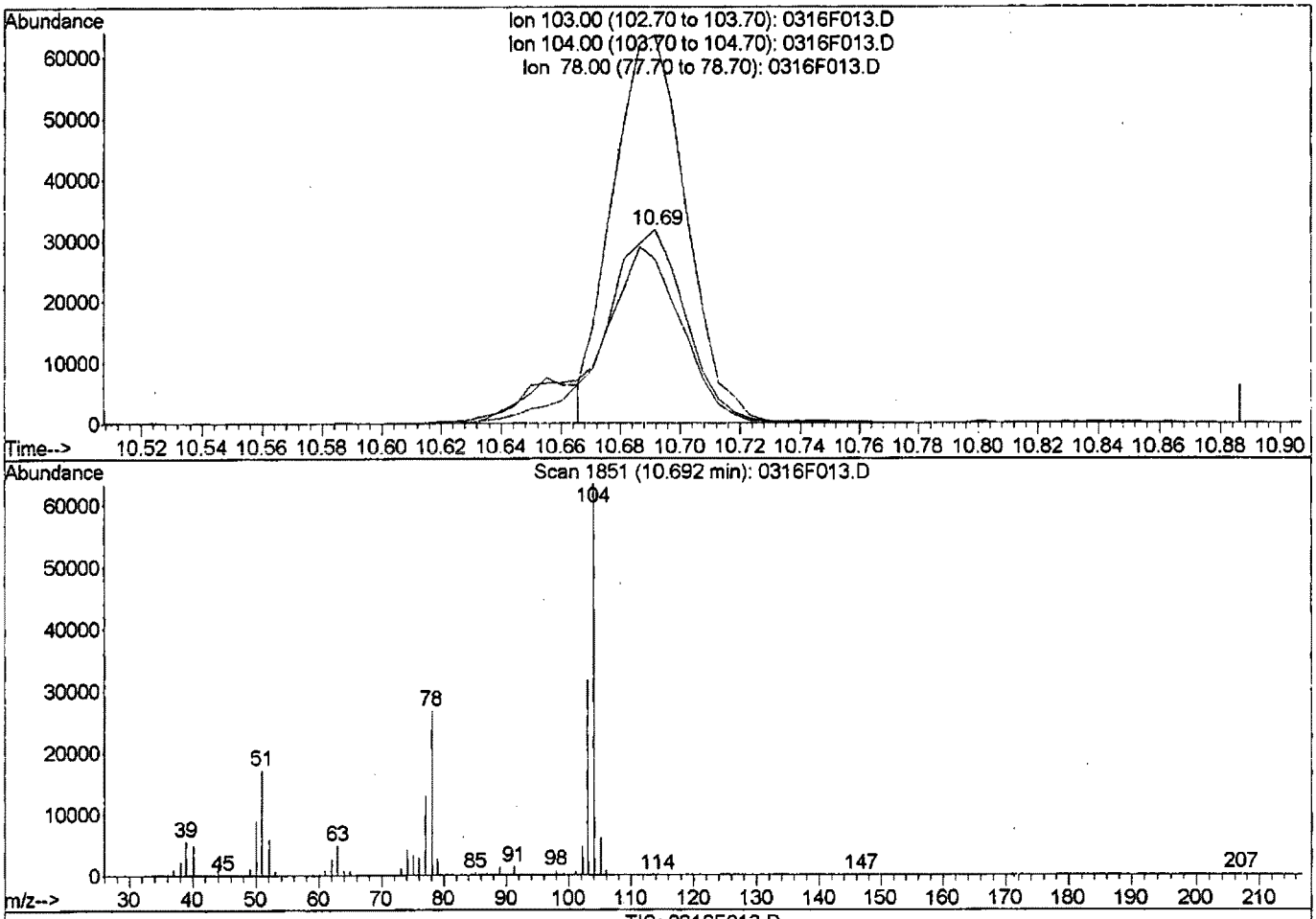
03/17/15

0316F013.D 031615MS46_8260.M Tue Mar 17 12:34:20 2015

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F013.D Vial: 2
Acq On : 16 Mar 2015 04:27 pm Operator:
Sample : ICAL 2PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:34 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Multiple Level Calibration



TIC: 0316F013.D

(80) Styrene (T)
10.69min 2.00PPB m
response 53875

Ion	Exp%	Act%
103.00	100	100
104.00	198.60	200.10
78.00	88.20	84.58
0.00	0.00	0.00

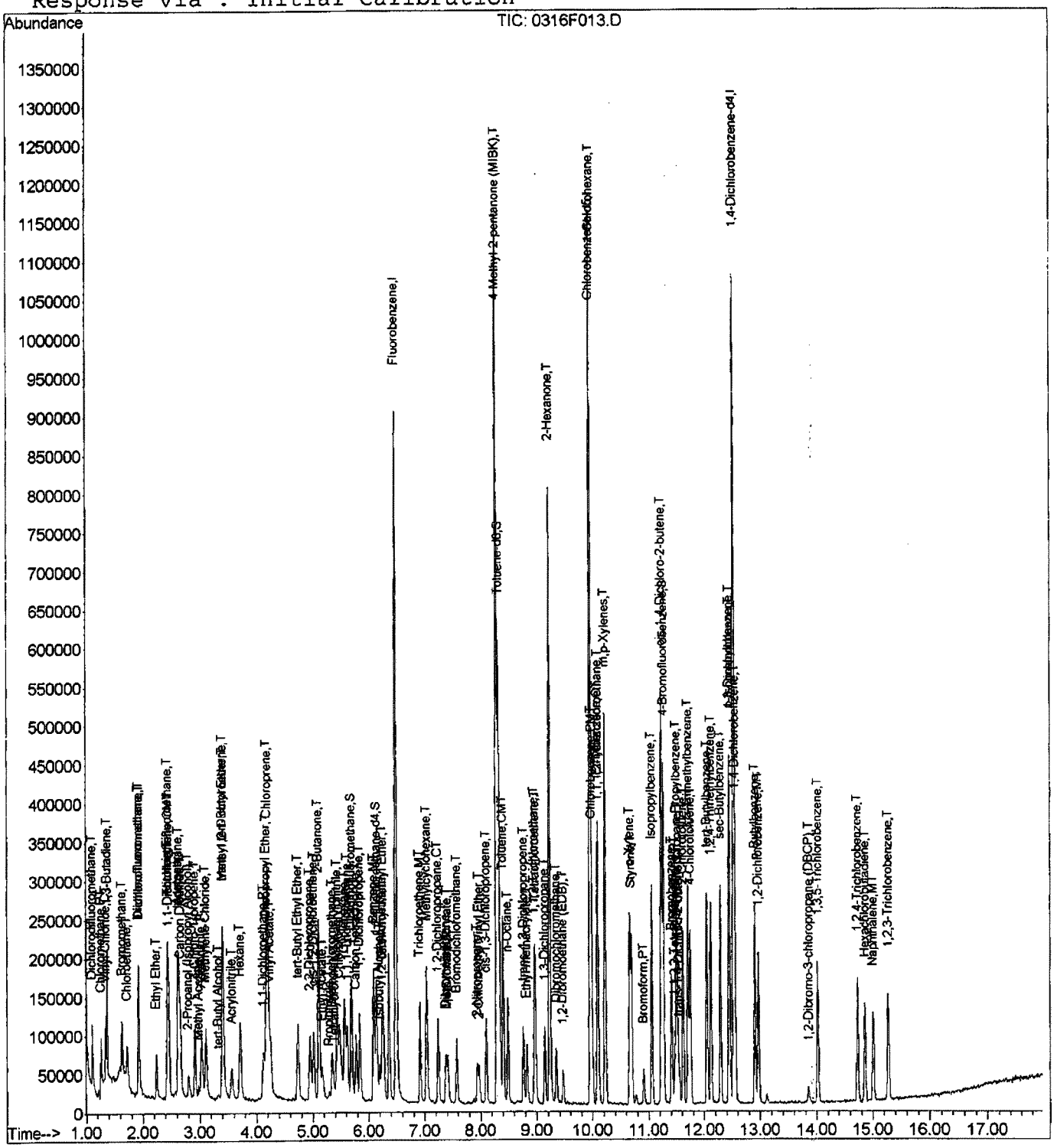
Manual Integration:
After
Baseline correction
03/17/15

0316F013.D 031615MS46_8260.M Tue Mar 17 12:34:25 2015

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\031615\0316F013.D Vial: 2
Acq On : 16 Mar 2015 04:27 pm Operator:
Sample : ICAL 2PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:34 2015 Quant Results File: 031615MS46_8

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\031615\0316F014.D Vial: 2
Acq On : 16 Mar 2015 04:51 pm Operator:
Sample : ICAL5PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:34:48 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

KL 3/17/15

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.49	96	862000	10.00	PPB	0.00
64) Chlorobenzene-d5	9.96	82	341923	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	12.53	152	339096	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.70	113	147391	7.04	PPB	0.00
Spiked Amount 10.000			Recovery =	70.40%		
47) 1,2-Dichloroethane-d4	6.14	65	161138	7.42	PPB	0.00
Spiked Amount 10.000			Recovery =	74.20%		
62) Toluene-d8	8.33	98	565502	7.04	PPB	0.00
Spiked Amount 10.000			Recovery =	70.40%		
84) 4-Bromofluorobenzene	11.27	95	208243	7.06	PPB	0.00
Spiked Amount 10.000			Recovery =	70.60%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.10	85	129746	4.53	PPB	99
3) Chloromethane	1.26	50	121824	4.10	PPB	98
4) Vinyl Chloride	1.34	62	108567	4.07	PPB	95
5) 1,3-Butadiene	1.37	54	90261	4.21	PPB	97
6) Bromomethane	1.63	96	62242	3.58	PPB	97
7) Chloroethane	1.72	64	58110	3.97	PPB	97
8) Dichlorofluoromethane	1.93	67	178674	4.69	PPB	100
9) Trichlorofluoromethane	1.93	101	151760	4.42	PPB	96
10) Ethyl Ether	2.23	59	60509	4.05	PPB	97
11) Acrolein	2.44	56	145151	72.53	PPB	98
12) Trichlorotrifluoroethane	2.44	151	81949	4.74	PPB	94
13) 1,1-Dichloroethene	2.45	96	74516	4.21	PPB	93
14) Acetone	2.61	43	269159	87.73	PPB	98
15) Iodomethane	2.63	142	292633	16.52	PPB	98
16) Carbon Disulfide	2.66	76	262059	4.39	PPB	100
17) 2-Propanol (Isopropyl Alco	2.80	45	99644	181.08	PPB	97
18) 3-Chloro-1-propene	2.92	76	47260	4.16	PPB	99
19) Methyl Acetate	2.98	43	43532	3.93	PPB	99
20) Acetonitrile	3.03	40	126786	169.65	PPB	96
21) Methylene Chloride	3.11	84	87027	3.86	PPB	95
22) tert-Butyl Alcohol	3.33	59	17381	19.25	PPB	94
23) Acrylonitrile	3.56	53	75955	15.74	PPB	100
24) Methyl tert-Butyl Ether	3.40	73	408468	8.35	PPB	98
25) trans-1,2-Dichloroethene	3.41	96	88584	4.29	PPB	89
26) Hexane	3.71	57	143091	4.59	PPB	96
27) Diisopropyl Ether	4.17	45	278526	4.03	PPB	97
28) 1,1-Dichloroethane	4.12	63	157255	4.28	PPB	99

(#) = qualifier out of range (m) = manual integration
0316F014.D 031615MS46_8260.M Tue Mar 17 12:36:46 2015 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\031615\0316F014.D Vial: 2
Acq On : 16 Mar 2015 04:51 pm Operator:
Sample : ICAL5PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:34:48 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29) Vinyl Acetate	4.24	86	32545	8.57	PPB		96
30) Chloroprene	4.20	53	507218	17.20	PPB		100
31) tert-Butyl Ethyl Ether	4.73	59	243939	4.10	PPB		97
32) 2,2-Dichloropropane	4.96	77	140312	4.36	PPB		95
33) cis-1,2-Dichloroethene	5.01	96	97147	4.22	PPB		96
34) 2-Butanone	5.10	72	110014	83.84	PPB		91
35) Ethyl Acetate	5.16	61	13827	7.20	PPB		88
36) Propionitrile	5.29	54	26337	15.49	PPB		99
37) Methacrylonitrile	5.43	67	95169	15.80	PPB		97
38) Bromochloromethane	5.35	128	42044	4.04	PPB		97
39) Tetrahydrofuran	5.38	71	7729	4.98	PPB	#	79
40) Chloroform	5.47	83	160108	4.19	PPB		98
41) Cyclohexane	5.57	56	162292	4.29	PPB		95
42) 1,1,1-Trichloroethane	5.62	97	147222	4.27	PPB		98
44) Carbon Tetrachloride	5.77	117	132607	4.36	PPB		97
45) 1,1-Dichloropropene	5.84	75	128242	4.38	PPB		93
46) Isobutyl Alcohol	6.19	43	57368	159.79	PPB		95
48) Benzene	6.09	78	365709	4.14	PPB		99
49) 1,2-Dichloroethane	6.24	62	110790	4.19	PPB		98
50) tert-Amyl Methyl Ether	6.26	55	50760	4.07	PPB		95
51) Trichloroethene	6.92	95	97813	4.33	PPB		96
52) Methylcyclohexane	7.04	83	169488	4.34	PPB		99
53) 1,2-Dichloropropane	7.24	63	90620	4.10	PPB		96
54) Dibromomethane	7.38	93	44761	3.90	PPB		93
55) Methyl methacrylate	7.41	69	41948	3.76	PPB		96
56) 1,4-Dioxane	7.41	88	13548m	127.75	PPB		
57) Bromodichloromethane	7.57	83	118737	4.15	PPB		93
58) 2-Nitropropane	7.93	41	76668	19.82	PPB		98
59) 2-Chloroethyl Vinyl Ether	7.97	63	42105	4.03	PPB		96
60) cis-1,3-Dichloropropene	8.10	75	134835	3.96	PPB		97
61) 4-Methyl-2-pentanone (MIBK	8.29	58	409455	76.82	PPB		100
63) Toluene	8.41	92	232378	4.16	PPB		97
65) n-Octane	8.49	85	66558	3.71	PPB		96
66) trans-1,3-Dichloropropene	8.77	75	113675	4.18	PPB		100
67) Ethyl methacrylate	8.83	69	78538	4.06	PPB		92
68) 1,1,2-Trichloroethane	8.96	83	57790	4.30	PPB		97
69) Tetrachloroethene	8.97	164	92970	4.69	PPB		97
70) 2-Hexanone	9.23	57	134317	94.41	PPB		94
71) 1,3-Dichloropropane	9.14	76	121909	4.49	PPB		99
72) Dibromochloromethane	9.34	129	80914	4.24	PPB		97
73) 1,2-Dibromoethane (EDB)	9.47	107	64246	4.21	PPB		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\031615\0316F014.D Vial: 2
Acq On : 16 Mar 2015 04:51 pm Operator:
Sample : ICAL5PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:34:48 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

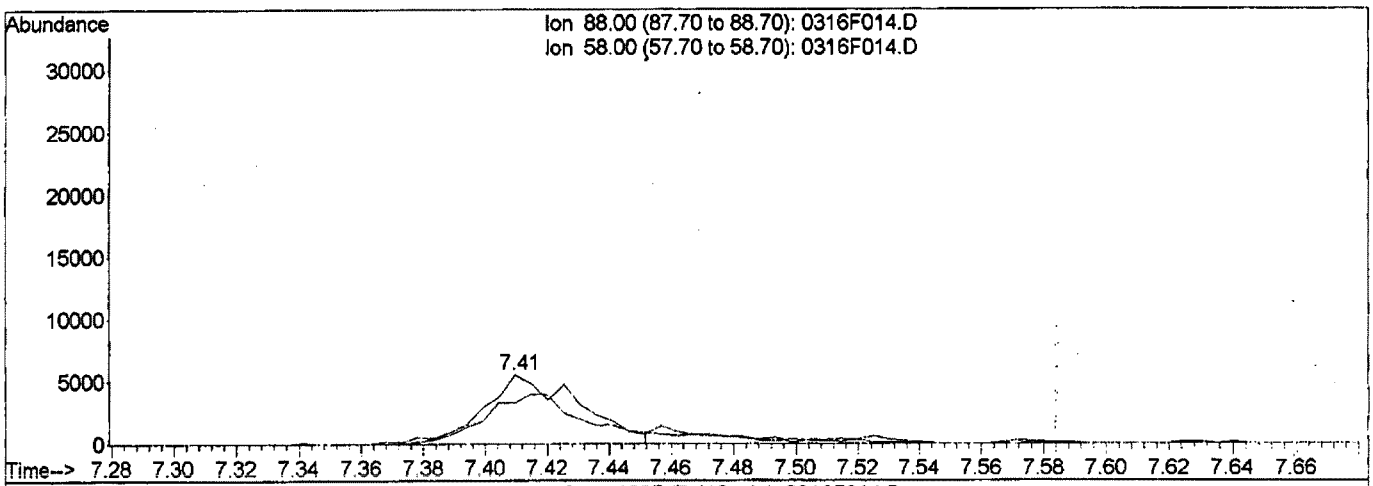
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
74)	1-Chlorohexane	9.96	91	129680	4.28	PPB	97
75)	Chlorobenzene	9.99	112	254691	4.37	PPB	98
76)	Ethylbenzene	10.08	106	138179	4.39	PPB	93
77)	1,1,1,2-Tetrachloroethane	10.09	131	87524	4.16	PPB	93
78)	m,p-Xylenes	10.22	106	341913	8.92	PPB	99
79)	o-Xylene	10.66	106	162551	4.31	PPB	91
80)	Styrene	10.69	103	119696m	4.12	PPB	
81)	Bromoform	10.91	173	48359	4.00	PPB	92
82)	Isopropylbenzene	11.05	105	442859	4.46	PPB	99
83)	cis-1,4-Dichloro-2-butene	11.22	89	40624	15.79	PPB	91
86)	1,1,2,2-Tetrachloroethane	11.47	83	70958	4.73	PPB	95
87)	trans-1,4-Dichloro-2-buten	11.55	53	21523m	4.91	PPB	
88)	Bromobenzene	11.41	156	108409	4.68	PPB	96
89)	n-Propylbenzene	11.50	91	532839	4.95	PPB	97
90)	1,2,3-Trichloropropane	11.53	110	22621	4.51	PPB	94
91)	2-Chlorotoluene	11.62	91	298954	4.73	PPB	99
92)	1,3,5-Trimethylbenzene	11.71	105	368562	4.85	PPB	98
93)	4-Chlorotoluene	11.75	91	315896m	4.82	PPB	
94)	tert-Butylbenzene	12.05	119	333305	4.83	PPB	97
95)	1,2,4-Trimethylbenzene	12.12	105	363347	4.72	PPB	96
96)	sec-Butylbenzene	12.29	105	485098	4.78	PPB	98
97)	p-Isopropyltoluene	12.45	119	407004	4.76	PPB	99
98)	1,3-Dichlorobenzene	12.45	146	209945	4.45	PPB	98
99)	1,4-Dichlorobenzene	12.55	146	213535	4.53	PPB	97
100)	n-Butylbenzene	12.90	91	363865	4.68	PPB	95
101)	1,2-Dichlorobenzene	12.97	146	194050	4.59	PPB	97
102)	1,2-Dibromo-3-chloropropan	13.86	155	10081	3.87	PPB	92
103)	1,3,5-Trichlorobenzene	14.02	180	157373	4.33	PPB	98
104)	1,2,4-Trichlorobenzene	14.73	180	136357	4.28	PPB	99
105)	Hexachlorobutadiene	14.86	225	75373	4.06	PPB	94
106)	Naphthalene	15.01	128	244145	4.43	PPB	98
107)	1,2,3-Trichlorobenzene	15.27	180	123289	4.32	PPB	95

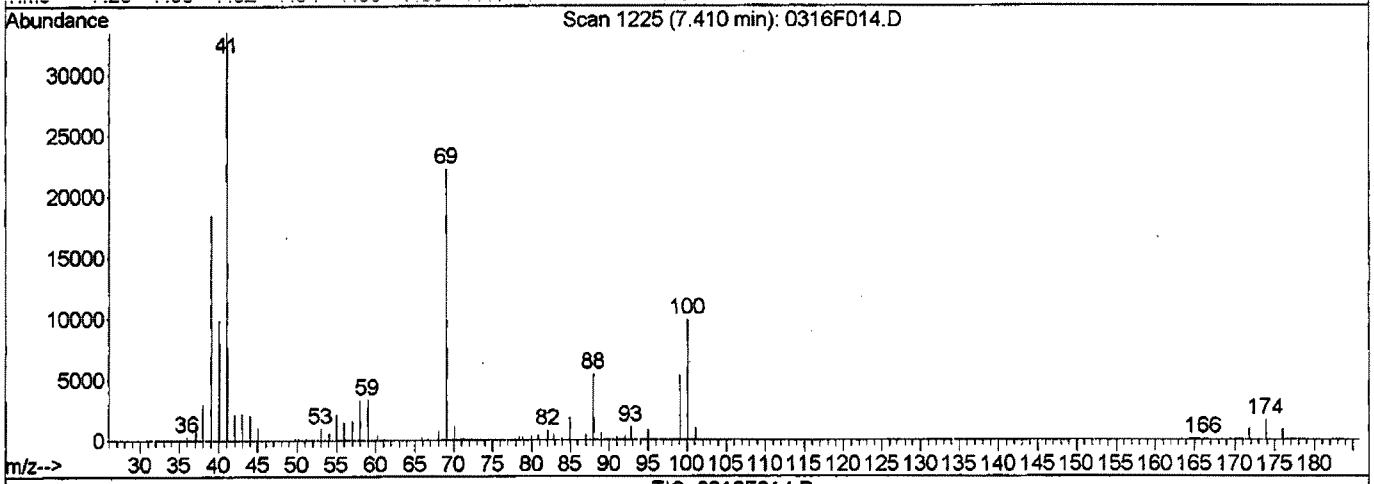
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F014.D Vial: 2
Acq On : 16 Mar 2015 04:51 pm Operator:
Sample : ICAL5PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:34 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Single Level Calibration





TIC: 0316F014.D

(56) 1,4-Dioxane (T)

7.41min 111.83PPB

response 11859

Ion	Exp%	Act%
88.00	100	100
58.00	59.90	59.85
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

Before

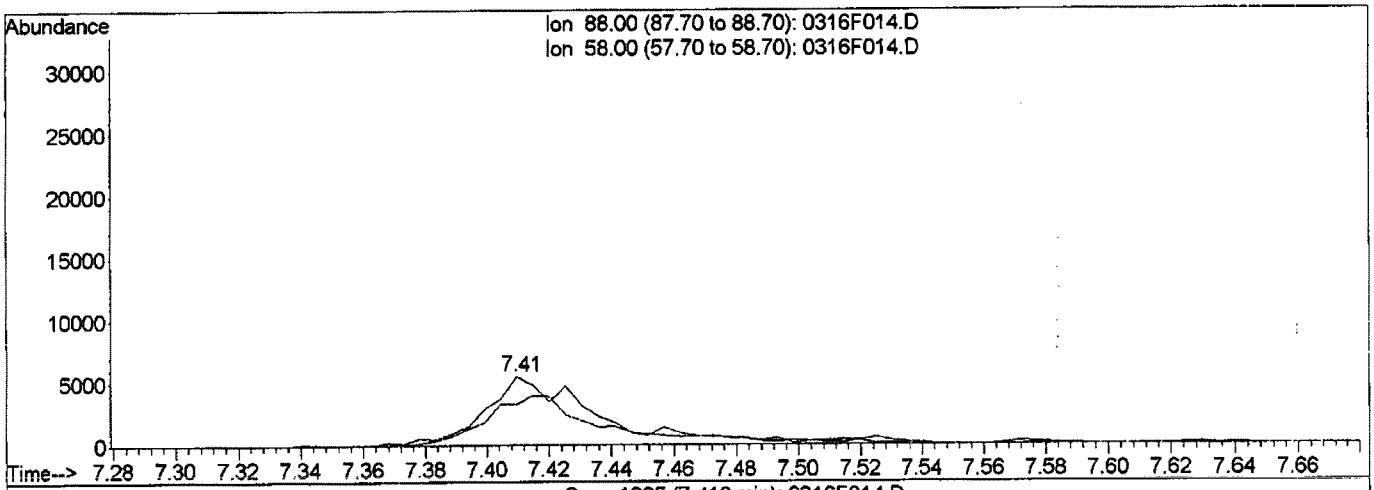
03/17/15

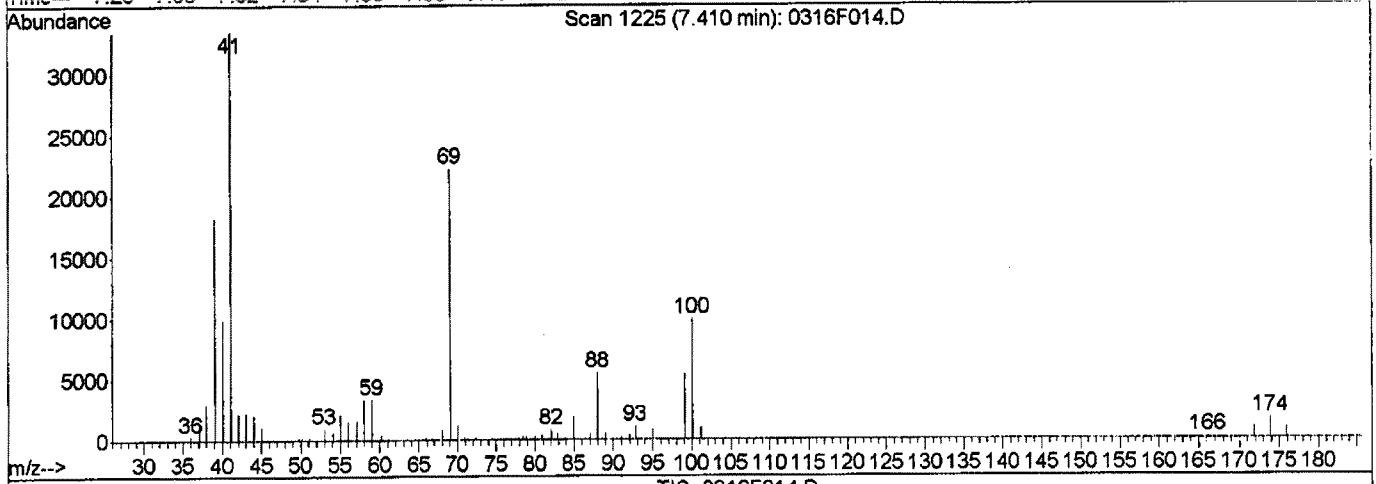
0316F014.D 031615MS46_8260.M Tue Mar 17 12:35:19 2015

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F014.D Vial: 2
Acq On : 16 Mar 2015 04:51 pm Operator:
Sample : ICAL5PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:35 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Single Level Calibration





TIC: 0316F014.D

(56) 1,4-Dioxane (T)

7.41min 127.75PPB m

response 13548

Ion	Exp%	Act%
88.00	100	100
58.00	59.90	59.85
0.00	0.00	0.00
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

03/17/15

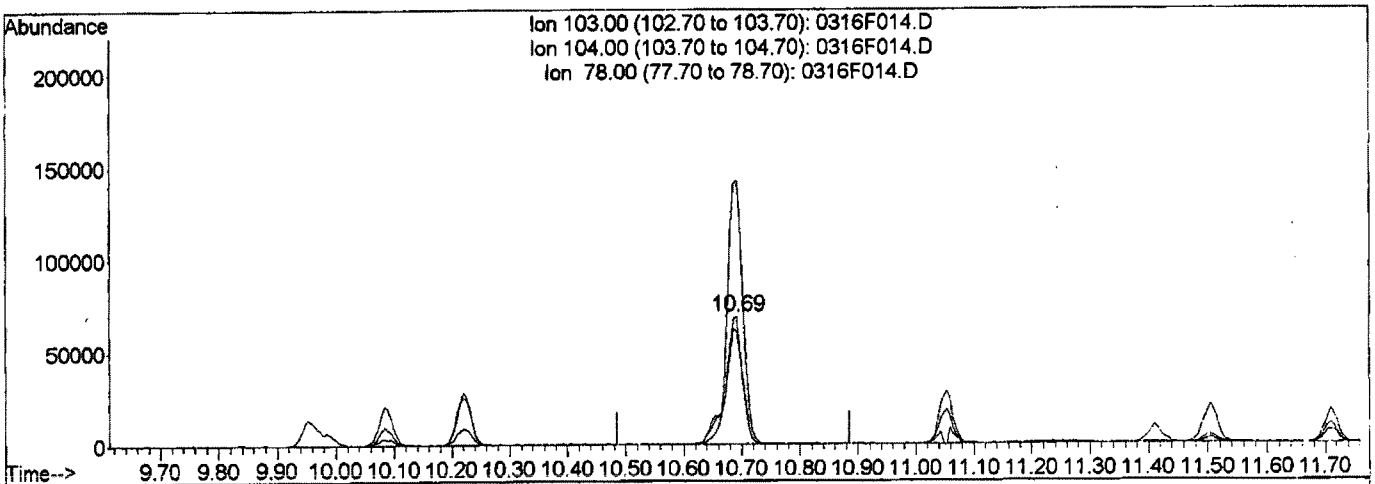
0316F014.D 031615MS46_8260.M Tue Mar 17 12:35:24 2015

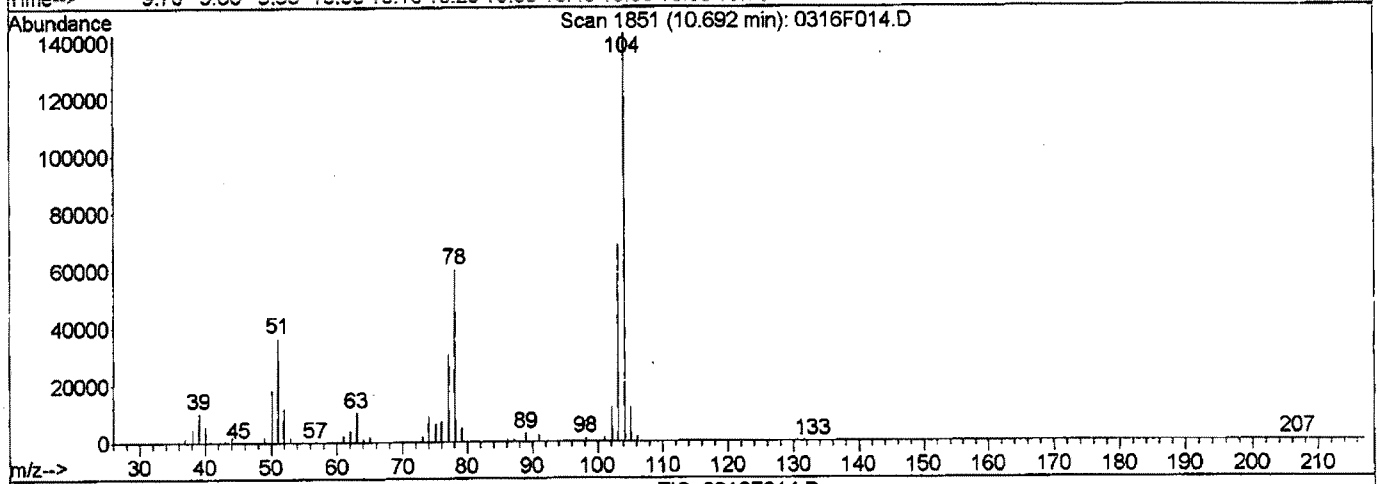
Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F014.D
Acq On : 16 Mar 2015 04:51 pm
Sample : ICAL5PPB
Misc :
MS Integration Params: rteint.p
Quant Time: Mar 17 12:35 2015

Vial: 2
Operator:
Inst : GCMS46
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Multiple Level Calibration





TIC: 0316F014.D

(80) Styrene (T)

10.69min 4.87PPB

response 141281

Ion	Exp%	Act%
103.00	100	100
104.00	198.60	206.66
78.00	88.20	87.47
0.00	0.00	0.00

Manual Integration:

Before

03/17/15

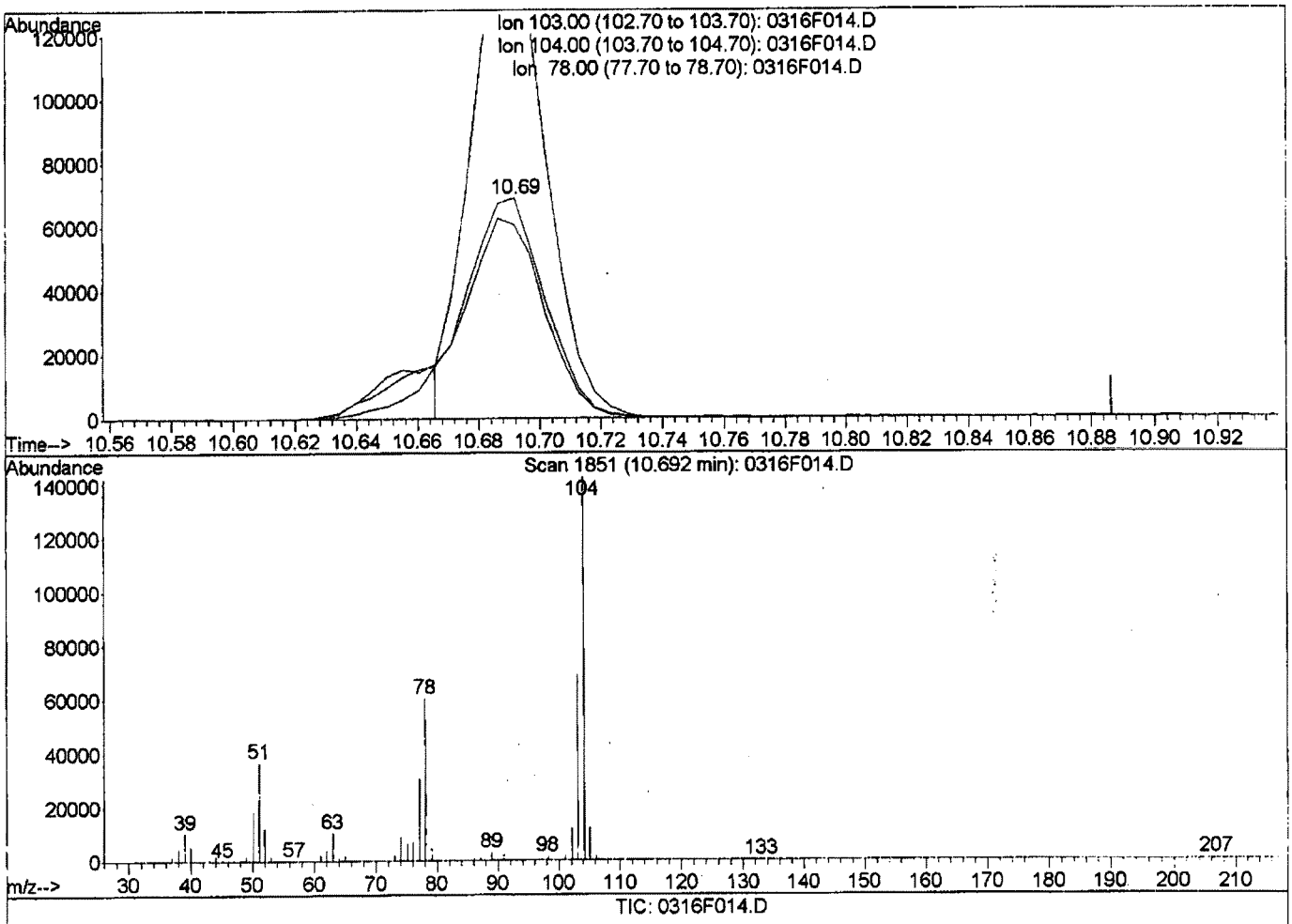
0316F014.D 031615MS46_8260.M Tue Mar 17 12:35:35 2015

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F014.D
Acq On : 16 Mar 2015 04:51 pm
Sample : ICAL5PPB
Misc :
MS Integration Params: rteint.p
Quant Time: Mar 17 12:35 2015

Vial: 2
Operator:
Inst : GCMS46
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Multiple Level Calibration



(80) Styrene (T)

10.69min 4.12PPB m

response 119696

Ion	Exp%	Act%
103.00	100	100
104.00	198.60	206.87
78.00	88.20	87.69
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

03/17/15

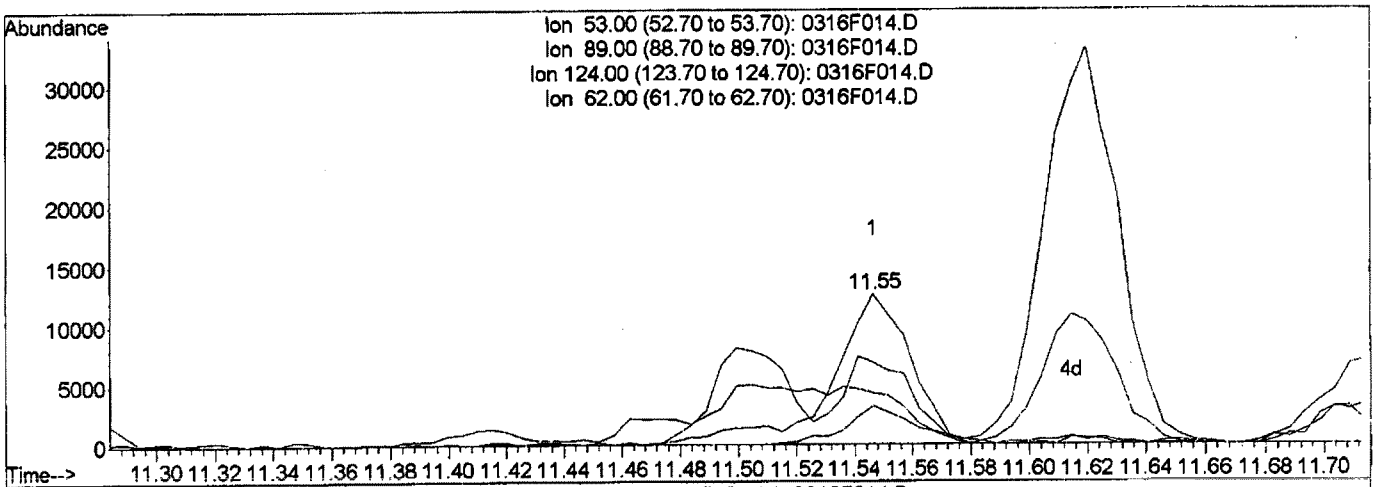
0316F014.D 031615MS46_8260.M Tue Mar 17 12:35:41 2015

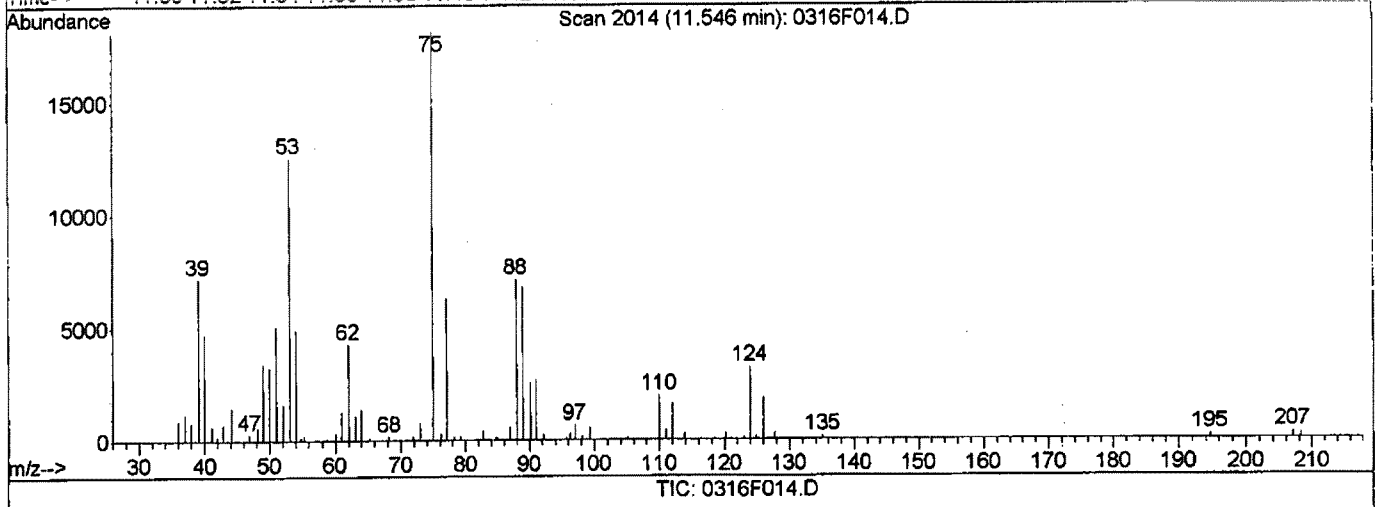
Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F014.D
Acq On : 16 Mar 2015 04:51 pm
Sample : ICAL5PPB
Misc :
MS Integration Params: rteint.p
Quant Time: Mar 17 12:35 2015

Vial: 2
Operator:
Inst : GCMS46
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Single Level Calibration





TIC: 0316F014.D

(87) trans-1,4-Dichloro-2-butene (T)

11.55min 5.50PPB

response 24135

Ion	Exp%	Act%
53.00	100	100
89.00	63.00	54.49
124.00	23.30	25.70
62.00	33.20	29.73

Manual Integration:

Before

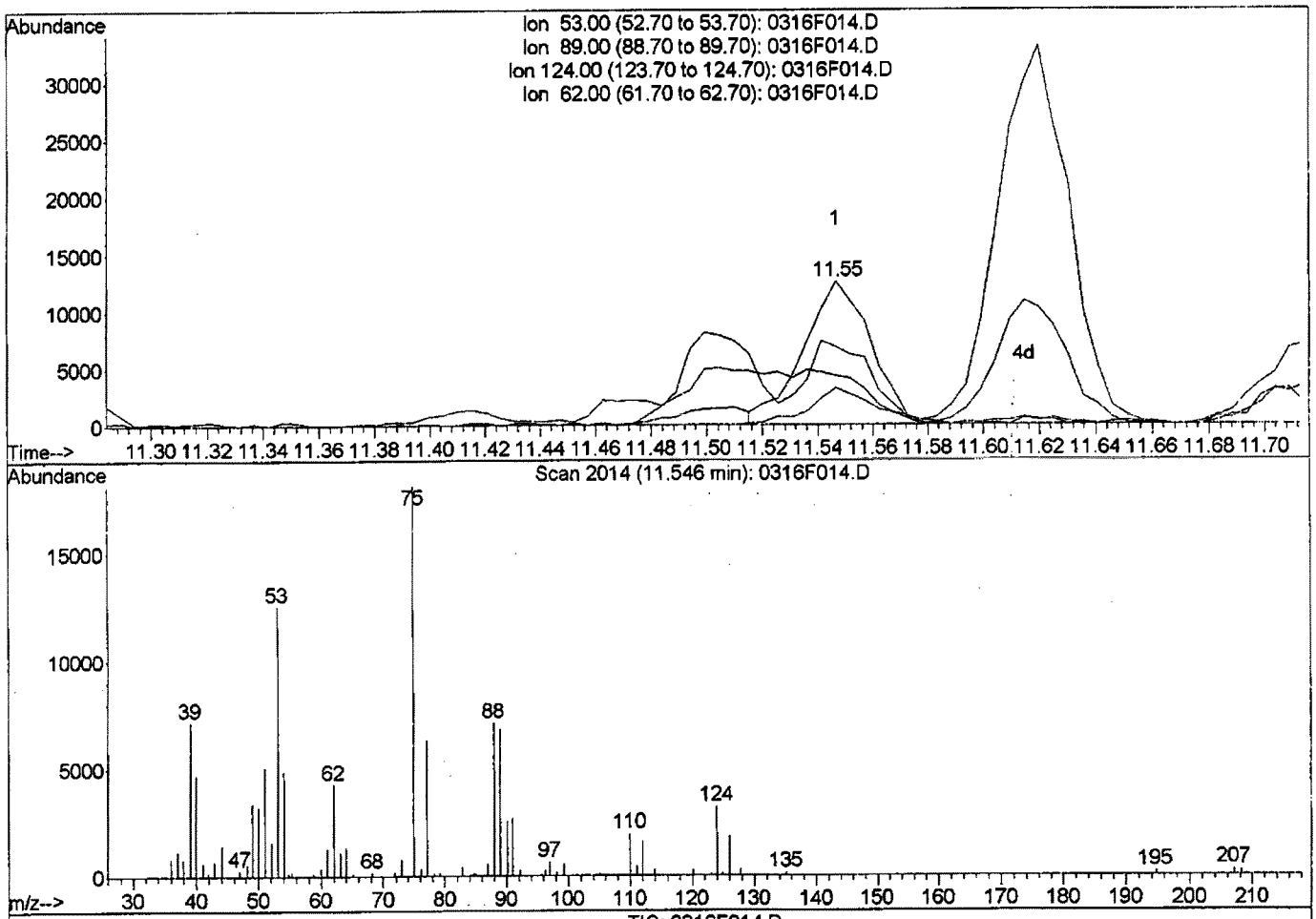
03/17/15

0316F014.D 031615MS46_8260.M Tue Mar 17 12:35:51 2015

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F014.D Vial: 2
Acq On : 16 Mar 2015 04:51 pm Operator:
Sample : ICAL5PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:35 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Single Level Calibration



(87) trans-1,4-Dichloro-2-butene (T)

11.55min 4.91PPB m

response 21523

Ion	Exp%	Act%
53.00	100	100
89.00	63.00	54.49
124.00	23.30	25.70
62.00	33.20	34.26

Manual Integration:

After

Baseline correction

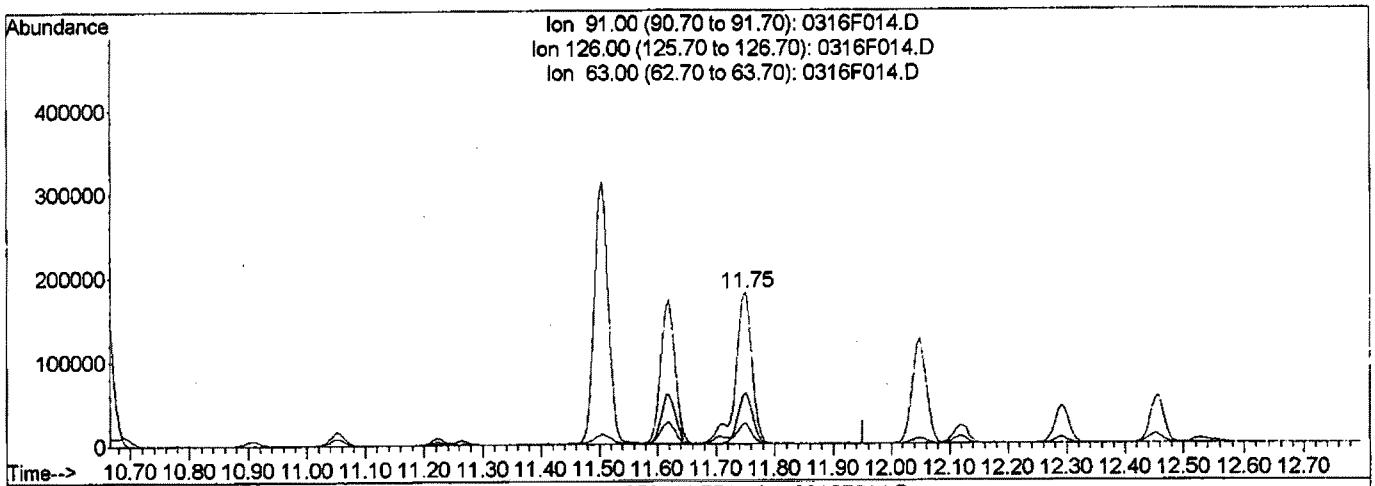
03/17/15

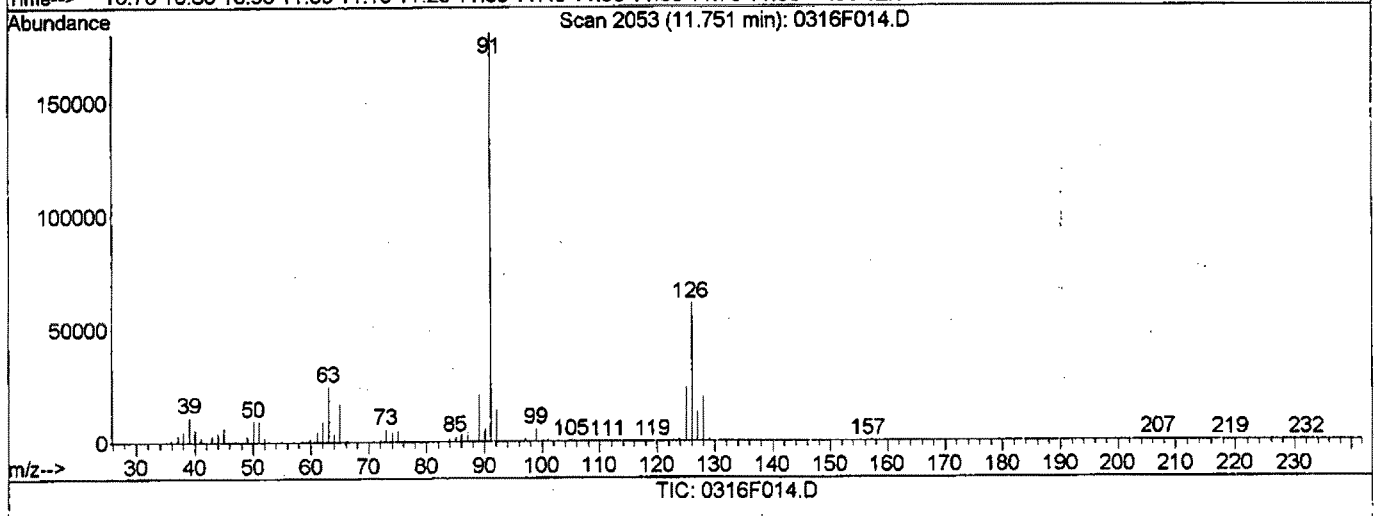
0316F014.D 031615MS46_8260.M Tue Mar 17 12:35:56 2015

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F014.D Vial: 2
Acq On : 16 Mar 2015 04:51 pm Operator:
Sample : ICAL5PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:35 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Multiple Level Calibration





TIC: 0316F014.D

(93) 4-Chlorotoluene (T)

11.75min 5.33PPB

response 349408

Ion	Exp%	Act%
91.00	100	100
126.00	34.80	33.87
63.00	12.80	13.59
0.00	0.00	0.00

Manual Integration:

Before

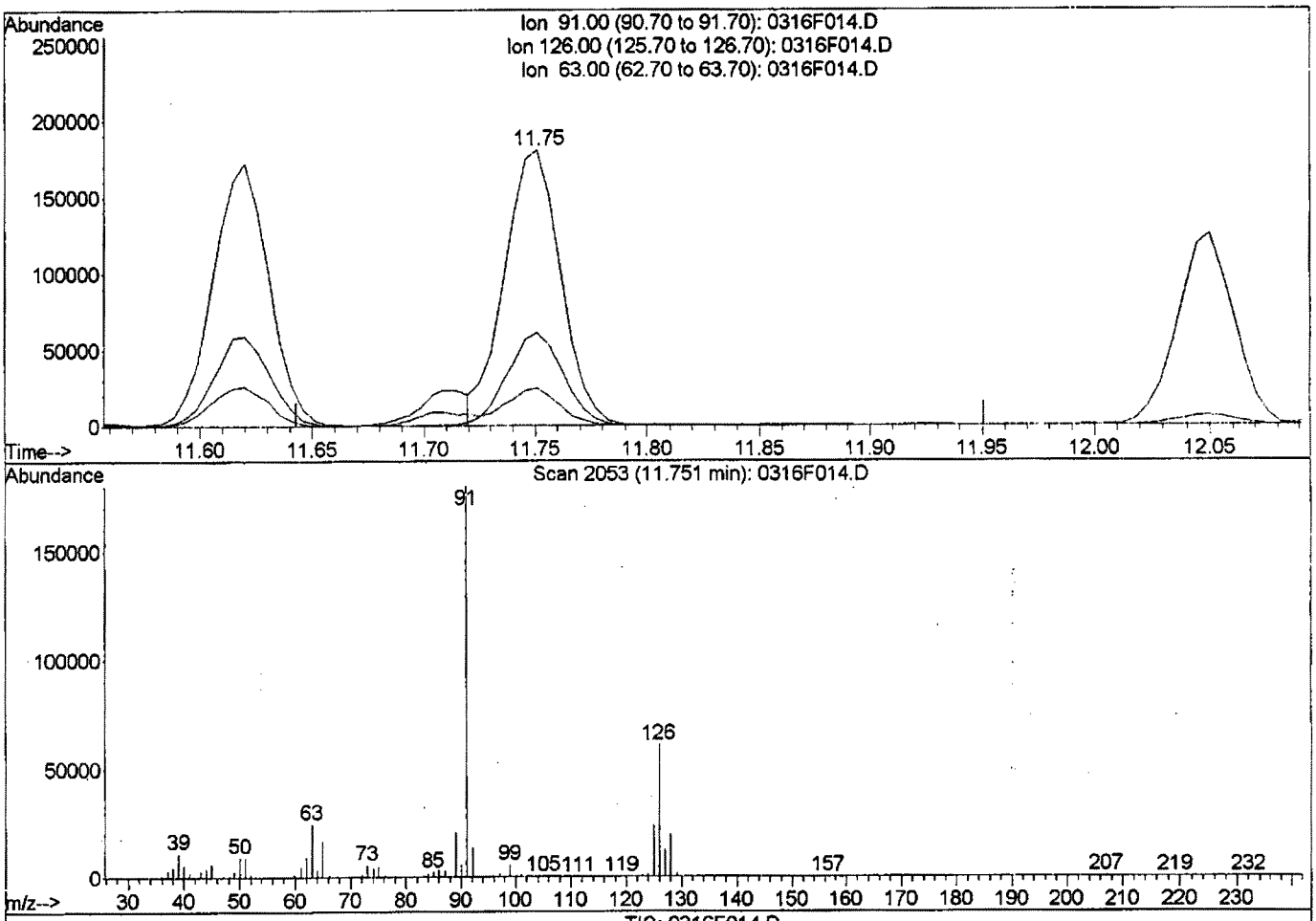
03/17/15

0316F014.D 031615MS46_8260.M Tue Mar 17 12:36:03 2015

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F014.D Vial: 2
Acq On : 16 Mar 2015 04:51 pm Operator:
Sample : ICAL5PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:36 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Multiple Level Calibration



TIC: 0316F014.D

(93) 4-Chlorotoluene (T)

11.75min 4.82PPB m

response 315896

Ion	Exp%	Act%
91.00	100	100
126.00	34.80	33.81
63.00	12.80	13.57
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

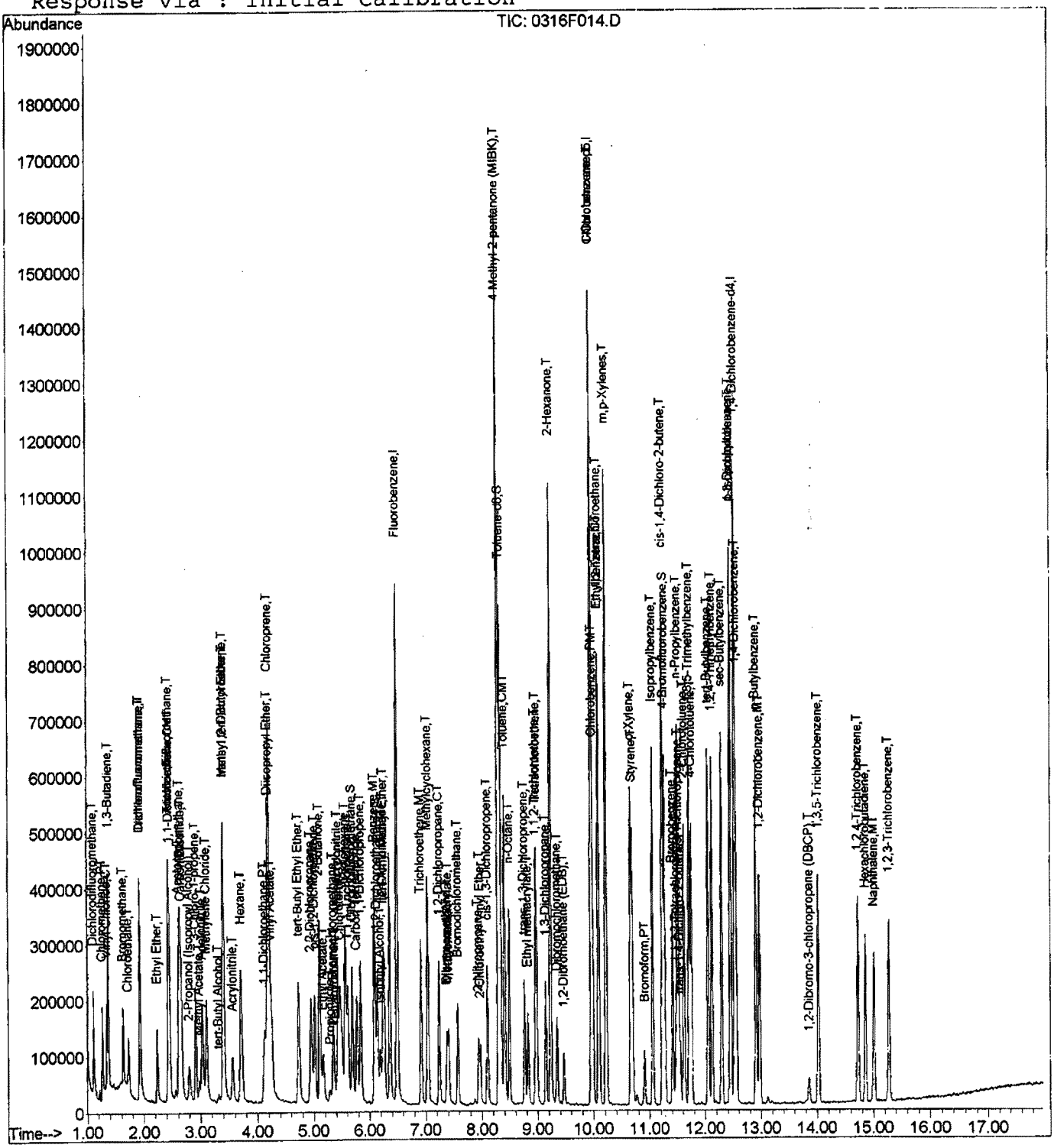
03/17/15

0316F014.D 031615MS46_8260.M Tue Mar 17 12:36:08 2015

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\031615\0316F014.D Vial: 2
Acq On : 16 Mar 2015 04:51 pm Operator:
Sample : ICAL5PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:36 2015 Quant Results File: 031615MS46_8

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\031615\0316F015.D Vial: 2
Acq On : 16 Mar 2015 05:15 pm Operator:
Sample : ICAL10PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:36:59 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

KA 3/17/15

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.49	96	816563	10.00	PPB	0.00
64) Chlorobenzene-d5	9.96	82	322983	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	12.53	152	325240	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.69	113	181904	9.17	PPB	0.00
Spiked Amount 10.000			Recovery =	91.70%		
47) 1,2-Dichloroethane-d4	6.14	65	185852	9.04	PPB	0.00
Spiked Amount 10.000			Recovery =	90.40%		
62) Toluene-d8	8.33	98	681797	8.97	PPB	0.00
Spiked Amount 10.000			Recovery =	89.70%		
84) 4-Bromofluorobenzene	11.27	95	248356	8.91	PPB	0.00
Spiked Amount 10.000			Recovery =	89.10%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.10	85	272761	10.06	PPB	100
3) Chloromethane	1.26	50	254463	9.04	PPB	100
4) Vinyl Chloride	1.34	62	233954	9.26	PPB	100
5) 1,3-Butadiene	1.37	54	198920	9.80	PPB	100
6) Bromomethane	1.63	96	126299	7.66	PPB	100
7) Chloroethane	1.72	64	121516	8.76	PPB	100
8) Dichlorofluoromethane	1.93	67	374446	10.39	PPB	100
9) Trichlorofluoromethane	1.93	101	323617	9.96	PPB	100
10) Ethyl Ether	2.23	59	128312	9.06	PPB	100
11) Acrolein	2.43	56	287277	151.54	PPB	100
12) Trichlorotrifluoroethane	2.43	151	173191	10.57	PPB	100
13) 1,1-Dichloroethene	2.46	96	158400	9.45	PPB	100
14) Acetone	2.61	43	560058	192.71	PPB	100
15) Iodomethane	2.63	142	695620	41.46	PPB	100
16) Carbon Disulfide	2.66	76	558144	9.88	PPB	100
17) 2-Propanol (Isopropyl Alco	2.79	45	204941	393.16	PPB	100
18) 3-Chloro-1-propene	2.92	76	101486	9.43	PPB	100
19) Methyl Acetate	2.98	43	90684	8.64	PPB	100
20) Acetonitrile	3.03	40	249489	352.41	PPB	100
21) Methylene Chloride	3.11	84	181981	8.53	PPB	100
22) tert-Butyl Alcohol	3.32	59	35989	42.08	PPB	100
23) Acrylonitrile	3.56	53	160156	35.04	PPB	100
24) Methyl tert-Butyl Ether	3.40	73	864578	18.66	PPB	100
25) trans-1,2-Dichloroethene	3.41	96	182720	9.35	PPB	100
26) Hexane	3.71	57	302080	10.24	PPB	100
27) Diisopropyl Ether	4.17	45	590559	9.03	PPB	100
28) 1,1-Dichloroethane	4.12	63	326810	9.39	PPB	100

(#) = qualifier out of range (m) = manual integration
0316F015.D 031615MS46_8260.M Tue Mar 17 12:38:08 2015 Page 1

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Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\031615\0316F015.D Vial: 2
Acq On : 16 Mar 2015 05:15 pm Operator:
Sample : ICAL10PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:36:59 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
29) Vinyl Acetate	4.25	86	63501	17.65	PPB	100
30) Chloroprene	4.20	53	1094990	39.20	PPB	100
31) tert-Butyl Ethyl Ether	4.73	59	515386	9.14	PPB	100
32) 2,2-Dichloropropane	4.95	77	294322	9.64	PPB	100
33) cis-1,2-Dichloroethene	5.02	96	199206	9.13	PPB	100
34) 2-Butanone	5.10	72	240422	193.41	PPB	100
35) Ethyl Acetate	5.17	61	29647	16.29	PPB	100
36) Propionitrile	5.29	54	53974	33.51	PPB	100
37) Methacrylonitrile	5.43	67	197329	34.59	PPB	100
38) Bromochloromethane	5.35	128	89125	9.03	PPB	100
39) Tetrahydrofuran	5.38	71	13554	9.21	PPB	100
40) Chloroform	5.47	83	335808	9.27	PPB	100
41) Cyclohexane	5.57	56	362212	10.11	PPB	100
42) 1,1,1-Trichloroethane	5.62	97	320023	9.79	PPB	100
44) Carbon Tetrachloride	5.77	117	282270	9.80	PPB	100
45) 1,1-Dichloropropene	5.84	75	271448	9.78	PPB	100
46) Isobutyl Alcohol	6.19	43	123323	362.62	PPB	100
48) Benzene	6.09	78	781607	9.33	PPB	100
49) 1,2-Dichloroethane	6.24	62	230909	9.21	PPB	100
50) tert-Amyl Methyl Ether	6.26	55	107648	9.12	PPB	100
51) Trichloroethene	6.92	95	205321	9.60	PPB	100
52) Methylcyclohexane	7.04	83	362100	9.78	PPB	100
53) 1,2-Dichloropropane	7.24	63	191408	9.14	PPB	100
54) Dibromomethane	7.37	93	97620	8.98	PPB	100
55) Methyl methacrylate	7.41	69	90325	8.55	PPB	100
56) 1,4-Dioxane	7.41	88	28199	280.70	PPB	100
57) Bromodichloromethane	7.57	83	247611	9.15	PPB	100
58) 2-Nitropropane	7.93	41	169667	46.29	PPB	100
59) 2-Chloroethyl Vinyl Ether	7.97	63	91455	9.24	PPB	100
60) cis-1,3-Dichloropropene	8.10	75	294089	9.11	PPB	100
61) 4-Methyl-2-pentanone (MIBK	8.29	58	889716	176.22	PPB	100
63) Toluene	8.40	92	497008	9.40	PPB	100
65) n-Octane	8.49	85	148039	8.72	PPB	100
66) trans-1,3-Dichloropropene	8.77	75	249351	9.70	PPB	100
67) Ethyl methacrylate	8.83	69	173482	9.50	PPB	100
68) 1,1,2-Trichloroethane	8.96	83	122818	9.68	PPB	100
69) Tetrachloroethene	8.97	164	199663	10.65	PPB	100
70) 2-Hexanone	9.23	57	287762	214.13	PPB	100
71) 1,3-Dichloropropane	9.15	76	252650	9.85	PPB	100
72) Dibromochloromethane	9.34	129	174048	9.65	PPB	100
73) 1,2-Dibromoethane (EDB)	9.47	107	138303	9.58	PPB	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\031615\0316F015.D Vial: 2
Acq On : 16 Mar 2015 05:15 pm Operator:
Sample : ICAL10PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:36:59 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

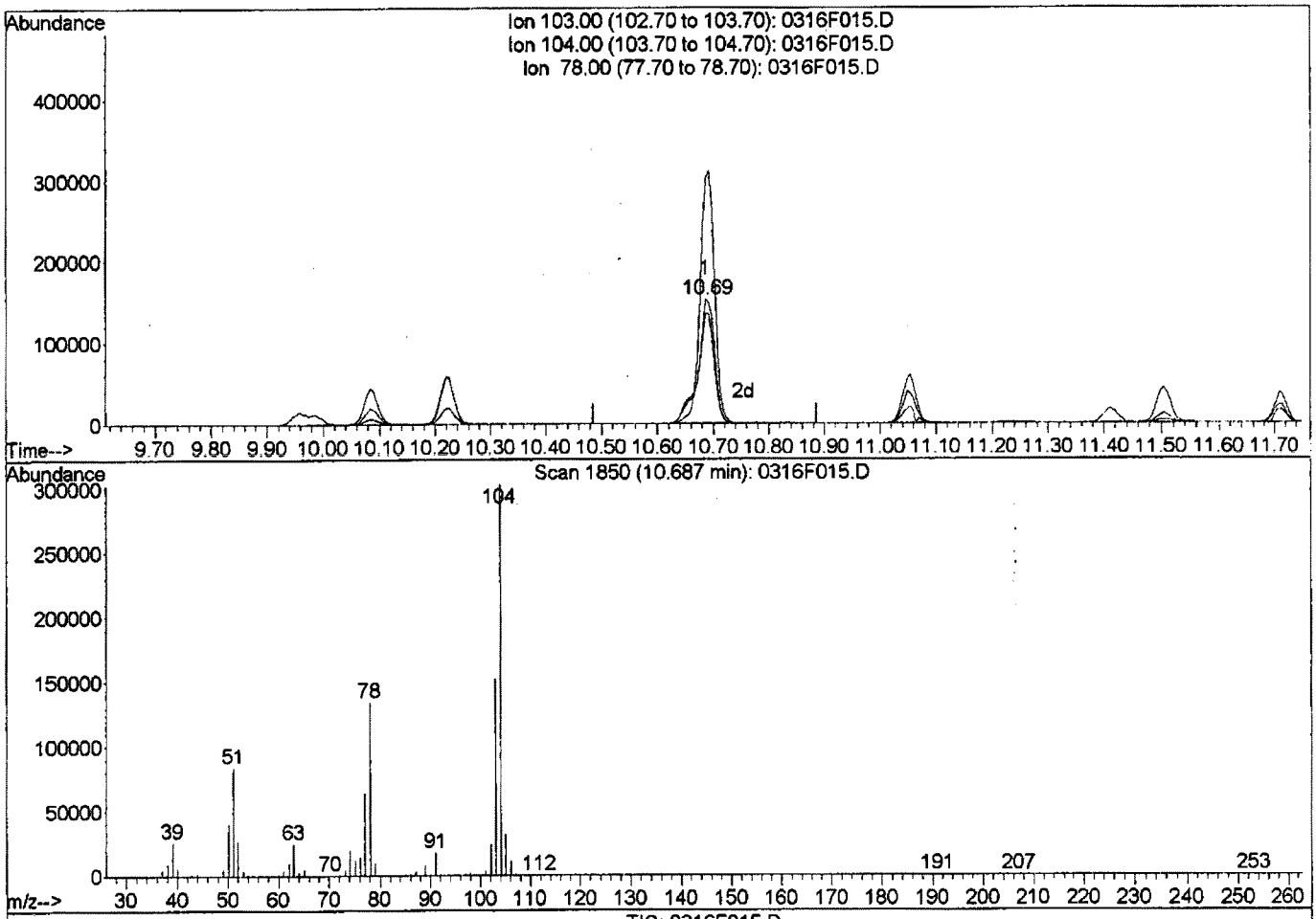
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
74)	1-Chlorohexane	9.96	91	277476	9.70	PPB	100
75)	Chlorobenzene	9.99	112	542517	9.85	PPB	100
76)	Ethylbenzene	10.08	106	298579	10.03	PPB	100
77)	1,1,1,2-Tetrachloroethane	10.10	131	193968	9.77	PPB	100
78)	m,p-Xylenes	10.22	106	737050	20.36	PPB	100
79)	o-Xylene	10.66	106	349120	9.79	PPB	100
80)	Styrene	10.69	103	277640m	10.12	PPB	
81)	Bromoform	10.91	173	108320	9.50	PPB	100
82)	Isopropylbenzene	11.05	105	964608	10.28	PPB	100
83)	cis-1,4-Dichloro-2-butene	11.22	89	89110	36.66	PPB	100
86)	1,1,2,2-Tetrachloroethane	11.47	83	148879	10.34	PPB	100
87)	trans-1,4-Dichloro-2-buten	11.55	53	42651	10.14	PPB	100
88)	Bromobenzene	11.41	156	229094	10.31	PPB	100
89)	n-Propylbenzene	11.50	91	1146498	11.10	PPB	100
90)	1,2,3-Trichloropropane	11.53	110	50401	10.47	PPB	100
91)	2-Chlorotoluene	11.62	91	654268	10.79	PPB	100
92)	1,3,5-Trimethylbenzene	11.71	105	802201	11.01	PPB	100
93)	4-Chlorotoluene	11.75	91	658922m	10.48	PPB	
94)	tert-Butylbenzene	12.05	119	711284	10.75	PPB	100
95)	1,2,4-Trimethylbenzene	12.12	105	793359	10.76	PPB	100
96)	sec-Butylbenzene	12.29	105	1067108	10.97	PPB	100
97)	p-Isopropyltoluene	12.46	119	900300	10.97	PPB	100
98)	1,3-Dichlorobenzene	12.45	146	460870	10.19	PPB	100
99)	1,4-Dichlorobenzene	12.56	146	463740	10.27	PPB	100
100)	n-Butylbenzene	12.90	91	816365	10.96	PPB	100
101)	1,2-Dichlorobenzene	12.97	146	418082	10.31	PPB	100
102)	1,2-Dibromo-3-chloropropan	13.85	155	23006	9.20	PPB	100
103)	1,3,5-Trichlorobenzene	14.02	180	356294	10.22	PPB	100
104)	1,2,4-Trichlorobenzene	14.72	180	308015	10.09	PPB	100
105)	Hexachlorobutadiene	14.85	225	163314	9.17	PPB	100
106)	Naphthalene	15.01	128	541488	10.24	PPB	100
107)	1,2,3-Trichlorobenzene	15.27	180	271396	9.91	PPB	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F015.D Vial: 2
Acq On : 16 Mar 2015 05:15 pm Operator:
Sample : ICAL10PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:37 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Multiple Level Calibration



TIC: 0316F015.D

(80) Styrene (T)
10.69min 11.32PPB
response 310526

Ion	Exp%	Act%
103.00	100	100
104.00	198.60	198.61
78.00	88.20	88.24
0.00	0.00	0.00

Manual Integration:
Before

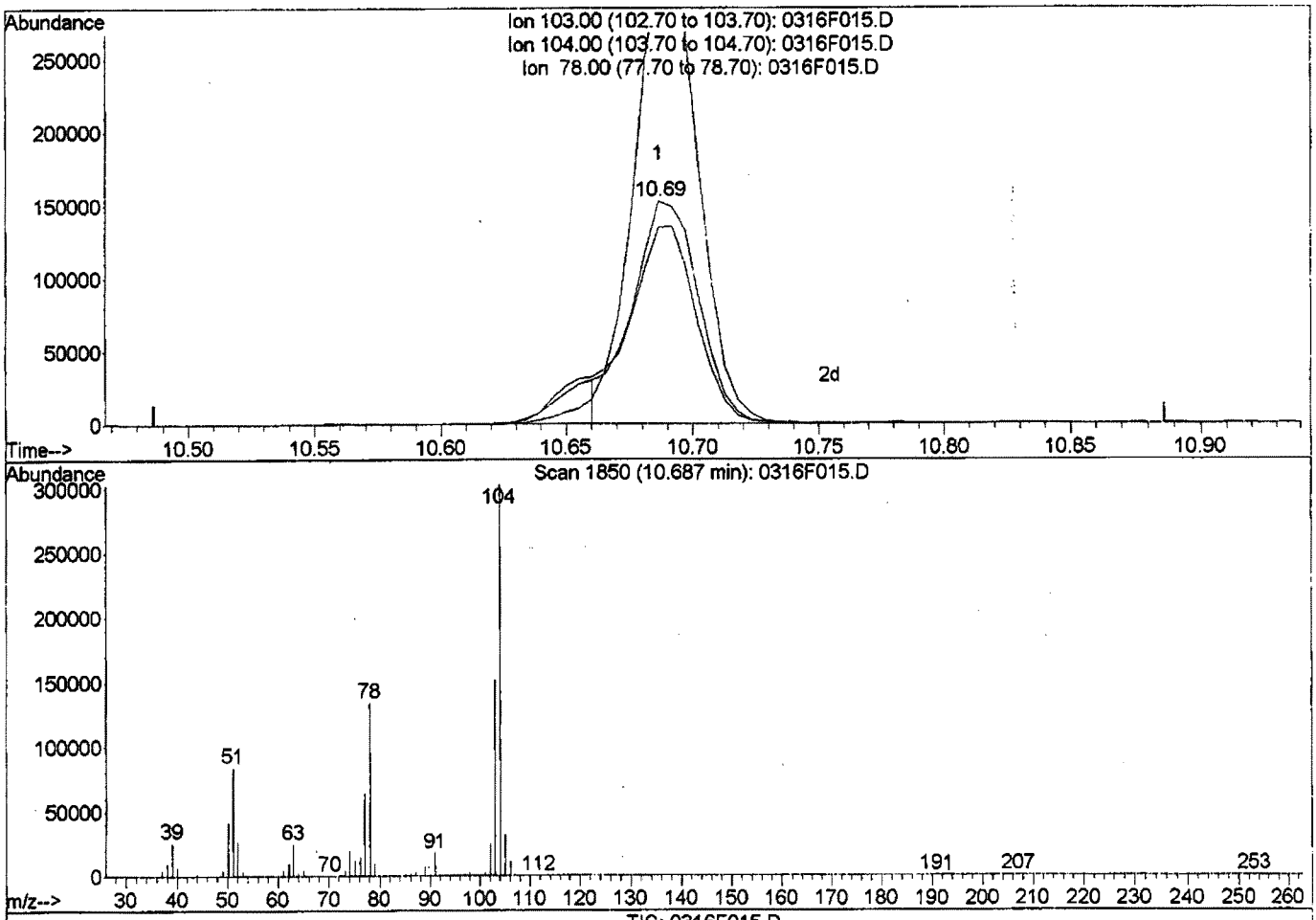
03/17/15

0316F015.D 031615MS46_8260.M Tue Mar 17 12:37:38 2015

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F015.D Vial: 2
Acq On : 16 Mar 2015 05:15 pm Operator:
Sample : ICAL10PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:37 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Multiple Level Calibration



TIC: 0316F015.D

(80) Styrene (T)
10.69min 10.12PPB m
response 277640

Ion	Exp%	Act%
103.00	100	100
104.00	198.60	198.61
78.00	88.20	88.24
0.00	0.00	0.00

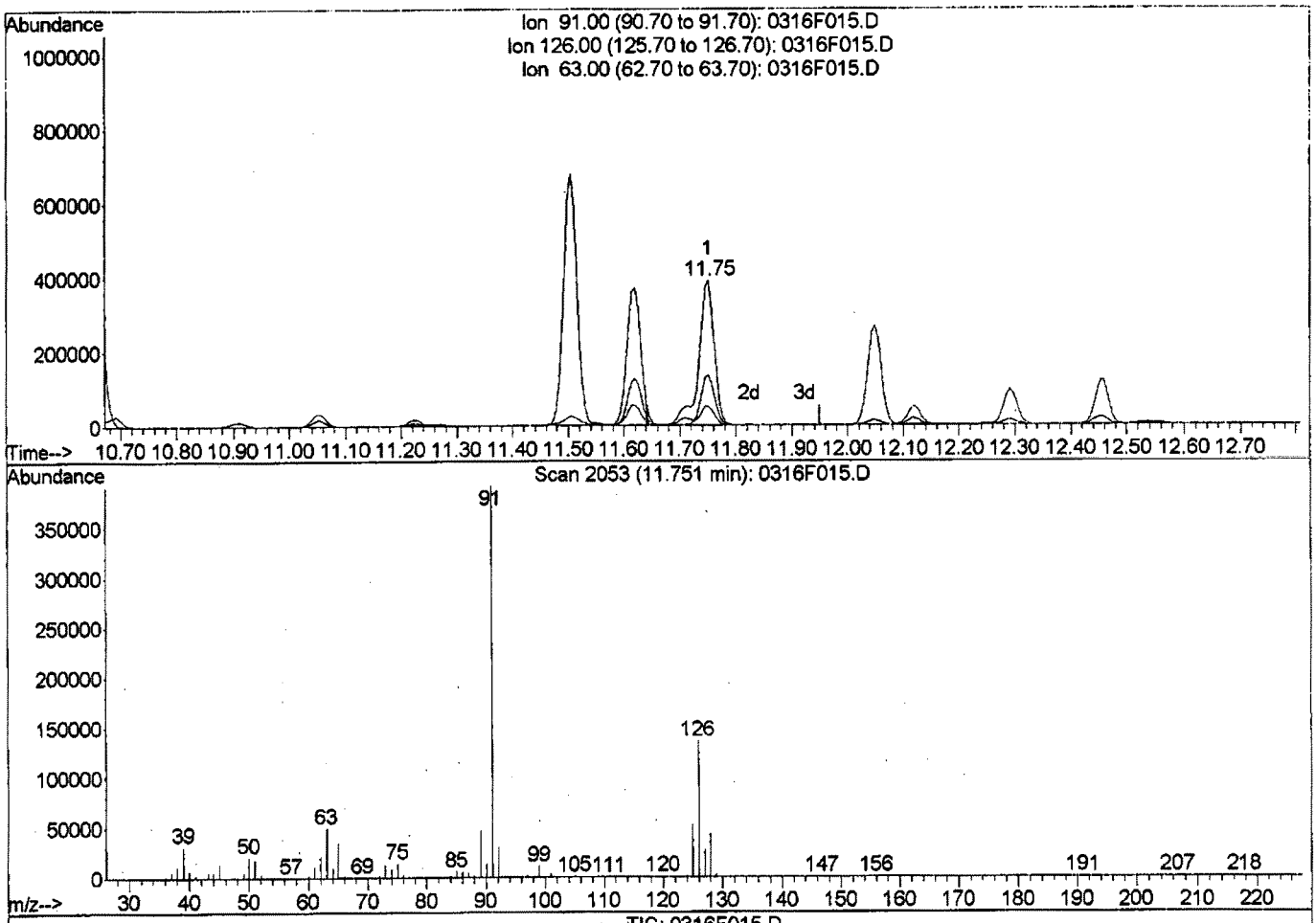
Manual Integration:
After
Baseline correction
03/17/15

0316F015.D 031615MS46_8260.M Tue Mar 17 12:37:43 2015

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F015.D Vial: 2
Acq On : 16 Mar 2015 05:15 pm Operator:
Sample : ICAL10PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:37 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Multiple Level Calibration



TIC: 0316F015.D

(93) 4-Chlorotoluene (T)

11.75min 11.98PPB

response 753438

Ion	Exp%	Act%
91.00	100	100
126.00	34.80	34.76
63.00	12.80	12.76
0.00	0.00	0.00

Manual Integration:

Before

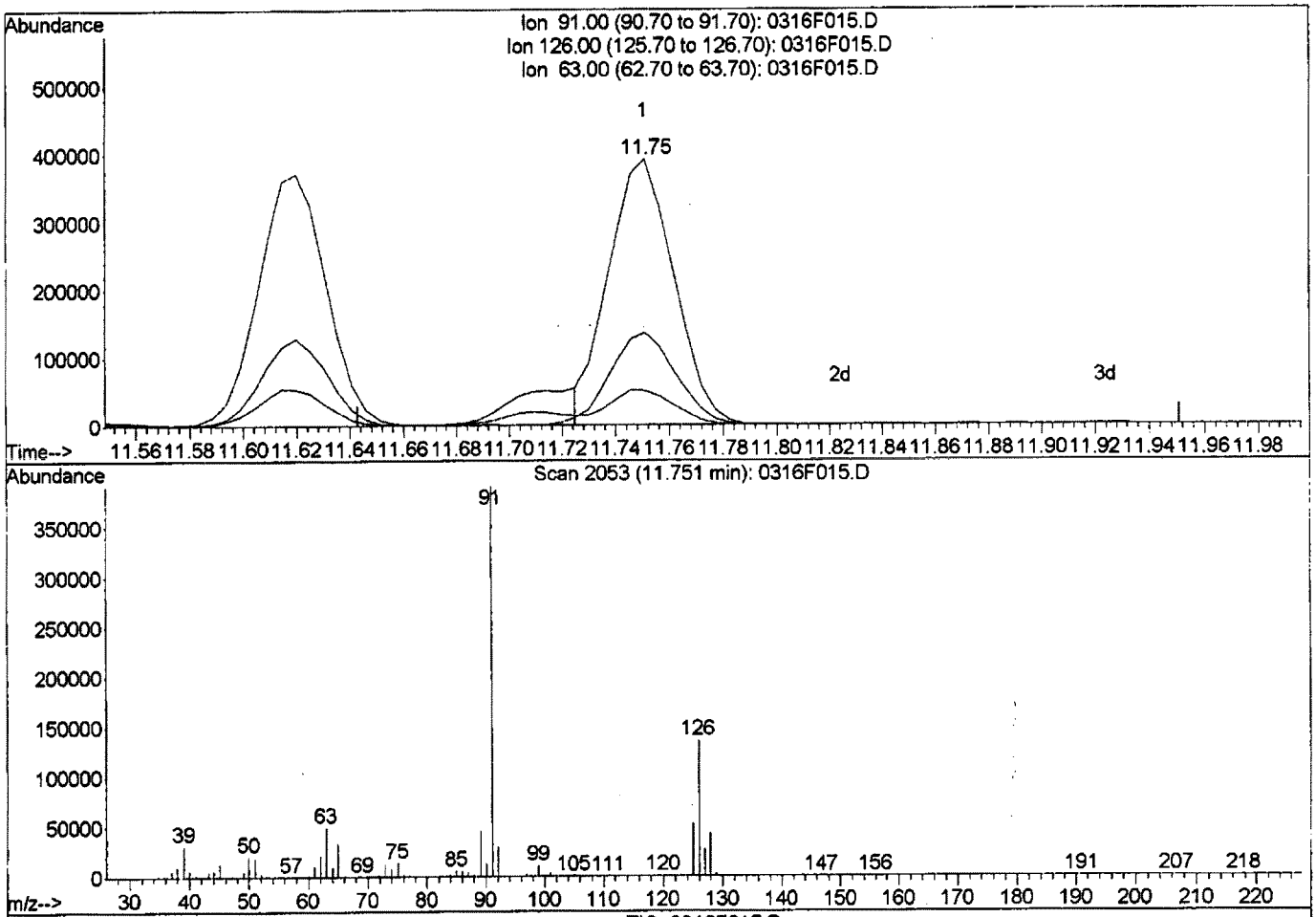
03/17/15

0316F015.D 031615MS46_8260.M Tue Mar 17 12:37:50 2015

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F015.D Vial: 2
Acq On : 16 Mar 2015 05:15 pm Operator:
Sample : ICAL10PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:37 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Multiple Level Calibration



TIC: 0316F015.D

(93) 4-Chlorotoluene (T)

11.75min 10.48PPB m

response 658922

Ion	Exp%	Act%
91.00	100	100
126.00	34.80	34.74
63.00	12.80	12.75
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

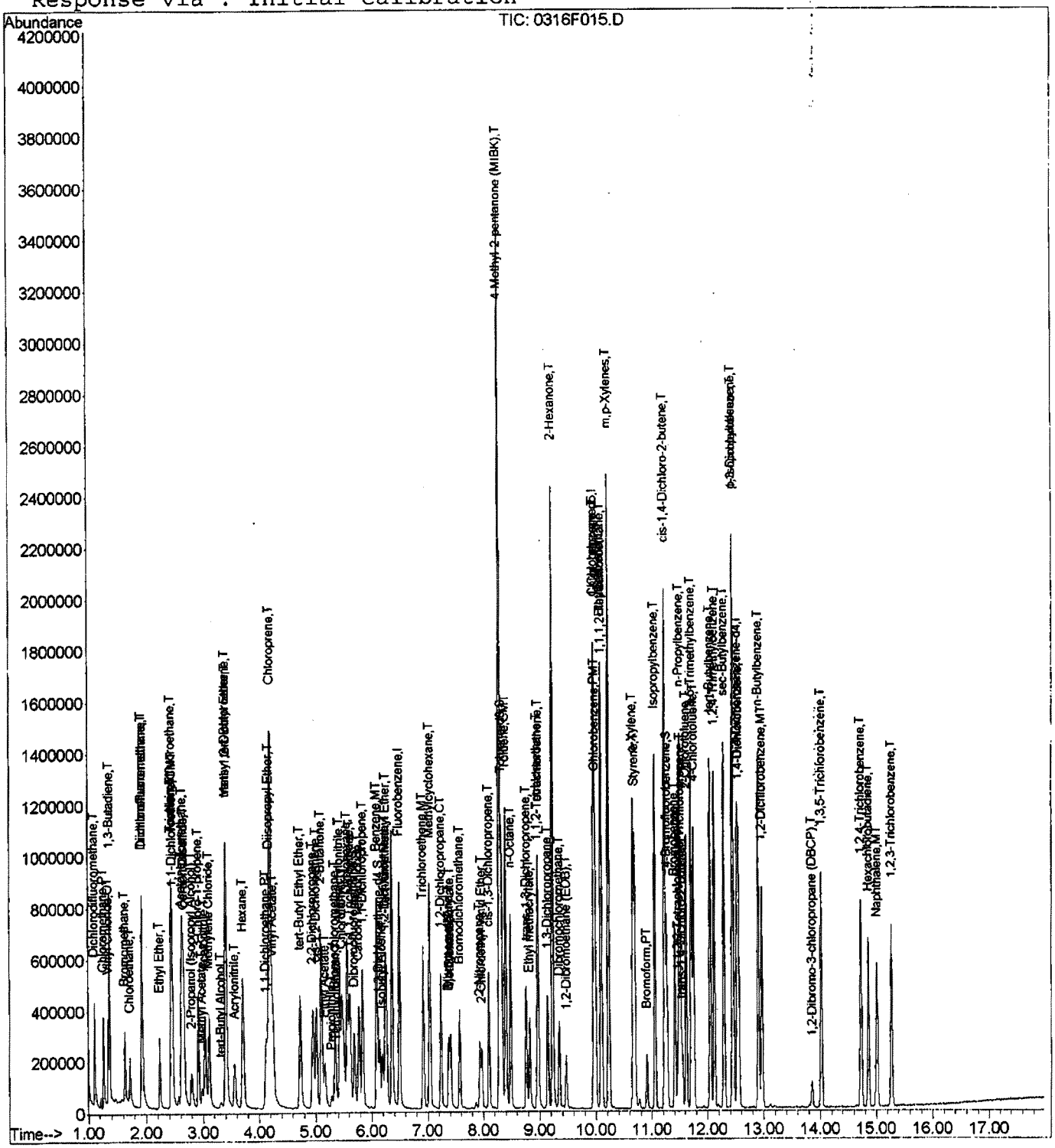
03/17/15

0316F015.D 031615MS46_8260.M Tue Mar 17 12:37:55 2015

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\031615\0316F015.D Vial: 2
Acq On : 16 Mar 2015 05:15 pm Operator:
Sample : ICAL10PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:37 2015 Quant Results File: 031615MS46_8

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\031615\0316F016.D Vial: 2
Acq On : 16 Mar 2015 05:38 pm Operator:
Sample : ICAL20PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:38:12 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

KA 3/17/15

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.49	96	847822	10.00	PPB	0.00
64) Chlorobenzene-d5	9.96	82	339761	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	12.53	152	344728	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.69	113	227152	11.03	PPB	0.00
Spiked Amount 10.000			Recovery =	110.30%		
47) 1,2-Dichloroethane-d4	6.14	65	242092	11.34	PPB	0.00
Spiked Amount 10.000			Recovery =	113.40%		
62) Toluene-d8	8.33	98	897882	11.37	PPB	0.00
Spiked Amount 10.000			Recovery =	113.70%		
84) 4-Bromofluorobenzene	11.27	95	323233	11.02	PPB	0.00
Spiked Amount 10.000			Recovery =	110.20%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.10	85	543558	19.30	PPB	99
3) Chloromethane	1.26	50	507197	17.36	PPB	97
4) Vinyl Chloride	1.34	62	466899	17.79	PPB	99
5) 1,3-Butadiene	1.37	54	396899	18.83	PPB	99
6) Bromomethane	1.63	96	246951	14.43	PPB	98
7) Chloroethane	1.72	64	246623	17.13	PPB	99
8) Dichlorofluoromethane	1.93	67	757652	20.24	PPB	100
9) Trichlorofluoromethane	1.93	101	650845	19.29	PPB	96
10) Ethyl Ether	2.23	59	261694	17.80	PPB	93
11) Acrolein	2.43	56	594427	302.00	PPB	100
12) Trichlorotrifluoroethane	2.44	151	355357	20.90	PPB	98
13) 1,1-Dichloroethene	2.46	96	320290	18.41	PPB	95
14) Acetone	2.61	43	1154784	382.71	PPB	99
15) Iodomethane	2.63	142	1512396	86.81	PPB	99
16) Carbon Disulfide	2.66	76	1126073	19.20	PPB	99
17) 2-Propanol (Isopropyl Alco	2.79	45	416499	769.56	PPB	98
18) 3-Chloro-1-propene	2.92	76	208811	18.69	PPB	93
19) Methyl Acetate	2.98	43	180752	16.59	PPB	97
20) Acetonitrile	3.03	40	528366	718.81	PPB	99
21) Methylene Chloride	3.11	84	367093	16.57	PPB	98
22) tert-Butyl Alcohol	3.31	59	71306	80.30	PPB	97
23) Acrylonitrile	3.56	53	329904	69.53	PPB	95
24) Methyl tert-Butyl Ether	3.40	73	1780875	37.01	PPB	100
25) trans-1,2-Dichloroethene	3.41	96	369327	18.20	PPB	94
26) Hexane	3.71	57	620878	20.27	PPB	99
27) Diisopropyl Ether	4.17	45	1226979	18.07	PPB	99
28) 1,1-Dichloroethane	4.12	63	664561	18.38	PPB	98

(#) = qualifier out of range (m) = manual integration
0316F016.D 031615MS46_8260.M Tue Mar 17 12:48:10 2015 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\031615\0316F016.D Vial: 2
Acq On : 16 Mar 2015 05:38 pm Operator:
Sample : ICAL20PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:38:12 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29) Vinyl Acetate	4.25	86	133436	35.73	PPB	#	86
30) Chloroprene	4.20	53	2214696	76.37	PPB		99
31) tert-Butyl Ethyl Ether	4.73	59	1074048	18.35	PPB		99
32) 2,2-Dichloropropane	4.95	77	593852	18.74	PPB		98
33) cis-1,2-Dichloroethene	5.01	96	402999	17.78	PPB		99
34) 2-Butanone	5.10	72	488182	378.24	PPB		100
35) Ethyl Acetate	5.17	61	58065	30.72	PPB		88
36) Propionitrile	5.29	54	111990	66.97	PPB		99
37) Methacrylonitrile	5.43	67	410821	69.35	PPB		97
38) Bromochloromethane	5.35	128	173236	16.91	PPB		96
39) Tetrahydrofuran	5.36	71	25423	16.64	PPB	#	72
40) Chloroform	5.47	83	688883	18.32	PPB		96
41) Cyclohexane	5.57	56	712480	19.14	PPB		94
42) 1,1,1-Trichloroethane	5.62	97	651210	19.19	PPB		98
44) Carbon Tetrachloride	5.77	117	579418	19.38	PPB		100
45) 1,1-Dichloropropene	5.84	75	550397	19.10	PPB		97
46) Isobutyl Alcohol	6.19	43	258003	730.65	PPB		97
48) Benzene	6.09	78	1576936	18.13	PPB		99
49) 1,2-Dichloroethane	6.24	62	476074	18.28	PPB		98
50) tert-Amyl Methyl Ether	6.26	55	219085	17.87	PPB		91
51) Trichloroethene	6.92	95	415176	18.70	PPB		98
52) Methylcyclohexane	7.04	83	746133	19.41	PPB		96
53) 1,2-Dichloropropane	7.24	63	394400	18.14	PPB		96
54) Dibromomethane	7.38	93	199191	17.66	PPB		93
55) Methyl methacrylate	7.41	69	193526	17.63	PPB		96
56) 1,4-Dioxane	7.40	88	55965	536.55	PPB		91
57) Bromodichloromethane	7.57	83	517766	18.42	PPB		97
58) 2-Nitropropane	7.94	41	345425	90.77	PPB		92
59) 2-Chloroethyl Vinyl Ether	7.97	63	191351	18.62	PPB		97
60) cis-1,3-Dichloropropene	8.10	75	600277	17.91	PPB		98
61) 4-Methyl-2-pentanone (MIBK	8.29	58	1856548	354.16	PPB		99
63) Toluene	8.41	92	1026247	18.70	PPB		98
65) n-Octane	8.49	85	305573	17.12	PPB		100
66) trans-1,3-Dichloropropene	8.76	75	516973	19.12	PPB		95
67) Ethyl methacrylate	8.83	69	355401	18.51	PPB		97
68) 1,1,2-Trichloroethane	8.96	83	247834	18.57	PPB		97
69) Tetrachloroethene	8.97	164	405821	20.58	PPB		99
70) 2-Hexanone	9.23	57	596407	421.89	PPB		99
71) 1,3-Dichloropropane	9.14	76	521050	19.32	PPB		99
72) Dibromochloromethane	9.34	129	371078	19.56	PPB		99
73) 1,2-Dibromoethane (EDB)	9.47	107	283606	18.68	PPB		94

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\031615\0316F016.D Vial: 2
Acq On : 16 Mar 2015 05:38 pm Operator:
Sample : ICAL20PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:38:12 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

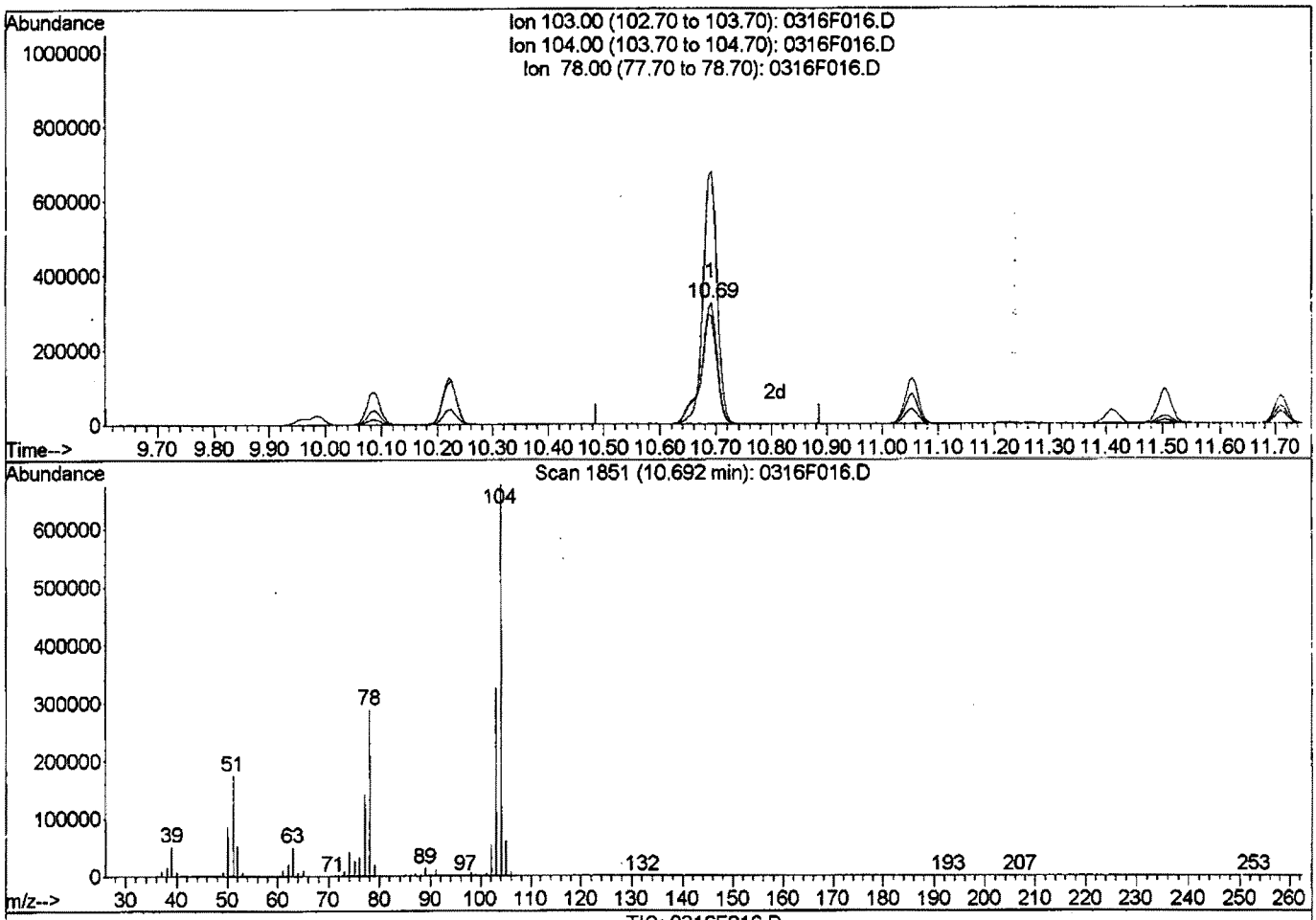
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
74)	1-Chlorohexane	9.96	91	568940	18.91	PPB	98
75)	Chlorobenzene	9.99	112	1109707	19.15	PPB	98
76)	Ethylbenzene	10.08	106	621209	19.84	PPB	93
77)	1,1,1,2-Tetrachloroethane	10.10	131	406992	19.48	PPB	98
78)	m,p-Xylenes	10.22	106	1525668	40.06	PPB	98
79)	o-Xylene	10.66	106	711261	18.96	PPB	95
80)	Styrene	10.69	103	552087m	19.13	PPB	
81)	Bromoform	10.91	173	233313	19.44	PPB	98
82)	Isopropylbenzene	11.05	105	2001005	20.27	PPB	98
83)	cis-1,4-Dichloro-2-butene	11.23	89	194226	75.96	PPB	91
86)	1,1,2,2-Tetrachloroethane	11.47	83	317939	20.84	PPB	99
87)	trans-1,4-Dichloro-2-buten	11.55	53	91661	20.56	PPB	95
88)	Bromobenzene	11.42	156	476864	20.25	PPB	96
89)	n-Propylbenzene	11.50	91	2373662	21.69	PPB	98
90)	1,2,3-Trichloropropane	11.52	110	101843	19.96	PPB	96
91)	2-Chlorotoluene	11.62	91	1338311	20.82	PPB	99
92)	1,3,5-Trimethylbenzene	11.71	105	1663437	21.54	PPB	99
93)	4-Chlorotoluene	11.75	91	1379130m	20.69	PPB	
94)	tert-Butylbenzene	12.05	119	1481525	21.13	PPB	99
95)	1,2,4-Trimethylbenzene	12.12	105	1661637	21.25	PPB	99
96)	sec-Butylbenzene	12.29	105	2224037	21.56	PPB	98
97)	p-Isopropyltoluene	12.45	119	1886206	21.68	PPB	99
98)	1,3-Dichlorobenzene	12.45	146	957577	19.98	PPB	97
99)	1,4-Dichlorobenzene	12.55	146	953773	19.92	PPB	100
100)	n-Butylbenzene	12.90	91	1733314	21.95	PPB	97
101)	1,2-Dichlorobenzene	12.97	146	874871	20.35	PPB	99
102)	1,2-Dibromo-3-chloropropan	13.86	155	51875	19.56	PPB	89
103)	1,3,5-Trichlorobenzene	14.02	180	724060	19.59	PPB	99
104)	1,2,4-Trichlorobenzene	14.72	180	648273	20.03	PPB	97
105)	Hexachlorobutadiene	14.85	225	346221	18.33	PPB	96
106)	Naphthalene	15.01	128	1147031	20.47	PPB	99
107)	1,2,3-Trichlorobenzene	15.27	180	576329	19.86	PPB	97

(#) = qualifier out of range (m) = manual integration
0316F016.D 031615MS46_8260.M Tue Mar 17 12:48:10 2015 Page 3

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F016.D Vial: 2
Acq On : 16 Mar 2015 05:38 pm Operator:
Sample : ICAL20PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:38 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Multiple Level Calibration



TIC: 0316F016.D

(80) Styrene (T)
10.69min 22.35PPB
response 644836

Ion	Exp%	Act%
103.00	100	100
104.00	198.60	207.87
78.00	88.20	88.72
0.00	0.00	0.00

Manual Integration:
Before

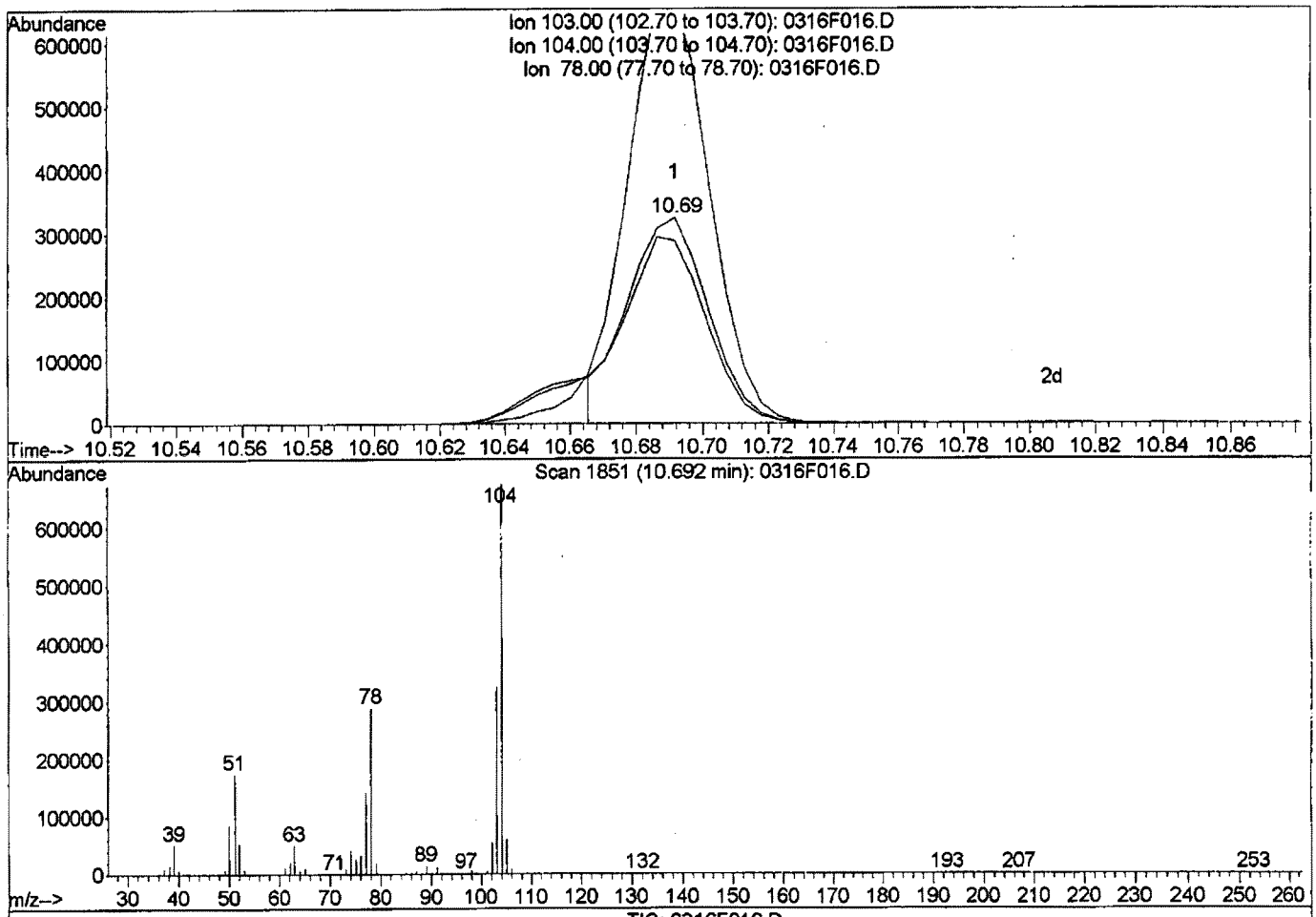
03/17/15

0316F016.D 031615MS46_8260.M Tue Mar 17 12:47:38 2015

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F016.D Vial: 2
Acq On : 16 Mar 2015 05:38 pm Operator:
Sample : ICAL20PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:47 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Multiple Level Calibration



(80) Styrene (T)

10.69min 19.13PPB m

response 552087

Ion	Exp%	Act%
103.00	100	100
104.00	198.60	207.87
78.00	88.20	88.77
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

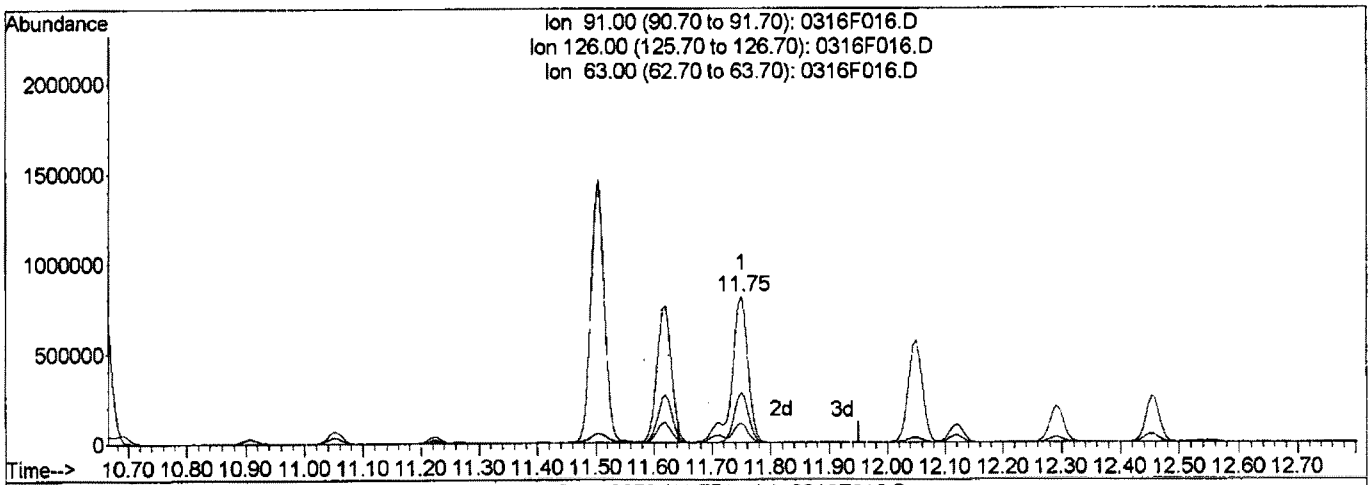
03/17/15

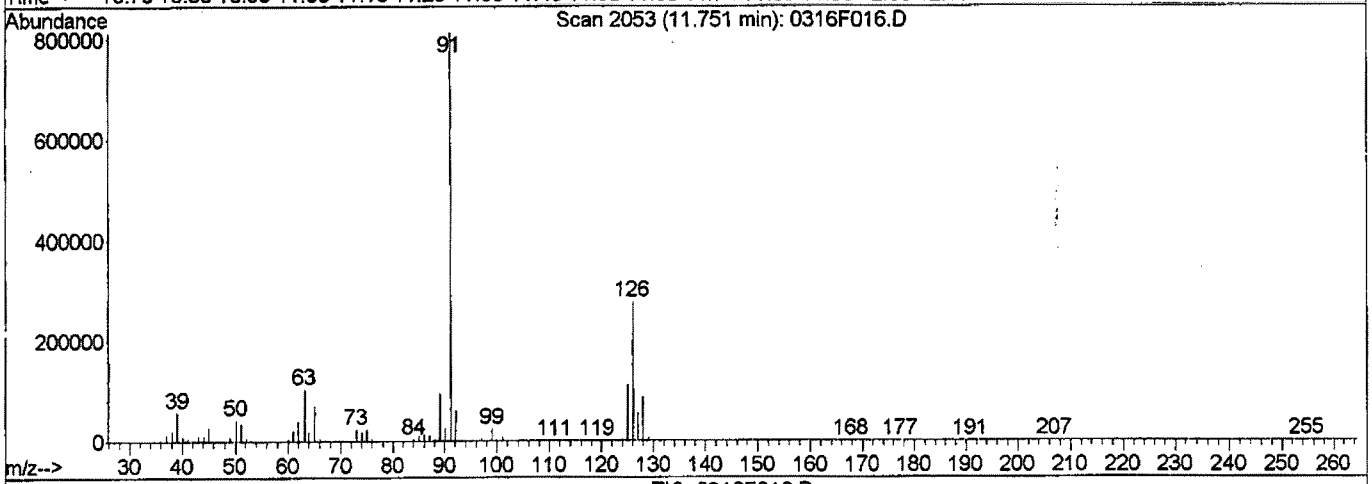
0316F016.D 031615MS46_8260.M Tue Mar 17 12:47:43 2015

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F016.D Vial: 2
Acq On : 16 Mar 2015 05:38 pm Operator:
Sample : ICAL20PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:47 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Multiple Level Calibration





TIC: 0316F016.D

(93) 4-Chlorotoluene (T)

11.75min 23.61PPB

response 1573641

Ion	Exp%	Act%
91.00	100	100
126.00	34.80	34.06
63.00	12.80	12.87
0.00	0.00	0.00

Manual Integration:

Before

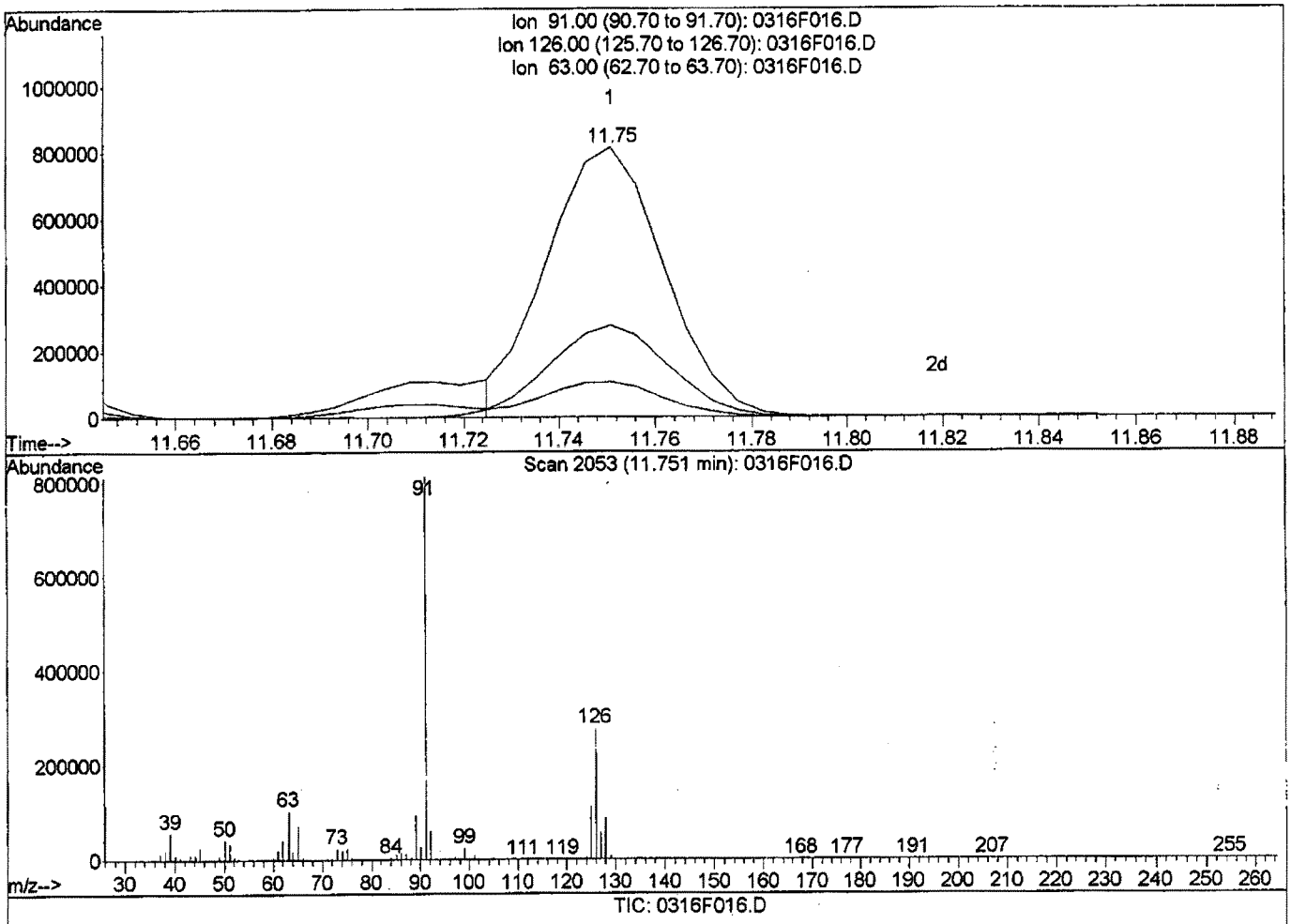
03/17/15

0316F016.D 031615MS46_8260.M Tue Mar 17 12:47:53 2015

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F016.D Vial: 2
Acq On : 16 Mar 2015 05:38 pm Operator:
Sample : ICAL20PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:47 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Multiple Level Calibration



(93) 4-Chlorotoluene (T)

11.75min 20.69PPB m

response 1379130

Ion	Exp%	Act%
91.00	100	100
126.00	34.80	34.04
63.00	12.80	12.88
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

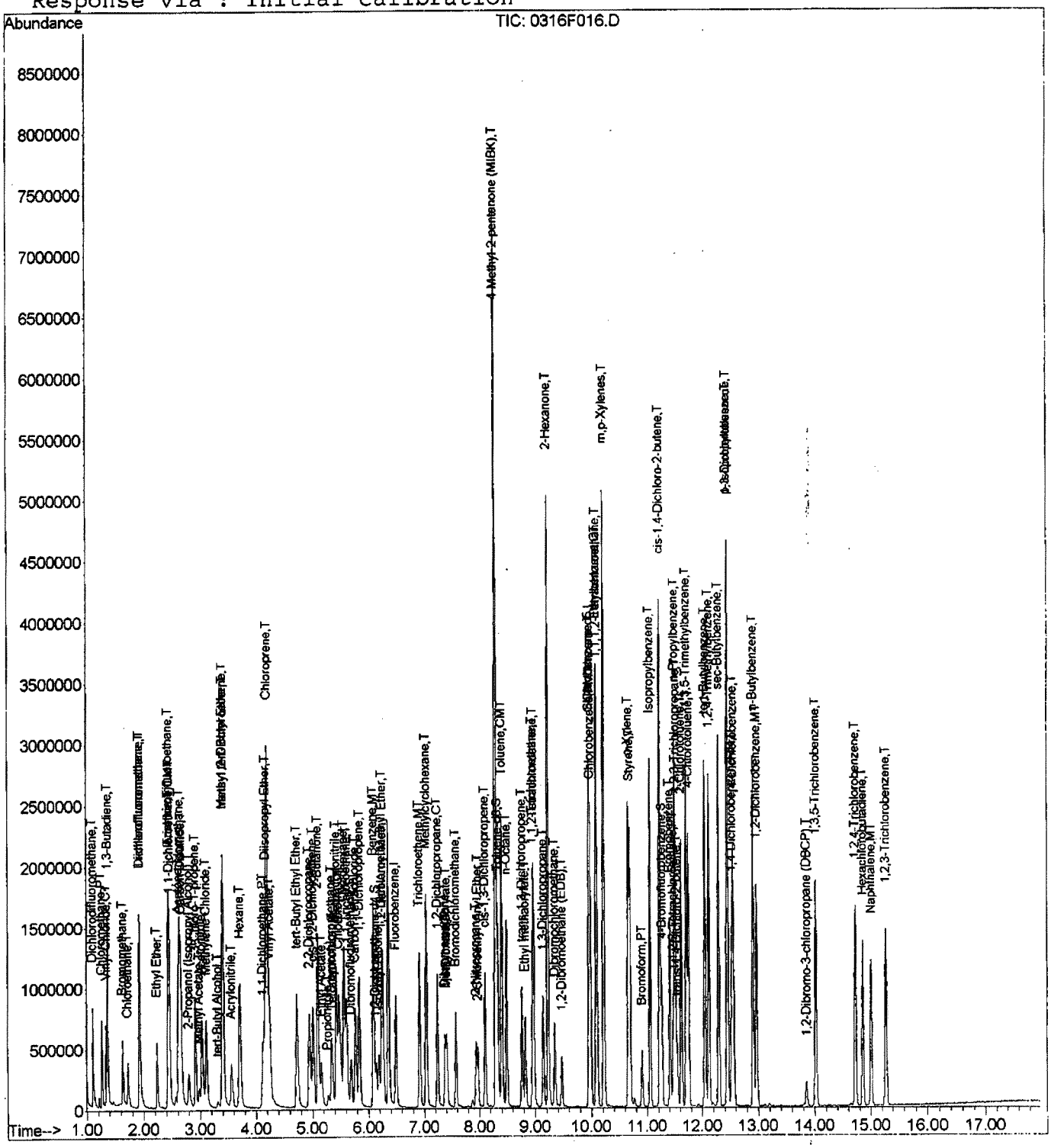
03/17/15

0316F016.D 031615MS46_8260.M Tue Mar 17 12:47:57 2015

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\031615\0316F016.D Vial: 2
Acq On : 16 Mar 2015 05:38 pm Operator:
Sample : ICAL20PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:47 2015 Quant Results File: 031615MS46_8

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\031615\0316F017.D Vial: 2
Acq On : 16 Mar 2015 06:02 pm Operator:
Sample : ICAL 40PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:49:26 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.49	96	847139	10.00	PPB	0.00
64) Chlorobenzene-d5	9.96	82	344345	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	12.53	152	355166	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.69	113	274707	13.34	PPB	0.00
Spiked Amount 10.000			Recovery =	133.40%		
47) 1,2-Dichloroethane-d4	6.14	65	286002	13.41	PPB	0.00
Spiked Amount 10.000			Recovery =	134.10%		
62) Toluene-d8	8.33	98	1064568	13.49	PPB	0.00
Spiked Amount 10.000			Recovery =	134.90%		
84) 4-Bromofluorobenzene	11.27	95	396670	13.35	PPB	0.00
Spiked Amount 10.000			Recovery =	133.50%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.10	85	1064763	37.84	PPB	97
3) Chloromethane	1.26	50	999289	34.23	PPB	99
4) Vinyl Chloride	1.34	62	948167	36.16	PPB	97
5) 1,3-Butadiene	1.37	54	785367	37.29	PPB	99
6) Bromomethane	1.63	96	518278	30.31	PPB	99
7) Chloroethane	1.72	64	493480	34.31	PPB	98
8) Dichlorofluoromethane	1.93	67	1523842	40.74	PPB	100
9) Trichlorofluoromethane	1.93	101	1292251	38.32	PPB	97
10) Ethyl Ether	2.23	59	535646	36.46	PPB	95
11) Acrolein	2.43	56	1219004	619.82	PPB	98
12) Trichlorotrifluoroethane	2.43	151	692591	40.76	PPB	98
13) 1,1-Dichloroethene	2.46	96	646217	37.18	PPB	93
14) Acetone	2.61	43	2262763	750.51	PPB	99
15) Iodomethane	2.63	142	3182486	182.82	PPB	99
16) Carbon Disulfide	2.66	76	2301617	39.27	PPB	98
17) 2-Propanol (Isopropyl Alco	2.79	45	868571	1606.13	PPB	97
18) 3-Chloro-1-propene	2.92	76	431060	38.61	PPB	92
19) Methyl Acetate	2.98	43	371791	34.15	PPB	98
20) Acetonitrile	3.03	40	1056029	1437.83	PPB	98
21) Methylene Chloride	3.11	84	735774	33.23	PPB	99
22) tert-Butyl Alcohol	3.31	59	151975	171.27	PPB	94
23) Acrylonitrile	3.56	53	667163	140.71	PPB	99
24) Methyl tert-Butyl Ether	3.40	73	3645246	75.82	PPB	99
25) trans-1,2-Dichloroethene	3.41	96	755867	37.28	PPB	95
26) Hexane	3.71	57	1227503	40.10	PPB	97
27) Diisopropyl Ether	4.17	45	2521093	37.15	PPB	98
28) 1,1-Dichloroethane	4.12	63	1349740	37.37	PPB	100

(#) = qualifier out of range (m) = manual integration
0316F017.D 031615MS46_8260.M Tue Mar 17 12:54:49 2015 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\031615\0316F017.D Vial: 2
Acq On : 16 Mar 2015 06:02 pm Operator:
Sample : ICAL 40PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:49:26 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29)	Vinyl Acetate	4.25	86	265999	71.28	PPB		94
30)	Chloroprene	4.20	53	4453618	153.69	PPB		99
31)	tert-Butyl Ethyl Ether	4.73	59	2205269	37.70	PPB		97
32)	2,2-Dichloropropane	4.95	77	1175676	37.13	PPB		97
33)	cis-1,2-Dichloroethene	5.02	96	832544	36.76	PPB		98
34)	2-Butanone	5.10	72	983502	762.62	PPB		99
35)	Ethyl Acetate	5.16	61	127625	67.58	PPB		89
36)	Propionitrile	5.29	54	233606	139.82	PPB		100
37)	Methacrylonitrile	5.43	67	846941	143.09	PPB		96
38)	Bromochloromethane	5.35	128	349614	34.15	PPB		95
39)	Tetrahydrofuran	5.36	71	54436	35.67	PPB		97
40)	Chloroform	5.47	83	1385291	36.87	PPB		98
41)	Cyclohexane	5.57	56	1393641	37.48	PPB		94
42)	1,1,1-Trichloroethane	5.62	97	1297223	38.25	PPB		95
44)	Carbon Tetrachloride	5.77	117	1179577	39.48	PPB		100
45)	1,1-Dichloropropene	5.84	75	1098358	38.15	PPB		98
46)	Isobutyl Alcohol	6.19	43	563272	1596.45	PPB		99
48)	Benzene	6.09	78	3221781	37.07	PPB		100
49)	1,2-Dichloroethane	6.24	62	962700	37.00	PPB		99
50)	tert-Amyl Methyl Ether	6.26	55	444008	36.25	PPB	#	86
51)	Trichloroethene	6.92	95	841740	37.94	PPB		99
52)	Methylcyclohexane	7.04	83	1452911	37.82	PPB		96
53)	1,2-Dichloropropane	7.24	63	797200	36.70	PPB		97
54)	Dibromomethane	7.38	93	408120	36.20	PPB		95
55)	Methyl methacrylate	7.41	69	403335	36.78	PPB		96
56)	1,4-Dioxane	7.40	88	123504	1185.02	PPB		92
57)	Bromodichloromethane	7.57	83	1056499	37.61	PPB		100
58)	2-Nitropropane	7.94	41	733820	192.99	PPB		93
59)	2-Chloroethyl Vinyl Ether	7.97	63	399365	38.90	PPB		95
60)	cis-1,3-Dichloropropene	8.10	75	1252530	37.41	PPB		99
61)	4-Methyl-2-pentanone (MIBK	8.29	58	3729247	711.98	PPB		100
63)	Toluene	8.41	92	2093759	38.18	PPB		97
65)	n-Octane	8.49	85	622855	34.43	PPB		99
66)	trans-1,3-Dichloropropene	8.77	75	1078119	39.34	PPB		97
67)	Ethyl methacrylate	8.83	69	769039	39.51	PPB		99
68)	1,1,2-Trichloroethane	8.96	83	512006	37.86	PPB		98
69)	Tetrachloroethene	8.97	164	812496	40.66	PPB		98
70)	2-Hexanone	9.23	57	1190346	830.83	PPB		100
71)	1,3-Dichloropropane	9.15	76	1077200	39.41	PPB		98
72)	Dibromochloromethane	9.34	129	774141	40.26	PPB		99
73)	1,2-Dibromoethane (EDB)	9.47	107	592463	38.50	PPB		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\031615\0316F017.D Vial: 2
Acq On : 16 Mar 2015 06:02 pm Operator:
Sample : ICAL 40PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:49:26 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

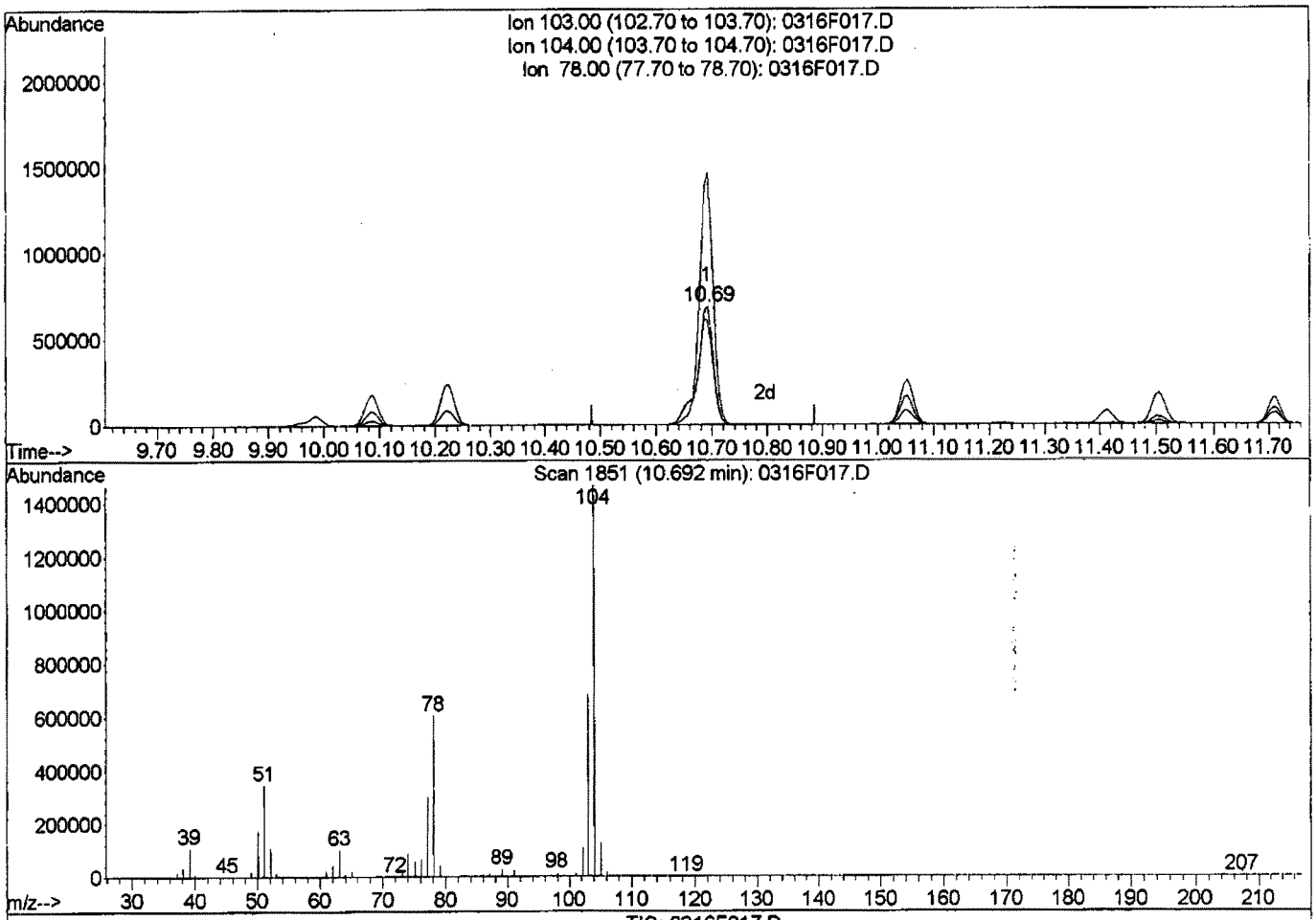
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
74)	1-Chlorohexane	9.96	91	1160873	38.07	PPB	97
75)	Chlorobenzene	9.99	112	2279727	38.81	PPB	99
76)	Ethylbenzene	10.09	106	1260331	39.73	PPB	98
77)	1,1,1,2-Tetrachloroethane	10.10	131	846594	39.98	PPB	97
78)	m,p-Xylenes	10.22	106	3125664	80.99	PPB	100
79)	o-Xylene	10.66	106	1476133	38.83	PPB	99
80)	Styrene	10.69	103	1163005m	39.77	PPB	
81)	Bromoform	10.91	173	499948	41.11	PPB	98
82)	Isopropylbenzene	11.05	105	4118398	41.16	PPB	99
83)	cis-1,4-Dichloro-2-butene	11.22	89	412245	159.07	PPB	91
86)	1,1,2,2-Tetrachloroethane	11.47	83	658165	41.87	PPB	99
87)	trans-1,4-Dichloro-2-buten	11.55	53	196176	42.72	PPB	94
88)	Bromobenzene	11.42	156	994043	40.97	PPB	97
89)	n-Propylbenzene	11.50	91	4876537	43.25	PPB	99
90)	1,2,3-Trichloropropane	11.52	110	214293	40.77	PPB	92
91)	2-Chlorotoluene	11.62	91	2745860	41.46	PPB	100
92)	1,3,5-Trimethylbenzene	11.71	105	3420599	42.99	PPB	100
93)	4-Chlorotoluene	11.75	91	2916992m	42.47	PPB	
94)	tert-Butylbenzene	12.05	119	3057306	42.32	PPB	99
95)	1,2,4-Trimethylbenzene	12.12	105	3456314	42.91	PPB	100
96)	sec-Butylbenzene	12.29	105	4524013	42.57	PPB	98
97)	p-Isopropyltoluene	12.45	119	3878792	43.27	PPB	99
98)	1,3-Dichlorobenzene	12.45	146	1969933	39.90	PPB	98
99)	1,4-Dichlorobenzene	12.56	146	1970915	39.96	PPB	99
100)	n-Butylbenzene	12.90	91	3513383	43.18	PPB	98
101)	1,2-Dichlorobenzene	12.97	146	1788263	40.37	PPB	99
102)	1,2-Dibromo-3-chloropropan	13.85	155	107927	39.51	PPB	88
103)	1,3,5-Trichlorobenzene	14.02	180	1487672	39.07	PPB	99
104)	1,2,4-Trichlorobenzene	14.72	180	1327674	39.82	PPB	100
105)	Hexachlorobutadiene	14.85	225	702345	36.10	PPB	96
106)	Naphthalene	15.01	128	2408650	41.73	PPB	99
107)	1,2,3-Trichlorobenzene	15.27	180	1192649	39.88	PPB	97

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F017.D Vial: 2
Acq On : 16 Mar 2015 06:02 pm Operator:
Sample : ICAL 40PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:49 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Multiple Level Calibration



TIC: 0316F017.D

(80) Styrene (T)

10.69min 46.18PPB

response 1350253

Ion	Exp%	Act%
103.00	100	100
104.00	198.60	213.74
78.00	88.20	88.39
0.00	0.00	0.00

Manual Integration:

Before

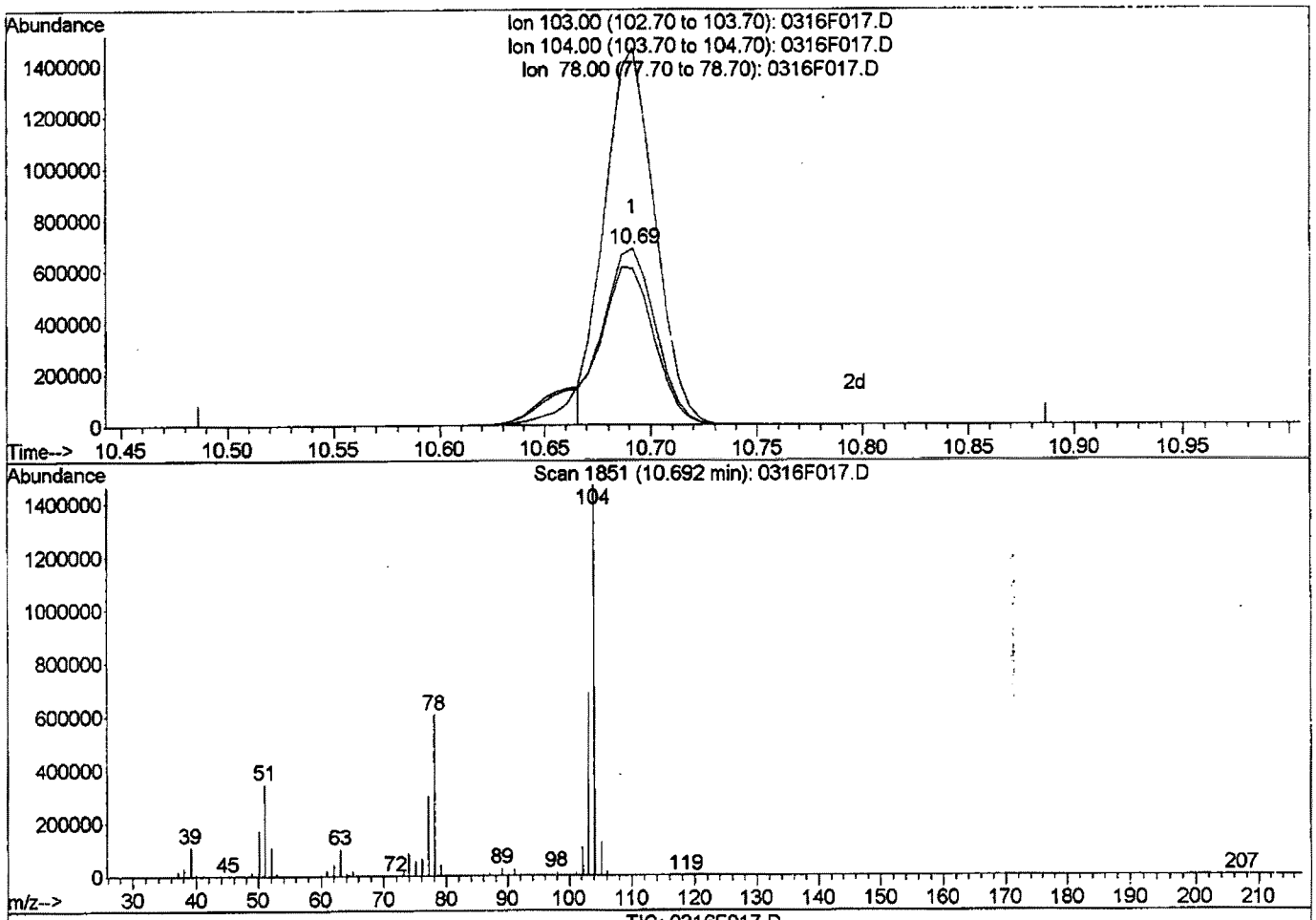
03/17/15

0316F017.D 031615MS46_8260.M Tue Mar 17 12:54:16 2015

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F017.D Vial: 2
Acq On : 16 Mar 2015 06:02 pm Operator:
Sample : ICAL 40PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:54 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Multiple Level Calibration



(80) Styrene (T)

10.69min 39.77PPB m

response 1163005

Ion	Exp%	Act%
103.00	100	100
104.00	198.60	213.74
78.00	88.20	88.41
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

03/17/15

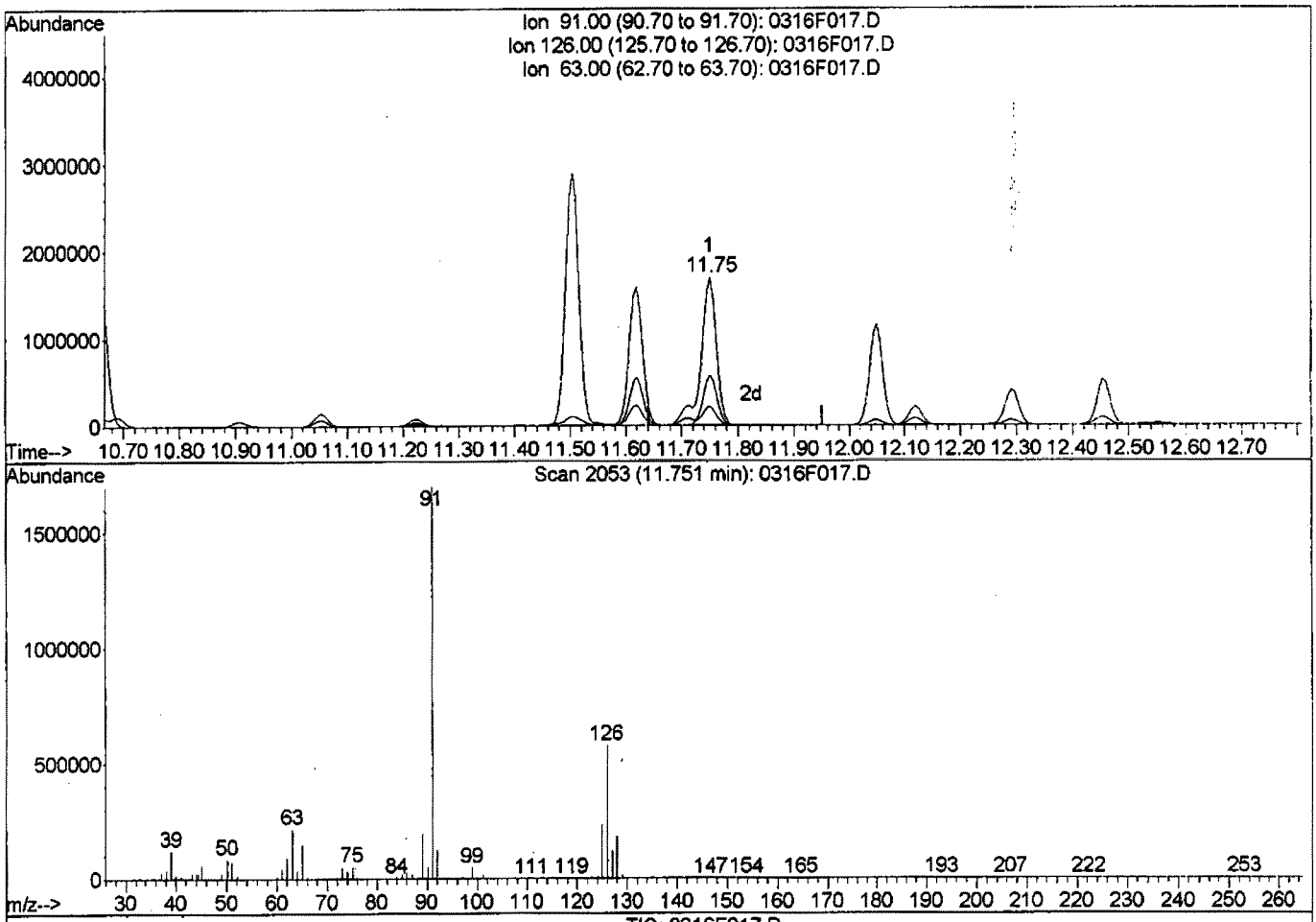
3/26/15

0316F017.D 031615MS46_8260.M Tue Mar 17 12:54:21 2015

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F017.D Vial: 2
Acq On : 16 Mar 2015 06:02 pm Operator:
Sample : ICAL 40PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:54 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Multiple Level Calibration



TIC: 0316F017.D

(93) 4-Chlorotoluene (T)

11.75min 47.20PPB

response 3241923

Ion	Exp%	Act%
91.00	100	100
126.00	34.80	33.88
63.00	12.80	12.88
0.00	0.00	0.00

Manual Integration:

Before

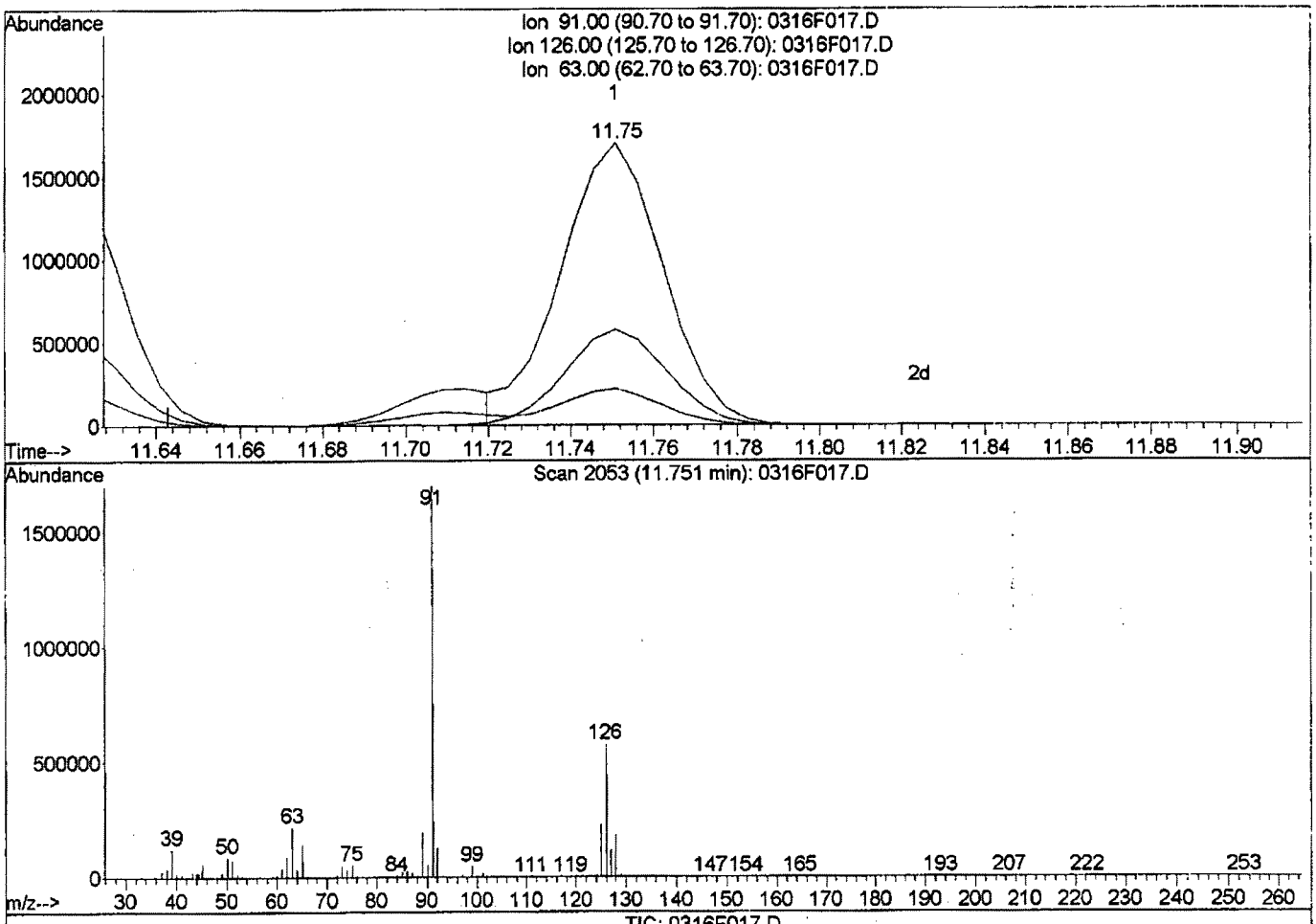
03/17/15

0316F017.D 031615MS46_8260.M Tue Mar 17 12:54:29 2015

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F017.D Vial: 2
Acq On : 16 Mar 2015 06:02 pm Operator:
Sample : ICAL 40PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:54 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Multiple Level Calibration



(93) 4-Chlorotoluene (T)

11.75min 42.47PPB m

response 2916992

Ion	Exp%	Act%
91.00	100	100
126.00	34.80	33.89
63.00	12.80	12.89
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

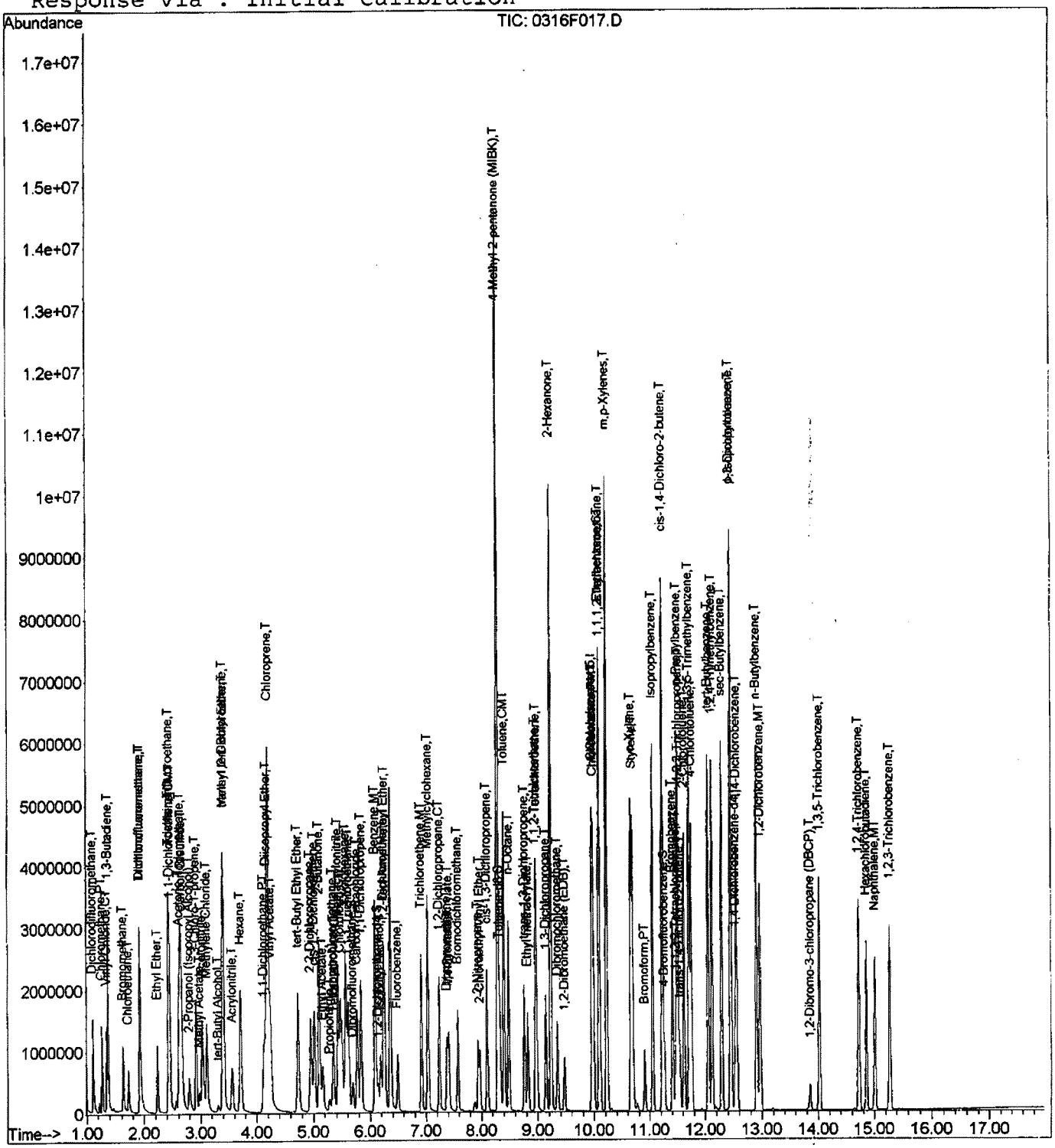
03/17/15

0316F017.D 031615MS46_8260.M Tue Mar 17 12:54:35 2015

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\031615\0316F017.D Vial: 2
Acq On : 16 Mar 2015 06:02 pm Operator:
Sample : ICAL 40PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:54 2015 Quant Results File: 031615MS46_8

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\031615\0316F018.D Vial: 2
Acq On : 16 Mar 2015 06:26 pm Operator:
Sample : ICAL 60PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:54:55 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.49	96	846981	10.00	PPB	0.00
64) Chlorobenzene-d5	9.96	82	350711	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	12.53	152	350904	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.69	113	300035	14.58	PPB	0.00
Spiked Amount 10.000			Recovery =	145.80%		
47) 1,2-Dichloroethane-d4	6.14	65	309863	14.53	PPB	0.00
Spiked Amount 10.000			Recovery =	145.30%		
62) Toluene-d8	8.33	98	1180618	14.97	PPB	0.00
Spiked Amount 10.000			Recovery =	149.70%		
84) 4-Bromofluorobenzene	11.27	95	439528	14.52	PPB	0.00
Spiked Amount 10.000			Recovery =	145.20%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.10	85	1626986	57.82	PPB	99
3) Chloromethane	1.26	50	1551101	53.15	PPB	99
4) Vinyl Chloride	1.34	62	1445667	55.14	PPB	97
5) 1,3-Butadiene	1.37	54	1225357	58.19	PPB	99
6) Bromomethane	1.63	96	837467	48.98	PPB	97
7) Chloroethane	1.72	64	765431	53.22	PPB	98
8) Dichlorofluoromethane	1.93	67	2336155	62.47	PPB	100
9) Trichlorofluoromethane	1.93	101	1976317	58.62	PPB	97
10) Ethyl Ether	2.23	59	843474	57.43	PPB	97
11) Acrolein	2.43	56	1862781	947.34	PPB	99
12) Trichlorotrifluoroethane	2.43	151	1082969	63.75	PPB	96
13) 1,1-Dichloroethene	2.46	96	1015046	58.41	PPB	94
14) Acetone	2.61	43	4680533	1552.72	PPB	99
15) Iodomethane	2.63	142	4996231	287.06	PPB	99
16) Carbon Disulfide	2.66	76	3566685	60.86	PPB	98
17) 2-Propanol (Isopropyl Alco	2.79	45	1383060	2557.98	PPB	98
18) 3-Chloro-1-propene	2.92	76	659335	59.07	PPB	97
19) Methyl Acetate	2.98	43	600506	55.16	PPB	95
20) Acetonitrile	3.03	40	1609784	2192.19	PPB	97
21) Methylene Chloride	3.11	84	1135764	51.31	PPB	99
22) tert-Butyl Alcohol	3.31	59	226819	255.67	PPB	95
23) Acrylonitrile	3.56	53	1025009	216.23	PPB	99
24) Methyl tert-Butyl Ether	3.40	73	5677784	118.11	PPB	100
25) trans-1,2-Dichloroethene	3.41	96	1160032	57.22	PPB	94
26) Hexane	3.71	57	1922416	62.81	PPB	98
27) Diisopropyl Ether	4.17	45	3848970	56.73	PPB	99
28) 1,1-Dichloroethane	4.12	63	2068208	57.27	PPB	98

(#) = qualifier out of range (m) = manual integration
0316F018.D 031615MS46_8260.M Tue Mar 17 12:56:14 2015 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\031615\0316F018.D Vial: 2
Acq On : 16 Mar 2015 06:26 pm Operator:
Sample : ICAL 60PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:54:55 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29) Vinyl Acetate	4.25	86	415036	111.24	PPB	#	87
30) Chloroprene	4.20	53	6899946	238.16	PPB		99
31) tert-Butyl Ethyl Ether	4.73	59	3416125	58.41	PPB		98
32) 2,2-Dichloropropane	4.96	77	1835454	57.98	PPB		98
33) cis-1,2-Dichloroethene	5.01	96	1351782	59.70	PPB		97
34) 2-Butanone	5.10	72	2058453	1596.46	PPB		97
35) Ethyl Acetate	5.16	61	208379	110.36	PPB		94
36) Propionitrile	5.28	54	359424	215.16	PPB		96
37) Methacrylonitrile	5.43	67	1306720	220.81	PPB		96
38) Bromochloromethane	5.35	128	535036	52.27	PPB		96
39) Tetrahydrofuran	5.36	71	79619	52.18	PPB		84
40) Chloroform	5.47	83	2145260	57.11	PPB		99
41) Cyclohexane	5.57	56	2198540	59.13	PPB		97
42) 1,1,1-Trichloroethane	5.62	97	2011333	59.32	PPB		96
44) Carbon Tetrachloride	5.77	117	1837923	61.52	PPB		97
45) 1,1-Dichloropropene	5.84	75	1715741	59.61	PPB		97
46) Isobutyl Alcohol	6.19	43	881267	2498.19	PPB		97
48) Benzene	6.09	78	4999056	57.53	PPB		99
49) 1,2-Dichloroethane	6.24	62	1475321	56.72	PPB		98
50) tert-Amyl Methyl Ether	6.26	55	679368	55.47	PPB	#	79
51) Trichloroethene	6.92	95	1309832	59.04	PPB		97
52) Methylcyclohexane	7.04	83	2310789	60.16	PPB		97
53) 1,2-Dichloropropane	7.24	63	1239968	57.10	PPB		98
54) Dibromomethane	7.38	93	634541	56.30	PPB		96
55) Methyl methacrylate	7.41	69	627878	57.27	PPB		99
56) 1,4-Dioxane	7.40	88	214569	2059.17	PPB		81
57) Bromodichloromethane	7.57	83	1656069	58.97	PPB		99
58) 2-Nitropropane	7.94	41	1134263	298.36	PPB		91
59) 2-Chloroethyl Vinyl Ether	7.97	63	621634	60.56	PPB		98
60) cis-1,3-Dichloropropene	8.10	75	1972221	58.91	PPB		99
61) 4-Methyl-2-pentanone (MIBK	8.30	58	7834192	1495.96	PPB	#	66
63) Toluene	8.41	92	3310384	60.37	PPB		98
65) n-Octane	8.49	85	1006593	54.63	PPB		99
66) trans-1,3-Dichloropropene	8.76	75	1683035	60.29	PPB		97
67) Ethyl methacrylate	8.83	69	1203183	60.70	PPB		98
68) 1,1,2-Trichloroethane	8.96	83	796799	57.85	PPB		99
69) Tetrachloroethene	8.98	164	1287196	63.25	PPB		99
70) 2-Hexanone	9.23	57	2547368	1745.72	PPB	#	85
71) 1,3-Dichloropropane	9.14	76	1660712	59.65	PPB		97
72) Dibromochloromethane	9.34	129	1226789	62.64	PPB		100
73) 1,2-Dibromoethane (EDB)	9.47	107	939103	59.93	PPB		96

(#) = qualifier out of range (m) = manual integration
0316F018.D 031615MS46_8260.M Tue Mar 17 12:56:15 2015 Page 2

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\031615\0316F018.D Vial: 2
Acq On : 16 Mar 2015 06:26 pm Operator:
Sample : ICAL 60PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:54:55 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

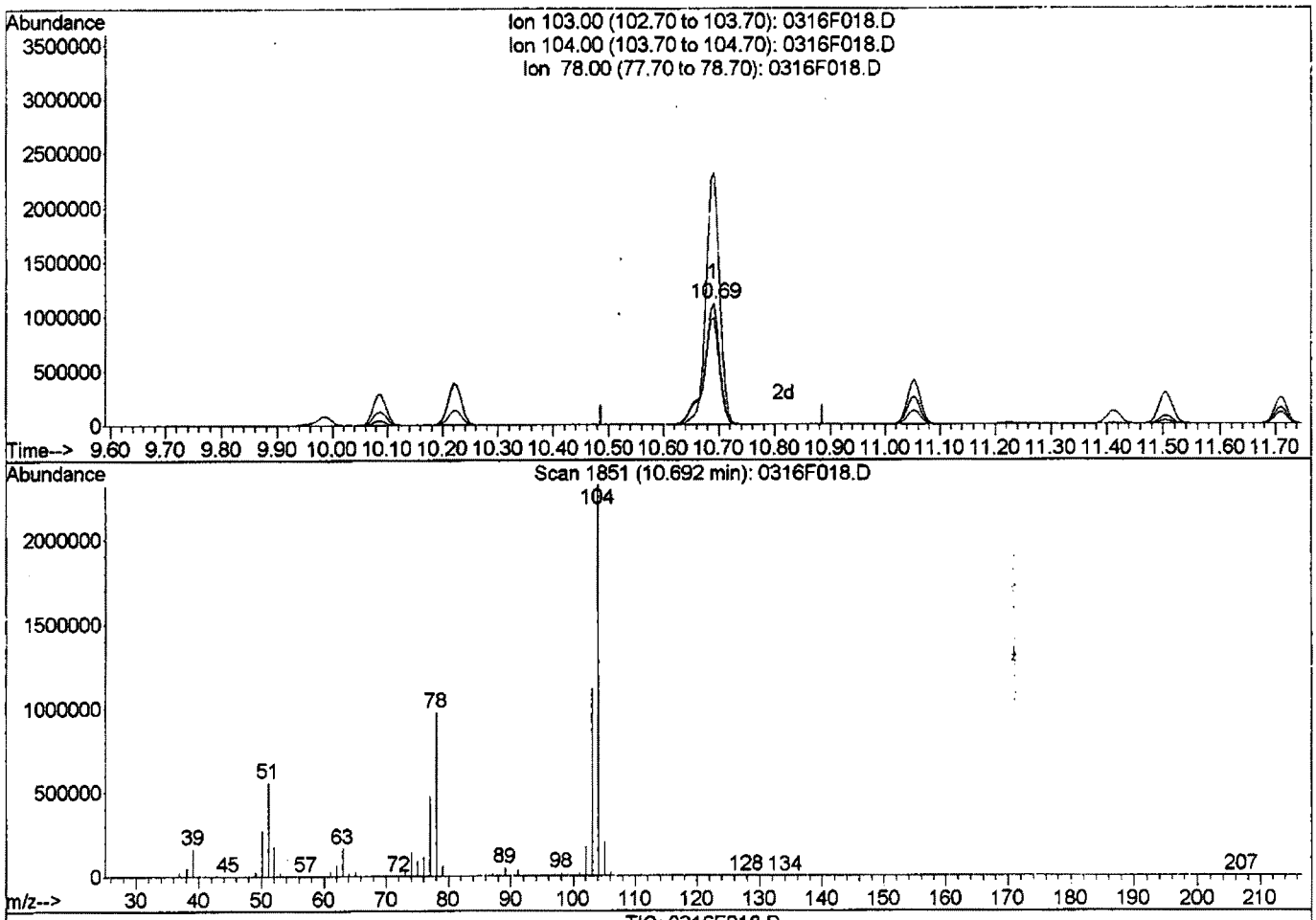
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
74) 1-Chlorohexane	9.96	91	1861432	59.94	PPB	96
75) Chlorobenzene	9.99	112	3622129	60.55	PPB	99
76) Ethylbenzene	10.08	106	2011881	62.26	PPB	95
77) 1,1,1,2-Tetrachloroethane	10.10	131	1334681	61.89	PPB	99
78) m,p-Xylenes	10.23	106	4939737	125.67	PPB	96
79) o-Xylene	10.66	106	2355046	60.83	PPB	98
80) Styrene	10.69	103	1852686m	62.21	PPB	
81) Bromoform	10.91	173	800482	64.63	PPB	99
82) Isopropylbenzene	11.05	105	6562391	64.40	PPB	99
83) cis-1,4-Dichloro-2-butene	11.22	89	648740	245.78	PPB	87
86) 1,1,2,2-Tetrachloroethane	11.47	83	1041787	67.08	PPB	98
87) trans-1,4-Dichloro-2-buten	11.55	53	302095	66.58	PPB	94
88) Bromobenzene	11.42	156	1570018	65.50	PPB	98
89) n-Propylbenzene	11.50	91	7755314	69.62	PPB	98
90) 1,2,3-Trichloropropane	11.53	110	337334	64.96	PPB	91
91) 2-Chlorotoluene	11.62	91	4356816	66.58	PPB	100
92) 1,3,5-Trimethylbenzene	11.71	105	5449854	69.33	PPB	99
93) 4-Chlorotoluene	11.75	91	4511365m	66.49	PPB	
94) tert-Butylbenzene	12.05	119	4846379	67.90	PPB	99
95) 1,2,4-Trimethylbenzene	12.12	105	5440902	68.37	PPB	99
96) sec-Butylbenzene	12.29	105	7182186	68.40	PPB	99
97) p-Isopropyltoluene	12.45	119	6090043	68.76	PPB	99
98) 1,3-Dichlorobenzene	12.45	146	3126267	64.08	PPB	98
99) 1,4-Dichlorobenzene	12.56	146	3107589	63.77	PPB	98
100) n-Butylbenzene	12.90	91	5540885	68.92	PPB	98
101) 1,2-Dichlorobenzene	12.97	146	2815255	64.32	PPB	99
102) 1,2-Dibromo-3-chloropropan	13.85	155	166944	61.85	PPB	84
103) 1,3,5-Trichlorobenzene	14.02	180	2392380	63.60	PPB	99
104) 1,2,4-Trichlorobenzene	14.73	180	2170640	65.89	PPB	98
105) Hexachlorobutadiene	14.85	225	1155862	60.13	PPB	98
106) Naphthalene	15.01	128	3869706	67.86	PPB	98
107) 1,2,3-Trichlorobenzene	15.27	180	1956079	66.21	PPB	95

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F018.D Vial: 2
Acq On : 16 Mar 2015 06:26 pm Operator:
Sample : ICAL 60PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:54 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Multiple Level Calibration



(80) Styrene (T)

10.69min 72.11PPB

response 2147716

Ion	Exp%	Act%
103.00	100	100
104.00	198.60	208.60
78.00	88.20	87.62
0.00	0.00	0.00

Manual Integration:

Before

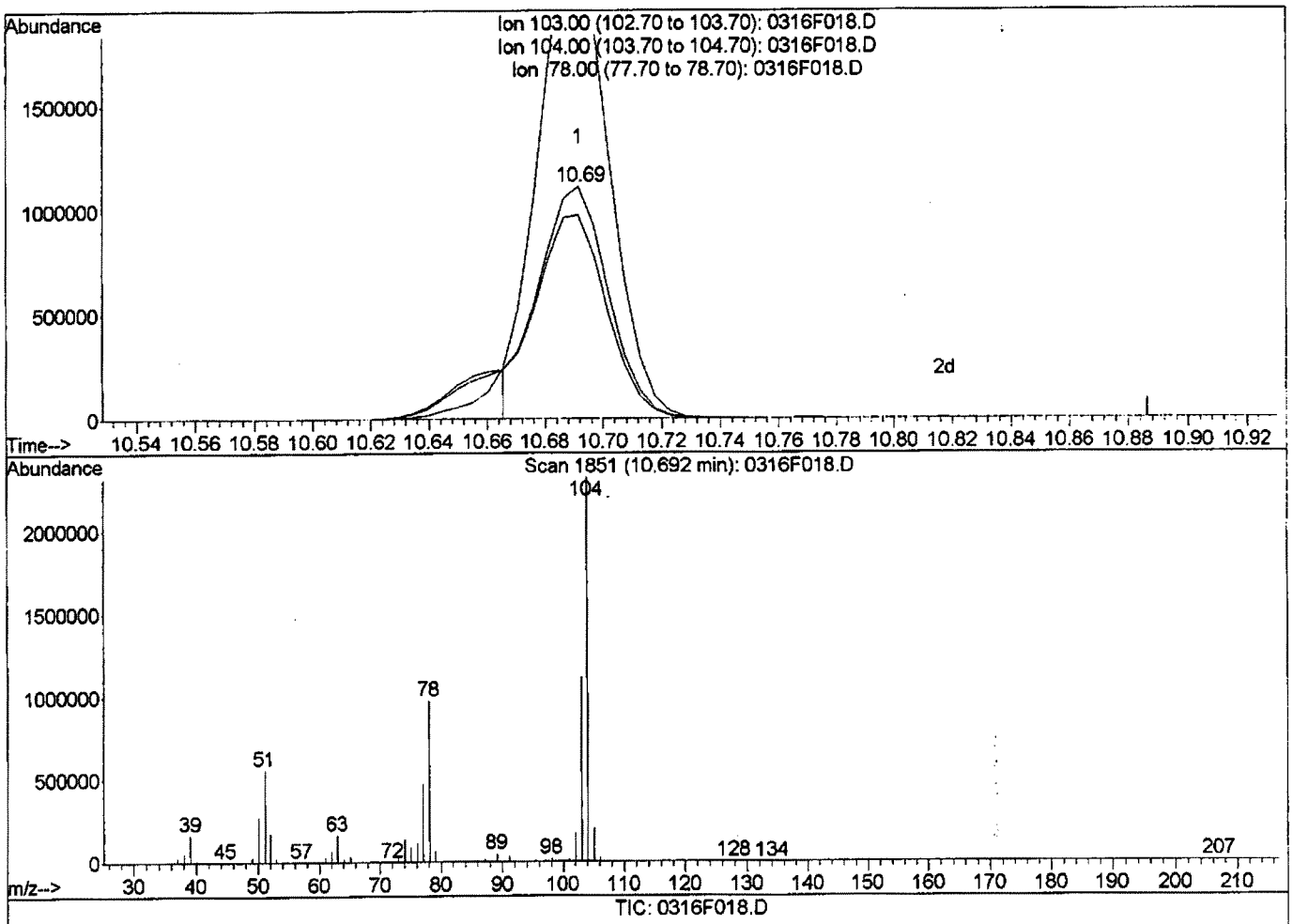
03/17/15

0316F018.D 031615MS46_8260.M Tue Mar 17 12:55:37 2015

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F018.D Vial: 2
Acq On : 16 Mar 2015 06:26 pm Operator:
Sample : ICAL 60PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:55 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Multiple Level Calibration



(80) Styrene (T)
10.69min 62.21PPB m
response 1852686

Ion	Exp%	Act%
103.00	100	100
104.00	198.60	208.60
78.00	88.20	87.64
0.00	0.00	0.00

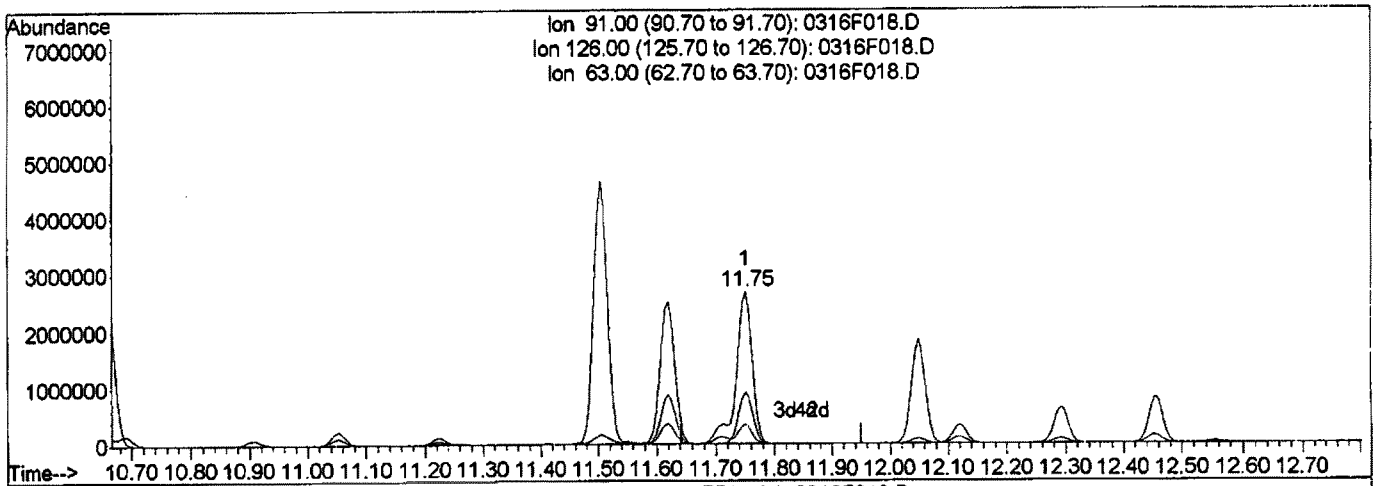
Manual Integration:
After
Baseline correction
03/17/15

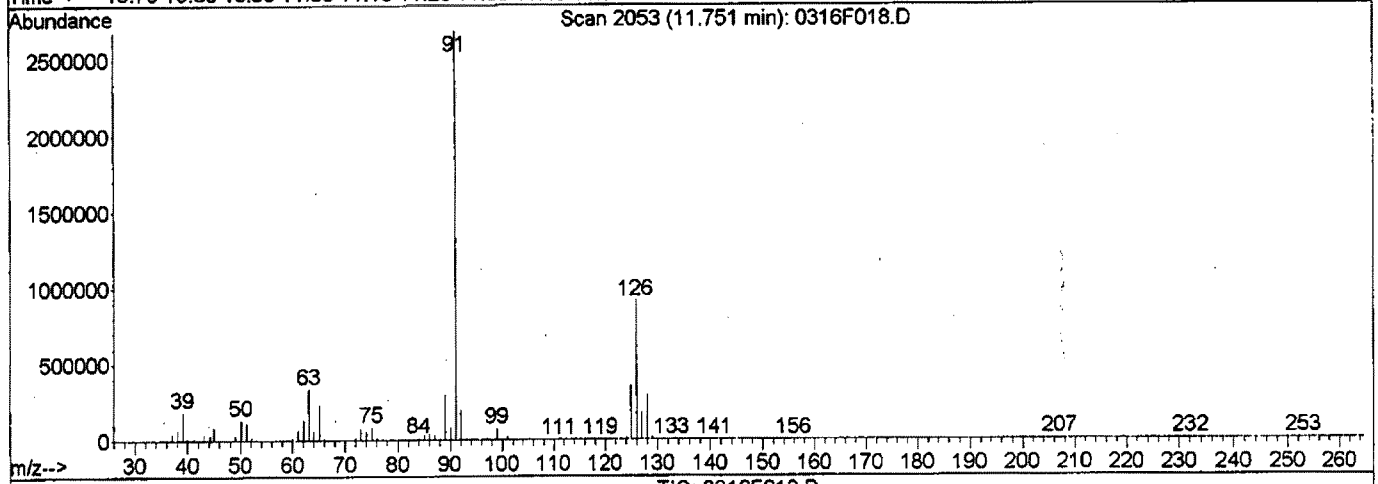
0316F018.D 031615MS46_8260.M Tue Mar 17 12:55:41 2015

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F018.D Vial: 2
Acq On : 16 Mar 2015 06:26 pm Operator:
Sample : ICAL 60PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:55 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Multiple Level Calibration





TIC: 0316F018.D

(93) 4-Chlorotoluene (T)

11.75min 75.75PPB

response 5140361

Ion	Exp%	Act%
91.00	100	100
126.00	34.80	33.96
63.00	12.80	12.60
0.00	0.00	0.00

Manual Integration:

Before

03/17/15

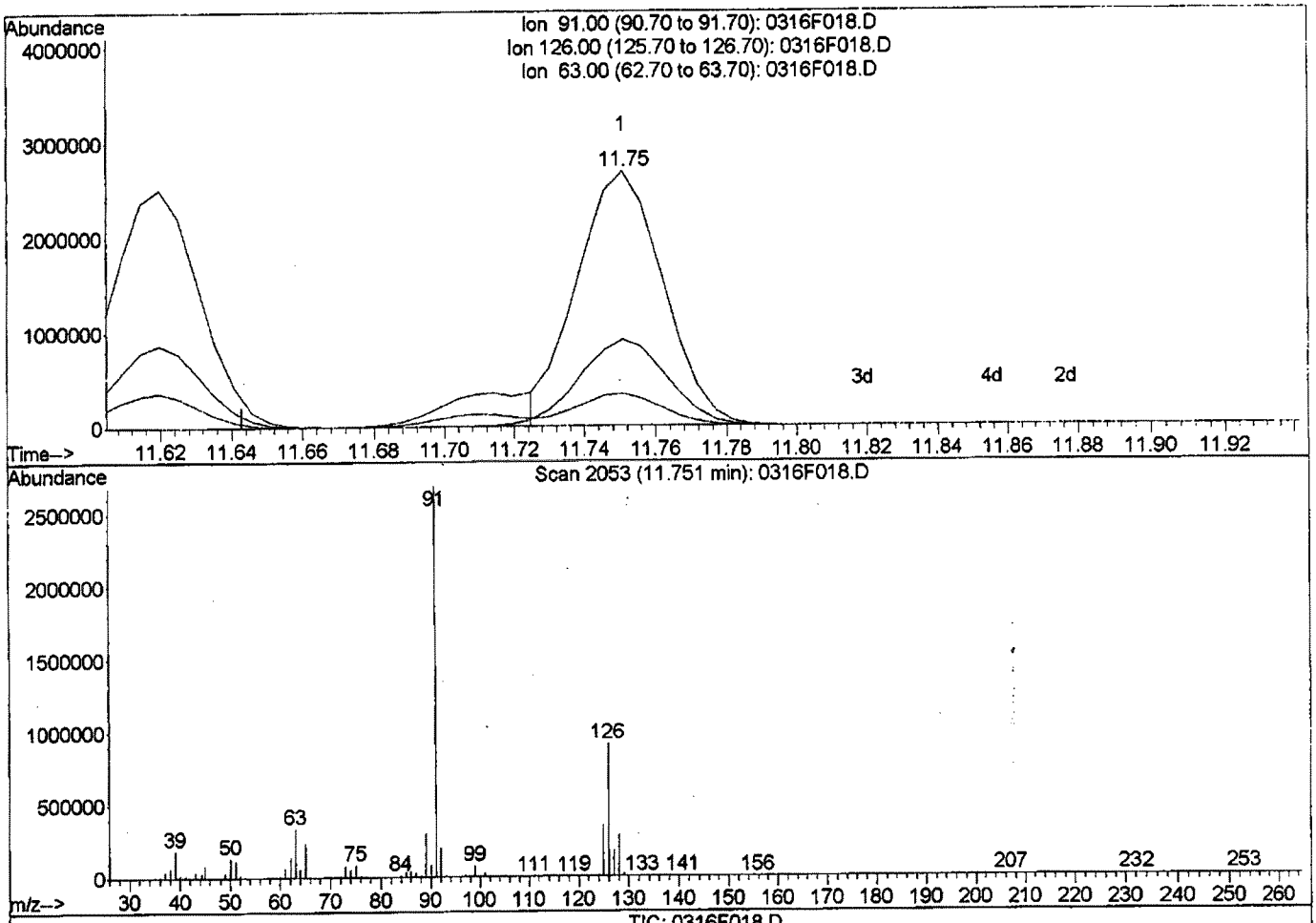
0316F018.D 031615MS46_8260.M Tue Mar 17 12:55:58 2015

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F018.D
Acq On : 16 Mar 2015 06:26 pm
Sample : ICAL 60PPB
Misc :
MS Integration Params: rteint.p
Quant Time: Mar 17 12:56 2015

Vial: 2
Operator:
Inst : GCMS46
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Multiple Level Calibration



(93) 4-Chlorotoluene (T)
11.75min 66.49PPB m
response 4511365

Ion	Exp%	Act%
91.00	100	100
126.00	34.80	33.96
63.00	12.80	12.61
0.00	0.00	0.00

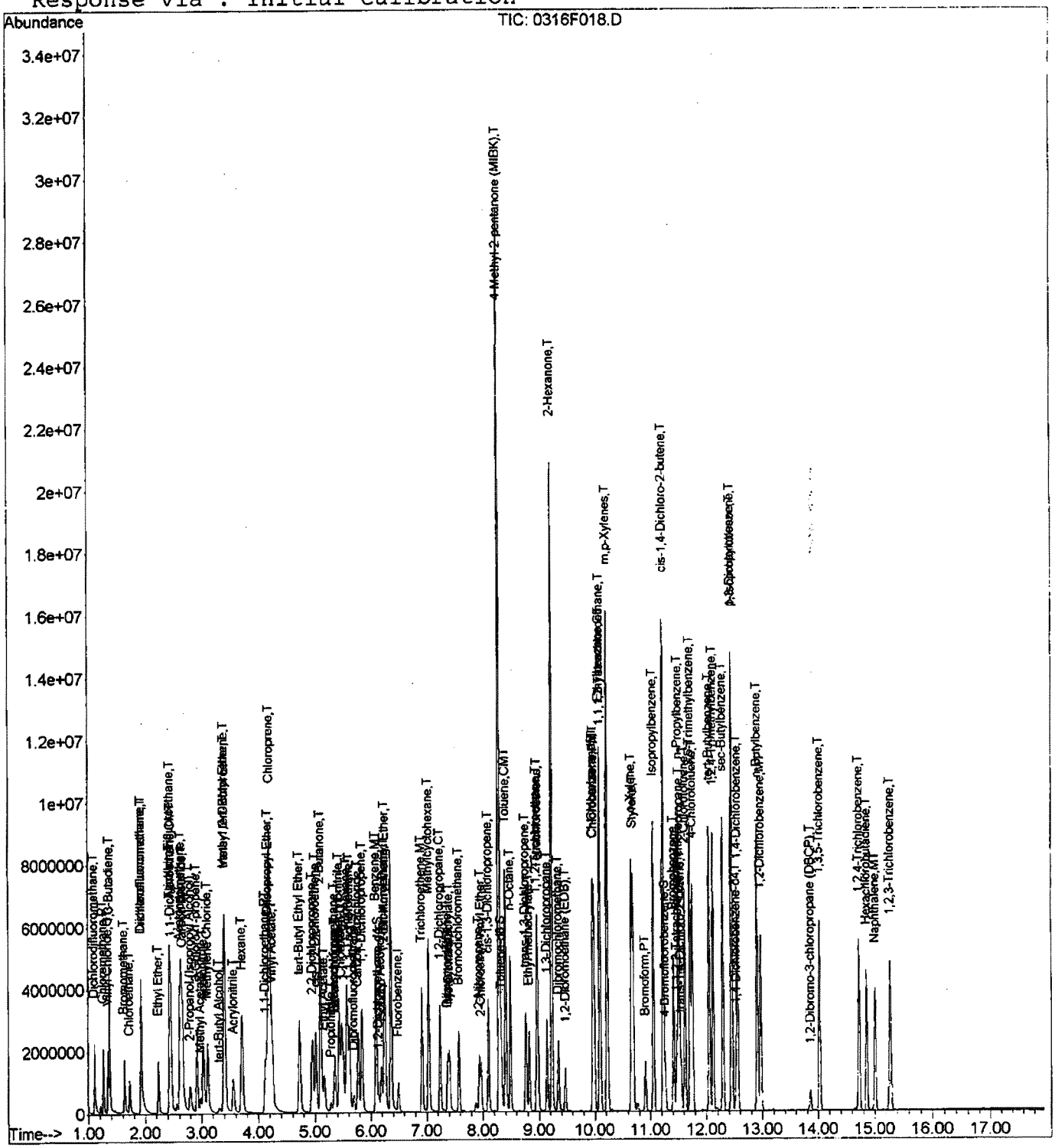
Manual Integration:
After
Baseline correction
03/17/15

0316F018.D 031615MS46_8260.M Tue Mar 17 12:56:03 2015

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\031615\0316F018.D Vial: 2
Acq On : 16 Mar 2015 06:26 pm Operator:
Sample : ICAL 60PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:56 2015 Quant Results File: 031615MS46_8

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\031615\0316F019.D Vial: 2
Acq On : 16 Mar 2015 06:50 pm Operator:
Sample : ICAL 80PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:56:23 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.49	96	890763	10.00	PPB	0.00
64) Chlorobenzene-d5	9.96	82	372565	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	12.53	152	365747	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.70	113	407061	18.81	PPB	0.00
Spiked Amount 10.000			Recovery =	188.10%		
47) 1,2-Dichloroethane-d4	6.14	65	408288	18.20	PPB	0.00
Spiked Amount 10.000			Recovery =	182.00%		
62) Toluene-d8	8.33	98	1575896	19.00	PPB	0.00
Spiked Amount 10.000			Recovery =	190.00%		
84) 4-Bromofluorobenzene	11.27	95	582209	18.11	PPB	0.00
Spiked Amount 10.000			Recovery =	181.10%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.10	85	2732224	92.33	PPB	98
3) Chloromethane	1.26	50	2712554	88.38	PPB	99
4) Vinyl Chloride	1.34	62	2445950	88.71	PPB	99
5) 1,3-Butadiene	1.37	54	2068100	93.38	PPB	99
6) Bromomethane	1.63	96	1467733	81.62	PPB	98
7) Chloroethane	1.72	64	1297742	85.80	PPB	98
8) Dichlorofluoromethane	1.93	67	3981769	101.25	PPB	99
9) Trichlorofluoromethane	1.93	101	3348085	94.43	PPB	96
10) Ethyl Ether	2.23	59	1425567	92.29	PPB	95
11) Acrolein	2.43	56	3018475	1459.63	PPB	99
12) Trichlorotrifluoroethane	2.43	151	1855110	103.83	PPB	99
13) 1,1-Dichloroethene	2.46	96	1742515	95.34	PPB	93
14) Acetone	2.61	43	5877708	1854.03	PPB	99
15) Iodomethane	2.63	142	8434547	460.80	PPB	100
16) Carbon Disulfide	2.66	76	6116930	99.25	PPB	99
17) 2-Propanol (Isopropyl Alco	2.79	45	2253384	3962.81	PPB	98
18) 3-Chloro-1-propene	2.92	76	1053656	89.76	PPB	90
19) Methyl Acetate	2.98	43	1020446	89.13	PPB	96
20) Acetonitrile	3.03	40	2724279	3527.56	PPB	95
21) Methylene Chloride	3.11	84	1920735	82.51	PPB	98
22) tert-Butyl Alcohol	3.31	59	375500	402.46	PPB	96
23) Acrylonitrile	3.56	53	1747504	350.52	PPB	99
24) Methyl tert-Butyl Ether	3.40	73	9588467	189.66	PPB	100
25) trans-1,2-Dichloroethene	3.41	96	2008416	94.20	PPB	93
26) Hexane	3.71	57	3290401	102.22	PPB	99
27) Diisopropyl Ether	4.17	45	6608166	92.61	PPB	100
28) 1,1-Dichloroethane	4.12	63	3522725	92.75	PPB	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\031615\0316F019.D Vial: 2
Acq On : 16 Mar 2015 06:50 pm Operator:
Sample : ICAL 80PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:56:23 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29)	Vinyl Acetate	4.25	86	700649	178.56	PPB	#	90
30)	Chloroprene	4.20	53	11838923	388.55	PPB		98
31)	tert-Butyl Ethyl Ether	4.73	59	5829436	94.77	PPB		98
32)	2,2-Dichloropropane	4.95	77	3112674	93.49	PPB		99
33)	cis-1,2-Dichloroethene	5.01	96	2205965	92.64	PPB		99
34)	2-Butanone	5.10	72	2605918	1921.71	PPB		98
35)	Ethyl Acetate	5.16	61	370551	186.60	PPB		97
36)	Propionitrile	5.29	54	591654	336.77	PPB		98
37)	Methacrylonitrile	5.43	67	2227318	357.87	PPB		98
38)	Bromochloromethane	5.35	128	862366	80.11	PPB		96
39)	Tetrahydrofuran	5.36	71	134175	83.61	PPB		85
40)	Chloroform	5.47	83	3633885	91.99	PPB		99
41)	Cyclohexane	5.57	56	3744775	95.77	PPB		95
42)	1,1,1-Trichloroethane	5.62	97	3468650	97.27	PPB		95
44)	Carbon Tetrachloride	5.77	117	3174629	101.04	PPB		97
45)	1,1-Dichloropropene	5.84	75	2958849	97.74	PPB		98
46)	Isobutyl Alcohol	6.19	43	1463756	3945.47	PPB		97
48)	Benzene	6.09	78	8530170	93.34	PPB		99
49)	1,2-Dichloroethane	6.24	62	2495828	91.24	PPB		98
50)	tert-Amyl Methyl Ether	6.26	55	1149590	89.25	PPB	#	80
51)	Trichloroethene	6.92	95	2252183	96.53	PPB		98
52)	Methylcyclohexane	7.04	83	3955692	97.92	PPB		97
53)	1,2-Dichloropropane	7.24	63	2112423	92.50	PPB		95
54)	Dibromomethane	7.38	93	1072892	90.52	PPB		93
55)	Methyl methacrylate	7.41	69	1082364	93.87	PPB		94
56)	1,4-Dioxane	7.40	88	353268	3223.60	PPB		83
57)	Bromodichloromethane	7.57	83	2829711	95.81	PPB		99
58)	2-Nitropropane	7.94	41	1933650	483.63	PPB		90
59)	2-Chloroethyl Vinyl Ether	7.97	63	1060602	98.25	PPB		98
60)	cis-1,3-Dichloropropene	8.10	75	3353790	95.25	PPB		99
61)	4-Methyl-2-pentanone (MIBK	8.30	58	9989912	1813.84	PPB	#	49
63)	Toluene	8.41	92	5660189	98.15	PPB		98
65)	n-Octane	8.49	85	1735126	88.65	PPB		96
66)	trans-1,3-Dichloropropene	8.77	75	2899487	97.78	PPB		99
67)	Ethyl methacrylate	8.83	69	2064664	98.05	PPB		99
68)	1,1,2-Trichloroethane	8.96	83	1349589	92.23	PPB		98
69)	Tetrachloroethene	8.98	164	2224914	102.92	PPB		100
70)	2-Hexanone	9.23	57	3274358	2112.30	PPB	#	59
71)	1,3-Dichloropropane	9.14	76	2842102	96.10	PPB		99
72)	Dibromochloromethane	9.35	129	2108811	101.36	PPB		99
73)	1,2-Dibromoethane (EDB)	9.47	107	1592213	95.64	PPB		96

(#) = qualifier out of range (m) = manual integration
0316F019.D 031615MS46_8260.M Tue Mar 17 12:57:50 2015 Page 2

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\031615\0316F019.D Vial: 2
Acq On : 16 Mar 2015 06:50 pm Operator:
Sample : ICAL 80PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:56:23 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

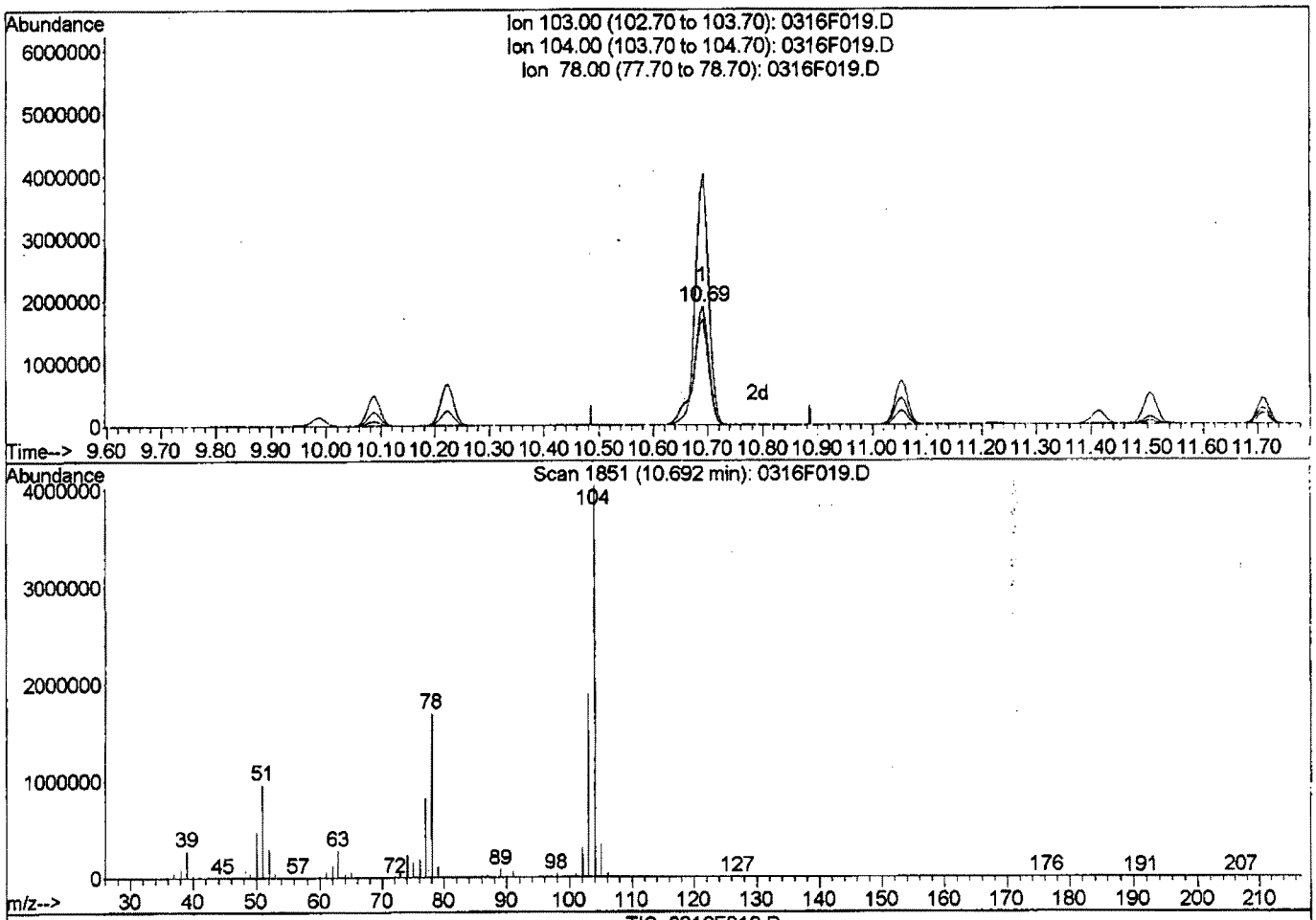
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
74)	1-Chlorohexane	9.96	91	3214680	97.45	PPB		97
75)	Chlorobenzene	9.99	112	6200893	97.57	PPB		98
76)	Ethylbenzene	10.09	106	3470521	101.10	PPB		90
77)	1,1,1,2-Tetrachloroethane	10.10	131	2266198	98.93	PPB		97
78)	m,p-Xylenes	10.23	106	8440104	202.12	PPB	#	81
79)	o-Xylene	10.66	106	4017839	97.70	PPB		99
80)	Styrene	10.69	103	3169438m	100.18	PPB		
81)	Bromoform	10.91	173	1380189	104.89	PPB		99
82)	Isopropylbenzene	11.05	105	11094271	102.48	PPB		99
83)	cis-1,4-Dichloro-2-butene	11.22	89	1104792	394.01	PPB		89
86)	1,1,2,2-Tetrachloroethane	11.47	83	1734036	107.12	PPB		99
87)	trans-1,4-Dichloro-2-buten	11.55	53	512407	108.36	PPB		87
88)	Bromobenzene	11.42	156	2689647	107.65	PPB		98
89)	n-Propylbenzene	11.50	91	12827503	110.47	PPB		100
90)	1,2,3-Trichloropropane	11.53	110	563610	104.14	PPB		90
91)	2-Chlorotoluene	11.62	91	7340591	107.62	PPB		100
92)	1,3,5-Trimethylbenzene	11.71	105	9076364	110.77	PPB		99
93)	4-Chlorotoluene	11.75	91	7737818m	109.41	PPB		
94)	tert-Butylbenzene	12.05	119	8171679	109.84	PPB		99
95)	1,2,4-Trimethylbenzene	12.12	105	9039724	108.99	PPB		98
96)	sec-Butylbenzene	12.30	105	11943199	109.13	PPB		100
97)	p-Isopropyltoluene	12.46	119	10241750	110.94	PPB		99
98)	1,3-Dichlorobenzene	12.45	146	5236060	102.97	PPB		99
99)	1,4-Dichlorobenzene	12.56	146	5236739	103.10	PPB		98
100)	n-Butylbenzene	12.90	91	9347855	111.56	PPB		99
101)	1,2-Dichlorobenzene	12.97	146	4690764	102.82	PPB		99
102)	1,2-Dibromo-3-chloropropan	13.86	155	293489	104.33	PPB		92
103)	1,3,5-Trichlorobenzene	14.02	180	4150261	105.86	PPB		98
104)	1,2,4-Trichlorobenzene	14.72	180	3740377	108.93	PPB		98
105)	Hexachlorobutadiene	14.86	225	2030613	101.35	PPB		97
106)	Naphthalene	15.01	128	6626473	111.49	PPB		98
107)	1,2,3-Trichlorobenzene	15.27	180	3337901	108.39	PPB		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F019.D Vial: 2
Acq On : 16 Mar 2015 06:50 pm Operator:
Sample : ICAL 80PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:56 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Multiple Level Calibration



TIC: 0316F019.D

(80) Styrene (T)

10.69min 115.97PPB

response 3668950

Ion	Exp%	Act%
103.00	100	100
104.00	198.60	212.73
78.00	88.20	89.49
0.00	0.00	0.00

Manual Integration:

Before

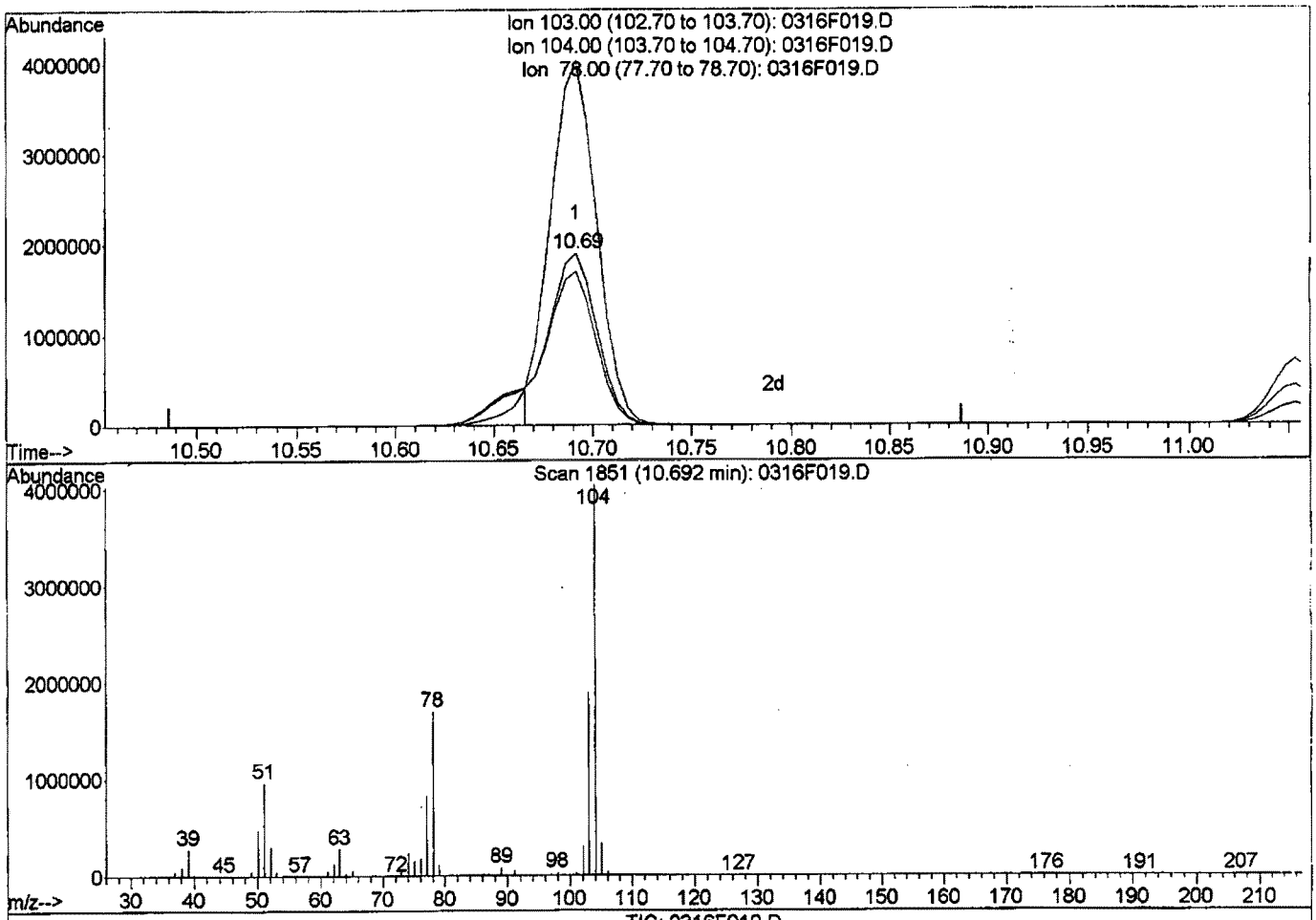
03/17/15

0316F019.D 031615MS46_8260.M Tue Mar 17 12:57:18 2015

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F019.D Vial: 2
Acq On : 16 Mar 2015 06:50 pm Operator:
Sample : ICAL 80PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:57 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Multiple Level Calibration



(80) Styrene (T)
10.69min 100.18PPB m
response 3169438

Ion	Exp%	Act%
103.00	100	100
104.00	198.60	212.75
78.00	88.20	89.50
0.00	0.00	0.00

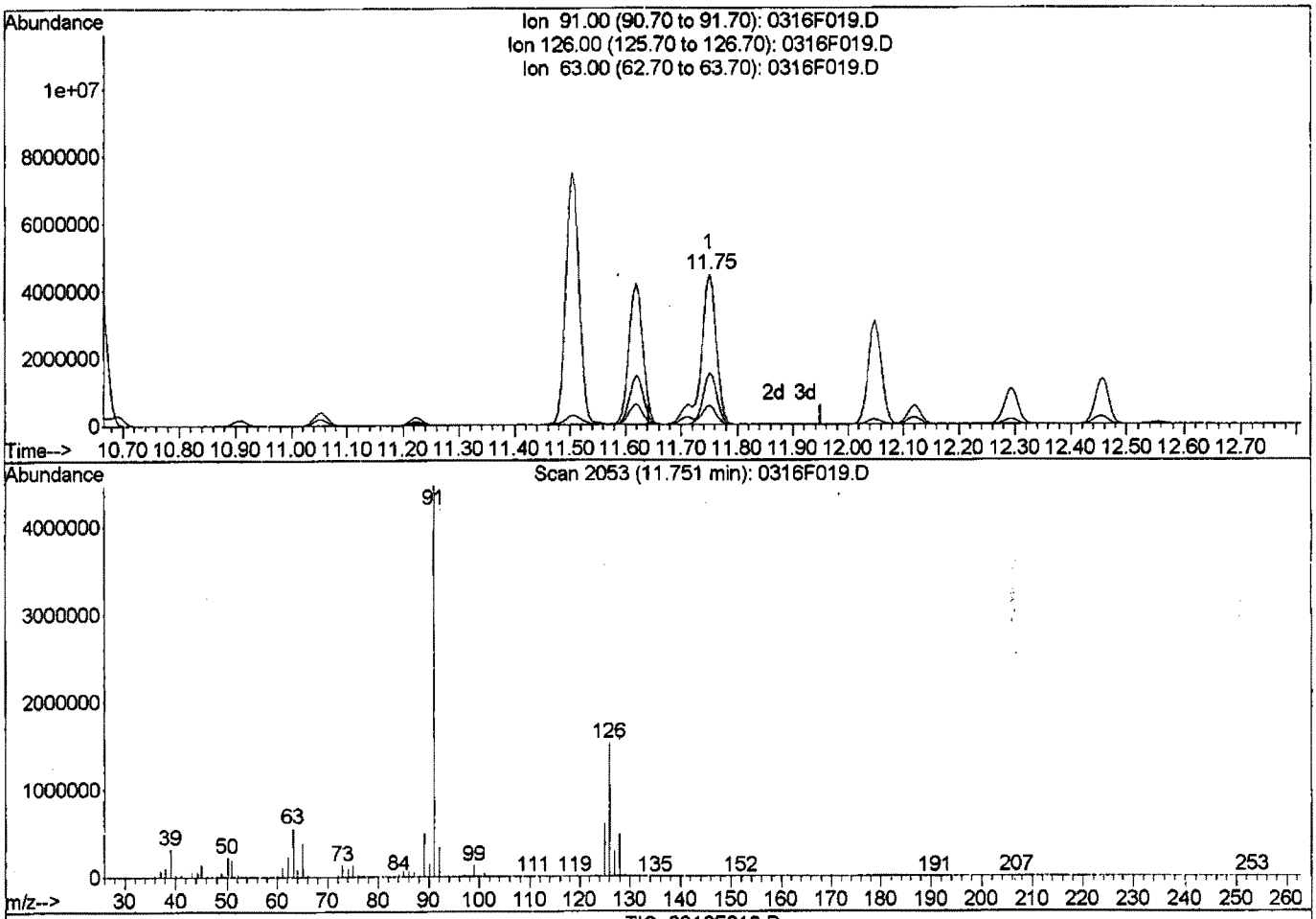
Manual Integration:
After
Baseline correction
03/17/15

0316F019.D 031615MS46_8260.M Tue Mar 17 12:57:22 2015

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F019.D Vial: 2
Acq On : 16 Mar 2015 06:50 pm Operator:
Sample : ICAL 80PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:57 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Multiple Level Calibration



TIC: 0316F019.D

(93) 4-Chlorotoluene (T)

11.75min 121.10PPB

response 8564867

Ion	Exp%	Act%
91.00	100	100
126.00	34.80	34.12
63.00	12.80	12.51
0.00	0.00	0.00

Manual Integration:

Before

03/17/15

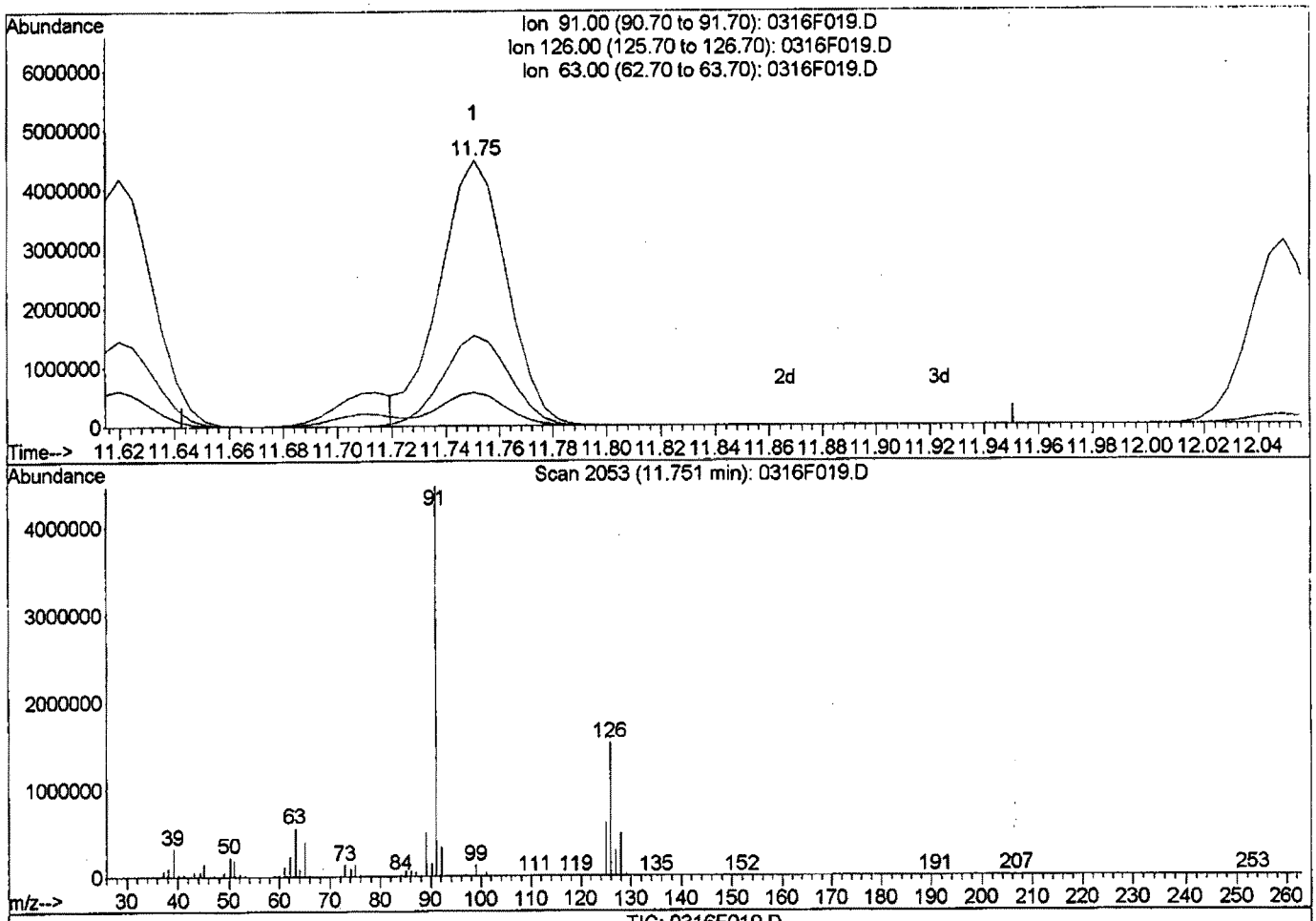
0316F019.D 031615MS46_8260.M Tue Mar 17 12:57:34 2015

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F019.D
Acq On : 16 Mar 2015 06:50 pm
Sample : ICAL 80PPB
Misc :
MS Integration Params: rteint.p
Quant Time: Mar 17 12:57 2015

Vial: 2
Operator:
Inst : GCMS46
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Multiple Level Calibration



TIC: 0316F019.D

(93) 4-Chlorotoluene (T)

11.75min 109.41PPB m

response 7737818

Ion	Exp%	Act%
91.00	100	100
126.00	34.80	34.12
63.00	12.80	12.51
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

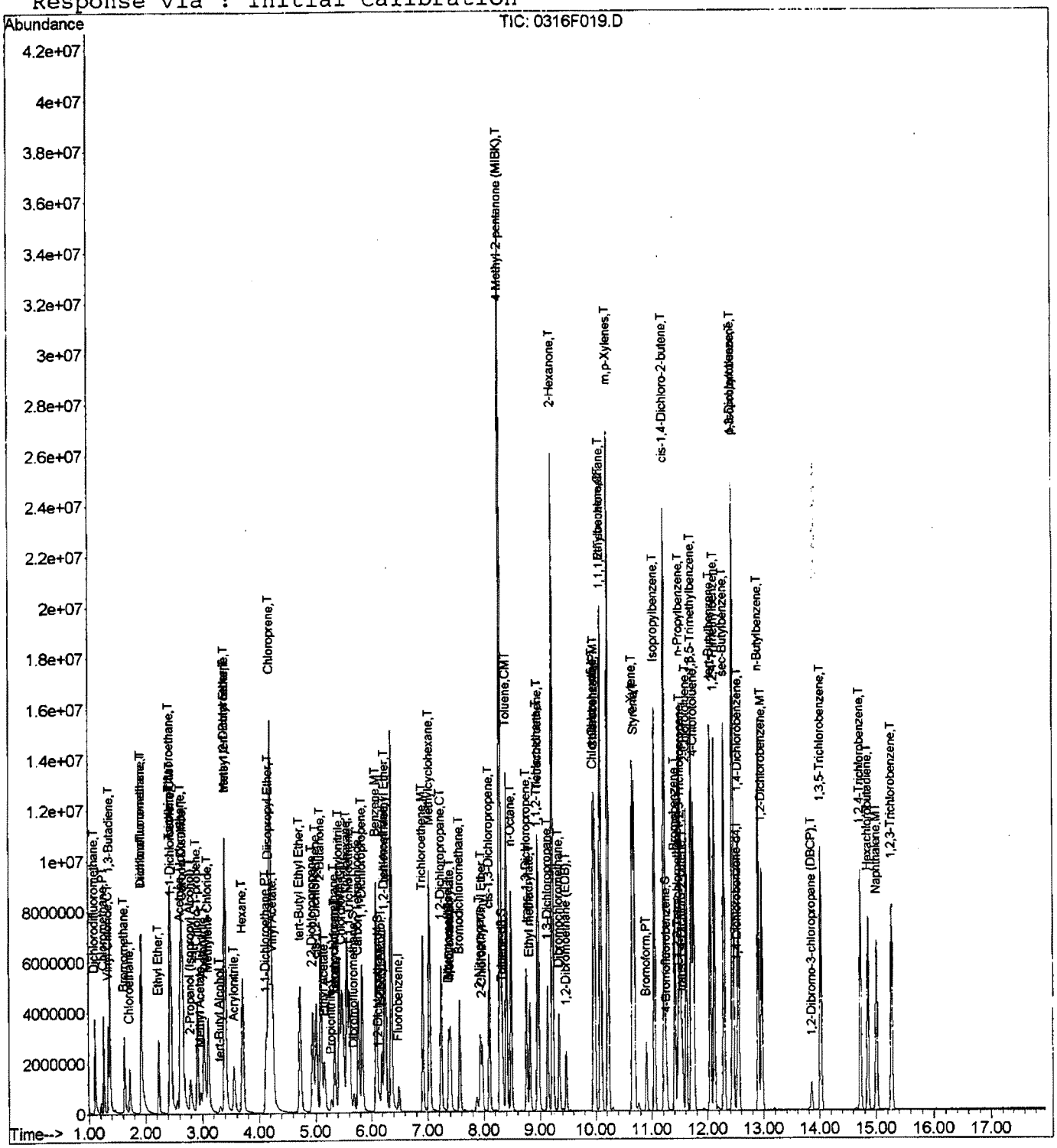
03/17/15

0316F019.D 031615MS46_8260.M Tue Mar 17 12:57:39 2015

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\031615\0316F019.D Vial: 2
Acq On : 16 Mar 2015 06:50 pm Operator:
Sample : ICAL 80PPB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 12:57 2015 Quant Results File: 031615MS46_8

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 12:07:33 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\031615\0316F022.D Vial: 2
Acq On : 16 Mar 2015 08:01 pm Operator:
Sample : ICV Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 13:28:19 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

KJ 3/17/16

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.49	96	935750	10.00	PPB	0.00
64) Chlorobenzene-d5	9.95	82	373223	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	12.53	152	379306	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.69	113	225246	10.95	PPB	0.00
Spiked Amount 10.000			Recovery =	109.50%		
47) 1,2-Dichloroethane-d4	6.14	65	238652	10.99	PPB	0.00
Spiked Amount 10.000			Recovery =	109.90%		
62) Toluene-d8	8.33	98	856423	10.80	PPB	0.00
Spiked Amount 10.000			Recovery =	108.00%		
84) 4-Bromofluorobenzene	11.27	95	319490	11.05	PPB	0.00
Spiked Amount 10.000			Recovery =	110.50%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.10	85	120606	3.95	PPB	98
3) Chloromethane	1.26	50	198889	6.68	PPB	100
4) Vinyl Chloride	1.34	62	194439	7.04	PPB	97
5) 1,3-Butadiene	1.37	54	219575	9.72	PPB	95
6) Bromomethane	1.63	96	165498	10.31	PPB	98
7) Chloroethane	1.72	64	128760	8.79	PPB	99
8) Dichlorofluoromethane	1.93	67	388308	8.77	PPB	98
9) Trichlorofluoromethane	1.92	101	282953	7.76	PPB	97
10) Ethyl Ether	2.23	59	104392	6.76	PPB	97
11) Acrolein	2.43	56	189607	100.75	PPB	97
12) Trichlorotrifluoroethane	2.43	151	178701	9.02	PPB	99
13) 1,1-Dichloroethene	2.45	96	163885	8.69	PPB	97
14) Acetone	2.62	43	141543	45.65	PPB	98
15) Iodomethane	2.63	142	480771	25.36	PPB	97
16) Carbon Disulfide	2.66	76	1127438	16.53	PPB	99
17) 2-Propanol (Isopropyl Alco	2.80	45	179366	354.60	PPB	97
18) 3-Chloro-1-propene	2.92	76	295873	24.73	PPB	93
19) Methyl Acetate	2.98	43	112923	10.39	PPB	96
20) Acetonitrile	3.03	40	210586	268.77	PPB	98
21) Methylene Chloride	3.11	84	173008	7.76	PPB	97
22) tert-Butyl Alcohol	3.31	59	77700	91.78	PPB	96
23) Acrylonitrile	3.56	53	179460	37.71	PPB	94
24) Methyl tert-Butyl Ether	3.40	73	467584	9.44	PPB	99
25) trans-1,2-Dichloroethene	3.41	96	190681	8.58	PPB	91
26) Hexane	3.71	57	810385	23.13	PPB	99
27) Diisopropyl Ether	4.17	45	1261723	17.92	PPB	97
28) 1,1-Dichloroethane	4.12	63	340668	8.92	PPB	98

(#) = qualifier out of range (m) = manual integration
0316F022.D 031615MS46_8260.M Tue Mar 17 13:34:53 2015 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\031615\0316F022.D Vial: 2
Acq On : 16 Mar 2015 08:01 pm Operator:
Sample : ICV Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 13:28:19 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29)	Vinyl Acetate	4.25	86	175709	46.75	PPB		98
30)	Chloroprene	4.20	53	880013	28.22	PPB		99
31)	tert-Butyl Ethyl Ether	4.73	59	1147537	19.13	PPB		99
32)	2,2-Dichloropropane	4.96	77	286896	8.13	PPB		100
33)	cis-1,2-Dichloroethene	5.01	96	207241	8.49	PPB		98
34)	2-Butanone	5.11	72	61097	46.81	PPB		93
35)	Ethyl Acetate	5.17	61	54590	30.69	PPB		99
36)	Propionitrile	5.29	54	50917	30.33	PPB		94
37)	Methacrylonitrile	5.43	67	171268	29.24	PPB		97
38)	Bromochloromethane	5.35	128	89441	8.63	PPB		92
39)	Tetrahydrofuran	5.36	71	28081	17.99	PPB		89
40)	Chloroform	5.47	83	339555	8.52	PPB		97
41)	Cyclohexane	5.57	56	344460	8.55	PPB		95
42)	1,1,1-Trichloroethane	5.62	97	318021	8.43	PPB		95
44)	Carbon Tetrachloride	5.77	117	292403	8.79	PPB		97
45)	1,1-Dichloropropene	5.84	75	275695	8.80	PPB		97
46)	Isobutyl Alcohol	6.19	43	104505	289.05	PPB		94
48)	Benzene	6.09	78	782742	8.43	PPB		99
49)	1,2-Dichloroethane	6.24	62	234153	8.28	PPB		96
50)	tert-Amyl Methyl Ether	6.26	55	229875	17.92	PPB		100
51)	Trichloroethene	6.92	95	203753	8.34	PPB		97
52)	Methylcyclohexane	7.04	83	361783	8.81	PPB		95
53)	1,2-Dichloropropane	7.24	63	186350	8.14	PPB		98
54)	Dibromomethane	7.38	93	98492	8.37	PPB		95
55)	Methyl methacrylate	7.41	69	309788	28.25	PPB		97
56)	1,4-Dioxane	7.41	88	14840	178.31	PPB	#	26
57)	Bromodichloromethane	7.57	83	249354	8.33	PPB		98
58)	2-Nitropropane	7.94	41	123304	30.93	PPB		98
59)	2-Chloroethyl Vinyl Ether	7.97	63	96778	9.04	PPB		95
60)	cis-1,3-Dichloropropene	8.10	75	293629	8.68	PPB		98
61)	4-Methyl-2-pentanone (MIBK	8.30	58	230274	50.16	PPB		97
63)	Toluene	8.40	92	502101	8.52	PPB		98
65)	n-Octane	8.49	85	345090	20.29	PPB		95
66)	trans-1,3-Dichloropropene	8.76	75	230668	8.07	PPB		94
67)	Ethyl methacrylate	8.83	69	621630	30.67	PPB		97
68)	1,1,2-Trichloroethane	8.96	83	117752	8.14	PPB		98
69)	Tetrachloroethene	8.97	164	197865	8.58	PPB		98
70)	2-Hexanone	9.23	57	74009	48.75	PPB		98
71)	1,3-Dichloropropane	9.14	76	252066	8.54	PPB		99
72)	Dibromochloromethane	9.34	129	172611	8.58	PPB		99
73)	1,2-Dibromoethane (EDB)	9.47	107	138498	8.56	PPB		94

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS46\DATA\031615\0316F022.D Vial: 2
Acq On : 16 Mar 2015 08:01 pm Operator:
Sample : ICV Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 13:28:19 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

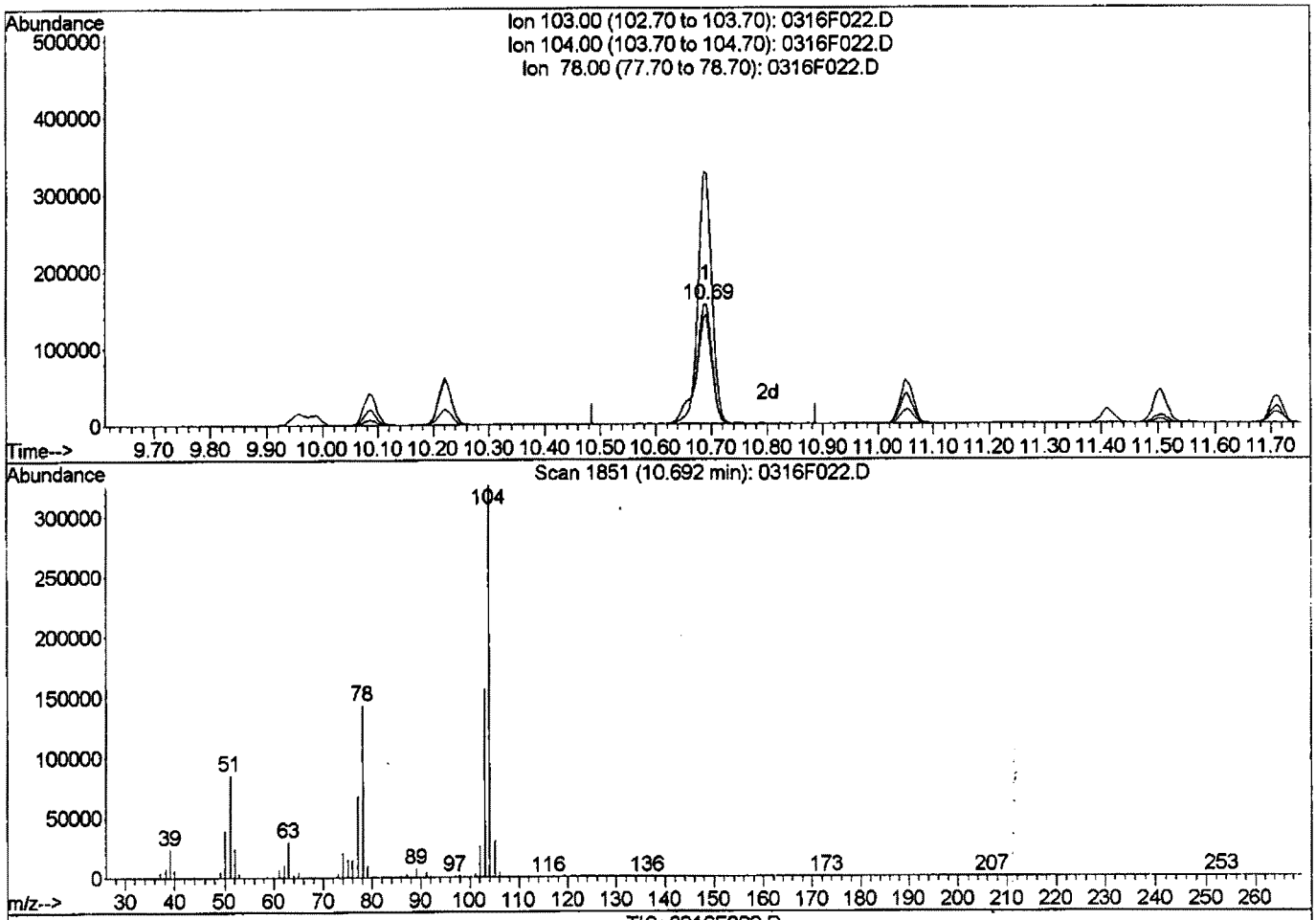
Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
74) 1-Chlorohexane	9.96	91	304270	9.40	PPB	97
75) Chlorobenzene	9.99	112	543522	8.58	PPB	98
76) Ethylbenzene	10.08	106	291828	8.42	PPB	94
77) 1,1,1,2-Tetrachloroethane	10.10	131	195546	8.75	PPB	99
78) m,p-Xylenes	10.22	106	739261	17.59	PPB	97
79) o-Xylene	10.66	106	345421	8.49	PPB	100
80) Styrene	10.69	103	270015m	8.87	PPB	
81) Bromoform	10.91	173	107222	8.89	PPB	98
82) Isopropylbenzene	11.05	105	942442	8.54	PPB	99
83) cis-1,4-Dichloro-2-butene	11.22	89	76115	34.48	PPB	85
86) 1,1,2,2-Tetrachloroethane	11.47	83	147351	8.37	PPB	94
87) trans-1,4-Dichloro-2-buten	11.55	53	170669	31.47	PPB	98
88) Bromobenzene	11.42	156	235435	8.65	PPB	96
89) n-Propylbenzene	11.50	91	1158874	9.11	PPB	98
90) 1,2,3-Trichloropropane	11.52	110	49403	8.35	PPB	92
91) 2-Chlorotoluene	11.62	91	648918	8.57	PPB	99
92) 1,3,5-Trimethylbenzene	11.71	105	793562	8.81	PPB	97
93) 4-Chlorotoluene	11.75	91	663124m	8.27	PPB	
94) tert-Butylbenzene	12.05	119	715360	8.60	PPB	97
95) 1,2,4-Trimethylbenzene	12.12	105	781662	8.68	PPB	99
96) sec-Butylbenzene	12.29	105	1034340	8.66	PPB	97
97) p-Isopropyltoluene	12.45	119	890118	9.09	PPB	99
98) 1,3-Dichlorobenzene	12.44	146	457448	8.33	PPB	99
99) 1,4-Dichlorobenzene	12.55	146	457787	8.40	PPB	99
100) n-Butylbenzene	12.90	91	803280	8.80	PPB	97
101) 1,2-Dichlorobenzene	12.97	146	419655	8.61	PPB	98
102) 1,2-Dibromo-3-chloropropan	13.86	155	22967	7.74	PPB	91
103) 1,3,5-Trichlorobenzene	14.02	180	376559	9.32	PPB	99
104) 1,2,4-Trichlorobenzene	14.72	180	312375	9.16	PPB	98
105) Hexachlorobutadiene	14.85	225	170551	9.48	PPB	96
106) Naphthalene	15.01	128	541886	8.95	PPB	99
107) 1,2,3-Trichlorobenzene	15.27	180	281035	9.21	PPB	99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F022.D Vial: 2
Acq On : 16 Mar 2015 08:01 pm Operator:
Sample : ICV Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 13:28 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Multiple Level Calibration



TIC: 0316F022.D

(80) Styrene (T)

10.69min 10.37PPB

response 315883

Ion	Exp%	Act%
103.00	100	100
104.00	198.60	209.12
78.00	88.20	91.78
0.00	0.00	0.00

Manual Integration:

Before

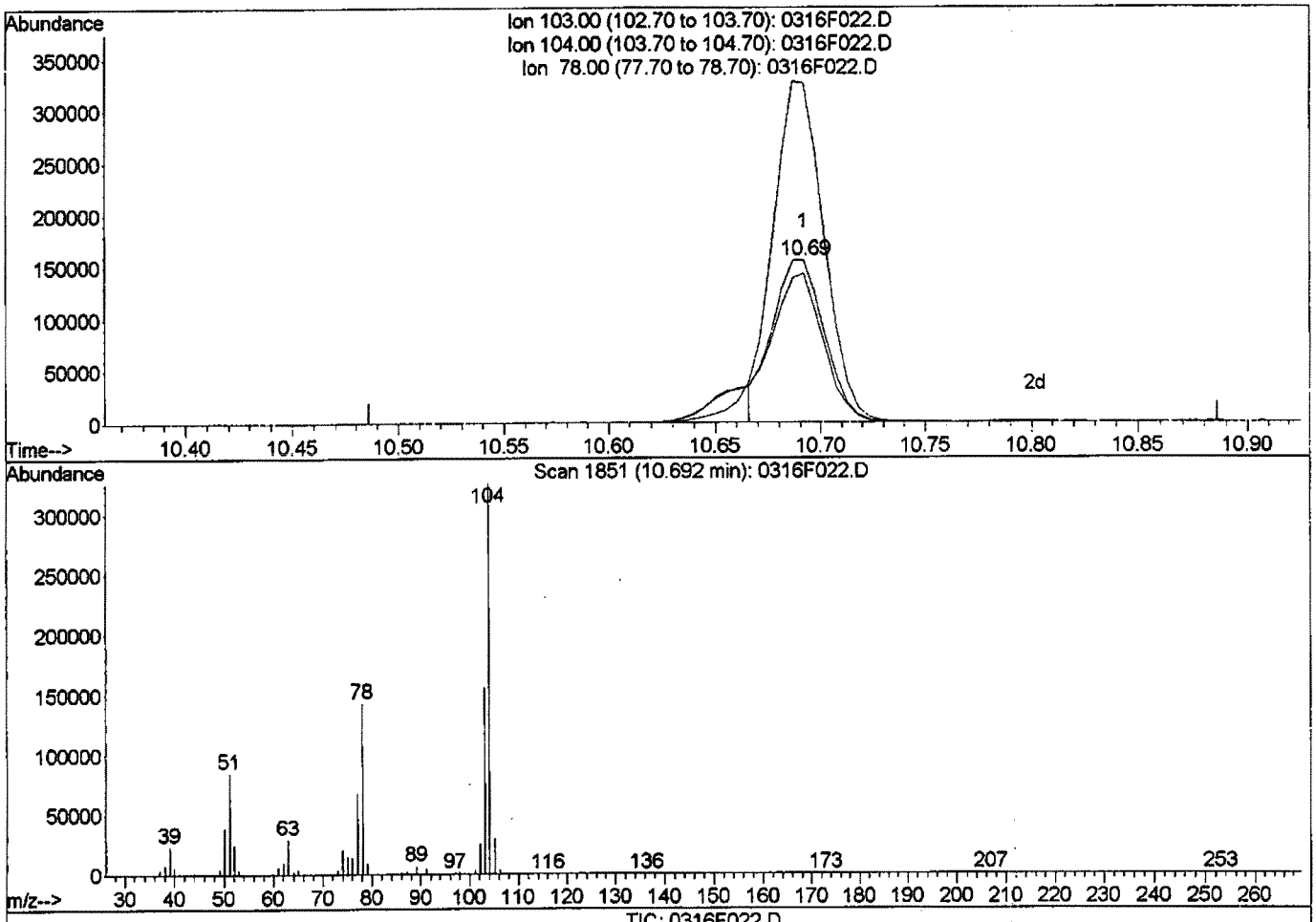
03/17/15

0316F022.D 031615MS46_8260.M Tue Mar 17 13:34:16 2015

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F022.D Vial: 2
Acq On : 16 Mar 2015 08:01 pm Operator:
Sample : ICV Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 13:34 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Multiple Level Calibration



TIC: 0316F022.D

(80) Styrene (T)
10.69min 8.87PPB m
response 270015

Ion	Exp%	Act%
103.00	100	100
104.00	198.60	209.12
78.00	88.20	91.87
0.00	0.00	0.00

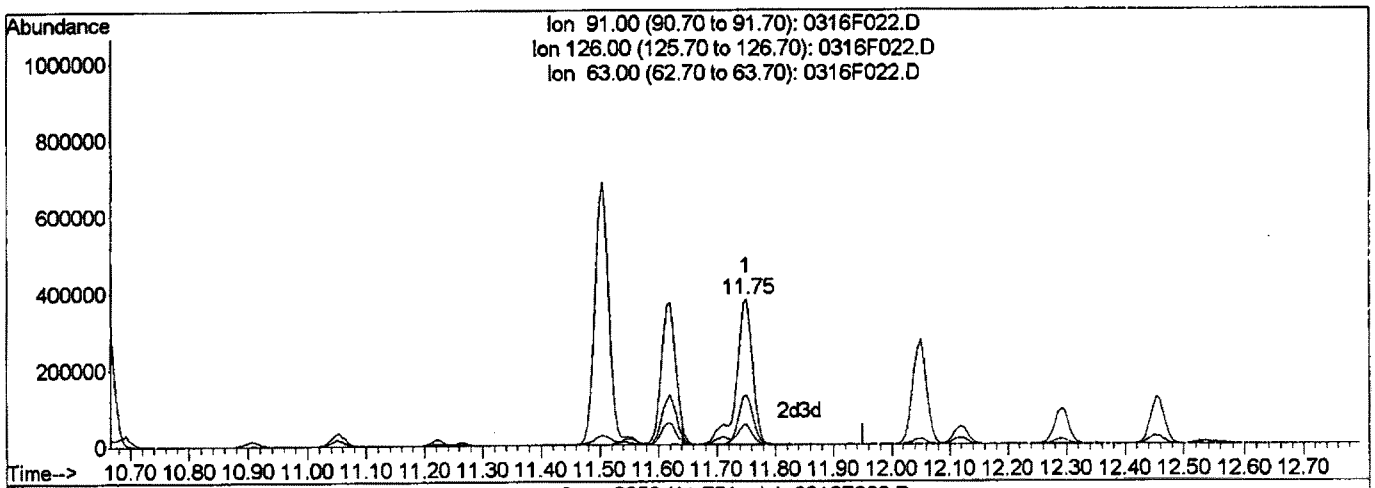
Manual integration:
After
Baseline correction
03/17/15

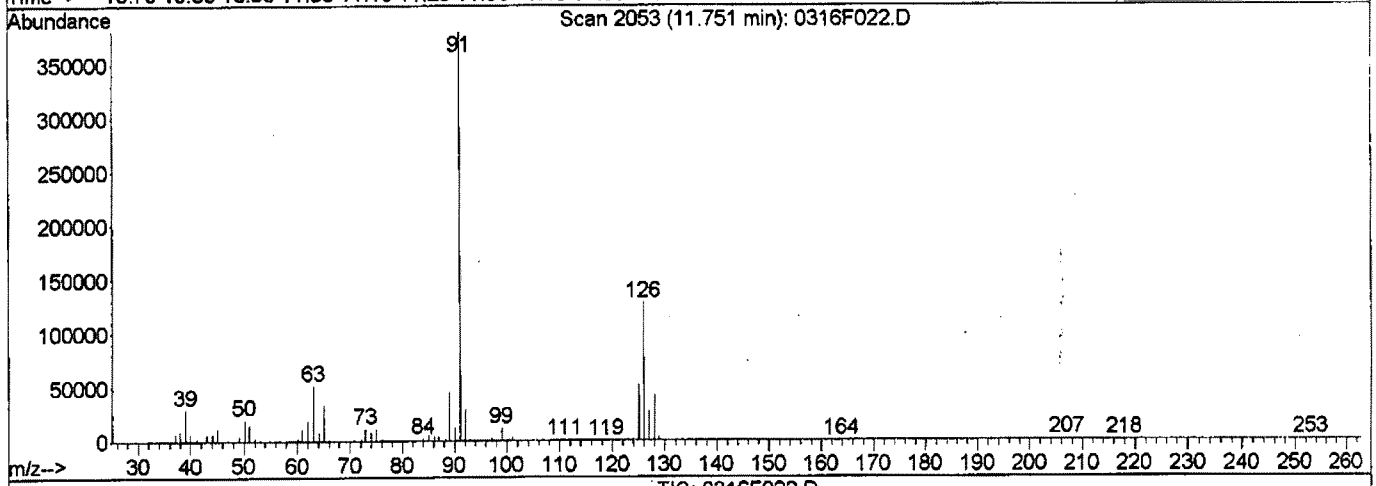
0316F022.D 031615MS46_8260.M Tue Mar 17 13:34:21 2015

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F022.D Vial: 2
Acq On : 16 Mar 2015 08:01 pm Operator:
Sample : ICV Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 13:34 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Multiple Level Calibration





TIC: 0316F022.D

(93) 4-Chlorotoluene (T)

11.75min 9.26PPB

response 742326

Ion	Exp%	Act%
91.00	100	100
126.00	34.80	33.65
63.00	12.80	13.62
0.00	0.00	0.00

Manual Integration:

Before

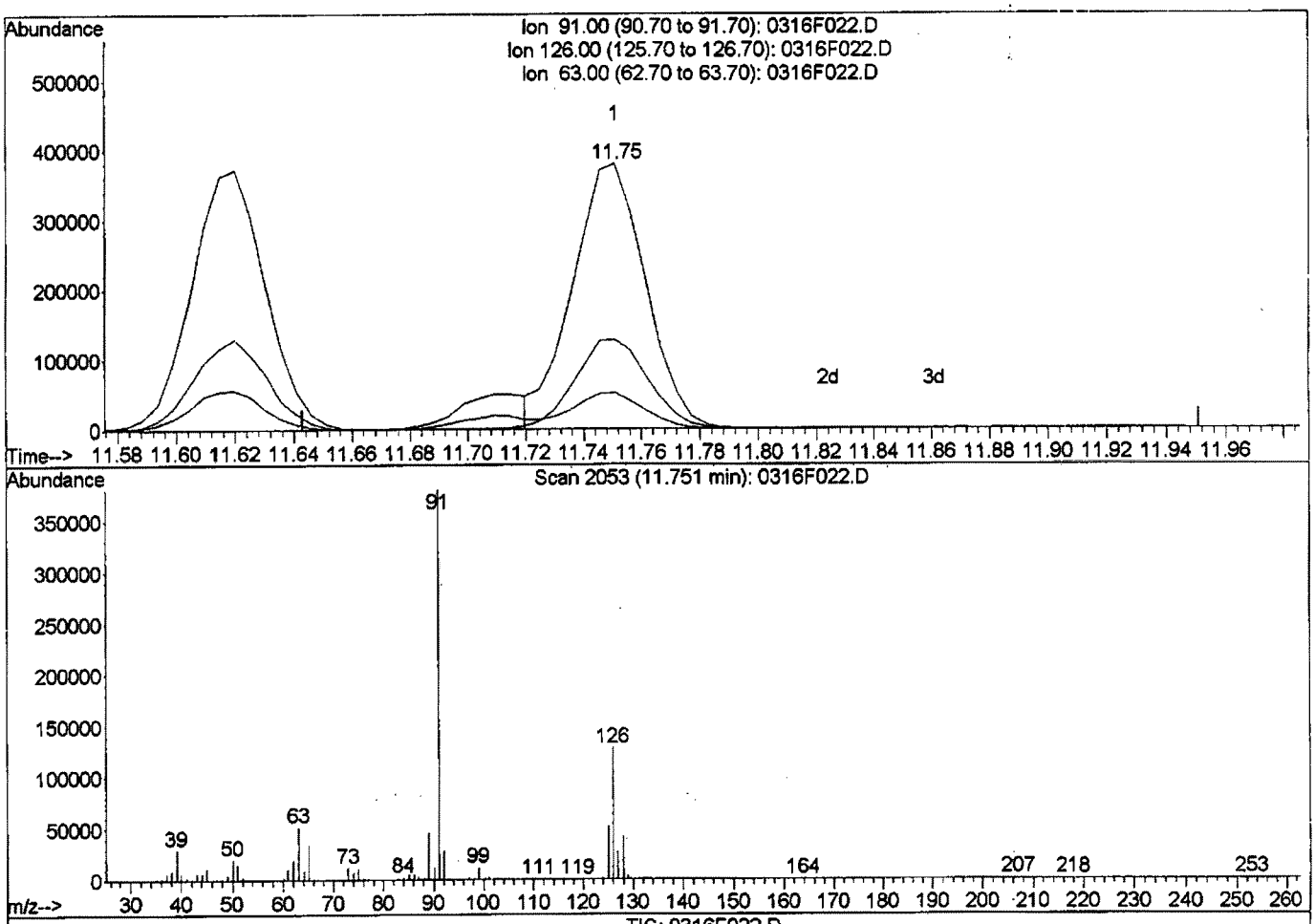
03/17/15

0316F022.D 031615MS46_8260.M Tue Mar 17 13:34:28 2015

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\031615\0316F022.D Vial: 2
Acq On : 16 Mar 2015 08:01 pm Operator:
Sample : ICV Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 13:34 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Multiple Level Calibration



TIC: 0316F022.D

(93) 4-Chlorotoluene (T)

11.75min 8.27PPB m

response 663124

Ion	Exp%	Act%
91.00	100	100
126.00	34.80	33.67
63.00	12.80	13.64
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

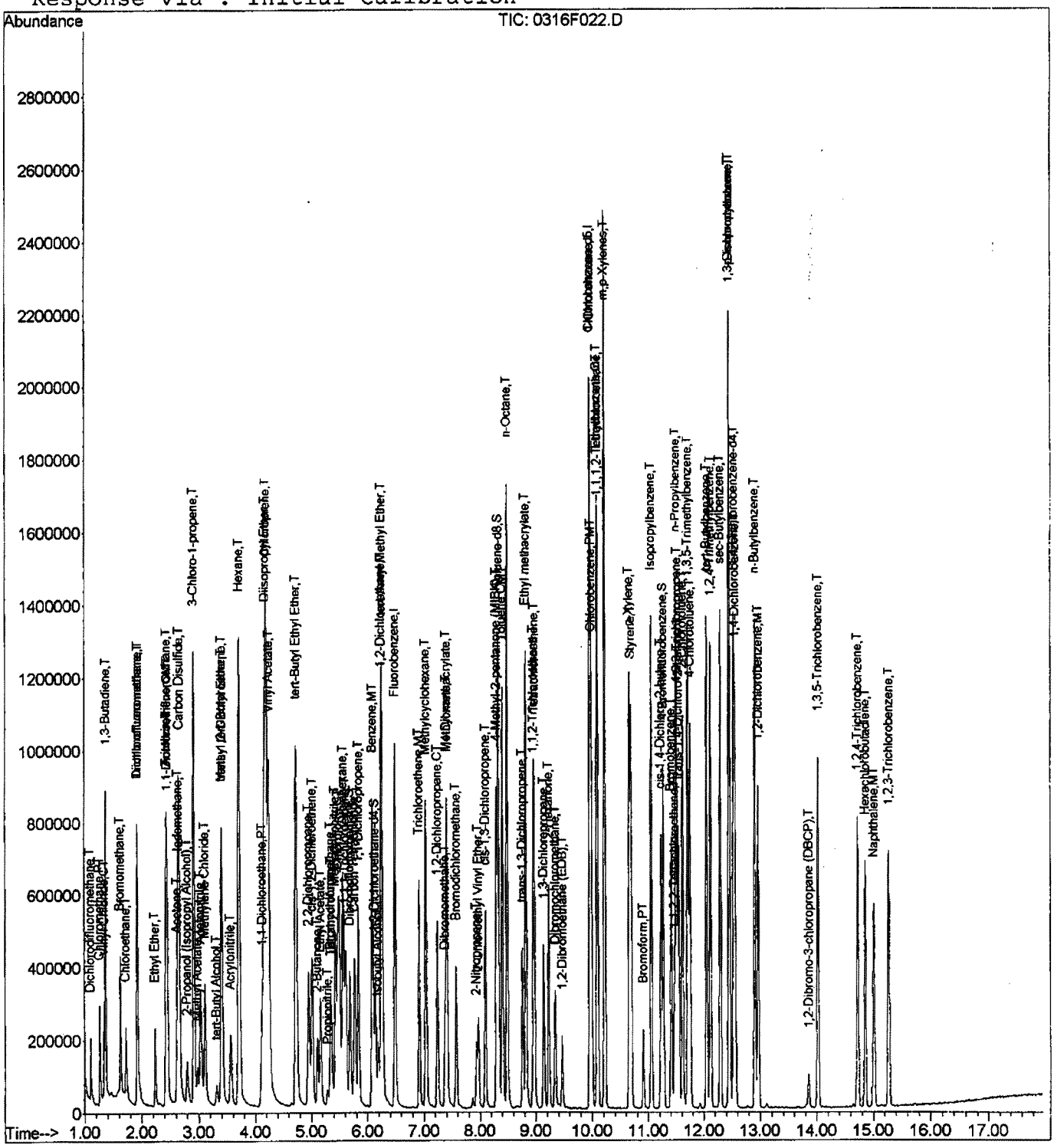
03/17/15

0316F022.D 031615MS46_8260.M Tue Mar 17 13:34:33 2015

Quantitation Report (QT Reviewed)

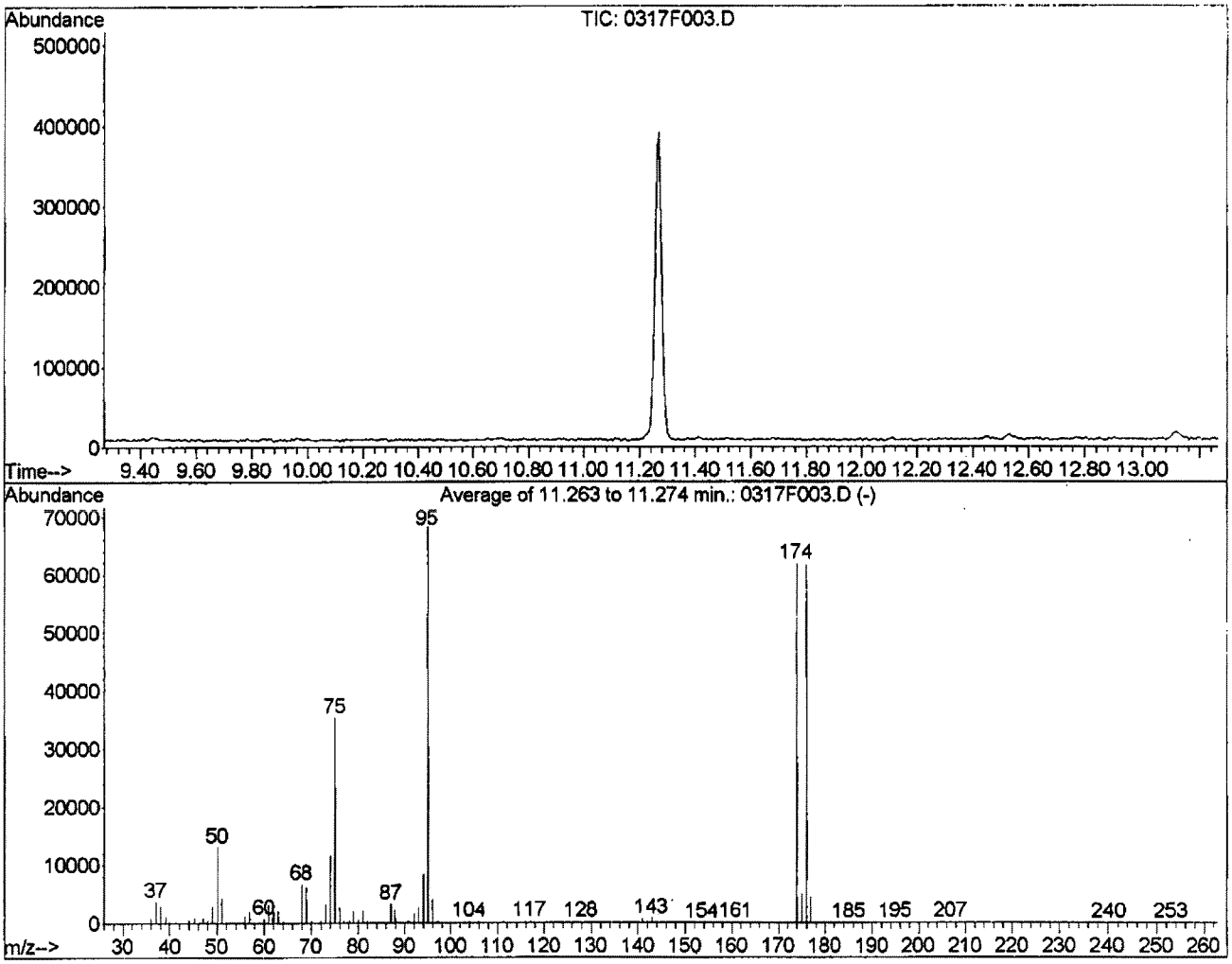
Data File : J:\MS46\DATA\031615\0316F022.D Vial: 2
Acq On : 16 Mar 2015 08:01 pm Operator:
Sample : ICV Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 13:34 2015 Quant Results File: 031615MS46_8

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Initial Calibration



BFB

Data File : J:\MS46\DATA\031715\0317F003.D Vial: 3
Acq On : 17 Mar 2015 02:44 pm Operator:
Sample : BFB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B



AutoFind: Scans 1960, 1961, 1962; Background Corrected with Scan 1950

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.2	13119	PASS
75	95	30	60	51.7	35304	PASS
95	95	100	100	100.0	68341	PASS
96	95	5	9	5.9	4028	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	90.5	61861	PASS
175	174	5	9	8.1	5036	PASS
176	174	95	101	99.9	61781	PASS
177	176	5	9	7.2	4443	PASS

KR 3/17/16

0317F003.D 031615MS46_8260.M Tue Mar 17 15:21:21 2015

3/17/16

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\031715\0317F004.D Vial: 3
Acq On : 17 Mar 2015 04:02 pm Operator:
Sample : ICV Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 17:24:29 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.49	96	877288	10.00	PPB	0.00
64) Chlorobenzene-d5	9.96	82	345234	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	12.53	152	334386	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.69	113	210382	10.91	PPB	0.00
Spiked Amount 10.000			Recovery =	109.10%		
47) 1,2-Dichloroethane-d4	6.13	65	222583	10.94	PPB	-0.01
Spiked Amount 10.000			Recovery =	109.40%		
62) Toluene-d8	8.33	98	786137	10.58	PPB	0.00
Spiked Amount 10.000			Recovery =	105.80%		
84) 4-Bromofluorobenzene	11.27	95	292164	10.93	PPB	0.00
Spiked Amount 10.000			Recovery =	109.30%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.10	85	264962	9.26	PPB	97
3) Chloromethane	1.26	50	251467	9.01	PPB	99
4) Vinyl Chloride	1.34	62	236490	9.13	PPB	96
6) Bromomethane	1.63	96	146666	9.74	PPB	96
7) Chloroethane	1.72	64	136864	9.97	PPB	99
9) Trichlorofluoromethane	1.92	101	269428	7.88	PPB	97
10) Ethyl Ether	2.23	59	111415	7.69	PPB	95

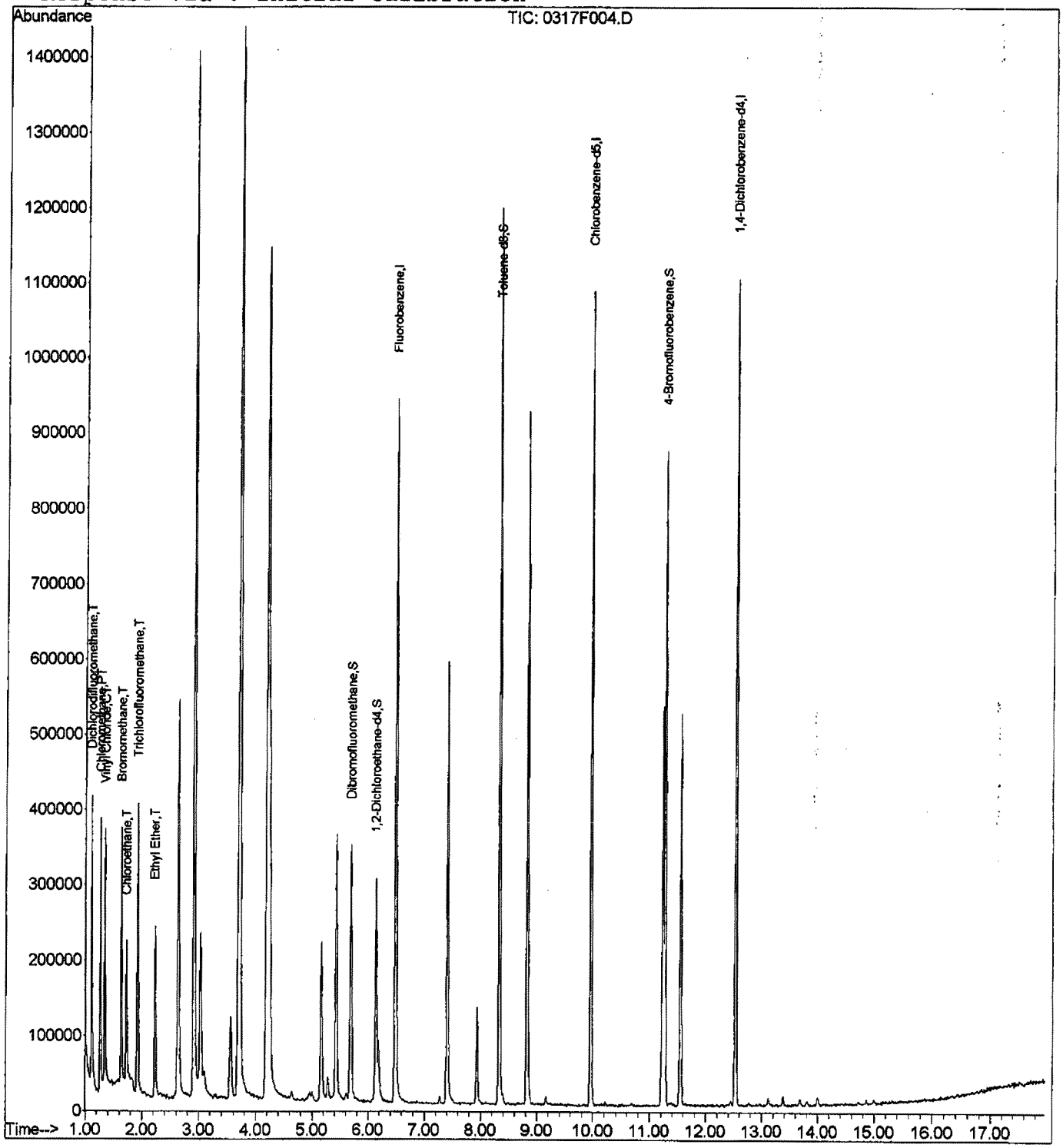
KF 3/18/15

(#) = qualifier out of range (m) = manual integration
0317F004.D 031615MS46_8260.M Wed Mar 18 08:31:29 2015 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\031715\0317F004.D Vial: 3
Acq On : 17 Mar 2015 04:02 pm Operator:
Sample : ICV Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Mar 17 17:25 2015 Quant Results File: 031615MS46_8

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Initial Calibration



Date: 4/3/15

By: KL

IS/SS Std. ID: 70um 31c 4/27

CCV Std ID: 70um - 31E 4/27/38 4/27/26C 5/20

MS/DMS/LCS/ICV Std ID: 70um - 36E 4/27/32C 4/15/32C 4/15

BFB Std. ID: 70um 21A 4/16

ALS Environmental
Injection Log
MS46 - Agilent 5977A

Tune File: BFBsaturn

New Tune: NO

438969

ICAL Date: 3/16/15 Cal/38969 Cal 13917 down Cal.

Second RV:

LIMS ID: ICV 15020843 / ICV4 3025 / 3026 down Cal. DCm Cal.

	Sample Name	File Name	Method	Dilution	pH<2	Comments
1	BFB	040315-007	8260.m	4.4µL - 44mL		
2	CCV	8		10/5µL → 50mL		
3	LCS	9		10/50/5/5/17.5µL → 50mL		(NC) MS spiked
4	DLCS	10		↓	✓	↓
5	IC3171-6MS	11		8.8/44/4.4/4.4/1.1/44µL → 44mL	✓	
6	↓ 6DMS	12		↓	✓	
7	LCS (R)	13		10/50/5/5/17.5µL → 50mL		
8	DLCS (R)	14		↓		
9	IB	15				
10	MRL	16		0.5/0.5µL → 50mL		
11	MB	17				
12	4/8 IC3171-6	18			✓	
13	4/8 K3149-1	19			✓	TB 31115 (*) ↓ MRL DCm Calib.
14	↓ 2	20			✓	↓
15	4/8 K3171-1	21			✓	
16	2	22			✓	
17	5	23			✓	
18	9	24			✓	
19	13	25			✓	TB 31115
20	10	26			✓	
21	11	27			✓	
22	12	28			✓	
23	4/14 K3121-1	29			✓	
24	↓ 2	30			✓	TB 31915
25	4/9 K3171-1	31			✓	
26	5	32			✓	
27	6	33			✓	TB 31115
	4/8 K3124-2	34			✓	
	↓ 3	35			✓	
	↓ 4	36			✓	(NA "T")

Exception Report

Data File: J:\MS46\DATA\040315\0403F007.D
Lab ID: KWG1502843-1
RunType: BFB
Matrix: WATER

Date Acquired: 04/03/2015 10:27
Date Quantitated:
Batch ID: KWG1502843
Analysis Method: BFB
ListJoinID: LJ774

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Ion Ratio	NA	NA	NA	x	

Primary Review: KW 4/3/15

Secondary Review: 4/9/15

Quantitation Report

Data File:	J:\MS46\DATA\040315\0403F007.D			**Instrument:**	GCMS46
Acqu Date:	04/03/2015 10:27	**Quant Date:**		**Vial:**	3
Run Type:	BFB			**Dilution:**	1.0
Lab ID:	KWG1502843-1			**Soln Conc. Units:**	

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260B	**Collect Date:**		**Receive Date:**	04/03/2015

Analysis Lot:	KWG1502843	**Prep Lot:**		**Report Group:**	
Analysis Method:	BFB	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\MS46\METHODS\031615MS46_8			**Calibration ID:**	CAL13899
Title:	GC/MS Tuning Evaluation			**Report List ID:**	LJ774
Tune Ref:				**Method ID:**	MJ159
MB Ref:				**Quant based on Report List**	

Tune Results

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	19.6	10694	Pass
75	95	30	60	54.6	29832	Pass
95	95	100	100	100.0	54616	Pass
96	95	5	9	7.1	3880	Pass
173	174	0	2	0.0	0	Pass
174	95	50	120	90.8	49573	Pass
175	174	5	9	7.6	3774	Pass
176	174	95	101	95.1	47138	Pass
177	176	5	9	7.7	3608	Pass

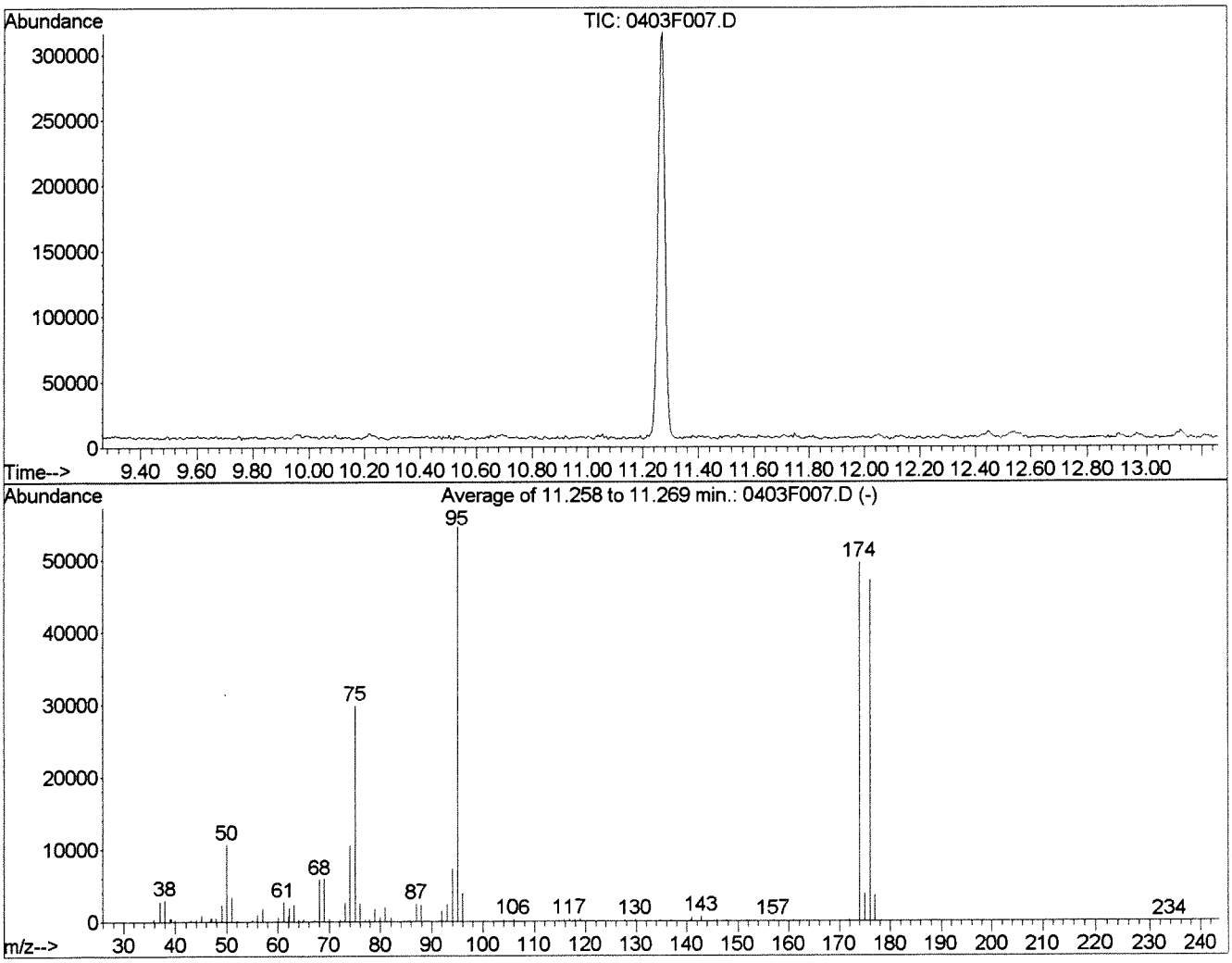
U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File : J:\MS46\DATA\040315\0403F007.D
Acq On : 03 Apr 2015 10:27 am
Sample : BFB
Misc :
MS Integration Params: rteint.p
Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B

Vial: 3
Operator: KR
Inst : GCMS46
Multiplr: 1.00



AutoFind: Scans 1959, 1960, 1961; Background Corrected with Scan 1950

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.6	10694	PASS
75	95	30	60	54.6	29832	PASS
95	95	100	100	100.0	54616	PASS
96	95	5	9	7.1	3880	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	90.8	49573	PASS
175	174	5	9	7.6	3774	PASS
176	174	95	101	95.1	47138	PASS
177	176	5	9	7.7	3608	PASS

0403F007.D 031615MS46_8260.M Fri Apr 03 10:47:33 2015

04.09.15jal2nd Rev

Exception Report

Data File: J:\MS46\DATA\040315\0403F008.D
Lab ID: KWG1502843-2
RunType: CCV
Matrix: WATER

Date Acquired: 04/03/2015 11:02
Date Quantitated: 04/03/2015 11:23
Batch ID: KWG1502843
Analysis Method: 8260C
MethodJoinID: MJ119

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA		x
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Internal Standards	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	2-Propanol	0.0054	0.01	NA	NT
	Acetonitrile	0.0084	0.01	NA	
	tert-Butyl Alcohol	0.0090	0.01	NA	
	Isobutyl Alcohol	0.0039	0.01	NA	
	1,4-Dioxane	0.0009	0.01	NA	
Second Source ICAL Verification	1,4-Dioxane	-40.6	NA	30	

Primary Review: KM 4/3/15

Secondary Review: 4/9/15

Printed: 04/03/2015 11:25:35
u:\Stealth\Crystal.rpt\except2.rpt

04.09.15jal2ndRev

Quantitation Report

Data File:	J:\MS46\DATA\040315\0403F008.D			**Instrument:**	GCMS46
Acqu Date:	04/03/2015 11:02	**Quant Date:**	04/03/2015 11:23	**Vial:**	3
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG1502843-2			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260B	**Collect Date:**		**Receive Date:**	04/03/2015

Analysis Lot:	KWG1502843	**Prep Lot:**		**Report Group:**	
Analysis Method:	8260C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\MS46\METHODS\031615MS46_8	**Calibration ID:**	CAL13899
Title:			
Tune Ref:	J:\MS46\DATA\040315\0403F007.D	**Method ID:**	MJ119
MB Ref:		**Quant based on Method**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	6.49	0.00	96	765438	10.00	OK
2	Chlorobenzene-d5	9.95	-0.01	82	308098	10.00	OK
3	1,4-Dichlorobenzene-d4	12.53	0.00	152	316876	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.69			113	194497	11.56		73-122	NA	
1	1,2-Dichloroethane-d4	6.14			65	209089	11.77		59-127	NA	
1	Toluene-d8	8.33			98	748985	11.55		65-144	NA	
2	4-Bromofluorobenzene	11.27			95	270295	11.33		68-117	NA	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane	1.10			85	201440	8.06			
1	Chloromethane	1.26			50	211073	8.67			
1	Vinyl Chloride	1.34			62	197899	8.76			
1	1,3-Butadiene	1.37			54	149838	8.11			
1	Bromomethane	1.63			96	116746	8.89			
1	Chloroethane	1.72			64	113192	9.45			
1	Dichlorofluoromethane (CFC 21)	1.93			67	317799	8.77			
1	Trichlorofluoromethane	1.93			101	279933	9.39			
1	Ethyl Ether	2.23			59	103239	8.17			
1	Acrolein	2.43			56	99513	64.65			
1	Trichlorotrifluoroethane	2.43			151	146313	9.03			
1	1,1-Dichloroethene	2.46			96	132583	8.59			
1	Acetone	2.61			43	464687	183.21			
1	Iodomethane	2.63			142	666372	42.97			

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J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS46\DATA\040315\0403F008.D			**Instrument:**	GCMS46
Acqu Date:	04/03/2015 11:02	**Quant Date:**	04/03/2015 11:23	**Vial:**	3
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG1502843-2			**Soln Conc. Units:**	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Disulfide	2.65			76	457444	8.20			
1	2-Propanol	2.79			45	132093	319.25			
1	3-Chloro-1-propene	2.91			76	83577	8.54			
1	Methyl Acetate	2.97			43	71489	8.04			
1	Acetonitrile	3.02			40	214671	334.95			
1	Methylene Chloride	3.11			84	162029	8.88			
1	tert-Butyl Alcohol	3.31			59	24453	35.31			
1	Acrylonitrile	3.56			53	135959	34.92			
1	Methyl tert-Butyl Ether	3.39			73	698269	17.23			
1	trans-1,2-Dichloroethene	3.40			96	153605	8.45			
1	n-Hexane	3.71			57	252038	8.79			
1	Diisopropyl Ether	4.16			45	510148	8.86			
1	1,1-Dichloroethane	4.12			63	277998	8.90			
1	Vinyl Acetate	4.25			86	41705	13.57			
1	Chloroprene	4.20			53	901514	35.34			
1	tert-Butyl Ethyl Ether	4.72			59	428283	8.73			
1	2,2-Dichloropropane	4.95			77	245403	8.51			
1	cis-1,2-Dichloroethene	5.01			96	175689	8.80			
1	2-Butanone (MEK)	5.10			72	180400	168.95			
1	Ethyl Acetate	5.16			61	26971	18.54			
1	Propionitrile	5.28			54	47225	34.39			
1	Methacrylonitrile	5.43			67	167617	34.98			
1	Bromochloromethane	5.34			128	76733	9.05			
1	Tetrahydrofuran	5.37			71	10716	8.39			
1	Chloroform	5.47			83	288510	8.85			
1	Cyclohexane	5.56			56	289487	8.79			
1	1,1,1-Trichloroethane (TCA)	5.61			97	267500	8.67			
1	Carbon Tetrachloride	5.77			117	236267	8.68			
1	1,1-Dichloropropene	5.84			75	224607	8.77			
1	Isobutyl Alcohol	6.18			43	84089	284.33			
1	Benzene	6.09			78	662259	8.72			
1	1,2-Dichloroethane (EDC)	6.24			62	206487	8.92			
1	tert-Amyl Methyl Ether	6.26			55	94097	8.97			
1	Trichloroethene (TCE)	6.92			95	179743	9.00			
1	Methylcyclohexane	7.03			83	295380	8.79			
1	1,2-Dichloropropane	7.24			63	160948	8.60			
1	Dibromomethane	7.37			93	86490	8.98			
1	Methyl Methacrylate	7.41			69	72850	8.12			
1	1,4-Dioxane	7.41			88	13697	201.19			
1	Bromodichloromethane	7.57			83	209798	8.57			
1	2-Nitropropane	7.93			41	117921	36.16			
1	2-Chloroethyl Vinyl Ether	7.97			63	71051	8.11			

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#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS46\DATA\040315\0403F008.D			**Instrument:**	GCMS46
Acqu Date:	04/03/2015 11:02	**Quant Date:**	04/03/2015 11:23	**Vial:**	3
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG1502843-2			**Soln Conc. Units:**	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	cis-1,3-Dichloropropene	8.10			75	242379	8.76			
1	4-Methyl-2-pentanone (MIBK)	8.29			58	673659	179.38			
1	Toluene	8.40			92	438675	9.10			
2	n-Octane	8.49			85	116788	8.32			
2	trans-1,3-Dichloropropene	8.76			75	199792	8.46			
2	Ethyl Methacrylate	8.82			69	136377	8.15			
2	1,1,2-Trichloroethane	8.96			83	105187	8.81			
2	Tetrachloroethene (PCE)	8.97			164	172882	9.08			
2	2-Hexanone	9.23			57	208725	166.55			
2	1,3-Dichloropropane	9.14			76	219296	9.00			
2	Dibromochloromethane	9.34			129	146150	8.80			
2	1,2-Dibromoethane (EDB)	9.47			107	118466	8.87			
2	1-Chlorohexane	9.96			91	236436	8.85			
2	Chlorobenzene	9.98			112	480599	9.19			
2	Ethylbenzene	10.08			106	260607	9.11			
2	1,1,1,2-Tetrachloroethane	10.09			131	166735	9.03			
2	m,p-Xylenes	10.22			106	639962	18.45			
2	o-Xylene	10.66			106	299213	8.91			
2	Styrene	10.69			103	232367**m**	9.24			
2	Bromoform	10.91			173	83633	8.40			
2	Isopropylbenzene	11.05			105	825399	9.06			
2	cis-1,4-Dichloro-2-butene	11.22			89	67403	36.83			
3	1,1,2,2-Tetrachloroethane	11.47			83	128914	8.76			
3	trans-1,4-Dichloro-2-butene	11.55			53	35216	7.77			
3	Bromobenzene	11.42			156	206130	9.06			
3	n-Propylbenzene	11.50			91	987946	9.30			
3	1,2,3-Trichloropropane	11.52			110	43191	8.74			
3	2-Chlorotoluene	11.62			91	564912	8.93			
3	1,3,5-Trimethylbenzene	11.71			105	676298	8.99			
3	4-Chlorotoluene	11.75			91	597670**m**	8.92			
3	tert-Butylbenzene	12.05			119	605647	8.72			
3	1,2,4-Trimethylbenzene	12.12			105	685899	9.12			
3	sec-Butylbenzene	12.29			105	890087	8.92			
3	4-Isopropyltoluene	12.45			119	748798	9.15			
3	1,3-Dichlorobenzene	12.45			146	407242	8.87			
3	1,4-Dichlorobenzene	12.55			146	412706	9.07			
3	n-Butylbenzene	12.90			91	675880	8.86			
3	1,2-Dichlorobenzene	12.97			146	364702	8.96			
3	1,2-Dibromo-3-chloropropane	13.85			155	18346	7.40			
3	1,3,5-Trichlorobenzene	14.02			180	302800	8.97			
3	1,2,4-Trichlorobenzene	14.72			180	248131	8.71			
3	Hexachlorobutadiene	14.85			225	128987	8.58			

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Data File:	J:\MS46\DATA\040315\0403F008.D			**Instrument:**	GCMS46
Acqu Date:	04/03/2015 11:02	**Quant Date:**	04/03/2015 11:23	**Vial:**	3
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG1502843-2			**Soln Conc. Units:**	PPB

Target Compounds **Final Conc. Units:** ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Naphthalene	15.01			128	419242	8.29			
3	1,2,3-Trichlorobenzene	15.27			180	223647	8.78			

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J: Analyte detected above MDL, but below MRL
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D: Result from dilution
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d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File : J:\MS46\DATA\040315\0403F008.D Vial: 3
Acq On : 03 Apr 2015 11:02 am Operator: KR
Sample : CCV Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 03 11:23:32 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.49	96	765438	10.00	PPB	0.00
64) Chlorobenzene-d5	9.95	82	308098	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	12.53	152	316876	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.69	113	194497	11.56	PPB	0.00
Spiked Amount 10.000			Recovery =	115.60%		
47) 1,2-Dichloroethane-d4	6.14	65	209089	11.77	PPB	0.00
Spiked Amount 10.000			Recovery =	117.70%		
62) Toluene-d8	8.33	98	748985	11.55	PPB	0.00
Spiked Amount 10.000			Recovery =	115.50%		
84) 4-Bromofluorobenzene	11.27	95	270295	11.33	PPB	0.00
Spiked Amount 10.000			Recovery =	113.30%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.10	85	201440	8.06	PPB	98
3) Chloromethane	1.26	50	211073	8.67	PPB	99
4) Vinyl Chloride	1.34	62	197899	8.76	PPB	99
5) 1,3-Butadiene	1.37	54	149838	8.11	PPB	97
6) Bromomethane	1.63	96	116746	8.89	PPB	96
7) Chloroethane	1.72	64	113192	9.45	PPB	99
8) Dichlorofluoromethane	1.93	67	317799	8.77	PPB	98
9) Trichlorofluoromethane	1.93	101	279933	9.39	PPB	98
10) Ethyl Ether	2.23	59	103239	8.17	PPB	98
11) Acrolein	2.43	56	99513	64.65	PPB	97
12) Trichlorotrifluoroethane	2.43	151	146313	9.03	PPB	96
13) 1,1-Dichloroethene	2.46	96	132583	8.59	PPB	96
14) Acetone	2.61	43	464687	183.21	PPB	98
15) Iodomethane	2.63	142	666372	42.97	PPB	98
16) Carbon Disulfide	2.65	76	457444	8.20	PPB	98
17) 2-Propanol (Isopropyl Alco	2.79	45	132093	319.25	PPB	97
18) 3-Chloro-1-propene	2.91	76	83577	8.54	PPB	89
19) Methyl Acetate	2.97	43	71489	8.04	PPB	99
20) Acetonitrile	3.02	40	214671	334.95	PPB	95
21) Methylene Chloride	3.11	84	162029	8.88	PPB	99
22) tert-Butyl Alcohol	3.31	59	24453	35.31	PPB	88
23) Acrylonitrile	3.56	53	135959	34.92	PPB	97
24) Methyl tert-Butyl Ether	3.39	73	698269	17.23	PPB	99
25) trans-1,2-Dichloroethene	3.40	96	153605	8.45	PPB	94
26) Hexane	3.71	57	252038	8.79	PPB	96
27) Diisopropyl Ether	4.16	45	510148	8.86	PPB	99
28) 1,1-Dichloroethane	4.12	63	277998	8.90	PPB	99

(#) = qualifier out of range (m) = manual integration
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Data File : J:\MS46\DATA\040315\0403F008.D Vial: 3
Acq On : 03 Apr 2015 11:02 am Operator: KR
Sample : CCV Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 03 11:23:32 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29)	Vinyl Acetate	4.25	86	41705	13.57	PPB	#	76
30)	Chloroprene	4.20	53	901514	35.34	PPB		99
31)	tert-Butyl Ethyl Ether	4.72	59	428283	8.73	PPB		97
32)	2,2-Dichloropropane	4.95	77	245403	8.51	PPB		99
33)	cis-1,2-Dichloroethene	5.01	96	175689	8.80	PPB		95
34)	2-Butanone	5.10	72	180400	168.95	PPB		98
35)	Ethyl Acetate	5.16	61	26971	18.54	PPB		89
36)	Propionitrile	5.28	54	47225	34.39	PPB		92
37)	Methacrylonitrile	5.43	67	167617	34.98	PPB		93
38)	Bromochloromethane	5.34	128	76733	9.05	PPB		95
39)	Tetrahydrofuran	5.37	71	10716	8.39	PPB	#	84
40)	Chloroform	5.47	83	288510	8.85	PPB		98
41)	Cyclohexane	5.56	56	289487	8.79	PPB		95
42)	1,1,1-Trichloroethane	5.61	97	267500	8.67	PPB		97
44)	Carbon Tetrachloride	5.77	117	236267	8.68	PPB		94
45)	1,1-Dichloropropene	5.84	75	224607	8.77	PPB		94
46)	Isobutyl Alcohol	6.18	43	84089	284.33	PPB		95
48)	Benzene	6.09	78	662259	8.72	PPB		98
49)	1,2-Dichloroethane	6.24	62	206487	8.92	PPB		98
50)	tert-Amyl Methyl Ether	6.26	55	94097	8.97	PPB	#	86
51)	Trichloroethene	6.92	95	179743	9.00	PPB		94
52)	Methylcyclohexane	7.03	83	295380	8.79	PPB		100
53)	1,2-Dichloropropane	7.24	63	160948	8.60	PPB		95
54)	Dibromomethane	7.37	93	86490	8.98	PPB		95
55)	Methyl methacrylate	7.41	69	72850	8.12	PPB		93
56)	1,4-Dioxane	7.41	88	13697	201.19	PPB		75
57)	Bromodichloromethane	7.57	83	209798	8.57	PPB		98
58)	2-Nitropropane	7.93	41	117921	36.16	PPB		97
59)	2-Chloroethyl Vinyl Ether	7.97	63	71051	8.11	PPB		94
60)	cis-1,3-Dichloropropene	8.10	75	242379	8.76	PPB		95
61)	4-Methyl-2-pentanone (MIBK	8.29	58	673659	179.38	PPB		99
63)	Toluene	8.40	92	438675	9.10	PPB		99
65)	n-Octane	8.49	85	116788	8.32	PPB		99
66)	trans-1,3-Dichloropropene	8.76	75	199792	8.46	PPB		96
67)	Ethyl methacrylate	8.82	69	136377	8.15	PPB		96
68)	1,1,2-Trichloroethane	8.96	83	105187	8.81	PPB		96
69)	Tetrachloroethene	8.97	164	172882	9.08	PPB		98
70)	2-Hexanone	9.23	57	208725	166.55	PPB		98
71)	1,3-Dichloropropane	9.14	76	219296	9.00	PPB		96
72)	Dibromochloromethane	9.34	129	146150	8.80	PPB		99
73)	1,2-Dibromoethane (EDB)	9.47	107	118466	8.87	PPB		97

(#) = qualifier out of range (m) = manual integration

04.09.15jal2nd Rev

Data File : J:\MS46\DATA\040315\0403F008.D Vial: 3
Acq On : 03 Apr 2015 11:02 am Operator: KR
Sample : CCV Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 03 11:23:32 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

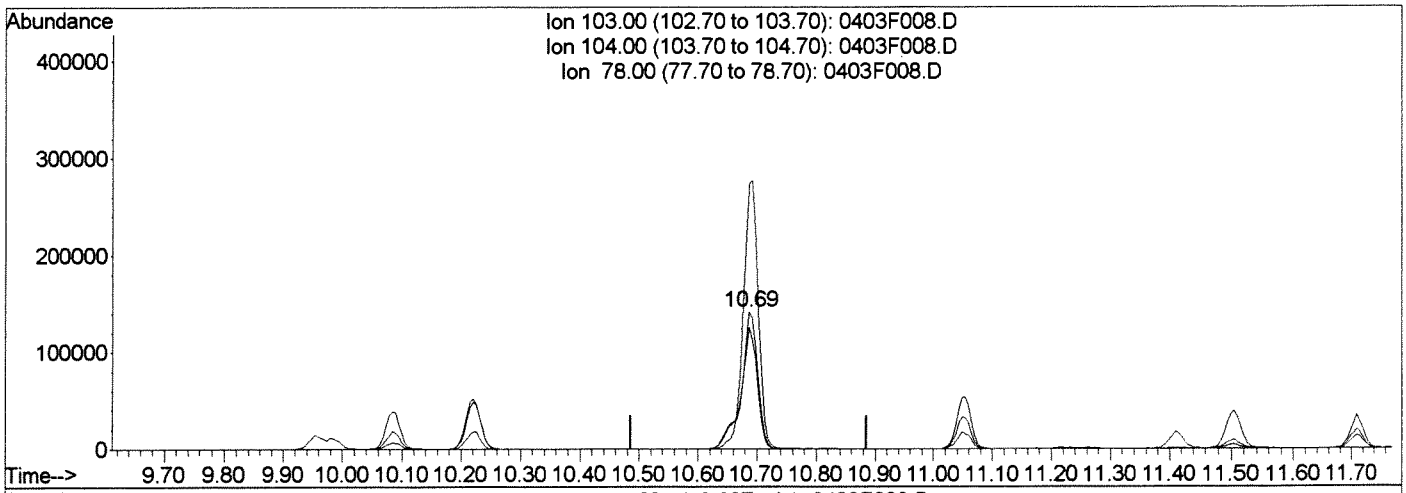
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
74)	1-Chlorohexane	9.96	91	236436	8.85	PPB	94
75)	Chlorobenzene	9.98	112	480599	9.19	PPB	99
76)	Ethylbenzene	10.08	106	260607	9.11	PPB	93
77)	1,1,1,2-Tetrachloroethane	10.09	131	166735	9.03	PPB	98
78)	m,p-Xylenes	10.22	106	639962	18.45	PPB	97
79)	o-Xylene	10.66	106	299213	8.91	PPB	94
80)	Styrene	10.69	103	232367m	9.24	PPB	
81)	Bromoform	10.91	173	83633	8.40	PPB	99
82)	Isopropylbenzene	11.05	105	825399	9.06	PPB	99
83)	cis-1,4-Dichloro-2-butene	11.22	89	67403	36.83	PPB	92
86)	1,1,2,2-Tetrachloroethane	11.47	83	128914	8.76	PPB	98
87)	trans-1,4-Dichloro-2-buten	11.55	53	35216	7.77	PPB	83
88)	Bromobenzene	11.42	156	206130	9.06	PPB	94
89)	n-Propylbenzene	11.50	91	987946	9.30	PPB	99
90)	1,2,3-Trichloropropane	11.52	110	43191	8.74	PPB	97
91)	2-Chlorotoluene	11.62	91	564912	8.93	PPB	98
92)	1,3,5-Trimethylbenzene	11.71	105	676298	8.99	PPB	98
93)	4-Chlorotoluene	11.75	91	597670m	8.92	PPB	
94)	tert-Butylbenzene	12.05	119	605647	8.72	PPB	98
95)	1,2,4-Trimethylbenzene	12.12	105	685899	9.12	PPB	98
96)	sec-Butylbenzene	12.29	105	890087	8.92	PPB	99
97)	p-Isopropyltoluene	12.45	119	748798	9.15	PPB	99
98)	1,3-Dichlorobenzene	12.45	146	407242	8.87	PPB	97
99)	1,4-Dichlorobenzene	12.55	146	412706	9.07	PPB	98
100)	n-Butylbenzene	12.90	91	675880	8.86	PPB	97
101)	1,2-Dichlorobenzene	12.97	146	364702	8.96	PPB	98
102)	1,2-Dibromo-3-chloropropan	13.85	155	18346	7.40	PPB	91
103)	1,3,5-Trichlorobenzene	14.02	180	302800	8.97	PPB	97
104)	1,2,4-Trichlorobenzene	14.72	180	248131	8.71	PPB	98
105)	Hexachlorobutadiene	14.85	225	128987	8.58	PPB	96
106)	Naphthalene	15.01	128	419242	8.29	PPB	99
107)	1,2,3-Trichlorobenzene	15.27	180	223647	8.78	PPB	100

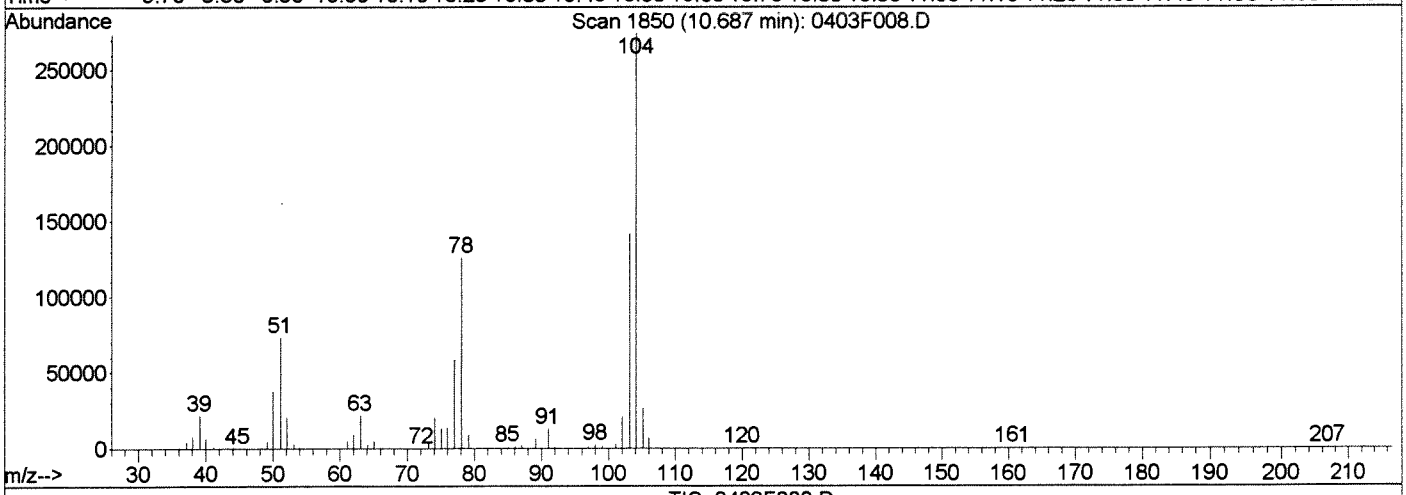
(#) = qualifier out of range (m) = manual integration

04.09.15jal2nd Rev

Data File : J:\MS46\DATA\040315\0403F008.D Vial: 3
Acq On : 03 Apr 2015 11:02 am Operator: KR
Sample : CCV Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 3 11:23 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Multiple Level Calibration





TIC: 0403F008.D

(80) Styrene (T)

10.69min 10.86PPB

response 273061

Ion	Exp%	Act%
103.00	100	100
104.00	198.60	193.50
78.00	88.20	88.70
0.00	0.00	0.00

Manual Integration:

Before

04/03/15

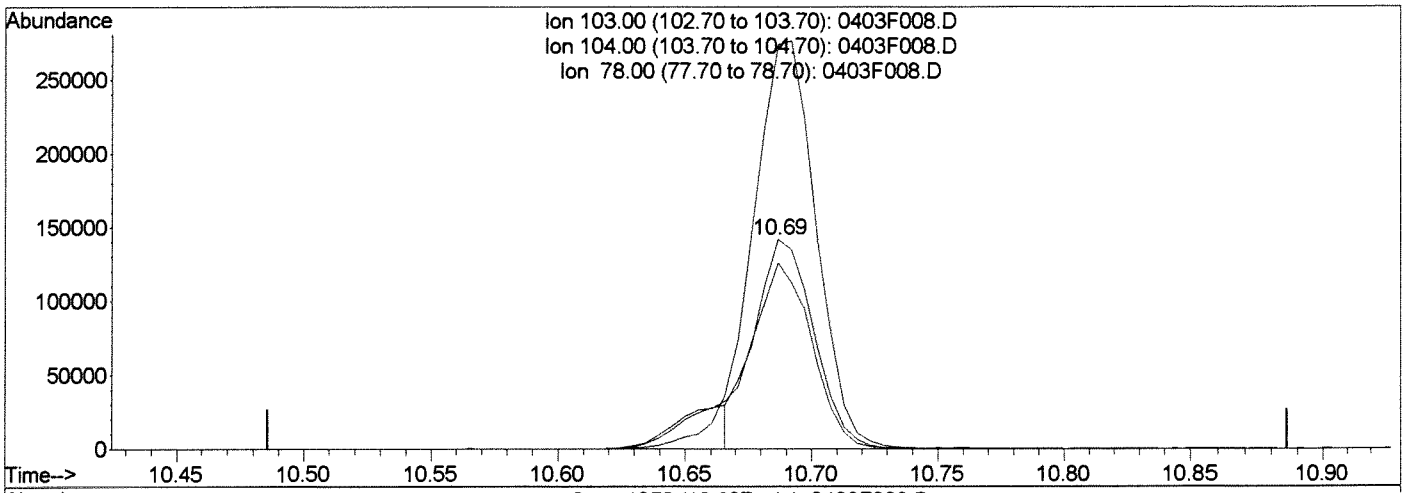
0403F008.D 031615MS46_8260.M Fri Apr 03 11:23:40 2015

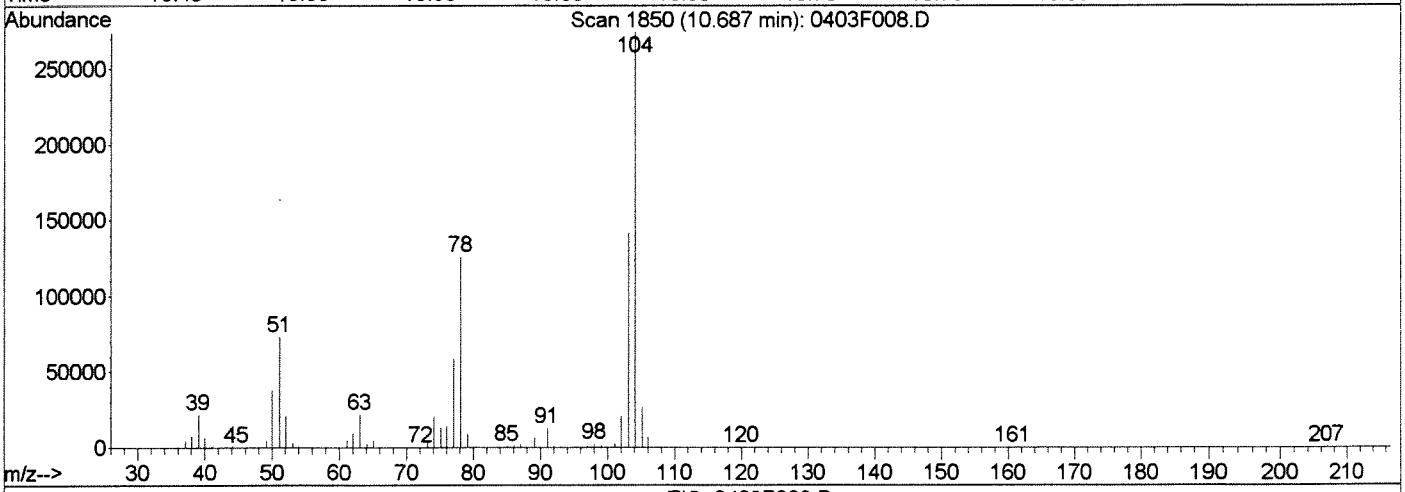
04.09.15jal2nd Rev

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\040315\0403F008.D Vial: 3
Acq On : 03 Apr 2015 11:02 am Operator: KR
Sample : CCV Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 3 11:23 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Multiple Level Calibration





TIC: 0403F008.D

(80) Styrene (T)

10.69min 9.24PPB m

response 232367

Ion	Exp%	Act%
103.00	100	100
104.00	198.60	193.50
78.00	88.20	88.79
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

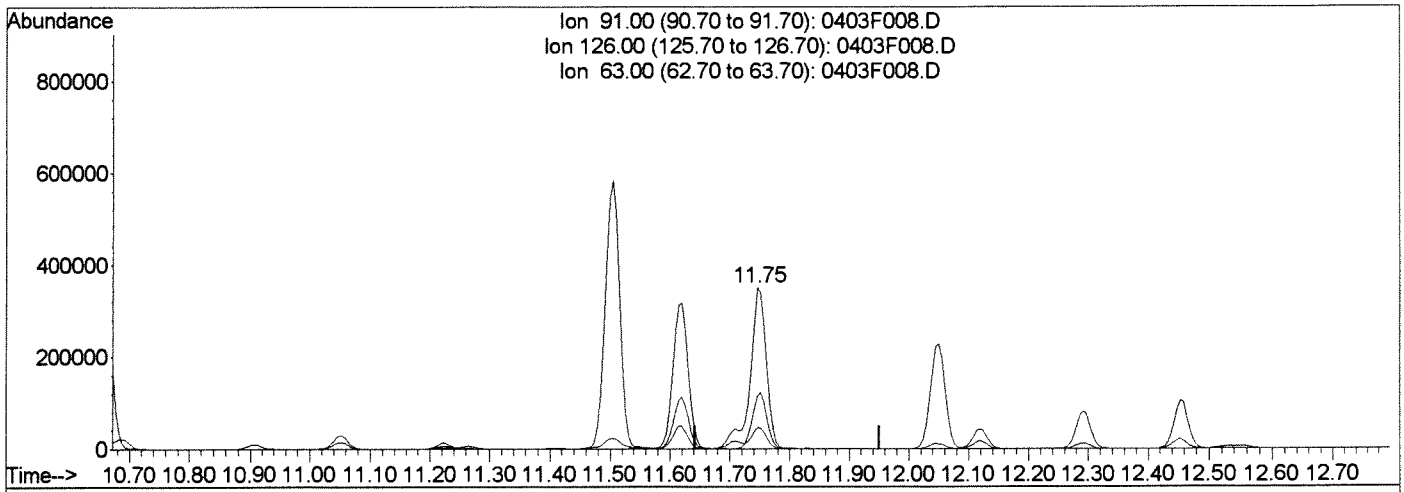
04/03/15

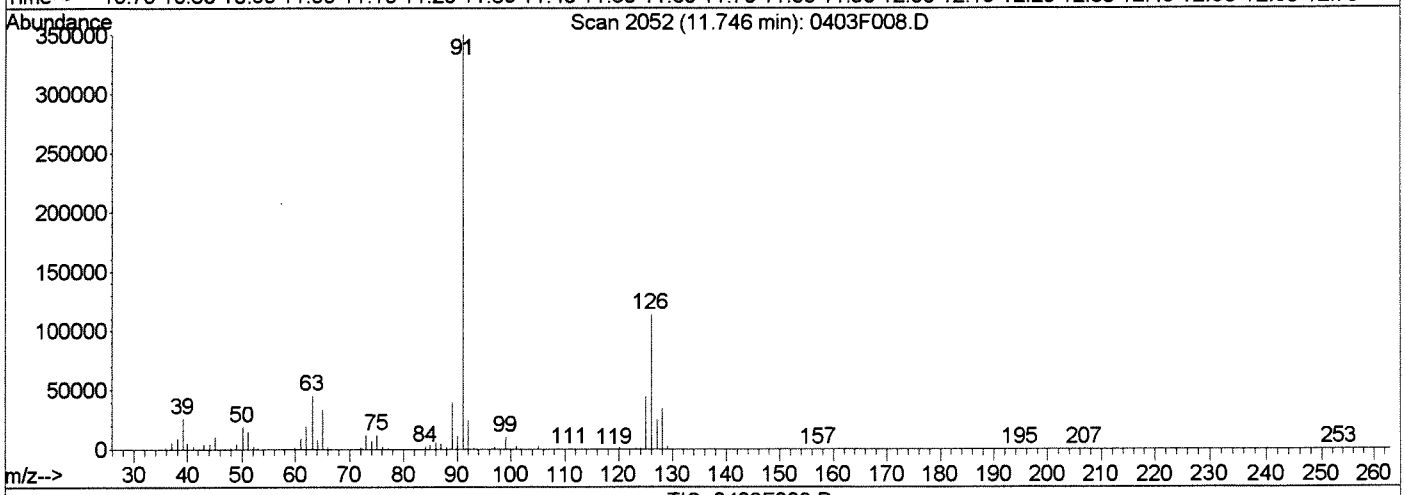
0403F008.D 031615MS46_8260.M Fri Apr 03 11:23:45 2015

04.09.15jal2nd Rev

Data File : J:\MS46\DATA\040315\0403F008.D Vial: 3
Acq On : 03 Apr 2015 11:02 am Operator: KR
Sample : CCV Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 3 11:23 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Multiple Level Calibration





TIC: 0403F008.D

(93) 4-Chlorotoluene (T)

11.75min 9.89PPB

response 662716

Ion	Exp%	Act%
91.00	100	100
126.00	34.80	32.52
63.00	12.80	12.93
0.00	0.00	0.00

Manual Integration:

Before

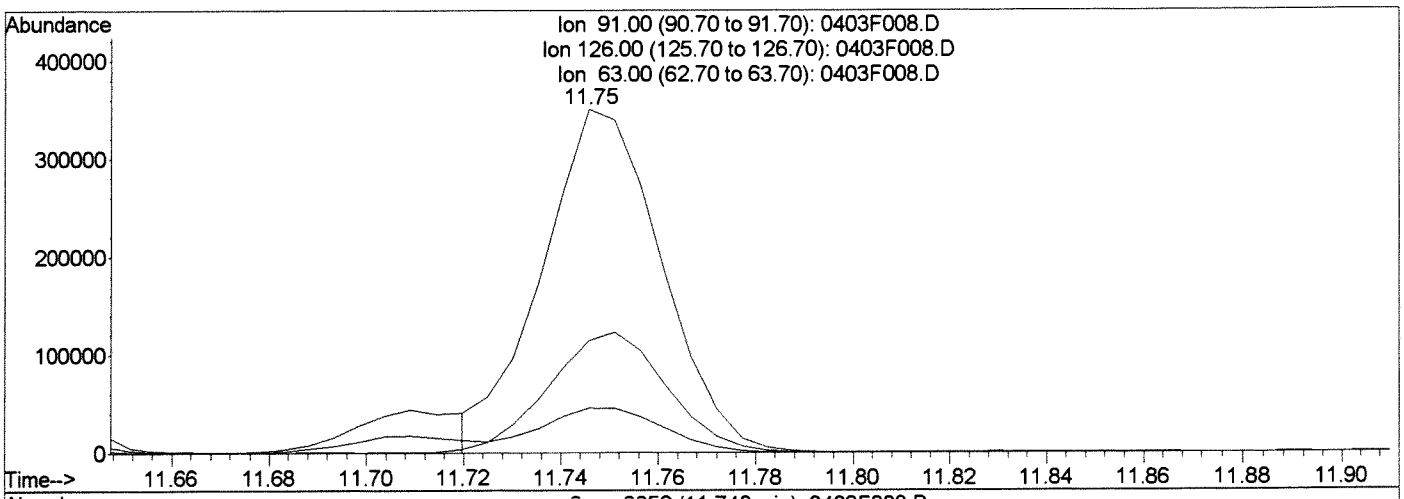
04/03/15

0403F008.D 031615MS46_8260.M Fri Apr 03 11:23:49 2015

04.09.15jal2nd Rev

Data File : J:\MS46\DATA\040315\0403F008.D Vial: 3
Acq On : 03 Apr 2015 11:02 am Operator: KR
Sample : CCV Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 3 11:23 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Multiple Level Calibration



TIC: 0403F008.D

(93) 4-Chlorotoluene (T)
11.75min 8.92PPB m
response 597670

Ion	Exp%	Act%
91.00	100	100
126.00	34.80	32.58
63.00	12.80	12.98
0.00	0.00	0.00

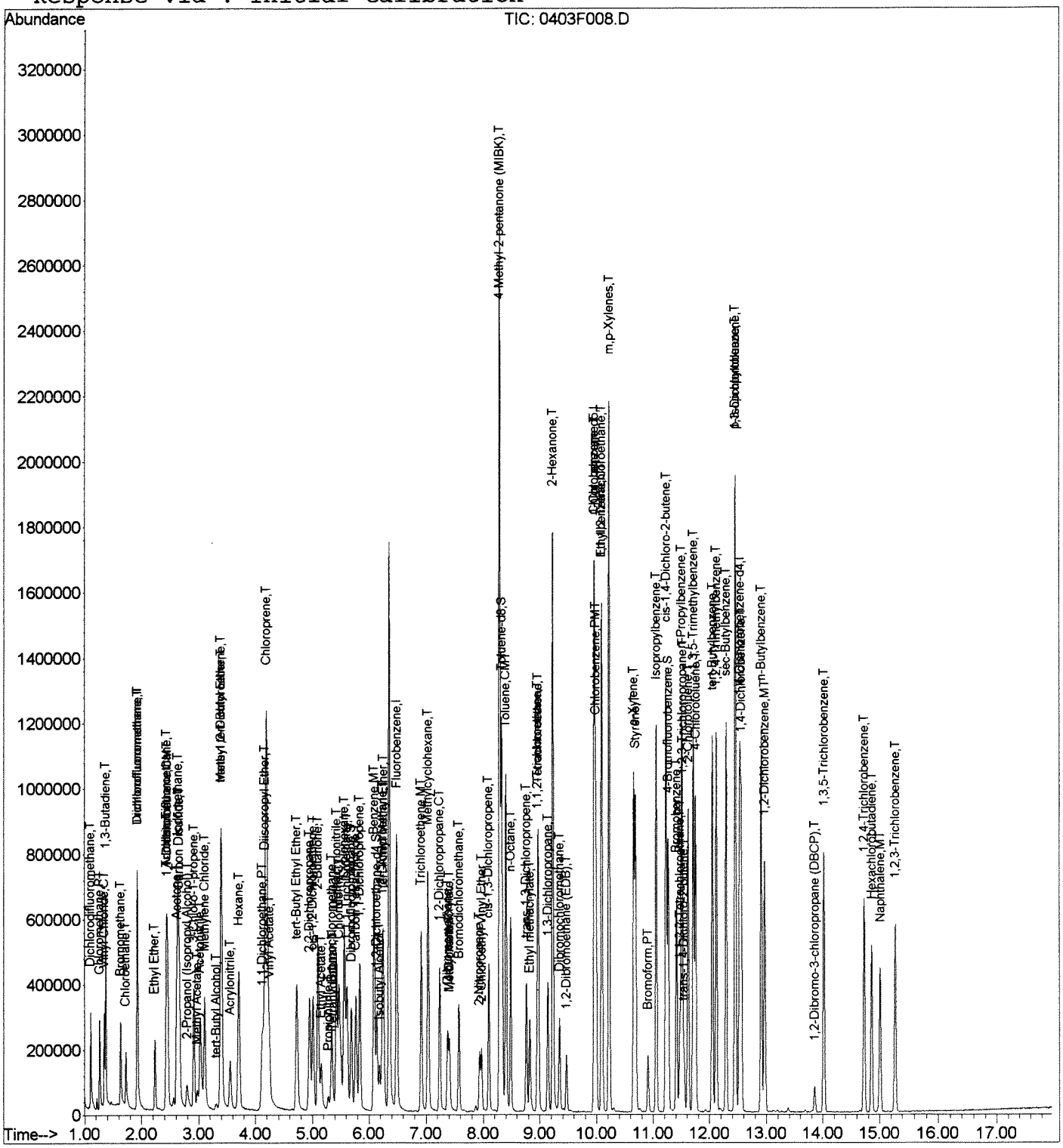
Manual Integration:
After
Baseline correction
04/03/15

0403F008.D 031615MS46_8260.M Fri Apr 03 11:23:54 2015

04.09.15jal2ndRev

Data File : J:\MS46\DATA\040315\0403F008.D Vial: 3
Acq On : 03 Apr 2015 11:02 am Operator: KR
Sample : CCV Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 3 11:23 2015 Quant Results File: 031615MS46_8

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Tue Mar 17 13:26:24 2015
Response via : Initial Calibration



04.09.15jal2nd Rev

Date: 4/8/15

By: KL

IS/SS Std. ID: 70ng - 320 4/17

CCV Std ID: 70ng - 40ng/mL / 320 5/20

MS/DMS/LCS/ICV Std ID: 70ng - 50c 4/17 / 300 4/17 / 370 4/13

BFB Std. ID: 70ng - 374 5/21 300 4/13 / 300 4/13

ALS Environmental
Injection Log
MS46 - Agilent 5977A

Tune File: BFBcharm

New Tune: NO

439561

ICAL Date: 3/16/15 / 13927

Second RV: 4/10.15

LIMS ID: KWI615D 3014 / 3015 (3030 / 3029) ↓DCM cal

	Sample Name	File Name	Method	Dilution	pH<2	Comments
1	BFB	D408F003	8260.M	4.1 µL + 4mL		
2	CCV	4		10/5 µL + 10mL		
3	LLS	5		1x 50/5/5/75µL → 10mL		
4	DLLS	6		↓		
5	K3149-3MS	7			✓	(NO) Did not take full amt.
6	↓ 3DMS	8			✓	↓ sample.
7	LB	9				
8	MRL	10				
9	MB	11				
10	K3149-3	12			✓	
11	↓ 3MS(R)	13				
12	3DMS(R)	14				
13	LB	15				
14	K3315-1	16			✓	
15	K3149-5	17			✓	↓DCM MRL cal *
16	6	18			✓	
17	7	19			✓	
18	8	20			✓	
19	9	21			✓	
20	K3171-3	22			✓	
21	4	23			✓	
22	7	24			✓	
23	8	25			✓	
24	14	26			✓	
25	K3174-2	27			✓	
26	3	28			✓	
27	5	29			✓	
	K3124-4(R)	30			✓	
	K3106-5 Batch(R)	31		2x 25mL + 50mL	✓	↓ DCM MRL cal

R:\VOA\Injection Logs\INJLOG_MS46_Rev1.XLS

Exception Report

Data File: J:\MS46\DATA\040815X\0408F003.D
Lab ID: KWG1503030-1
RunType: BFB
Matrix: WATER

Date Acquired: 04/08/2015 10:20
Date Quantitated:
Batch ID: KWG1503030
Analysis Method: BFB
ListJoinID: LJ774

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Ion Ratio	NA	NA	NA	x	

Primary Review: [signature]

Secondary Review: [signature] 4.10.15

Quantitation Report

Data File:	J:\MS46\DATA\040815X\0408F003.D			**Instrument:**	GCMS46
Acqu Date:	04/08/2015 10:20	**Quant Date:**		**Vial:**	3
Run Type:	BFB			**Dilution:**	1.0
Lab ID:	KWG1503030-1			**Soln Conc. Units:**	

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260B	**Collect Date:**		**Receive Date:**	04/08/2015

Analysis Lot:	KWG1503030	**Prep Lot:**		**Report Group:**	
Analysis Method:	BFB	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\MS46\METHODS\031615MS46_8			**Calibration ID:**	CAL13899
Title:	GC/MS Tuning Evaluation			**Report List ID:**	LJ774
Tune Ref:				**Method ID:**	MJ159
MB Ref:				**Quant based on Report List**	

Tune Results

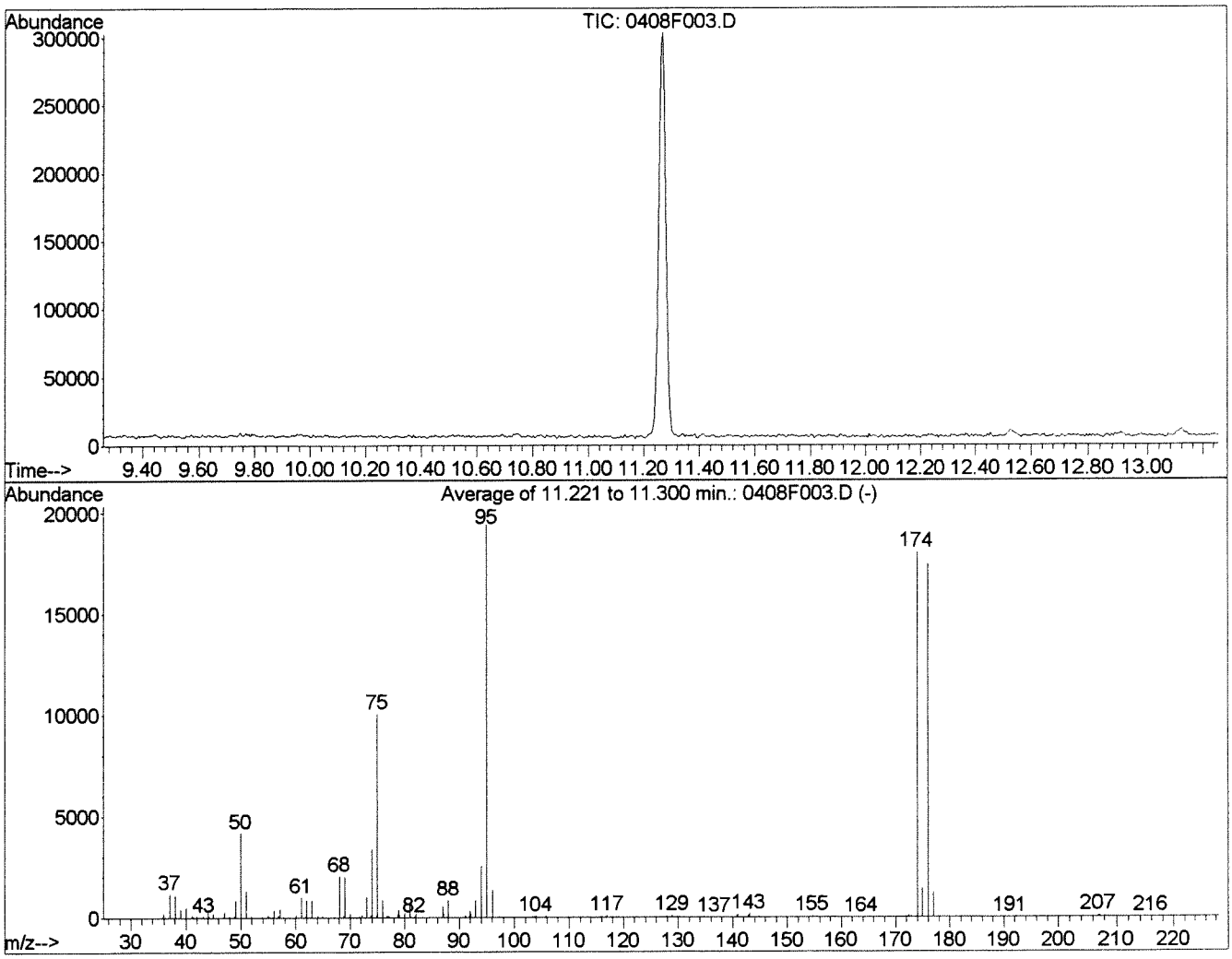
Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	21.6	4190	Pass
75	95	30	60	51.8	10055	Pass
95	95	100	100	100.0	19407	Pass
96	95	5	9	7.0	1354	Pass
173	174	0	2	0.3	50	Pass
174	95	50	120	92.9	18031	Pass
175	174	5	9	7.8	1401	Pass
176	174	95	101	96.8	17460	Pass
177	176	5	9	6.8	1194	Pass

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File : J:\MS46\DATA\040815X\0408F003.D Vial: 3
Acq On : 08 Apr 2015 10:20 am Operator: KR
Sample : BFB Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B



Spectrum Information: Average of 11.221 to 11.300 min. Whole peak - 1946Scan

KR 4/9/15

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	21.6	4190	PASS
75	95	30	60	51.8	10055	PASS
95	95	100	100	100.0	19407	PASS
96	95	5	9	7.0	1354	PASS
173	174	0.00	2	0.3	50	PASS
174	95	50	120	92.9	18031	PASS
175	174	5	9	7.8	1401	PASS
176	174	95	101	96.8	17460	PASS
177	176	5	9	6.8	1194	PASS

0408F003.D 031615MS46_8260.M Thu Apr 09 14:21:35 2015

04.10.15jal2ndRev

Exception Report

Data File: J:\MS46\DATA\040815X\0408F004.D
Lab ID: KWG1503030-2
RunType: CCV
Matrix: WATER

Date Acquired: 04/08/2015 11:06
Date Quantitated: 04/09/2015 14:22
Batch ID: KWG1503030
Analysis Method: 8260C
MethodJoinID: MJ119

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA		x
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Internal Standards	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	2-Propanol	0.0054	0.01	NA	NA
	Acetonitrile	0.0084	0.01	NA	
	tert-Butyl Alcohol	0.0090	0.01	NA	
	Isobutyl Alcohol	0.0039	0.01	NA	
	1,4-Dioxane	0.0009	0.01	NA	
Second Source ICAL Verification	1,4-Dioxane	-40.6	NA	30	

Primary Review: [signature]

Secondary Review: [signature] 4/10/15

Printed: 04/09/2015 15:27:44
u:\Stealth\Crystal.rpt\except2.rpt

04.10.15jal2ndRev

Quantitation Report

Data File:	J:\MS46\DATA\040815X\0408F004.D			**Instrument:**	GCMS46
Acqu Date:	04/08/2015 11:06	**Quant Date:**	04/09/2015 14:22	**Vial:**	4
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG1503030-2			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260B	**Collect Date:**		**Receive Date:**	04/08/2015

Analysis Lot:	KWG1503030	**Prep Lot:**		**Report Group:**	
Analysis Method:	8260C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\MS46\METHODS\031615MS46_8			**Calibration ID:**	CAL13899
Title:					
Tune Ref:	J:\MS46\DATA\040815X\0408F003.D			**Method ID:**	MJ119
MB Ref:				**Quant based on Method**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	6.49	0.00	96	734132	10.00	OK
2	Chlorobenzene-d5	9.96	0.00	82	295222	10.00	OK
3	1,4-Dichlorobenzene-d4	12.53	0.00	152	303375	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.69			113	189498	11.75		73-122	NA	
1	1,2-Dichloroethane-d4	6.14			65	197804	11.61		59-127	NA	
1	Toluene-d8	8.33			98	711580	11.44		65-144	NA	
2	4-Bromofluorobenzene	11.27			95	263664	11.53		68-117	NA	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane	1.10			85	172570	7.20			
1	Chloromethane	1.26			50	196992	8.43			
1	Vinyl Chloride	1.34			62	192095	8.86			
1	1,3-Butadiene	1.37			54	124378	7.02			
1	Bromomethane	1.63			96	113531	9.01			
1	Chloroethane	1.73			64	108800	9.47			
1	Dichlorofluoromethane (CFC 21	1.93			67	322163	9.27			
1	Trichlorofluoromethane	1.93			101	279286	9.76			
1	Ethyl Ether	2.23			59	97861	8.08			
1	Acrolein	2.43			56	300491	203.53			
1	Trichlorotrifluoroethane	2.43			151	144736	9.31			
1	1,1-Dichloroethene	2.45			96	131739	8.90			
1	Acetone	2.61			43	392110	161.18			
1	Iodomethane	2.63			142	602578	40.51			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS46\DATA\040815X\0408F004.D			**Instrument:**	GCMS46
Acqu Date:	04/08/2015 11:06	**Quant Date:**	04/09/2015 14:22	**Vial:**	4
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG1503030-2			**Soln Conc. Units:**	PPB

Target Compounds **Final Conc. Units:** ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Disulfide	2.66			76	452883	8.47			
1	2-Propanol	2.79			45	92127	232.15			
1	3-Chloro-1-propene	2.91			76	80314	8.55			
1	Methyl Acetate	2.97			43	64649	7.58			
1	Acetonitrile	3.03			40	186402	303.24			
1	Methylene Chloride	3.11			84	154484	8.83			
1	tert-Butyl Alcohol	3.30			59	19138	28.81			
1	Acrylonitrile	3.56			53	126324	33.83			
1	Methyl tert-Butyl Ether	3.39			73	649358	16.70			
1	trans-1,2-Dichloroethene	3.40			96	151832	8.71			
1	n-Hexane	3.71			57	244866	8.91			
1	Diisopropyl Ether	4.16			45	475851	8.62			
1	1,1-Dichloroethane	4.12			63	273190	9.11			
1	Vinyl Acetate	4.24			86	27649	9.38			
1	Chloroprene	4.20			53	887988	36.29			
1	tert-Butyl Ethyl Ether	4.72			59	400034	8.50			
1	2,2-Dichloropropane	4.95			77	243963	8.82			
1	cis-1,2-Dichloroethene	5.01			96	170263	8.89			
1	2-Butanone (MEK)	5.10			72	149582	146.06			
1	Ethyl Acetate	5.16			61	23450	16.81			
1	Propionitrile	5.29			54	42670	32.40			
1	Methacrylonitrile	5.43			67	149437	32.52			
1	Bromochloromethane	5.34			128	73817	9.08			
1	Tetrahydrofuran	5.36			71	10217	8.34			
1	Chloroform	5.47			83	283441	9.07			
1	Cyclohexane	5.56			56	290479	9.19			
1	1,1,1-Trichloroethane (TCA)	5.62			97	262781	8.88			
1	Carbon Tetrachloride	5.77			117	233353	8.94			
1	1,1-Dichloropropene	5.84			75	218777	8.90			
1	Isobutyl Alcohol	6.19			43	61939	218.37			
1	Benzene	6.09			78	639852	8.78			
1	1,2-Dichloroethane (EDC)	6.24			62	194944	8.78			
1	tert-Amyl Methyl Ether	6.25			55	91826	9.12			
1	Trichloroethene (TCE)	6.92			95	174702	9.12			
1	Methylcyclohexane	7.03			83	297593	9.23			
1	1,2-Dichloropropane	7.24			63	154907	8.63			
1	Dibromomethane	7.37			93	78789	8.53			
1	Methyl Methacrylate	7.41			69	64270	7.47			
1	1,4-Dioxane	7.41			88	7638	116.98			
1	Bromodichloromethane	7.57			83	203965	8.69			
1	2-Nitropropane	7.93			41	108387	34.65			
1	2-Chloroethyl Vinyl Ether	7.97			63	65529	7.80			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS46\DATA\040815X\0408F004.D			**Instrument:**	GCMS46
Acqu Date:	04/08/2015 11:06	**Quant Date:**	04/09/2015 14:22	**Vial:**	4
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG1503030-2			**Soln Conc. Units:**	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	cis-1,3-Dichloropropene	8.10			75	229737	8.65			
1	4-Methyl-2-pentanone (MIBK)	8.29			58	575440	159.76			
1	Toluene	8.40			92	414118	8.96			
2	n-Octane	8.40			85	4757	0.3500			
2	trans-1,3-Dichloropropene	8.76			75	191064	8.45			
2	Ethyl Methacrylate	8.83			69	120576	7.52			
2	1,1,2-Trichloroethane	8.96			83	96126	8.40			
2	Tetrachloroethene (PCE)	8.97			164	167458	9.18			
2	2-Hexanone	9.23			57	182794	152.22			
2	1,3-Dichloropropane	9.14			76	202276	8.67			
2	Dibromochloromethane	9.34			129	140295	8.82			
2	1,2-Dibromoethane (EDB)	9.46			107	108237	8.46			
2	1-Chlorohexane	9.96			91	235238	9.19			
2	Chlorobenzene	9.99			112	459194	9.16			
2	Ethylbenzene	10.09			106	249212	9.09			
2	1,1,1,2-Tetrachloroethane	10.10			131	159552	9.02			
2	m,p-Xylenes	10.22			106	611043	18.38			
2	o-Xylene	10.66			106	284449	8.84			
2	Styrene	10.69			103	220067**m**	9.14			
2	Bromoform	10.91			173	82225	8.62			
2	Isopropylbenzene	11.05			105	785454	8.99			
2	cis-1,4-Dichloro-2-butene	11.23			89	65781	37.47			
3	1,1,2,2-Tetrachloroethane	11.47			83	112958	8.02			
3	trans-1,4-Dichloro-2-butene	11.71			53	20872	4.81			
3	Bromobenzene	11.42			156	193800	8.90			
3	n-Propylbenzene	11.50			91	945417	9.29			
3	1,2,3-Trichloropropane	11.52			110	38264	8.09			
3	2-Chlorotoluene	11.62			91	535193	8.83			
3	1,3,5-Trimethylbenzene	11.71			105	657428	9.13			
3	4-Chlorotoluene	11.75			91	582842**m**	9.09			
3	tert-Butylbenzene	12.05			119	587358	8.83			
3	1,2,4-Trimethylbenzene	12.12			105	655738	9.10			
3	sec-Butylbenzene	12.29			105	846062	8.86			
3	4-Isopropyltoluene	12.45			119	737494	9.42			
3	1,3-Dichlorobenzene	12.45			146	391672	8.91			
3	1,4-Dichlorobenzene	12.55			146	394718	9.06			
3	n-Butylbenzene	12.90			91	654778	8.97			
3	1,2-Dichlorobenzene	12.97			146	353897	9.08			
3	1,2-Dibromo-3-chloropropane	13.86			155	16774	7.06			
3	1,3,5-Trichlorobenzene	14.02			180	310559	9.61			
3	1,2,4-Trichlorobenzene	14.72			180	248412	9.11			
3	Hexachlorobutadiene	14.86			225	132938	9.24			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS46\DATA\040815X\0408F004.D			**Instrument:**	GCMS46
Acqu Date:	04/08/2015 11:06	**Quant Date:**	04/09/2015 14:22	**Vial:**	4
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG1503030-2			**Soln Conc. Units:**	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Naphthalene	15.01			128	390817	8.07			
3	1,2,3-Trichlorobenzene	15.27			180	219114	8.98			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS46\DATA\040815X\0408F004.D Vial: 4
Acq On : 08 Apr 2015 11:06 am Operator: KR
Sample : CCV Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 09 14:22:03 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	6.49	96	734132	10.00	PPB	0.00
64) Chlorobenzene-d5	9.96	82	295222	10.00	PPB	0.00
85) 1,4-Dichlorobenzene-d4	12.53	152	303375	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.69	113	189498	11.75	PPB	0.00
Spiked Amount 10.000			Recovery =	117.50%		
47) 1,2-Dichloroethane-d4	6.14	65	197804	11.61	PPB	0.00
Spiked Amount 10.000			Recovery =	116.10%		
62) Toluene-d8	8.33	98	711580	11.44	PPB	0.00
Spiked Amount 10.000			Recovery =	114.40%		
84) 4-Bromofluorobenzene	11.27	95	263664	11.53	PPB	0.00
Spiked Amount 10.000			Recovery =	115.30%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.10	85	172570	7.20	PPB	97
3) Chloromethane	1.26	50	196992	8.43	PPB	98
4) Vinyl Chloride	1.34	62	192095	8.86	PPB	100
5) 1,3-Butadiene	1.37	54	124378	7.02	PPB	93
6) Bromomethane	1.63	96	113531	9.01	PPB	93
7) Chloroethane	1.73	64	108800	9.47	PPB	98
8) Dichlorofluoromethane	1.93	67	322163	9.27	PPB	98
9) Trichlorofluoromethane	1.93	101	279286	9.76	PPB	92
10) Ethyl Ether	2.23	59	97861	8.08	PPB	90
11) Acrolein	2.43	56	300491	203.53	PPB	98
12) Trichlorotrifluoroethane	2.43	151	144736	9.31	PPB	99
13) 1,1-Dichloroethene	2.45	96	131739	8.90	PPB	96
14) Acetone	2.61	43	392110	161.18	PPB	99
15) Iodomethane	2.63	142	602578	40.51	PPB	97
16) Carbon Disulfide	2.66	76	452883	8.47	PPB	99
17) 2-Propanol (Isopropyl Alco	2.79	45	92127	232.15	PPB	99
18) 3-Chloro-1-propene	2.91	76	80314	8.55	PPB	91
19) Methyl Acetate	2.97	43	64649	7.58	PPB	93
20) Acetonitrile	3.03	40	186402	303.24	PPB	95
21) Methylene Chloride	3.11	84	154484	8.83	PPB	99
22) tert-Butyl Alcohol	3.30	59	19138	28.81	PPB	94
23) Acrylonitrile	3.56	53	126324	33.83	PPB	94
24) Methyl tert-Butyl Ether	3.39	73	649358	16.70	PPB	98
25) trans-1,2-Dichloroethene	3.40	96	151832	8.71	PPB	89
26) Hexane	3.71	57	244866	8.91	PPB	96
27) Diisopropyl Ether	4.16	45	475851	8.62	PPB	99
28) 1,1-Dichloroethane	4.12	63	273190	9.11	PPB	99

(#) = qualifier out of range (m) = manual integration
0408F004.D 031615MS46_8260.M Thu Apr 09 14:22:32 2015 Page 1

04.10.15jal2ndRev

Data File : J:\MS46\DATA\040815X\0408F004.D Vial: 4
Acq On : 08 Apr 2015 11:06 am Operator: KR
Sample : CCV Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 09 14:22:03 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29)	Vinyl Acetate	4.24	86	27649	9.38	PPB	#	86
30)	Chloroprene	4.20	53	887988	36.29	PPB		98
31)	tert-Butyl Ethyl Ether	4.72	59	400034	8.50	PPB		99
32)	2,2-Dichloropropane	4.95	77	243963	8.82	PPB		96
33)	cis-1,2-Dichloroethene	5.01	96	170263	8.89	PPB		97
34)	2-Butanone	5.10	72	149582	146.06	PPB	#	87
35)	Ethyl Acetate	5.16	61	23450	16.81	PPB		98
36)	Propionitrile	5.29	54	42670	32.40	PPB		98
37)	Methacrylonitrile	5.43	67	149437	32.52	PPB		98
38)	Bromochloromethane	5.34	128	73817	9.08	PPB		91
39)	Tetrahydrofuran	5.36	71	10217	8.34	PPB		93
40)	Chloroform	5.47	83	283441	9.07	PPB		95
41)	Cyclohexane	5.56	56	290479	9.19	PPB		97
42)	1,1,1-Trichloroethane	5.62	97	262781	8.88	PPB		94
44)	Carbon Tetrachloride	5.77	117	233353	8.94	PPB		93
45)	1,1-Dichloropropene	5.84	75	218777	8.90	PPB		97
46)	Isobutyl Alcohol	6.19	43	61939	218.37	PPB		94
48)	Benzene	6.09	78	639852	8.78	PPB		98
49)	1,2-Dichloroethane	6.24	62	194944	8.78	PPB		99
50)	tert-Amyl Methyl Ether	6.25	55	91826	9.12	PPB	#	84
51)	Trichloroethene	6.92	95	174702	9.12	PPB		96
52)	Methylcyclohexane	7.03	83	297593	9.23	PPB		97
53)	1,2-Dichloropropane	7.24	63	154907	8.63	PPB		97
54)	Dibromomethane	7.37	93	78789	8.53	PPB		98
55)	Methyl methacrylate	7.41	69	64270	7.47	PPB		97
56)	1,4-Dioxane	7.41	88	7638	116.98	PPB		90
57)	Bromodichloromethane	7.57	83	203965	8.69	PPB		98
58)	2-Nitropropane	7.93	41	108387	34.65	PPB		99
59)	2-Chloroethyl Vinyl Ether	7.97	63	65529	7.80	PPB		97
60)	cis-1,3-Dichloropropene	8.10	75	229737	8.65	PPB		94
61)	4-Methyl-2-pentanone (MIBK	8.29	58	575440	159.76	PPB		99
63)	Toluene	8.40	92	414118	8.96	PPB		99
65)	n-Octane	8.40	85	4757	0.35	PPB	#	13
66)	trans-1,3-Dichloropropene	8.76	75	191064	8.45	PPB		93
67)	Ethyl methacrylate	8.83	69	120576	7.52	PPB		98
68)	1,1,2-Trichloroethane	8.96	83	96126	8.40	PPB		94
69)	Tetrachloroethene	8.97	164	167458	9.18	PPB		98
70)	2-Hexanone	9.23	57	182794	152.22	PPB		98
71)	1,3-Dichloropropane	9.14	76	202276	8.67	PPB		98
72)	Dibromochloromethane	9.34	129	140295	8.82	PPB		98
73)	1,2-Dibromoethane (EDB)	9.46	107	108237	8.46	PPB		98

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS46\DATA\040815X\0408F004.D Vial: 4
Acq On : 08 Apr 2015 11:06 am Operator: KR
Sample : CCV Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 09 14:22:03 2015 Quant Results File: 031615MS46_8260

Quant Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Initial Calibration
DataAcq Meth : 8260.M

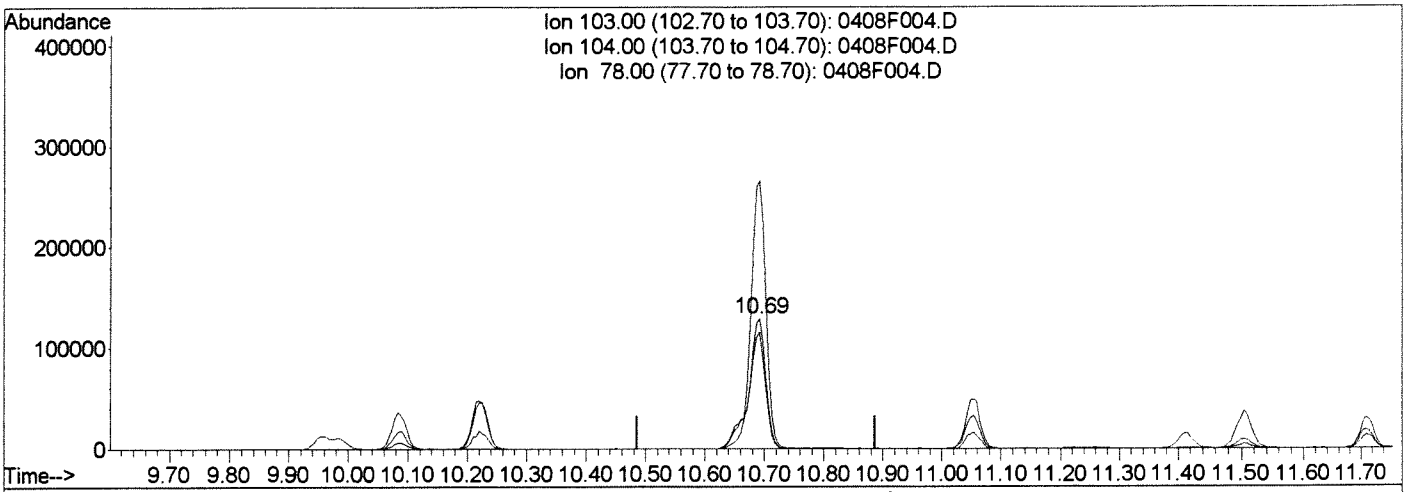
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
74)	1-Chlorohexane	9.96	91	235238	9.19	PPB	99
75)	Chlorobenzene	9.99	112	459194	9.16	PPB	97
76)	Ethylbenzene	10.09	106	249212	9.09	PPB	94
77)	1,1,1,2-Tetrachloroethane	10.10	131	159552	9.02	PPB	97
78)	m,p-Xylenes	10.22	106	611043	18.38	PPB	99
79)	o-Xylene	10.66	106	284449	8.84	PPB	91
80)	Styrene	10.69	103	220067m	9.14	PPB	
81)	Bromoform	10.91	173	82225	8.62	PPB	96
82)	Isopropylbenzene	11.05	105	785454	8.99	PPB	100
83)	cis-1,4-Dichloro-2-butene	11.23	89	65781	37.47	PPB	95
86)	1,1,2,2-Tetrachloroethane	11.47	83	112958	8.02	PPB	96
87)	trans-1,4-Dichloro-2-buten	11.71	53	20872	4.81	PPB	76
88)	Bromobenzene	11.42	156	193800	8.90	PPB	97
89)	n-Propylbenzene	11.50	91	945417	9.29	PPB	99
90)	1,2,3-Trichloropropane	11.52	110	38264	8.09	PPB	94
91)	2-Chlorotoluene	11.62	91	535193	8.83	PPB	99
92)	1,3,5-Trimethylbenzene	11.71	105	657428	9.13	PPB	98
93)	4-Chlorotoluene	11.75	91	582842m	9.09	PPB	
94)	tert-Butylbenzene	12.05	119	587358	8.83	PPB	99
95)	1,2,4-Trimethylbenzene	12.12	105	655738	9.10	PPB	98
96)	sec-Butylbenzene	12.29	105	846062	8.86	PPB	99
97)	p-Isopropyltoluene	12.45	119	737494	9.42	PPB	98
98)	1,3-Dichlorobenzene	12.45	146	391672	8.91	PPB	97
99)	1,4-Dichlorobenzene	12.55	146	394718	9.06	PPB	98
100)	n-Butylbenzene	12.90	91	654778	8.97	PPB	97
101)	1,2-Dichlorobenzene	12.97	146	353897	9.08	PPB	99
102)	1,2-Dibromo-3-chloropropan	13.86	155	16774	7.06	PPB	94
103)	1,3,5-Trichlorobenzene	14.02	180	310559	9.61	PPB	96
104)	1,2,4-Trichlorobenzene	14.72	180	248412	9.11	PPB	100
105)	Hexachlorobutadiene	14.86	225	132938	9.24	PPB	99
106)	Naphthalene	15.01	128	390817	8.07	PPB	99
107)	1,2,3-Trichlorobenzene	15.27	180	219114	8.98	PPB	99

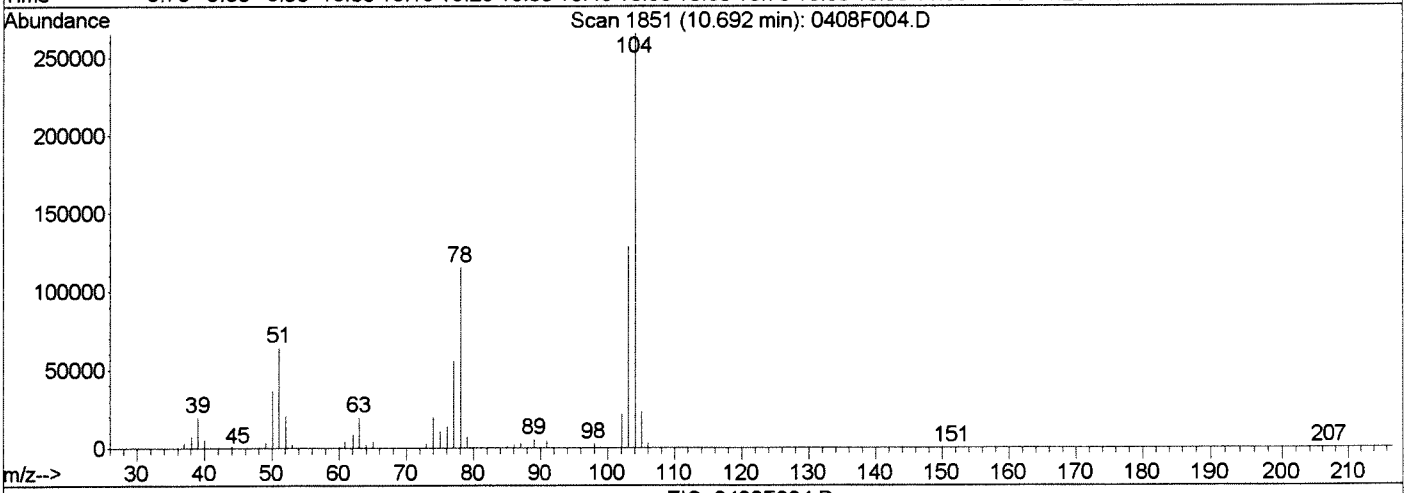
(#) = qualifier out of range (m) = manual integration

04.10.15jal2ndRev

Data File : J:\MS46\DATA\040815X\0408F004.D Vial: 4
Acq On : 08 Apr 2015 11:06 am Operator: KR
Sample : CCV Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 9 14:21 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Multiple Level Calibration





TIC: 0408F004.D

(80) Styrene (T)

10.69min 10.72PPB

response 258280

Ion	Exp%	Act%
103.00	100	100
104.00	198.60	206.32
78.00	88.20	89.73
0.00	0.00	0.00

Manual Integration:

Before

04/09/15

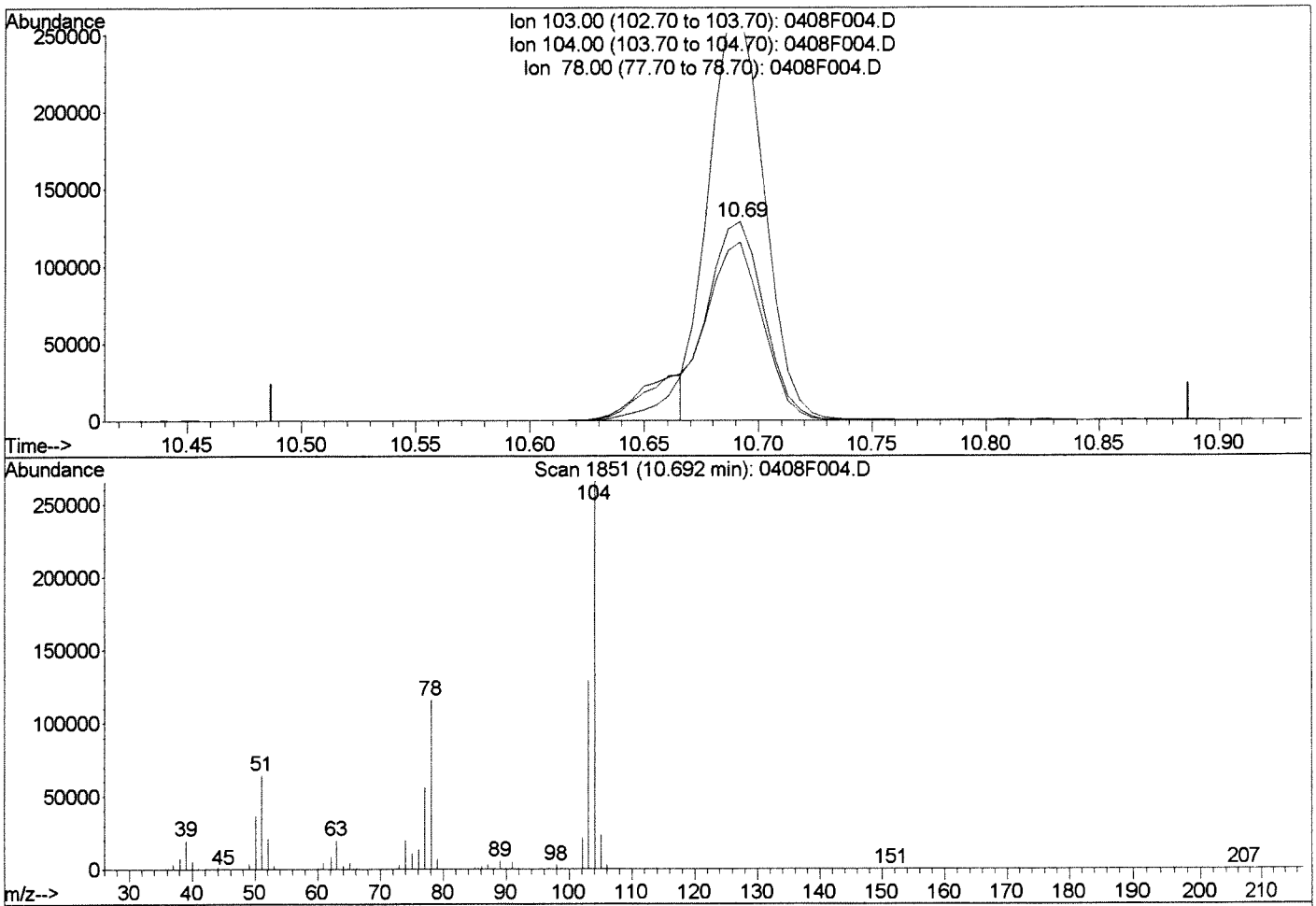
0408F004.D 031615MS46_8260.M Thu Apr 09 14:22:13 2015

04.10.15jal2nd Rev

Quantitation Report (Qedit)

Data File : J:\MS46\DATA\040815X\0408F004.D Vial: 4
Acq On : 08 Apr 2015 11:06 am Operator: KR
Sample : CCV Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 9 14:22 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Multiple Level Calibration



TIC: 0408F004.D

(80) Styrene (T)

10.69min 9.14PPB m

response 220067

Ion	Exp%	Act%
103.00	100	100
104.00	198.60	206.32
78.00	88.20	89.73
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

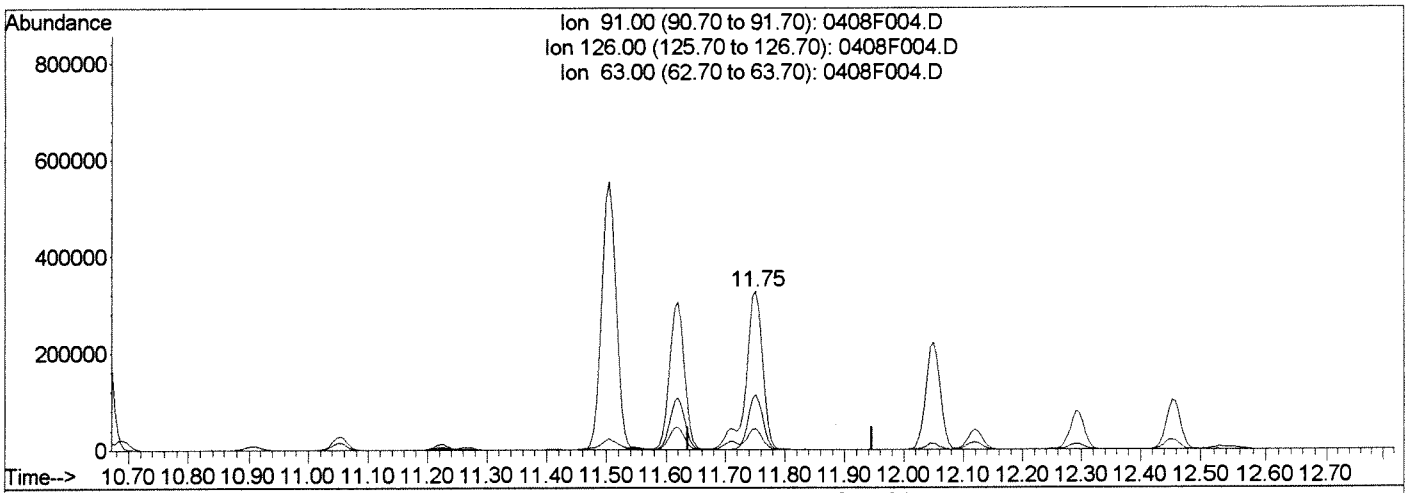
04/09/15

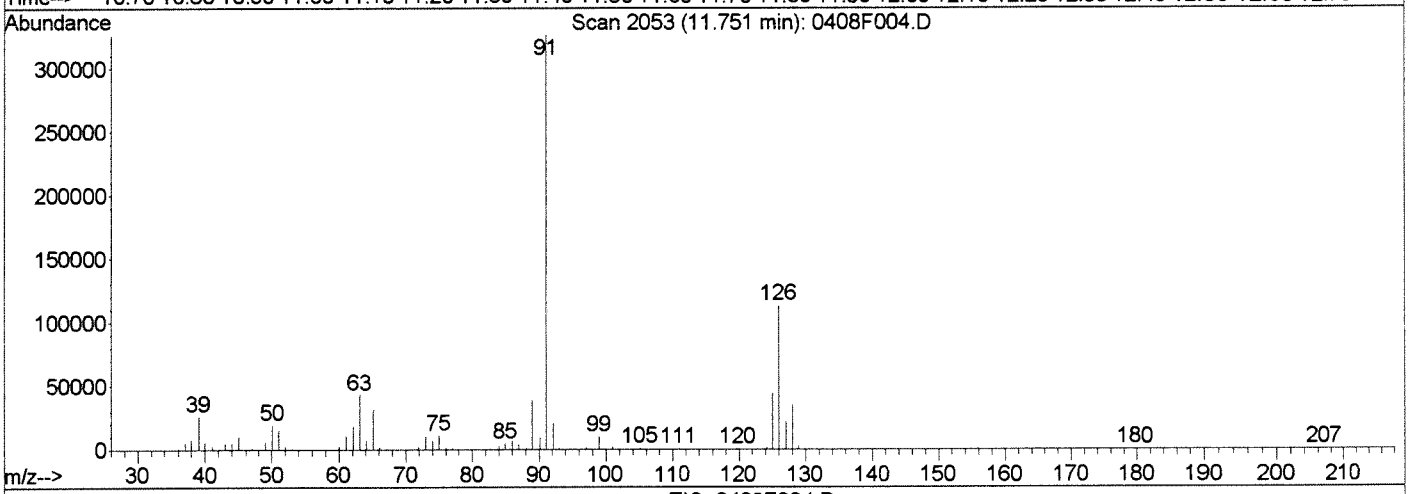
0408F004.D 031615MS46_8260.M Thu Apr 09 14:22:19 2015

04.10.15jal2nd Rev

Data File : J:\MS46\DATA\040815X\0408F004.D Vial: 4
Acq On : 08 Apr 2015 11:06 am Operator: KR
Sample : CCV Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 9 14:22 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Multiple Level Calibration





TIC: 0408F004.D

(93) 4-Chlorotoluene (T)

11.75min 10.06PPB

response 645337

Ion	Exp%	Act%
91.00	100	100
126.00	34.80	34.70
63.00	12.80	13.20
0.00	0.00	0.00

Manual Integration:

Before

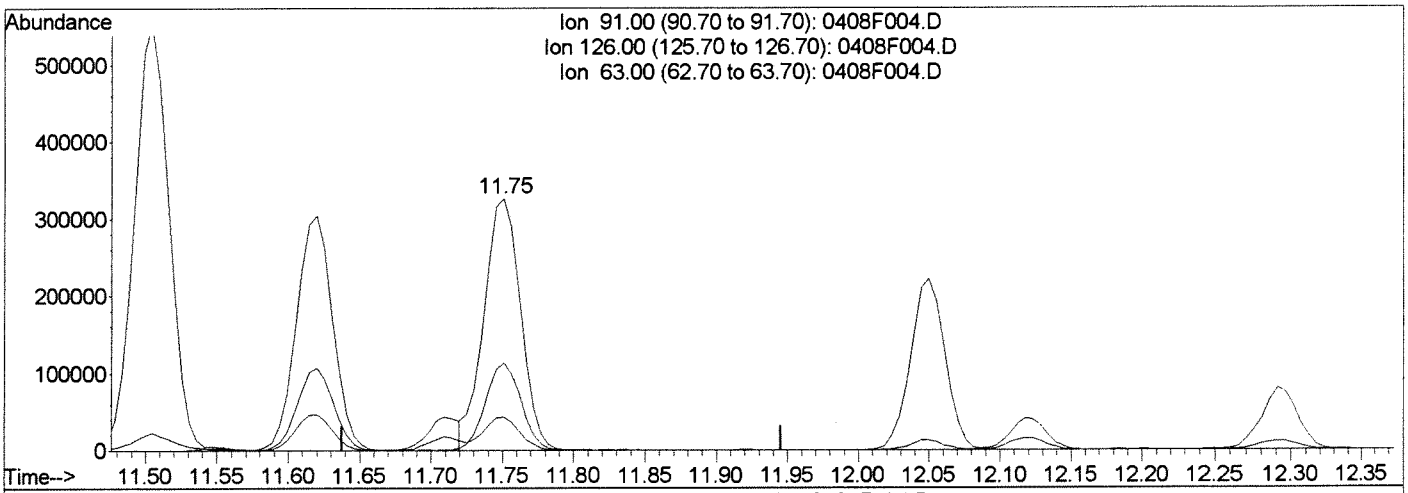
04/09/15

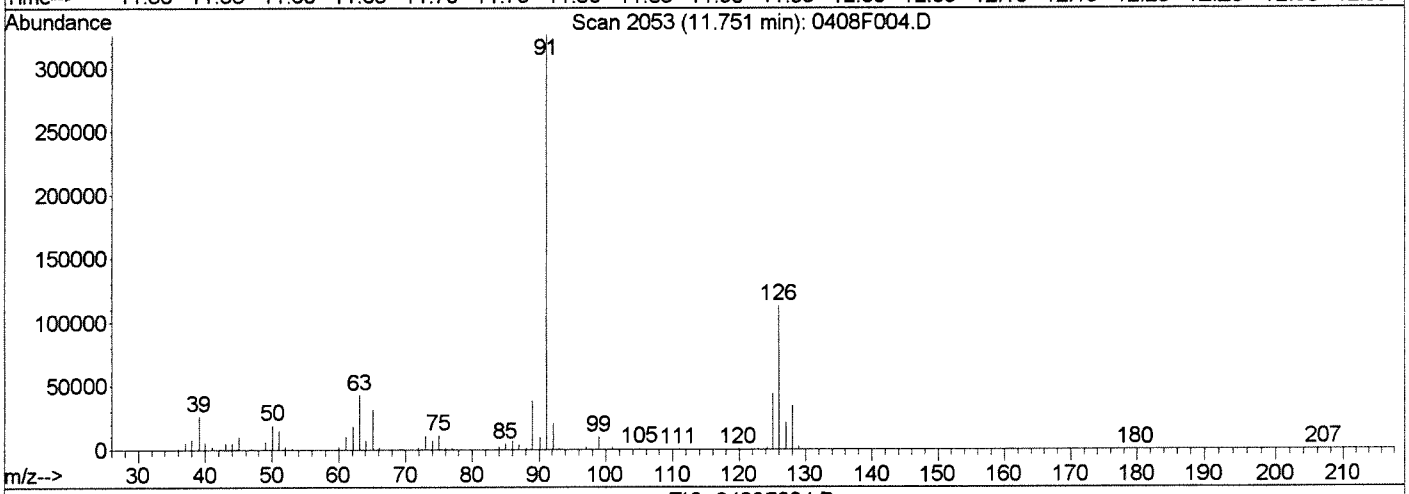
0408F004.D 031615MS46_8260.M Thu Apr 09 14:22:22 2015

04.10.15jal2nd Rev

Data File : J:\MS46\DATA\040815X\0408F004.D Vial: 4
Acq On : 08 Apr 2015 11:06 am Operator: KR
Sample : CCV Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 9 14:22 2015 Quant Results File: temp.res

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Multiple Level Calibration





TIC: 0408F004.D

(93) 4-Chlorotoluene (T)

11.75min 9.09PPB m

response 582842

Ion	Exp%	Act%
91.00	100	100
126.00	34.80	34.65
63.00	12.80	13.18
0.00	0.00	0.00

Manual Integration:

After

Baseline correction

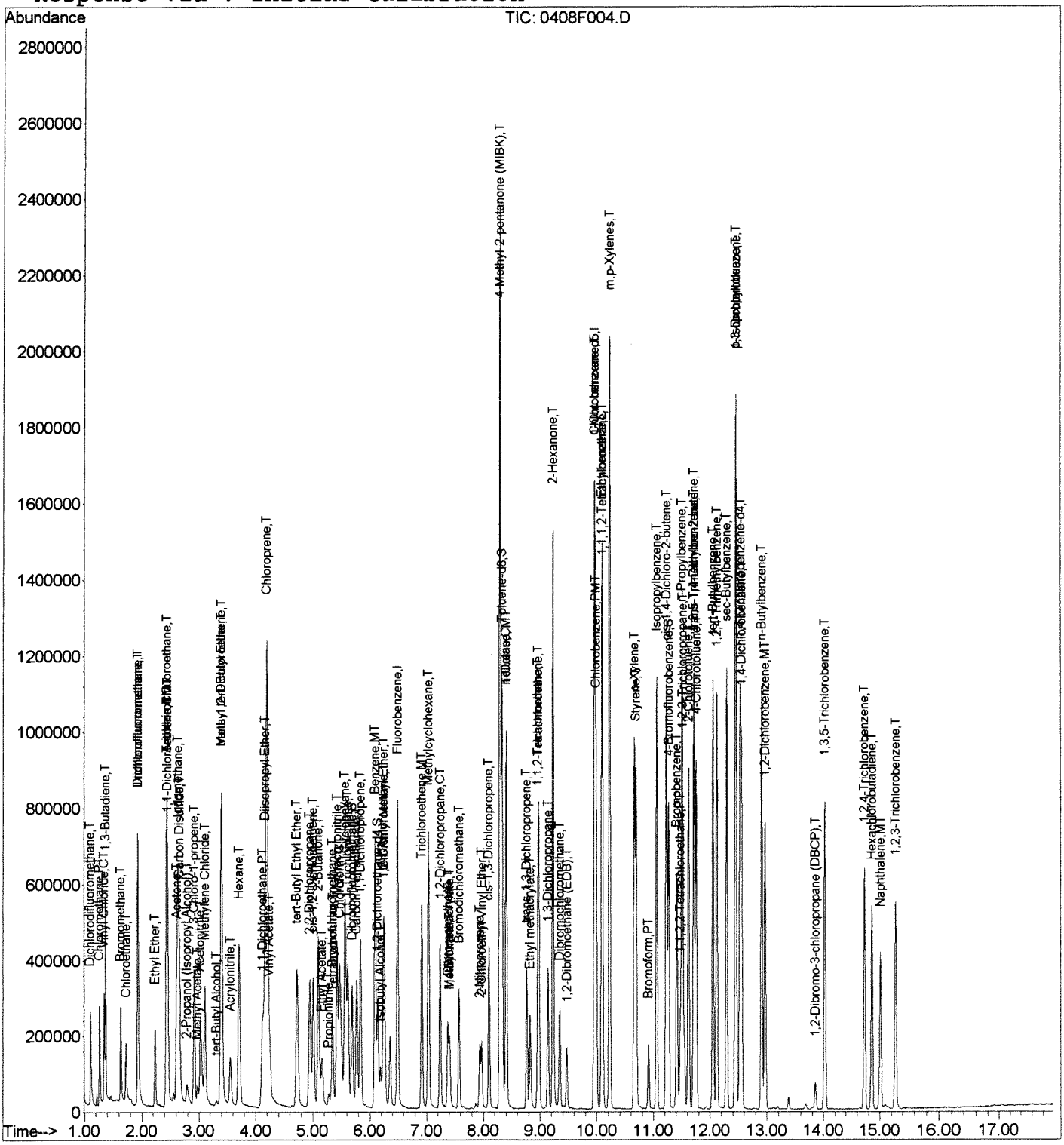
04/09/15

0408F004.D 031615MS46_8260.M Thu Apr 09 14:22:27 2015

04.10.15jal2nd Rev

Data File : J:\MS46\DATA\040815X\0408F004.D Vial: 4
Acq On : 08 Apr 2015 11:06 am Operator: KR
Sample : CCV Inst : GCMS46
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Apr 9 14:22 2015 Quant Results File: 031615MS46_8

Method : J:\MS46\METHODS\031615MS46_8260.M (RTE Integrator)
Title : VOA MS27 EPA Method 8260B
Last Update : Thu Apr 09 08:00:22 2015
Response via : Initial Calibration



04.10.15jal2ndRev

ALS Environmental
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www.alsglobal.com

November 10, 2015

Analytical Report for Service Request No: K1512095

Dave Parkinson
GeoSyntec Consultants
520 Pike Street, Suite #1375
Seattle, WA 98101

RE: Frederickson Industrial Park / BTS #151022-LB1

Dear Dave,

Enclosed are the results of the sample(s) submitted to our laboratory October 24, 2015
For your reference, these analyses have been assigned our service request number **K1512095.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at gregory.salata@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Gregory Salata, Ph.D.
Client Services
Manager

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Table of Contents

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Inorganic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
E	The result is an estimate amount because the value exceeded the instrument calibration range.
J	The result is an estimated value.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

#	The control limit criteria is not applicable. See case narrative.
J	The result is an estimated value.
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
M	The duplicate injection precision was not met.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
S	The reported value was determined by the Method of Standard Additions (MSA).
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
+	The correlation coefficient for the MSA is less than 0.995.
Q	See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
A	A tentatively identified compound, a suspected aldol-condensation product.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
C	The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
D	The reported result is from a dilution.
E	The result is an estimated value.
J	The result is an estimated value.
N	The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
P	The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
Y	The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
Z	The chromatographic fingerprint does not resemble a petroleum product.

ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses

Agency	Web Site	Number
Alaska DEC UST	http://dec.alaska.gov/applications/eh/ehllabreports/USTLabs.aspx	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L14-51
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	Not available	-
Idaho DHW	http://www.healthandwelfare.idaho.gov/Health/Labs/CertificationDrinkingWaterLabs/tabid/1833/Default.aspx	-
ISO 17025	http://www.pjlabs.com/	L14-50
Louisiana DEQ	http://www.deq.louisiana.gov/portal/DIVISIONS/PublicParticipationandPermitSupport/LouisianaLaboratoryAccreditationProgram.aspx	03016
Maine DHS	Not available	WA01276
Michigan DEQ	http://www.michigan.gov/deq/0,1607,7-135-3307_4131_4156---,00.html	9949
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Montana DPHHS	http://www.dphhs.mt.gov/publichealth/	CERT0047
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/oqa/	WA005
North Carolina DWQ	http://www.dwqlab.org/	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/envserv/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wisconsin DNR	http://dnr.wi.gov/	998386840
Wyoming (EPA Region 8)	http://www.epa.gov/region8/water/dwhome/wyomingdi.html	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.
Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/anlayte is offered by that state.

Case Narrative

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

ALS ENVIRONMENTAL

Client:	GeoSyntec Consultants	**Service Request No.:**	K1512095
Project:	Frederickson Industrial Park/ BTS#151022-LB1	**Date Received:**	10/24/15
Sample Matrix:	Water		

Case Narrative

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier IV validation deliverables including summary forms and all of the associated raw data for each of the analyses. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Fourteen water samples were received for analysis at ALS Environmental on 10/24/15. The samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4ºC upon receipt at the laboratory.

Volatile Organic Compounds by EPA Method 8260

No anomalies associated with the analysis of these samples were observed.

Approved by_____

Chain of Custody

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

BLAINE
TECH SERVICES, INC.

1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112-1105
FAX (408) 573-7771
PHONE (408) 573-0555

CHAIN OF CUSTODY BTS # 151022-LB1

CLIENT: Geosyntec Consultants

SITE: Olin - Fredrickson
18001 Canyon Rd East
Frederickson, WA

CONDUCT ANALYSIS TO DETECT

LAB: ALS K1512095 | DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND
☐ EP ☐ A ☐ LIA ☐ RWQCB REGION _____

SPECIAL

Invoice & Report to: Geosyntec Consultants Attn: David Parkinson

SAMPLE I.D.	DATE	TIME	MATRIX S= SOIL W=H_2O	CONTAINERS TOTAL		C = COMPOSITE ALL CONTAINERS	VOC's (8260)	(CTC) Carbon Tetrachloride	(RDX)	(TNT)	Perchlorate				D'L INFORMAT	STATUS	CONDITION	LAB SAMPLE #
GW-102215-11-B2	10/22/15	1102	W	3	VOA			X										
GW-102215-11-C2		1140	W	3				X										
GW-102215-BMW-3		0825	W	3				X										
GW-102215-BMW-18		1251	W	9				X							MS/MSD			
GW-102215-HLA-1		1210	W	3				X										
GW-102215-MW-1		0912	W	3				X										
GW-102215-MW-4		1019	W	3				X										
GW-102315-MW-7	10/23/15	0841	W	3				X										
GW-102315-MW-13		1049	W	3				X										
GW-102315-P2-S		0934	W	3				X										

SAMPLING COMPLETED: DATE 10/23/15 TIME 1115

SAMPLING PERFORMED BY: LEE BURES

RESULTS NEEDED NO LATER TH: Standard TAT

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
[signature]	10/23/15		SHIPPED VIA FEDEX		
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
			[signature] MS	10/24/15	1000
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #

BLAINE
TECH SERVICES, INC.

1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112-1105
FAX (408) 573-7771
PHONE (408) 573-0555

CHAIN OF CUSTODY BTS # 151022-4B1

CLIENT: Geosyntec Consultants

SITE: Olin - Fredrickson
18001 Canyon Rd East
Frederickson, WA

LAB: ALS 1615120 95 DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND
☐ EP ☐ A ☐ LIA ☐ RWQCB REGION _____

SPECIAL

Invoice & Report to: Geosyntec Consultants Attn: David Parkinson

	SAMPLE I.D.	DATE	TIME	MATRIX S= SOIL W=H_2O	CONTAINERS TOTAL		C = COMPOSITE ALL CONTAINERS	CONDUCT ANALYSIS TO DETECT: VOC's (8260)	(CTC) Carbon Tetrachloride	(RDX)	(TNT)	Perchlorate				D'L INFORMAT	STATUS	CONDITION	LAB SAMPLE #
1	GW-102315-P2-I	10/23/15	1000	W	3	VOA			X										
2	GW-102215-DUP-1	10/22/15	—	W	3				X										
3	GW-102315-EB	10/23/15	1105	W	3				X										
4	GW-102215-TB	10/22/15	0800	W	3	↓			X										

SAMPLING COMPLETED: DATE 10/23/15 TIME 1115
SAMPLING PERFORMED BY: LEE BURES

RESULTS NEEDED NO LATER THAN: Standard TAT

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
	10/23/15		SHIPPED Via FedEx		
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
			0725	10/24/15	1000
RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #

PC GREG

Cooler Receipt and Preservation Form

Client / Project: BLAINE Service Request *K15* 12095

Received: 10/24/15 Opened: 10/24/15 By: L Unloaded: 10/24/15 By: L

1. Samples were received via? *Mail* (*Fed Ex*) *UPS* *DHL* *PDX* *Courier* *Hand Delivered*
2. Samples were received in: (circle) (*Cooler*) *Box* *Envelope* *Other* _____ *NA*
3. Were custody seals on coolers? NA (Y) N If yes, how many and where? 1 F
   If present, were custody seals intact? (Y) N If present, were they signed and dated? (Y) N

Raw Cooler Temp	Corrected Cooler Temp	Raw Temp Blank	Corrected Temp Blank	Corr. Factor	Thermometer ID	Cooler/COC ID NA	Tracking Number NA	Filed
0.4	0.6	3.5	3.7	0.2	325		875795549257	

4. Packing material: (*Inserts*) (*Baggies*) *Bubble Wrap* *Gel Packs* (*Wet Ice*) *Dry Ice* *Sleeves* _____
5. Were custody papers properly filled out (ink, signed, etc.)? NA (Y) N
6. Did all bottles arrive in good condition (unbroken)? *Indicate in the table below.* NA (Y) N
7. Were all sample labels complete (i.e analysis, preservation, etc.)? NA (Y) N
8. Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.* NA (Y) N
9. Were appropriate bottles/containers and volumes received for the tests indicated? NA (Y) N
10. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below* (NA) Y N
11. Were VOA vials received without headspace? *Indicate in the table below.* NA (Y) N
12. Was C12/Res negative? (NA) Y N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, & Resolutions: _____

Page ____ *of* ____

Volatile Organic Compounds

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Client: GeoSyntec Consultants **Service Request:** K1512095
Project: Frederickson Industrial Park/BTS #151022-LB1

Cover Page - Organic Analysis Data Package
Volatile Organic Compounds

Sample Name	Lab Code	Date Collected	Date Received
GW-102215-11-B2	K1512095-001	10/22/2015	10/24/2015
GW-102215-11-C2	K1512095-002	10/22/2015	10/24/2015
GW-102215-BMW-3	K1512095-003	10/22/2015	10/24/2015
GW-102215-BMW-18	K1512095-004	10/22/2015	10/24/2015
GW-102215-H2A-1	K1512095-005	10/22/2015	10/24/2015
GW-102215-MW-1	K1512095-006	10/22/2015	10/24/2015
GW-102215-MW-4	K1512095-007	10/22/2015	10/24/2015
GW-102315-MW-7	K1512095-008	10/23/2015	10/24/2015
GW-102315-MW-13	K1512095-009	10/23/2015	10/24/2015
GW-102315-P2-S	K1512095-010	10/23/2015	10/24/2015
GW-102315-P2-I	K1512095-011	10/23/2015	10/24/2015
GW-102215-DUP-1	K1512095-012	10/22/2015	10/24/2015
GW-102315-EB	K1512095-013	10/23/2015	10/24/2015
GW-102215-TB	K1512095-014	10/23/2015	10/24/2015
GW-102215-BMW-18MS	KWG1510605-1	10/22/2015	10/24/2015
GW-102215-BMW-18DMS	KWG1510605-2	10/22/2015	10/24/2015

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1512095
Project:	Frederickson Industrial Park/BTS #151022-LB1	**Date Collected:**	10/22/2015
Sample Matrix:	Water	**Date Received:**	10/24/2015

Volatile Organic Compounds

Sample Name:	GW-102215-11-B2	**Units:**	ug/L
Lab Code:	K1512095-001	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	**0.72**		0.50	0.096	1	10/30/15	10/30/15	KWG1510605	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	91	73-122	10/30/15	Acceptable
Toluene-d8	97	65-144	10/30/15	Acceptable
4-Bromofluorobenzene	89	68-117	10/30/15	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1512095
Project:	Frederickson Industrial Park/BTS #151022-LB1	**Date Collected:**	10/22/2015
Sample Matrix:	Water	**Date Received:**	10/24/2015

Volatile Organic Compounds

Sample Name:	GW-102215-11-C2	**Units:**	ug/L
Lab Code:	K1512095-002	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	**3.8**		0.50	0.096	1	10/30/15	10/30/15	KWG1510605	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	90	73-122	10/30/15	Acceptable
Toluene-d8	96	65-144	10/30/15	Acceptable
4-Bromofluorobenzene	88	68-117	10/30/15	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1512095
Project:	Frederickson Industrial Park/BTS #151022-LB1	**Date Collected:**	10/22/2015
Sample Matrix:	Water	**Date Received:**	10/24/2015

Volatile Organic Compounds

Sample Name:	GW-102215-BMW-3	**Units:**	ug/L
Lab Code:	K1512095-003	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	**0.51**		0.50	0.096	1	10/30/15	10/30/15	KWG1510605	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	94	73-122	10/30/15	Acceptable
Toluene-d8	97	65-144	10/30/15	Acceptable
4-Bromofluorobenzene	89	68-117	10/30/15	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1512095
Project:	Frederickson Industrial Park/BTS #151022-LB1	**Date Collected:**	10/22/2015
Sample Matrix:	Water	**Date Received:**	10/24/2015

Volatile Organic Compounds

Sample Name:	GW-102215-BMW-18	**Units:**	ug/L
Lab Code:	K1512095-004	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	**3.8**		0.50	0.096	1	10/30/15	10/30/15	KWG1510605	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	92	73-122	10/30/15	Acceptable
Toluene-d8	96	65-144	10/30/15	Acceptable
4-Bromofluorobenzene	88	68-117	10/30/15	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1512095
Project:	Frederickson Industrial Park/BTS #151022-LB1	**Date Collected:**	10/22/2015
Sample Matrix:	Water	**Date Received:**	10/24/2015

Volatile Organic Compounds

Sample Name:	GW-102215-H2A-1	**Units:**	ug/L
Lab Code:	K1512095-005	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	**3.9**		0.50	0.096	1	10/30/15	10/30/15	KWG1510605	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	92	73-122	10/30/15	Acceptable
Toluene-d8	97	65-144	10/30/15	Acceptable
4-Bromofluorobenzene	89	68-117	10/30/15	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1512095
Project:	Frederickson Industrial Park/BTS #151022-LB1	**Date Collected:**	10/22/2015
Sample Matrix:	Water	**Date Received:**	10/24/2015

Volatile Organic Compounds

Sample Name:	GW-102215-MW-1	**Units:**	ug/L
Lab Code:	K1512095-006	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	**1.2**		0.50	0.096	1	10/30/15	10/30/15	KWG1510605	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	93	73-122	10/30/15	Acceptable
Toluene-d8	97	65-144	10/30/15	Acceptable
4-Bromofluorobenzene	86	68-117	10/30/15	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1512095
Project:	Frederickson Industrial Park/BTS #151022-LB1	**Date Collected:**	10/22/2015
Sample Matrix:	Water	**Date Received:**	10/24/2015

Volatile Organic Compounds

Sample Name:	GW-102215-MW-4	**Units:**	ug/L
Lab Code:	K1512095-007	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	**0.53**		0.50	0.096	1	10/30/15	10/30/15	KWG1510605	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	95	73-122	10/30/15	Acceptable
Toluene-d8	97	65-144	10/30/15	Acceptable
4-Bromofluorobenzene	87	68-117	10/30/15	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1512095
Project:	Frederickson Industrial Park/BTS #151022-LB1	**Date Collected:**	10/23/2015
Sample Matrix:	Water	**Date Received:**	10/24/2015

Volatile Organic Compounds

Sample Name:	GW-102315-MW-7	**Units:**	ug/L
Lab Code:	K1512095-008	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	**0.24**	J	0.50	0.096	1	10/30/15	10/30/15	KWG1510605	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	95	73-122	10/30/15	Acceptable
Toluene-d8	97	65-144	10/30/15	Acceptable
4-Bromofluorobenzene	87	68-117	10/30/15	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1512095
Project:	Frederickson Industrial Park/BTS #151022-LB1	**Date Collected:**	10/23/2015
Sample Matrix:	Water	**Date Received:**	10/24/2015

Volatile Organic Compounds

Sample Name:	GW-102315-MW-13	**Units:**	ug/L
Lab Code:	K1512095-009	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	**1.7**		0.50	0.096	1	10/30/15	10/30/15	KWG1510605	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	94	73-122	10/30/15	Acceptable
Toluene-d8	97	65-144	10/30/15	Acceptable
4-Bromofluorobenzene	86	68-117	10/30/15	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1512095
Project:	Frederickson Industrial Park/BTS #151022-LB1	**Date Collected:**	10/23/2015
Sample Matrix:	Water	**Date Received:**	10/24/2015

Volatile Organic Compounds

Sample Name:	GW-102315-P2-S	**Units:**	ug/L
Lab Code:	K1512095-010	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	**0.45**	J	0.50	0.096	1	10/30/15	10/30/15	KWG1510605	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	95	73-122	10/30/15	Acceptable
Toluene-d8	97	65-144	10/30/15	Acceptable
4-Bromofluorobenzene	87	68-117	10/30/15	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1512095
Project:	Frederickson Industrial Park/BTS #151022-LB1	**Date Collected:**	10/23/2015
Sample Matrix:	Water	**Date Received:**	10/24/2015

Volatile Organic Compounds

Sample Name:	GW-102315-P2-I	**Units:**	ug/L
Lab Code:	K1512095-011	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	ND	U	0.50	0.096	1	10/30/15	10/30/15	KWG1510605	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	95	73-122	10/30/15	Acceptable
Toluene-d8	97	65-144	10/30/15	Acceptable
4-Bromofluorobenzene	86	68-117	10/30/15	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1512095
Project:	Frederickson Industrial Park/BTS #151022-LB1	**Date Collected:**	10/22/2015
Sample Matrix:	Water	**Date Received:**	10/24/2015

Volatile Organic Compounds

Sample Name:	GW-102215-DUP-1	**Units:**	ug/L
Lab Code:	K1512095-012	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	**3.9**		0.50	0.096	1	10/30/15	10/30/15	KWG1510605	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	94	73-122	10/30/15	Acceptable
Toluene-d8	96	65-144	10/30/15	Acceptable
4-Bromofluorobenzene	87	68-117	10/30/15	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1512095
Project:	Frederickson Industrial Park/BTS #151022-LB1	**Date Collected:**	10/23/2015
Sample Matrix:	Water	**Date Received:**	10/24/2015

Volatile Organic Compounds

Sample Name:	GW-102315-EB	**Units:**	ug/L
Lab Code:	K1512095-013	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	ND	U	0.50	0.096	1	10/30/15	10/30/15	KWG1510605	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	93	73-122	10/30/15	Acceptable
Toluene-d8	96	65-144	10/30/15	Acceptable
4-Bromofluorobenzene	88	68-117	10/30/15	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1512095
Project:	Frederickson Industrial Park/BTS #151022-LB1	**Date Collected:**	10/23/2015
Sample Matrix:	Water	**Date Received:**	10/24/2015

Volatile Organic Compounds

Sample Name:	GW-102215-TB	**Units:**	ug/L
Lab Code:	K1512095-014	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	ND	U	0.50	0.096	1	10/30/15	10/30/15	KWG1510605	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	91	73-122	10/30/15	Acceptable
Toluene-d8	97	65-144	10/30/15	Acceptable
4-Bromofluorobenzene	89	68-117	10/30/15	Acceptable

Comments:

Analytical Results

Client:	GeoSyntec Consultants	**Service Request:**	K1512095
Project:	Frederickson Industrial Park/BTS #151022-LB1	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA

Volatile Organic Compounds

Sample Name:	Method Blank	**Units:**	ug/L
Lab Code:	KWG1510605-4	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C		

Analyte Name	Result	Q	MRL	MDL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Carbon Tetrachloride	ND	U	0.50	0.096	1	10/30/15	10/30/15	KWG1510605	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	91	73-122	10/30/15	Acceptable
Toluene-d8	98	65-144	10/30/15	Acceptable
4-Bromofluorobenzene	90	68-117	10/30/15	Acceptable

Comments:

QA/QC Report

Client: GeoSyntec Consultants **Service Request:** K1512095
Project: Frederickson Industrial Park/BTS #151022-LB1
Sample Matrix: Water

Surrogate Recovery Summary
Volatile Organic Compounds

Extraction Method: EPA 5030B **Units:** Percent
Analysis Method: 8260C **Level:** Low

Sample Name	Lab Code	Sur1	Sur2	Sur3
GW-102215-11-B2	K1512095-001	91	97	89
GW-102215-11-C2	K1512095-002	90	96	88
GW-102215-BMW-3	K1512095-003	94	97	89
GW-102215-BMW-18	K1512095-004	92	96	88
GW-102215-H2A-1	K1512095-005	92	97	89
GW-102215-MW-1	K1512095-006	93	97	86
GW-102215-MW-4	K1512095-007	95	97	87
GW-102315-MW-7	K1512095-008	95	97	87
GW-102315-MW-13	K1512095-009	94	97	86
GW-102315-P2-S	K1512095-010	95	97	87
GW-102315-P2-I	K1512095-011	95	97	86
GW-102215-DUP-1	K1512095-012	94	96	87
GW-102315-EB	K1512095-013	93	96	88
GW-102215-TB	K1512095-014	91	97	89
Method Blank	KWG1510605-4	91	98	90
GW-102215-BMW-18MS	KWG1510605-1	97	101	96
GW-102215-BMW-18DMS	KWG1510605-2	98	102	96
Lab Control Sample	KWG1510605-3	97	102	96

Surrogate Recovery Control Limits (%)

Sur1	=	Dibromofluoromethane	73-122
Sur2	=	Toluene-d8	65-144
Sur3	=	4-Bromofluorobenzene	68-117

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

QA/QC Report

Client: GeoSyntec Consultants
Project: Frederickson Industrial Park/BTS #151022-LB1

Service Request: K1512095
Date Analyzed: 10/30/2015
Time Analyzed: 14:24

Internal Standard Area and RT Summary
Volatile Organic Compounds

File ID: J:\MS18\DATA\103015\1030F003.D
Instrument ID: GC-MS 18
Analysis Method: 8260C

Lab Code: KWG1510604-2
Analysis Lot: KWG1510604

		Fluorobenzene		Chlorobenzene-d5		1,4-Dichlorobenzene-d4	
		Area	**RT**	**Area**	**RT**	**Area**	**RT**
	Results ==>	708,341	5.89	281,827	9.30	255,753	11.72
	Upper Limit ==>	1,416,682	6.39	563,654	9.80	511,506	12.22
	Lower Limit ==>	354,171	5.39	140,914	8.80	127,877	11.22
	ICAL Result ==>	584,700	5.89	235,345	9.30	226,620	11.72
Associated Analyses							
Lab Control Sample	KWG1510605-3	698,123	5.89	279,958	9.30	261,247	11.72
GW-102215-BMW-18MS	KWG1510605-1	697,864	5.88	279,060	9.30	259,734	11.72
GW-102215-BMW-18DMS	KWG1510605-2	692,330	5.89	279,570	9.30	260,497	11.72
Method Blank	KWG1510605-4	650,557	5.89	256,811	9.30	238,305	11.72
GW-102215-TB	K1512095-014	655,242	5.89	259,340	9.30	233,442	11.72
GW-102215-BMW-18	K1512095-004	656,352	5.89	261,557	9.30	236,304	11.72
GW-102215-11-B2	K1512095-001	645,785	5.89	256,426	9.30	232,246	11.72
GW-102215-11-C2	K1512095-002	643,564	5.89	256,059	9.30	232,437	11.72
GW-102215-BMW-3	K1512095-003	631,378	5.89	251,989	9.30	226,785	11.72
GW-102215-H2A-1	K1512095-005	632,154	5.89	252,399	9.30	231,834	11.72
GW-102215-MW-1	K1512095-006	622,587	5.89	253,006	9.30	221,963	11.72
GW-102215-MW-4	K1512095-007	631,569	5.89	253,299	9.30	226,188	11.72
GW-102315-MW-7	K1512095-008	618,587	5.89	248,370	9.30	226,232	11.72
GW-102315-MW-13	K1512095-009	627,158	5.89	252,557	9.30	226,723	11.72
GW-102315-P2-S	K1512095-010	619,181	5.89	249,090	9.30	225,052	11.72
GW-102315-P2-I	K1512095-011	614,656	5.89	249,609	9.30	223,845	11.72
GW-102215-DUP-1	K1512095-012	609,807	5.89	243,388	9.30	220,053	11.72
GW-102315-EB	K1512095-013	604,647	5.90	239,701	9.30	219,360	11.72

Results flagged with an asterisk (*) indicate values outside control criteria.

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	K1512095
Project:	Frederickson Industrial Park/BTS #151022-LB1	**Date Extracted:**	10/30/2015
Sample Matrix:	Water	**Date Analyzed:**	10/30/2015

Matrix Spike/Duplicate Matrix Spike Summary
Volatile Organic Compounds

Sample Name:	GW-102215-BMW-18	**Units:**	ug/L
Lab Code:	K1512095-004	**Basis:**	NA
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C	**Extraction Lot:**	KWG1510605

		GW-102215-BMW-18MS KWG1510605-1 Matrix Spike			GW-102215-BMW-18DMS KWG1510605-2 Duplicate Matrix Spike					
Analyte Name	**Sample Result**	**Result**	**Spike Amount**	**%Rec**	**Result**	**Spike Amount**	**%Rec**	**%Rec Limits**	**RPD**	**RPD Limit**
Carbon Tetrachloride	3.8	14.4	10.0	107	14.8	10.0	111	53-161	3	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	K1512095
Project:	Frederickson Industrial Park/BTS #151022-LB1	**Date Extracted:**	10/30/2015
Sample Matrix:	Water	**Date Analyzed:**	10/30/2015

Lab Control Spike Summary
Volatile Organic Compounds

Extraction Method:	EPA 5030B	**Units:**	ug/L
Analysis Method:	8260C	**Basis:**	NA
		Level:	Low
		Extraction Lot:	KWG1510605

Lab Control Sample
KWG1510605-3
Lab Control Spike

Analyte Name	Result	Spike Amount	%Rec	%Rec Limits
Carbon Tetrachloride	9.08	10.0	91	55-140

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	K1512095
Project:	Frederickson Industrial Park/BTS #151022-LB1	**Date Extracted:**	10/30/2015
Sample Matrix:	Water	**Date Analyzed:**	10/30/2015
		Time Analyzed:	16:27

Method Blank Summary
Volatile Organic Compounds

Sample Name:	Method Blank	**Instrument ID:**	GC-MS 18
Lab Code:	KWG1510605-4	**File ID:**	J:\MS18\DATA\103015\1030F008.D
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C	**Extraction Lot:**	KWG1510605

This Method Blank applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
Lab Control Sample	KWG1510605-3	J:\MS18\DATA\103015\1030F004.D	10/30/15	14:52
GW-102215-BMW-18MS	KWG1510605-1	J:\MS18\DATA\103015\1030F005.D	10/30/15	15:23
GW-102215-BMW-18DMS	KWG1510605-2	J:\MS18\DATA\103015\1030F006.D	10/30/15	15:44
GW-102215-TB	K1512095-014	J:\MS18\DATA\103015\1030F010.D	10/30/15	17:10
GW-102215-BMW-18	K1512095-004	J:\MS18\DATA\103015\1030F011.D	10/30/15	17:32
GW-102215-11-B2	K1512095-001	J:\MS18\DATA\103015\1030F012.D	10/30/15	17:53
GW-102215-11-C2	K1512095-002	J:\MS18\DATA\103015\1030F013.D	10/30/15	18:14
GW-102215-BMW-3	K1512095-003	J:\MS18\DATA\103015\1030F014.D	10/30/15	18:36
GW-102215-H2A-1	K1512095-005	J:\MS18\DATA\103015\1030F015.D	10/30/15	18:58
GW-102215-MW-1	K1512095-006	J:\MS18\DATA\103015\1030F016.D	10/30/15	19:19
GW-102215-MW-4	K1512095-007	J:\MS18\DATA\103015\1030F017.D	10/30/15	19:40
GW-102315-MW-7	K1512095-008	J:\MS18\DATA\103015\1030F018.D	10/30/15	20:02
GW-102315-MW-13	K1512095-009	J:\MS18\DATA\103015\1030F019.D	10/30/15	20:23
GW-102315-P2-S	K1512095-010	J:\MS18\DATA\103015\1030F020.D	10/30/15	20:45
GW-102315-P2-I	K1512095-011	J:\MS18\DATA\103015\1030F021.D	10/30/15	21:06
GW-102215-DUP-1	K1512095-012	J:\MS18\DATA\103015\1030F022.D	10/30/15	21:29
GW-102315-EB	K1512095-013	J:\MS18\DATA\103015\1030F023.D	10/30/15	21:52

QA/QC Report

Client:	GeoSyntec Consultants	**Service Request:**	K1512095
Project:	Frederickson Industrial Park/BTS #151022-LB1	**Date Extracted:**	10/30/2015
Sample Matrix:	Water	**Date Analyzed:**	10/30/2015
		Time Analyzed:	14:52

Lab Control Sample Summary
Volatile Organic Compounds

Sample Name:	Lab Control Sample	**Instrument ID:**	GC-MS 18
Lab Code:	KWG1510605-3	**File ID:**	J:\MS18\DATA\103015\1030F004.D
Extraction Method:	EPA 5030B	**Level:**	Low
Analysis Method:	8260C	**Extraction Lot:**	KWG1510605

This Lab Control Sample applies to the following analyses:

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed
GW-102215-BMW-18MS	KWG1510605-1	J:\MS18\DATA\103015\1030F005.D	10/30/15	15:23
GW-102215-BMW-18DMS	KWG1510605-2	J:\MS18\DATA\103015\1030F006.D	10/30/15	15:44
Method Blank	KWG1510605-4	J:\MS18\DATA\103015\1030F008.D	10/30/15	16:27
GW-102215-TB	K1512095-014	J:\MS18\DATA\103015\1030F010.D	10/30/15	17:10
GW-102215-BMW-18	K1512095-004	J:\MS18\DATA\103015\1030F011.D	10/30/15	17:32
GW-102215-11-B2	K1512095-001	J:\MS18\DATA\103015\1030F012.D	10/30/15	17:53
GW-102215-11-C2	K1512095-002	J:\MS18\DATA\103015\1030F013.D	10/30/15	18:14
GW-102215-BMW-3	K1512095-003	J:\MS18\DATA\103015\1030F014.D	10/30/15	18:36
GW-102215-H2A-1	K1512095-005	J:\MS18\DATA\103015\1030F015.D	10/30/15	18:58
GW-102215-MW-1	K1512095-006	J:\MS18\DATA\103015\1030F016.D	10/30/15	19:19
GW-102215-MW-4	K1512095-007	J:\MS18\DATA\103015\1030F017.D	10/30/15	19:40
GW-102315-MW-7	K1512095-008	J:\MS18\DATA\103015\1030F018.D	10/30/15	20:02
GW-102315-MW-13	K1512095-009	J:\MS18\DATA\103015\1030F019.D	10/30/15	20:23
GW-102315-P2-S	K1512095-010	J:\MS18\DATA\103015\1030F020.D	10/30/15	20:45
GW-102315-P2-I	K1512095-011	J:\MS18\DATA\103015\1030F021.D	10/30/15	21:06
GW-102215-DUP-1	K1512095-012	J:\MS18\DATA\103015\1030F022.D	10/30/15	21:29
GW-102315-EB	K1512095-013	J:\MS18\DATA\103015\1030F023.D	10/30/15	21:52

QA/QC Results

Client: GeoSyntec Consultants
Project: Frederickson Industrial Park/BTS #151022-LB1

Service Request: K1512095
Date Analyzed: 10/30/2015
Time Analyzed: 13:57

Tune Summary
Volatile Organic Compounds

File ID: J:\MS18\DATA\103015\1030F002.D
Instrument ID: GC-MS 18
Column:

Analysis Method: 8260C
Analysis Lot: KWG1510604

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	16.4	12700	PASS
75	95	30	60	44.6	34464	PASS
95	95	100	100	100.0	77274	PASS
96	95	5	9	7.0	5416	PASS
173	174	0	2	0.7	418	PASS
174	95	50	120	79.5	61464	PASS
175	174	5	9	7.3	4495	PASS
176	174	95	101	97.1	59709	PASS
177	176	5	9	7.0	4180	PASS

Sample Name	Lab Code	File ID	Date Analyzed	Time Analyzed	Q
Continuing Calibration Verification	KWG1510604-2	J:\MS18\DATA\103015\1030F003.D	10/30/2015	14:24	
Lab Control Sample	KWG1510605-3	J:\MS18\DATA\103015\1030F004.D	10/30/2015	14:52	
GW-102215-BMW-18MS	KWG1510605-1	J:\MS18\DATA\103015\1030F005.D	10/30/2015	15:23	
GW-102215-BMW-18DMS	KWG1510605-2	J:\MS18\DATA\103015\1030F006.D	10/30/2015	15:44	
Method Blank	KWG1510605-4	J:\MS18\DATA\103015\1030F008.D	10/30/2015	16:27	
GW-102215-TB	K1512095-014	J:\MS18\DATA\103015\1030F010.D	10/30/2015	17:10	
GW-102215-BMW-18	K1512095-004	J:\MS18\DATA\103015\1030F011.D	10/30/2015	17:32	
GW-102215-11-B2	K1512095-001	J:\MS18\DATA\103015\1030F012.D	10/30/2015	17:53	
GW-102215-11-C2	K1512095-002	J:\MS18\DATA\103015\1030F013.D	10/30/2015	18:14	
GW-102215-BMW-3	K1512095-003	J:\MS18\DATA\103015\1030F014.D	10/30/2015	18:36	
GW-102215-H2A-1	K1512095-005	J:\MS18\DATA\103015\1030F015.D	10/30/2015	18:58	
GW-102215-MW-1	K1512095-006	J:\MS18\DATA\103015\1030F016.D	10/30/2015	19:19	
GW-102215-MW-4	K1512095-007	J:\MS18\DATA\103015\1030F017.D	10/30/2015	19:40	
GW-102315-MW-7	K1512095-008	J:\MS18\DATA\103015\1030F018.D	10/30/2015	20:02	
GW-102315-MW-13	K1512095-009	J:\MS18\DATA\103015\1030F019.D	10/30/2015	20:23	
GW-102315-P2-S	K1512095-010	J:\MS18\DATA\103015\1030F020.D	10/30/2015	20:45	
GW-102315-P2-I	K1512095-011	J:\MS18\DATA\103015\1030F021.D	10/30/2015	21:06	
GW-102215-DUP-1	K1512095-012	J:\MS18\DATA\103015\1030F022.D	10/30/2015	21:29	
GW-102315-EB	K1512095-013	J:\MS18\DATA\103015\1030F023.D	10/30/2015	21:52	

Results flagged with an asterisk (*) indicate the analysis performed outside specified tune window

Client: GeoSyntec Consultants **Service Request:** K1512095
Project: Frederickson Industrial Park/BTS #151022-LB1 **Calibration Date:** 09/28/2015

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL14315 **Column:** MS
Instrument ID: GC-MS 18

Level ID	File ID	Level ID	File ID
A	J:\MS18\DATA\092815\0928F009.D	G	J:\MS18\DATA\092815\0928F015.D
B	J:\MS18\DATA\092815\0928F010.D	H	J:\MS18\DATA\092815\0928F016.D
C	J:\MS18\DATA\092815\0928F011.D	I	J:\MS18\DATA\092815\0928F017.D
D	J:\MS18\DATA\092815\0928F012.D	J	J:\MS18\DATA\092815\0928F018.D
E	J:\MS18\DATA\092815\0928F013.D	K	J:\MS18\DATA\092815\0928F019.D
F	J:\MS18\DATA\092815\0928F014.D		

Analyte Name	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF	Level ID	Amt	RRF
Carbon Tetrachloride				B	0.20	0.225	C	0.50	0.181	D	1.0	0.204	E	2.0	0.229
	F	5.0	0.234	G	10	0.239	H	20	0.262	I	40	0.291	J	60	0.297
	K	80	0.305												
Dibromofluoromethane										D	4.0	0.203	E	6.0	0.221
	F	8.0	0.210	G	10	0.225	H	12	0.228	I	14	0.242	J	16	0.228
	K	20	0.238												
Toluene-d8										D	4.0	0.945	E	6.0	1.03
	F	8.0	0.931	G	10	0.988	H	12	1.02	I	14	1.08	J	16	1.01
	K	20	1.06												
4-Bromofluorobenzene										D	4.0	0.895	E	6.0	0.978
	F	8.0	0.936	G	10	0.955	H	12	0.964	I	14	1.01	J	16	0.982
	K	20	0.989												

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound **‡ CCC Compound**

Client: GeoSyntec Consultants **Service Request:** K1512095
Project: Frederickson Industrial Park/BTS #151022-LB1 **Calibration Date:** 09/28/2015

Initial Calibration Summary
Volatile Organic Compounds

Calibration ID: CAL14315 **Column:** MS
Instrument ID: GC-MS 18

		Calibration Evaluation					RRF Evaluation		
Analyte Name	**Compound Type**	**Fit Type**	**Eval.**	**Eval. Result**	**Q**	**Control Criteria**	**Average RRF**	**Q**	**Minimum RRF**
Carbon Tetrachloride	MS	Quadratic(0,0)	COD	1.000		≥ 0.990	0.247		0.100
Dibromofluoromethane	SURR	AverageRF	% RSD	5.8		≤ 20	0.224		0.01
Toluene-d8	SURR	AverageRF	% RSD	5.2		≤ 20	1.01		0.01
4-Bromofluorobenzene	SURR	AverageRF	% RSD	3.6		≤ 20	0.963		0.01

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound **‡ CCC Compound**

QA/QC Results

Client: GeoSyntec Consultants
Project: Frederickson Industrial Park/BTS #151022-LB1

Service Request: K1512095
Calibration Date: 09/28/2015
Date Analyzed: 09/29/2015

Second Source Calibration Verification
Volatile Organic Compounds

Calibration Type: Internal Standard
Analysis Method: 8260C

Calibration ID: CAL14315
Units: PPB

File ID: J:\MS18\DATA\092915\0929F006.D

Analyte Name	Expected	Result	Average RF	SSV RF	%D	%Drift	Criteria	Curve Fit
Carbon Tetrachloride	10	11	0.247	0.283	NA	6	± 30 %	Quadratic(0,0

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound **‡ CCC Compound**

QA/QC Results

Client: GeoSyntec Consultants
Project: Frederickson Industrial Park/BTS #151022-LB1

Service Request: K1512095
Date Analyzed: 10/30/2015

Continuing Calibration Verification Summary
Volatile Organic Compounds

Calibration Type: Internal Standard
Analysis Method: 8260C

Calibration Date: 09/28/2015
Calibration ID: CAL14315
Analysis Lot: KWG1510604
Units: PPB

File ID: J:\MS18\DATA\103015\1030F003.D

Analyte Name	Expected	Result	Min RF	Average RF	CCV RF	%D	%Drift	Criteria	Curve Fit
Carbon Tetrachloride	10	9.2	0.100	0.247	0.247	NA	-8	± 20	Quadratic(0,0)
Dibromofluoromethane	10	9.7	0.01	0.224	0.217	-3	NA	± 20	AverageRF
Toluene-d8	10	10	0.01	1.01	1.03	2	NA	± 20	AverageRF
4-Bromofluorobenzene	10	9.7	0.01	0.963	0.935	-3	NA	± 20	AverageRF

Results flagged with an asterisk (*) indicate values outside control criteria.

† SPCC Compound **‡ CCC Compound**

Client: GeoSyntec Consultants **Service Request:** K1512095
Project: Frederickson Industrial Park/BTS #151022-LB1

Analysis Run Log
Volatile Organic Compounds

Analysis Method: 8260C **Analysis Lot:** KWG1510604
Instrument ID: GC-MS 18

File ID	Sample Name	Lab Code	Date Analysis Started	Start Time	Q	Date Analysis Finished	Finish Time
1030F002.D	GC/MS Tuning - Bromofluorobenzene	KWG1510604-1	10/30/2015	13:57		10/30/2015	14:13
1030F003.D	Continuing Calibration Verification	KWG1510604-2	10/30/2015	14:24		10/30/2015	14:40
1030F004.D	Lab Control Sample	KWG1510605-3	10/30/2015	14:52		10/30/2015	15:08
1030F005.D	GW-102215-BMW-18MS	KWG1510605-1	10/30/2015	15:23		10/30/2015	15:39
1030F006.D	GW-102215-BMW-18DMS	KWG1510605-2	10/30/2015	15:44		10/30/2015	16:00
1030F008.D	Method Blank	KWG1510605-4	10/30/2015	16:27		10/30/2015	16:43
1030F009.D	ZZZZZZ	ZZZZZZ	10/30/2015	16:49		10/30/2015	17:05
1030F010.D	GW-102215-TB	K1512095-014	10/30/2015	17:10		10/30/2015	17:26
1030F011.D	GW-102215-BMW-18	K1512095-004	10/30/2015	17:32		10/30/2015	17:48
1030F012.D	GW-102215-11-B2	K1512095-001	10/30/2015	17:53		10/30/2015	18:09
1030F013.D	GW-102215-11-C2	K1512095-002	10/30/2015	18:14		10/30/2015	18:30
1030F014.D	GW-102215-BMW-3	K1512095-003	10/30/2015	18:36		10/30/2015	18:52
1030F015.D	GW-102215-H2A-1	K1512095-005	10/30/2015	18:58		10/30/2015	19:14
1030F016.D	GW-102215-MW-1	K1512095-006	10/30/2015	19:19		10/30/2015	19:35
1030F017.D	GW-102215-MW-4	K1512095-007	10/30/2015	19:40		10/30/2015	19:56
1030F018.D	GW-102315-MW-7	K1512095-008	10/30/2015	20:02		10/30/2015	20:18
1030F019.D	GW-102315-MW-13	K1512095-009	10/30/2015	20:23		10/30/2015	20:39
1030F020.D	GW-102315-P2-S	K1512095-010	10/30/2015	20:45		10/30/2015	21:01
1030F021.D	GW-102315-P2-I	K1512095-011	10/30/2015	21:06		10/30/2015	21:22
1030F022.D	GW-102215-DUP-1	K1512095-012	10/30/2015	21:29		10/30/2015	21:45
1030F023.D	GW-102315-EB	K1512095-013	10/30/2015	21:52		10/30/2015	22:08
1030F024.D	ZZZZZZ	ZZZZZZ	10/30/2015	22:13		10/30/2015	22:29
1030F025.D	ZZZZZZ	ZZZZZZ	10/30/2015	22:35		10/30/2015	22:51
1030F026.D	ZZZZZZ	ZZZZZZ	10/30/2015	22:56		10/30/2015	23:12
1030F027.D	ZZZZZZ	ZZZZZZ	10/30/2015	23:18		10/30/2015	23:34

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

QA/QC Results

Client: GeoSyntec Consultants
Project: Frederickson Industrial Park/BTS #151022-LB1
Sample Matrix: Water

Service Request: K1512095
Date Extracted: 10/30/2015

Extraction Prep Log
Volatile Organic Compounds

Extraction Method: EPA 5030B
Analysis Method: 8260C

Extraction Lot: KWG1510605
Level: Low

Sample Name	Lab Code	Date Collected	Date Received	Sample Amount	Final Volume	% Solids	Note
GW-102215-11-B2	K1512095-001	10/22/15	10/24/15	10ml	10ml	NA	
GW-102215-11-C2	K1512095-002	10/22/15	10/24/15	10ml	10ml	NA	
GW-102215-BMW-3	K1512095-003	10/22/15	10/24/15	10ml	10ml	NA	
GW-102215-BMW-18	K1512095-004	10/22/15	10/24/15	10ml	10ml	NA	
GW-102215-H2A-1	K1512095-005	10/22/15	10/24/15	10ml	10ml	NA	
GW-102215-MW-1	K1512095-006	10/22/15	10/24/15	10ml	10ml	NA	
GW-102215-MW-4	K1512095-007	10/22/15	10/24/15	10ml	10ml	NA	
GW-102315-MW-7	K1512095-008	10/23/15	10/24/15	10ml	10ml	NA	
GW-102315-MW-13	K1512095-009	10/23/15	10/24/15	10ml	10ml	NA	
GW-102315-P2-S	K1512095-010	10/23/15	10/24/15	10ml	10ml	NA	
GW-102315-P2-I	K1512095-011	10/23/15	10/24/15	10ml	10ml	NA	
GW-102215-DUP-1	K1512095-012	10/22/15	10/24/15	10ml	10ml	NA	
GW-102315-EB	K1512095-013	10/23/15	10/24/15	10ml	10ml	NA	
GW-102215-TB	K1512095-014	10/23/15	10/24/15	10ml	10ml	NA	
Method Blank	KWG1510605-4	NA	NA	10ml	10ml	NA	
GW-102215-BMW-18MS	KWG1510605-1	10/22/15	10/24/15	10ml	10ml	NA	
GW-102215-BMW-18DMS	KWG1510605-2	10/22/15	10/24/15	10ml	10ml	NA	
Lab Control Sample	KWG1510605-3	NA	NA	10ml	10ml	NA	

Results flagged with an asterisk (*) indicate the holding time was exceeded for the analysis

Raw Data

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Volatile Organic Compounds

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360)577-7222 Fax (360)636-1068
www.alsglobal.com

Exception Report

Data File: J:\MS18\DATA\103015\1030F012.D
Lab ID: K1512095-001
RunType: SMPL
Matrix: WATER

Date Acquired: 10/30/2015 17:53
Date Quantitated: 10/30/2015 20:13
Batch ID: KWG1510604
Analysis Method: 8260C
ListJoinID: LJ1423

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 10/30/15

Secondary Review: 11/3/15

Quantitation Report

Data File:	J:\MS18\DATA\103015\1030F012.D			**Instrument:**	GC-MS 18
Acqu Date:	10/30/2015 17:53	**Quant Date:**	10/30/2015 20:13	**Vial:**	11
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1512095-001			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	10/22/2015	**Receive Date:**	10/24/2015

Analysis Lot:	KWG1510604	**Prep Lot:**	KWG1510605	**Report Group:**	K1512095
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1479841	**Prep Date:**	10/30/2015		

Quant Method:	J:\MS18\METHODS\092815MS18_8	**Calibration ID:**	CAL14315
Title:	Volatile Organic Compounds	**Report List ID:**	LJ1423
Tune Ref:	J:\MS18\DATA\103015\1030F002.D	**Method ID:**	MJ119
MB Ref:	J:\MS18\DATA\103015\1030F008.D	**Quant based on Report List**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.89	0.00	96	645785	10.00	OK
2	Chlorobenzene-d5	9.30	0.00	82	256426	10.00	OK
3	1,4-Dichlorobenzene-d4	11.72	0.00	152	232246	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.06	0.00	0.00	113	132290	9.13	91	73-122	OK	
1	Toluene-d8	7.73	0.00	0.00	98	630131	9.67	97	65-144	OK	
2	4-Bromofluorobenzene	10.54	0.00	0.00	95	218727	8.86	89	68-117	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Tetrachloride	5.16		0.00	117	12217	0.7200	0.72		

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\103015\1030F012.D Vial: 11
Acq On : 30 Oct 2015 17:53 Operator: YX/KR
Sample : K1512095-001 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 20:06:01 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration
DataAcq Meth : 8260

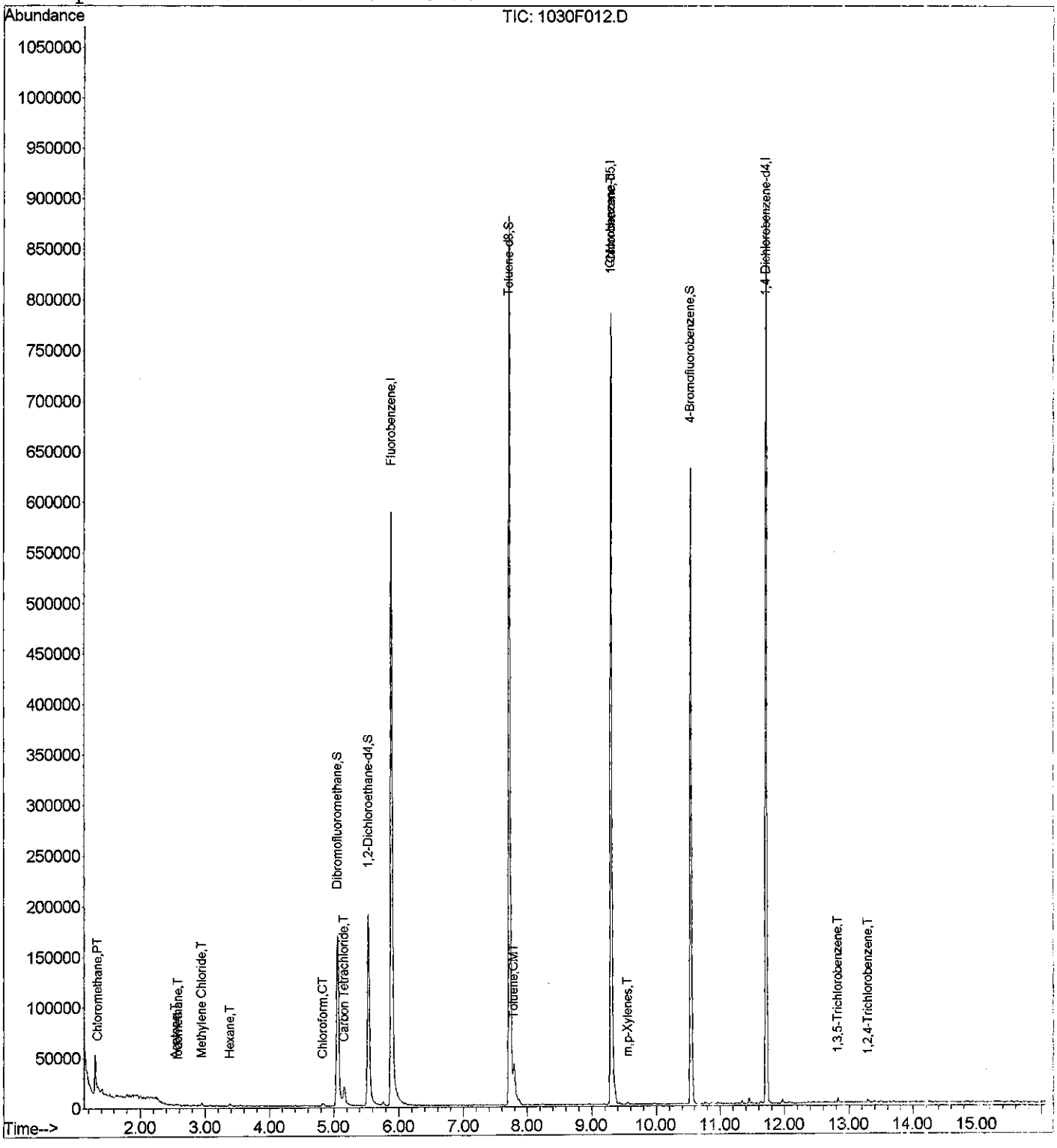
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	5.89	96	645785	10.00	PPB		0.00
65) Chlorobenzene-d5	9.30	82	256426	10.00	PPB		0.00
86) 1,4-Dichlorobenzene-d4	11.72	152	232246	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.06	113	132290	9.13	PPB		0.00
Spiked Amount 10.000			Recovery =	91.30%			
48) 1,2-Dichloroethane-d4	5.54	65	155122	9.76	PPB		0.00
Spiked Amount 10.000			Recovery =	97.60%			
63) Toluene-d8	7.73	98	630131	9.67	PPB		0.00
Spiked Amount 10.000			Recovery =	96.70%			
85) 4-Bromofluorobenzene	10.54	95	218727	8.86	PPB		0.00
Spiked Amount 10.000			Recovery =	88.60%			
Target Compounds							Qvalue
3) Chloromethane	1.35	50	1997	0.09	PPB		85
14) Acetone	2.54	43	1280	0.51	PPB		81
15) Iodomethane	2.59	142	555	0.03	PPB		64
21) Methylene Chloride	2.95	84	1430	0.07	PPB	#	72
26) Hexane	3.39	57	883	0.06	PPB		64
40) Chloroform	4.84	83	2542	0.09	PPB		82
44) Carbon Tetrachloride	5.16	117	12217	0.72	PPB		93
64) Toluene	7.80	92	11781	0.24	PPB		94
75) 1-Chlorohexane	9.31	91	1080	0.05	PPB		71
79) m,p-Xylenes	9.55	106	994	0.03	PPB	#	68
104) 1,3,5-Trichlorobenzene	12.83	180	901	0.04	PPB		81
105) 1,2,4-Trichlorobenzene	13.29	180	753	0.04	PPB		88

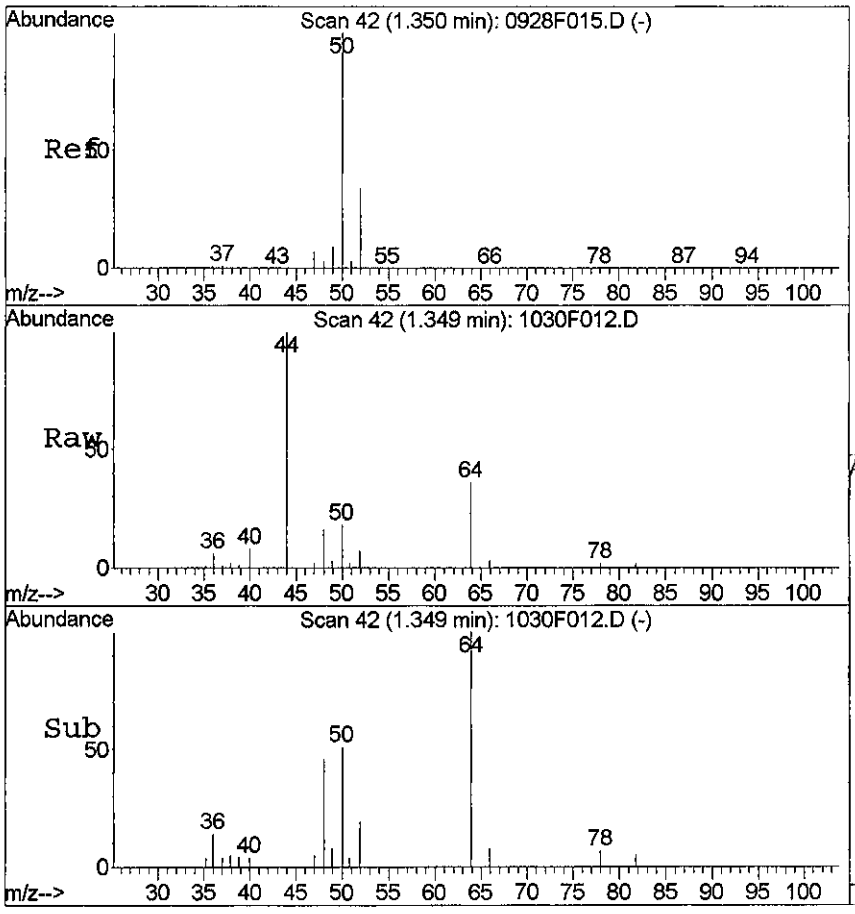
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\103015\1030F012.D Vial: 11
Acq On : 30 Oct 2015 17:53 Operator: YX/KR
Sample : K1512095-001 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 20:13 2015 Quant Results File: C92815MS18_8

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration

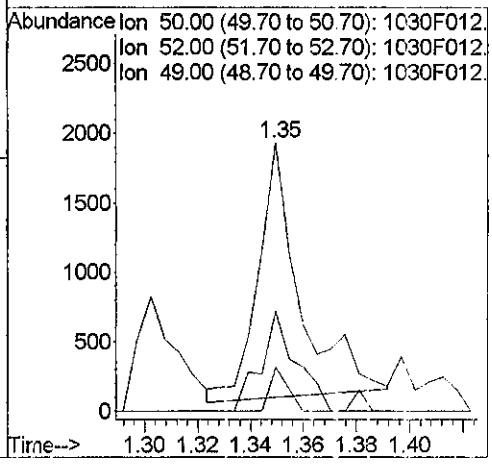


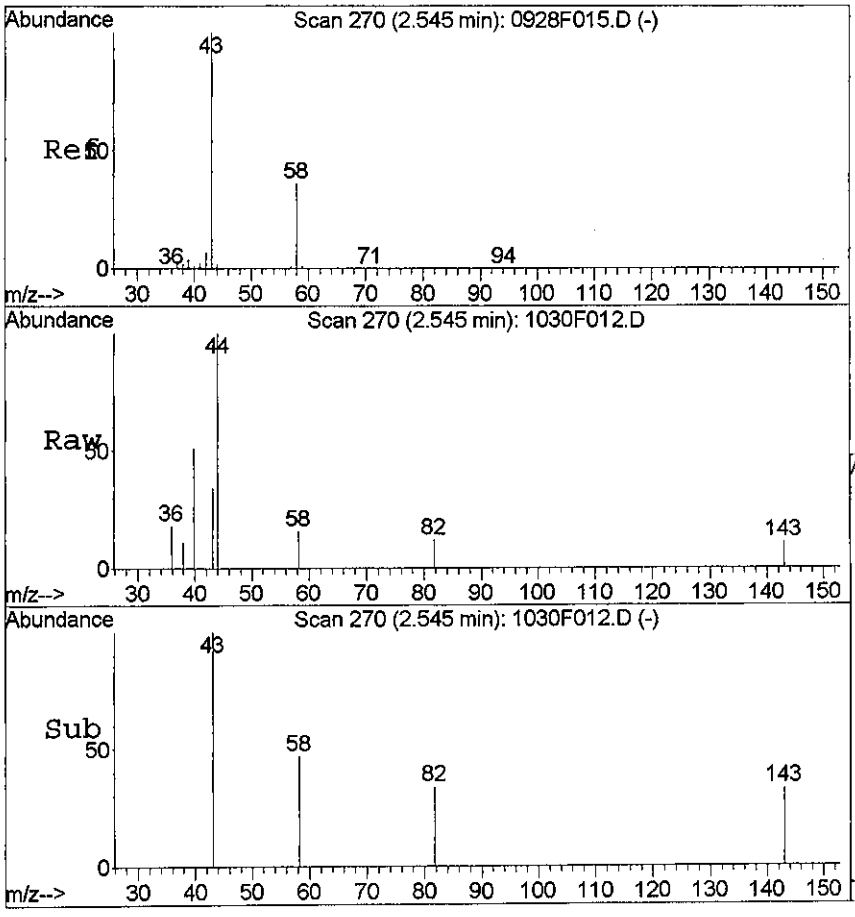


#3
Chloromethane
Concen: 0.09 PPB
RT: 1.35 min Scan# 42
Delta R.T. -0.00 min
Lab File: 1030F012.D
Acq: 30 Oct 2015 17:53

Tgt Ion: 50 Resp: 1997

Ion	Ratio	Lower	Upper
50	100		
52	40.6	3.5	63.5
49	17.7	0.0	39.3

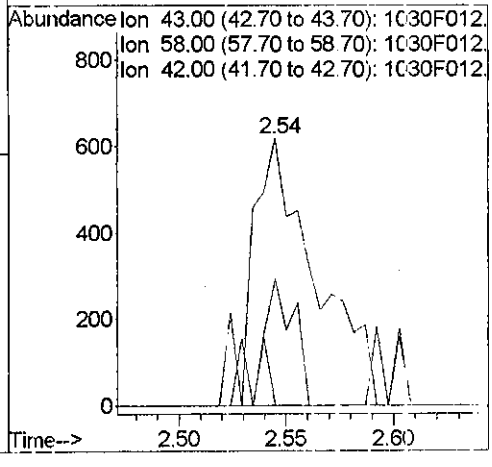


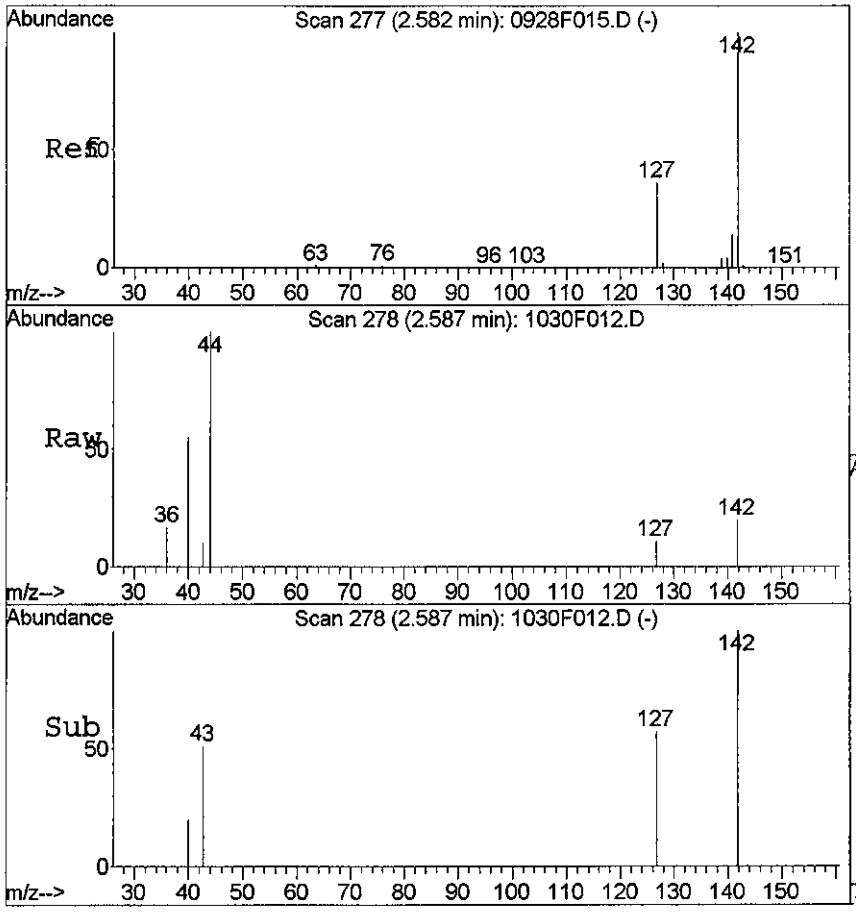


#14
Acetone
Concen: 0.51 PPB
RT: 2.54 min Scan# 270
Delta R.T. -0.00 min
Lab File: 1030F012.D
Acq: 30 Oct 2015 17:53

Tgt Ion: 43 Resp: 1280

Ion	Ratio	Lower	Upper
43	100		
58	47.2	5.9	65.9
42	0.0	0.0	36.7

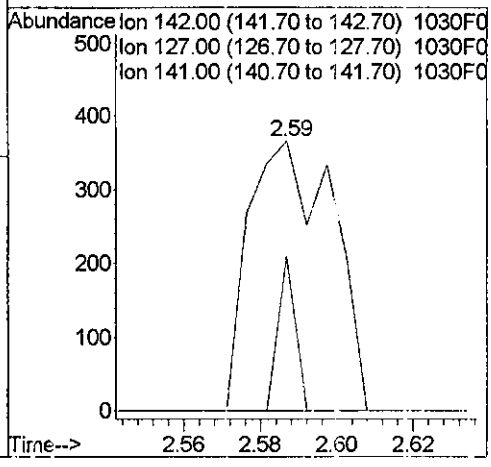


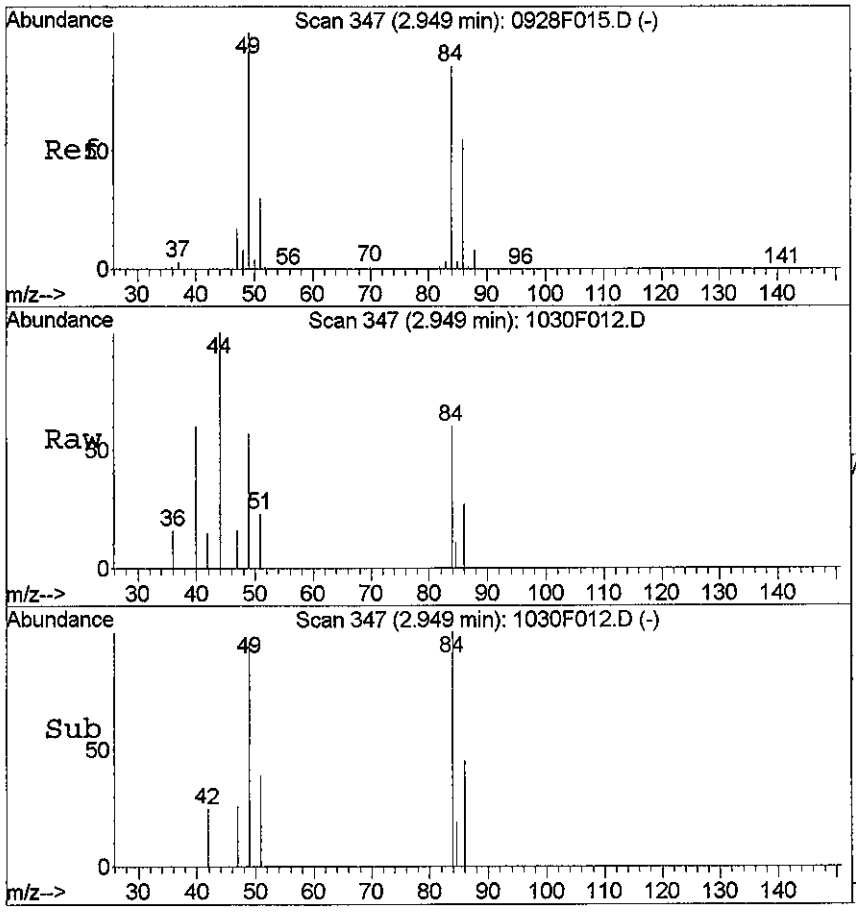


#15
Iodomethane
Concen: 0.03 PPB
RT: 2.59 min Scan# 278
Delta R.T. 0.01 min
Lab File: 1030F012.D
Acq: 30 Oct 2015 17:53

Tgt Ion:142 Resp: 555

Ion	Ratio	Lower	Upper
142	100		
127	57.4	5.6	65.6
141	0.0	0.0	43.6

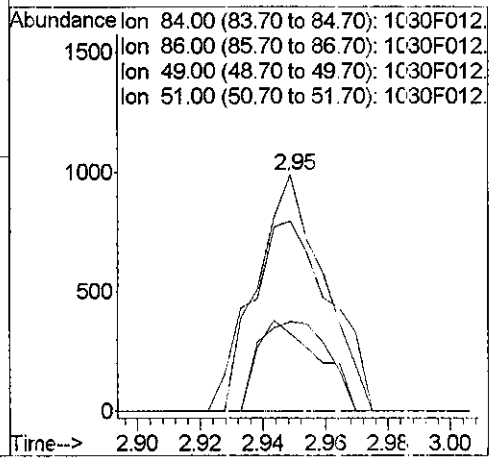


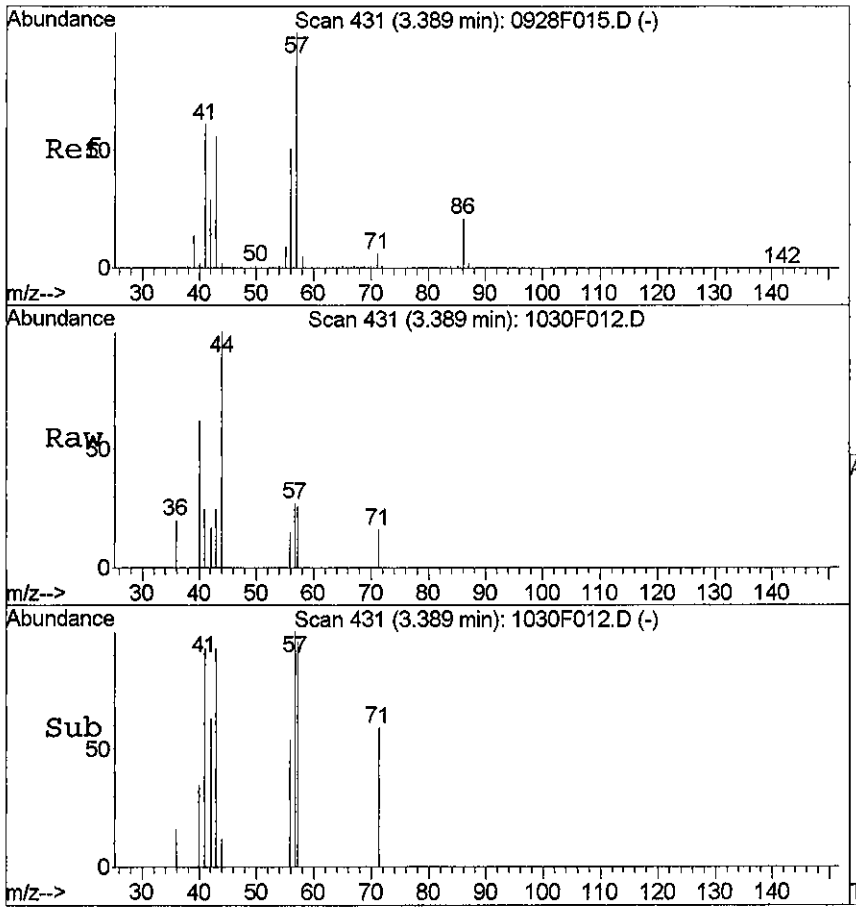


#21
Methylene Chloride
Concen: 0.07 PPB
RT: 2.95 min Scan# 347
Delta R.T. -0.00 min
Lab File: 1030F012.D
Acq: 30 Oct 2015 17:53

Tgt Ion: 84 Resp: 1430

Ion	Ratio	Lower	Upper
84	100		
86	37.7	34.2	94.2
49	80.5	85.9	145.9#
51	32.7	4.3	64.3

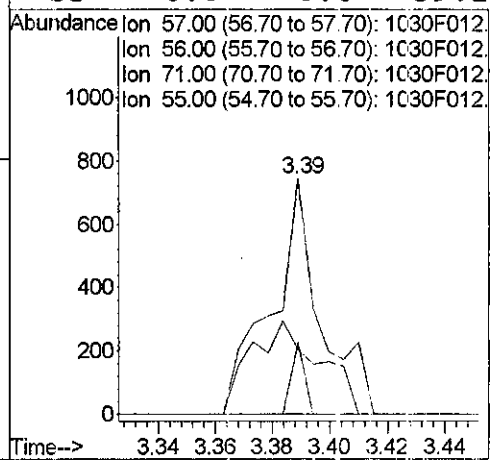


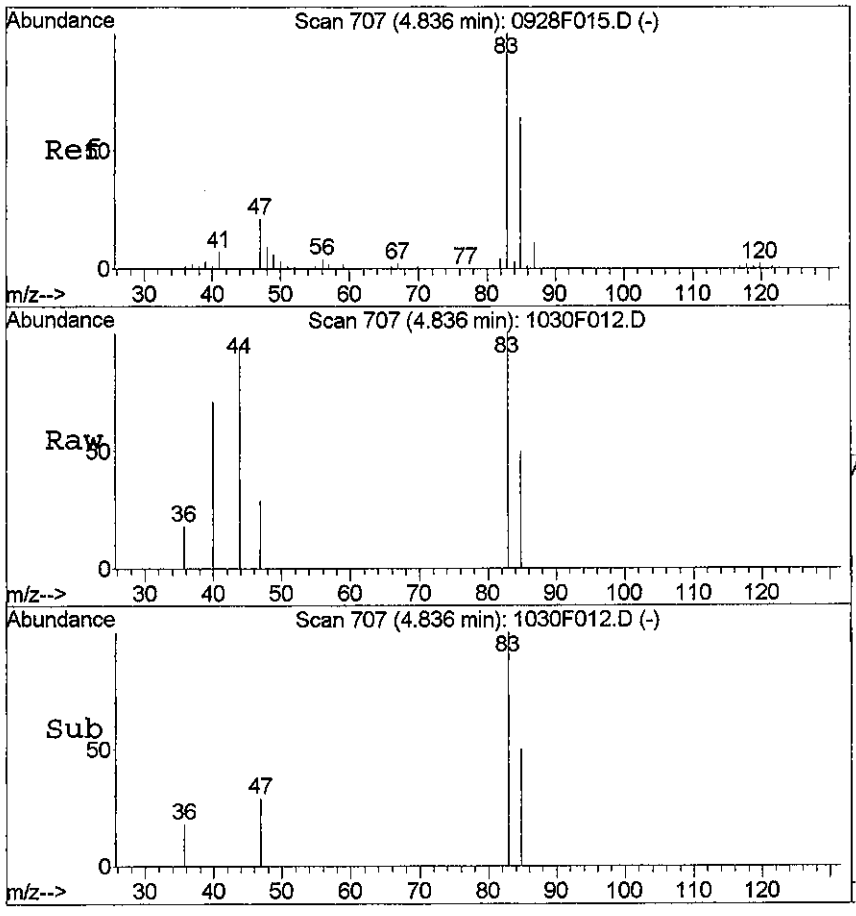


#26
Hexane
Concen: 0.06 PPB
RT: 3.39 min Scan# 431
Delta R.T. -0.00 min
Lab File: 1030F012.D
Acq: 30 Oct 2015 17:53

Tgt Ion: 57 Resp: 883

Ion	Ratio	Lower	Upper
57	100		
56	27.4	21.3	81.3
71	30.2	0.0	36.0
55	0.0	0.0	39.1

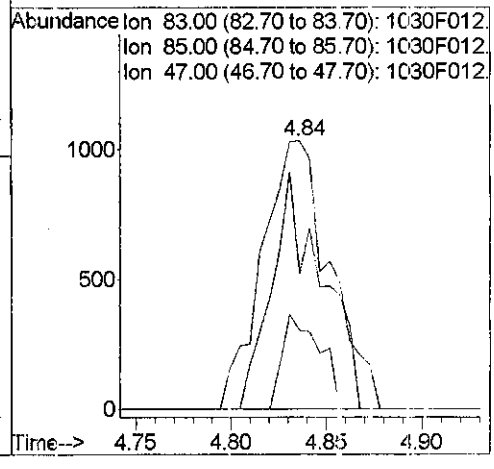


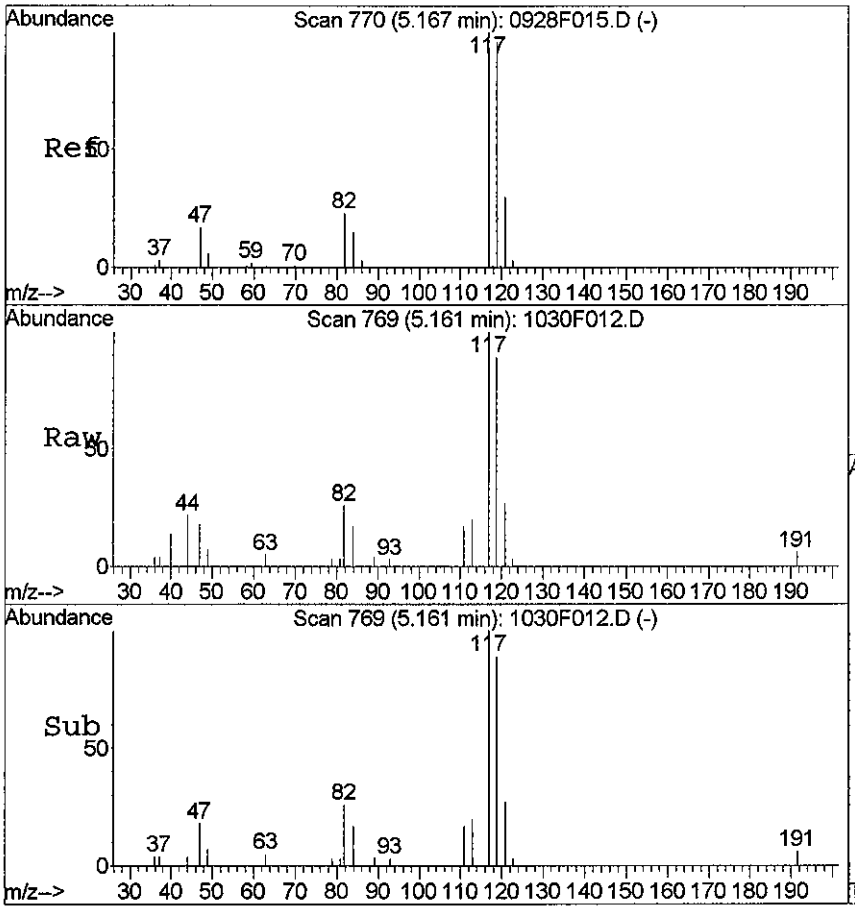


#40
Chloroform
Concen: 0.09 PPB
RT: 4.84 min Scan# 707
Delta R.T. -0.00 min
Lab File: 1030F012.D
Acq: 30 Oct 2015 17:53

Tgt Ion: 83 Resp: 2542

Ion	Ratio	Lower	Upper
83	100		
85	50.5	34.3	94.3
47	29.4	0.0	50.8

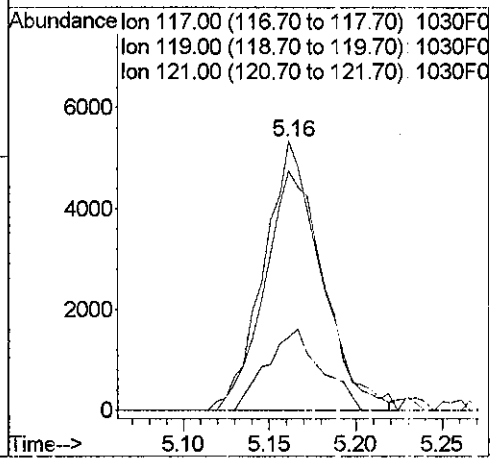


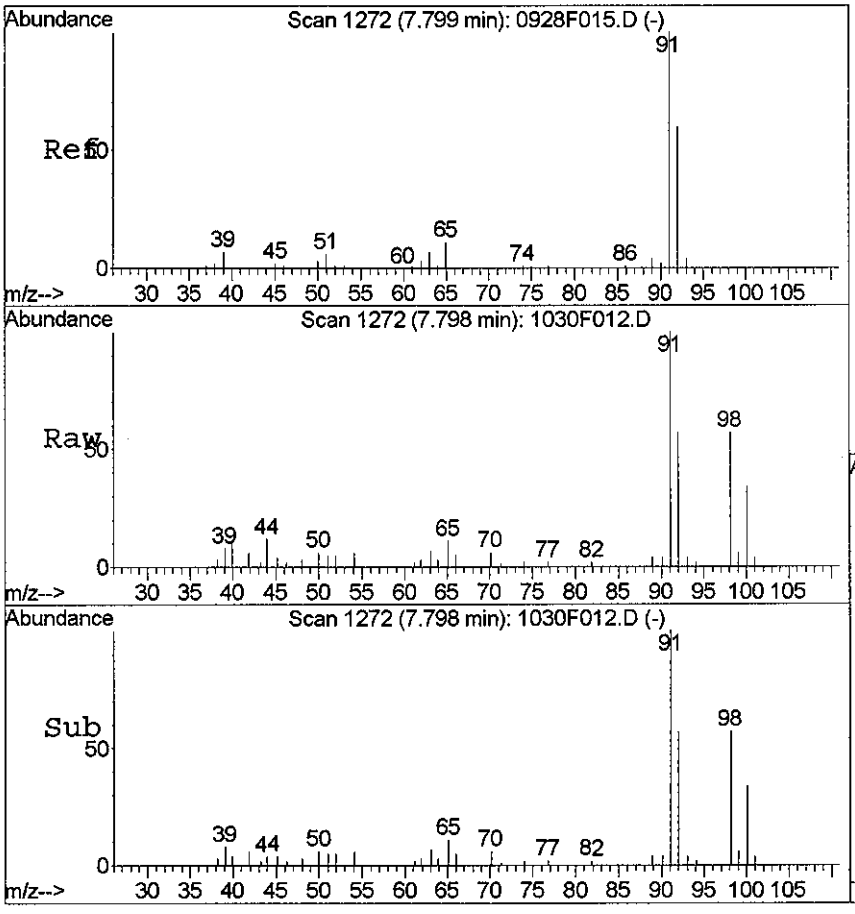


#44
Carbon Tetrachloride
Concen: 0.72 PPB
RT: 5.16 min Scan# 769
Delta R.T. -0.01 min
Lab File: 1030F012.D
Acq: 30 Oct 2015 17:53

Tgt Ion:117 Resp: 12217

Ion	Ratio	Lower	Upper
117	100		
119	89.1	65.7	125.7
121	27.2	0.4	60.4

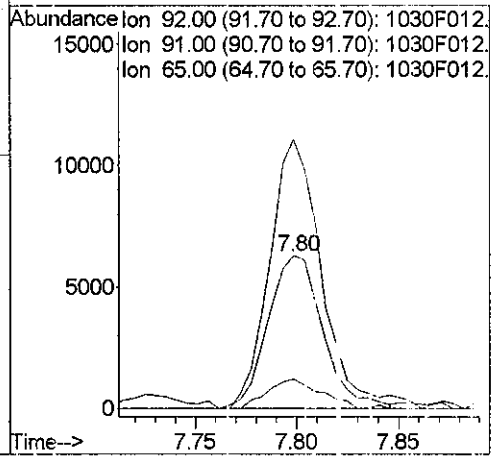


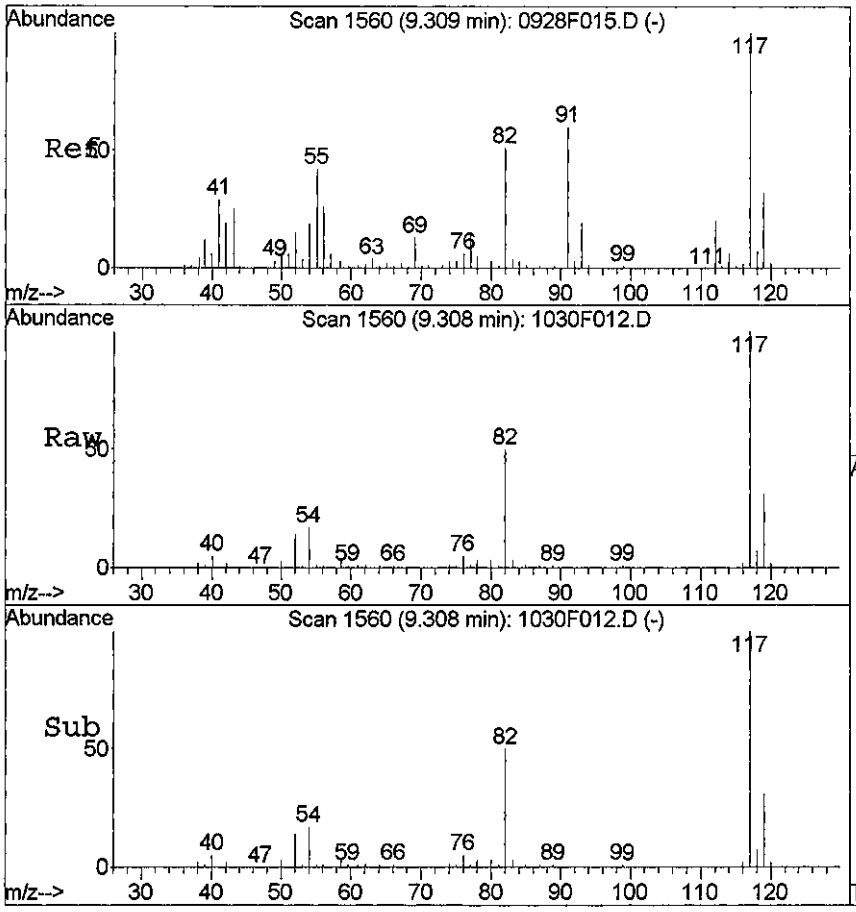


#64
Toluene
Concen: 0.24 PPB
RT: 7.80 min Scan# 1272
Delta R.T. -0.00 min
Lab File: 1030F012.D
Acq: 30 Oct 2015 17:53

Tgt Ion: 92 Resp: 11781

Ion	Ratio	Lower	Upper
92	100		
91	176.2	137.9	197.9
65	19.3	0.0	47.8

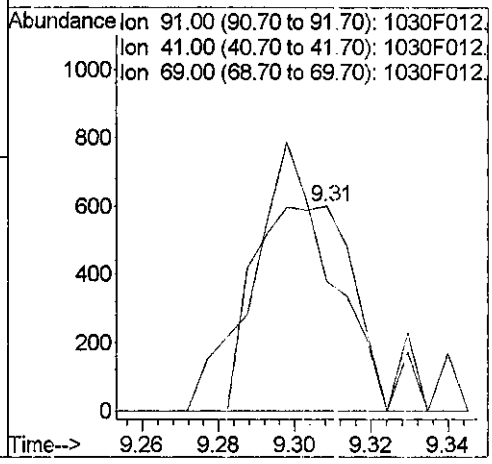


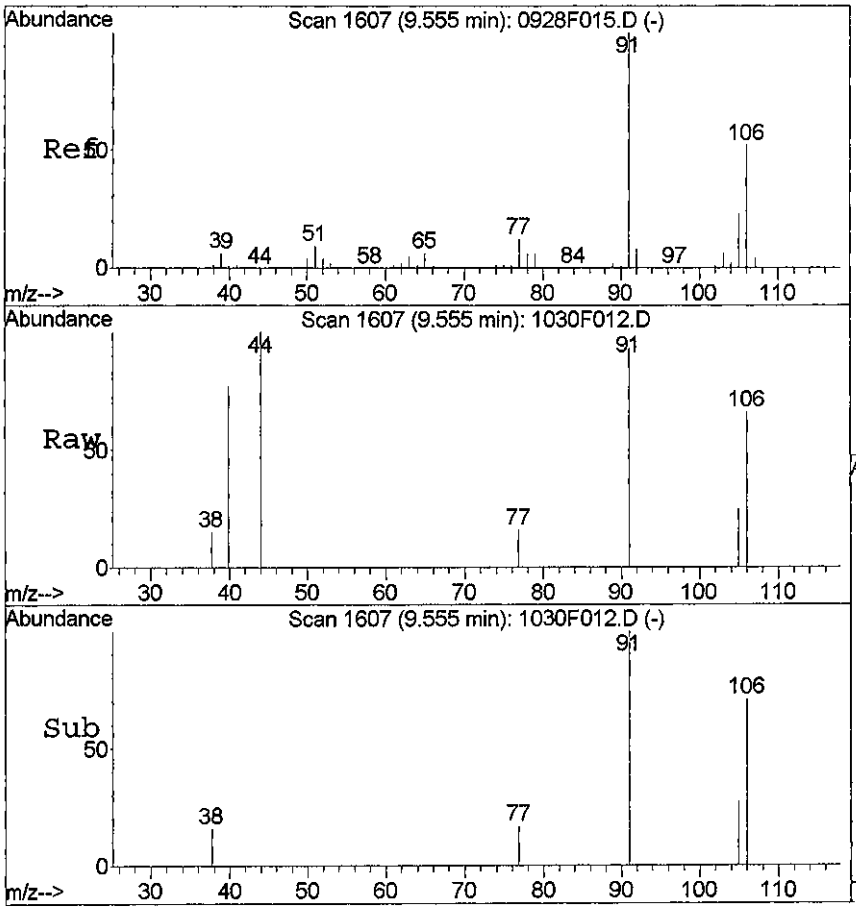


#75
1-Chlorohexane
Concen: 0.05 PPB
RT: 9.31 min Scan# 1560
Delta R.T. -0.00 min
Lab File: 1030F012.D
Acq: 30 Oct 2015 17:53

Tgt Ion: 91 Resp: 1080

Ion	Ratio	Lower	Upper
91	100		
41	63.0	18.4	78.4
69	0.0	0.0	51.1

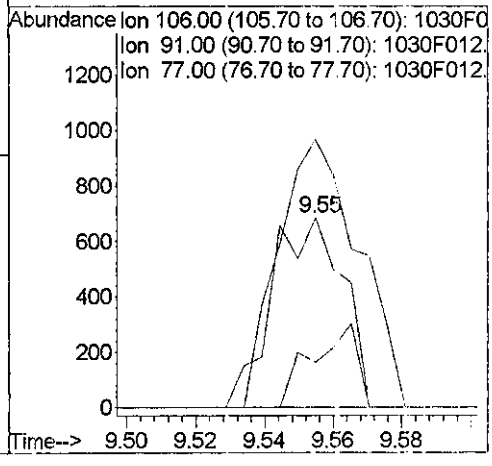


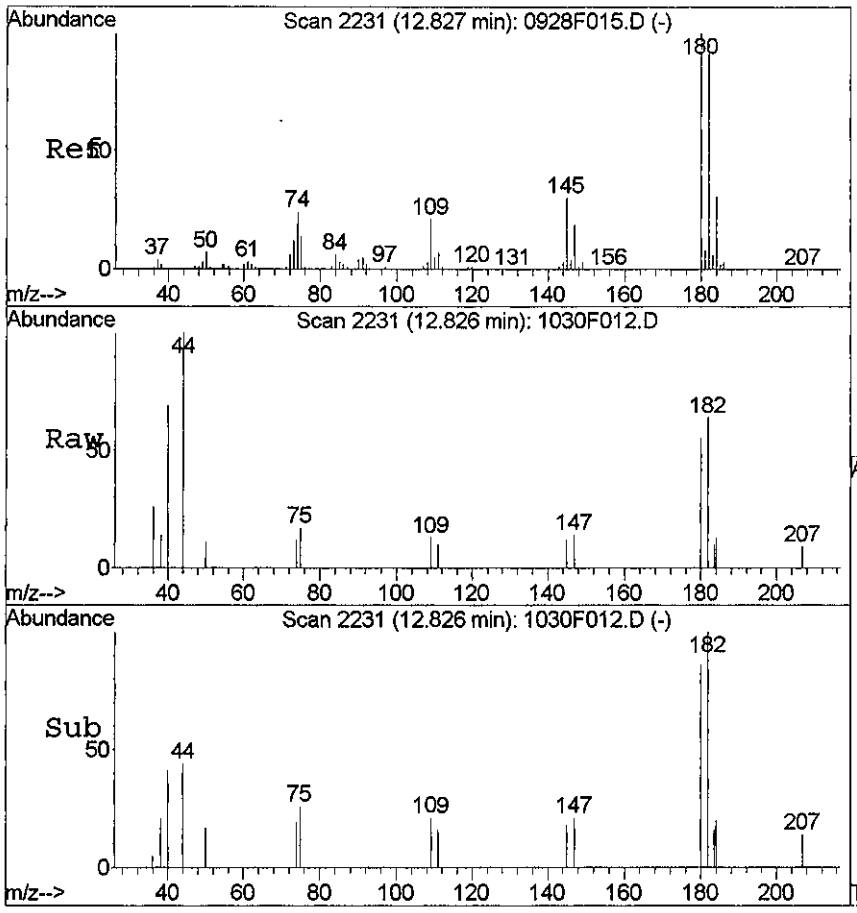


#79
m,p-Xylenes
Concen: 0.03 PPB
RT: 9.55 min Scan# 1607
Delta R.T. -0.00 min
Lab File: 1030F012.D
Acq: 30 Oct 2015 17:53

Tgt Ion:106 Resp: 994

Ion	Ratio	Lower	Upper
106	100		
91	140.9	164.1	224.1#
77	23.8	0.0	53.8

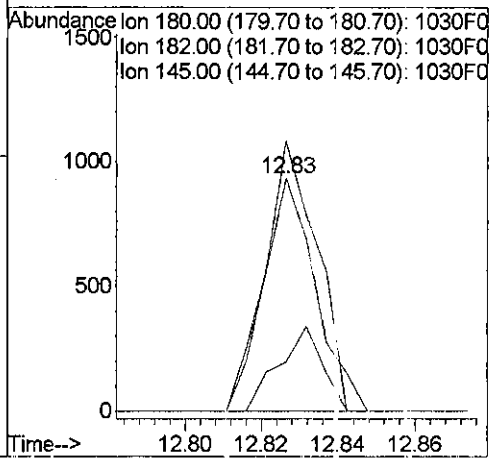


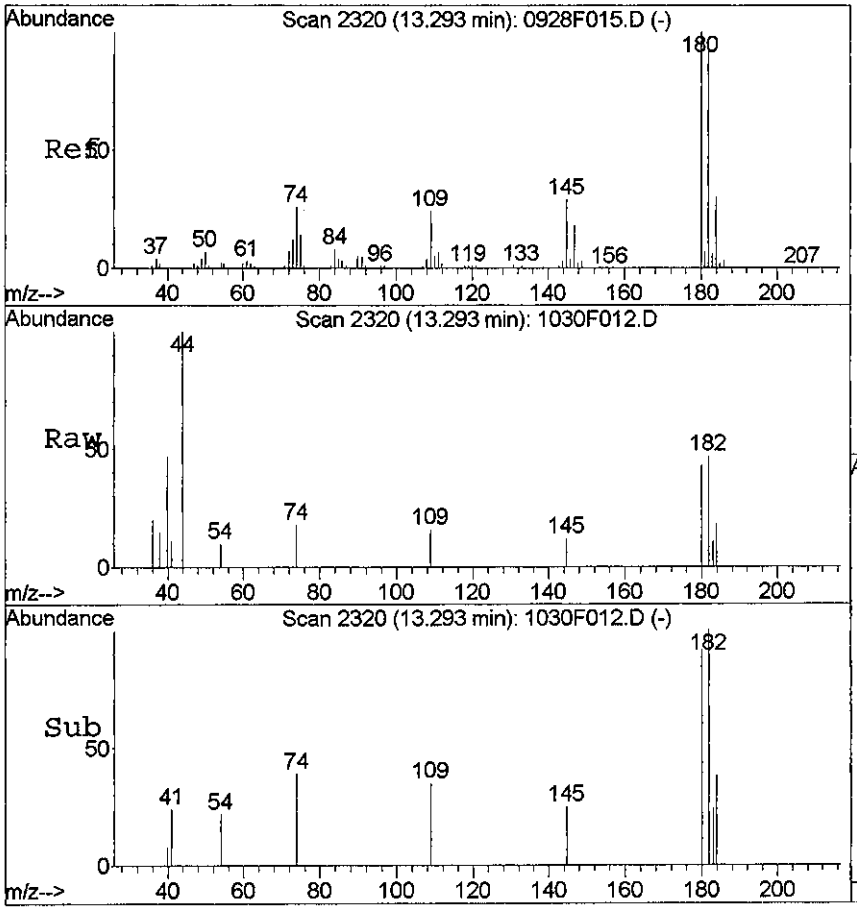


#104
1,3,5-Trichlorobenzene
Concen: 0.04 PPB
RT: 12.83 min Scan# 2231
Delta R.T. -0.00 min
Lab File: 1030F012.D
Acq: 30 Oct 2015 17:53

Tgt Ion:180 Resp: 901

Ion	Ratio	Lower	Upper
180	100		
182	115.7	65.7	125.7
145	21.0	0.0	59.6

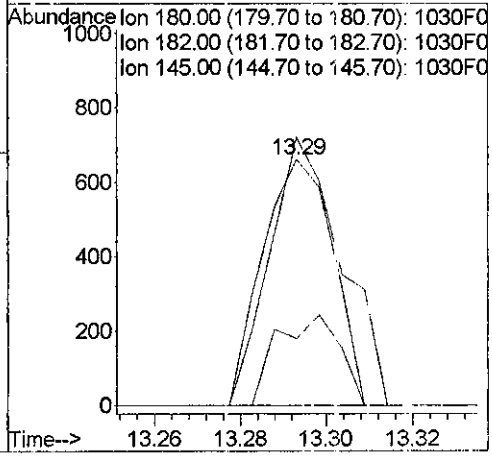




#105
1,2,4-Trichlorobenzene
Concen: 0.04 PPB
RT: 13.29 min Scan# 2320
Delta R.T. -0.00 min
Lab File: 1030F012.D
Acq: 30 Oct 2015 17:53

Tgt Ion:180 Resp: 753

Ion	Ratio	Lower	Upper
180	100		
182	108.9	64.9	124.9
145	27.2	0.0	59.1



Exception Report

Data File: J:\MS18\DATA\103015\1030F013.D
Lab ID: K1512095-002
RunType: SMPL
Matrix: WATER

Date Acquired: 10/30/2015 18:14
Date Quantitated: 10/30/2015 20:20
Batch ID: KWG1510604
Analysis Method: 8260C
ListJoinID: LJ1423

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 10/30/2015

Secondary Review: 11/3/15

Quantitation Report

Data File:	J:\MS18\DATA\103015\1030F013.D			**Instrument:**	GC-MS 18
Acqu Date:	10/30/2015 18:14	**Quant Date:**	10/30/2015 20:20	**Vial:**	12
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1512095-002			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	10/22/2015	**Receive Date:**	10/24/2015

Analysis Lot:	KWG1510604	**Prep Lot:**	KWG1510605	**Report Group:**	K1512095
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1479842	**Prep Date:**	10/30/2015		

Quant Method:	J:\MS18\METHODS\092815MS18_8	**Calibration ID:**	CAL14315
Title:	Volatile Organic Compounds	**Report List ID:**	LJ1423
Tune Ref:	J:\MS18\DATA\103015\1030F002.D	**Method ID:**	MJ119
MB Ref:	J:\MS18\DATA\103015\1030F008.D	**Quant based on Report List**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.89	0.00	96	643564	10.00	OK
2	Chlorobenzene-d5	9.30	0.00	82	256059	10.00	OK
3	1,4-Dichlorobenzene-d4	11.72	0.00	152	232437	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.06	0.00	0.00	113	130245	9.02	90	73-122	OK	
1	Toluene-d8	7.73	0.00	0.00	98	625056	9.63	96	65-144	OK	
2	4-Bromofluorobenzene	10.54	0.00	0.00	95	216748	8.79	88	68-117	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Tetrachloride	5.17	0.01	0.00	117	64335m	3.78	3.8		

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\103015\1030F013.D Vial: 12
Acq On : 30 Oct 2015 18:14 Operator: YX/KR
Sample : K1512095-002 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 20:06:02 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration
DataAcq Meth : 8260

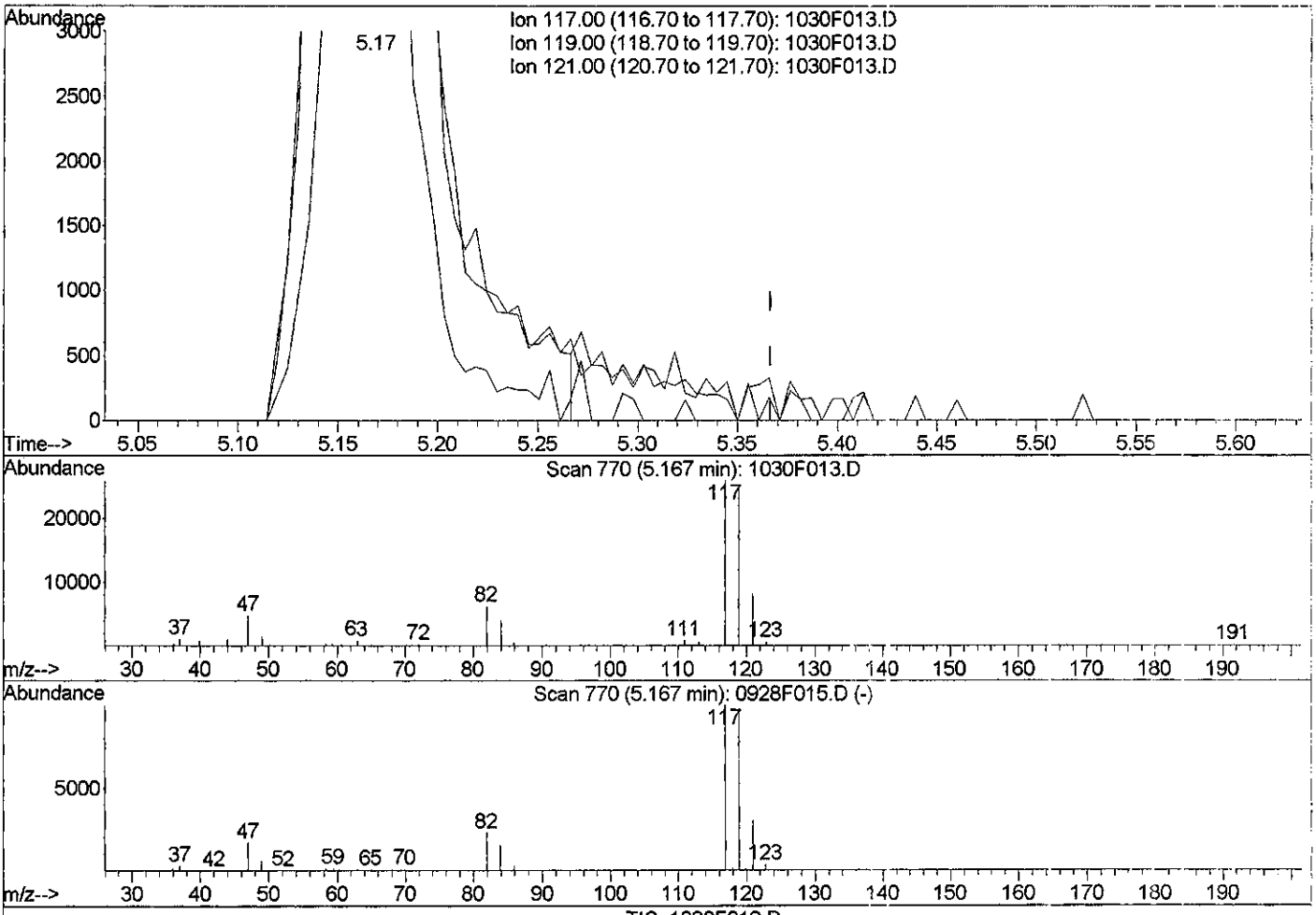
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.89	96	643564	10.00	PPB	0.00
65) Chlorobenzene-d5	9.30	82	256059	10.00	PPB	0.00
86) 1,4-Dichlorobenzene-d4	11.72	152	232437	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.06	113	130245	9.02	PPB	0.00
Spiked Amount 10.000			Recovery =	90.20%		
48) 1,2-Dichloroethane-d4	5.53	65	153715	9.70	PPB	0.00
Spiked Amount 10.000			Recovery =	97.00%		
63) Toluene-d8	7.73	98	625056	9.63	PPB	0.00
Spiked Amount 10.000			Recovery =	96.30%		
85) 4-Bromofluorobenzene	10.54	95	216748	8.79	PPB	0.00
Spiked Amount 10.000			Recovery =	87.90%		
Target Compounds						Qvalue
3) Chloromethane	1.35	50	2454	0.11	PPB	98
9) Trichlorofluoromethane	1.95	101	2031	0.10	PPB	87
14) Acetone	2.55	43	878	0.35	PPB	89
21) Methylene Chloride	2.95	84	1302	0.06	PPB	94
26) Hexane	3.39	57	773	0.05	PPB	76
40) Chloroform	4.83	83	7641	0.27	PPB	95
44) Carbon Tetrachloride	5.17	117	64335m	3.78	PPB	
64) Toluene	7.80	92	4224	0.09	PPB	89
104) 1,3,5-Trichlorobenzene	12.83	180	859	0.04	PPB	83
105) 1,2,4-Trichlorobenzene	13.30	180	768	0.04	PPB #	62

(#) = qualifier out of range (m) = manual integration
1030F013.D 092815MS18_8260.M Fri Oct 30 20:22:28 2015 Page 1

Quantitation Report (Qedit)

Data File : J:\MS18\DATA\103015\1030F013.D Vial: 12
Acq On : 30 Oct 2015 18:14 Operator: YX/KR
Sample : K1512095-002 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 20:14 2015 Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Multiple Level Calibration



TIC: 1030F013.D

(44) Carbon Tetrachloride (T)

5.17min 3.83PPB

response 65097

Ion	Exp%	Act%
117.00	100	100
119.00	95.70	95.49
121.00	30.40	31.70
0.00	0.00	0.00

Manual Integration:

Before

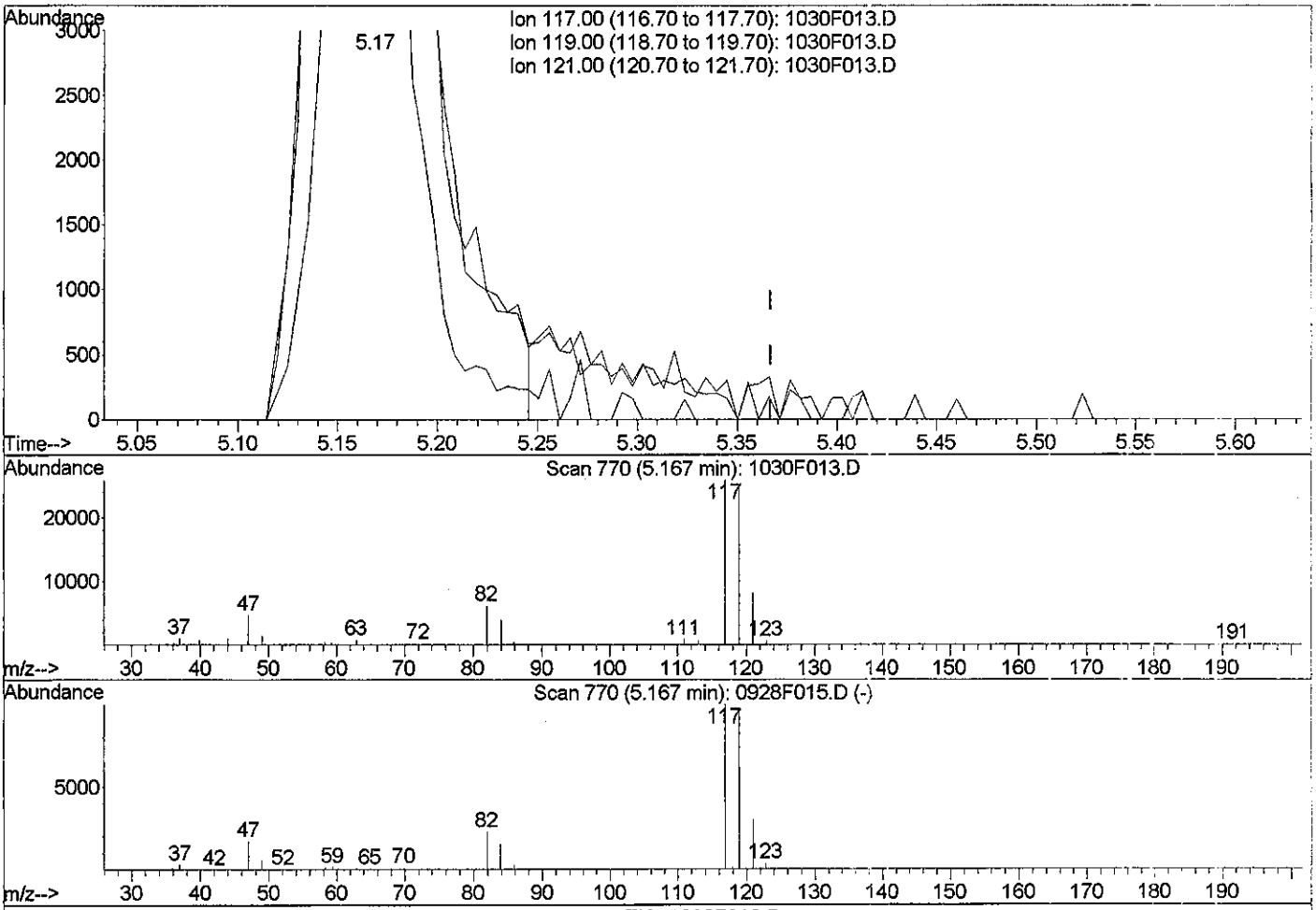
10/30/15

1030F013.D 092815MS18_8260.M Fri Oct 30 20:20:28 2015

Quantitation Report (Qedit)

Data File : J:\MS18\DATA\103015\1030F013.D Vial: 12
Acq On : 30 Oct 2015 18:14 Operator: YX/KR
Sample : K1512095-002 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 20:20 2015 Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Multiple Level Calibration



TIC: 1030F013.D

(44) Carbon Tetrachloride (T)

5.17min 3.78PPB m

response 64335

Ion	Exp%	Act%
117.00	100	100
119.00	95.70	95.49
121.00	30.40	31.70
0.00	0.00	0.00

Manual Integration:

After

Shoulder

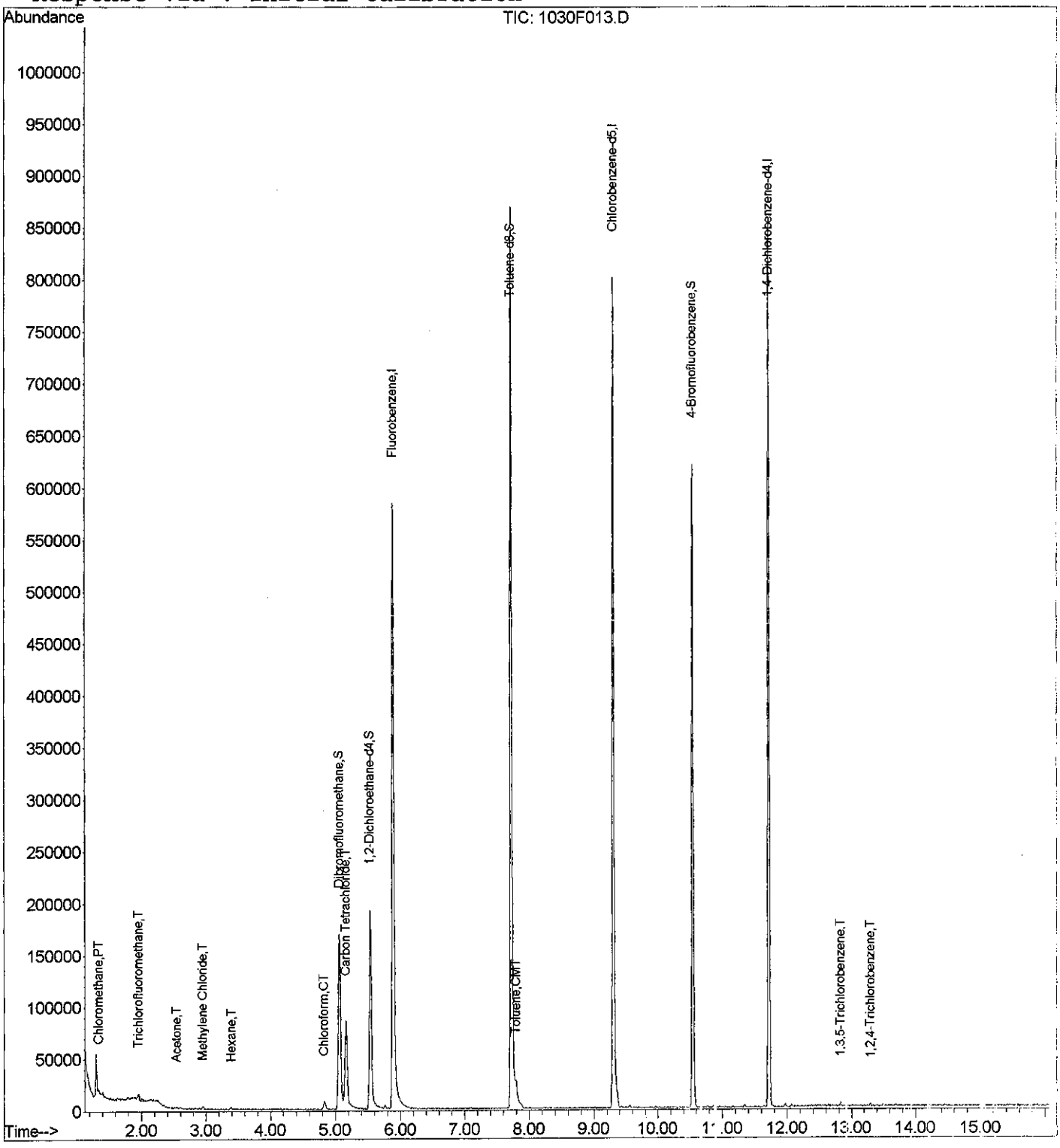
10/30/15

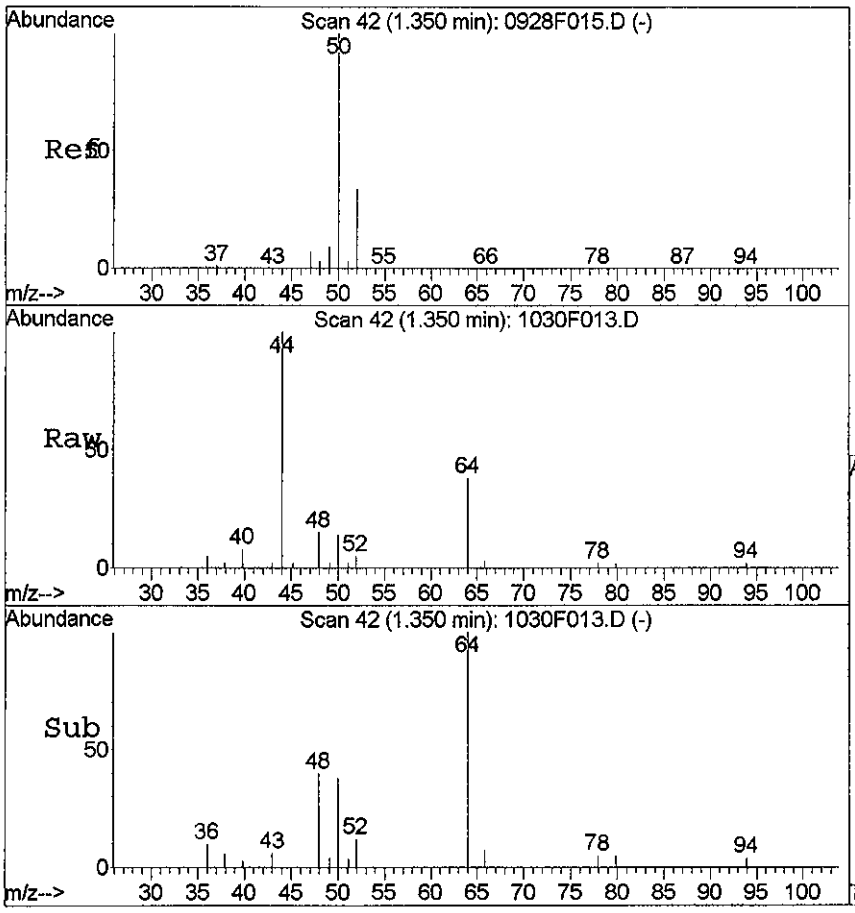
1030F013.D 092815MS18_8260.M Fri Oct 30 20:20:36 2015

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\103015\1030F013.D Vial: 12
Acq On : 30 Oct 2015 18:14 Operator: YX/KR
Sample : K1512095-002 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 20:20 2015 Quant Results File: 092815MS18_8

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration

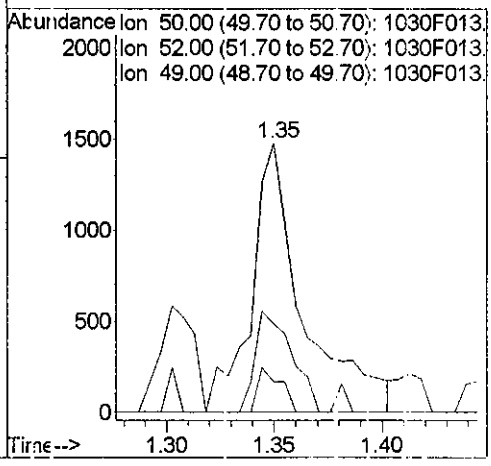


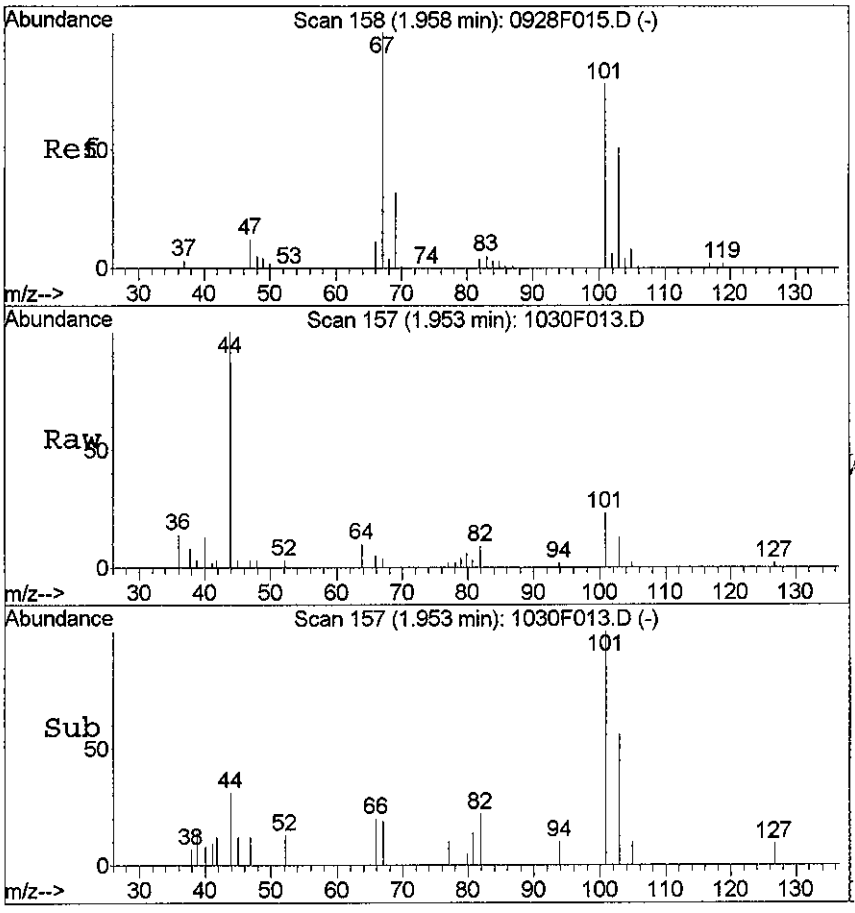


#3
Chloromethane
Concen: 0.11 PPB
RT: 1.35 min Scan# 42
Delta R.T. 0.00 min
Lab File: 1030F013.D
Acq: 30 Oct 2015 18:14

Tgt Ion: 50 Resp: 2454

Ion	Ratio	Lower	Upper
50	100		
52	32.8	3.5	63.5
49	11.3	0.0	39.3

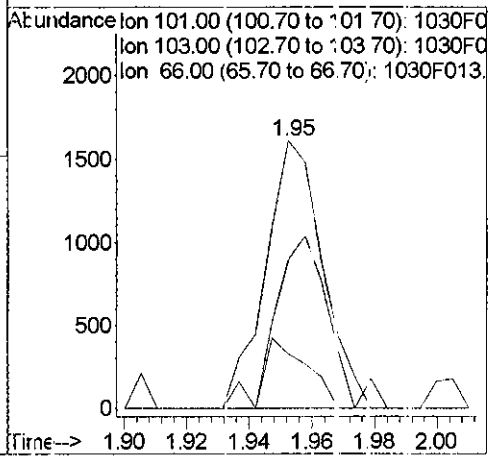


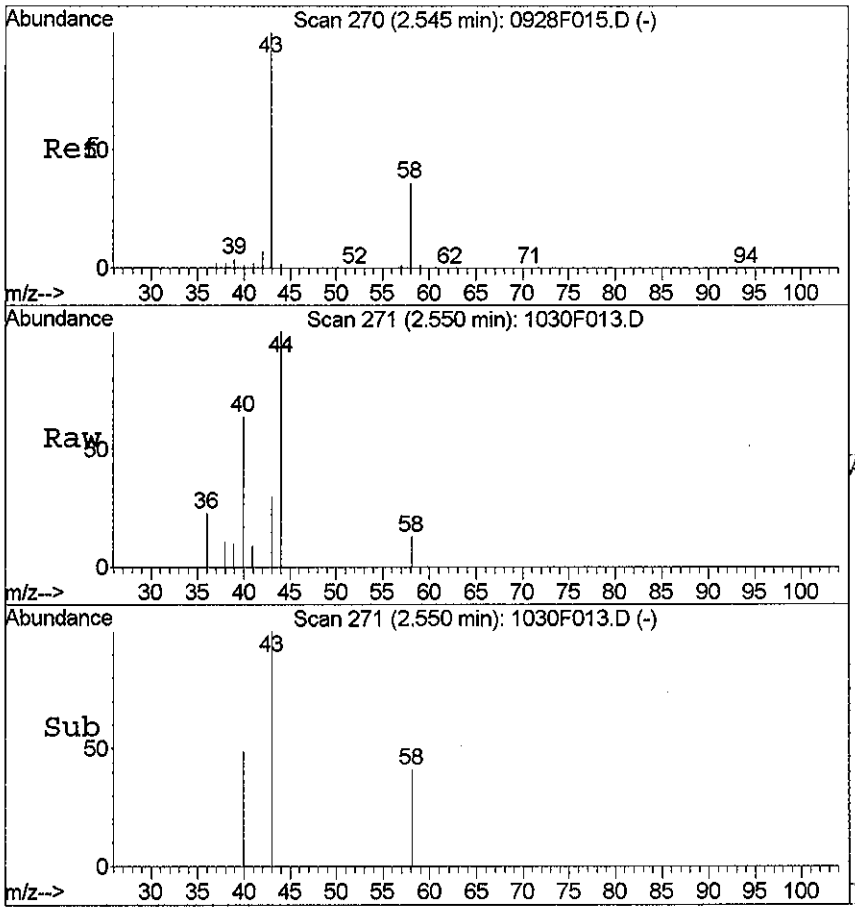


#9
Trichlorofluoromethane
Concen: 0.10 PPB
RT: 1.95 min Scan# 157
Delta R.T. -0.01 min
Lab File: 1030F013.D
Acq: 30 Oct 2015 18:14

Tgt Ion:101 Resp: 2031

Ion	Ratio	Lower	Upper
101	100		
103	55.8	35.9	95.9
66	20.2	0.0	43.9

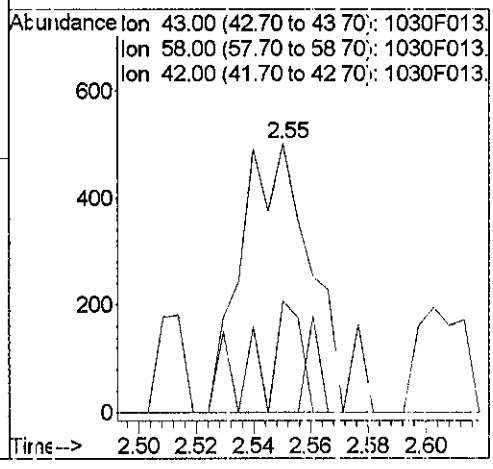


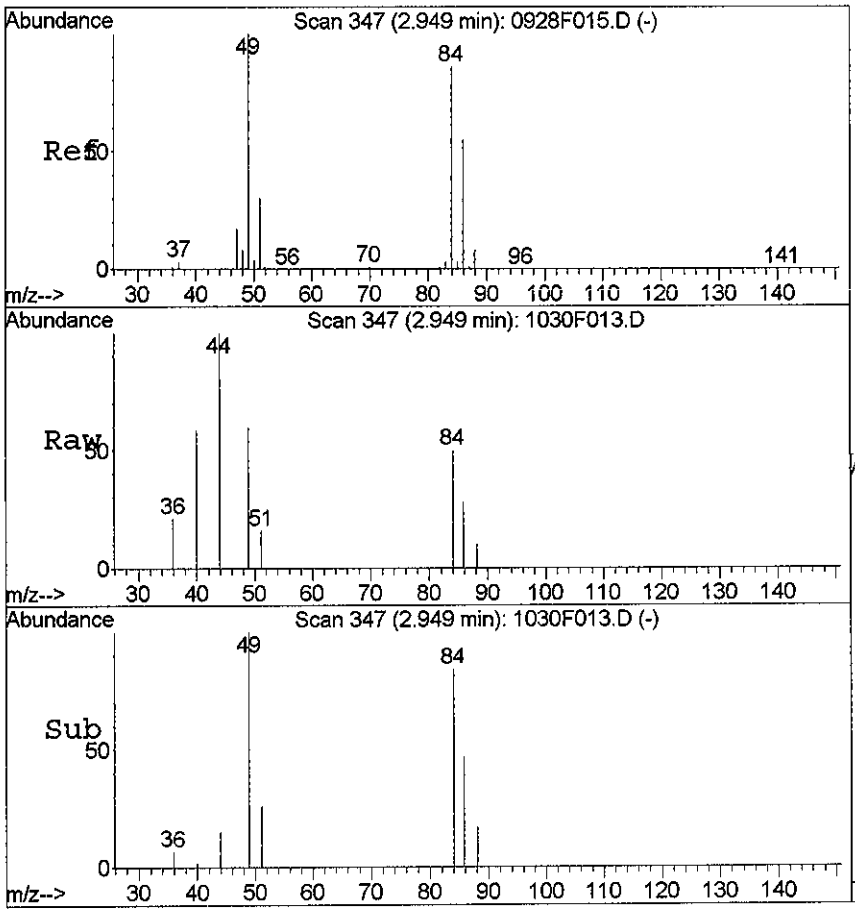


#14
Acetone
Concen: 0.35 PPB
RT: 2.55 min Scan# 271
Delta R.T. 0.01 min
Lab File: 1030F013.D
Acq: 30 Oct 2015 18:14

Tgt Ion: 43 Resp: 878

Ion	Ratio	Lower	Upper
43	100		
58	41.2	5.9	65.9
42	0.0	0.0	36.7

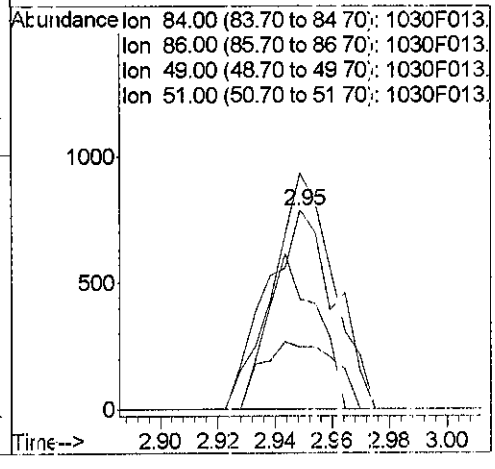


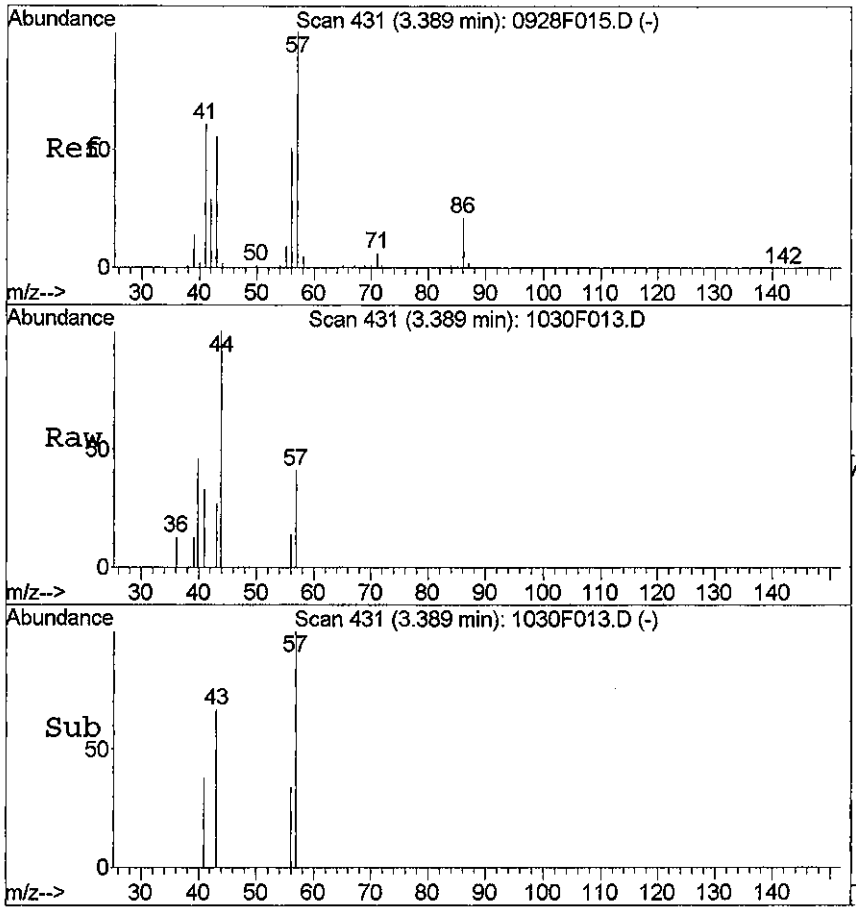


#21
Methylene Chloride
Concen: 0.06 PPB
RT: 2.95 min Scan# 347
Delta R.T. 0.00 min
Lab File: 1030F013.D
Acq: 30 Oct 2015 18:14

Tgt Ion: 84 Resp: 1302

Ion	Ratio	Lower	Upper
84	100		
86	55.3	34.2	94.2
49	118.4	85.9	145.9
51	31.1	4.3	64.3

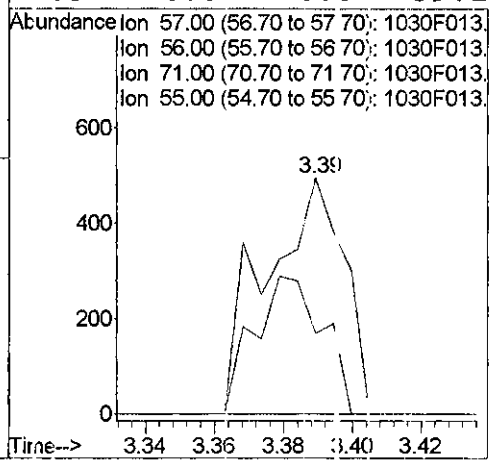


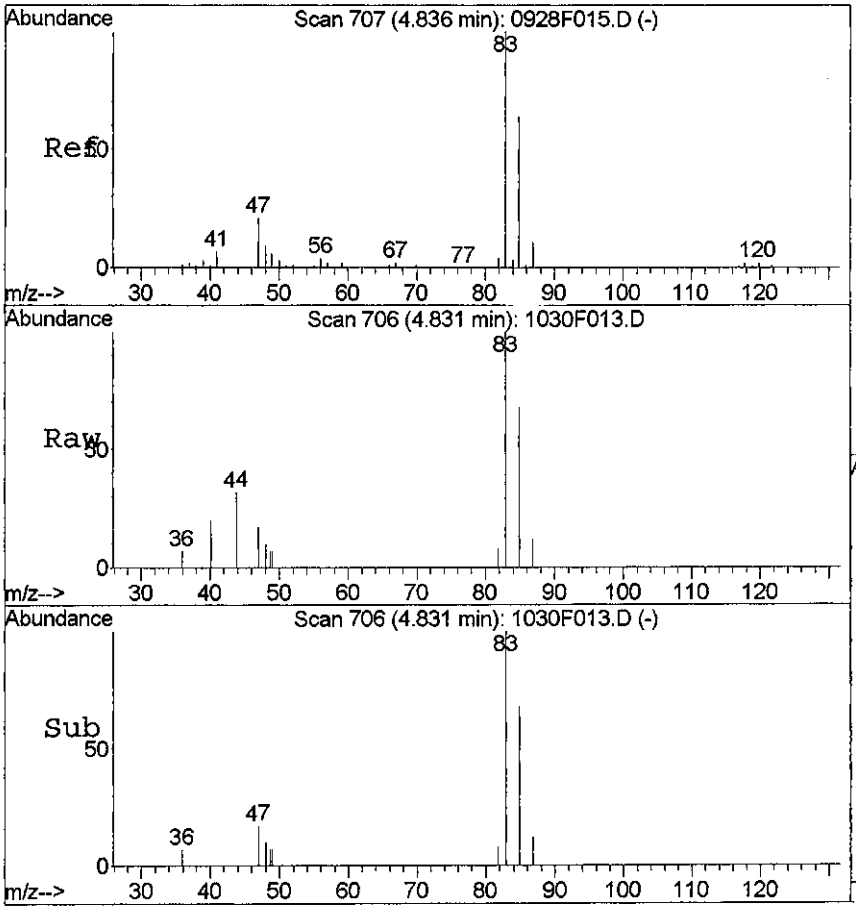


#26
Hexane
Concen: 0.05 PPB
RT: 3.39 min Scan# 431
Delta R.T. 0.00 min
Lab File: 1030FC13.D
Acq: 30 Oct 2015 18:14

Tgt Ion: 57 Resp: 773

Ion	Ratio	Lower	Upper
57	100		
56	34.1	21.3	81.3
71	0.0	0.0	36.0
55	0.0	0.0	39.1

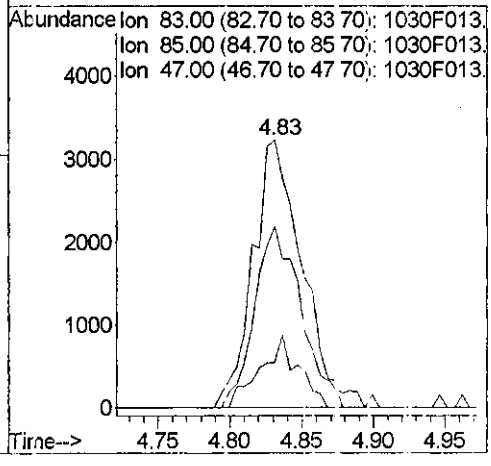


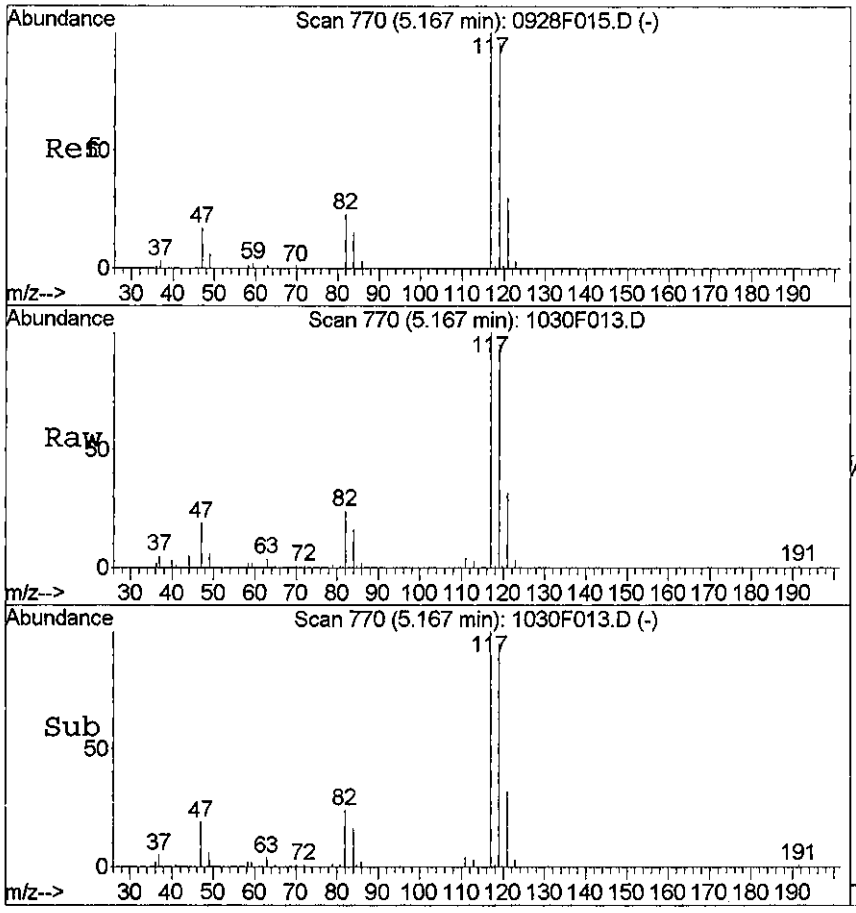


#40
Chloroform
Concen: 0.27 PPB
RT: 4.83 min Scan# 706
Delta R.T. -0.01 min
Lab File: 1030FC13.D
Acq: 30 Oct 2015 18:14

Tgt Ion: 83 Resp: 7641

Ion	Ratio	Lower	Upper
83	100		
85	67.7	34.3	94.3
47	16.8	0.0	50.8

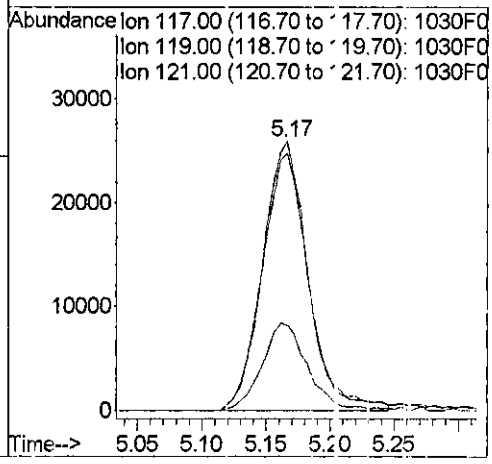


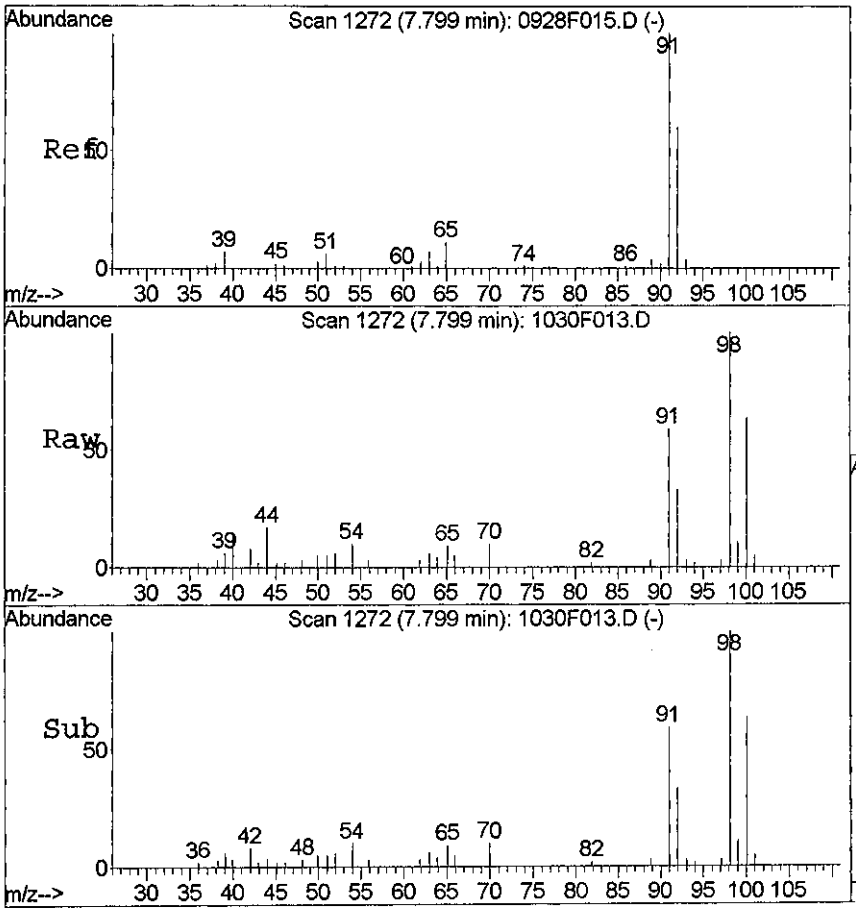


#44
Carbon Tetrachloride
Concen: 3.78 PPB m
RT: 5.17 min Scan# 770
Delta R.T. 0.00 min
Lab File: 1030F013.D
Acq: 30 Oct 2015 18:14

Tgt Ion:117 Resp: 64335

Ion	Ratio	Lower	Upper
117	100		
119	95.5	65.7	125.7
121	31.7	0.4	60.4

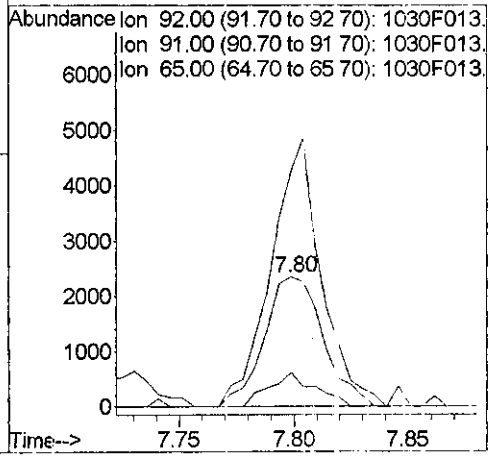


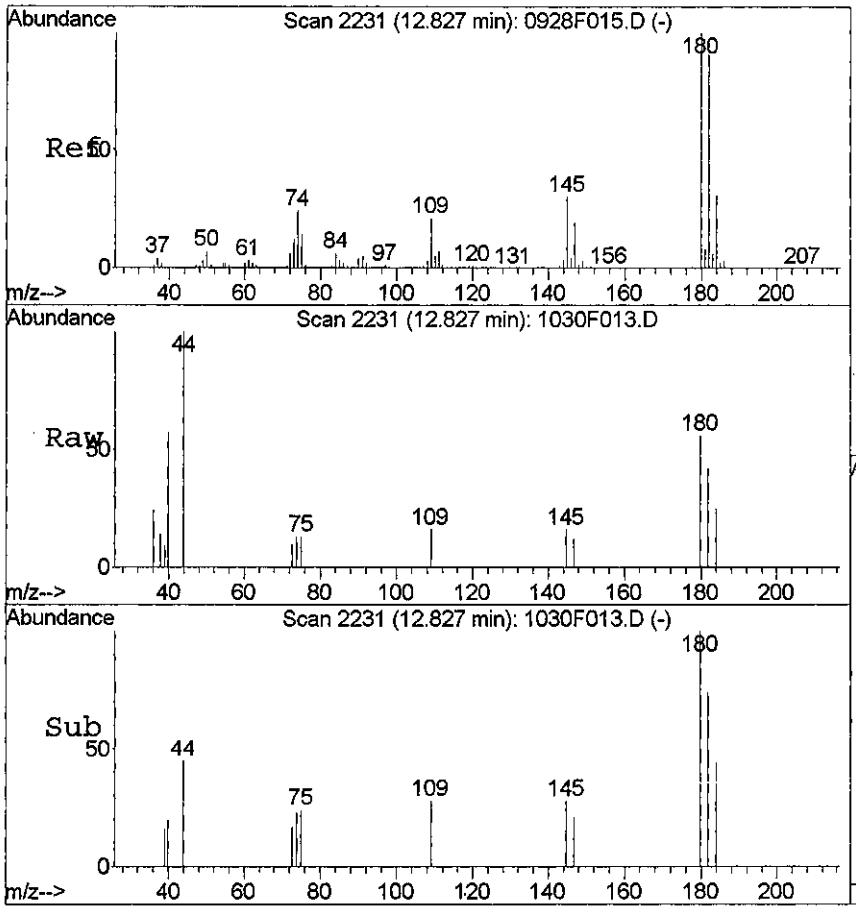


#64
'Toluene
Concen: 0.09 PPB
RT: 7.80 min Scan# 1272
Delta R.T. 0.00 min
Lab File: 1030F013.D
Acq: 30 Oct 2015 18:14

Tgt Ion: 92 Resp: 4224

Ion	Ratio	Lower	Upper
92	100		
91	181.2	137.9	197.9
65	26.4	0.0	47.8

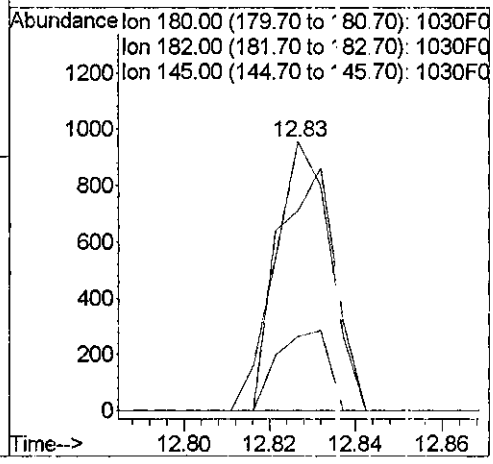


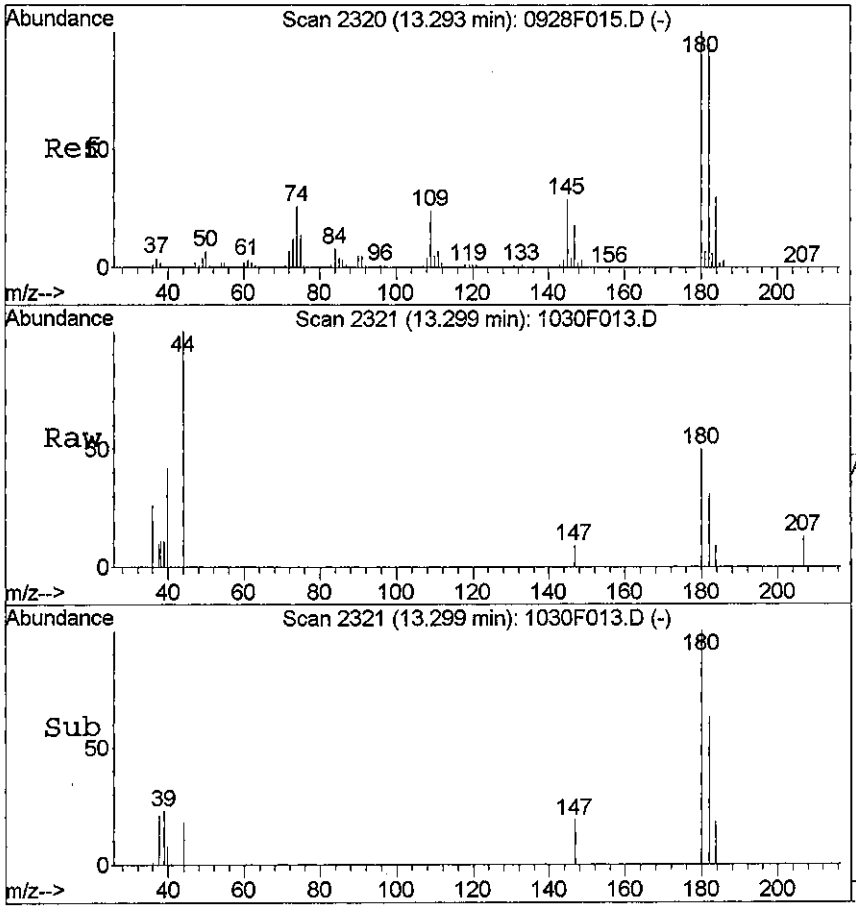


#104
1,3,5-Trichlorobenzene
Concen: 0.04 PPB
RT: 12.83 min Scan# 2231
Delta R.T. 0.00 min
Lab File: 1030F013.D
Acq: 30 Oct 2015 18:14

Tgt Ion:180 Resp: 859

Ion	Ratio	Lower	Upper
180	100		
182	74.5	65.7	125.7
145	27.7	0.0	59.6

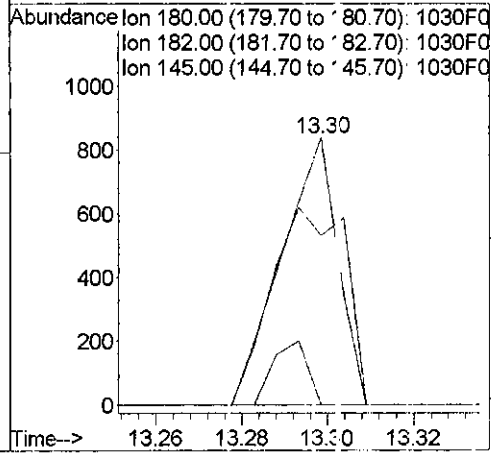




#105
1,2,4-Trichlorobenzene
Concen: 0.04 PPB
RT: 13.30 min Scan# 2321
Delta R.T. 0.01 min
Lab File: 1030F013.D
Acq: 30 Oct 2015 18:14

Tgt Ion:180 Resp: 768

Ion	Ratio	Lower	Upper
180	100		
182	63.4	64.9	124.9#
145	0.0	0.0	59.1



Exception Report

Data File: J:\MS18\DATA\103015\1030F014.D
Lab ID: K1512095-003
RunType: SMPL
Matrix: WATER

Date Acquired: 10/30/2015 18:36
Date Quantitated: 10/30/2015 20:20
Batch ID: KWG1510604
Analysis Method: 8260C
ListJoinID: LJ1423

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 10/30/2015

Secondary Review: 11/3/15

Quantitation Report

Data File:	J:\MS18\DATA\103015\1030F014.D			**Instrument:**	GC-MS 18
Acqu Date:	10/30/2015 18:36	**Quant Date:**	10/30/2015 20:20	**Vial:**	13
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1512095-003			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	10/22/2015	**Receive Date:**	10/24/2015

Analysis Lot:	KWG1510604	**Prep Lot:**	KWG1510605	**Report Group:**	K1512095
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1479843	**Prep Date:**	10/30/2015		

Quant Method:	J:\MS18\METHODS\092815MS18_8	**Calibration ID:**	CAL14315
Title:	Volatile Organic Compounds	**Report List ID:**	LJ1423
Tune Ref:	J:\MS18\DATA\103015\1030F002.D	**Method ID:**	MJ119
MB Ref:	J:\MS18\DATA\103015\1030F008.D	**Quant based on Report List**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.89	0.00	96	631378	10.00	OK
2	Chlorobenzene-d5	9.30	0.00	82	251989	10.00	OK
3	1,4-Dichlorobenzene-d4	11.72	0.00	152	226785	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.06	0.00	0.00	113	133272	9.41	94	73-122	OK	
1	Toluene-d8	7.72	-0.01	0.00	98	619357	9.72	97	65-144	OK	
2	4-Bromofluorobenzene	10.54	0.00	0.00	95	214830	8.85	89	68-117	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Tetrachloride	5.16		0.00	117	8420m	0.5100	0.51		

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\103015\1030F014.D Vial: 13
Acq On : 30 Oct 2015 18:36 Operator: YX/KR
Sample : K1512095-003 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 20:06:03 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration
DataAcq Meth : 8260

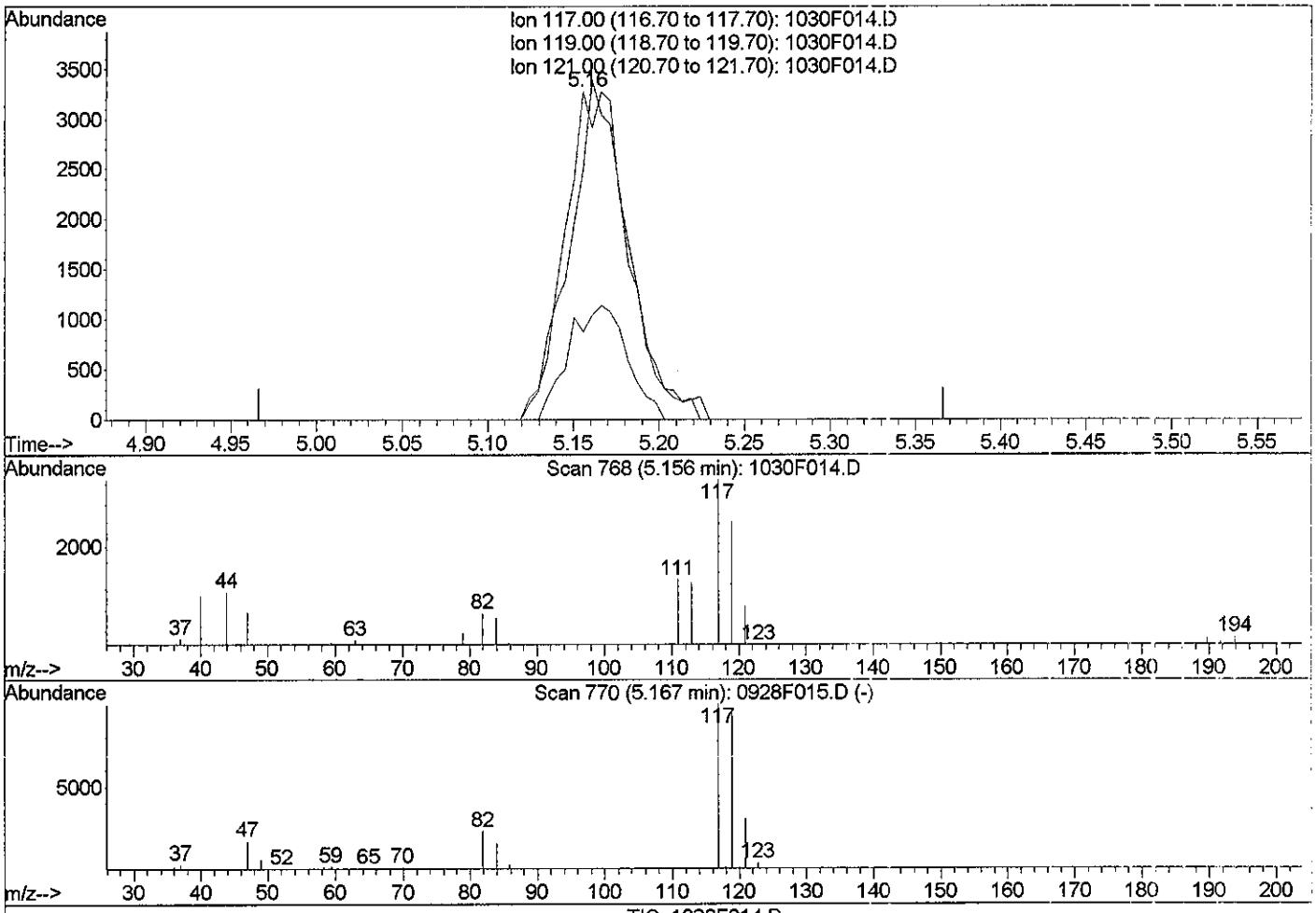
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.89	96	631378	10.00	PPB	0.00
65) Chlorobenzene-d5	9.30	82	251989	10.00	PPB	0.00
86) 1,4-Dichlorobenzene-d4	11.72	152	226785	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.06	113	133272	9.41	PPB	0.00
Spiked Amount 10.000			Recovery =	94.10%		
48) 1,2-Dichloroethane-d4	5.54	65	152959	9.84	PPB	0.00
Spiked Amount 10.000			Recovery =	98.40%		
63) Toluene-d8	7.72	98	619357	9.72	PPB	0.00
Spiked Amount 10.000			Recovery =	97.20%		
85) 4-Bromofluorobenzene	10.54	95	214830	8.85	PPB	0.00
Spiked Amount 10.000			Recovery =	88.50%		
Target Compounds						Qvalue
3) Chloromethane	1.35	50	2464	0.12	PPB	93
9) Trichlorofluoromethane	1.96	101	726	0.03	PPB	69
14) Acetone	2.55	43	1609	0.65	PPB	77
21) Methylene Chloride	2.94	84	1101	0.06	PPB	78
40) Chloroform	4.83	83	18443	0.65	PPB	94
44) Carbon Tetrachloride	5.16	117	8420m	0.51	PPB	
52) Trichloroethene	6.32	95	1044	0.06	PPB	91
57) Bromodichloromethane	6.98	83	952	0.05	PPB	79
64) Toluene	7.80	92	6057	0.13	PPB	94
75) 1-Chlorohexane	9.30	91	1050	0.05	PPB	71
104) 1,3,5-Trichlorobenzene	12.83	180	654	0.03	PPB	84
105) 1,2,4-Trichlorobenzene	13.29	180	611	0.03	PPB	81

(#) = qualifier out of range (m) = manual integration
1030F014.D 092815MS18_8260.M Fri Oct 30 20:22:30 2015 Page 1

Quantitation Report (Qedit)

Data File : J:\MS18\DATA\103015\1030F014.D Vial: 13
Acq On : 30 Oct 2015 18:36 Operator: YX/KR
Sample : K1512095-003 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 20:15 2015 Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Multiple Level Calibration



TIC: 1030F014.D

(44) Carbon Tetrachloride (T)

5.16min 0.52PPB

response 8555

Ion	Exp%	Act%
117.00	100	100
119.00	95.70	75.79
121.00	30.40	26.71
0.00	0.00	0.00

Manual Integration:

Before

10/30/15

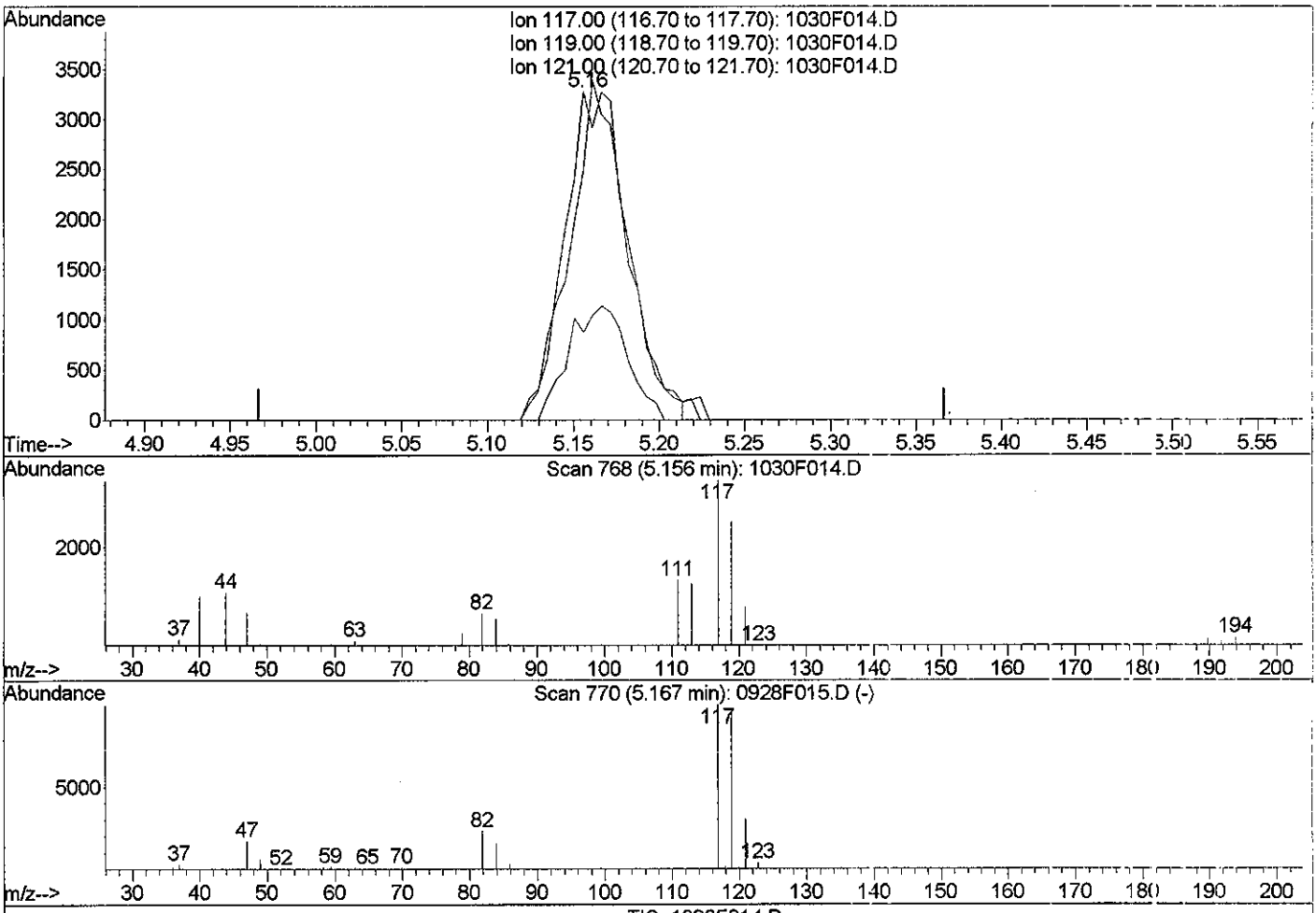
kr 11/3/15

1030F014.D 092815MS18_8260.M Fri Oct 30 20:20:58 2015

Quantitation Report (Qedit)

Data File : J:\MS18\DATA\103015\1030F014.D Vial: 13
Acq On : 30 Oct 2015 18:36 Operator: YX/KR
Sample : K1512095-003 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 20:20 2015 Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Multiple Level Calibration



TIC: 1030F014.D

(44) Carbon Tetrachloride (T)

5.16min 0.51PPB m

response 8420

Ion	Exp%	Act%
117.00	100	100
119.00	95.70	75.79
121.00	30.40	26.71
0.00	0.00	0.00

Manual Integration:

After

Shoulder

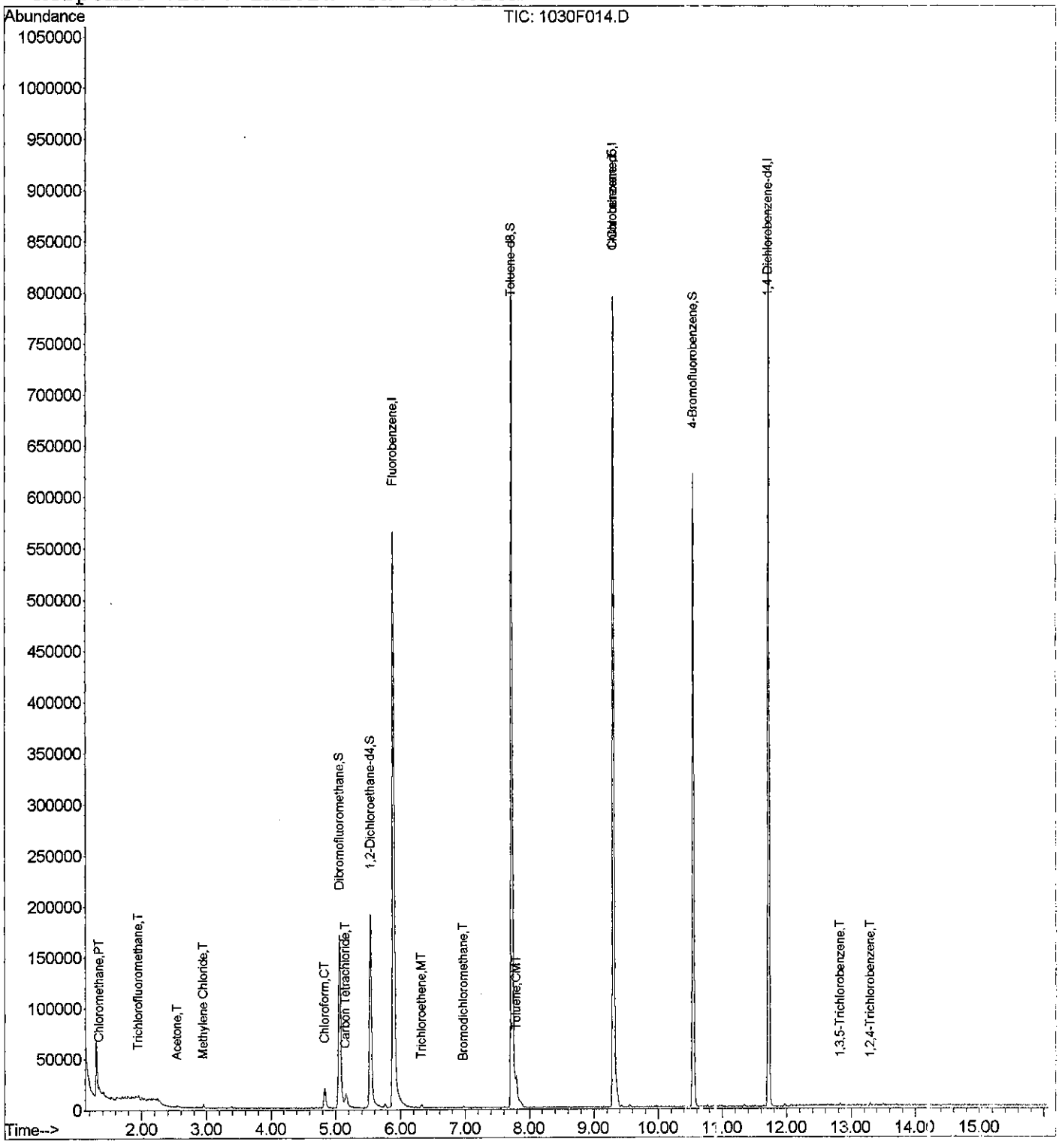
10/30/15

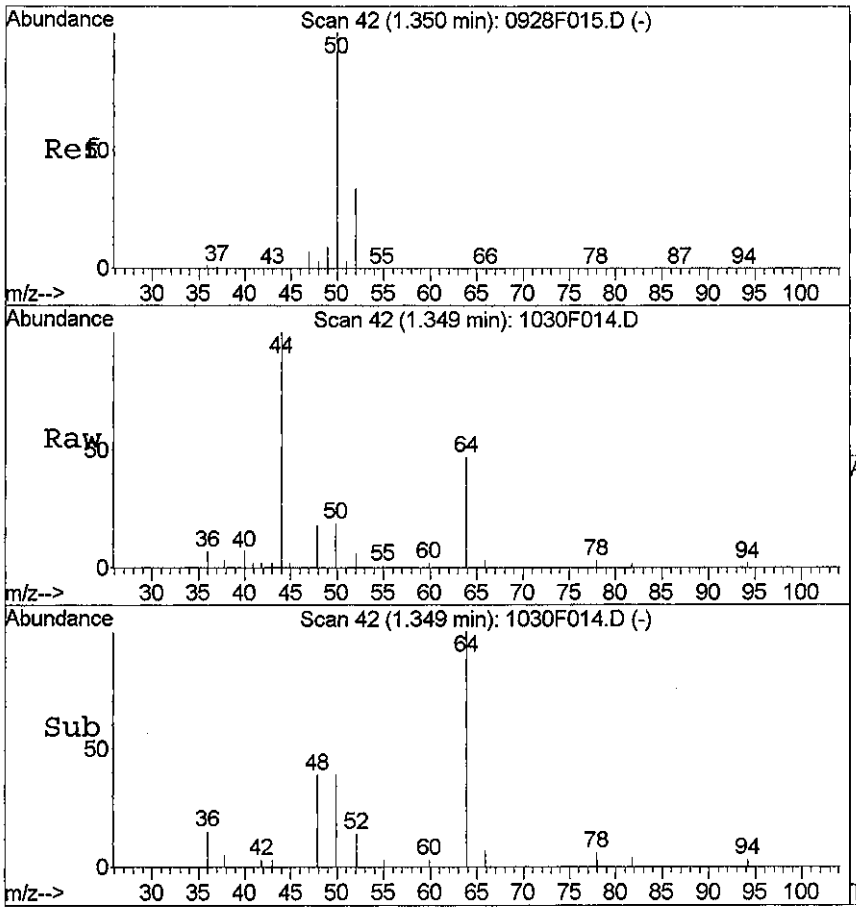
1030F014.D 092815MS18_8260.M Fri Oct 30 20:21:03 2015

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\103015\1030F014.D Vial: 13
Acq On : 30 Oct 2015 18:36 Operator: YX/KR
Sample : K1512095-003 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 20:20 2015 Quant Results File: 092815MS18_8

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration

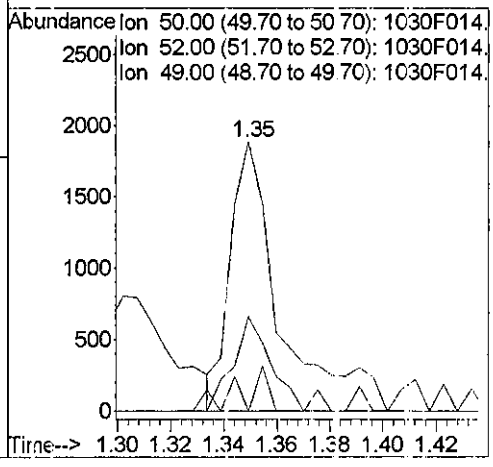


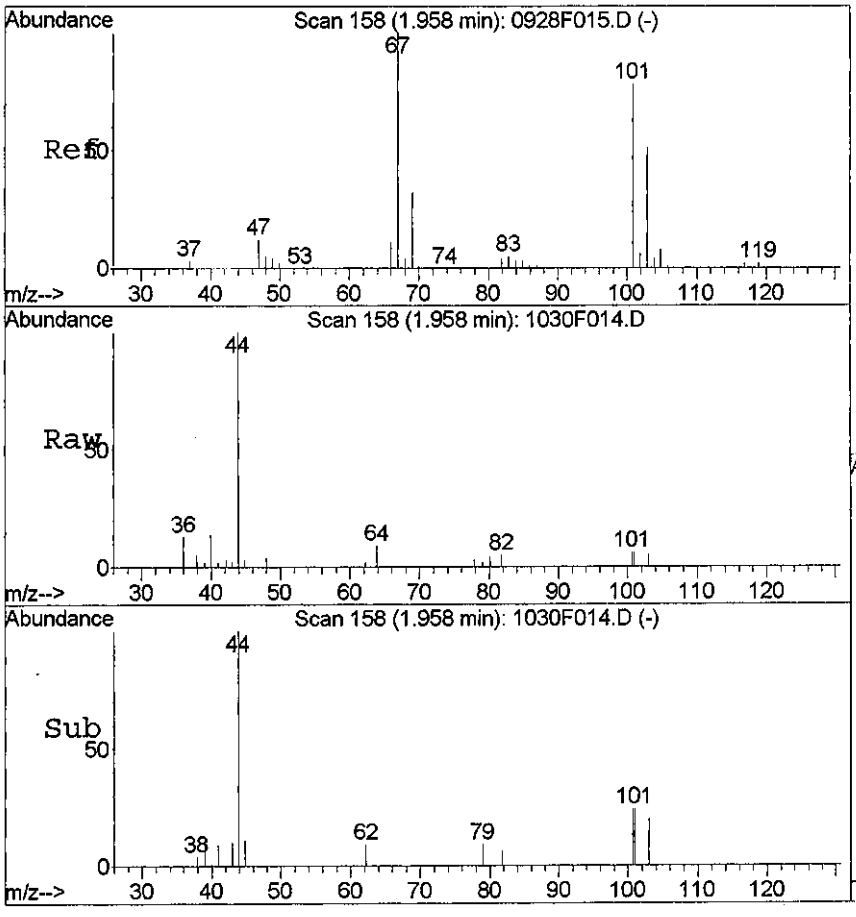


#3
Chloromethane
Concen: 0.12 PPB
RT: 1.35 min Scan# 42
Delta R.T. -0.00 min
Lab File: 1030F014.D
Acq: 30 Oct 2015 18:36

Tgt Ion: 50 Resp: 2464

Ion	Ratio	Lower	Upper
50	100		
52	34.9	3.5	63.5
49	0.0	0.0	39.3

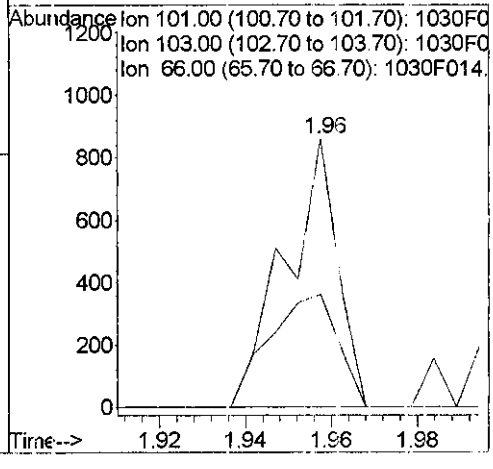


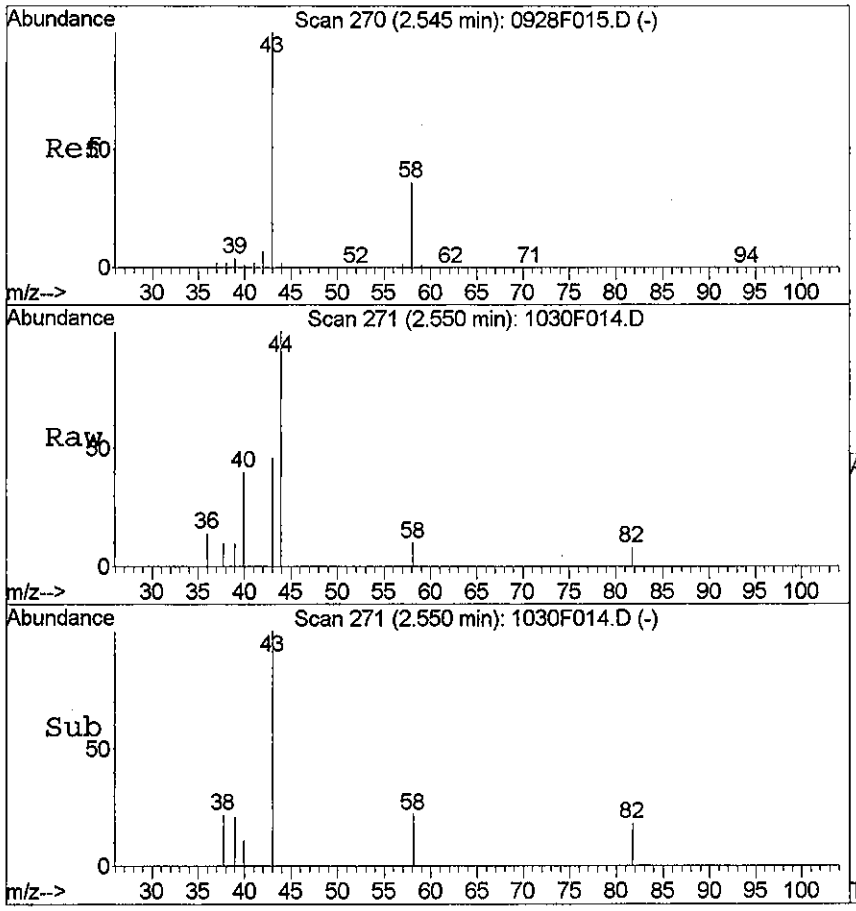


#9
Trichlorofluoromethane
Concen: 0.03 PPB
RT: 1.96 min Scan# 158
Delta R.T. -0.00 min
Lab File: 1030F014.D
Acq: 30 Oct 2015 18:36

Tgt Ion:101 Resp: 726

Ion	Ratio	Lower	Upper
101	100		
103	42.0	35.9	95.9
66	0.0	0.0	43.9

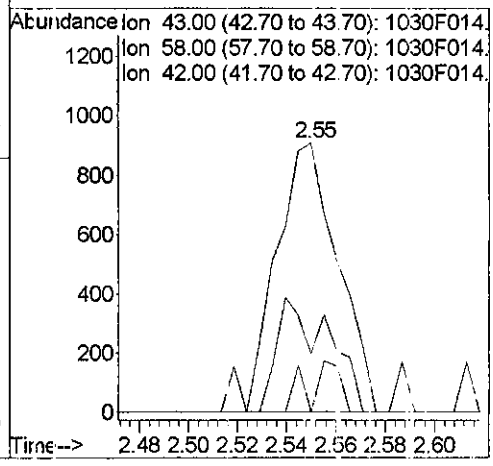


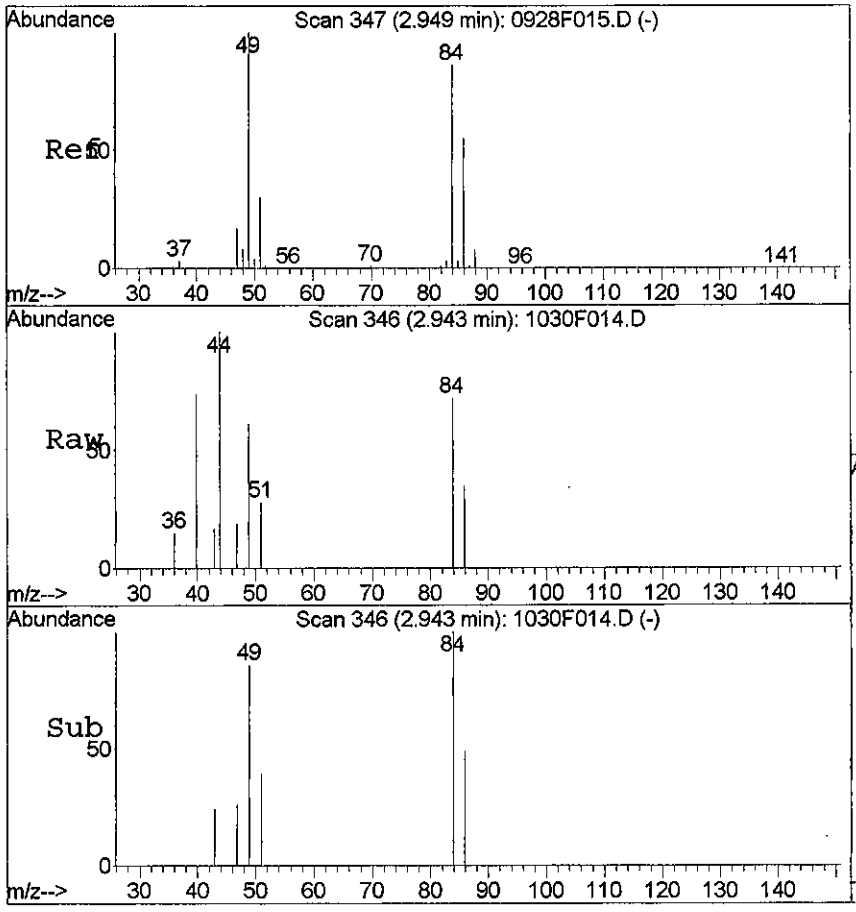


#14
Acetone
Concen: 0.65 PPB
RT: 2.55 min Scan# 271
Delta R.T. 0.01 min
Lab File: 1030F014.D
Acq: 30 Oct 2015 18:36

Tgt Ion: 43 Resp: 1609

Ion	Ratio	Lower	Upper
43	100		
58	21.7	5.9	65.9
42	0.0	0.0	36.7

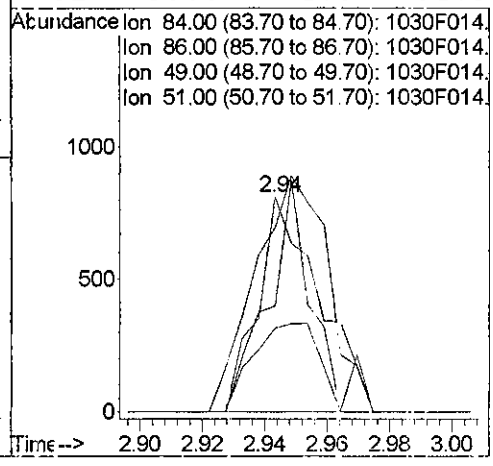


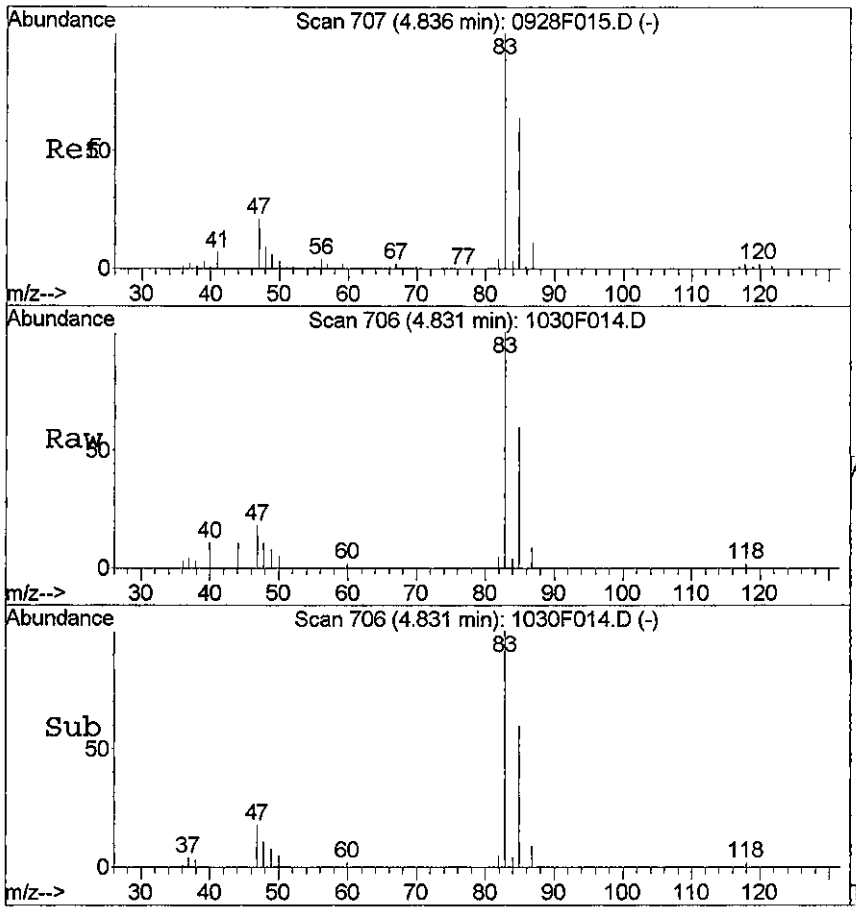


#21
Methylene Chloride
Concen: 0.06 PPB
RT: 2.94 min Scan# 346
Delta R.T. -0.01 min
Lab File: 1030F014.D
Acq: 30 Oct 2015 18:36

Tgt Ion: 84 Resp: 1101

Ion	Ratio	Lower	Upper
84	100		
86	49.1	34.2	94.2
49	85.9	85.9	145.9
51	38.8	4.3	64.3

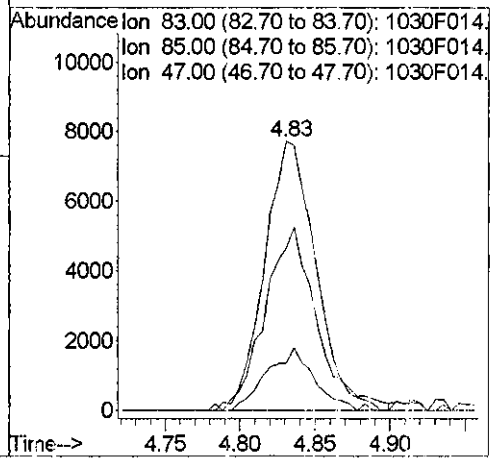


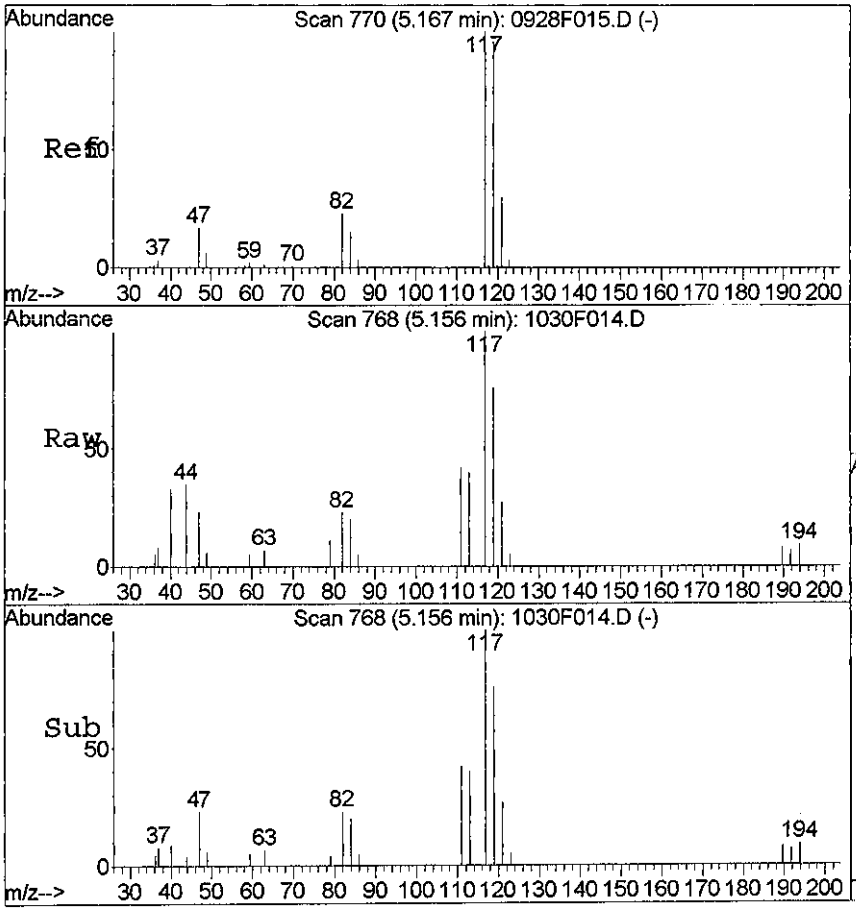


#40
Chloroform
Concen: 0.65 PPB
RT: 4.83 min Scan# 706
Delta R.T. -0.01 min
Lab File: 1030F014.D
Acq: 30 Oct 2015 18:36

Tgt Ion: 83 Resp: 18443

Ion	Ratio	Lower	Upper
83	100		
85	60.1	34.3	94.3
47	17.5	0.0	50.8

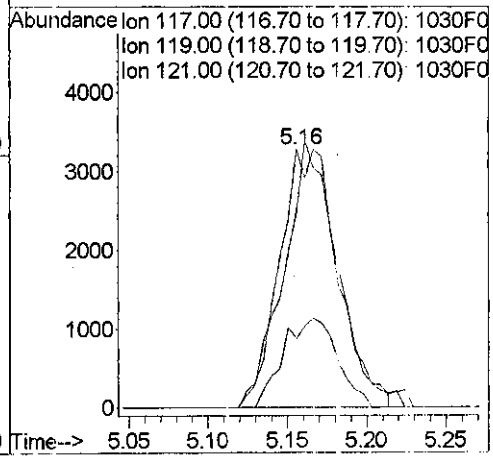


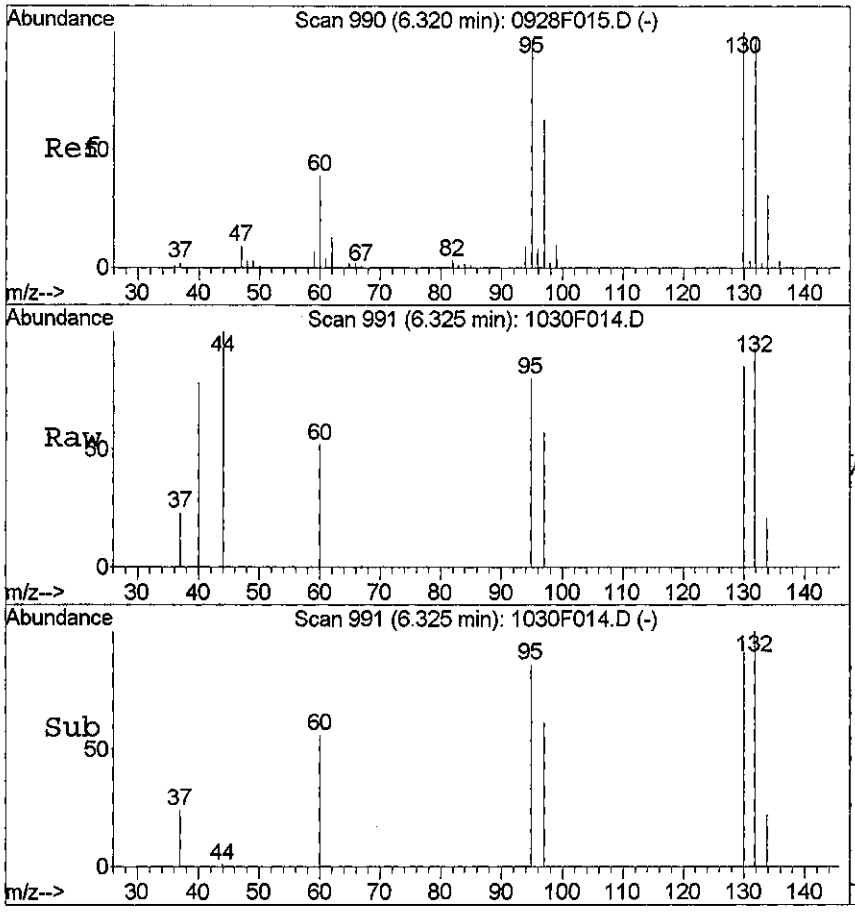


#44
Carbon Tetrachloride
Concen: 0.51 PPB m
RT: 5.16 min Scan# 768
Delta R.T. -0.01 min
Lab File: 1030F014.D
Acq: 30 Oct 2015 18:36

Tgt Ion:117 Resp: 8420

Ion	Ratio	Lower	Upper
117	100		
119	75.8	65.7	125.7
121	26.7	0.4	60.4

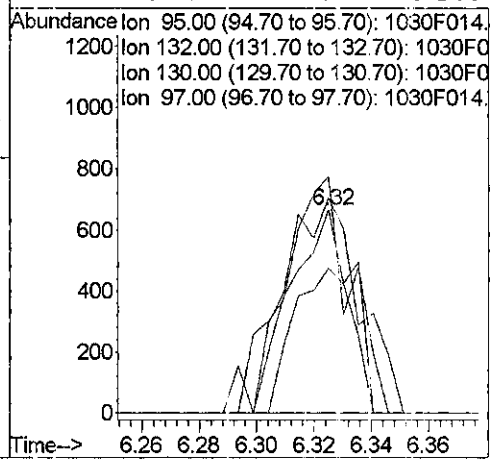


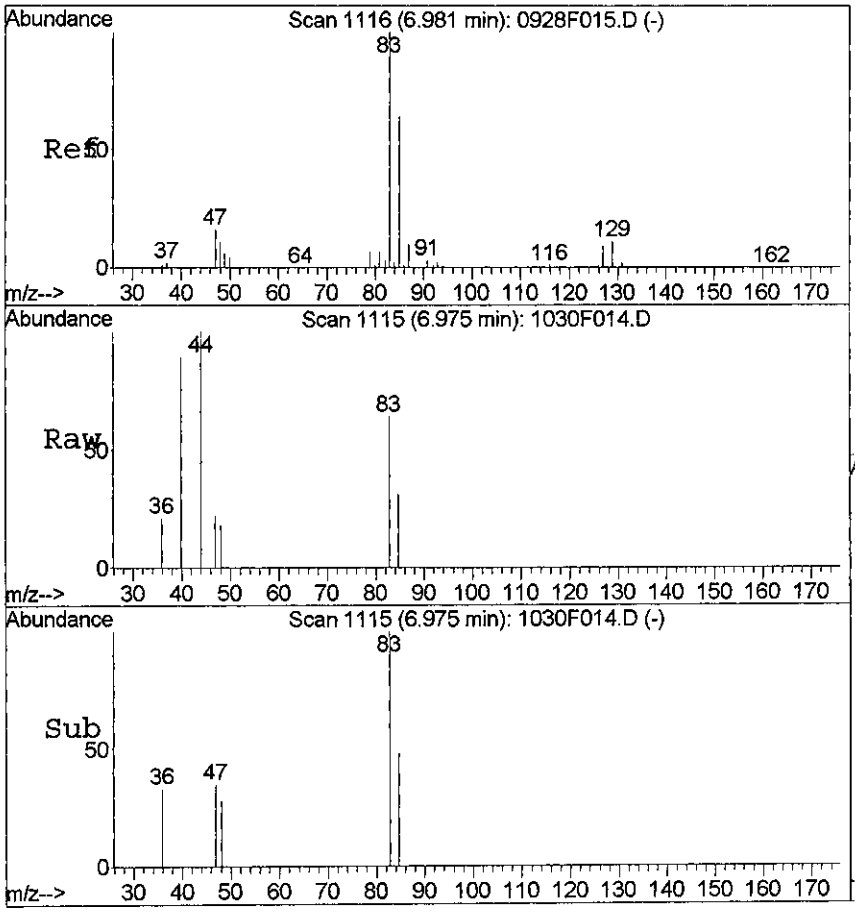


#52
Trichloroethene
Concen: 0.06 PPB
RT: 6.32 min Scan# 991
Delta R.T. 0.00 min
Lab File: 1030F014.D
Acq: 30 Oct 2015 18:36

Tgt Ion: 95 Resp: 1044

Ion	Ratio	Lower	Upper
95	100		
132	116.0	70.8	130.8
130	105.8	73.2	133.2
97	71.1	34.9	94.9

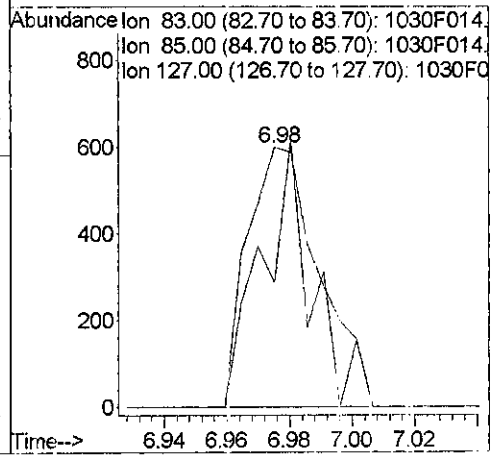


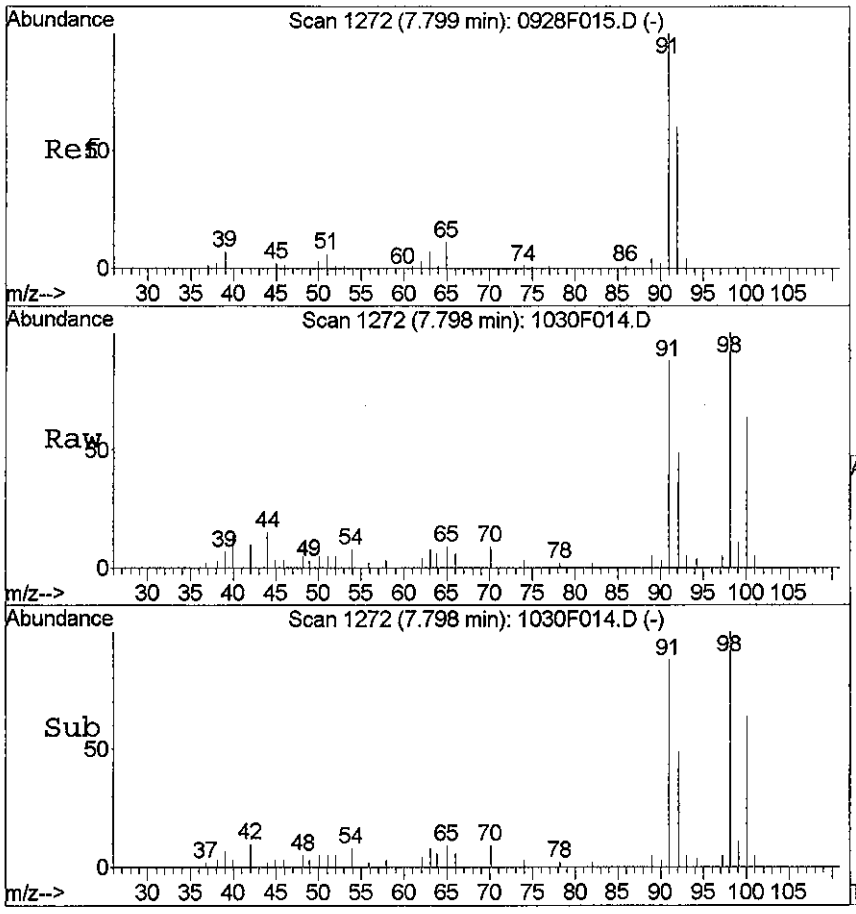


#57
Bromodichloromethane
Concen: 0.05 PPB
RT: 6.98 min Scan# 1115
Delta R.T. -0.01 min
Lab File: 1030F014.D
Acq: 30 Oct 2015 18:36

Tgt Ion: 83 Resp: 952

Ion	Ratio	Lower	Upper
83	100		
85	48.0	34.2	94.2
127	0.0	0.0	38.7

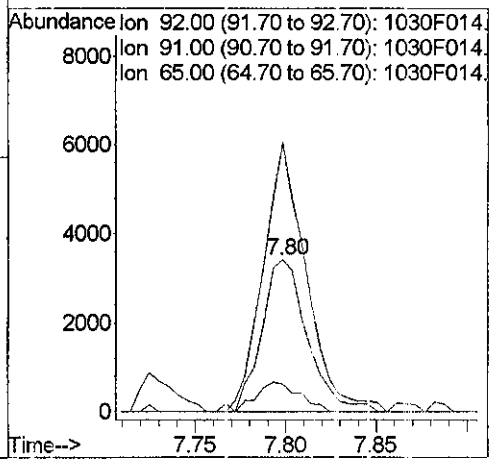


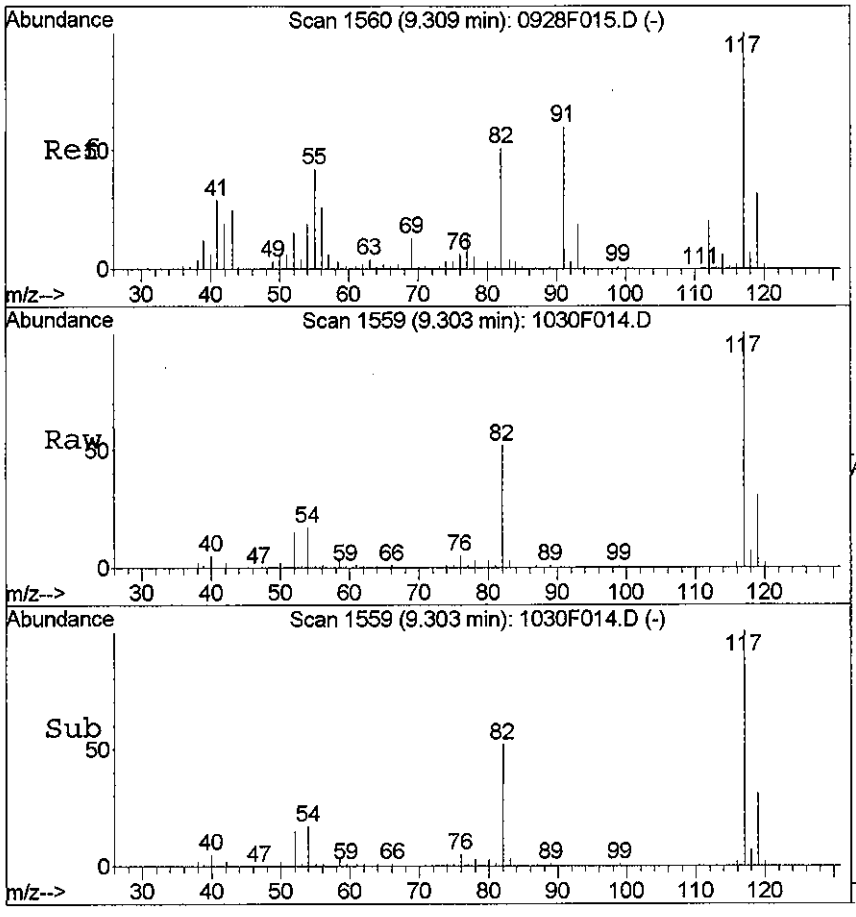


#64
Toluene
Concen: 0.13 PPB
RT: 7.80 min Scan# 1272
Delta R.T. -0.00 min
Lab File: 1030F014.D
Acq: 30 Oct 2015 18:36

Tgt Ion: 92 Resp: 6057

Ion	Ratio	Lower	Upper
92	100		
91	177.3	137.9	197.9
65	18.4	0.0	47.8

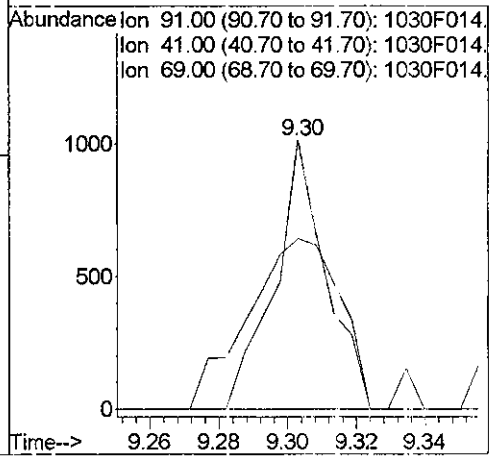


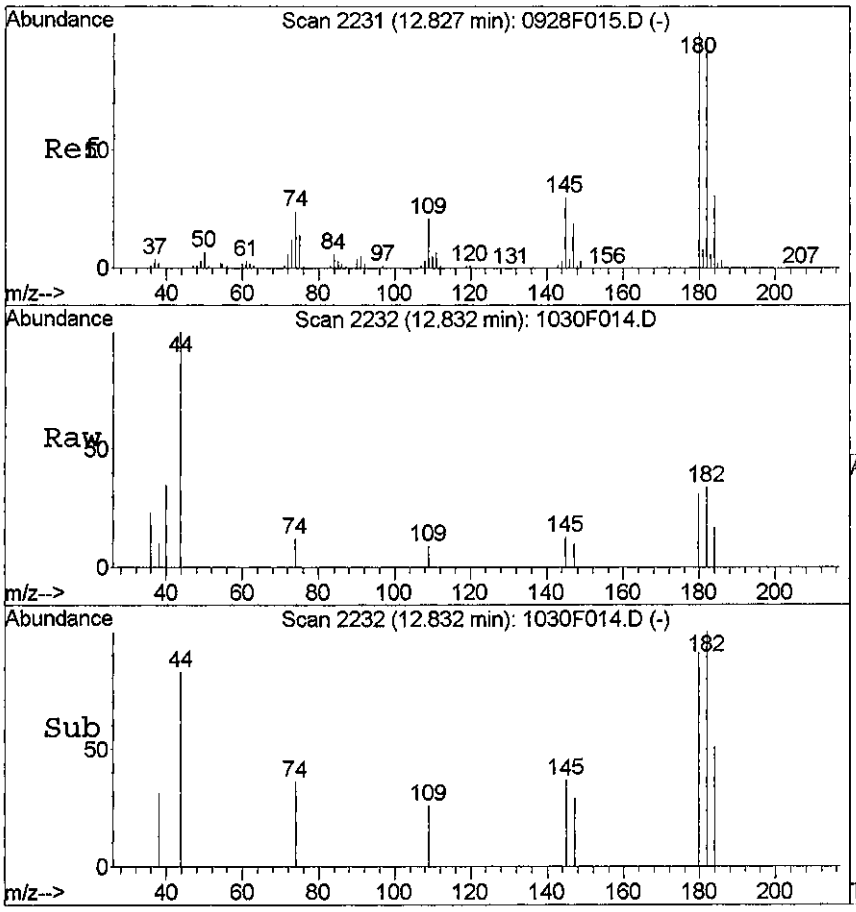


#75
1-Chlorohexane
Concen: 0.05 PPB
RT: 9.30 min Scan# 1559
Delta R.T. -0.01 min
Lab File: 1030F014.D
Acq: 30 Oct 2015 18:36

Tgt Ion: 91 Resp: 1050

Ion	Ratio	Lower	Upper
91	100		
41	63.3	18.4	78.4
69	0.0	0.0	51.1

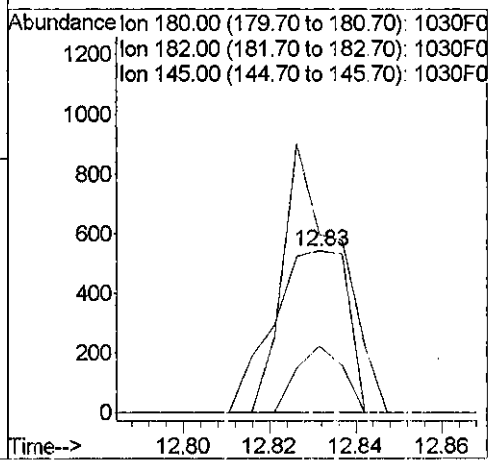


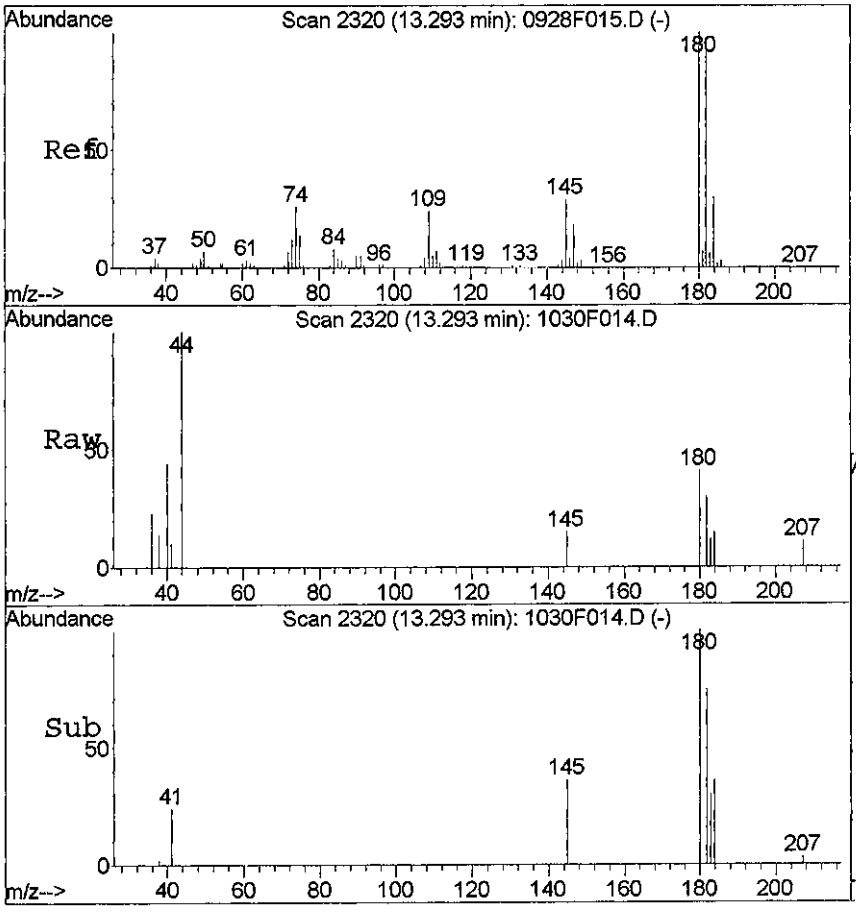


#104
1,3,5-Trichlorobenzene
Concen: 0.03 PPB
RT: 12.83 min Scan# 2232
Delta R.T. 0.00 min
Lab File: 1030F014.D
Acq: 30 Oct 2015 18:36

Tgt Ion:180 Resp: 654

Ion	Ratio	Lower	Upper
180	100		
182	109.9	65.7	125.7
145	41.1	0.0	59.6

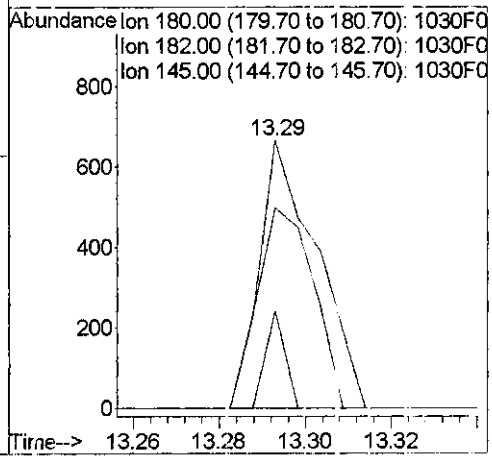




#105
1,2,4-Trichlorobenzene
Concen: 0.03 PPB
RT: 13.29 min Scan# 2320
Delta R.T. -0.00 min
Lab File: 1030F014.D
Acq: 30 Oct 2015 18:36

Tgt Ion:180 Resp: 611

Ion	Ratio	Lower	Upper
180	100		
182	74.7	64.9	124.9
145	36.4	0.0	59.1



Exception Report

Data File: J:\MS18\DATA\103015\1030F011.D
Lab ID: K1512095-004
RunType: SMPL
Matrix: WATER

Date Acquired: 10/30/2015 17:32
Date Quantitated: 10/30/2015 20:13
Batch ID: KWG1510604
Analysis Method: 8260C
ListJoinID: LJ1423

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: KGO 10/30/15

Secondary Review: KA 11/3/15

Quantitation Report

Data File:	J:\MS18\DATA\103015\1030F011.D			**Instrument:**	GC-MS 18
Acqu Date:	10/30/2015 17:32	**Quant Date:**	10/30/2015 20:13	**Vial:**	10
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1512095-004			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	10/22/2015	**Receive Date:**	10/24/2015

Analysis Lot:	KWG1510604	**Prep Lot:**	KWG1510605	**Report Group:**	K1512095
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1479844	**Prep Date:**	10/30/2015		

Quant Method:	J:\MS18\METHODS\092815MS18_8	**Calibration ID:**	CAL14315
Title:	Volatile Organic Compounds	**Report List ID:**	LJ1423
Tune Ref:	J:\MS18\DATA\103015\1030F002.D	**Method ID:**	MJ119
MB Ref:	J:\MS18\DATA\103015\1030F008.D	**Quant based on Report List**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.89	0.00	96	656352	10.00	OK
2	Chlorobenzene-d5	9.30	0.00	82	261557	10.00	OK
3	1,4-Dichlorobenzene-d4	11.72	0.00	152	236304	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.06	0.00	0.00	113	135278	9.19	92	73-122	OK	
1	Toluene-d8	7.72	-0.01	0.00	98	636979	9.62	96	65-144	OK	
2	4-Bromofluorobenzene	10.55	0.01	0.00	95	222438	8.83	88	68-117	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Tetrachloride	5.17	0.01	0.00	117	65218	3.76	3.8		

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\103015\1030F011.D Vial: 10
Acq On : 30 Oct 2015 17:32 Operator: YX/KR
Sample : K1512095-004 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 20:06:01 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration
DataAcq Meth : 8260

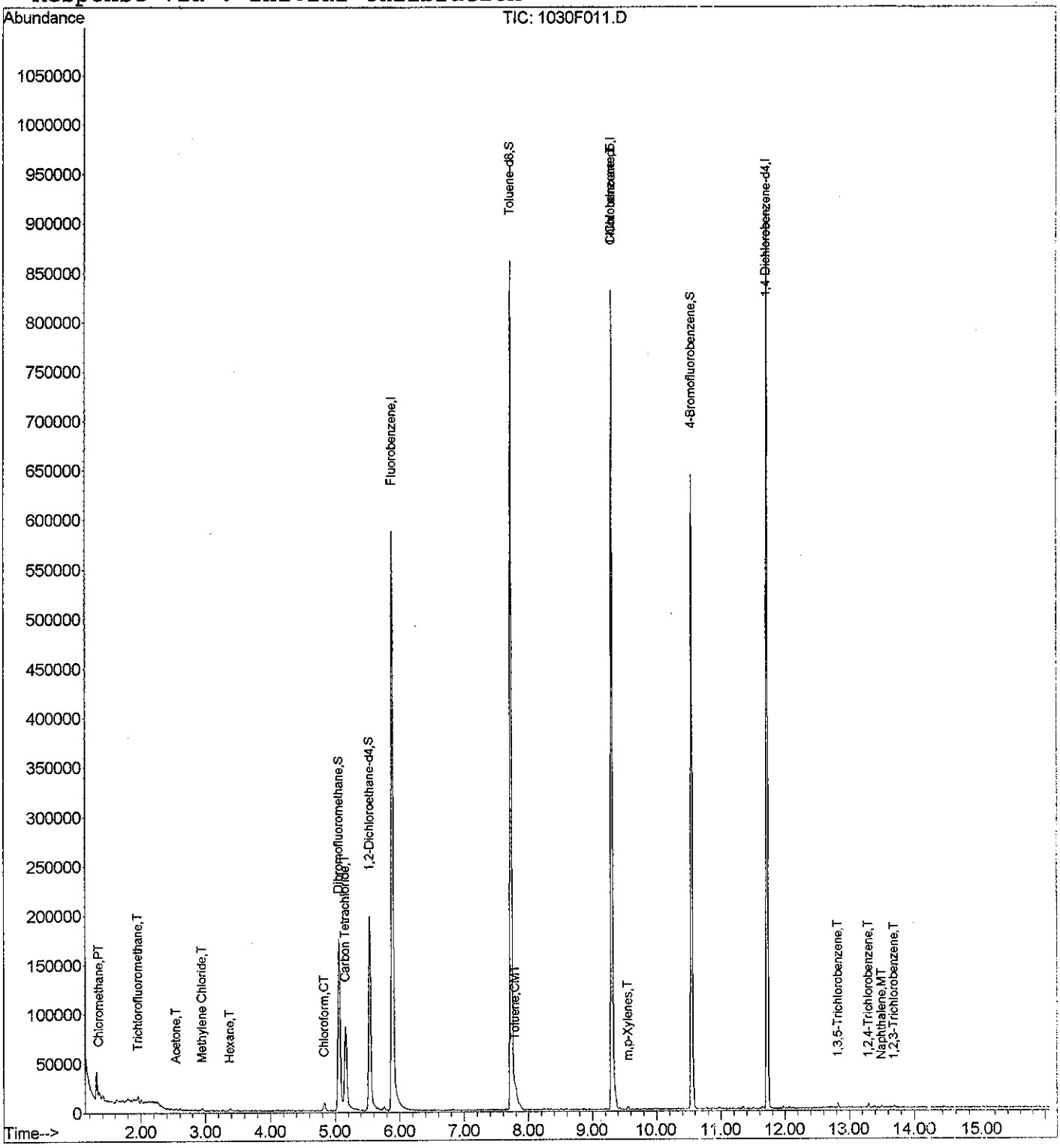
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	5.89	96	656352	10.00	PPB		0.00
65) Chlorobenzene-d5	9.30	82	261557	10.00	PPB		0.00
86) 1,4-Dichlorobenzene-d4	11.72	152	236304	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.06	113	135278	9.19	PPB		0.00
Spiked Amount 10.000			Recovery =	91.90%			
48) 1,2-Dichloroethane-d4	5.53	65	158136	9.78	PPB		0.00
Spiked Amount 10.000			Recovery =	97.80%			
63) Toluene-d8	7.72	98	636979	9.62	PPB		0.00
Spiked Amount 10.000			Recovery =	96.20%			
85) 4-Bromofluorobenzene	10.55	95	222438	8.83	PPB		0.00
Spiked Amount 10.000			Recovery =	88.30%			
Target Compounds							Qvalue
3) Chloromethane	1.35	50	2440	0.11	PPB		89
9) Trichlorofluoromethane	1.96	101	1969	0.09	PPB		80
14) Acetone	2.54	43	1318	0.51	PPB		92
21) Methylene Chloride	2.95	84	684	0.03	PPB		86
26) Hexane	3.39	57	1039	0.07	PPB		88
40) Chloroform	4.84	83	7840	0.27	PPB		98
44) Carbon Tetrachloride	5.17	117	65218	3.76	PPB		97
64) Toluene	7.80	92	3310	0.07	PPB		96
75) 1-Chlorohexane	9.30	91	1046	0.05	PPB		59
79) m,p-Xylenes	9.55	106	1100	0.03	PPB	#	76
104) 1,3,5-Trichlorobenzene	12.83	180	1051	0.04	PPB		87
105) 1,2,4-Trichlorobenzene	13.30	180	1058	0.05	PPB		75
107) Naphthalene	13.50	128	1382	0.03	PPB		77
108) 1,2,3-Trichlorobenzene	13.69	180	522	0.03	PPB	#	12

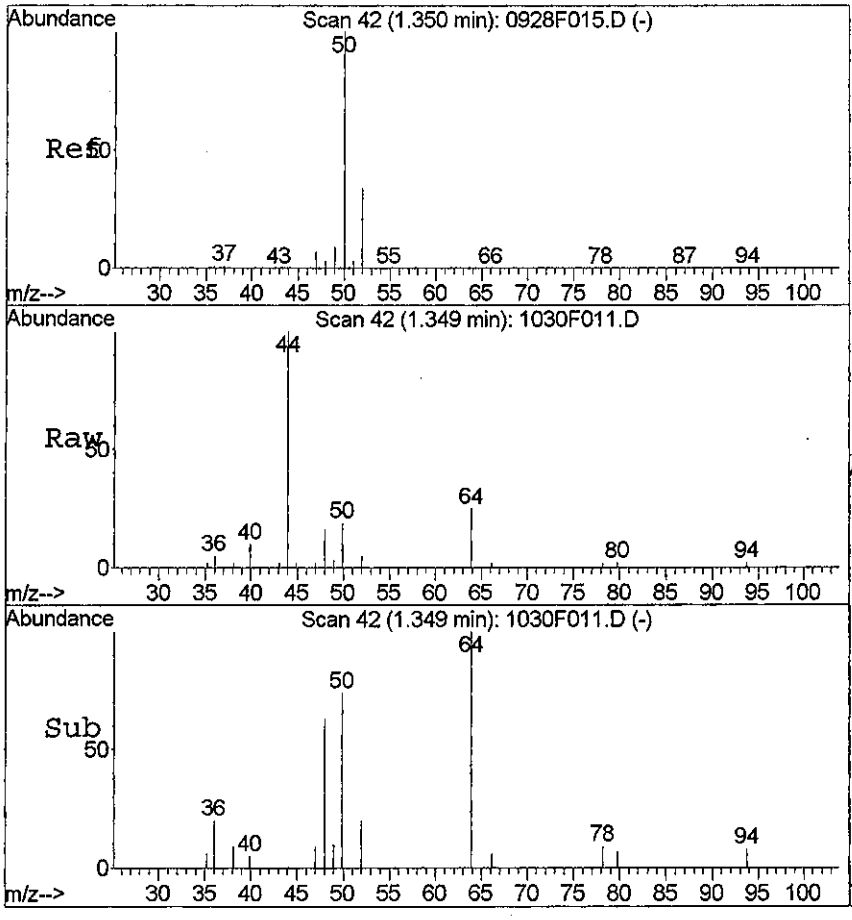
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\103015\1030F011.D Vial: 10
Acq On : 30 Oct 2015 17:32 Operator: YX/KR
Sample : K1512095-004 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 20:13 2015 Quant Results File: 092815MS18_8

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration

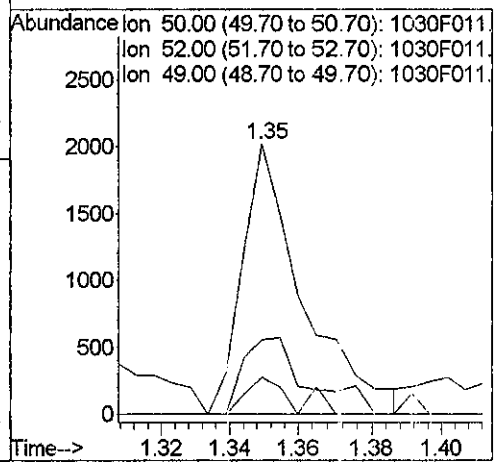


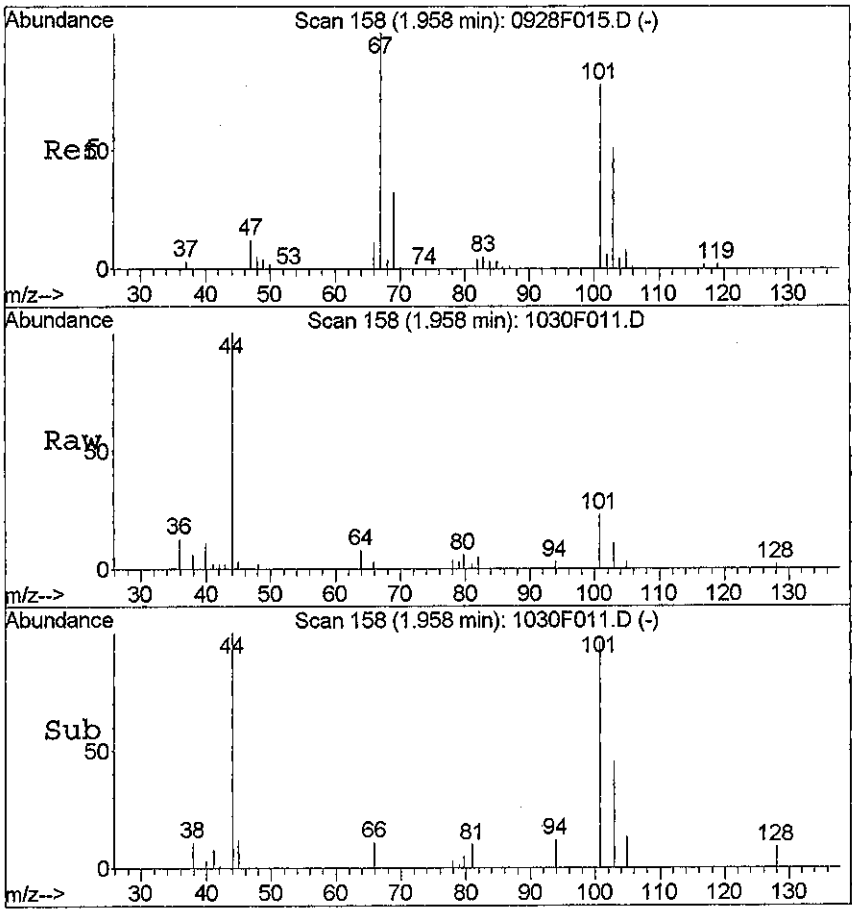


#3
Chloromethane
Concen: 0.11 PPB
RT: 1.35 min Scan# 42
Delta R.T. -0.00 min
Lab File: 1030F011.D
Acq: 30 Oct 2015 17:32

Tgt Ion: 50 Resp: 2440

Ion	Ratio	Lower	Upper
50	100		
52	27.5	3.5	63.5
49	13.6	0.0	39.3

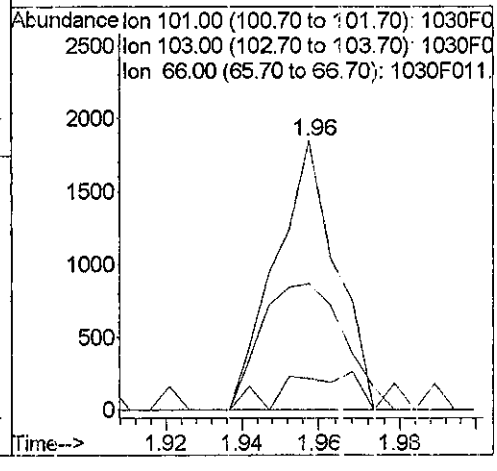


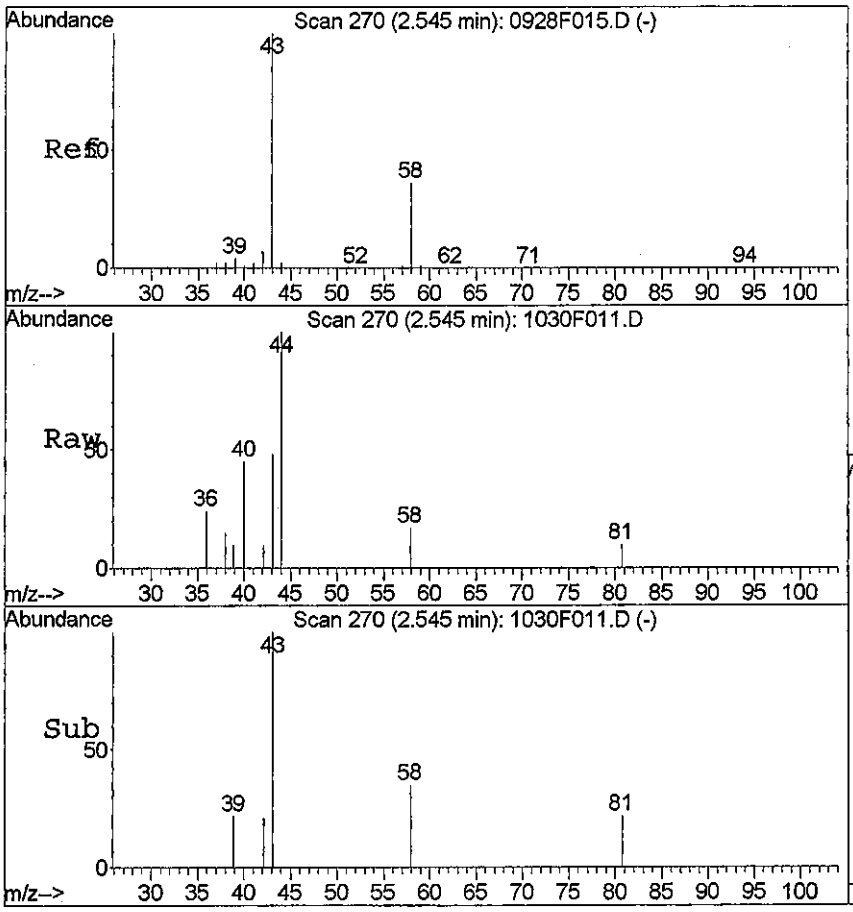


#9
Trichlorofluoromethane
Concen: 0.09 PPB
RT: 1.96 min Scan# 158
Delta R.T. -0.00 min
Lab File: 1030F011.D
Acq: 30 Oct 2015 17:32

Tgt Ion:101 Resp: 1969

Ion	Ratio	Lower	Upper
101	100		
103	47.0	35.9	95.9
66	11.9	0.0	43.9

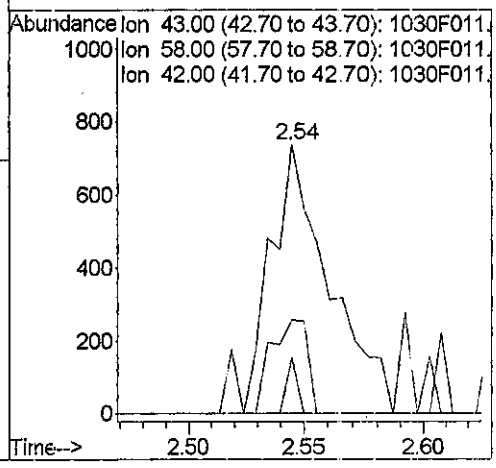


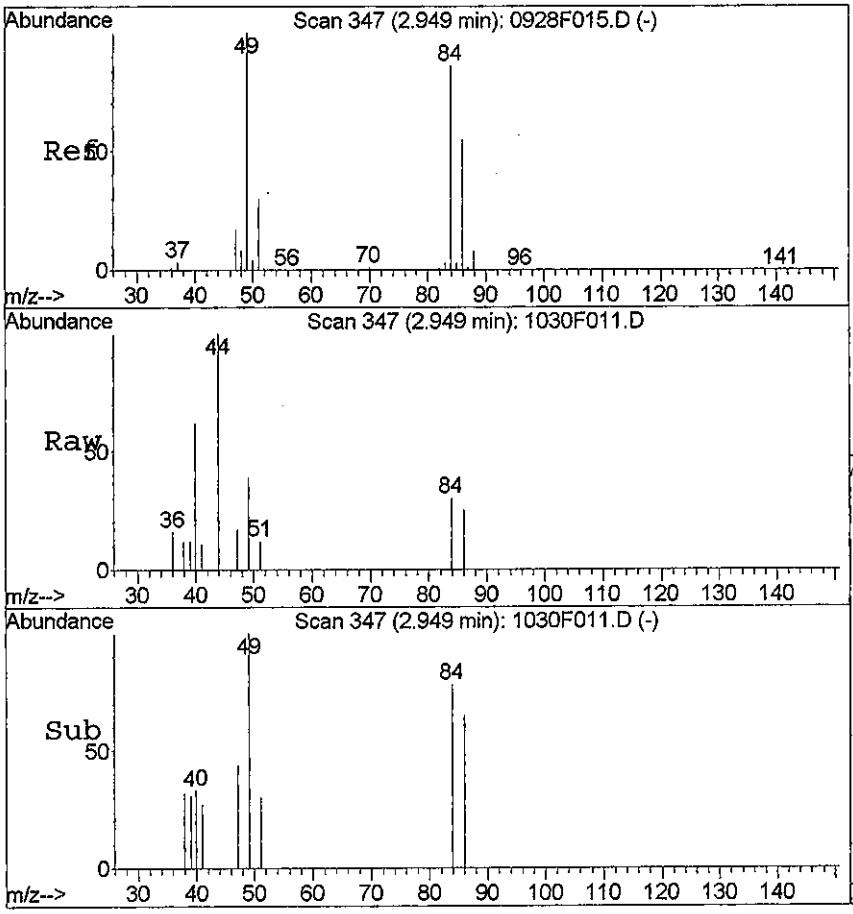


#14
Acetone
Concen: 0.51 PPB
RT: 2.54 min Scan# 270
Delta R.T. -0.00 min
Lab File: 1030F011.D
Acq: 30 Oct 2015 17:32

Tgt Ion: 43 Resp: 1318

Ion	Ratio	Lower	Upper
43	100		
58	35.0	5.9	65.9
42	20.9	0.0	36.7

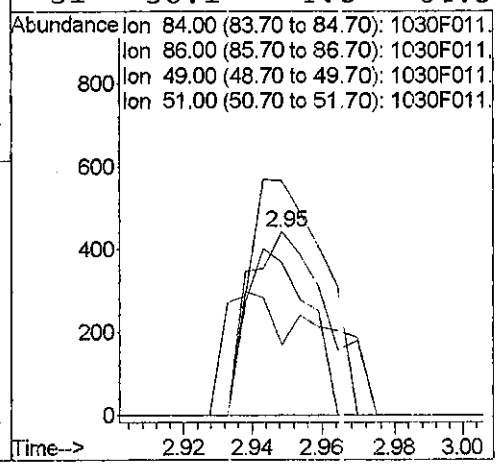


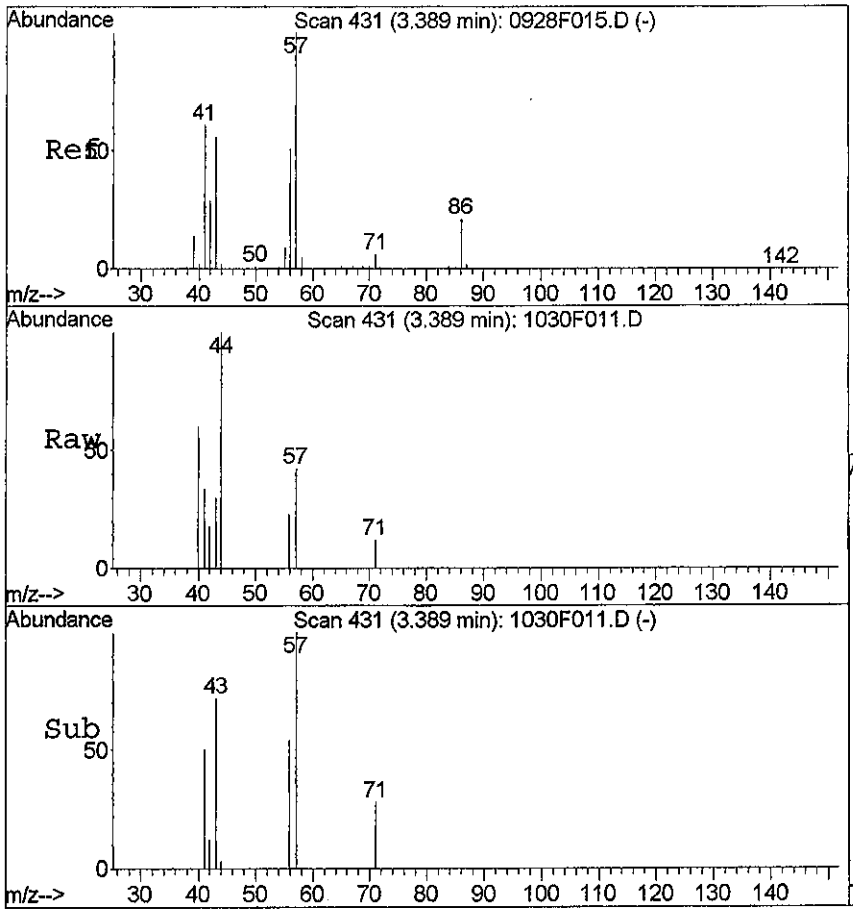


#21
Methylene Chloride
Concen: 0.03 PPB
RT: 2.95 min Scan# 347
Delta R.T. -0.00 min
Lab File: 1030F011.D
Acq: 30 Oct 2015 17:32

Tgt Ion: 84 Resp: 684

Ion	Ratio	Lower	Upper
84	100		
86	83.1	34.2	94.2
49	127.5	85.9	145.9
51	38.1	4.3	64.3

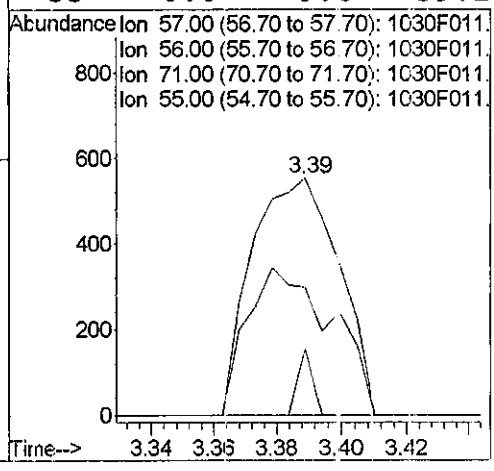


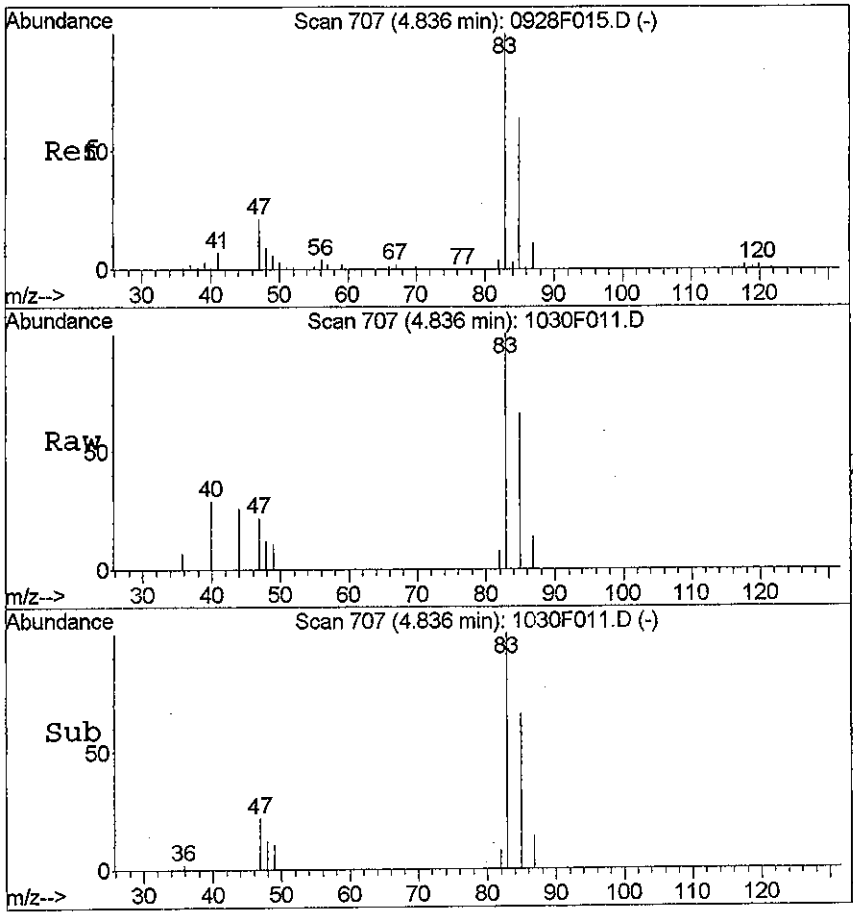


#26
Hexane
Concen: 0.07 PPB
RT: 3.39 min Scan# 431
Delta R.T. -0.00 min
Lab File: 1030F011.D
Acq: 30 Oct 2015 17:32

Tgt Ion: 57 Resp: 1039

Ion	Ratio	Lower	Upper
57	100		
56	53.6	21.3	81.3
71	27.8	0.0	36.0
55	0.0	0.0	39.1

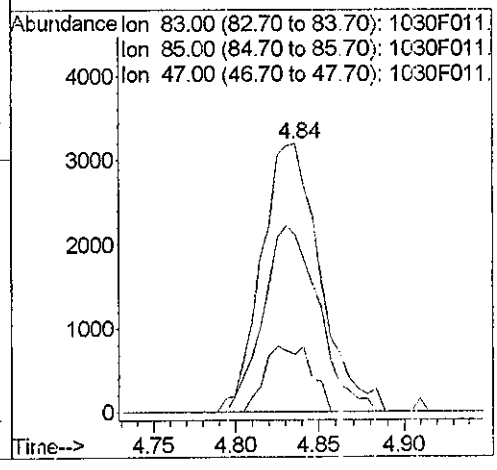


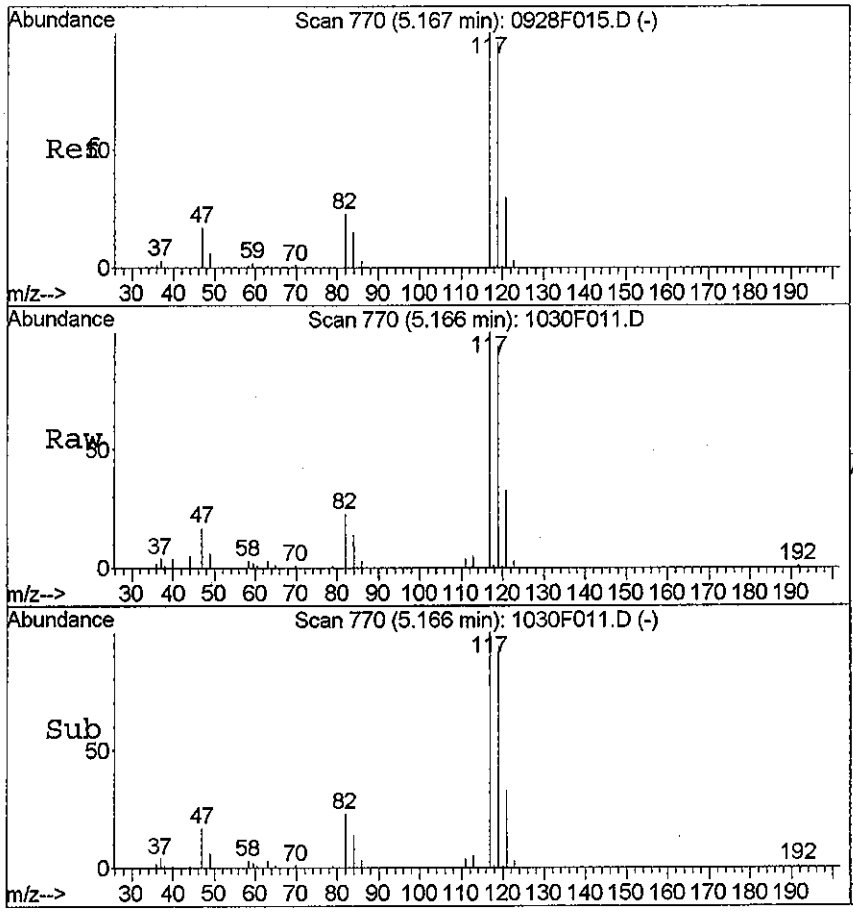


#40
Chloroform
Concen: 0.27 PPB
RT: 4.84 min Scan# 707
Delta R.T. -0.00 min
Lab File: 1030F011.D
Acq: 30 Oct 2015 17:32

Tgt Ion: 83 Resp: 7840

Ion	Ratio	Lower	Upper
83	100		
85	66.1	34.3	94.3
47	21.8	0.0	50.8

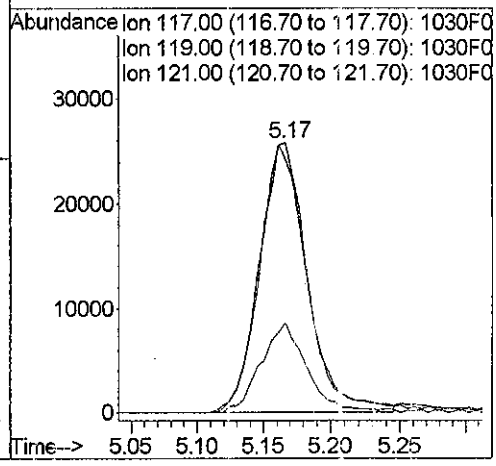


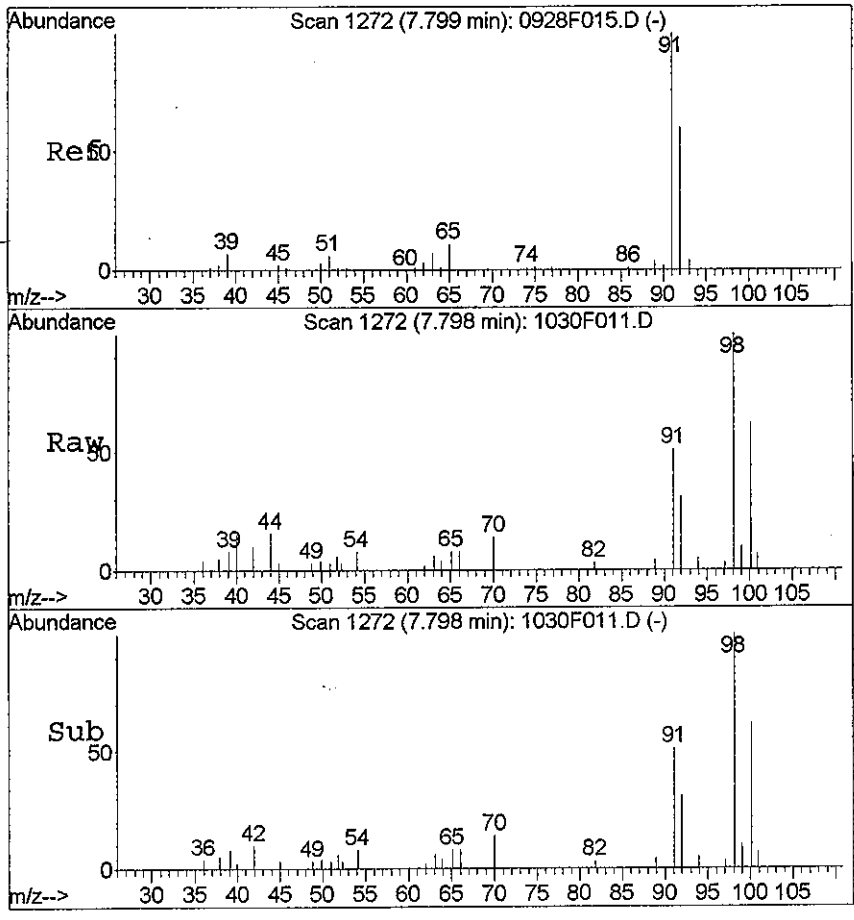


#44
Carbon Tetrachloride
Concen: 3.76 PPB
RT: 5.17 min Scan# 770
Delta R.T. -0.00 min
Lab File: 1030F011.D
Acq: 30 Oct 2015 17:32

Tgt Ion:117 Resp: 65218

Ion	Ratio	Lower	Upper
117	100		
119	94.0	65.7	125.7
121	33.4	0.4	60.4

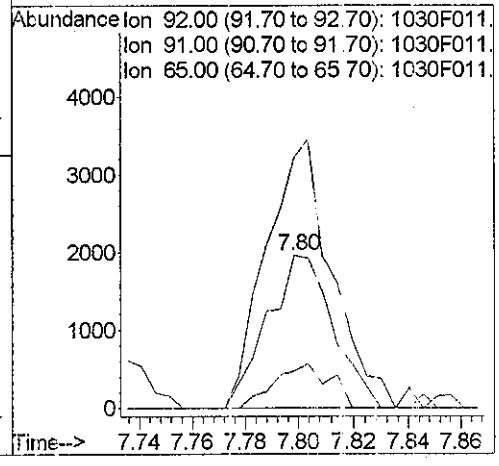


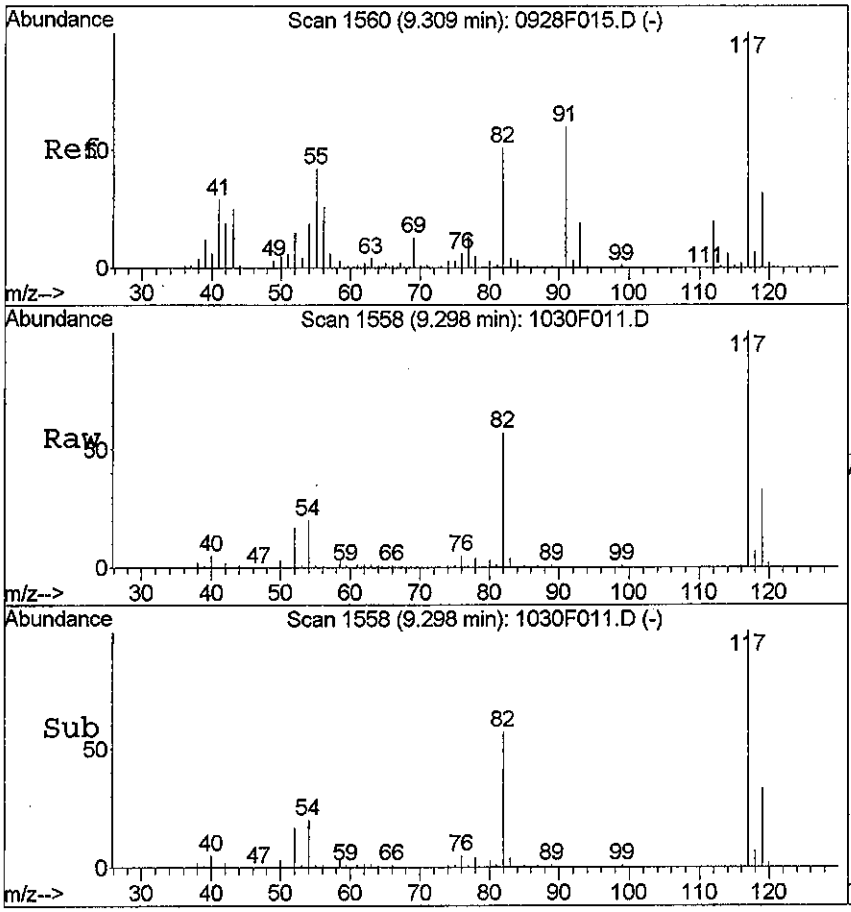


#64
Toluene
Concen: 0.07 PPB
RT: 7.80 min Scan# 1272
Delta R.T. -0.00 min
Lab File: 1030F011.D
Acq: 30 Oct 2015 17:32

Tgt Ion: 92 Resp: 3310

Ion	Ratio	Lower	Upper
92	100		
91	164.0	137.9	197.9
65	24.3	0.0	47.8

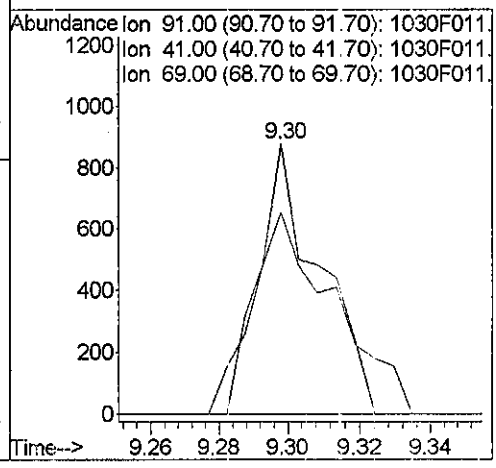


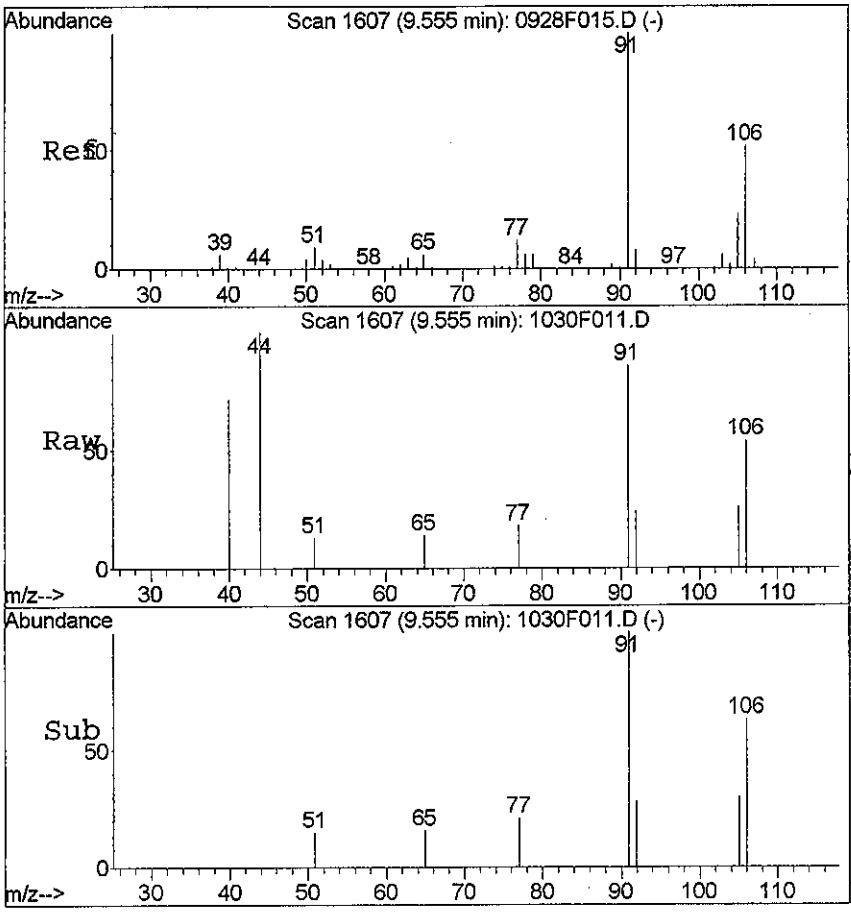


#75
1-Chlorohexane
Concen: 0.05 PPB
RT: 9.30 min Scan# 1558
Delta R.T. -0.01 min
Lab File: 1030F011.D
Acq: 30 Oct 2015 17:32

Tgt Ion: 91 Resp: 1046

Ion	Ratio	Lower	Upper
91	100		
41	74.6	18.4	78.4
69	0.0	0.0	51.1

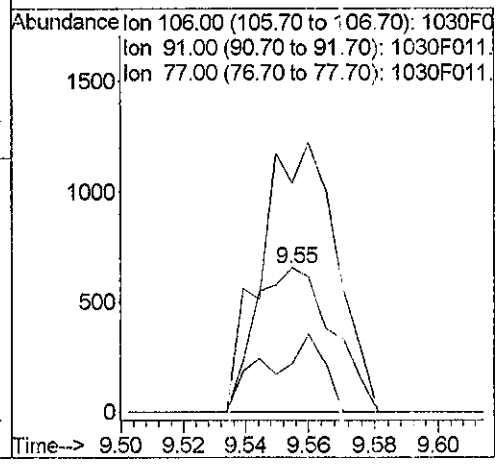


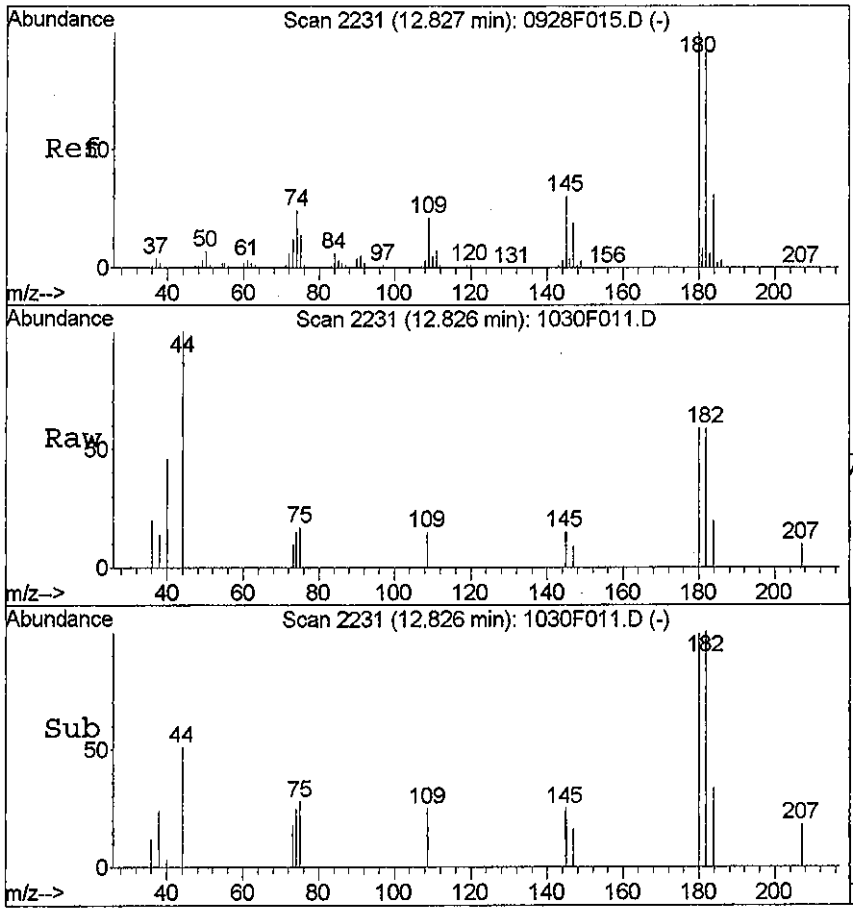


#79
m,p-Xylenes
Concen: 0.03 PPB
RT: 9.55 min Scan# 1607
Delta R.T. -0.00 min
Lab File: 1030F011.D
Acq: 30 Oct 2015 17:32

Tgt Ion:106 Resp: 1100

Ion	Ratio	Lower	Upper
106	100		
91	158.5	164.1	224.1#
77	33.7	0.0	53.8

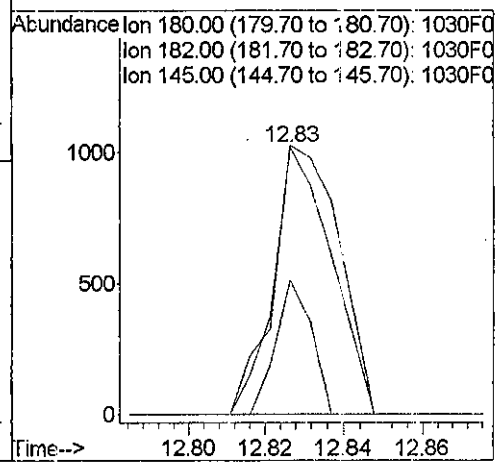


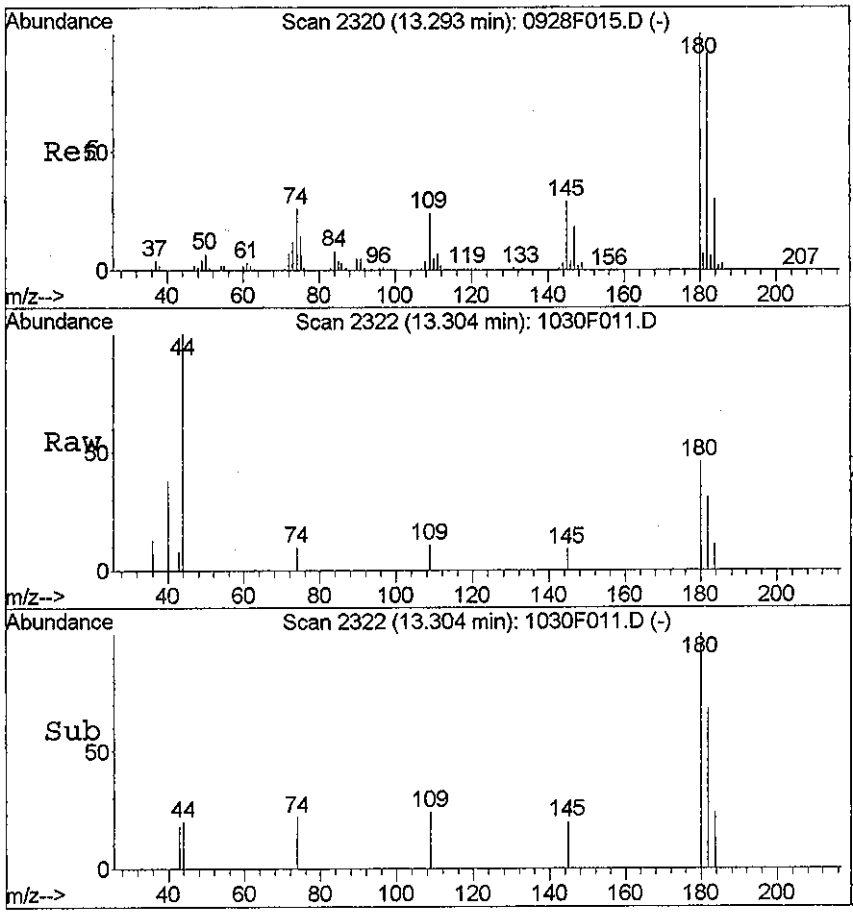


#104
1,3,5-Trichlorobenzene
Concen: 0.04 PPB
RT: 12.83 min Scan# 2231
Delta R.T. -0.00 min
Lab File: 1030F011.D
Acq: 30 Oct 2015 17:32

Tgt Ion:180 Resp: 1051

Ion	Ratio	Lower	Upper
180	100		
182	100.7	65.7	125.7
145	50.3	0.0	59.6

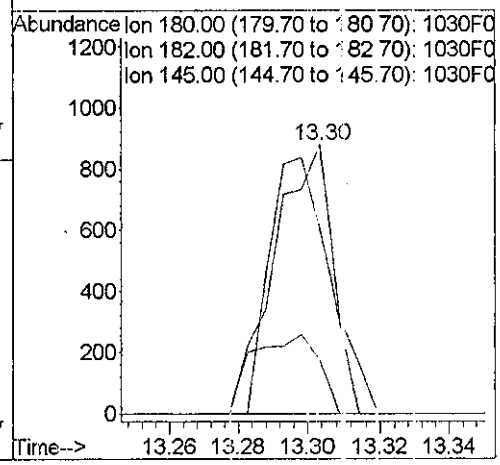


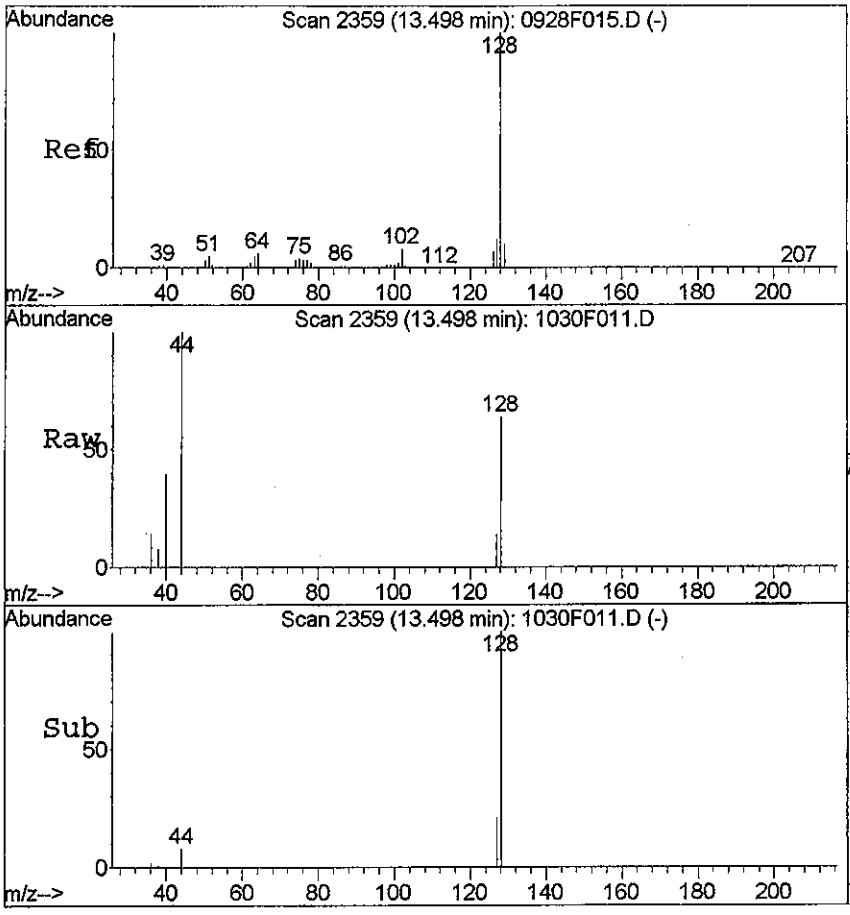


#105
1,2,4-Trichlorobenzene
Concen: 0.05 PPB
RT: 13.30 min Scan# 2322
Delta R.T. 0.01 min
Lab File: 1030F011.D
Acq: 30 Oct 2015 17:32

Tgt Ion:180 Resp: 1058

Ion	Ratio	Lower	Upper
180	100		
182	68.5	64.9	124.9
145	19.6	0.0	59.1

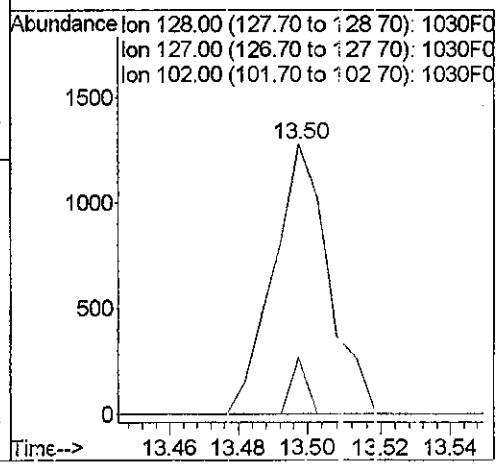


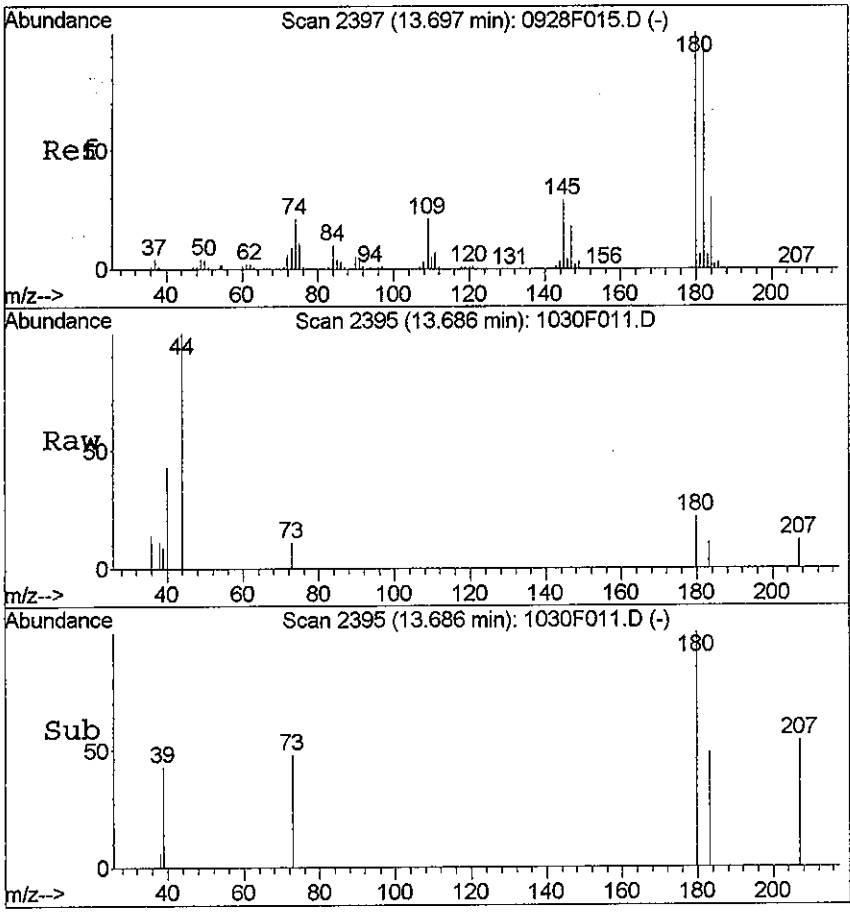


#107
Naphthalene
Concen: 0.03 PPB
RT: 13.50 min Scan# 2359
Delta R.T. -0.00 min
Lab File: 1030F011.D
Acq: 30 Oct 2015 17:32

Tgt Ion:128 Resp: 1382

Ion	Ratio	Lower	Upper
128	100		
127	21.0	0.0	42.1
102	0.0	0.0	38.0

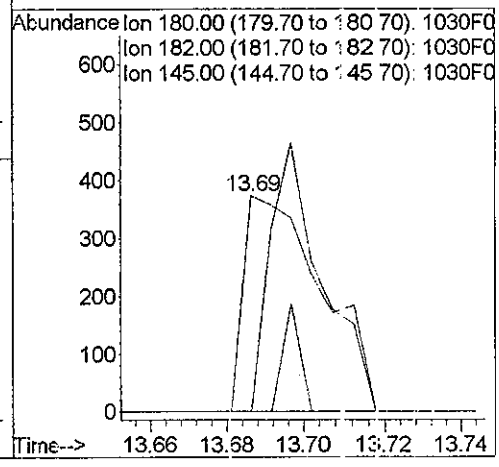




#108
1,2,3-Trichlorobenzene
Concen: 0.03 PPB
RT: 13.69 min Scan# 2395
Delta R.T. -0.01 min
Lab File: 1030F011.D
Acq: 30 Oct 2015 17:32

Tgt Ion:180 Resp: 522

Ion	Ratio	Lower	Upper
180	100		
182	0.0	65.6	125.6#
145	0.0	0.0	59.1



Exception Report

Data File: J:\MS18\DATA\103015\1030F015.D
Lab ID: K1512095-005
RunType: SMPL
Matrix: WATER

Date Acquired: 10/30/2015 18:58
Date Quantitated: 10/30/2015 20:16
Batch ID: KWG1510604
Analysis Method: 8260C
ListJoinID: LJ1423

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 10/30/15

Secondary Review: 10/31/15

Quantitation Report

Data File:	J:\MS18\DATA\103015\1030F015.D			**Instrument:**	GC-MS 18
Acqu Date:	10/30/2015 18:58	**Quant Date:**	10/30/2015 20:16	**Vial:**	14
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1512095-005			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	10/22/2015	**Receive Date:**	10/24/2015

Analysis Lot:	KWG1510604	**Prep Lot:**	KWG1510605	**Report Group:**	K1512095
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1479845	**Prep Date:**	10/30/2015		

Quant Method:	J:\MS18\METHODS\092815MS18_8	**Calibration ID:**	CAL14315
Title:	Volatile Organic Compounds	**Report List ID:**	LJ1423
Tune Ref:	J:\MS18\DATA\103015\1030F002.D	**Method ID:**	MJ119
MB Ref:	J:\MS18\DATA\103015\1030F008.D	**Quant based on Report List**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.89	0.00	96	632154	10.00	OK
2	Chlorobenzene-d5	9.30	0.00	82	252399	10.00	OK
3	1,4-Dichlorobenzene-d4	11.72	0.00	152	231834	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.06	0.00	0.00	113	131088	9.24	92	73-122	OK	
1	Toluene-d8	7.73	0.00	0.00	98	619388	9.71	97	65-144	OK	
2	4-Bromofluorobenzene	10.54	0.00	0.00	95	215091	8.85	89	68-117	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Tetrachloride	5.16		0.00	117	64636	3.87	3.9		

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\103015\1030F015.D Vial: 14
Acq On : 30 Oct 2015 18:58 Operator: YX/KR
Sample : K1512095-005 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 20:06:03 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration
DataAcq Meth : 8260

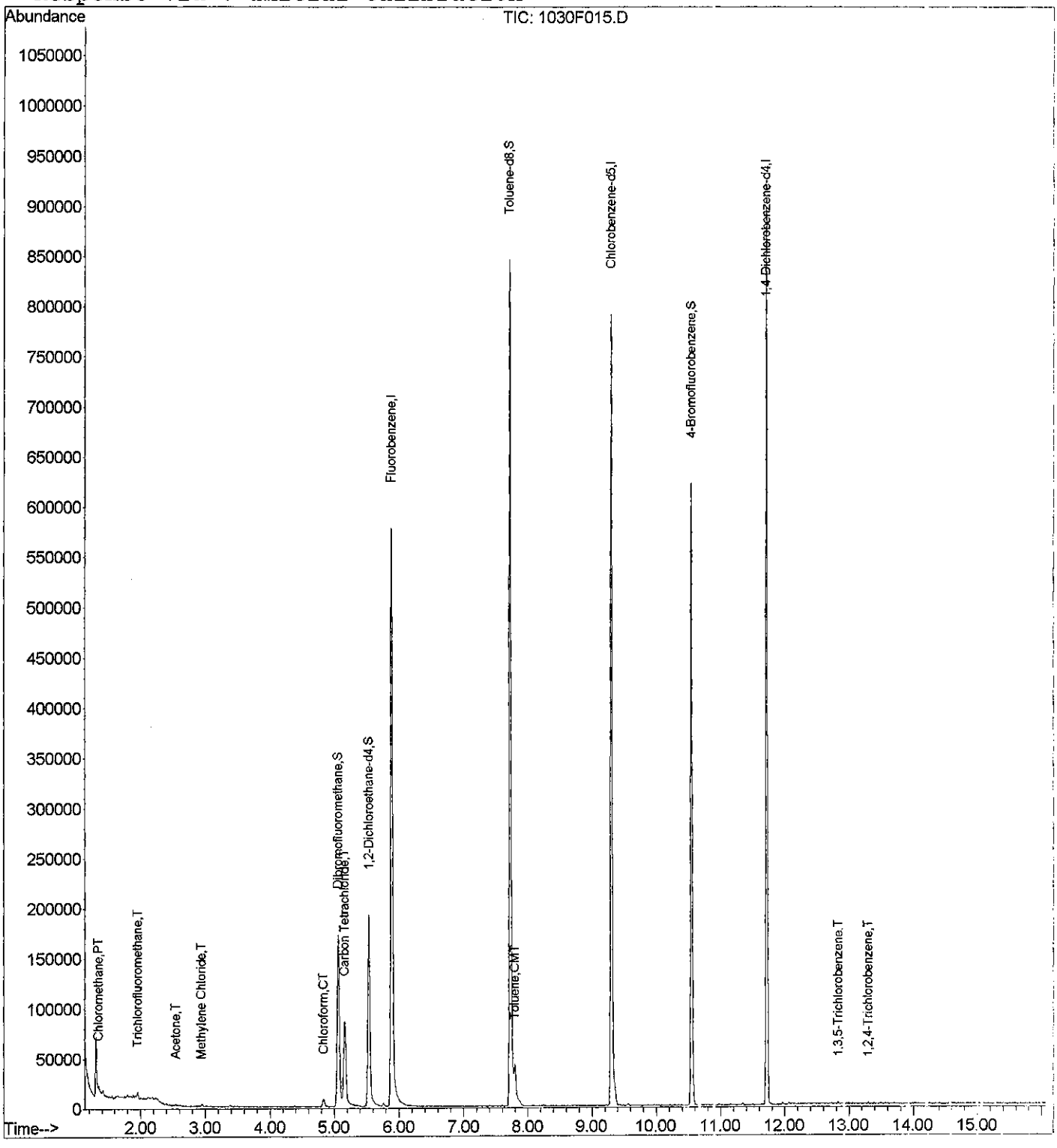
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	5.89	96	632154	10.00	PPB		0.00
65) Chlorobenzene-d5	9.30	82	252399	10.00	PPB		0.00
86) 1,4-Dichlorobenzene-d4	11.72	152	231834	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.06	113	131088	9.24	PPB		0.00
Spiked Amount 10.000			Recovery =	92.40%			
48) 1,2-Dichloroethane-d4	5.53	65	151868	9.76	PPB		0.00
Spiked Amount 10.000			Recovery =	97.60%			
63) Toluene-d8	7.73	98	619388	9.71	PPB		0.00
Spiked Amount 10.000			Recovery =	97.10%			
85) 4-Bromofluorobenzene	10.54	95	215091	8.85	PPB		0.00
Spiked Amount 10.000			Recovery =	88.50%			
Target Compounds							Qvalue
3) Chloromethane	1.35	50	1888	0.09	PPB		86
9) Trichlorofluoromethane	1.95	101	1691	0.08	PPB		92
14) Acetone	2.54	43	950	0.38	PPB	#	65
21) Methylene Chloride	2.95	84	980	0.05	PPB		86
40) Chloroform	4.83	83	7666	0.27	PPB		96
44) Carbon Tetrachloride	5.16	117	64636	3.87	PPB		97
64) Toluene	7.80	92	12021	0.25	PPB		94
104) 1,3,5-Trichlorobenzene	12.84	180	703	0.03	PPB	#	12
105) 1,2,4-Trichlorobenzene	13.29	180	576	0.03	PPB	#	57

(#) = qualifier out of range (m) = manual integration

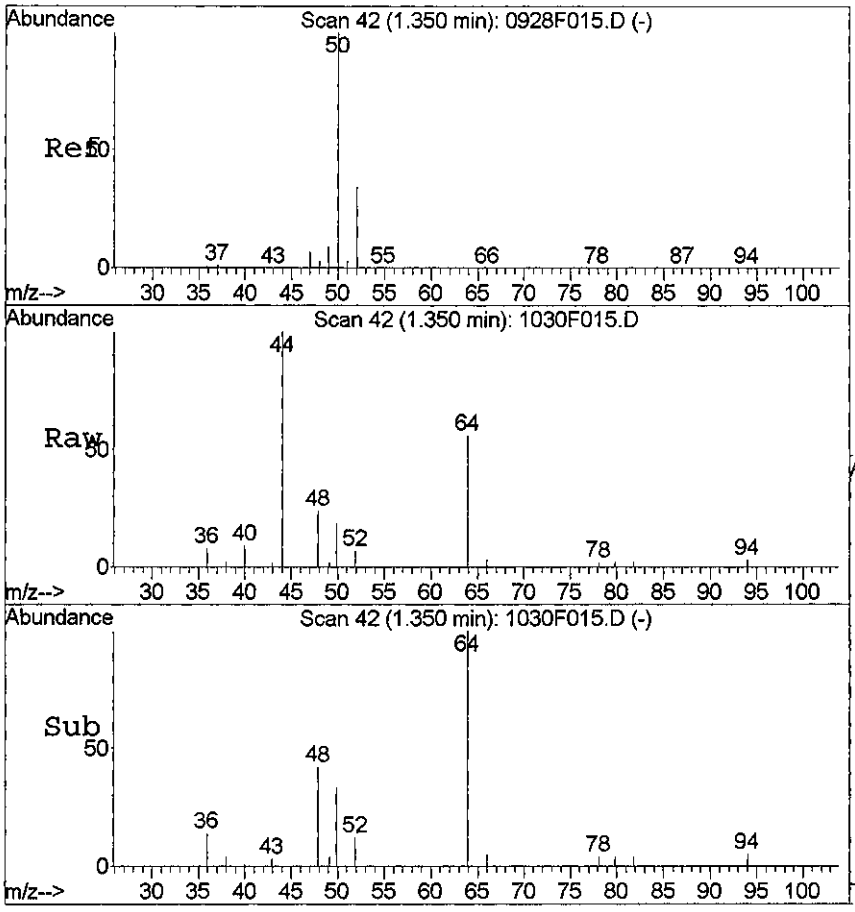
Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\103015\1030F015.D Vial: 14
Acq On : 30 Oct 2015 18:58 Operator: YX/KR
Sample : K1512095-005 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 20:16 2015 Quant Results File: 092815MS18_8

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration



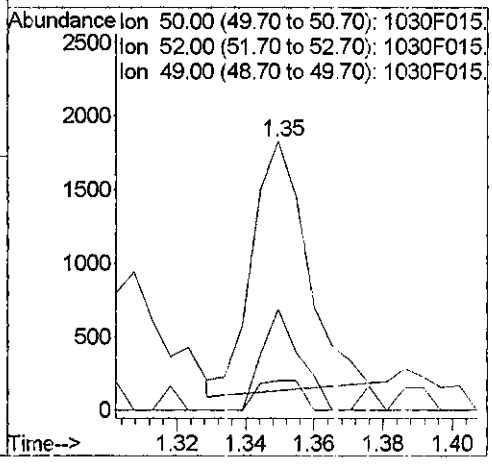
1030F015.D 092815MS18_8260.M Fri Oct 30 20:22:32 2015 Page 2

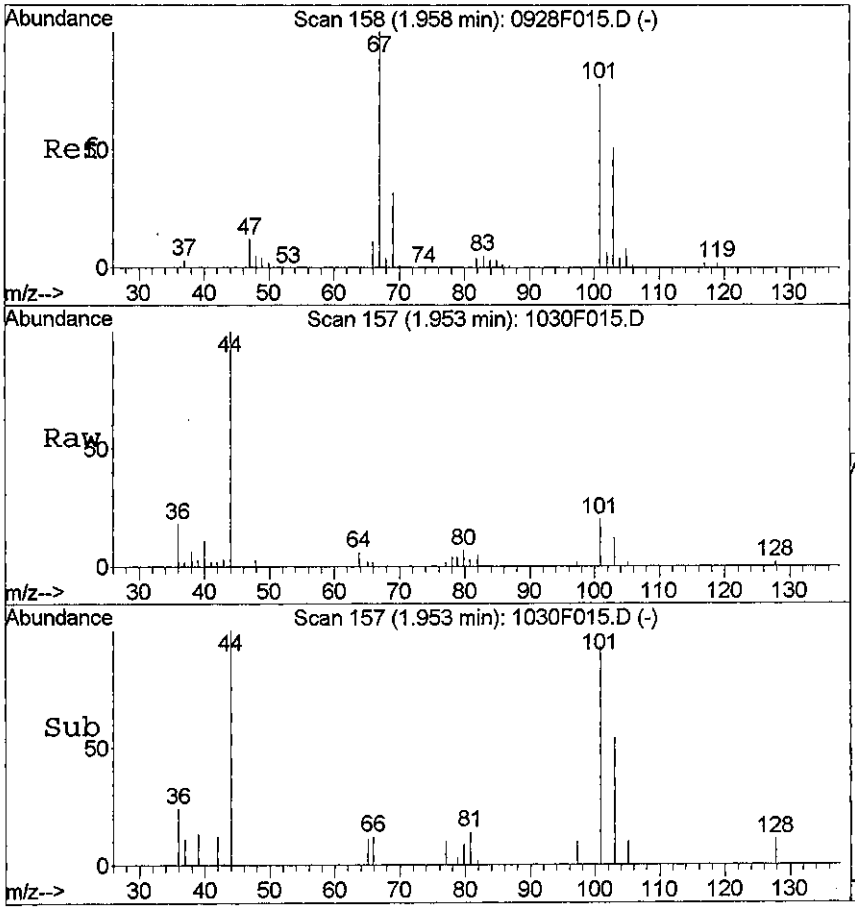


#3
Chloromethane
Concen: 0.09 PPB
RT: 1.35 min Scan# 42
Delta R.T. -0.00 min
Lab File: 1030F015.D
Acq: 30 Oct 2015 18:58

Tgt Ion: 50 Resp: 1888

Ion	Ratio	Lower	Upper
50	100		
52	42.1	3.5	63.5
49	12.3	0.0	39.3

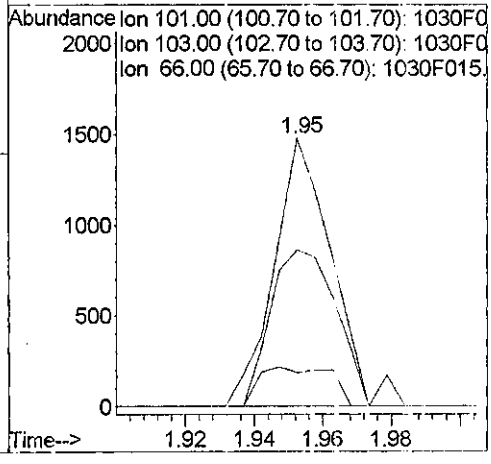


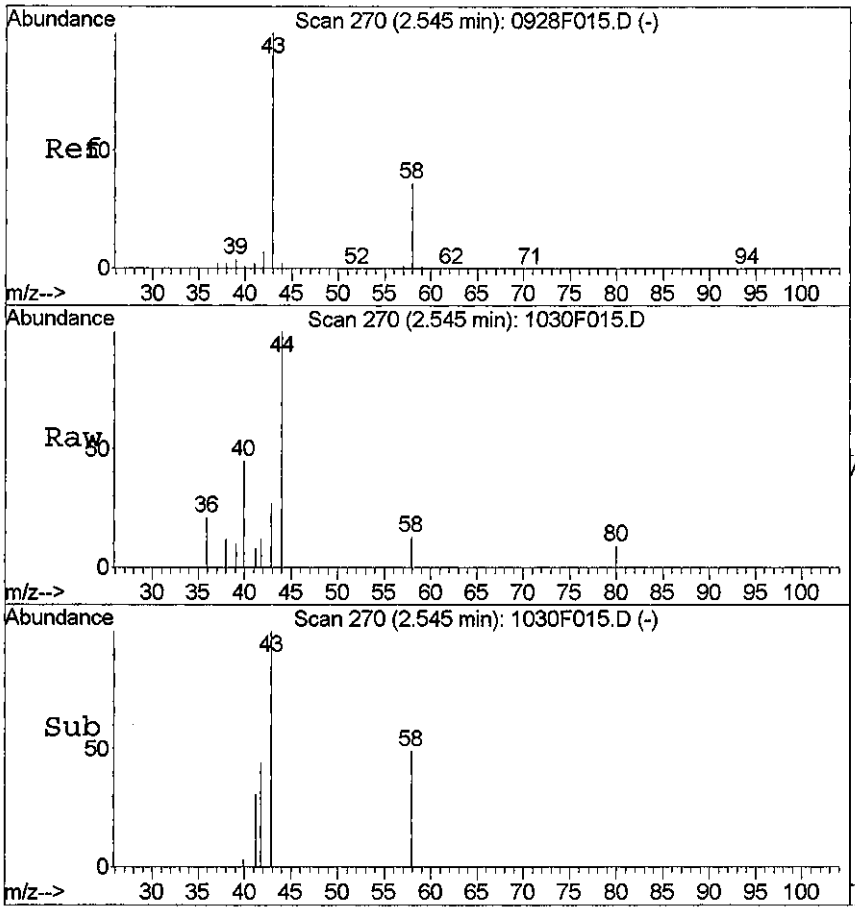


#9
Trichlorofluoromethane
Concen: 0.08 PPB
RT: 1.95 min Scan# 157
Delta R.T. -0.01 min
Lab File: 1030F015.D
Acq: 30 Oct 2015 18:58

Tgt Ion:101 Resp: 1691

Ion	Ratio	Lower	Upper
101	100		
103	58.4	35.9	95.9
66	12.6	0.0	43.9

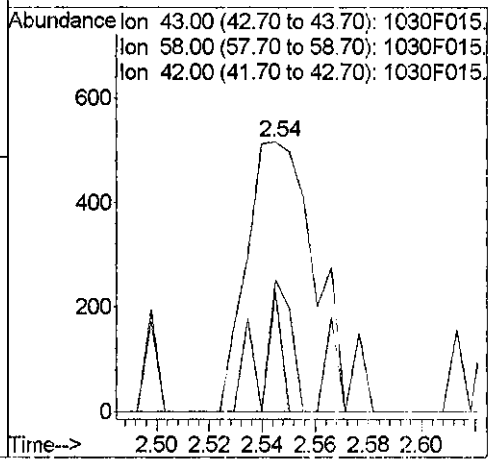


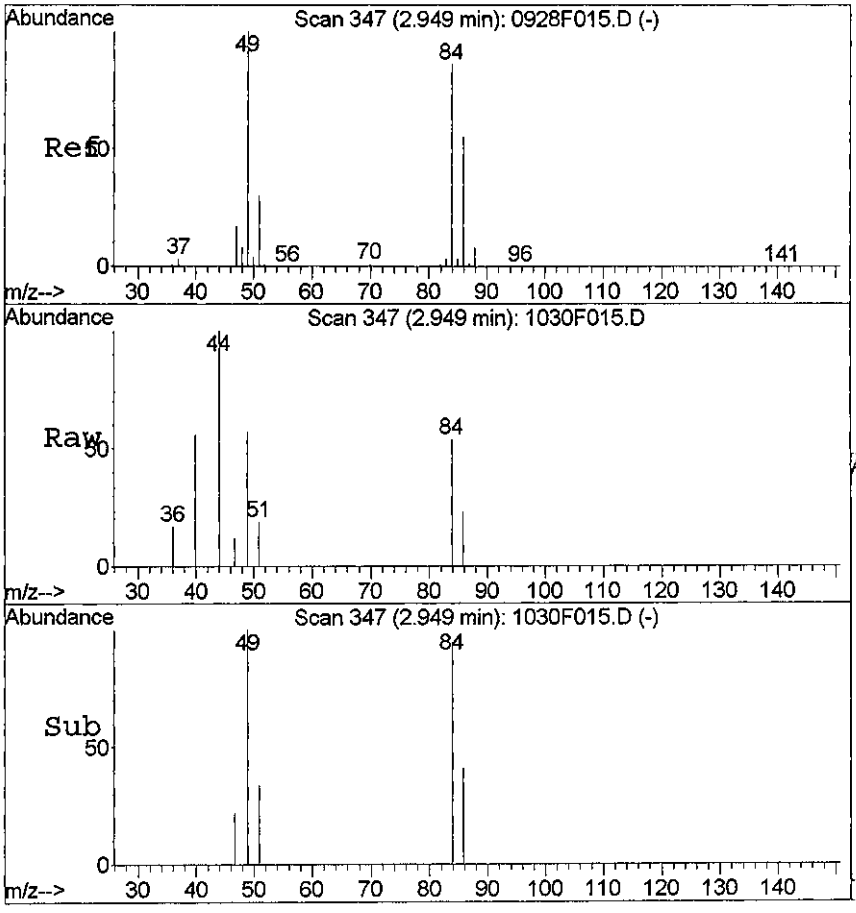


#14
Acetone
Concen: 0.38 PPB
RT: 2.54 min Scan# 270
Delta R.T. 0.00 min
Lab File: 1030F015.D
Acq: 30 Oct 2015 18:58

Tgt Ion: 43 Resp: 950

Ion	Ratio	Lower	Upper
43	100		
58	48.6	5.9	65.9
42	44.2	0.0	36.7#

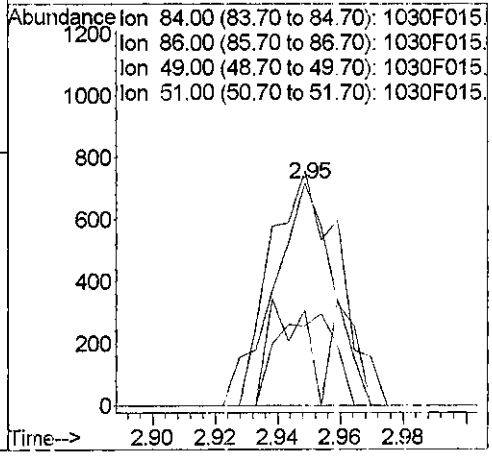


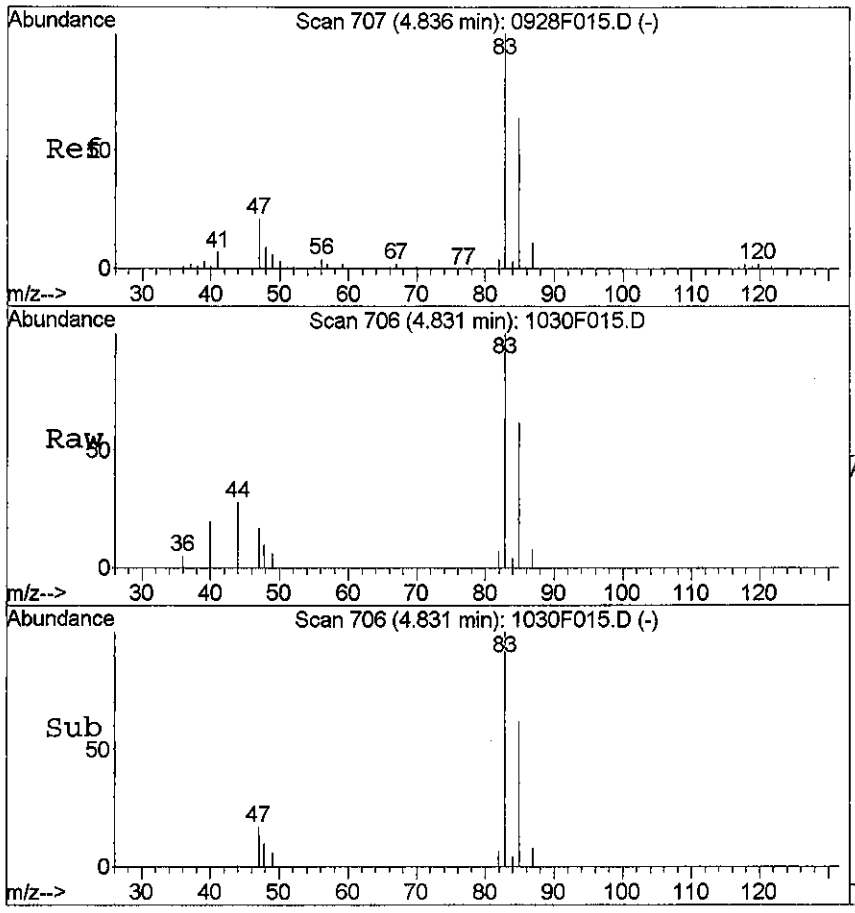


#21
Methylene Chloride
Concen: 0.05 PPB
RT: 2.95 min Scan# 347
Delta R.T. 0.00 min
Lab File: 1030F015.D
Acq: 30 Oct 2015 18:58

Tgt Ion: 84 Resp: 980

Ion	Ratio	Lower	Upper
84	100		
86	42.8	34.2	94.2
49	105.6	85.9	145.9
51	35.7	4.3	64.3

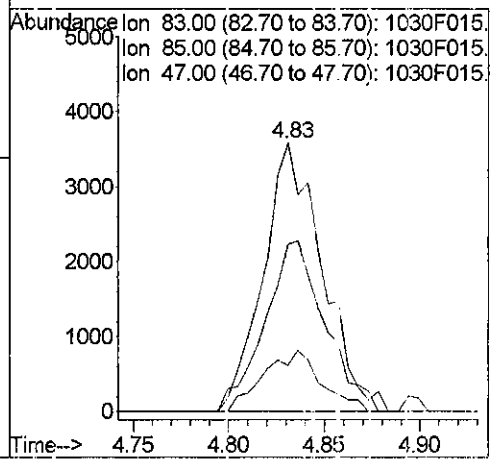


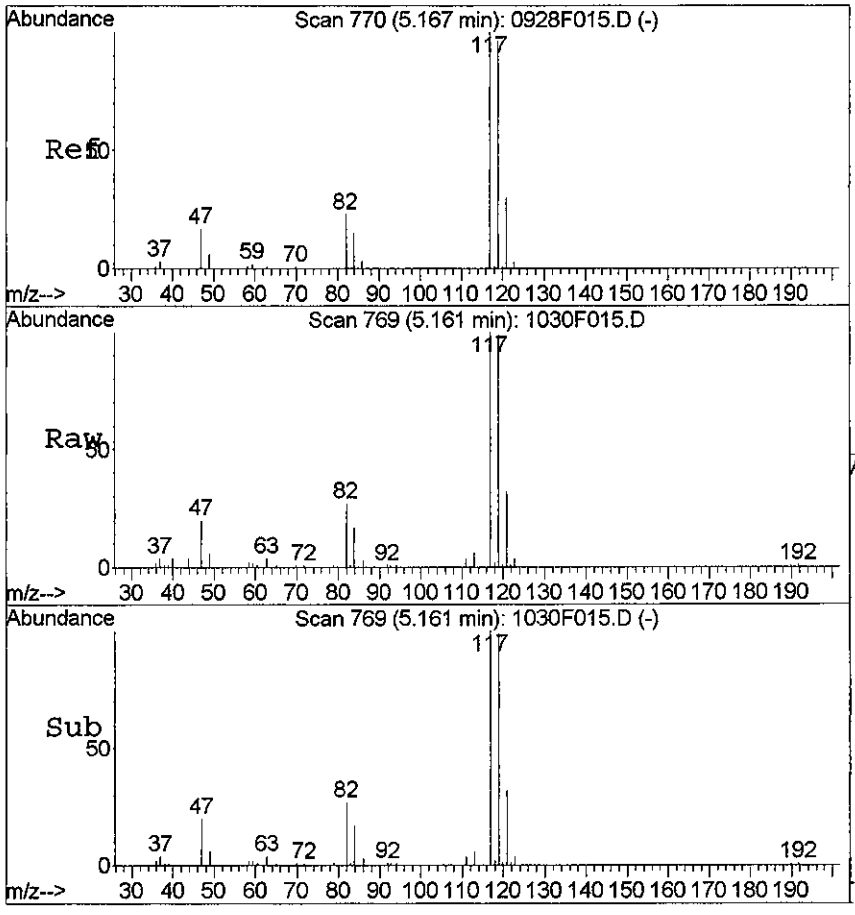


#40
Chloroform
Concen: 0.27 PPB
RT: 4.83 min Scan# 706
Delta R.T. -0.01 min
Lab File: 1030F015.D
Acq: 30 Oct 2015 18:58

Tgt Ion: 83 Resp: 7666

Ion	Ratio	Lower	Upper
83	100		
85	62.4	34.3	94.3
47	17.3	0.0	50.8

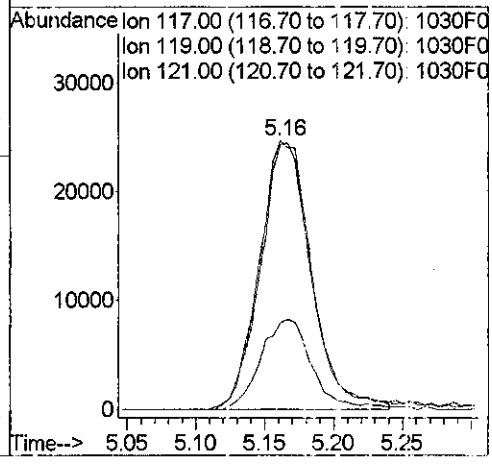


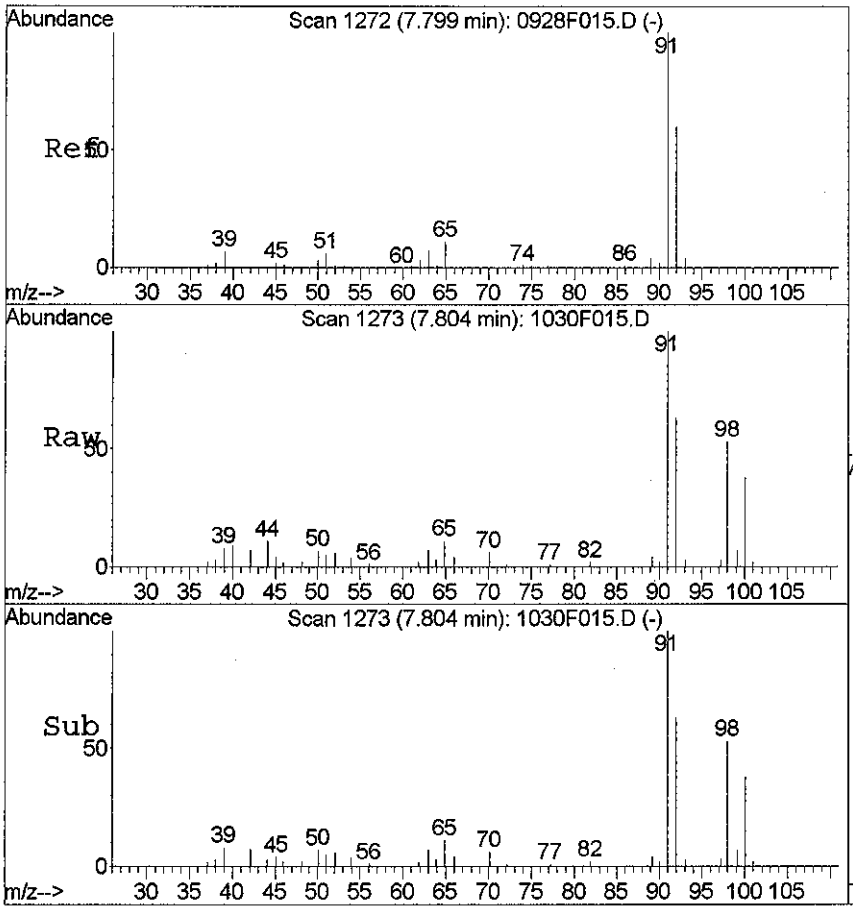


#44
Carbon Tetrachloride
Concen: 3.87 PPB
RT: 5.16 min Scan# 769
Delta R.T. -0.01 min
Lab File: 1030F015.D
Acq: 30 Oct 2015 18:58

Tgt Ion:117 Resp: 64636

Ion	Ratio	Lower	Upper
117	100		
119	98.6	65.7	125.7
121	32.2	0.4	60.4

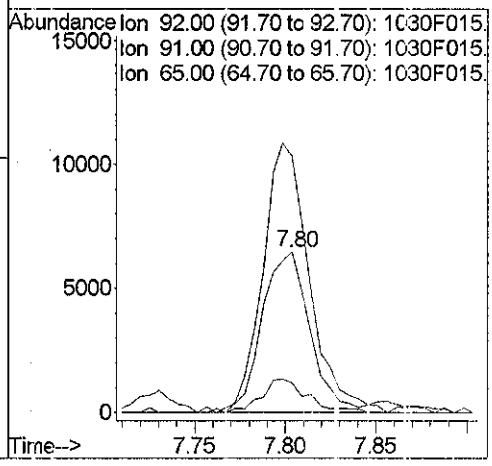


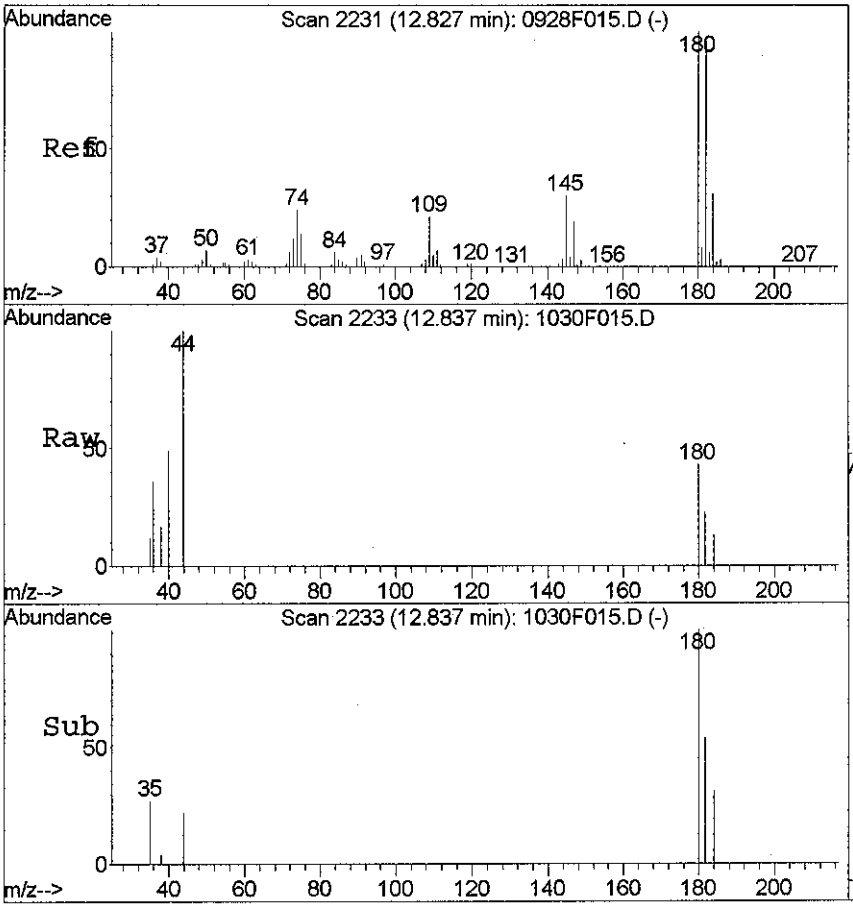


#64
Toluene
Concen: 0.25 PPB
RT: 7.80 min Scan# 1273
Delta R.T. 0.01 min
Lab File: 1030F015.D
Acq: 30 Oct 2015 18:58

Tgt Ion: 92 Resp: 12021

Ion	Ratio	Lower	Upper
92	100		
91	159.6	137.9	197.9
65	18.4	0.0	47.8

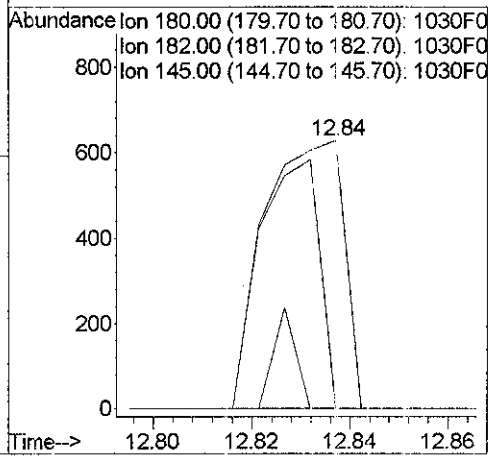


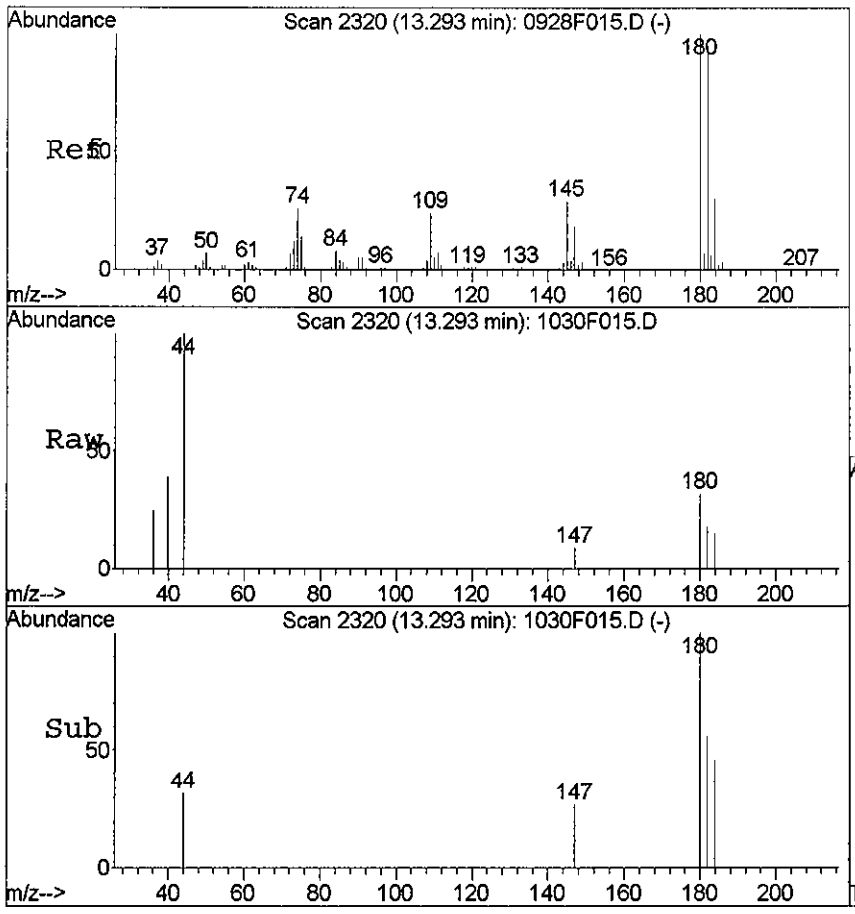


#104
1,3,5-Trichlorobenzene
Concen: 0.03 PPB
RT: 12.84 min Scan# 2233
Delta R.T. 0.01 min
Lab File: 1030F015.D
Acq: 30 Oct 2015 18:58

Tgt Ion:180 Resp: 703

Ion	Ratio	Lower	Upper
180	100		
182	0.0	65.7	125.7#
145	0.0	0.0	59.6

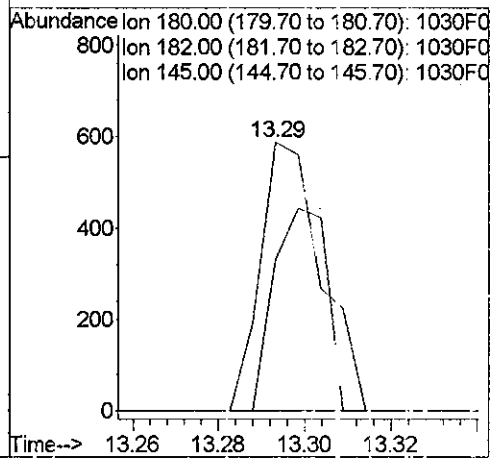




#105
1,2,4-Trichlorobenzene
Concen: 0.03 PPB
RT: 13.29 min Scan# 2320
Delta R.T. -0.00 min
Lab File: 1030F015.D
Acq: 30 Oct 2015 18:58

Tgt Ion:180 Resp: 576

Ion	Ratio	Lower	Upper
180	100		
182	56.1	64.9	124.9#
145	0.0	0.0	59.1



Exception Report

Data File: J:\MS18\DATA\103015\1030F016.D
Lab ID: K1512095-006
RunType: SMPL
Matrix: WATER

Date Acquired: 10/30/2015 19:19
Date Quantitated: 10/30/2015 20:17
Batch ID: KWG1510604
Analysis Method: 8260C
ListJoinID: LJ1423

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 10/30/15

Secondary Review:

Printed: 10/30/2015 20:36:56
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS18\DATA\103015\1030F016.D			**Instrument:**	GC-MS 18
Acqu Date:	10/30/2015 19:19	**Quant Date:**	10/30/2015 20:17	**Vial:**	15
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1512095-006			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	10/22/2015	**Receive Date:**	10/24/2015

Analysis Lot:	KWG1510604	**Prep Lot:**	KWG1510605	**Report Group:**	K1512095
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1479846	**Prep Date:**	10/30/2015		

Quant Method:	J:\MS18\METHODS\092815MS18_8	**Calibration ID:**	CAL14315
Title:	Volatile Organic Compounds	**Report List ID:**	LJ1423
Tune Ref:	J:\MS18\DATA\103015\1030F002.D	**Method ID:**	MJ119
MB Ref:	J:\MS18\DATA\103015\1030F008.D	**Quant based on Report List**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.89	0.00	96	622587	10.00	OK
2	Chlorobenzene-d5	9.30	0.00	82	253006	10.00	OK
3	1,4-Dichlorobenzene-d4	11.72	0.00	152	221963	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.06	0.00	0.00	113	130387	9.33	93	73-122	OK	
1	Toluene-d8	7.73	0.00	0.00	98	610082	9.71	97	65-144	OK	
2	4-Bromofluorobenzene	10.55	0.01	0.00	95	210417	8.64	86	68-117	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Tetrachloride	5.17	0.01	0.00	117	19931	1.22	1.2		

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
c: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\103015\1030F016.D Vial: 15
Acq On : 30 Oct 2015 19:19 Operator: YX/KR
Sample : K1512095-006 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 20:06:04 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration
DataAcq Meth : 8260

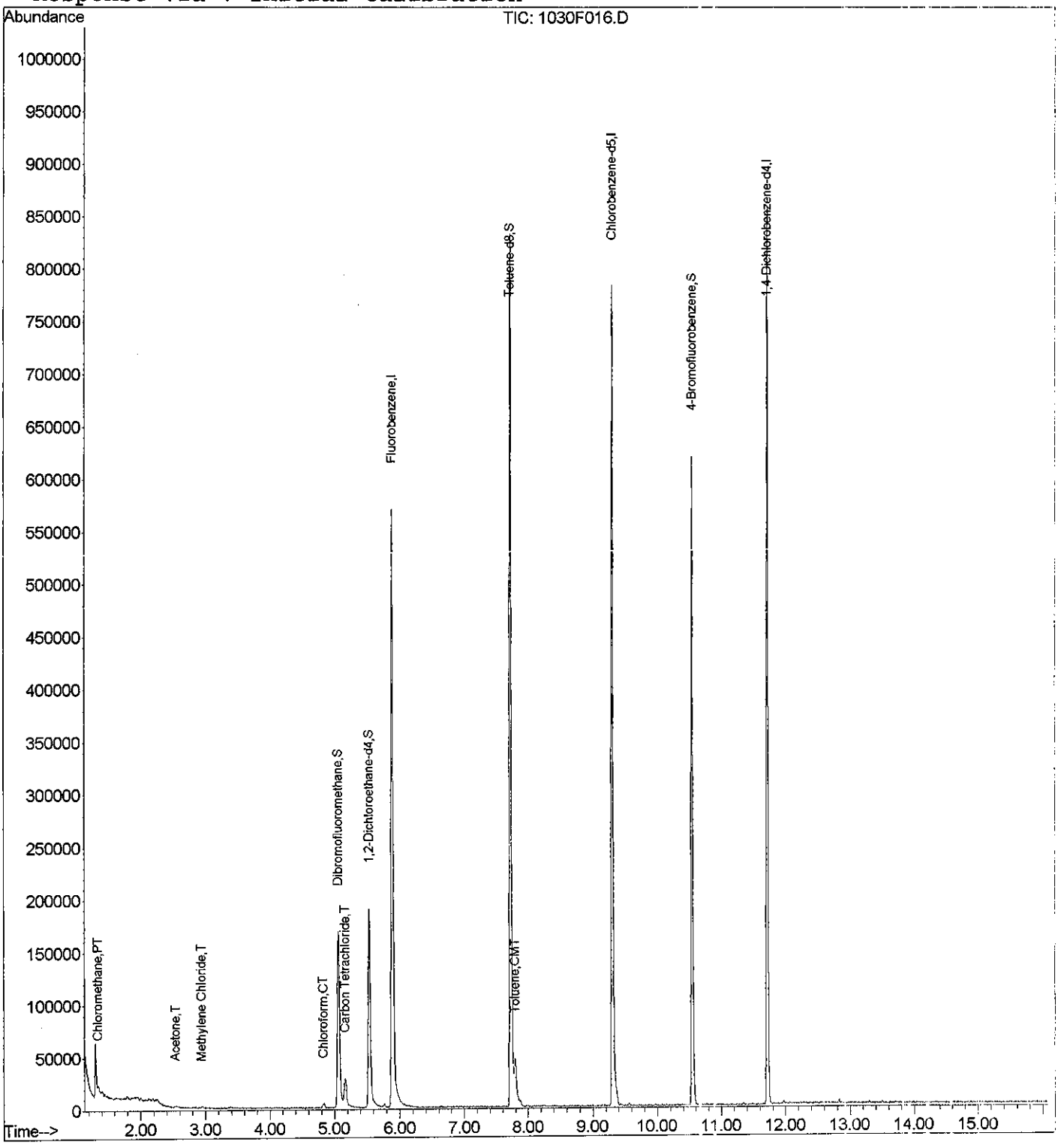
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	5.89	96	622587	10.00	PPB		0.00
65) Chlorobenzene-d5	9.30	82	253006	10.00	PPB		0.00
86) 1,4-Dichlorobenzene-d4	11.72	152	221963	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.06	113	130387	9.33	PPB		0.00
Spiked Amount 10.000			Recovery =	93.30%			
48) 1,2-Dichloroethane-d4	5.53	65	150271	9.80	PPB		0.00
Spiked Amount 10.000			Recovery =	98.00%			
63) Toluene-d8	7.73	98	610082	9.71	PPB		0.00
Spiked Amount 10.000			Recovery =	97.10%			
85) 4-Bromofluorobenzene	10.55	95	210417	8.64	PPB		0.00
Spiked Amount 10.000			Recovery =	86.40%			
Target Compounds							Qvalue
3) Chloromethane	1.35	50	1697	0.08	PPB		71
14) Acetone	2.54	43	1138	0.47	PPB		78
21) Methylene Chloride	2.94	84	906	0.05	PPB	#	66
40) Chloroform	4.83	83	4387	0.16	PPB		93
44) Carbon Tetrachloride	5.17	117	19931	1.22	PPB		93
64) Toluene	7.80	92	13490	0.29	PPB		95

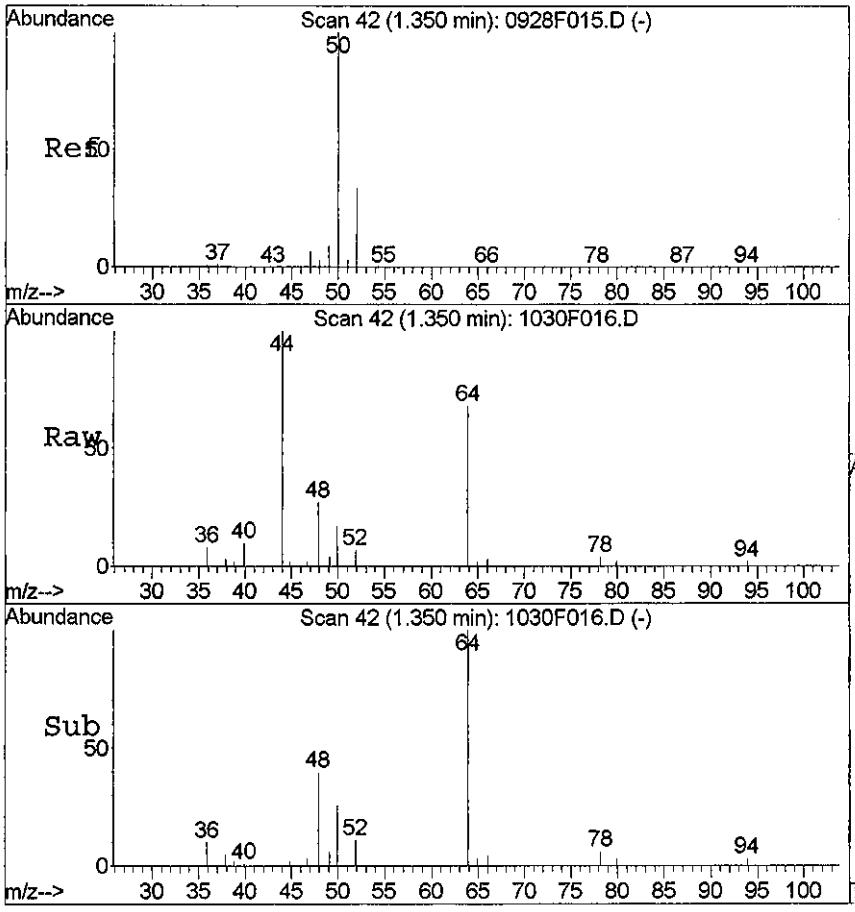
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\103015\1030F016.D Vial: 15
Acq On : 30 Oct 2015 19:19 Operator: YX/KR
Sample : K1512095-006 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 20:17 2015 Quant Results File: 092815MS18_8

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration

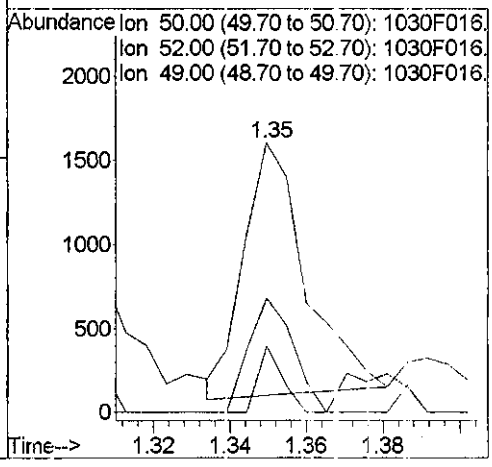


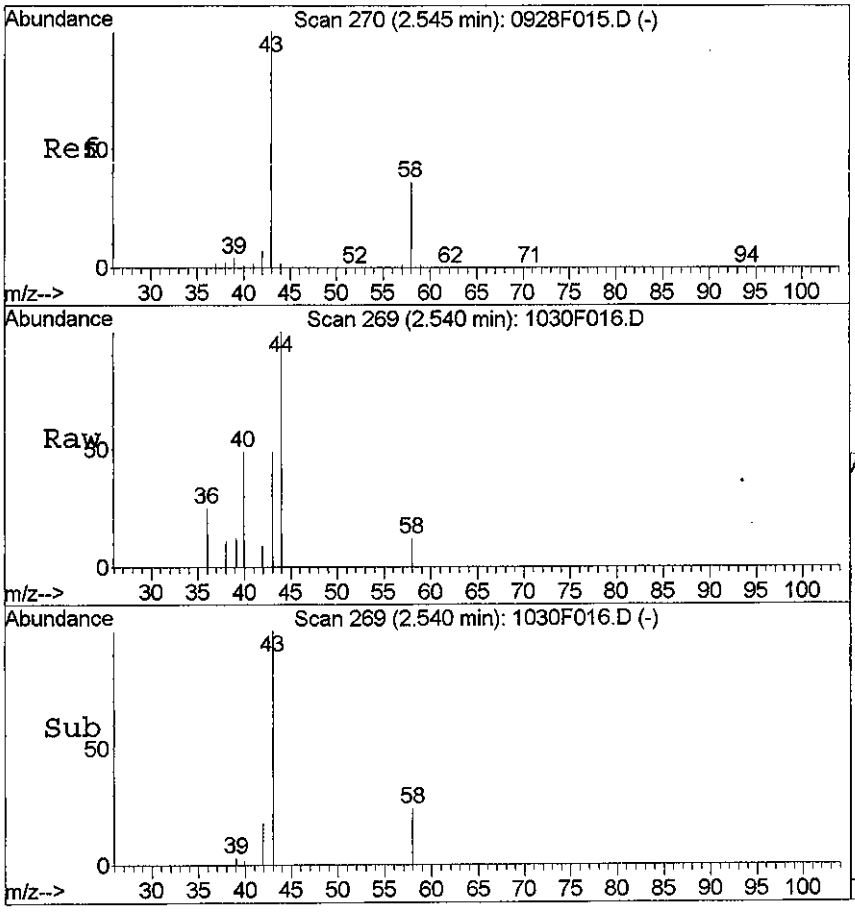


#3
Chloromethane
Concen: 0.08 PPB
RT: 1.35 min Scan# 42
Delta R.T. 0.00 min
Lab File: 1030F016.D
Acq: 30 Oct 2015 19:19

Tgt Ion: 50 Resp: 1697

Ion	Ratio	Lower	Upper
50	100		
52	46.9	3.5	63.5
49	27.3	0.0	39.3

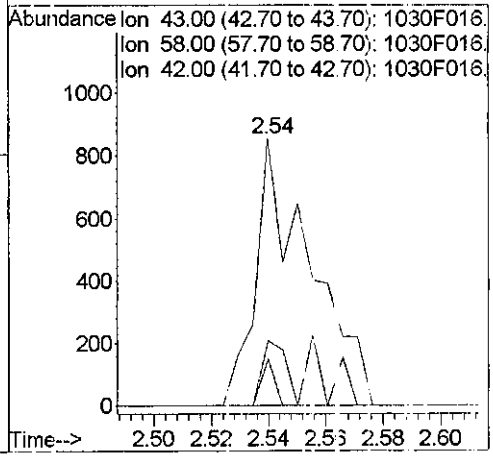


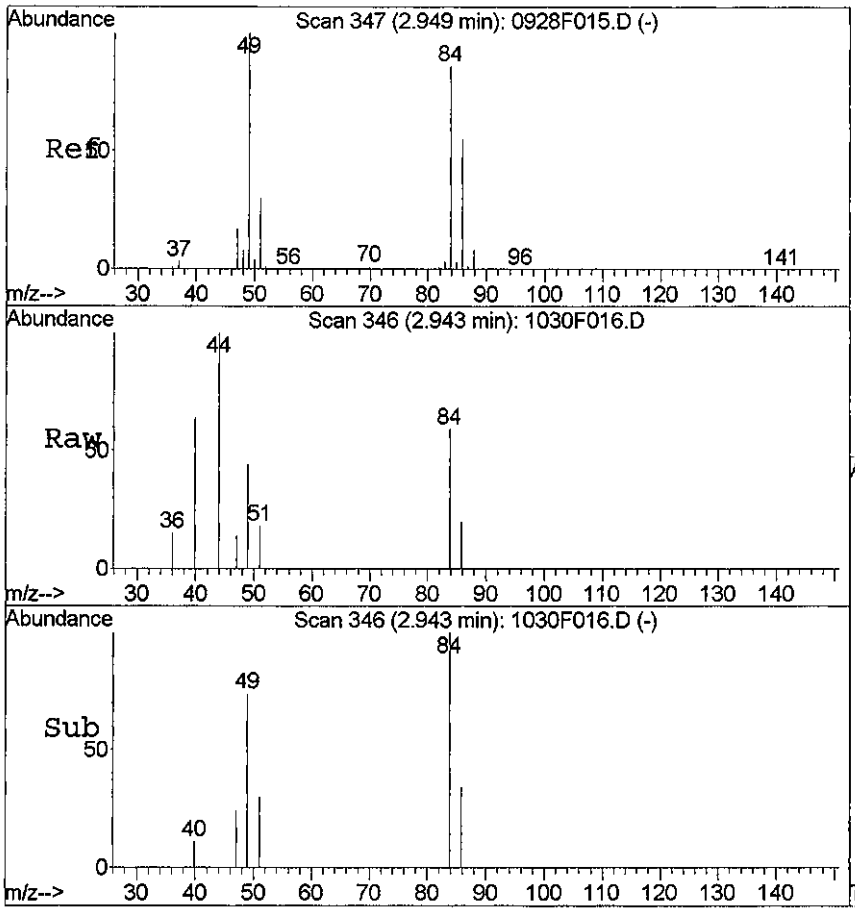


#14
Acetone
Concen: 0.47 PPB
RT: 2.54 min Scan# 269
Delta R.T. -0.01 min
Lab File: 1030F016.D
Acq: 30 Oct 2015 19:19

Tgt Ion: 43 Resp: 1138

Ion	Ratio	Lower	Upper
43	100		
58	24.4	5.9	65.9
42	17.6	0.0	36.7

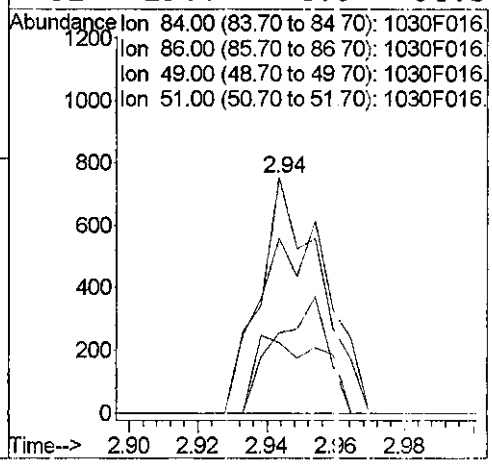


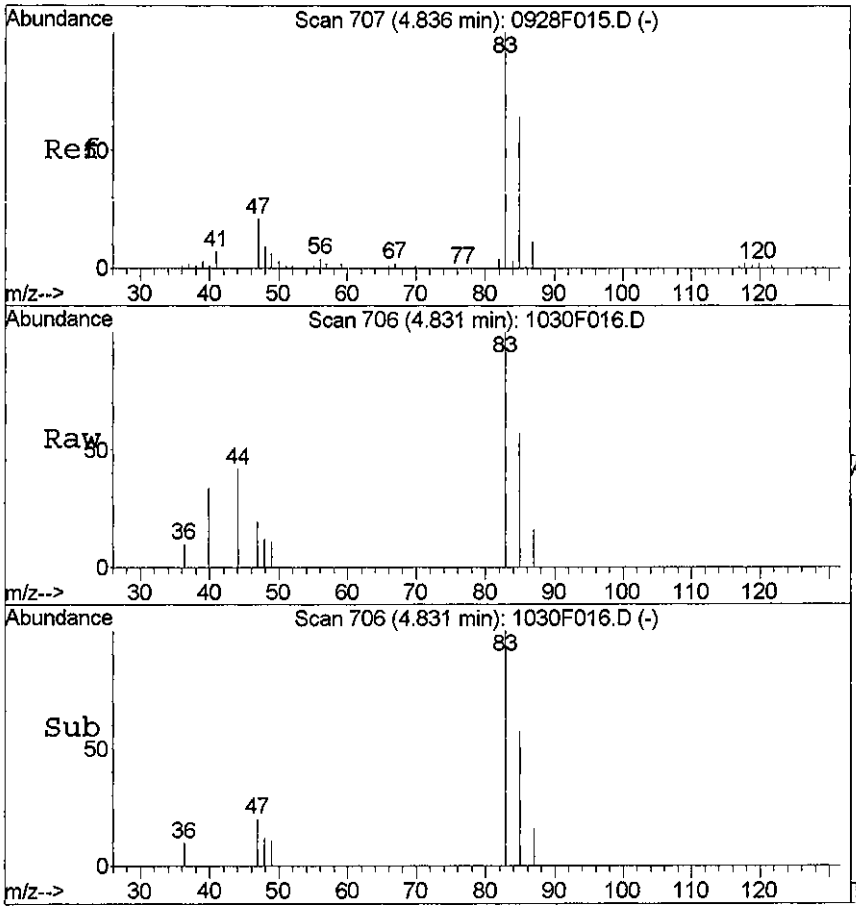


#21
Methylene Chloride
Concen: 0.05 PPB
RT: 2.94 min Scan# 346
Delta R.T. -0.01 min
Lab File: 1030F016.D
Acq: 30 Oct 2015 19:19

Tgt Ion: 84 Resp: 906

Ion	Ratio	Lower	Upper
84	100		
86	34.0	34.2	94.2#
49	74.1	85.9	145.9#
51	29.7	4.3	64.3

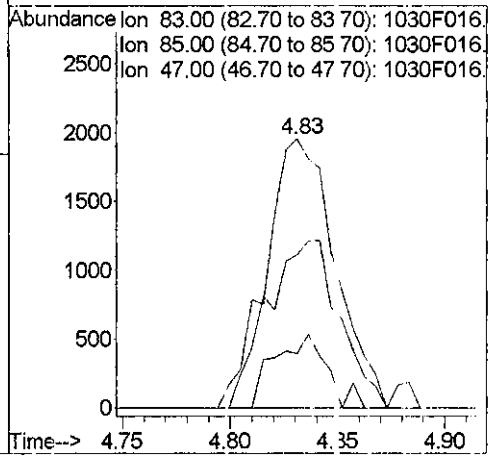


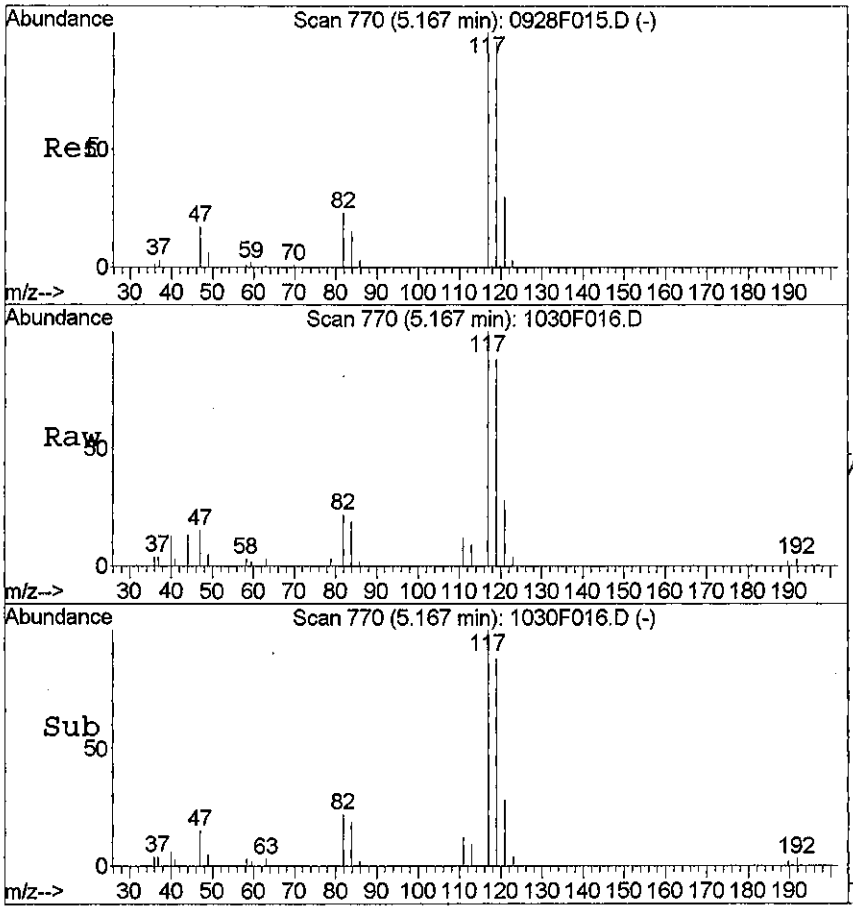


#40
Chloroform
Concen: 0.16 PPB
RT: 4.83 min Scan# 706
Delta R.T. -0.01 min
Lab File: 1030F016.D
Acq: 30 Oct 2015 19:19

Tgt Ion: 83 Resp: 4387

Ion	Ratio	Lower	Upper
83	100		
85	56.9	34.3	94.3
47	20.3	0.0	50.8

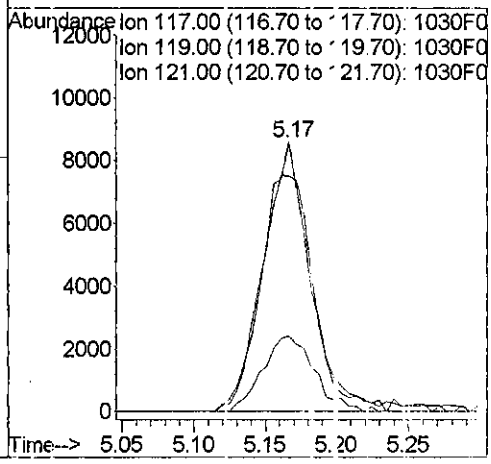


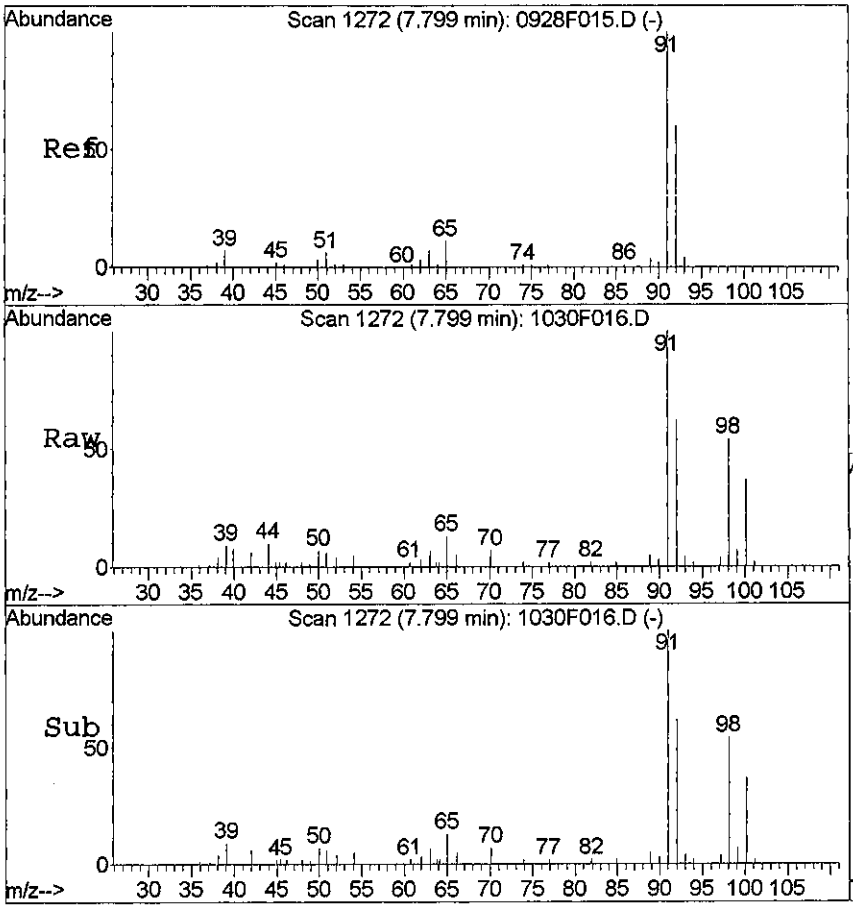


#44
Carbon Tetrachloride
Concen: 1.22 PPB
RT: 5.17 min Scan# 770
Delta R.T. 0.00 min
Lab File: 1030F016.D
Acq: 30 Oct 2015 19:19

Tgt Ion:117 Resp: 19931

Ion	Ratio	Lower	Upper
117	100		
119	87.5	65.7	125.7
121	28.1	0.4	60.4

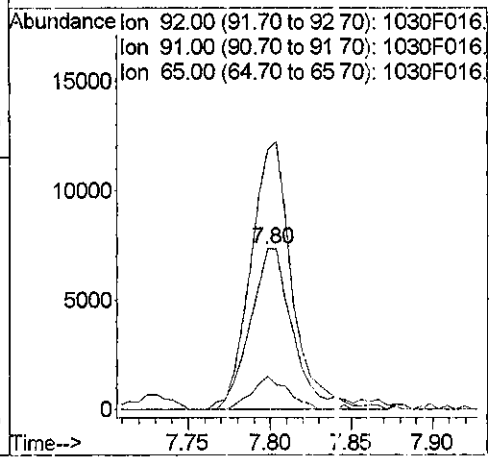




#64
Toluene
Concen: 0.29 PPB
RT: 7.80 min Scan# 1272
Delta R.T. 0.00 min
Lab File: 1030F016.D
Acq: 30 Oct 2015 19:19

Tgt Ion: 92 Resp: 13490

Ion	Ratio	Lower	Upper
92	100		
91	161.4	137.9	197.9
65	20.7	0.0	47.8



Exception Report

Data File: J:\MS18\DATA\103015\1030F017.D
Lab ID: K1512095-007
RunType: SMPL
Matrix: WATER

Date Acquired: 10/30/2015 19:40
Date Quantitated: 10/30/2015 20:18
Batch ID: KWG1510604
Analysis Method: 8260C
ListJoinID: LJ1423

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 10/30/15

Secondary Review: 11/3/15

Quantitation Report

Data File:	J:\MS18\DATA\103015\1030F017.D			**Instrument:**	GC-MS 18
Acqu Date:	10/30/2015 19:40	**Quant Date:**	10/30/2015 20:18	**Vial:**	16
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1512095-007			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	10/22/2015	**Receive Date:**	10/24/2015

Analysis Lot:	KWG1510604	**Prep Lot:**	KWG1510605	**Report Group:**	K1512095
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1479847	**Prep Date:**	10/30/2015		

Quant Method:	J:\MS18\METHODS\092815MS18_8	**Calibration ID:**	CAL14315
Title:	Volatile Organic Compounds	**Report List ID:**	LJ1423
Tune Ref:	J:\MS18\DATA\103015\1030F002.D	**Method ID:**	MJ119
MB Ref:	J:\MS18\DATA\103015\1030F008.D	**Quant based on Report List**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.89	0.00	96	631569	10.00	OK
2	Chlorobenzene-d5	9.30	0.00	82	253299	10.00	OK
3	1,4-Dichlorobenzene-d4	11.72	0.00	152	226188	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.06	0.00	0.00	113	134435	9.49	95	73-122	OK	
1	Toluene-d8	7.73	0.00	0.00	98	616972	9.68	97	65-144	OK	
2	4-Bromofluorobenzene	10.55	0.01	0.00	95	212357	8.70	87	68-117	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Tetrachloride	5.16		0.00	117	8844	0.5300	0.53		

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\103015\1030F017.D Vial: 16
Acq On : 30 Oct 2015 19:40 Operator: YX/KR
Sample : K1512095-007 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 20:06:05 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration
DataAcq Meth : 8260

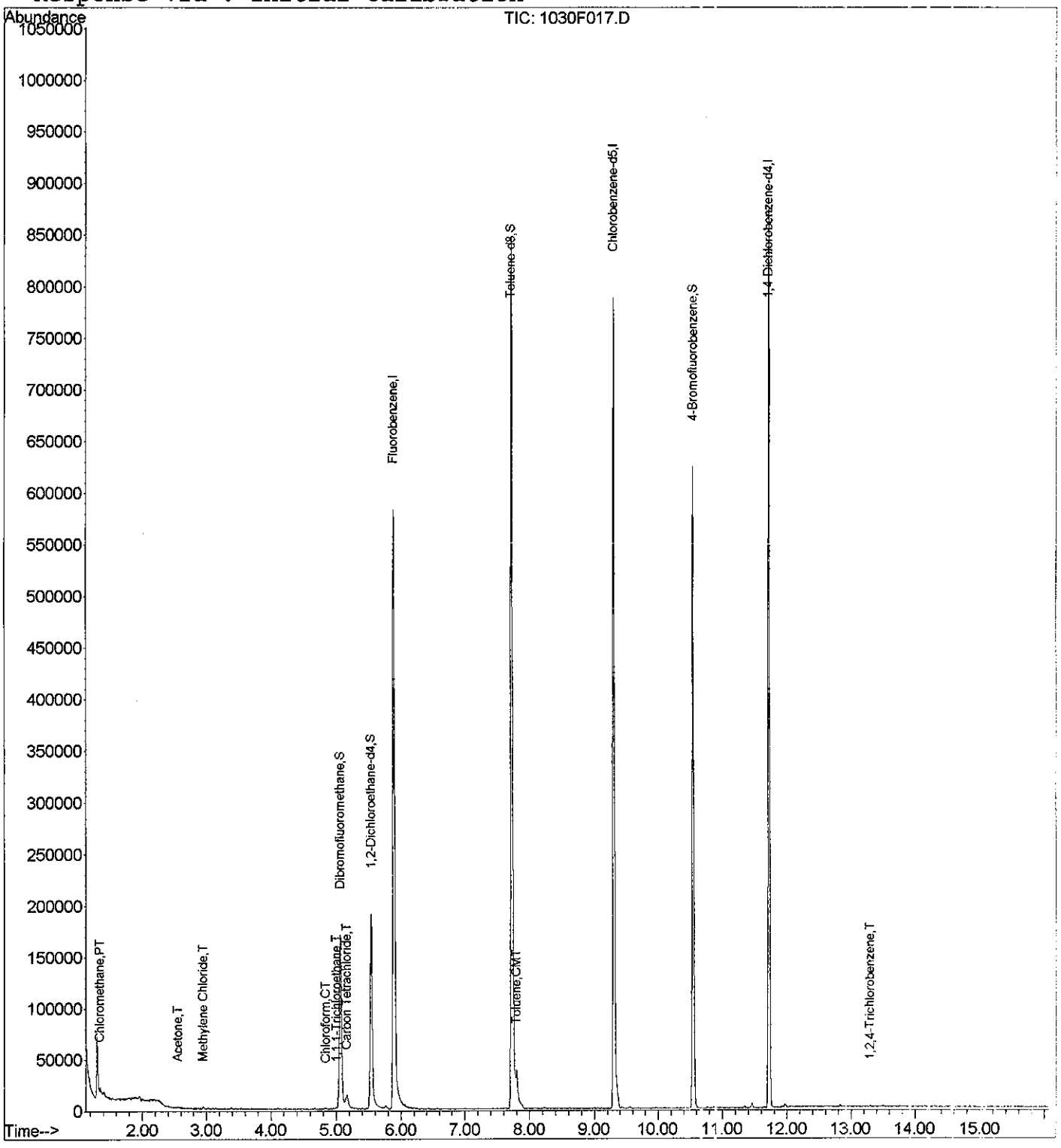
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	5.89	96	631569	10.00	PPB		0.00
65) Chlorobenzene-d5	9.30	82	253299	10.00	PPB		0.00
86) 1,4-Dichlorobenzene-d4	11.72	152	226188	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.06	113	134435	9.49	PPB		0.00
Spiked Amount 10.000			Recovery =	94.90%			
48) 1,2-Dichloroethane-d4	5.53	65	152142	9.78	PPB		0.00
Spiked Amount 10.000			Recovery =	97.80%			
63) Toluene-d8	7.73	98	616972	9.68	PPB		0.00
Spiked Amount 10.000			Recovery =	96.80%			
85) 4-Bromofluorobenzene	10.55	95	212357	8.70	PPB		0.00
Spiked Amount 10.000			Recovery =	87.00%			
Target Compounds							Qvalue
3) Chloromethane	1.35	50	1650	0.08	PPB		93
14) Acetone	2.55	43	1095	0.44	PPB		92
21) Methylene Chloride	2.95	84	798	0.04	PPB	#	70
40) Chloroform	4.84	83	1072	0.04	PPB		81
42) 1,1,1-Trichloroethane	5.00	97	970	0.05	PPB		95
44) Carbon Tetrachloride	5.16	117	8844	0.53	PPB		90
64) Toluene	7.80	92	8827	0.19	PPB		90
105) 1,2,4-Trichlorobenzene	13.30	180	542	0.03	PPB		86

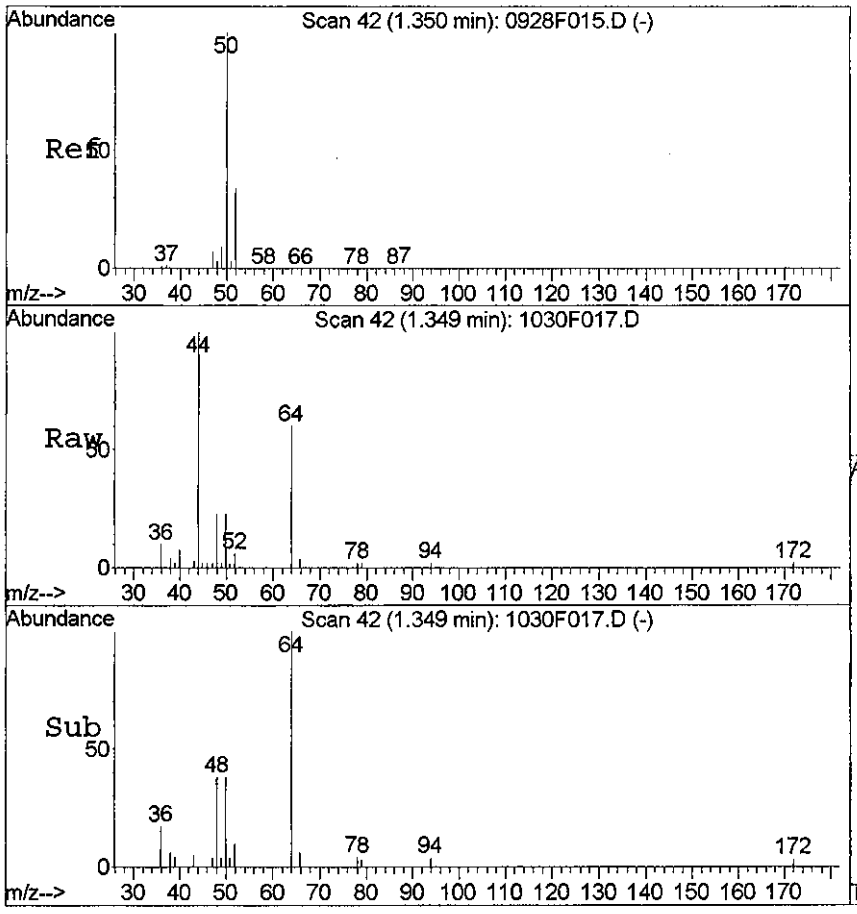
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\103015\1030F017.D Vial: 16
Acq On : 30 Oct 2015 19:40 Operator: YX/KR
Sample : K1512095-007 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 20:18 2015 Quant Results File: 092815MS18_8

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration

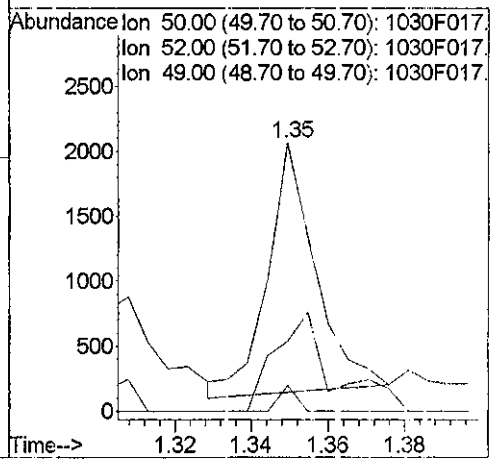


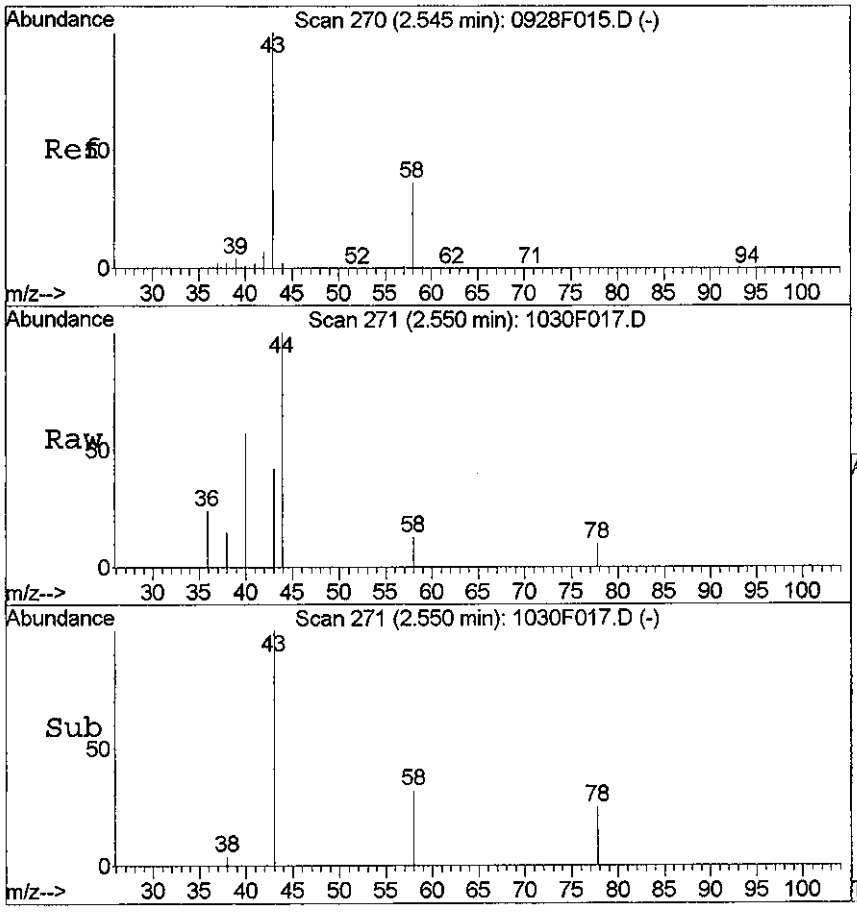


#3
Chloromethane
Concen: 0.08 PPB
RT: 1.35 min Scan# 42
Delta R.T. -0.00 min
Lab File: 1030F017.D
Acq: 30 Oct 2015 19:40

Tgt Ion: 50 Resp: 1650

Ion	Ratio	Lower	Upper
50	100		
52	28.8	3.5	63.5
49	10.7	0.0	39.3

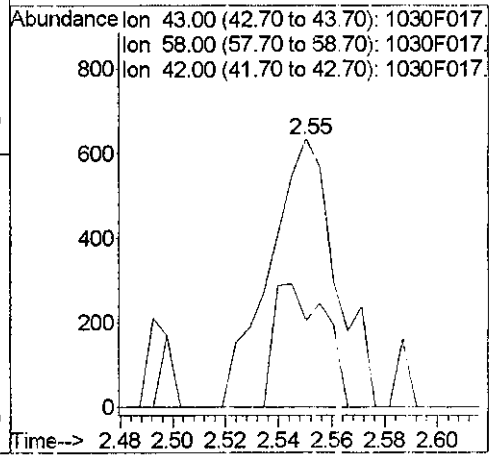


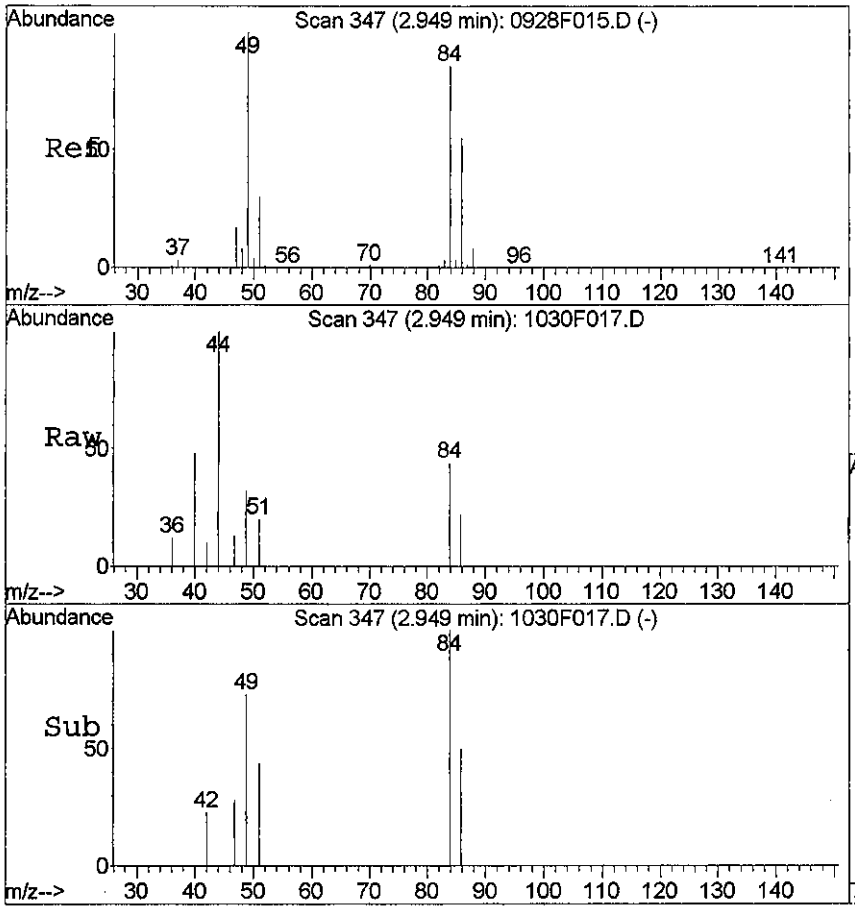


#14
Acetone
Concen: 0.44 PPB
RT: 2.55 min Scan# 271
Delta R.T. 0.01 min
Lab File: 1030F017.D
Acq: 30 Oct 2015 19:40

Tgt Ion: 43 Resp: 1095

Ion	Ratio	Lower	Upper
43	100		
58	32.2	5.9	65.9
42	0.0	0.0	36.7

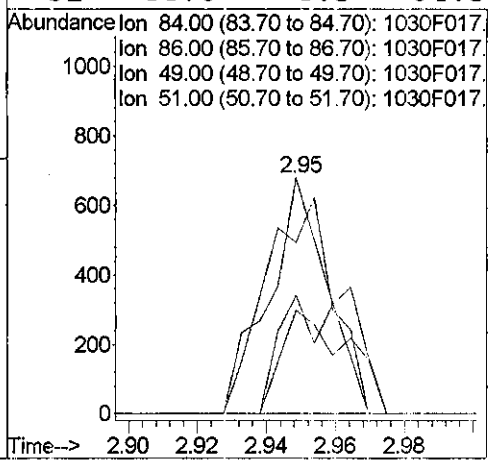


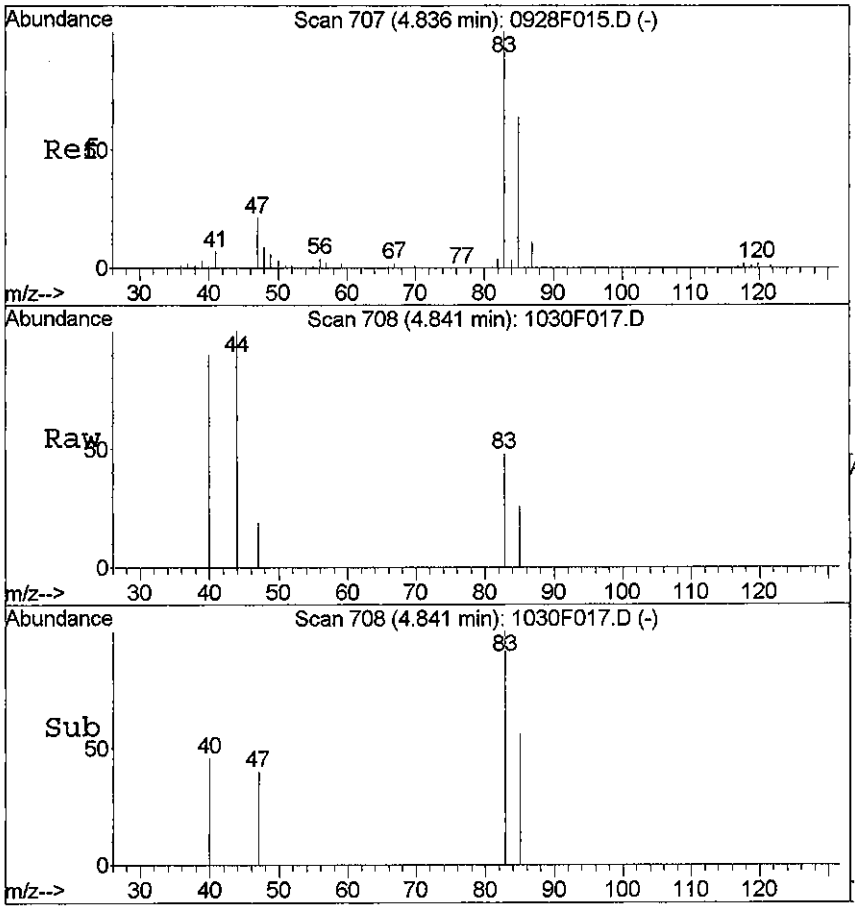


#21
Methylene Chloride
Concen: 0.04 PPB
RT: 2.95 min Scan# 347
Delta R.T. -0.00 min
Lab File: 1030F017.D
Acq: 30 Oct 2015 19:40

Tgt Ion: 84 Resp: 798

Ion	Ratio	Lower	Upper
84	100		
86	50.1	34.2	94.2
49	72.5	85.9	145.9#
51	44.0	4.3	64.3

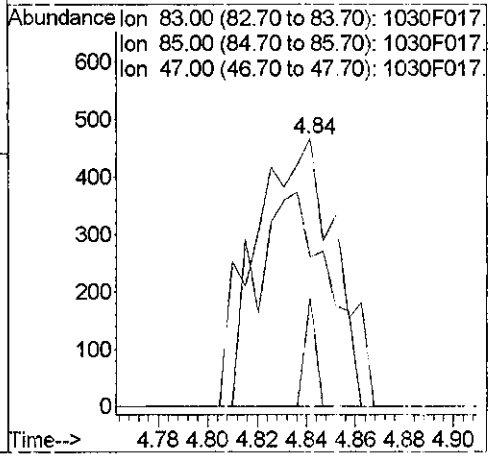


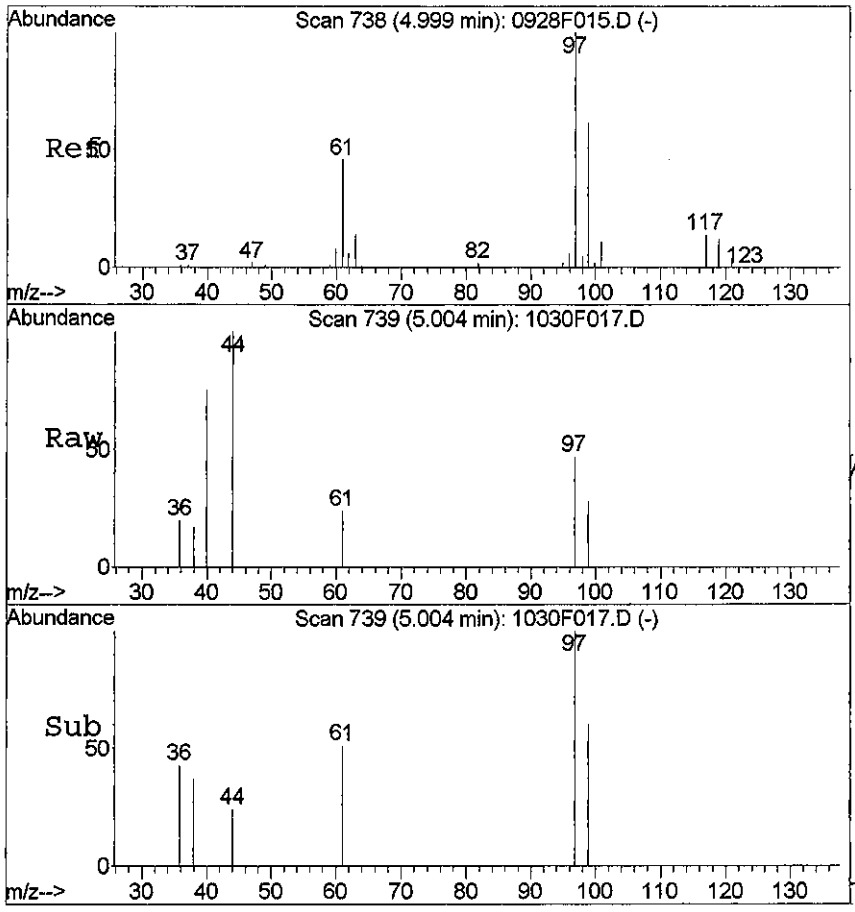


#40
Chloroform
Concen: 0.04 PPB
RT: 4.84 min Scan# 708
Delta R.T. 0.01 min
Lab File: 1030F017.D
Acq: 30 Oct 2015 19:40

Tgt Ion: 83 Resp: 1072

Ion	Ratio	Lower	Upper
83	100		
85	55.7	34.3	94.3
47	40.5	0.0	50.8

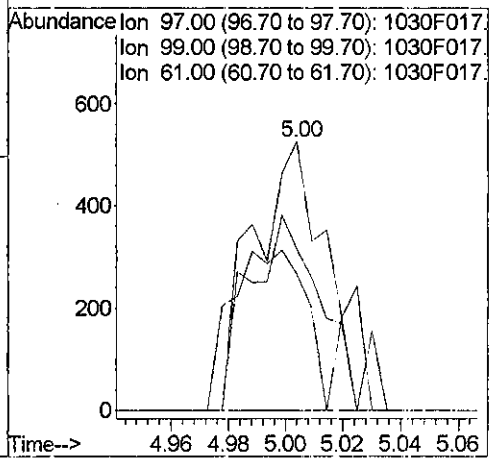


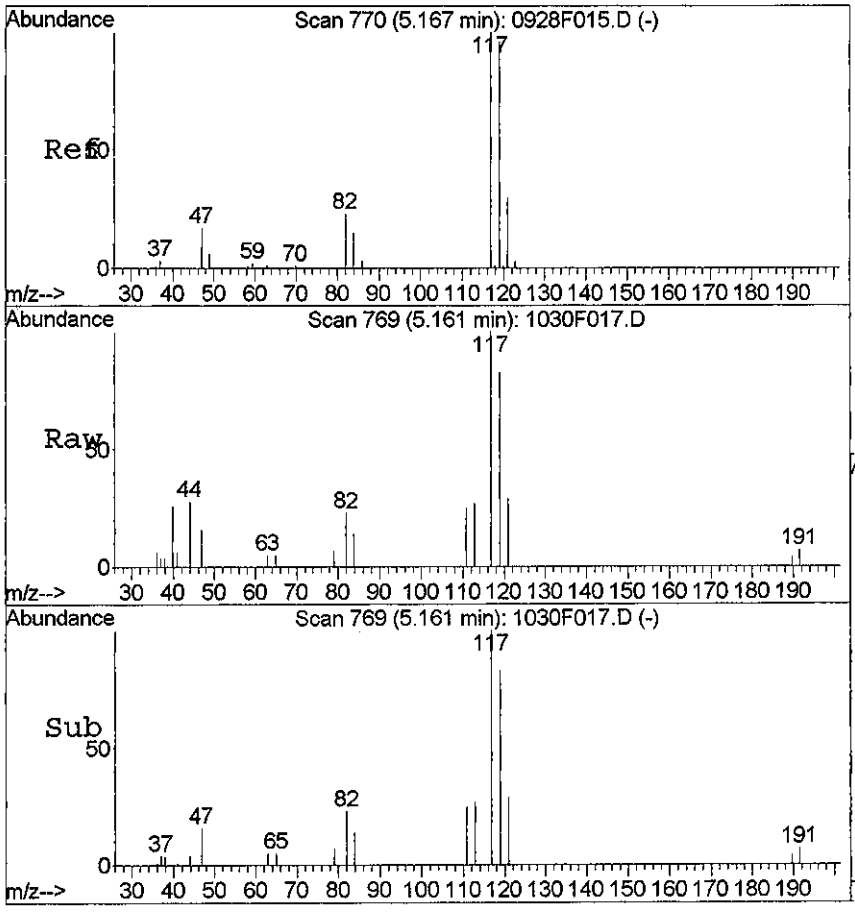


#42
1,1,1-Trichloroethane
Concen: 0.05 PPB
RT: 5.00 min Scan# 739
Delta R.T. 0.01 min
Lab File: 1030F017.D
Acq: 30 Oct 2015 19:40

Tgt Ion: 97 Resp: 970

Ion	Ratio	Lower	Upper
97	100		
99	59.9	32.1	92.1
61	50.8	15.8	75.8

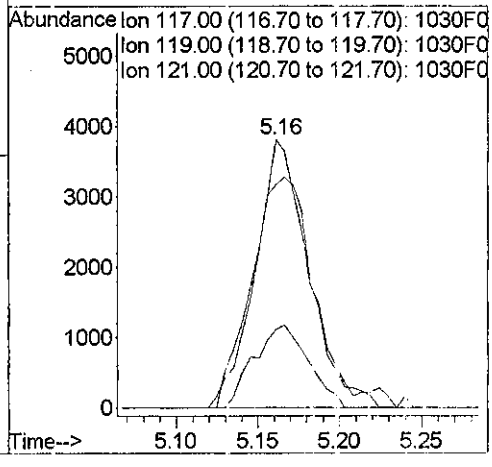


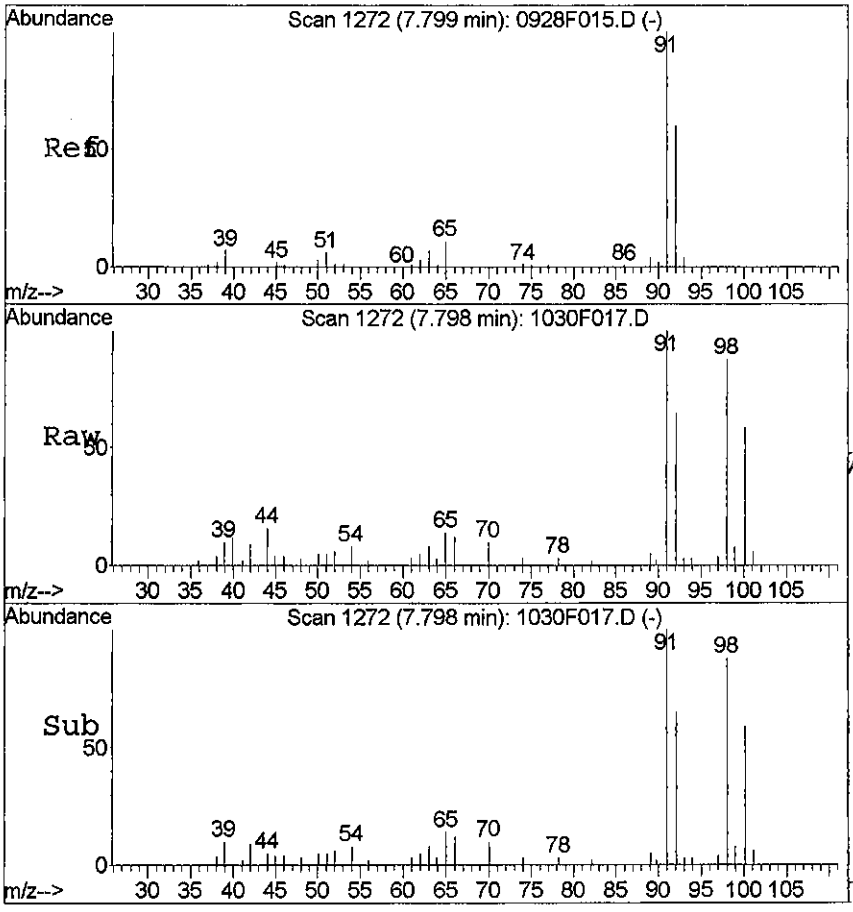


#44
Carbon Tetrachloride
Concen: 0.53 PPB
RT: 5.16 min Scan# 769
Delta R.T. -0.01 min
Lab File: 1030F017.D
Acq: 30 Oct 2015 19:40

Tgt Ion:117 Resp: 8844

Ion	Ratio	Lower	Upper
117	100		
119	83.2	65.7	125.7
121	29.2	0.4	60.4

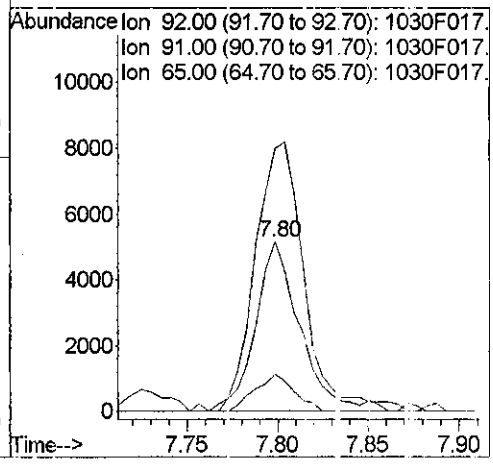


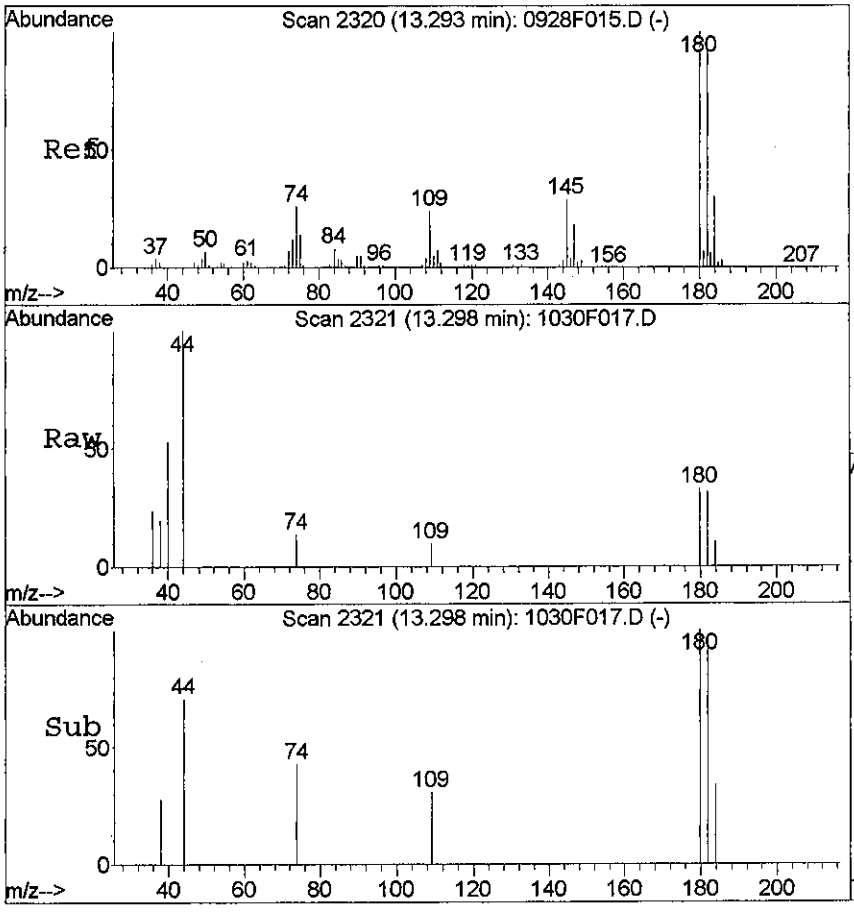


#64
Toluene
Concen: 0.19 PPB
RT: 7.80 min Scan# 1272
Delta R.T. -0.00 min
Lab File: 1030F017.D
Acq: 30 Oct 2015 19:40

Tgt Ion: 92 Resp: 8827

Ion	Ratio	Lower	Upper
92	100		
91	154.6	137.9	197.9
65	21.9	0.0	47.8

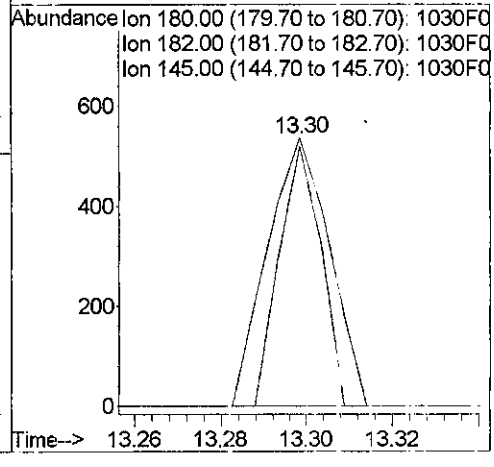




#105
1,2,4-Trichlorobenzene
Concen: 0.03 PPB
RT: 13.30 min Scan# 2321
Delta R.T. 0.01 min
Lab File: 1030F017.D
Acq: 30 Oct 2015 19:40

Tgt Ion:180 Resp: 542

Ion	Ratio	Lower	Upper
180	100		
182	96.8	64.9	124.9
145	0.0	0.0	59.1



Exception Report

Data File: J:\MS18\DATA\103015\1030F018.D
Lab ID: K1512095-008
RunType: SMPL
Matrix: WATER

Date Acquired: 10/30/2015 20:02
Date Quantitated: 11/02/2015 18:35
Batch ID: KWG1510604
Analysis Method: 8260C
ListJoinID: LJ1423

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: MHe 11/2/15

Secondary Review: KAW 11/3/15

Quantitation Report

Data File:	J:\MS18\DATA\103015\1030F018.D			**Instrument:**	GC-MS 18
Acqu Date:	10/30/2015 20:02	**Quant Date:**	11/02/2015 18:35	**Vial:**	17
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1512095-008			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	10/23/2015	**Receive Date:**	10/24/2015

Analysis Lot:	KWG1510604	**Prep Lot:**	KWG1510605	**Report Group:**	K1512095
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1479848	**Prep Date:**	10/30/2015		

Quant Method:	J:\MS18\METHODS\092815MS18_8	**Calibration ID:**	CAL14315
Title:	Volatile Organic Compounds	**Report List ID:**	LJ1423
Tune Ref:	J:\MS18\DATA\103015\1030F002.D	**Method ID:**	MJ119
MB Ref:	J:\MS18\DATA\103015\1030F008.D	**Quant based on Report List**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.89	0.00	96	618587	10.00	OK
2	Chlorobenzene-d5	9.30	0.00	82	248370	10.00	OK
3	1,4-Dichlorobenzene-d4	11.72	0.00	152	226232	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.06	0.00	0.00	113	132399	9.54	95	73-122	OK	
1	Toluene-d8	7.73	0.00	0.00	98	607567	9.74	97	65-144	OK	
2	4-Bromofluorobenzene	10.55	0.01	0.00	95	208709	8.73	87	68-117	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Tetrachloride	5.17	0.01	0.00	117	3886	0.2400	0.24	J	

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\103015\1030F018.D Vial: 17
Acq On : 30 Oct 2015 20:02 Operator: YX/KR
Sample : K1512095-008 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 02 14:07:08 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration
DataAcq Meth : 8260

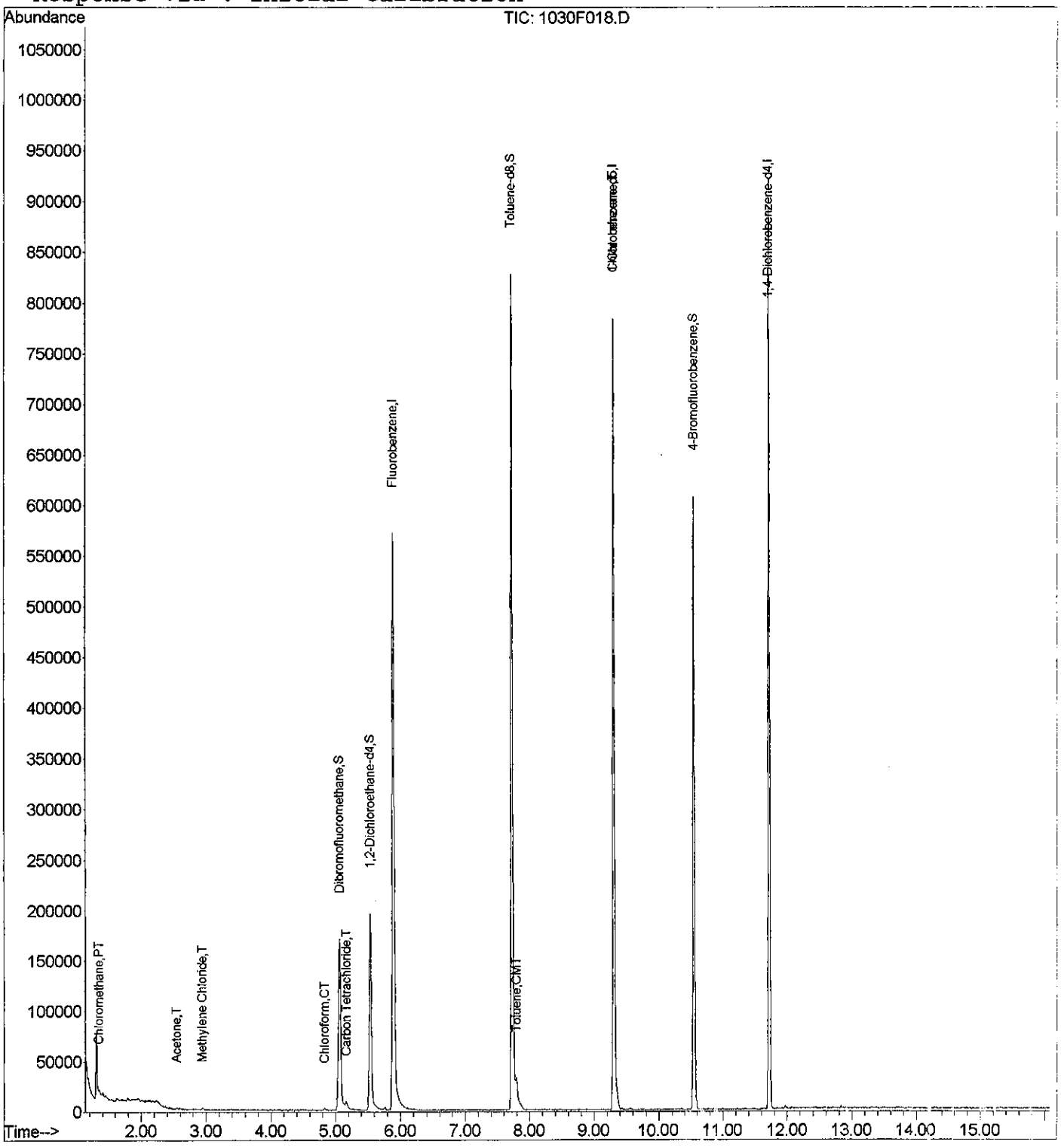
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.89	96	618587	10.00	PPB	0.00
65) Chlorobenzene-d5	9.30	82	248370	10.00	PPB	0.00
86) 1,4-Dichlorobenzene-d4	11.72	152	226232	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.06	113	132399	9.54	PPB	0.00
Spiked Amount 10.000			Recovery = 95.40%			
48) 1,2-Dichloroethane-d4	5.54	65	153034	10.05	PPB	0.00
Spiked Amount 10.000			Recovery = 100.50%			
63) Toluene-d8	7.73	98	607567	9.74	PPB	0.00
Spiked Amount 10.000			Recovery = 97.40%			
85) 4-Bromofluorobenzene	10.55	95	208709	8.73	PPB	0.00
Spiked Amount 10.000			Recovery = 87.30%			
Target Compounds						Qvalue
3) Chloromethane	1.35	50	2294	0.11	PPB	92
14) Acetone	2.55	43	1103	0.46	PPB	83
21) Methylene Chloride	2.94	84	789	0.04	PPB	82
40) Chloroform	4.84	83	1703	0.06	PPB	87
44) Carbon Tetrachloride	5.17	117	3886	0.24	PPB	97
64) Toluene	7.80	92	6950	0.15	PPB	88
75) 1-Chlorohexane	9.30	91	1220	0.06	PPB	58

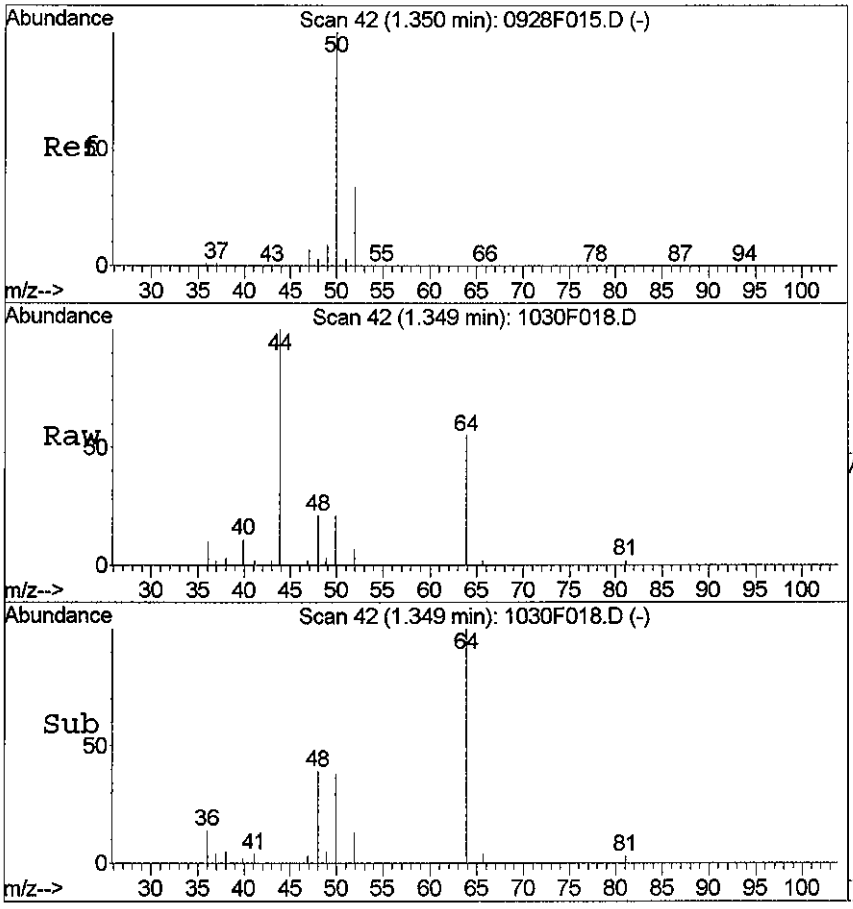
(#) = qualifier out of range (m) = manual integration
1030F018.D 092815MS18_8260.M Mon Nov 02 18:47:10 2015 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\103015\1030F018.D Vial: 17
Acq On : 30 Oct 2015 20:02 Operator: YX/KR
Sample : K1512095-008 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 18:35 2015 Quant Results File: 092815MS18_8

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration

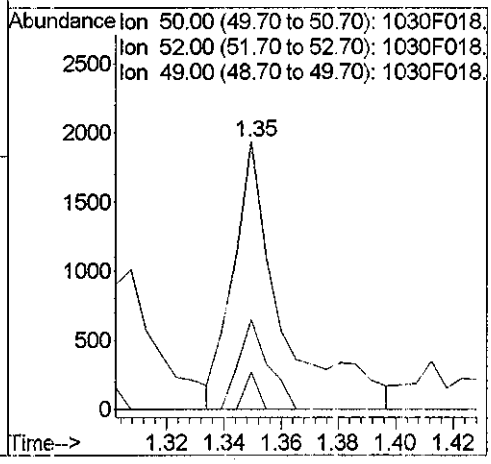


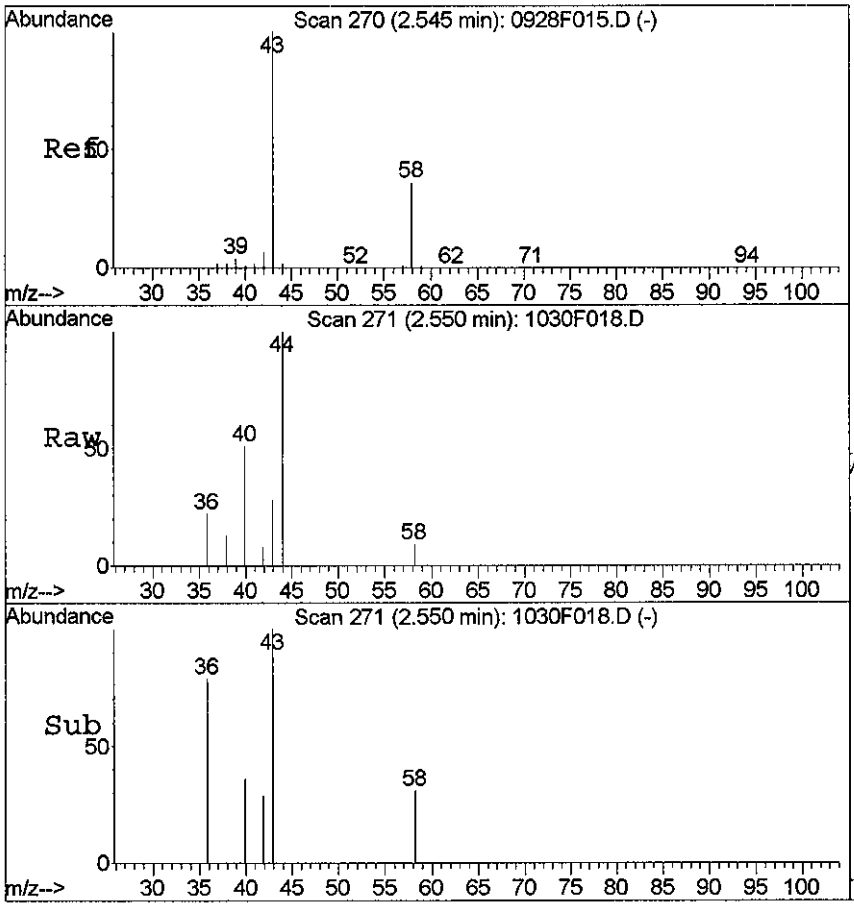


#3
Chloromethane
Concen: 0.11 PPB
RT: 1.35 min Scan# 42
Delta R.T. -0.00 min
Lab File: 1030F018.D
Acq: 30 Oct 2015 20:02

Tgt Ion: 50 Resp: 2294

Ion	Ratio	Lower	Upper
50	100		
52	36.8	3.5	63.5
49	15.3	0.0	39.3

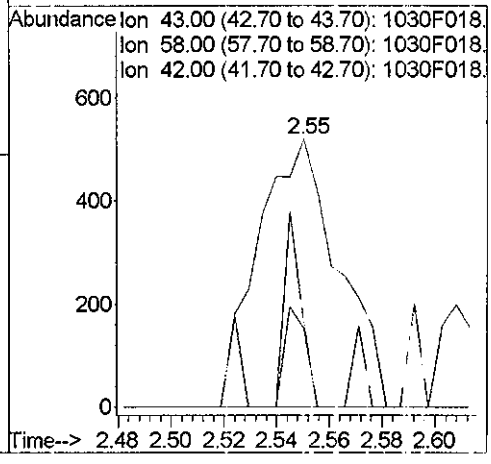


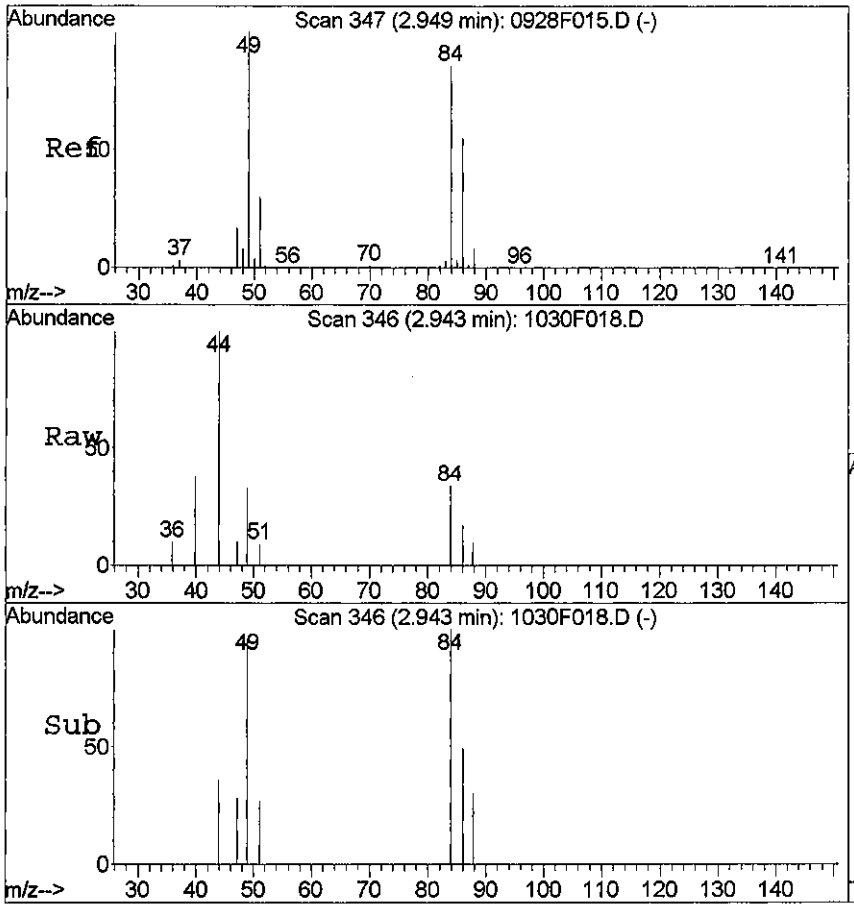


#14
Acetone
Concen: 0.46 PPB
RT: 2.55 min Scan# 271
Delta R.T. 0.01 min
Lab File: 1030F018.D
Acq: 30 Oct 2015 20:02

Tgt Ion: 43 Resp: 1103

Ion	Ratio	Lower	Upper
43	100		
58	31.0	5.9	65.9
42	29.3	0.0	36.7

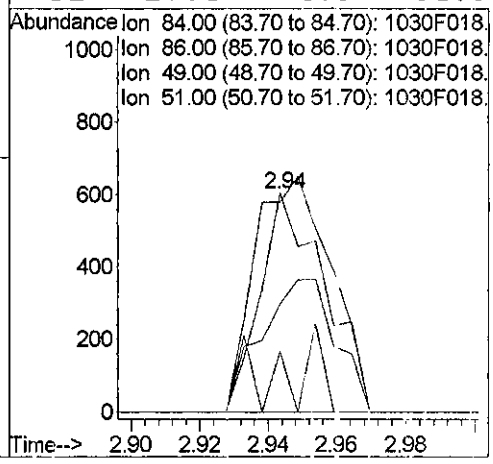


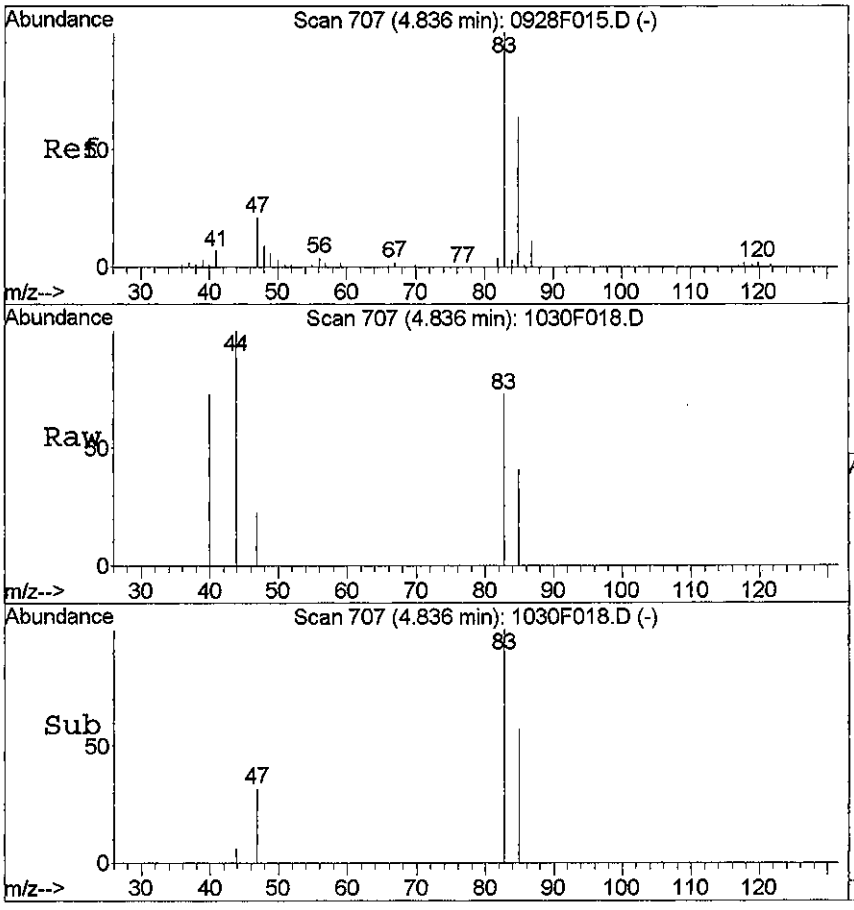


#21
Methylene Chloride
Concen: 0.04 PPB
RT: 2.94 min Scan# 346
Delta R.T. -0.01 min
Lab File: 1030F018.D
Acq: 30 Oct 2015 20:02

Tgt Ion: 84 Resp: 789

Ion	Ratio	Lower	Upper
84	100		
86	48.9	34.2	94.2
49	95.7	85.9	145.9
51	27.4	4.3	64.3

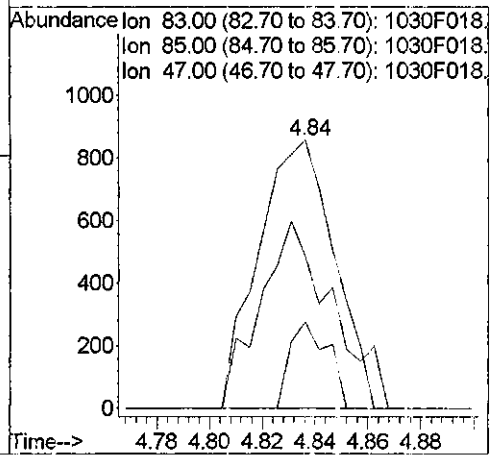


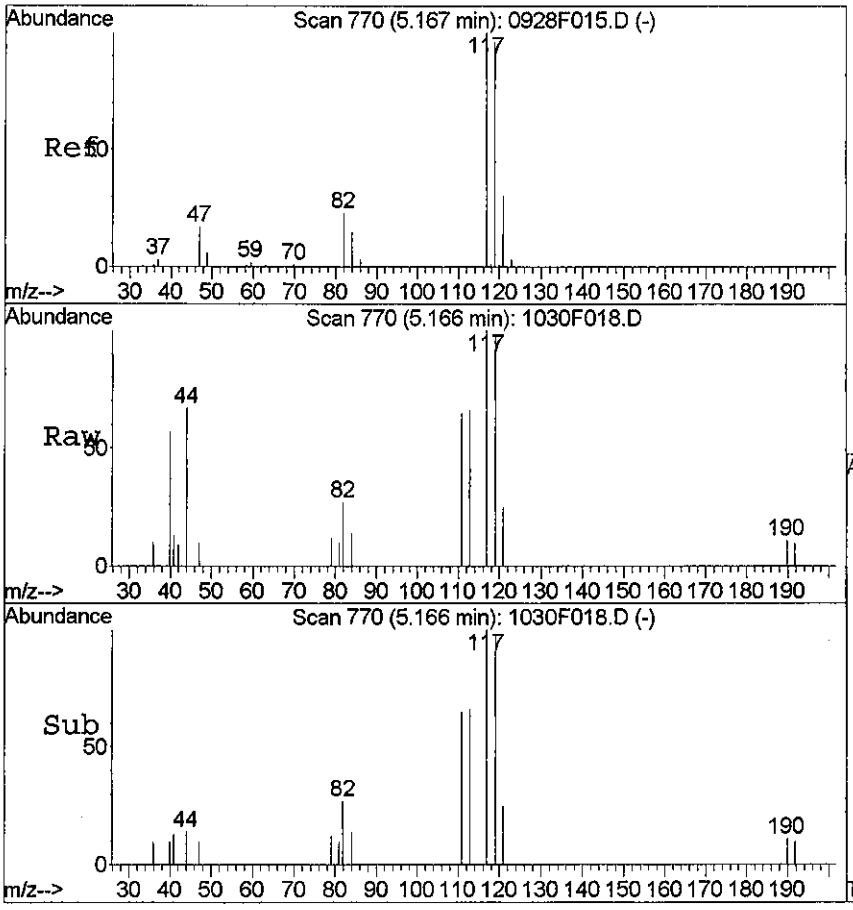


#40
Chloroform
Concen: 0.06 PPB
RT: 4.84 min Scan# 707
Delta R.T. -0.00 min
Lab File: 1030F018.D
Acq: 30 Oct 2015 20:02

Tgt Ion: 83 Resp: 1703

Ion	Ratio	Lower	Upper
83	100		
85	56.8	34.3	94.3
47	32.1	0.0	50.8

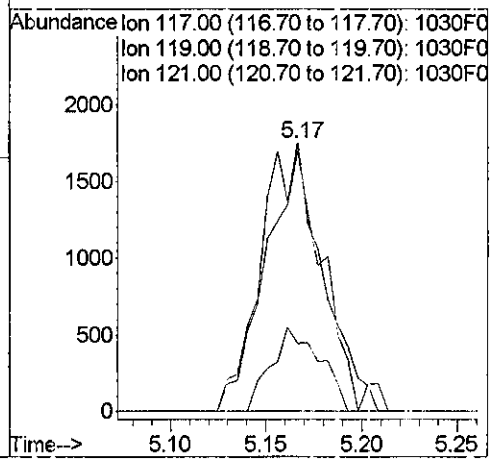


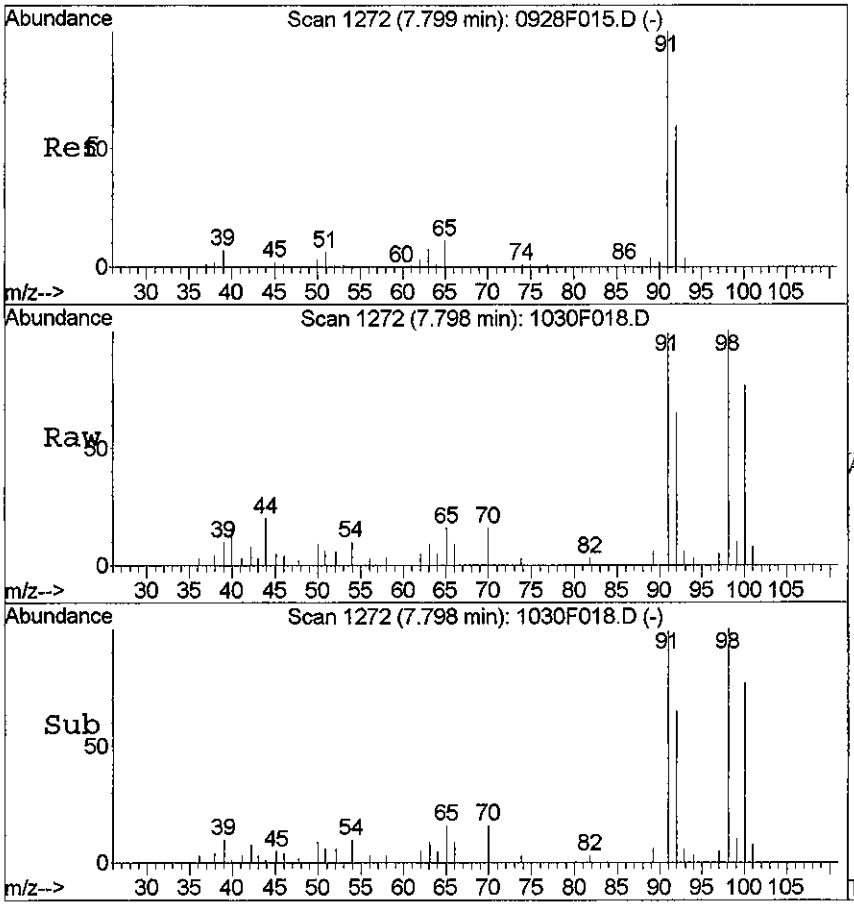


#44
Carbon Tetrachloride
Concen: 0.24 PPB
RT: 5.17 min Scan# 770
Delta R.T. -0.00 min
Lab File: 1030F018.D
Acq: 30 Oct 2015 20:02

Tgt Ion:117 Resp: 3886

Ion	Ratio	Lower	Upper
117	100		
119	96.9	65.7	125.7
121	25.4	0.4	60.4

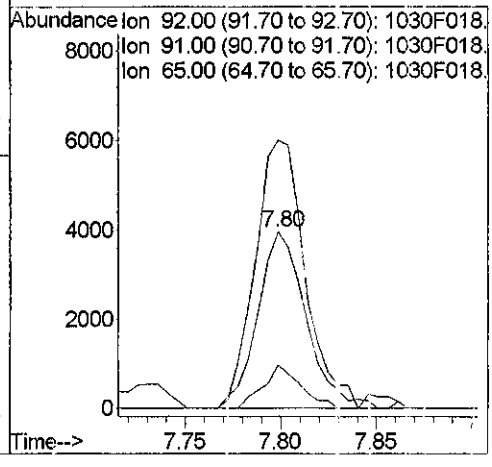


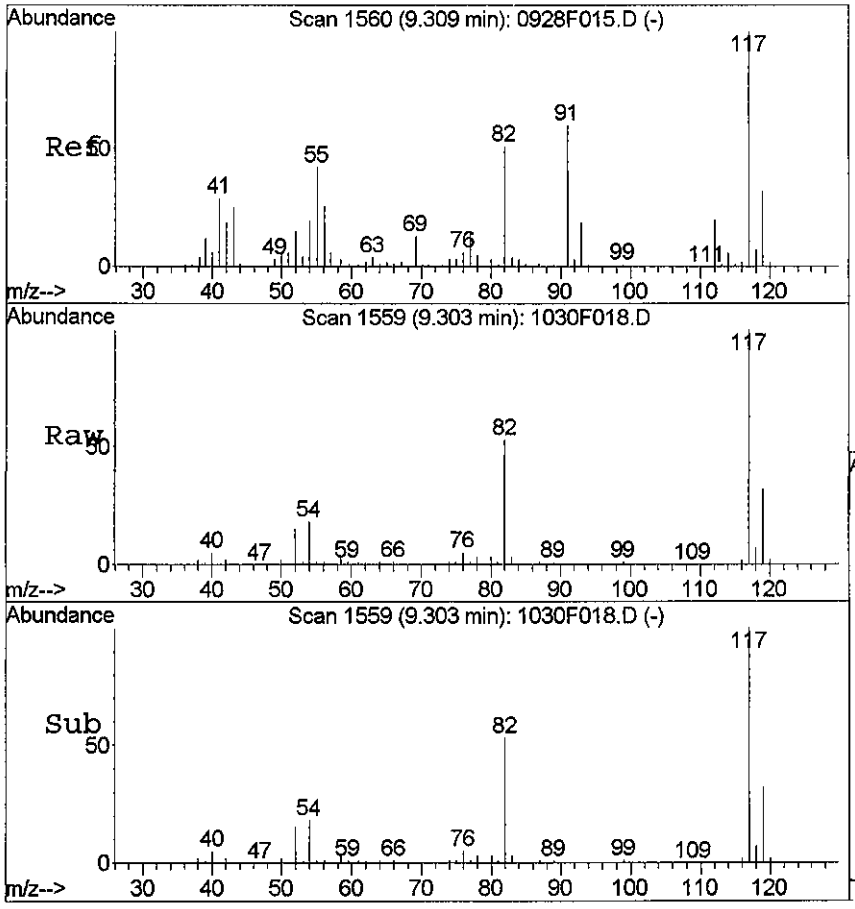


#64
Toluene
Concen: 0.15 PPB
RT: 7.80 min Scan# 1272
Delta R.T. -0.00 min
Lab File: 1030F018.D
Acq: 30 Oct 2015 20:02

Tgt Ion: 92 Resp: 6950

Ion	Ratio	Lower	Upper
92	100		
91	151.6	137.9	197.9
65	24.6	0.0	47.8

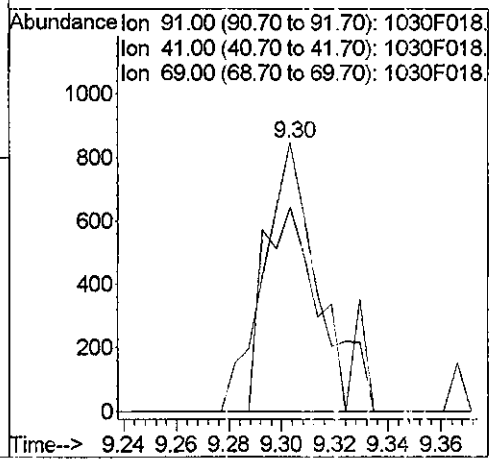




#75
1-Chlorohexane
Concen: 0.06 PPB
RT: 9.30 min Scan# 1559
Delta R.T. -0.01 min
Lab File: 1030F018.D
Acq: 30 Oct 2015 20:02

Tgt Ion: 91 Resp: 1220

Ion	Ratio	Lower	Upper
91	100		
41	76.0	18.4	78.4
69	0.0	0.0	51.1



Exception Report

Data File: J:\MS18\DATA\103015\1030F019.D
Lab ID: K1512095-009
RunType: SMPL
Matrix: WATER

Date Acquired: 10/30/2015 20:23
Date Quantitated: 11/02/2015 18:36
Batch ID: KWG1510604
Analysis Method: 8260C
ListJoinID: LJ1423

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 11/2/15

Secondary Review: 11/3/15

Quantitation Report

Data File:	J:\MS18\DATA\103015\1030F019.D			**Instrument:**	GC-MS 18
Acqu Date:	10/30/2015 20:23	**Quant Date:**	11/02/2015 18:36	**Vial:**	18
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1512095-009			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	10/23/2015	**Receive Date:**	10/24/2015

Analysis Lot:	KWG1510604	**Prep Lot:**	KWG1510605	**Report Group:**	K1512095
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1479849	**Prep Date:**	10/30/2015		

Quant Method:	J:\MS18\METHODS\092815MS18_8	**Calibration ID:**	CAL14315
Title:	Volatile Organic Compounds	**Report List ID:**	LJ1423
Tune Ref:	J:\MS18\DATA\103015\1030F002.D	**Method ID:**	MJ119
MB Ref:	J:\MS18\DATA\103015\1030F008.D	**Quant based on Report List**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.89	0.00	96	627158	10.00	OK
2	Chlorobenzene-d5	9.30	0.00	82	252557	10.00	OK
3	1,4-Dichlorobenzene-d4	11.72	0.00	152	226723	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.06	0.00	0.00	113	132281	9.40	94	73-122	OK	
1	Toluene-d8	7.73	0.00	0.00	98	614360	9.71	97	65-144	OK	
2	4-Bromofluorobenzene	10.54	0.00	0.00	95	209861	8.63	86	68-117	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Tetrachloride	5.16		0.00	117	27203	1.65	1.7		

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deloted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\103015\1030F019.D Vial: 18
Acq On : 30 Oct 2015 20:23 Operator: YX/KR
Sample : K1512095-009 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 02 14:07:09 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration
DataAcq Meth : 8260

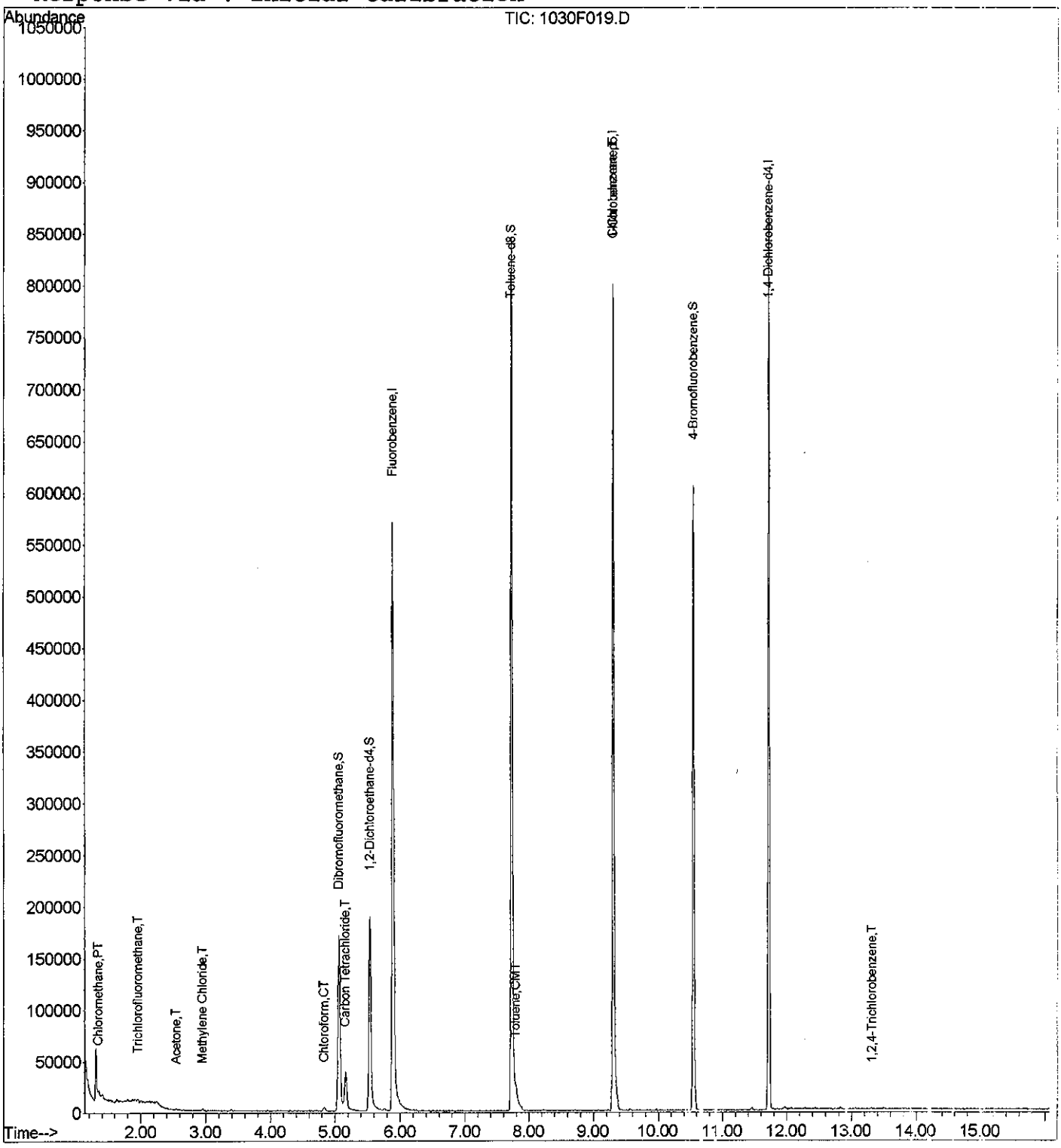
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	5.89	96	627158	10.00	PPB		0.00
65) Chlorobenzene-d5	9.30	82	252557	10.00	PPB		0.00
86) 1,4-Dichlorobenzene-d4	11.72	152	226723	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.06	113	132281	9.40	PPB		0.00
Spiked Amount 10.000			Recovery =	94.00%			
48) 1,2-Dichloroethane-d4	5.53	65	153222	9.92	PPB		0.00
Spiked Amount 10.000			Recovery =	99.20%			
63) Toluene-d8	7.73	98	614360	9.71	PPB		0.00
Spiked Amount 10.000			Recovery =	97.10%			
85) 4-Bromofluorobenzene	10.54	95	209861	8.63	PPB		0.00
Spiked Amount 10.000			Recovery =	86.30%			
Target Compounds							Qvalue
3) Chloromethane	1.35	50	1916	0.09	PPB		86
9) Trichlorofluoromethane	1.96	101	543	0.03	PPB		93
14) Acetone	2.55	43	1319	0.54	PPB		87
21) Methylene Chloride	2.94	84	750	0.04	PPB		91
40) Chloroform	4.83	83	3758	0.13	PPB		83
44) Carbon Tetrachloride	5.16	117	27203	1.65	PPB		99
64) Toluene	7.79	92	3168	0.07	PPB	#	79
75) 1-Chlorohexane	9.31	91	918	0.04	PPB		86
105) 1,2,4-Trichlorobenzene	13.30	180	530	0.03	PPB		79

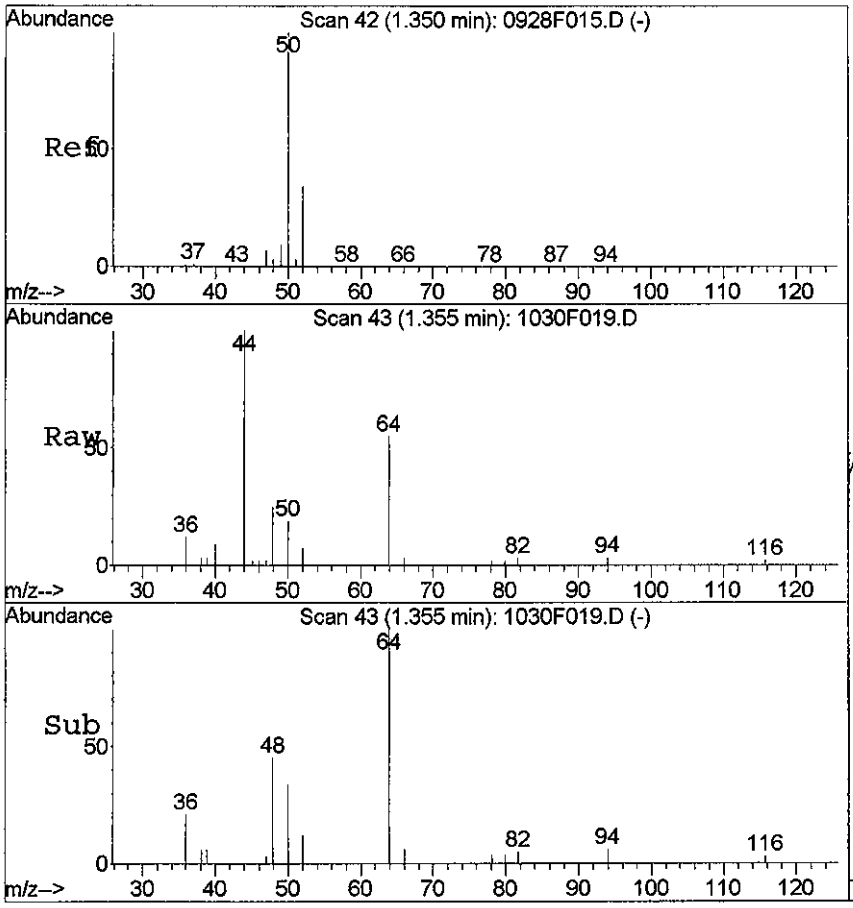
(#) = qualifier out of range (m) = manual integration
1030F019.D 092815MS18_8260.M Mon Nov 02 18:47:12 2015 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\103015\1030F019.D Vial: 18
Acq On : 30 Oct 2015 20:23 Operator: YX/KR
Sample : K1512095-009 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 18:36 2015 Quant Results File: 092815MS18_8

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration

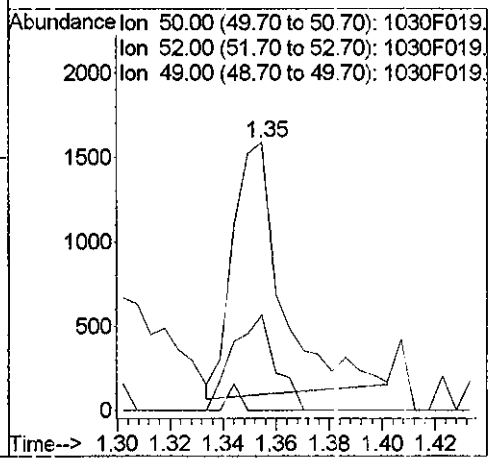


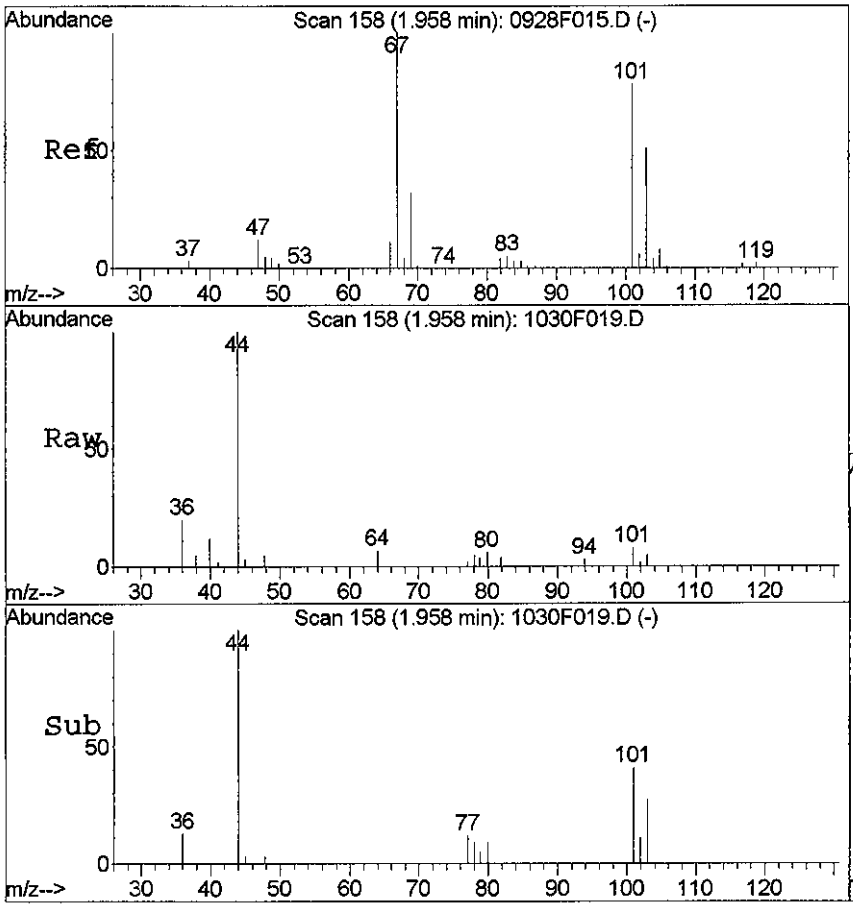


#3
Chloromethane
Concen: 0.09 PPB
RT: 1.35 min Scan# 43
Delta R.T. 0.01 min
Lab File: 1030F019.D
Acq: 30 Oct 2015 20:23

Tgt Ion: 50 Resp: 1916

Ion	Ratio	Lower	Upper
50	100		
52	39.4	3.5	63.5
49	0.0	0.0	39.3

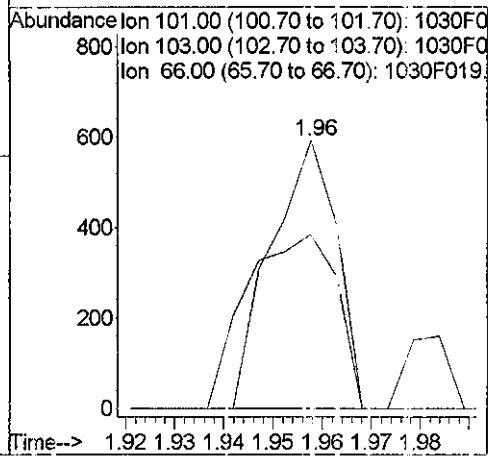


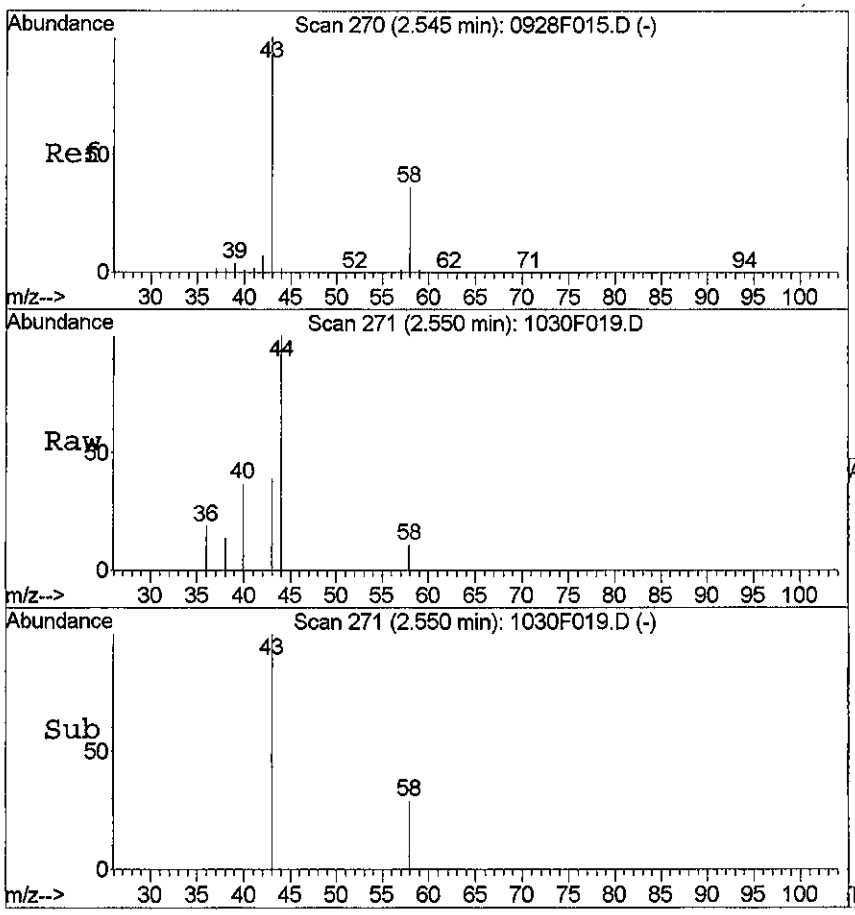


#9
Trichlorofluoromethane
Concen: 0.03 PPB
RT: 1.96 min Scan# 158
Delta R.T. -0.00 min
Lab File: 1030F019.D
Acq: 30 Oct 2015 20:23

Tgt Ion:101 Resp: 543

Ion	Ratio	Lower	Upper
101	100		
103	64.9	35.9	95.9
66	0.0	0.0	43.9

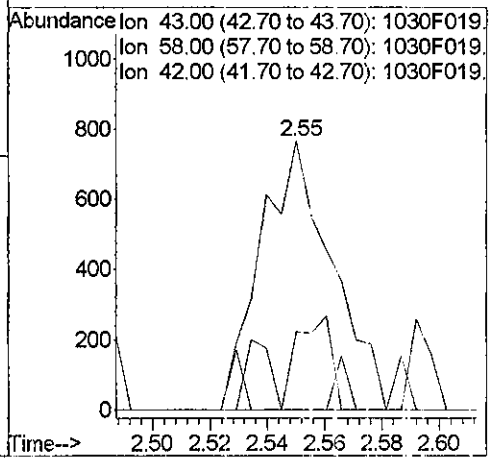


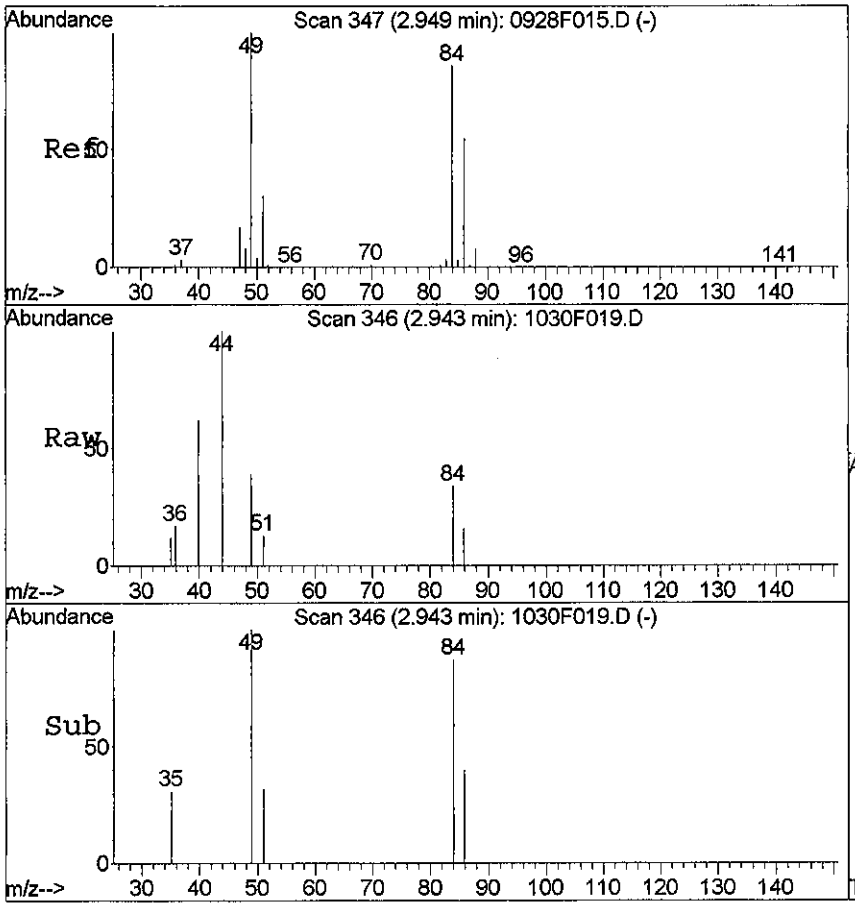


#14
Acetone
Concen: 0.54 PPB
RT: 2.55 min Scan# 271
Delta R.T. 0.01 min
Lab File: 1030F019.D
Acq: 30 Oct 2015 20:23

Tgt Ion: 43 Resp: 1319

Ion	Ratio	Lower	Upper
43	100		
58	29.0	5.9	65.9
42	0.0	0.0	36.7

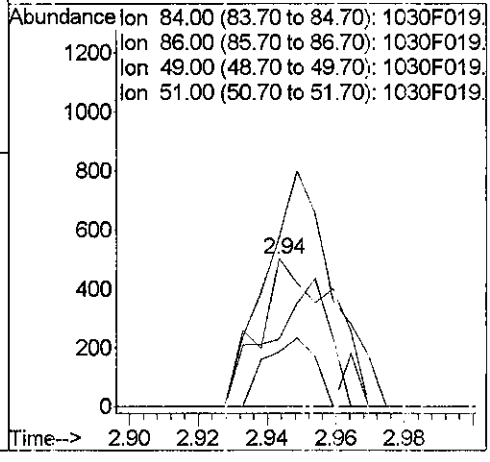


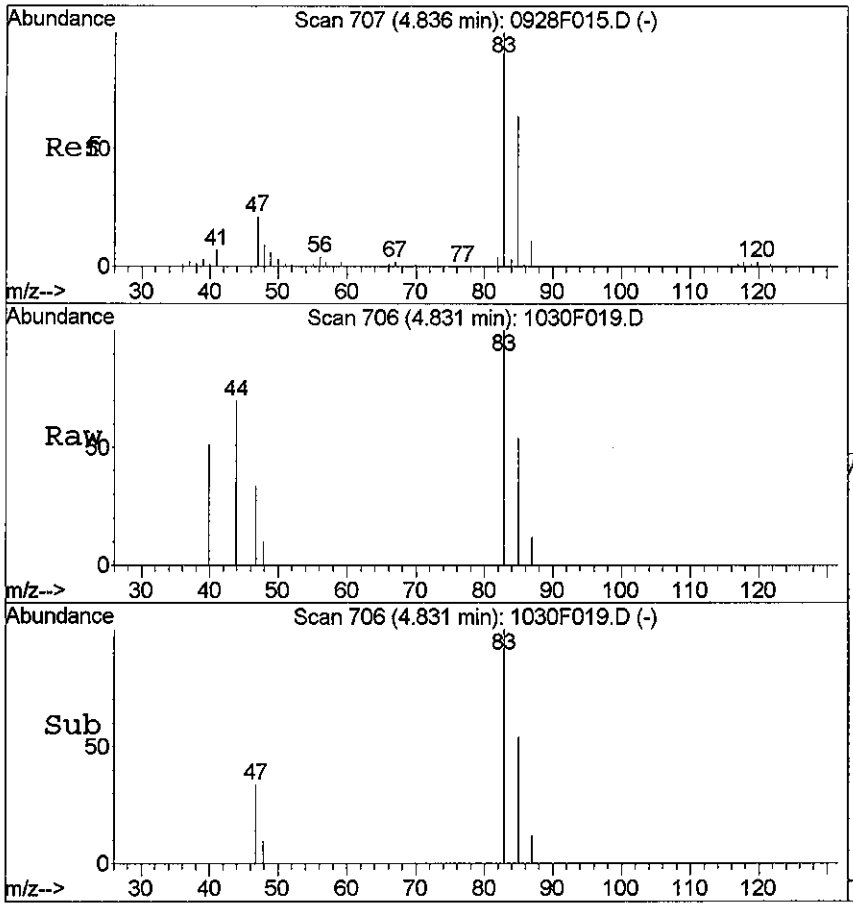


#21
Methylene Chloride
Concen: 0.04 PPB
RT: 2.94 min Scan# 346
Delta R.T. -0.01 min
Lab File: 1030F019.D
Acq: 30 Oct 2015 20:23

Tgt Ion: 84 Resp: 750

Ion	Ratio	Lower	Upper
84	100		
86	45.3	34.2	94.2
49	114.5	85.9	145.9
51	36.8	4.3	64.3

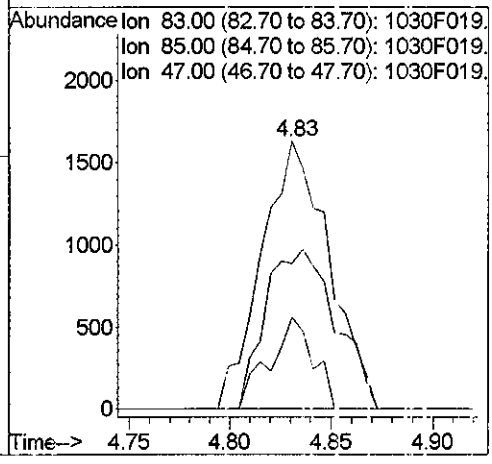


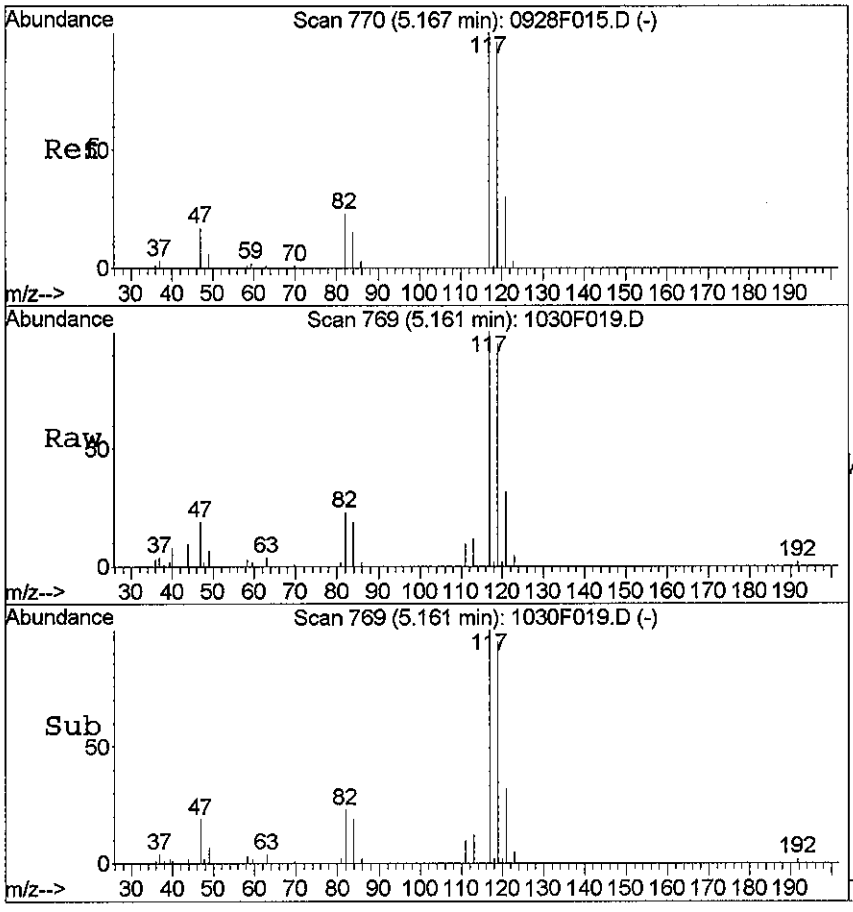


#40
Chloroform
Concen: 0.13 PPB
RT: 4.83 min Scan# 706
Delta R.T. -0.01 min
Lab File: 1030F019.D
Acq: 30 Oct 2015 20:23

Tgt Ion: 83 Resp: 3758

Ion	Ratio	Lower	Upper
83	100		
85	54.4	34.3	94.3
47	34.4	0.0	50.8

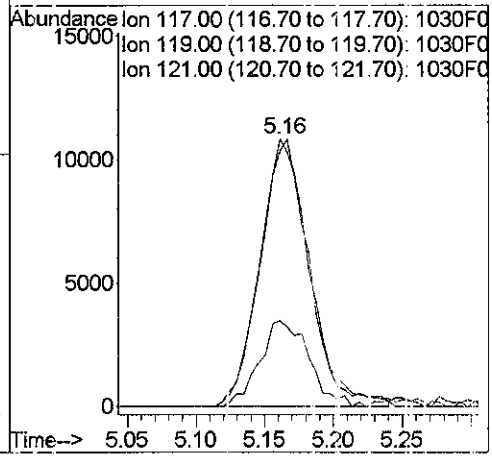


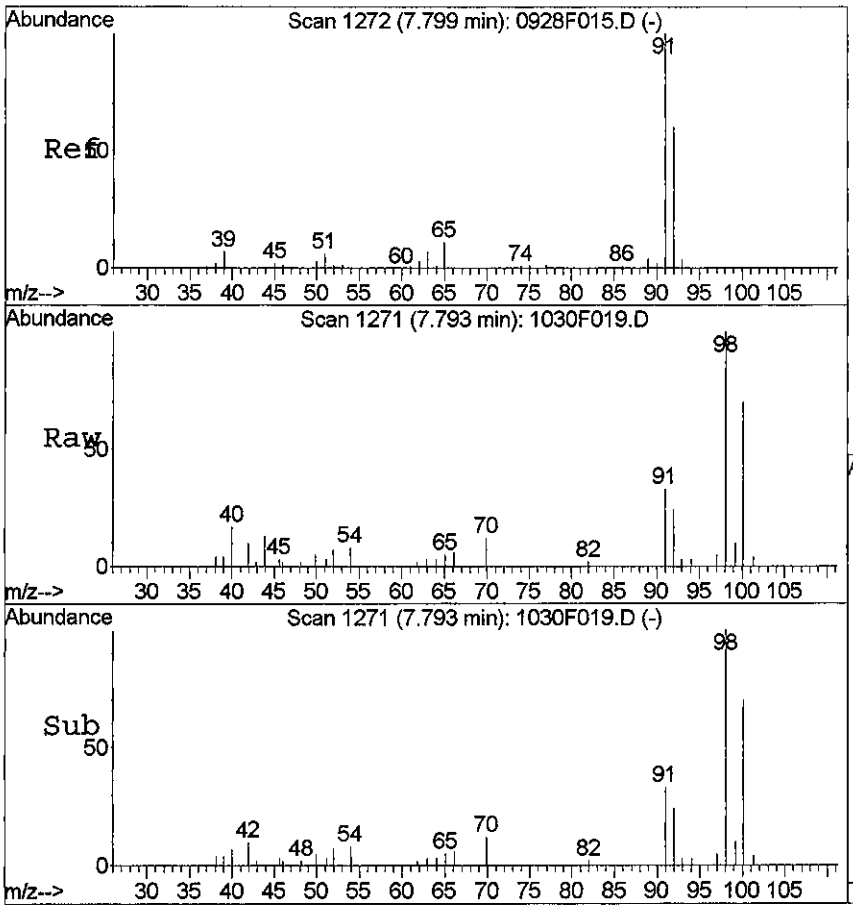


#44
Carbon Tetrachloride
Concen: 1.65 PPB
RT: 5.16 min Scan# 769
Delta R.T. -0.01 min
Lab File: 1030F019.D
Acq: 30 Oct 2015 20:23

Tgt Ion:117 Resp: 27203

Ion	Ratio	Lower	Upper
117	100		
119	95.5	65.7	125.7
121	31.9	0.4	60.4

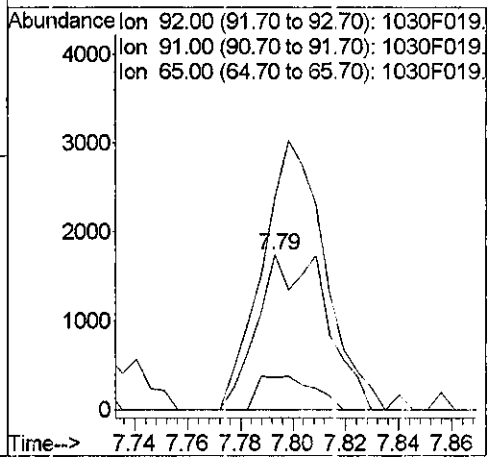


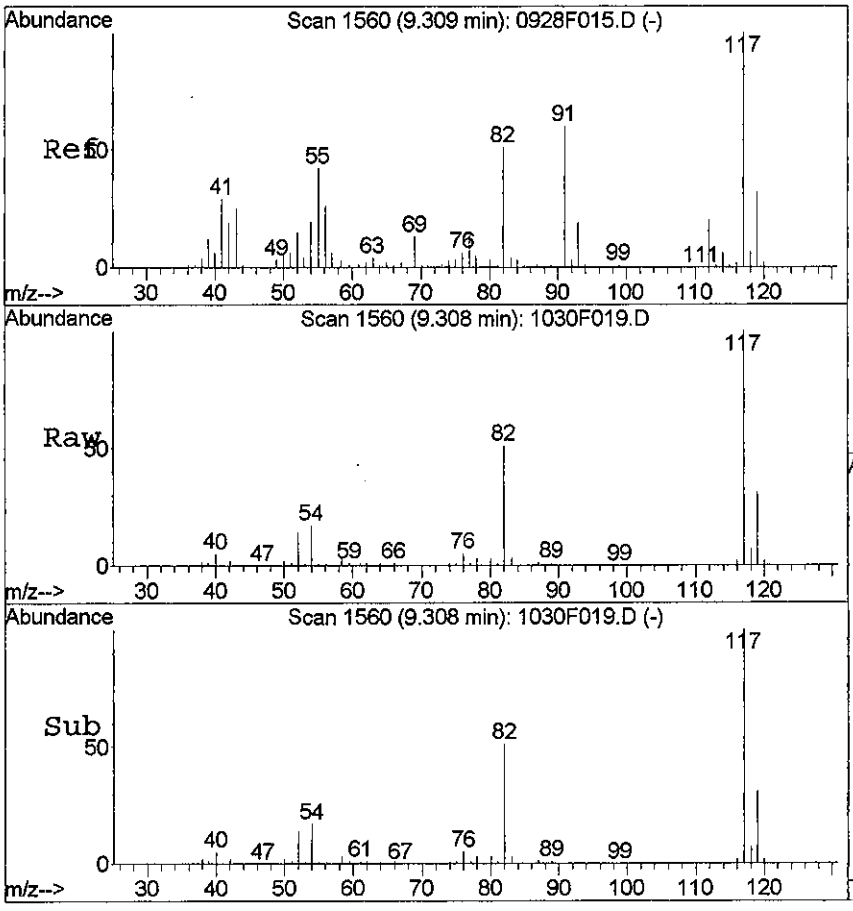


#64
Toluene
Concen: 0.07 PPB
RT: 7.79 min Scan# 1271
Delta R.T. -0.01 min
Lab File: 1030F019.D
Acq: 30 Oct 2015 20:23

Tgt Ion: 92 Resp: 3168

Ion	Ratio	Lower	Upper
92	100		
91	136.8	137.9	197.9#
65	21.1	0.0	47.8

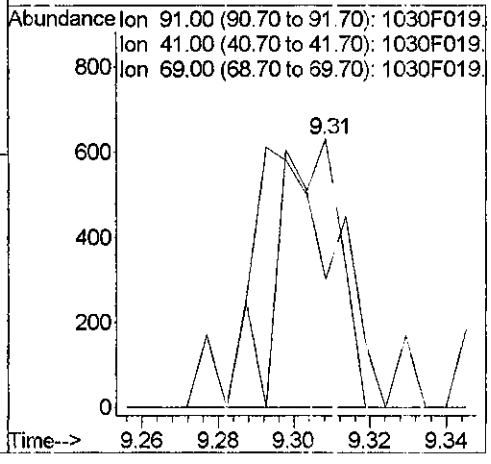


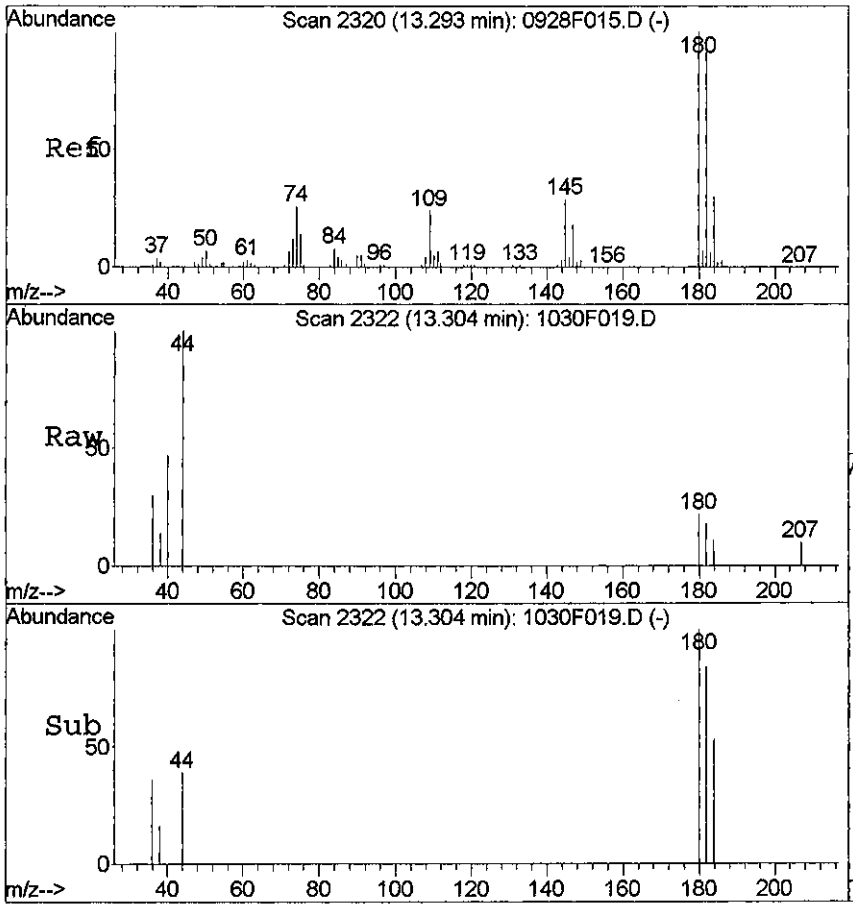


#75
1-Chlorohexane
Concen: 0.04 PPB
RT: 9.31 min Scan# 1560
Delta R.T. -0.00 min
Lab File: 1030F019.D
Acq: 30 Oct 2015 20:23

Tgt Ion: 91 Resp: 918

Ion	Ratio	Lower	Upper
91	100		
41	47.9	18.4	78.4
69	0.0	0.0	51.1

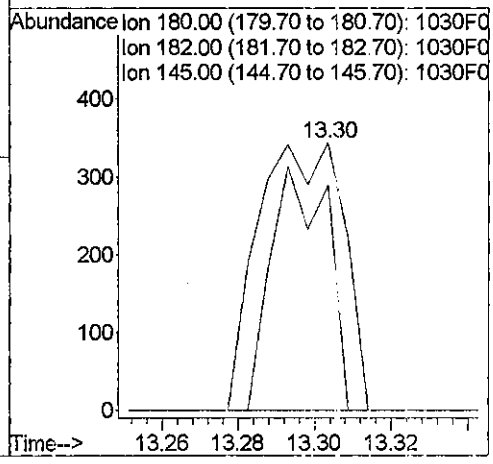




#105
1,2,4-Trichlorobenzene
Concen: 0.03 PPB
RT: 13.30 min Scan# 2322
Delta R.T. 0.01 min
Lab File: 1030F019.D
Acq: 30 Oct 2015 20:23

Tgt Ion:180 Resp: 530

Ion	Ratio	Lower	Upper
180	100		
182	84.0	64.9	124.9
145	0.0	0.0	59.1



Exception Report

Data File: J:\MS18\DATA\103015\1030F020.D
Lab ID: K1512095-010
RunType: SMPL
Matrix: WATER

Date Acquired: 10/30/2015 20:45
Date Quantitated: 11/02/2015 18:36
Batch ID: KWG1510604
Analysis Method: 8260C
ListJoinID: LJ1423

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 11/2/15

Secondary Review: 11/3/15

Quantitation Report

Data File:	J:\MS18\DATA\103015\1030F020.D			**Instrument:**	GC-MS 18
Acqu Date:	10/30/2015 20:45	**Quant Date:**	11/02/2015 18:36	**Vial:**	19
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1512095-010			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	10/23/2015	**Receive Date:**	10/24/2015

Analysis Lot:	KWG1510604	**Prep Lot:**	KWG1510605	**Report Group:**	K1512095
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1479850	**Prep Date:**	10/30/2015		

Quant Method:	J:\MS18\METHODS\092815MS18_8	**Calibration ID:**	CAL14315
Title:	Volatile Organic Compounds	**Report List ID:**	LJ1423
Tune Ref:	J:\MS18\DATA\103015\1030F002.D	**Method ID:**	MJ119
MB Ref:	J:\MS18\DATA\103015\1030F008.D	**Quant based on Report List**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.89	0.00	96	619181	10.00	OK
2	Chlorobenzene-d5	9.30	0.00	82	249090	10.00	OK
3	1,4-Dichlorobenzene-d4	11.72	0.00	152	225052	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.06	0.00	0.00	113	131762	9.48	95	73-122	OK	
1	Toluene-d8	7.73	0.00	0.00	98	602402	9.65	97	65-144	OK	
2	4-Bromofluorobenzene	10.55	0.01	0.00	95	207464	8.65	87	68-117	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Tetrachloride	5.17	0.01	0.00	117	7321	0.4500	0.45	J	

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\103015\1030F020.D Vial: 19
Acq On : 30 Oct 2015 20:45 Operator: YX/KR
Sample : K1512095-010 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 02 14:07:09 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration
DataAcq Meth : 8260

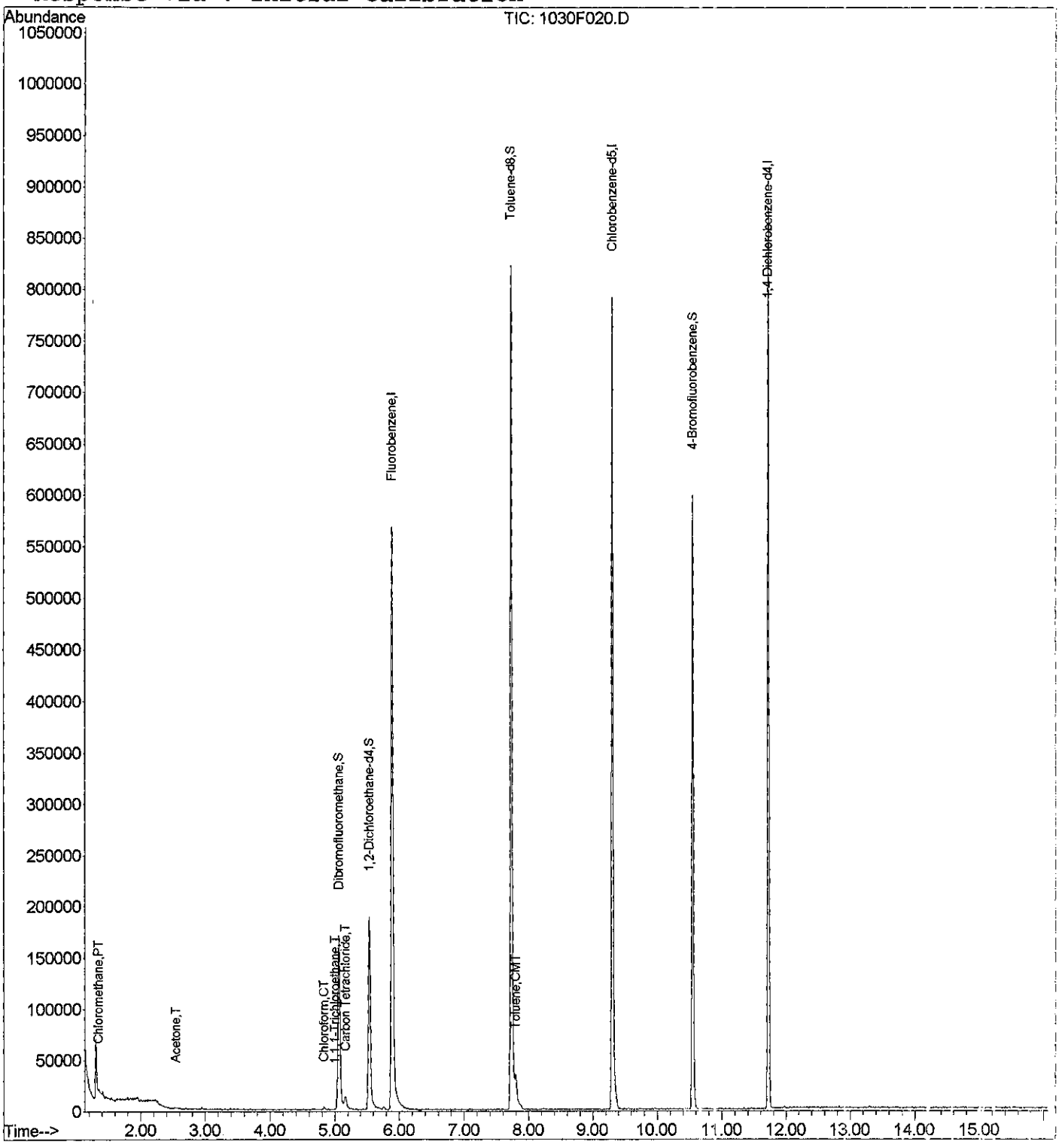
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	5.89	96	619181	10.00	PPB		0.00
65) Chlorobenzene-d5	9.30	82	249090	10.00	PPB		0.00
86) 1,4-Dichlorobenzene-d4	11.72	152	225052	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.06	113	131762	9.48	PPB		0.00
Spiked Amount 10.000			Recovery =	94.80%			
48) 1,2-Dichloroethane-d4	5.54	65	149593	9.81	PPB		0.00
Spiked Amount 10.000			Recovery =	98.10%			
63) Toluene-d8	7.73	98	602402	9.65	PPB		0.00
Spiked Amount 10.000			Recovery =	96.50%			
85) 4-Bromofluorobenzene	10.55	95	207464	8.65	PPB		0.00
Spiked Amount 10.000			Recovery =	86.50%			
Target Compounds							Qvalue
3) Chloromethane	1.35	50	1882	0.09	PPB		93
14) Acetone	2.55	43	1164	0.48	PPB		68
40) Chloroform	4.83	83	2031	0.07	PPB		90
42) 1,1,1-Trichloroethane	5.00	97	598	0.03	PPB	#	63
44) Carbon Tetrachloride	5.17	117	7321	0.45	PPB		97
64) Toluene	7.80	92	8365	0.18	PPB		88

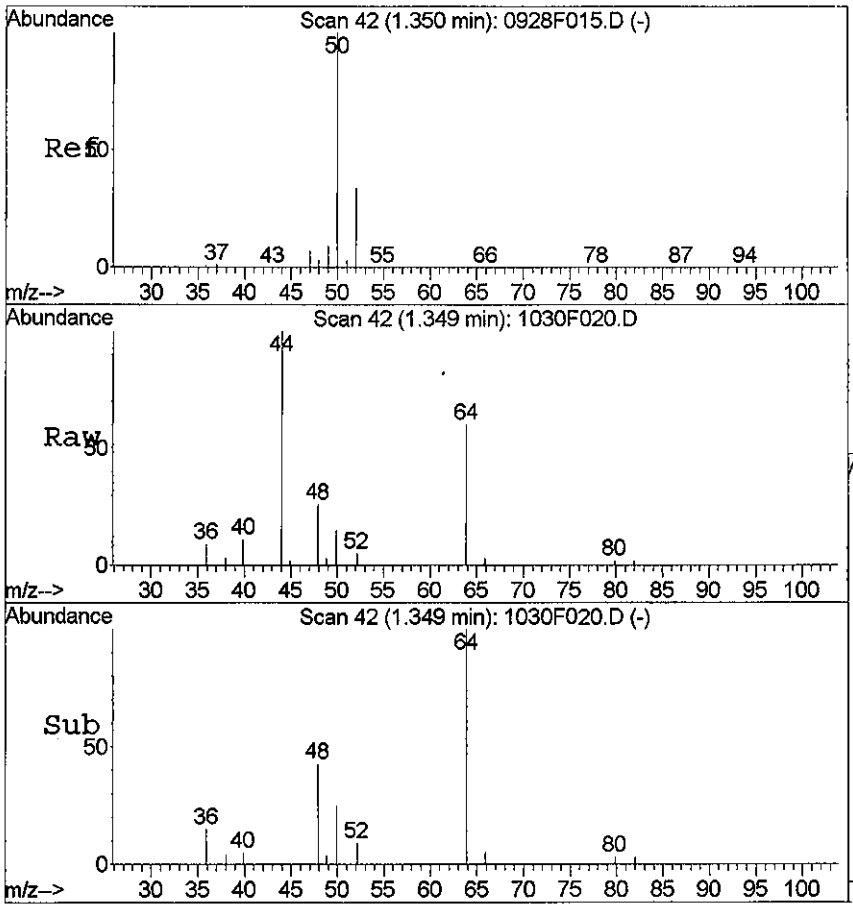
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\103015\1030F020.D Vial: 19
Acq On : 30 Oct 2015 20:45 Operator: YX/KR
Sample : K1512095-010 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 18:36 2015 Quant Results File: 092815MS18_8

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration

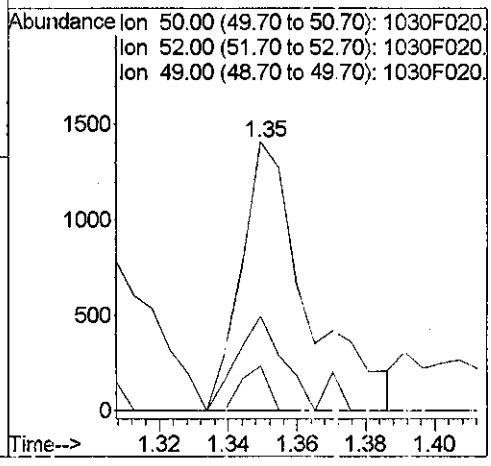


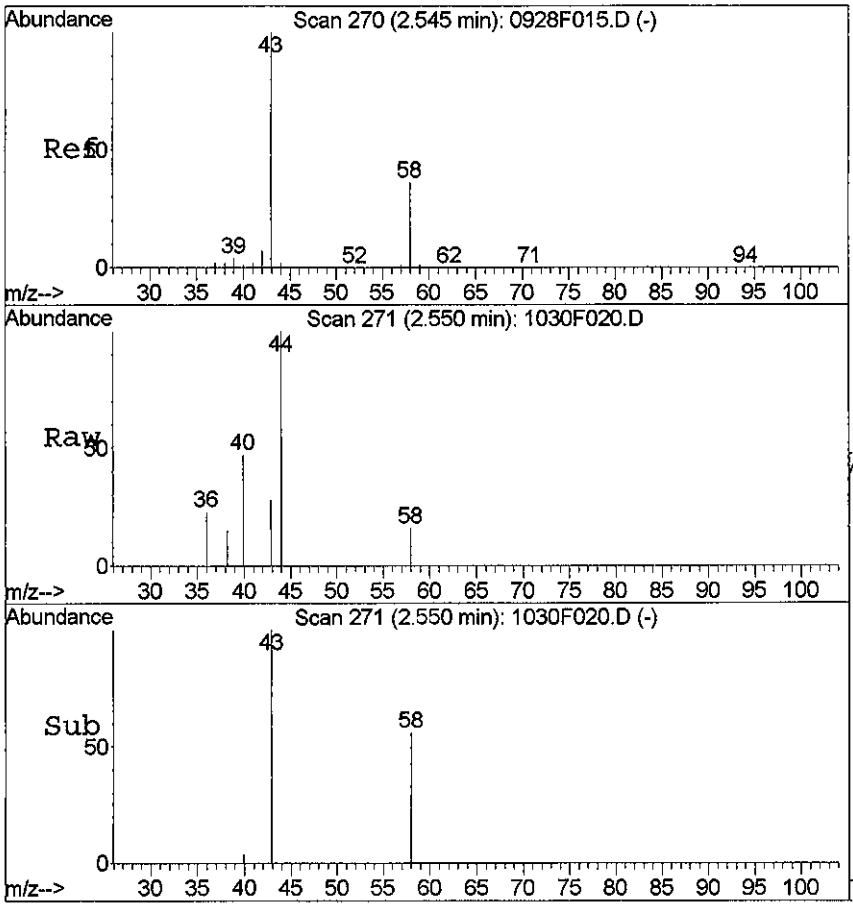


#3
Chloromethane
Concen: 0.09 PPB
RT: 1.35 min Scan# 42
Delta R.T. -0.00 min
Lab File: 1030F020.D
Acq: 30 Oct 2015 20:45

Tgt Ion: 50 Resp: 1882

Ion	Ratio	Lower	Upper
50	100		
52	35.3	3.5	63.5
49	16.8	0.0	39.3

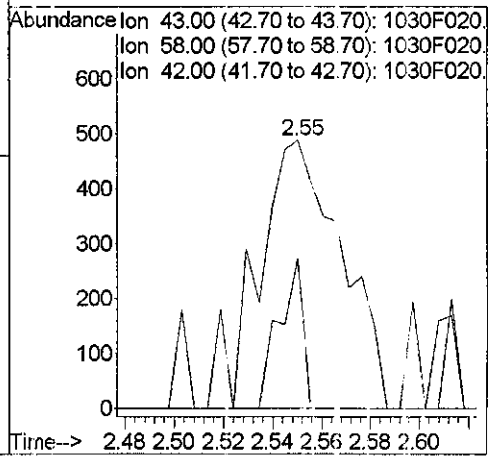


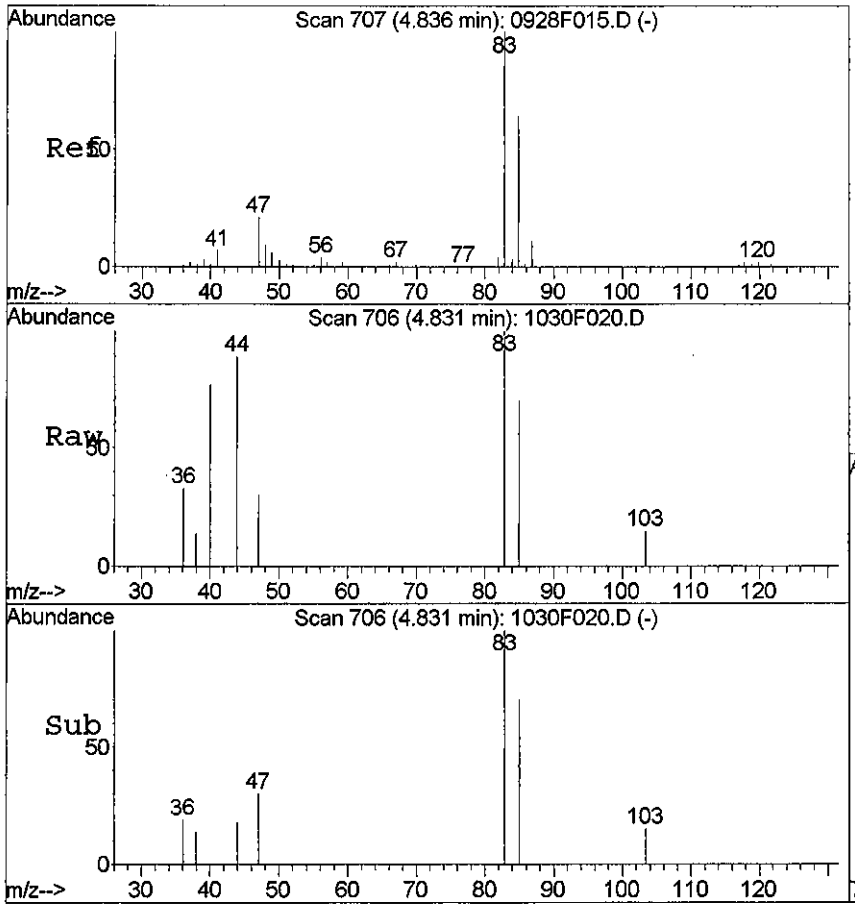


#14
Acetone
Concen: 0.48 PPB
RT: 2.55 min Scan# 271
Delta R.T. 0.01 min
Lab File: 1030F020.D
Acq: 30 Oct 2015 20:45

Tgt Ion: 43 Resp: 1164

Ion	Ratio	Lower	Upper
43	100		
58	55.9	5.9	65.9
42	0.0	0.0	36.7

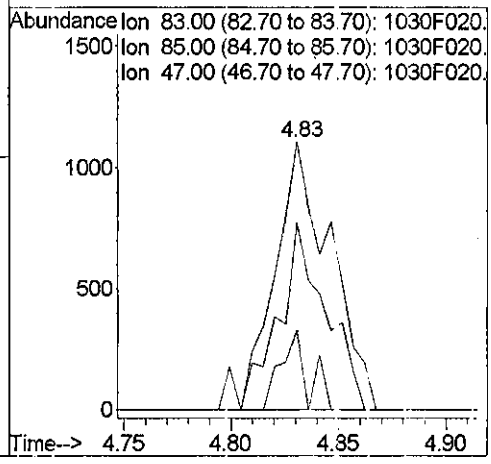


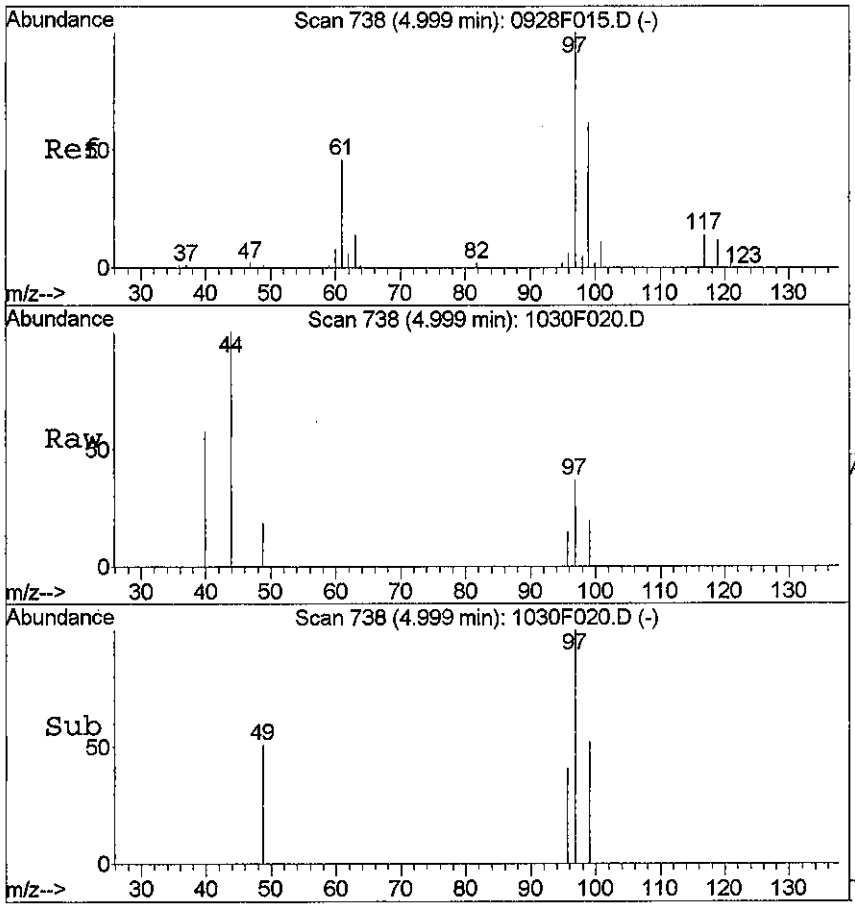


#40
Chloroform
Concen: 0.07 PPB
RT: 4.83 min Scan# 706
Delta R.T. -0.01 min
Lab File: 1030F020.D
Acq: 30 Oct 2015 20:45

Tgt Ion: 83 Resp: 2031

Ion	Ratio	Lower	Upper
83	100		
85	69.9	34.3	94.3
47	29.8	0.0	50.8

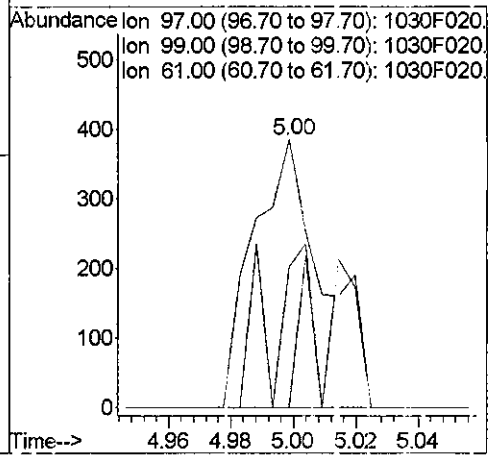


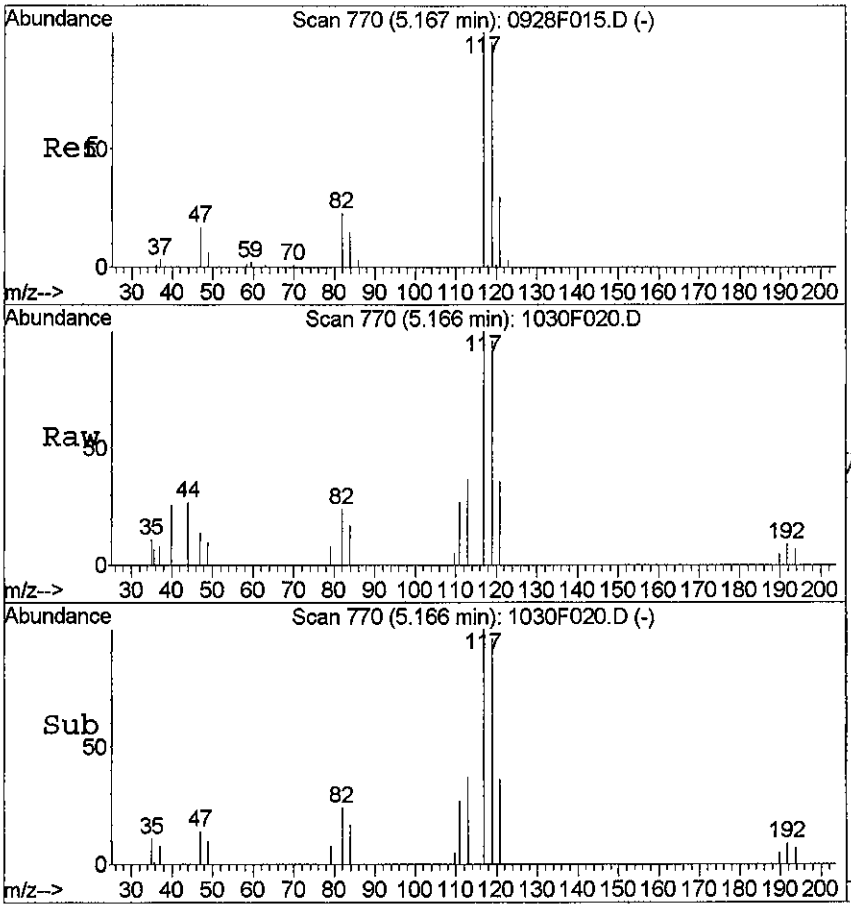


#42
1,1,1-Trichloroethane
Concen: 0.03 PPB
RT: 5.00 min Scan# 738
Delta R.T. -0.00 min
Lab File: 1030F020.D
Acq: 30 Oct 2015 20:45

Tgt Ion: 97 Resp: 598

Ion	Ratio	Lower	Upper
97	100		
99	52.5	32.1	92.1
61	0.0	15.8	75.8#

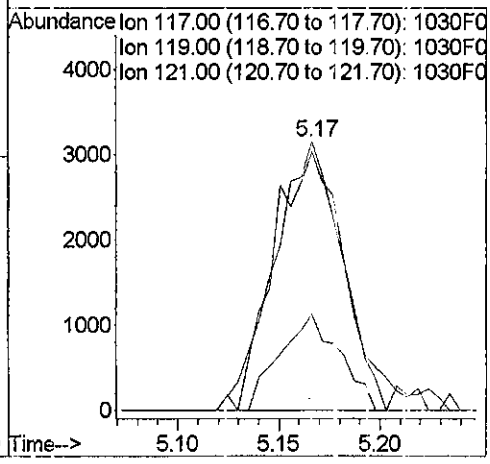


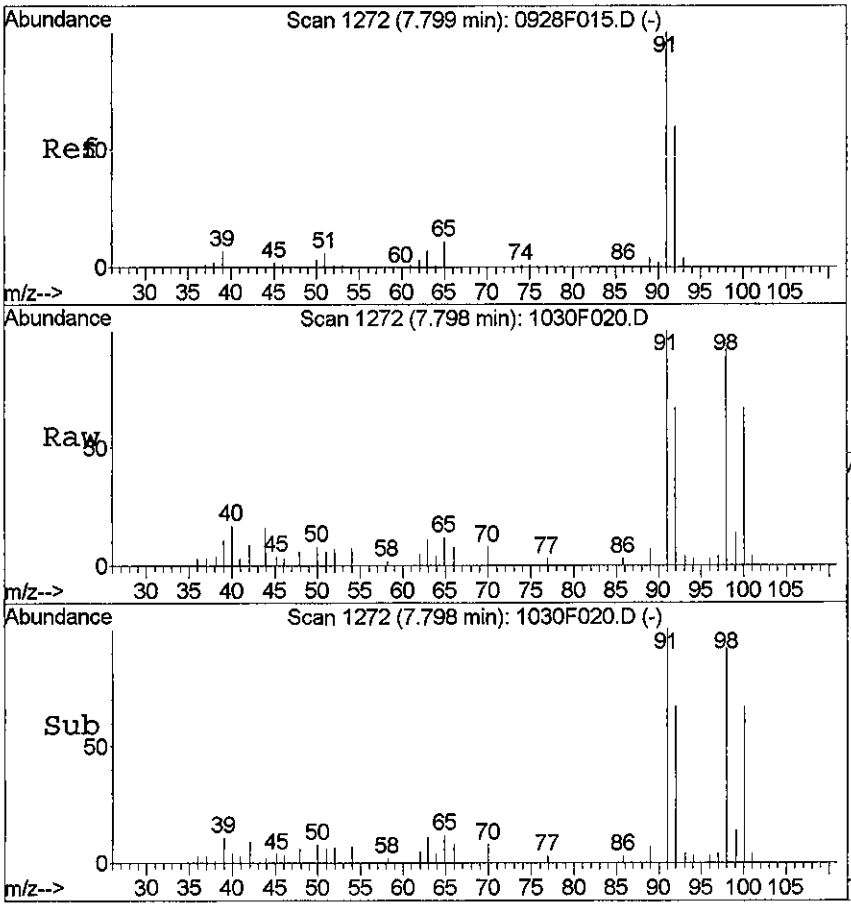


#44
Carbon Tetrachloride
Concen: 0.45 PPB
RT: 5.17 min Scan# 770
Delta R.T. -0.00 min
Lab File: 1030F020.D
Acq: 30 Oct 2015 20:45

Tgt Ion:117 Resp: 7321

Ion	Ratio	Lower	Upper
117	100		
119	96.2	65.7	125.7
121	36.0	0.4	60.4

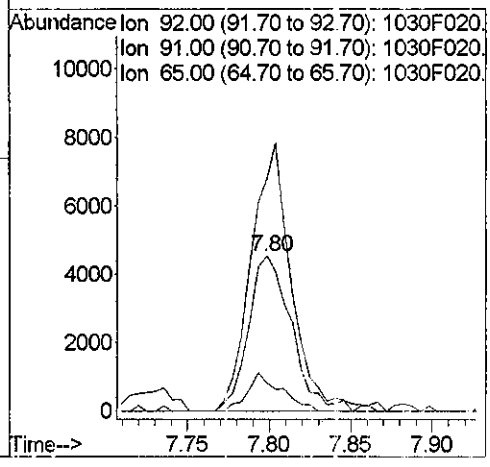




#64
Toluene
Concen: 0.18 PPB
RT: 7.80 min Scan# 1272
Delta R.T. -0.00 min
Lab File: 1030F020.D
Acq: 30 Oct 2015 20:45

Tgt Ion: 92 Resp: 8365

Ion	Ratio	Lower	Upper
92	100		
91	149.8	137.9	197.9
65	18.2	0.0	47.8



Exception Report

Data File: J:\MS18\DATA\103015\1030F021.D
Lab ID: K1512095-011
RunType: SMPL
Matrix: WATER

Date Acquired: 10/30/2015 21:06
Date Quantitated: 11/02/2015 18:37
Batch ID: KWG1510604
Analysis Method: 8260C
ListJoinID: LJ1423

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 11/2/15

Secondary Review: 11/3/15

Quantitation Report

Data File:	J:\MS18\DATA\103015\1030F021.D			**Instrument:**	GC-MS 18
Acqu Date:	10/30/2015 21:06	**Quant Date:**	11/02/2015 18:37	**Vial:**	20
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1512095-011			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	10/23/2015	**Receive Date:**	10/24/2015

Analysis Lot:	KWG1510604	**Prep Lot:**	KWG1510605	**Report Group:**	K1512095
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1479851	**Prep Date:**	10/30/2015		

Quant Method:	J:\MS18\METHODS\092815MS18_8	**Calibration ID:**	CAL14315
Title:	Volatile Organic Compounds	**Report List ID:**	LJ1423
Tune Ref:	J:\MS18\DATA\103015\1030F002.D	**Method ID:**	MJ119
MB Ref:	J:\MS18\DATA\103015\1030F008.D	**Quant based on Report List**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.89	0.00	96	614656	10.00	OK
2	Chlorobenzene-d5	9.30	0.00	82	249609	10.00	OK
3	1,4-Dichlorobenzene-d4	11.72	0.00	152	223845	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.06	0.00	0.00	113	131009	9.50	95	73-122	OK	
1	Toluene-d8	7.73	0.00	0.00	98	602751	9.72	97	65-144	OK	
2	4-Bromofluorobenzene	10.55	0.01	0.00	95	206741	8.60	86	68-117	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Tetrachloride				117	0		0.096	U	

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\103015\1030F021.D Vial: 20
Acq On : 30 Oct 2015 21:06 Operator: YX/KR
Sample : K1512095-011 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 02 14:07:10 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration
DataAcq Meth : 8260

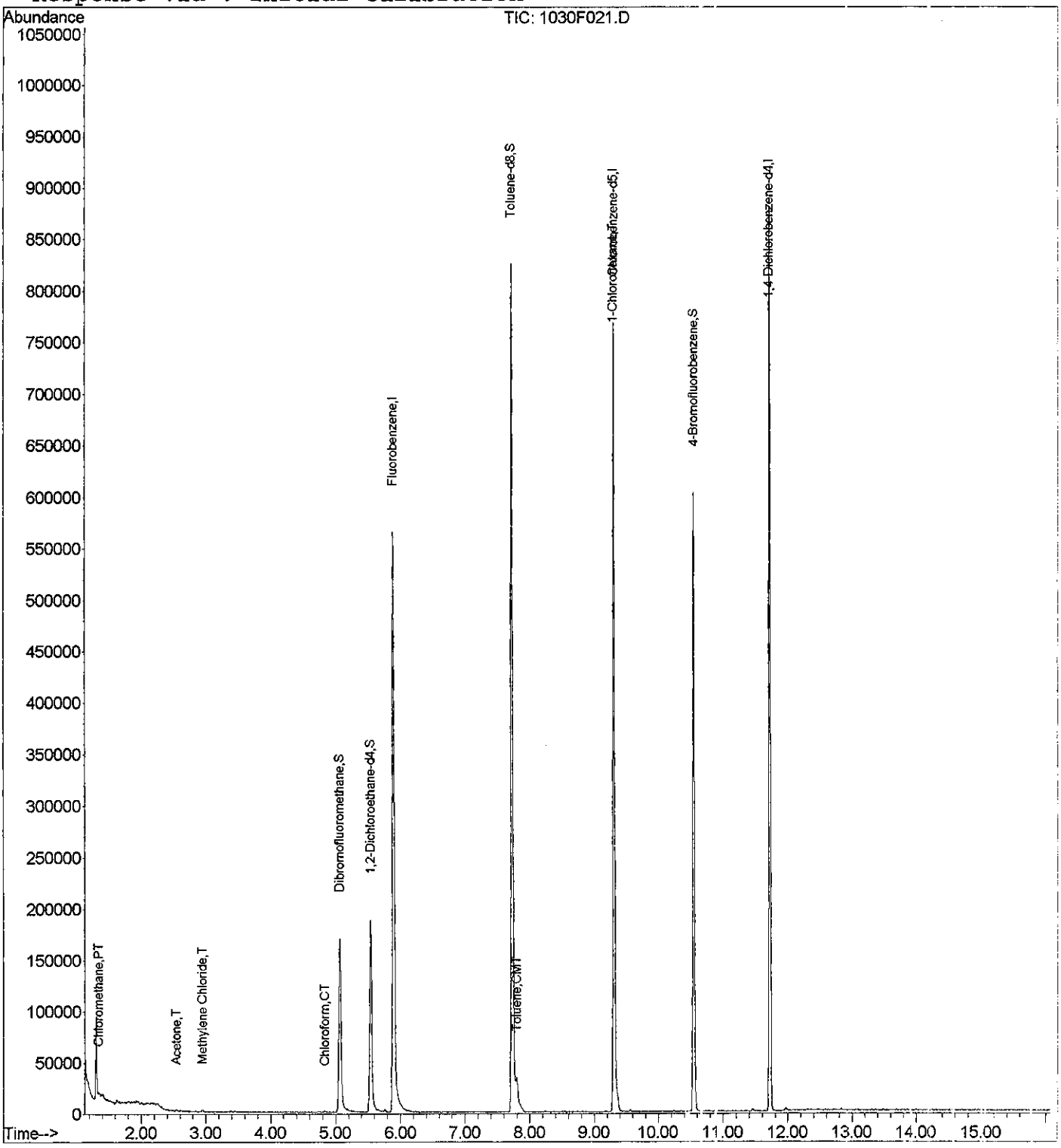
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	5.89	96	614656	10.00	PPB		0.00
65) Chlorobenzene-d5	9.30	82	249609	10.00	PPB		0.00
86) 1,4-Dichlorobenzene-d4	11.72	152	223845	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.06	113	131009	9.50	PPB		0.00
Spiked Amount 10.000			Recovery =	95.00%			
48) 1,2-Dichloroethane-d4	5.53	65	149878	9.90	PPB		0.00
Spiked Amount 10.000			Recovery =	99.00%			
63) Toluene-d8	7.73	98	602751	9.72	PPB		0.00
Spiked Amount 10.000			Recovery =	97.20%			
85) 4-Bromofluorobenzene	10.55	95	206741	8.60	PPB		0.00
Spiked Amount 10.000			Recovery =	86.00%			
Target Compounds							Qvalue
3) Chloromethane	1.35	50	2141	0.10	PPB		82
14) Acetone	2.55	43	1181	0.49	PPB		83
21) Methylene Chloride	2.95	84	837	0.04	PPB	#	76
40) Chloroform	4.83	83	898	0.03	PPB		61
64) Toluene	7.80	92	7629	0.17	PPB		93
75) 1-Chlorohexane	9.29	91	984	0.05	PPB		62

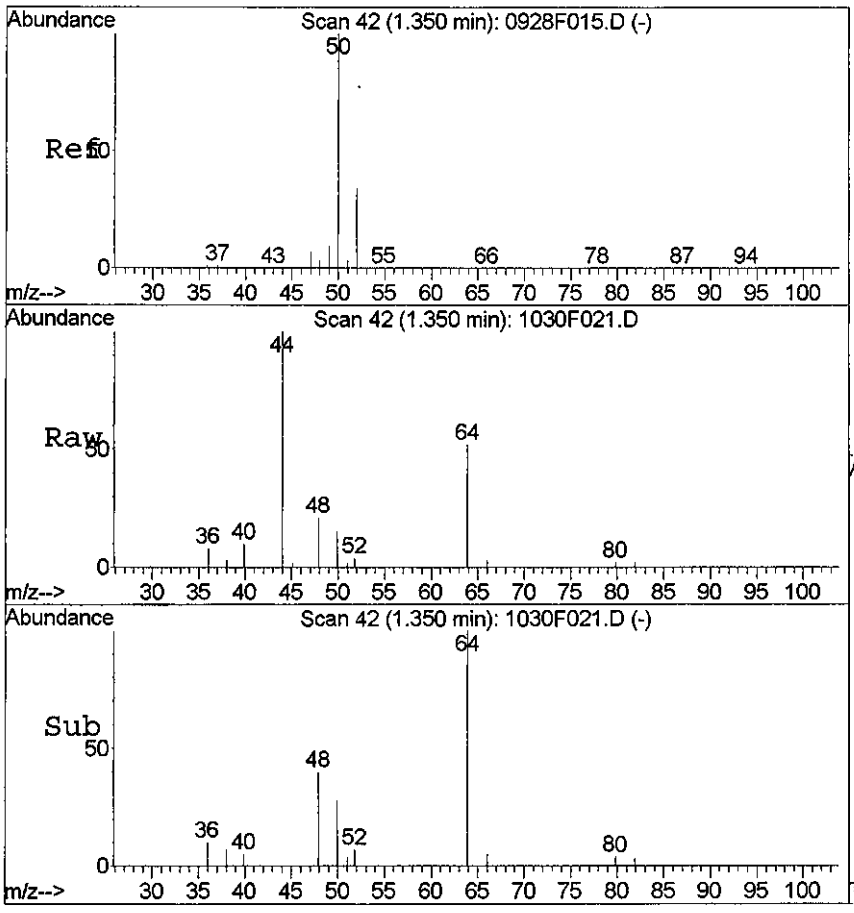
(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\103015\1030F021.D Vial: 20
Acq On : 30 Oct 2015 21:06 Operator: YX/KR
Sample : K1512095-011 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 18:37 2015 Quant Results File: 092815MS18_8

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration

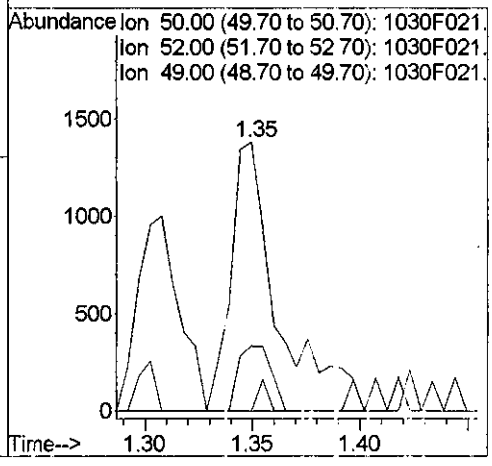


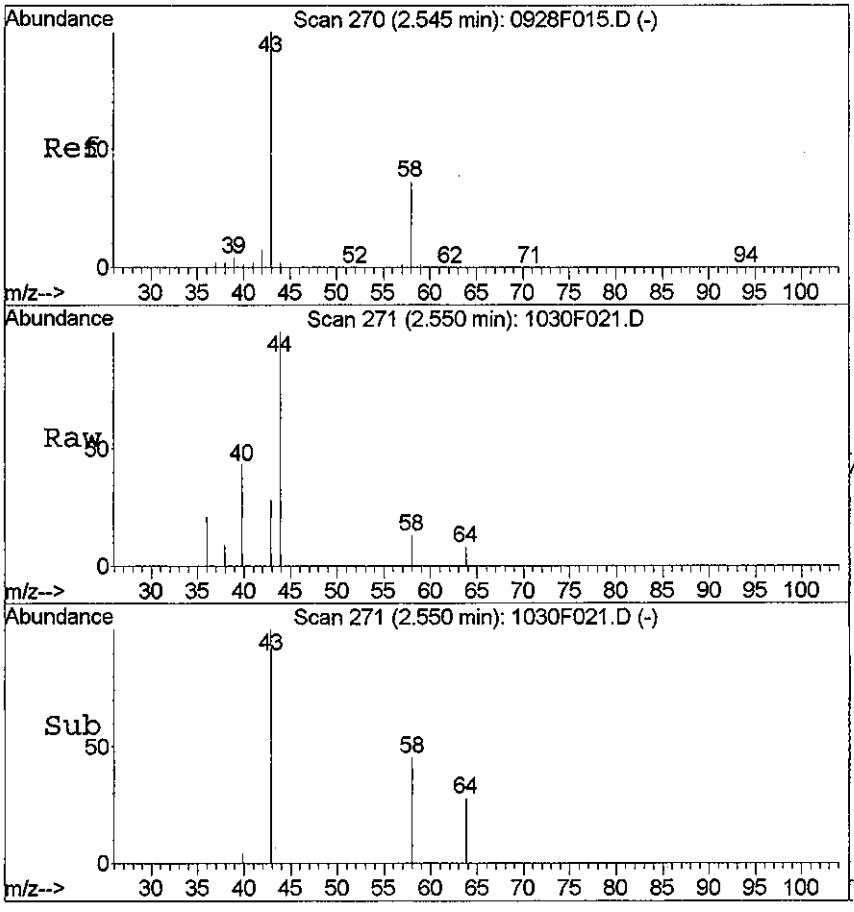


#3
Chloromethane
Concen: 0.10 PPB
RT: 1.35 min Scan# 42
Delta R.T. 0.00 min
Lab File: 1030F021.D
Acq: 30 Oct 2015 21:06

Tgt Ion: 50 Resp: 2141

Ion	Ratio	Lower	Upper
50	100		
52	24.1	3.5	63.5
49	0.0	0.0	39.3

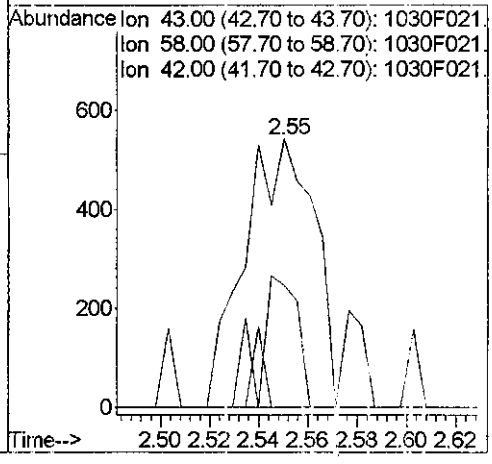


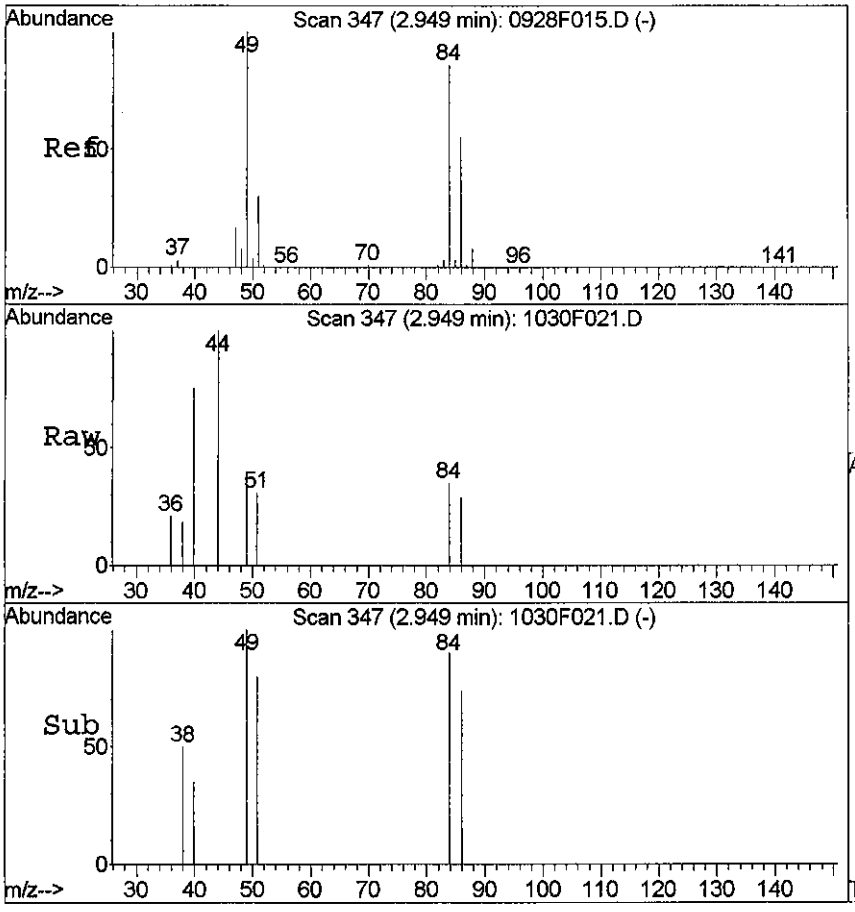


#14
Acetone
Concen: 0.49 PPB
RT: 2.55 min Scan# 271
Delta R.T. 0.01 min
Lab File: 1030F021.D
Acq: 30 Oct 2015 21:06

Tgt Ion: 43 Resp: 1181

Ion	Ratio	Lower	Upper
43	100		
58	45.4	5.9	65.9
42	0.0	0.0	36.7

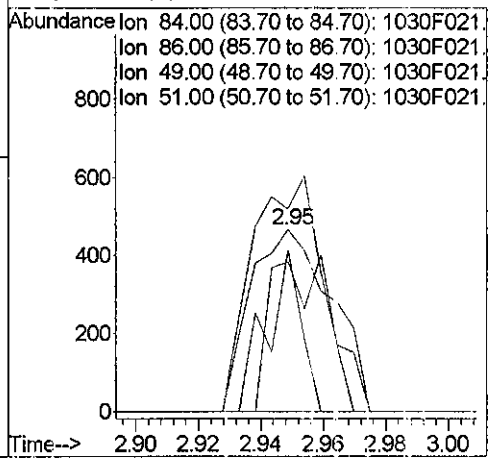


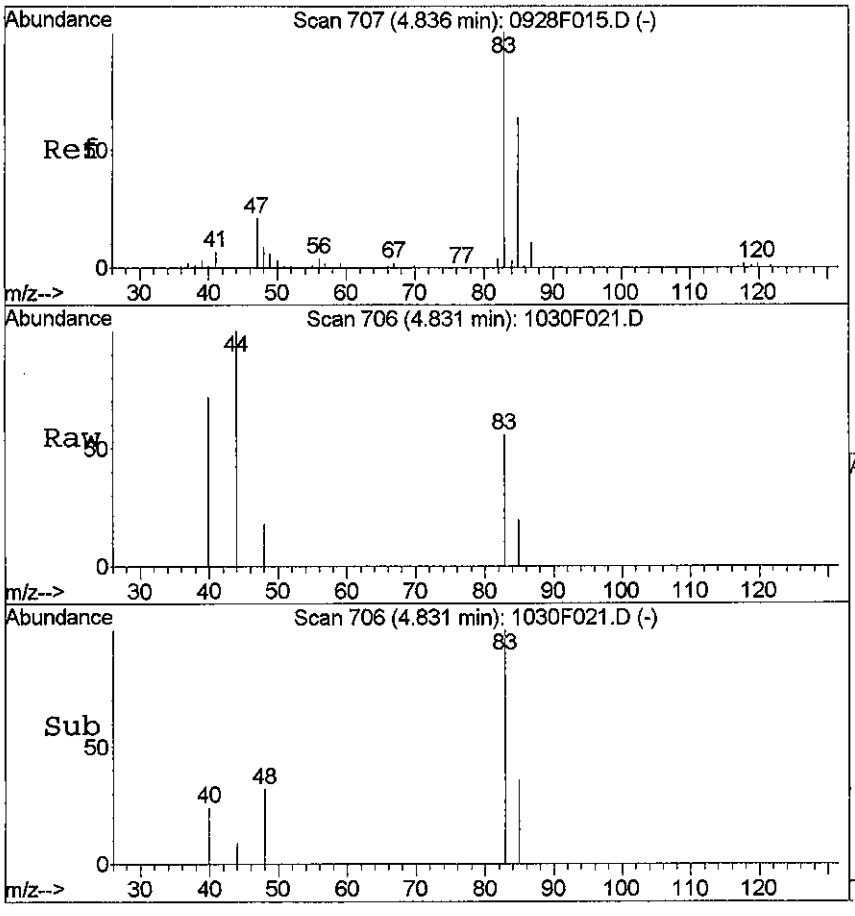


#21
Methylene Chloride
Concen: 0.04 PPB
RT: 2.95 min Scan# 347
Delta R.T. 0.00 min
Lab File: 1030F021.D
Acq: 30 Oct 2015 21:06

Tgt Ion: 84 Resp: 837

Ion	Ratio	Lower	Upper
84	100		
86	82.2	34.2	94.2
49	111.4	85.9	145.9
51	88.8	4.3	64.3#

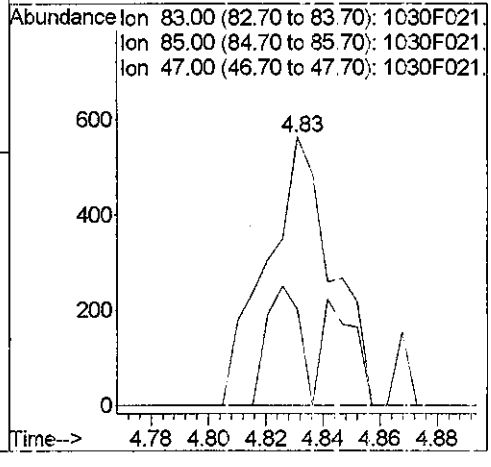


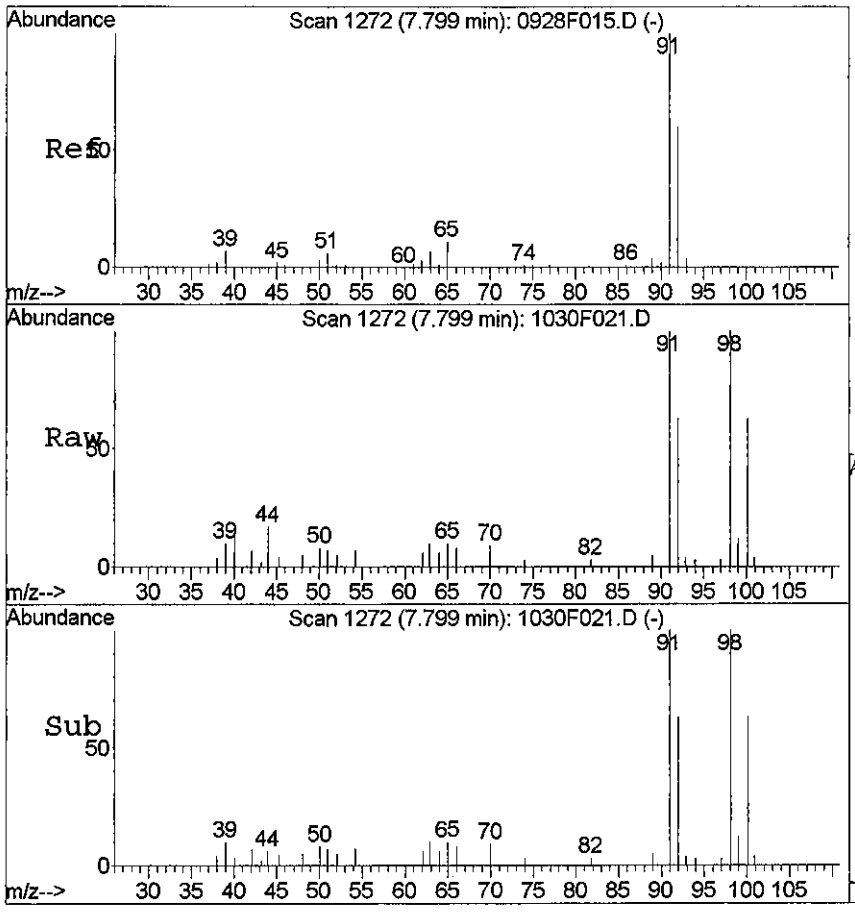


#40
Chloroform
Concen: 0.03 PPB
RT: 4.83 min Scan# 706
Delta R.T. -0.01 min
Lab File: 1030F021.D
Acq: 30 Oct 2015 21:06

Tgt Ion: 83 Resp: 898

Ion	Ratio	Lower	Upper
83	100		
85	35.6	34.3	94.3
47	0.0	0.0	50.8

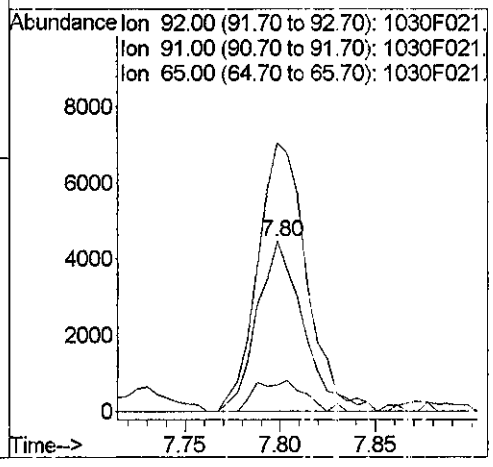


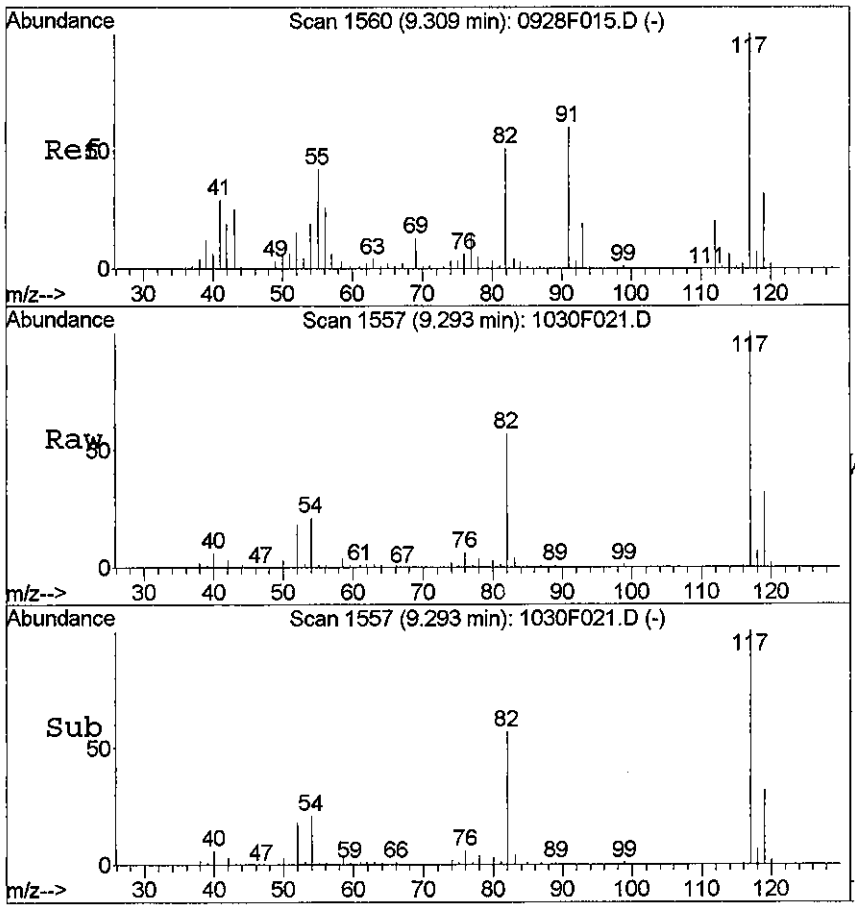


#64
Toluene
Concen: 0.17 PPB
RT: 7.80 min Scan# 1272
Delta R.T. 0.00 min
Lab File: 1030F021.D
Acq: 30 Oct 2015 21:06

Tgt Ion: 92 Resp: 7629

Ion	Ratio	Lower	Upper
92	100		
91	158.0	137.9	197.9
65	15.6	0.0	47.8

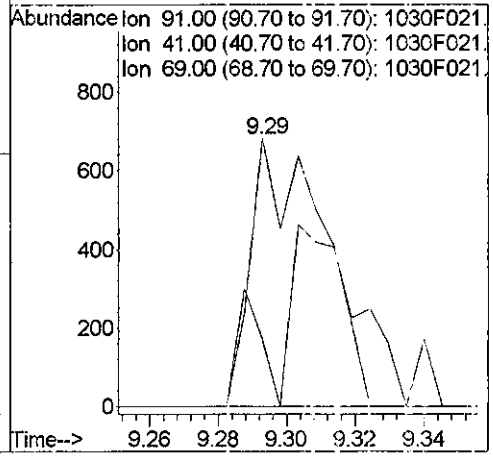




#75
1-Chlorohexane
Concen: 0.05 PPB
RT: 9.29 min Scan# 1557
Delta R.T. -0.02 min
Lab File: 1030F021.D
Acq: 30 Oct 2015 21:06

Tgt Ion: 91 Resp: 984

Ion	Ratio	Lower	Upper
91	100		
41	25.1	18.4	78.4
69	0.0	0.0	51.1



Exception Report

Data File: J:\MS18\DATA\103015\1030F022.D
Lab ID: K1512095-012
RunType: SMPL
Matrix: WATER

Date Acquired: 10/30/2015 21:29
Date Quantitated: 11/02/2015 18:38
Batch ID: KWG1510604
Analysis Method: 8260C
ListJoinID: LJ1423

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 11/2/15

Secondary Review: 11/2/15

Quantitation Report

Data File:	J:\MS18\DATA\103015\1030F022.D			**Instrument:**	GC-MS 18
Acqu Date:	10/30/2015 21:29	**Quant Date:**	11/02/2015 18:38	**Vial:**	21
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1512095-012			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	10/22/2015	**Receive Date:**	10/24/2015

Analysis Lot:	KWG1510604	**Prep Lot:**	KWG1510605	**Report Group:**	K1512095
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1479852	**Prep Date:**	10/30/2015		

Quant Method:	J:\MS18\METHODS\092815MS18_8	**Calibration ID:**	CAL14315
Title:	Volatile Organic Compounds	**Report List ID:**	LJ1423
Tune Ref:	J:\MS18\DATA\103015\1030F002.D	**Method ID:**	MJ119
MB Ref:	J:\MS18\DATA\103015\1030F008.D	**Quant based on Report List**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.89	0.00	96	609807	10.00	OK
2	Chlorobenzene-d5	9.30	0.00	82	243388	10.00	OK
3	1,4-Dichlorobenzene-d4	11.72	0.00	152	220053	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.07	0.01	0.00	113	128518	9.39	94	73-122	OK	
1	Toluene-d8	7.73	0.00	0.00	98	592201	9.63	96	65-144	OK	
2	4-Bromofluorobenzene	10.55	0.01	0.00	95	204252	8.71	87	68-117	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Tetrachloride	5.16		0.00	117	62789m	3.90	3.9		

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\103015\1030F022.D Vial: 21
Acq On : 30 Oct 2015 21:29 Operator: YX/KR
Sample : K1512095-012 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 02 14:07:11 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration
DataAcq Meth : 8260

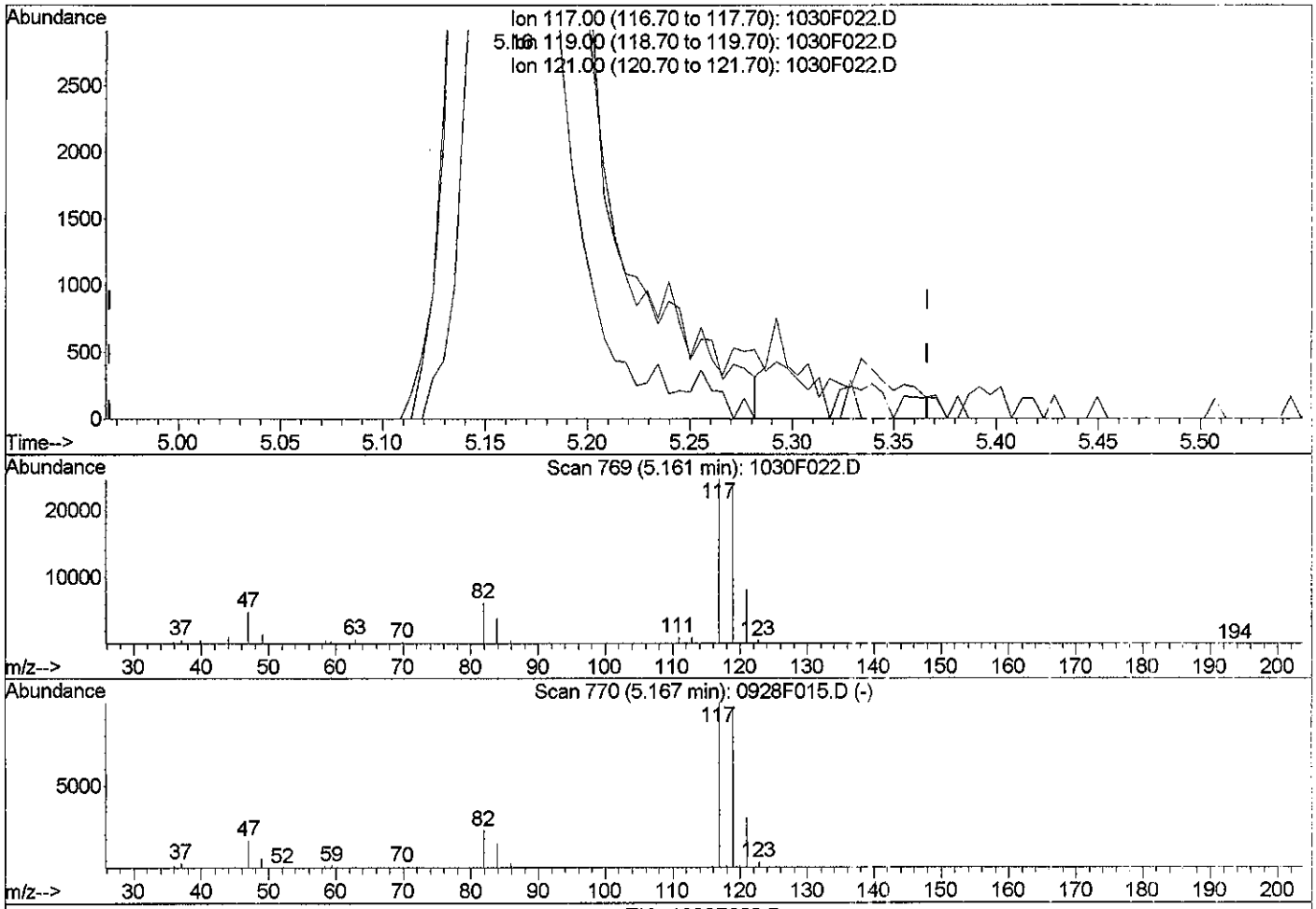
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	5.89	96	609807	10.00	PPB		0.00
65) Chlorobenzene-d5	9.30	82	243388	10.00	PPB		0.00
86) 1,4-Dichlorobenzene-d4	11.72	152	220053	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.07	113	128518	9.39	PPB		0.00
Spiked Amount 10.000			Recovery =	93.90%			
48) 1,2-Dichloroethane-d4	5.54	65	149347	9.95	PPB		0.00
Spiked Amount 10.000			Recovery =	99.50%			
63) Toluene-d8	7.73	98	592201	9.63	PPB		0.00
Spiked Amount 10.000			Recovery =	96.30%			
85) 4-Bromofluorobenzene	10.55	95	204252	8.71	PPB		0.00
Spiked Amount 10.000			Recovery =	87.10%			
Target Compounds							Qvalue
3) Chloromethane	1.35	50	1255	0.06	PPB		90
9) Trichlorofluoromethane	1.96	101	1892	0.09	PPB		85
14) Acetone	2.55	43	1059	0.44	PPB	#	84
21) Methylene Chloride	2.95	84	900	0.05	PPB		94
40) Chloroform	4.84	83	7775	0.29	PPB		91
44) Carbon Tetrachloride	5.16	117	62789m	3.90	PPB		
64) Toluene	7.80	92	11579	0.25	PPB		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data File : J:\MS18\DATA\103015\1030F022.D Vial: 21
Acq On : 30 Oct 2015 21:29 Operator: YX/KR
Sample : K1512095-012 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 18:37 2015 Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Multiple Level Calibration



TIC: 1030F022.D

(44) Carbon Tetrachloride (T)

5.16min 3.99PPB

response 64271

Ion	Exp%	Act%
117.00	100	100
119.00	95.70	96.39
121.00	30.40	33.23
0.00	0.00	0.00

Manual Integration:

Before

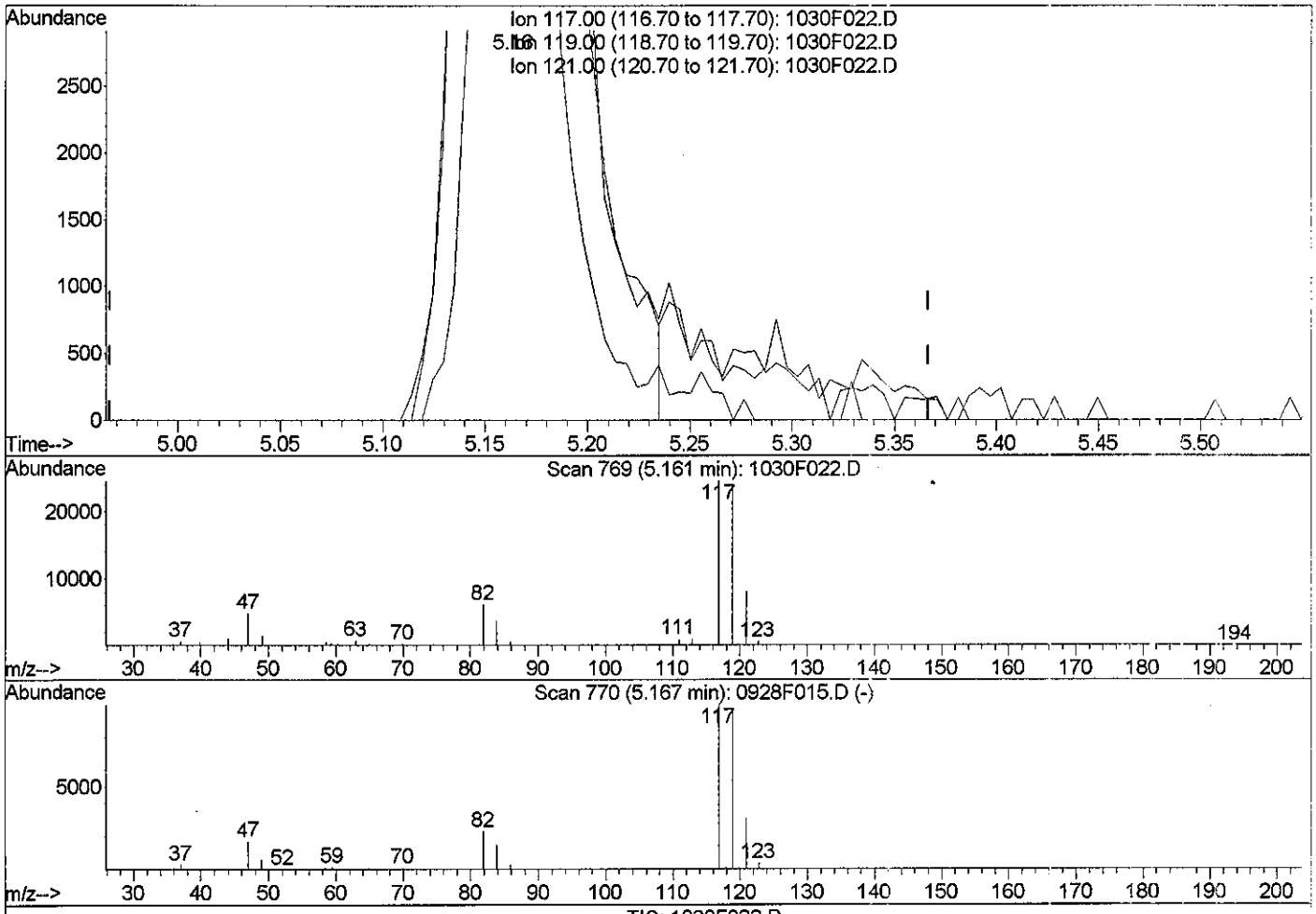
11/02/15

1030F022.D 092815MS18_8260.M Mon Nov 02 18:37:49 2015

Quantitation Report (Qedit)

Data File : J:\MS18\DATA\103015\1030F022.D Vial: 21
Acq On : 30 Oct 2015 21:29 Operator: YX/KR
Sample : K1512095-012 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 18:37 2015 Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Multiple Level Calibration



TIC: 1030F022.D

(44) Carbon Tetrachloride (T)

5.16min 3.90PPB m

response 62789

Ion	Exp%	Act%
117.00	100	100
119.00	95.70	96.39
121.00	30.40	33.23
0.00	0.00	0.00

Manual Integration:

After

Shoulder

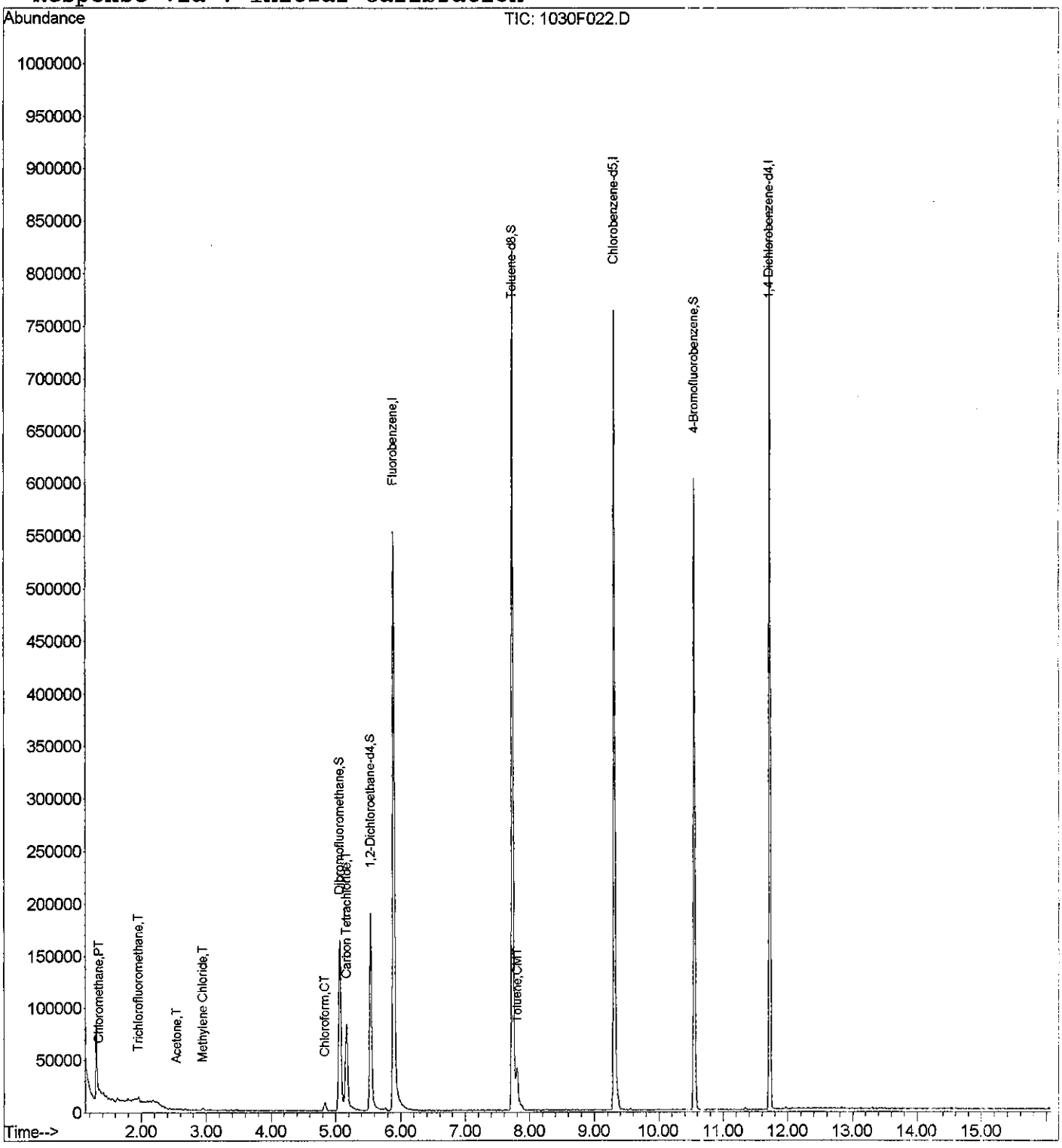
11/02/15

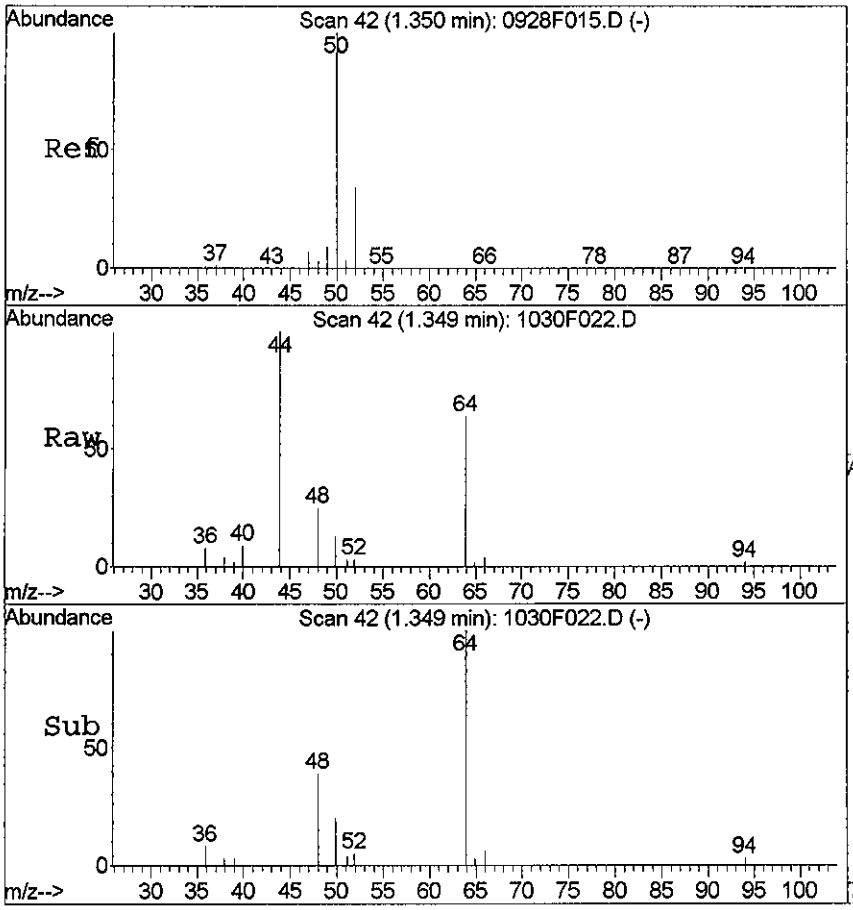
1030F022.D 092815MS18_8260.M Mon Nov 02 18:37:54 2015

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\103015\1030F022.D Vial: 21
Acq On : 30 Oct 2015 21:29 Operator: YX/KR
Sample : K1512095-012 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 18:38 2015 Quant Results File: 092815MS18_8

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration

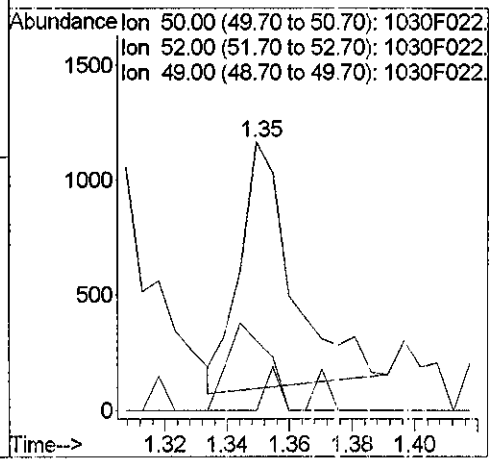


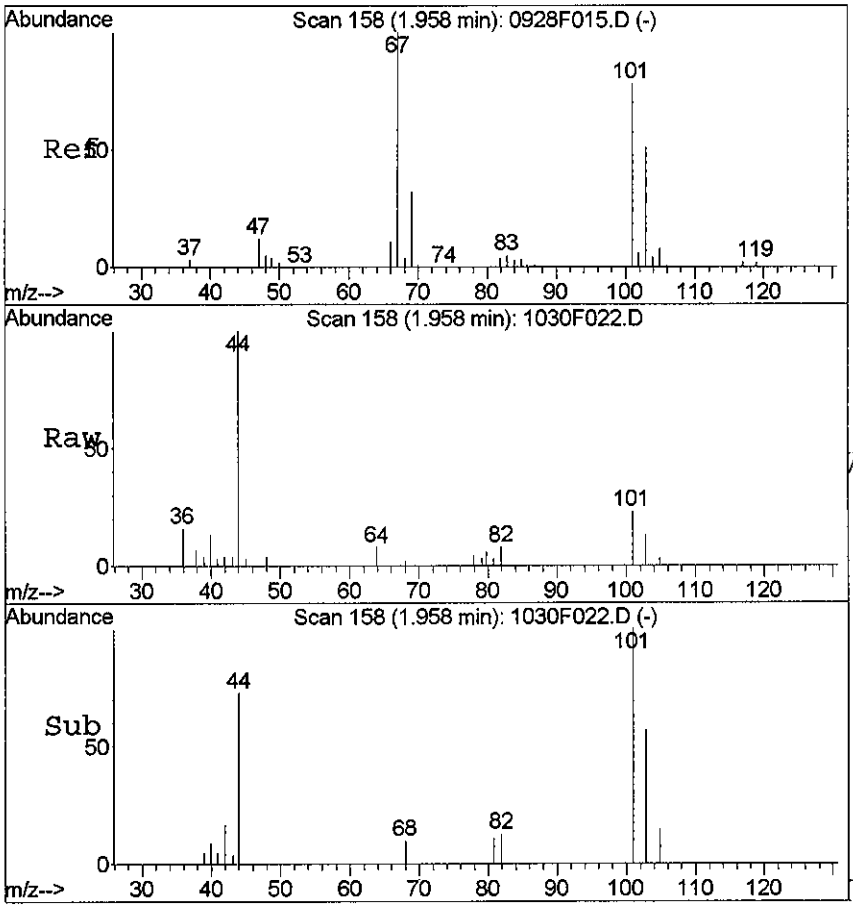


#3
Chloromethane
Concen: 0.06 PPB
RT: 1.35 min Scan# 42
Delta R.T. -0.00 min
Lab File: 1030F022.D
Acq: 30 Oct 2015 21:29

Tgt Ion: 50 Resp: 1255

Ion	Ratio	Lower	Upper
50	100		
52	29.9	3.5	63.5
49	0.0	0.0	39.3

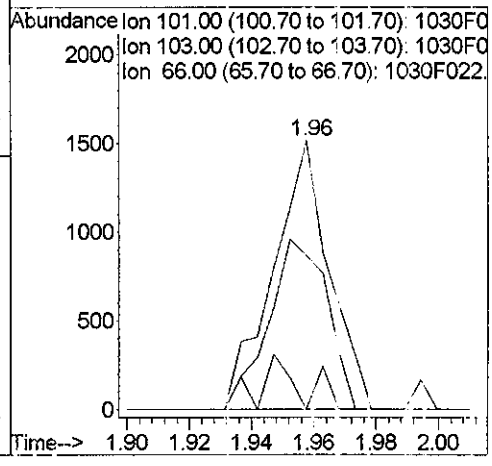


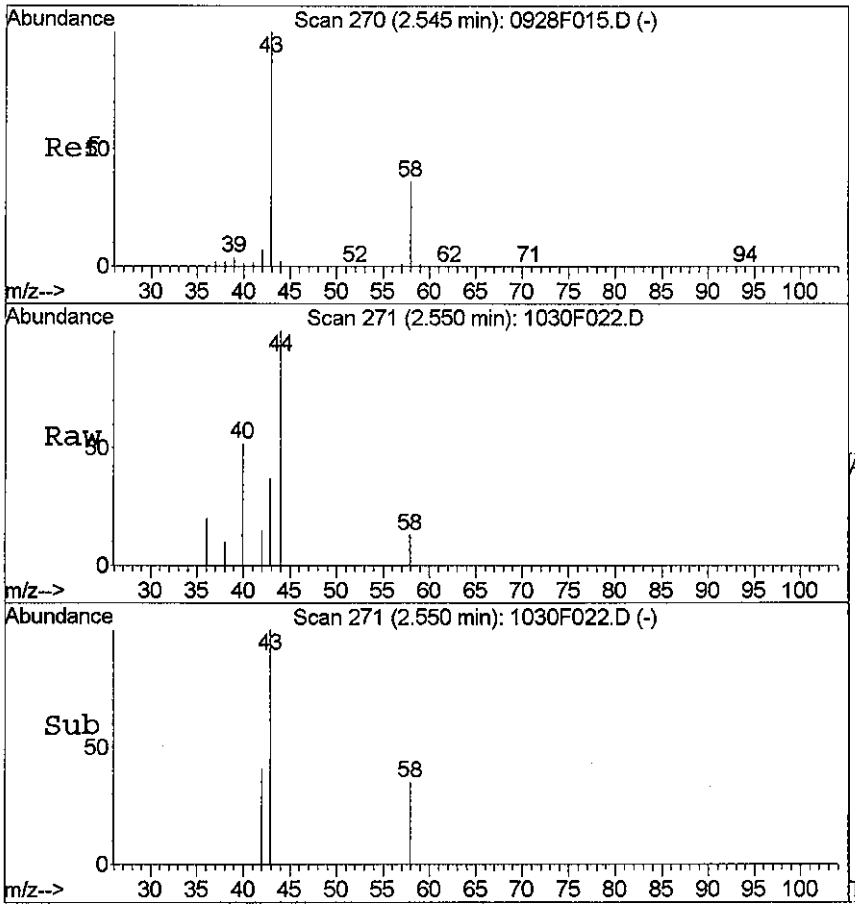


#9
Trichlorofluoromethane
Concen: 0.09 PPB
RT: 1.96 min Scan# 158
Delta R.T. -0.00 min
Lab File: 1030F022.D
Acq: 30 Oct 2015 21:29

Tgt Ion:101 Resp: 1892

Ion	Ratio	Lower	Upper
101	100		
103	57.3	35.9	95.9
66	0.0	0.0	43.9

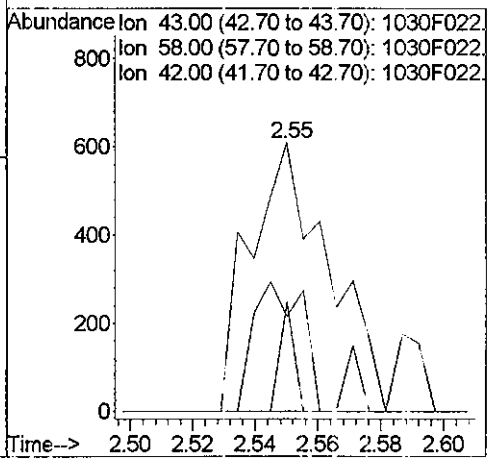


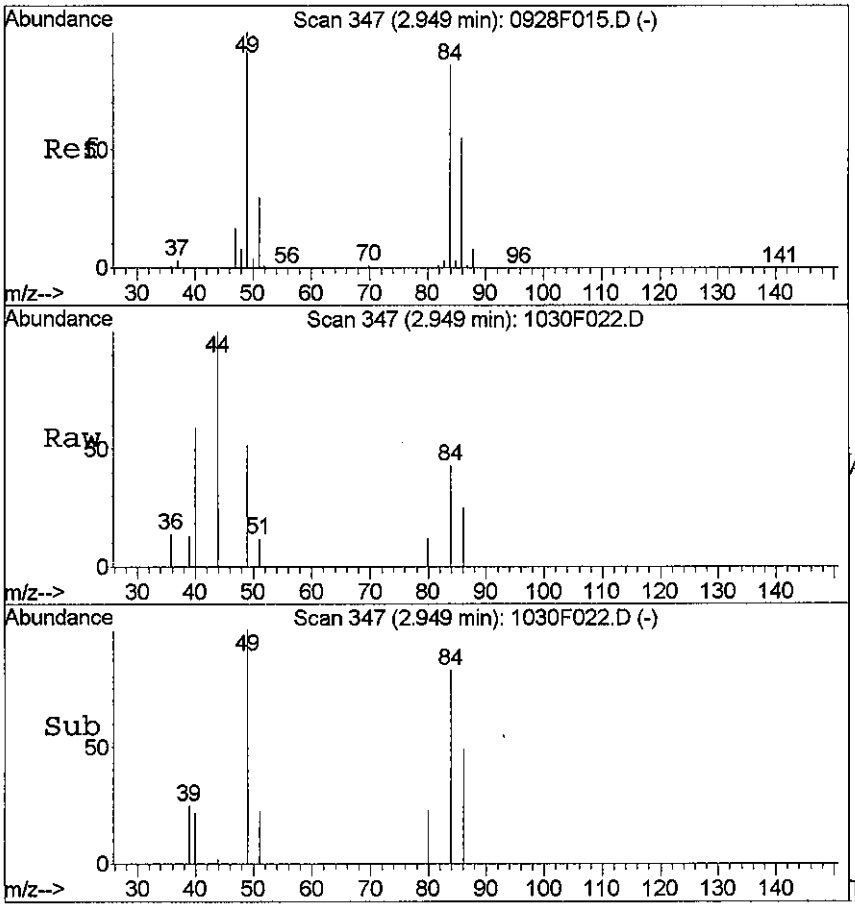


#14
Acetone
Concen: 0.44 PPB
RT: 2.55 min Scan# 271
Delta R.T. 0.01 min
Lab File: 1030F022.D
Acq: 30 Oct 2015 21:29

Tgt Ion: 43 Resp: 1059

Ion	Ratio	Lower	Upper
43	100		
58	35.3	5.9	65.9
42	40.7	0.0	36.7#

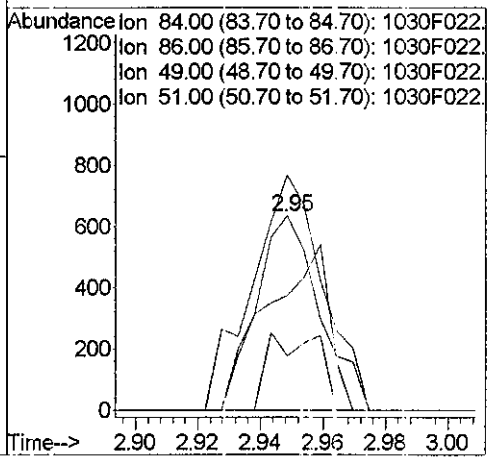


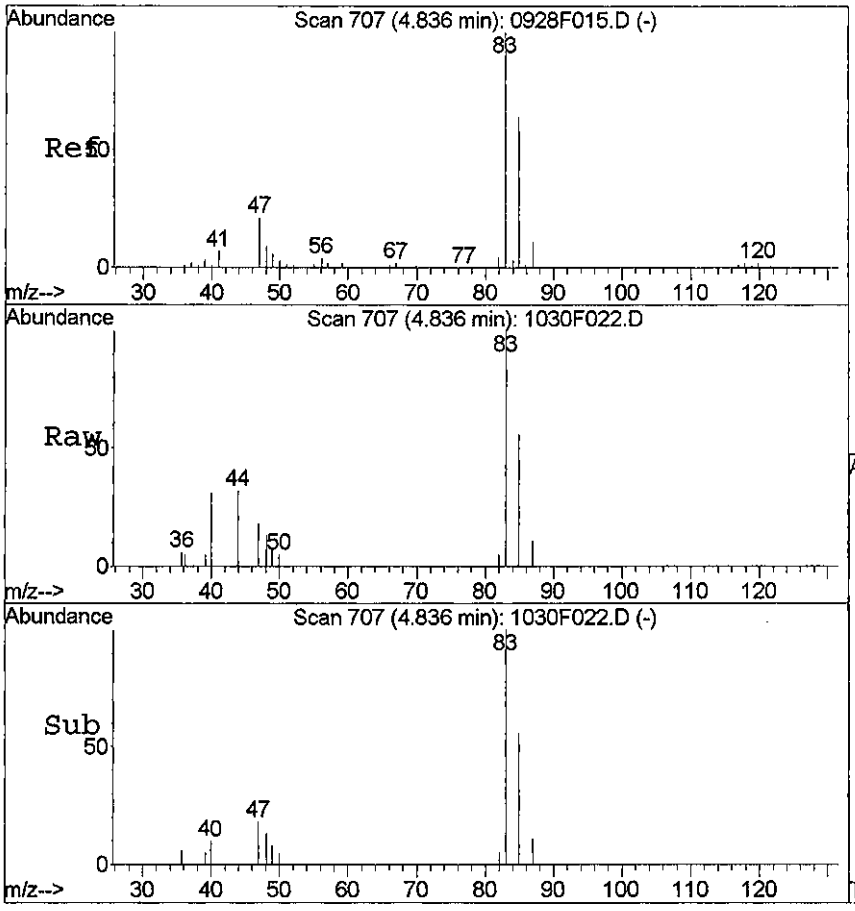


#21
Methylene Chloride
Concen: 0.05 PPB
RT: 2.95 min Scan# 347
Delta R.T. -0.00 min
Lab File: 1030F022.D
Acq: 30 Oct 2015 21:29

Tgt Ion: 84 Resp: 900

Ion	Ratio	Lower	Upper
84	100		
86	58.8	34.2	94.2
49	120.8	85.9	145.9
51	27.9	4.3	64.3

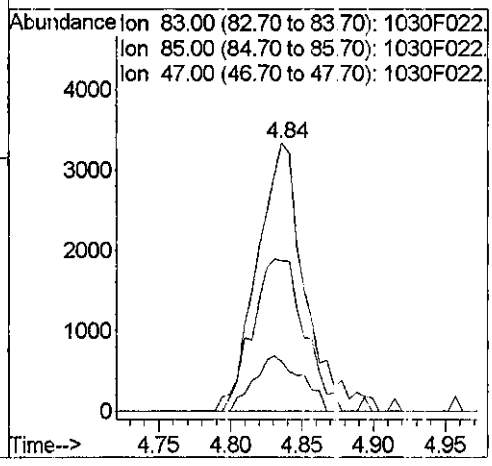


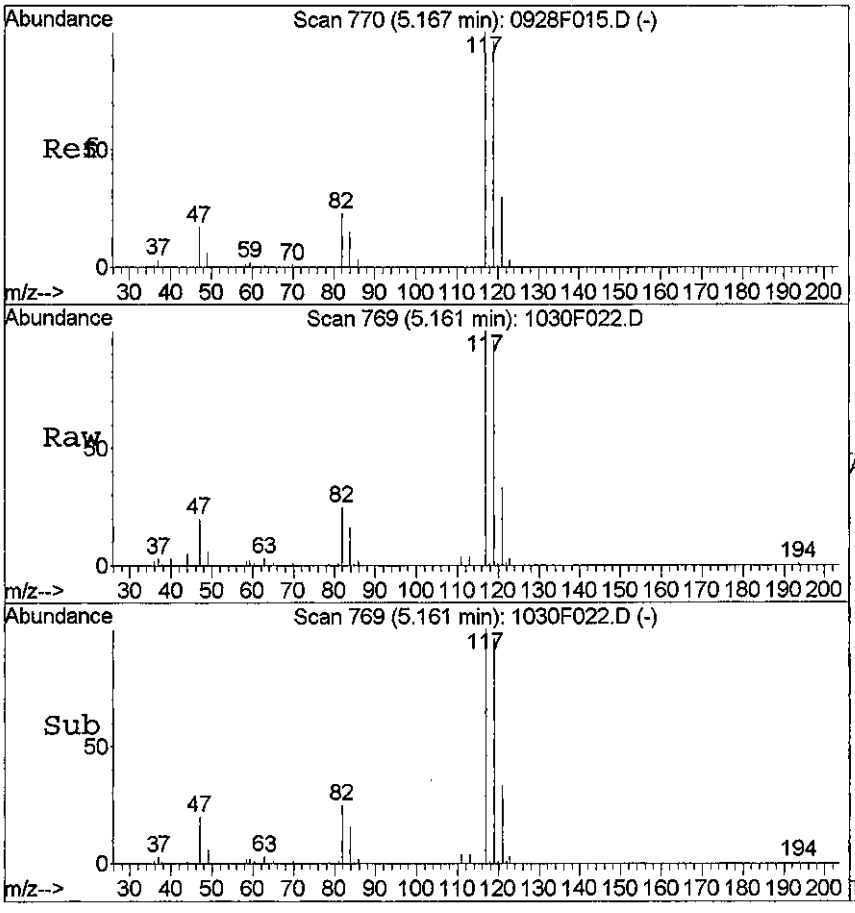


#40
Chloroform
Concen: 0.29 PPB
RT: 4.84 min Scan# 707
Delta R.T. -0.00 min
Lab File: 1030F022.D
Acq: 30 Oct 2015 21:29

Tgt Ion: 83 Resp: 7775

Ion	Ratio	Lower	Upper
83	100		
85	55.9	34.3	94.3
47	18.4	0.0	50.8

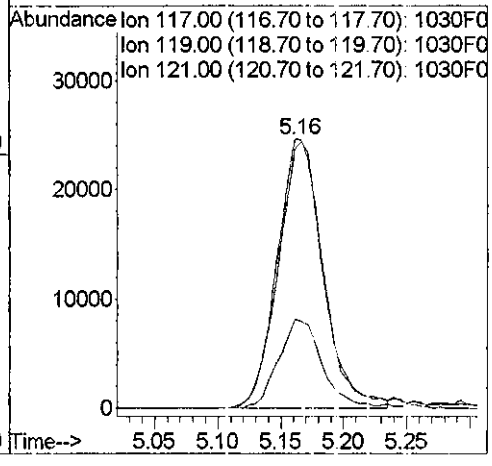


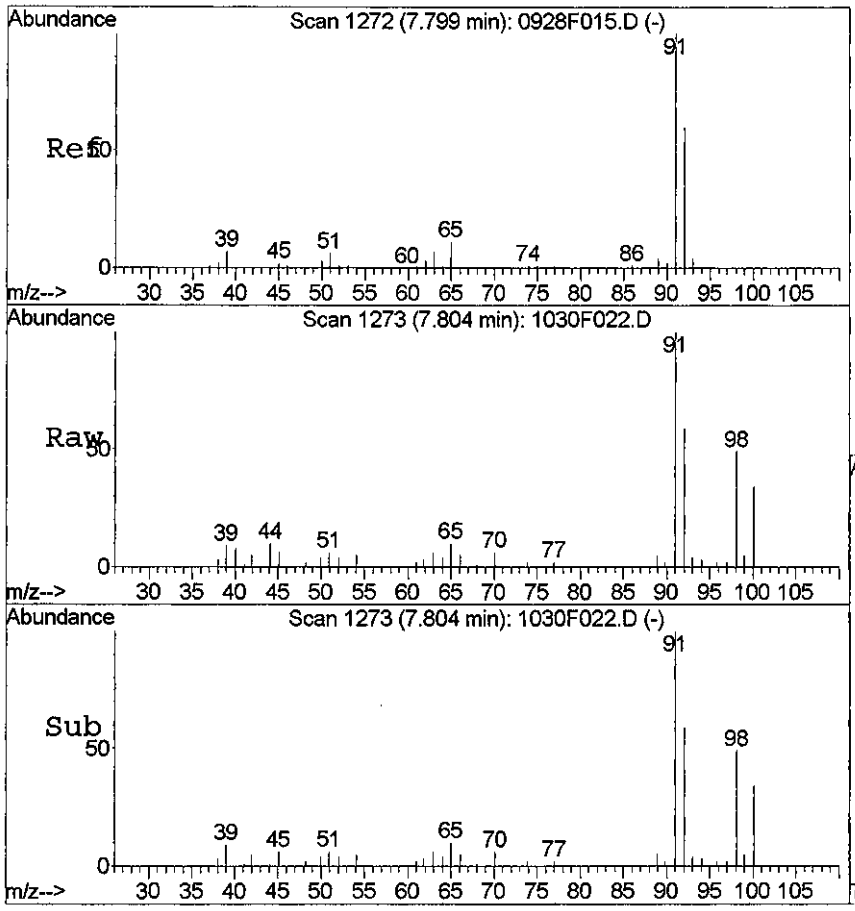


#44
Carbon Tetrachloride
Concen: 3.90 PPB m
RT: 5.16 min Scan# 769
Delta R.T. -0.01 min
Lab File: 1030F022.D
Acq: 30 Oct 2015 21:29

Tgt Ion:117 Resp: 62789

Ion	Ratio	Lower	Upper
117	100		
119	96.4	65.7	125.7
121	33.2	0.4	60.4

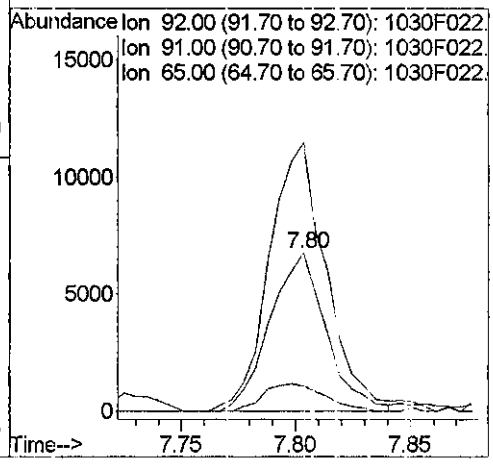




#64
Toluene
Concen: 0.25 PPB
RT: 7.80 min Scan# 1273
Delta R.T. 0.01 min
Lab File: 1030F022.D
Acq: 30 Oct 2015 21:29

Tgt Ion: 92 Resp: 11579

Ion	Ratio	Lower	Upper
92	100		
91	169.3	137.9	197.9
65	16.2	0.0	47.8



Exception Report

Data File: J:\MS18\DATA\103015\1030F023.D
Lab ID: K1512095-013
RunType: SMPL
Matrix: WATER

Date Acquired: 10/30/2015 21:52
Date Quantitated: 11/02/2015 18:38
Batch ID: KWG1510604
Analysis Method: 8260C
ListJoinID: LJ1423

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 11/2/15

Secondary Review: 11/3/15

Quantitation Report

Data File:	J:\MS18\DATA\103015\1030F023.D			**Instrument:**	GC-MS 18
Acqu Date:	10/30/2015 21:52	**Quant Date:**	11/02/2015 18:38	**Vial:**	22
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1512095-013			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	10/23/2015	**Receive Date:**	10/24/2015

Analysis Lot:	KWG1510604	**Prep Lot:**	KWG1510605	**Report Group:**	K1512095
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1479853	**Prep Date:**	10/30/2015		

Quant Method:	J:\MS18\METHODS\092815MS18_8	**Calibration ID:**	CAL14315
Title:	Volatile Organic Compounds	**Report List ID:**	LJ1423
Tune Ref:	J:\MS18\DATA\103015\1030F002.D	**Method ID:**	MJ119
MB Ref:	J:\MS18\DATA\103015\1030F008.D	**Quant based on Report List**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.90	0.01	96	604647	10.00	OK
2	Chlorobenzene-d5	9.30	0.00	82	239701	10.00	OK
3	1,4-Dichlorobenzene-d4	11.72	0.00	152	219360	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.07	0.01	0.00	113	126203	9.30	93	73-122	OK	
1	Toluene-d8	7.73	0.00	0.00	98	586545	9.62	96	65-144	OK	
2	4-Bromofluorobenzene	10.55	0.01	0.00	95	203615	8.82	88	68-117	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Tetrachloride				117	0		0.096	U	

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\103015\1030F023.D Vial: 22
Acq On : 30 Oct 2015 21:52 Operator: YX/KR
Sample : K1512095-013 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 02 14:07:11 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration
DataAcq Meth : 8260

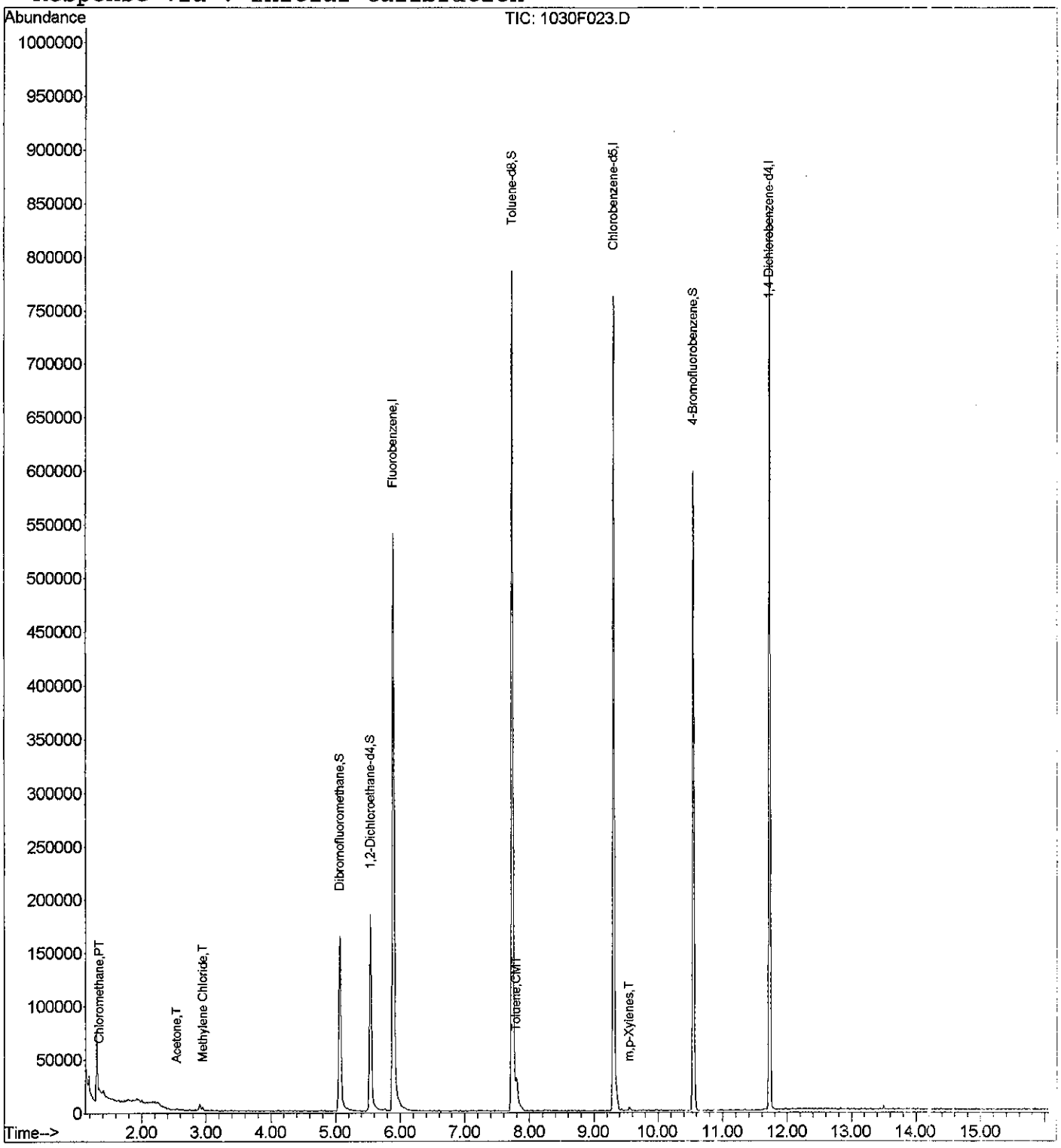
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.90	96	604647	10.00	PPB	0.00
65) Chlorobenzene-d5	9.30	82	239701	10.00	PPB	0.00
86) 1,4-Dichlorobenzene-d4	11.72	152	219360	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.07	113	126203	9.30	PPB	0.00
Spiked Amount 10.000			Recovery =	93.00%		
48) 1,2-Dichloroethane-d4	5.54	65	146908	9.87	PPB	0.00
Spiked Amount 10.000			Recovery =	98.70%		
63) Toluene-d8	7.73	98	586545	9.62	PPB	0.00
Spiked Amount 10.000			Recovery =	96.20%		
85) 4-Bromofluorobenzene	10.55	95	203615	8.82	PPB	0.00
Spiked Amount 10.000			Recovery =	88.20%		
Target Compounds						Qvalue
3) Chloromethane	1.35	50	1501	0.07	PPB	91
14) Acetone	2.54	43	1351	0.57	PPB	95
21) Methylene Chloride	2.95	84	1190	0.06	PPB	83
64) Toluene	7.80	92	6537	0.14	PPB	94
79) m,p-Xylenes	9.55	106	1075	0.04	PPB #	76

(#) = qualifier out of range (m) = manual integration

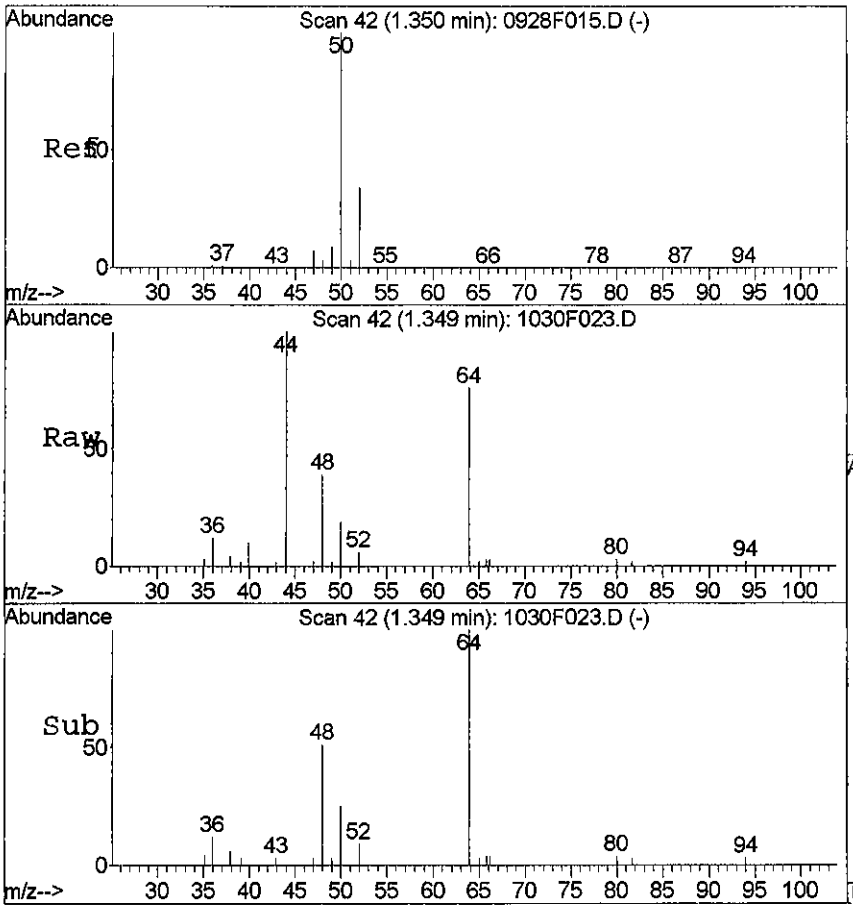
Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\103015\1030F023.D Vial: 22
Acq On : 30 Oct 2015 21:52 Operator: YX/KR
Sample : K1512095-013 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Nov 2 18:38 2015 Quant Results File: 092815MS18_8

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration



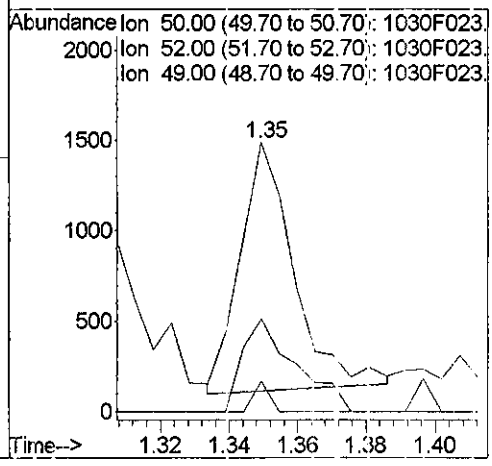
1030F023.D 092815MS18_8260.M Mon Nov 02 18:47:19 2015 Page 2

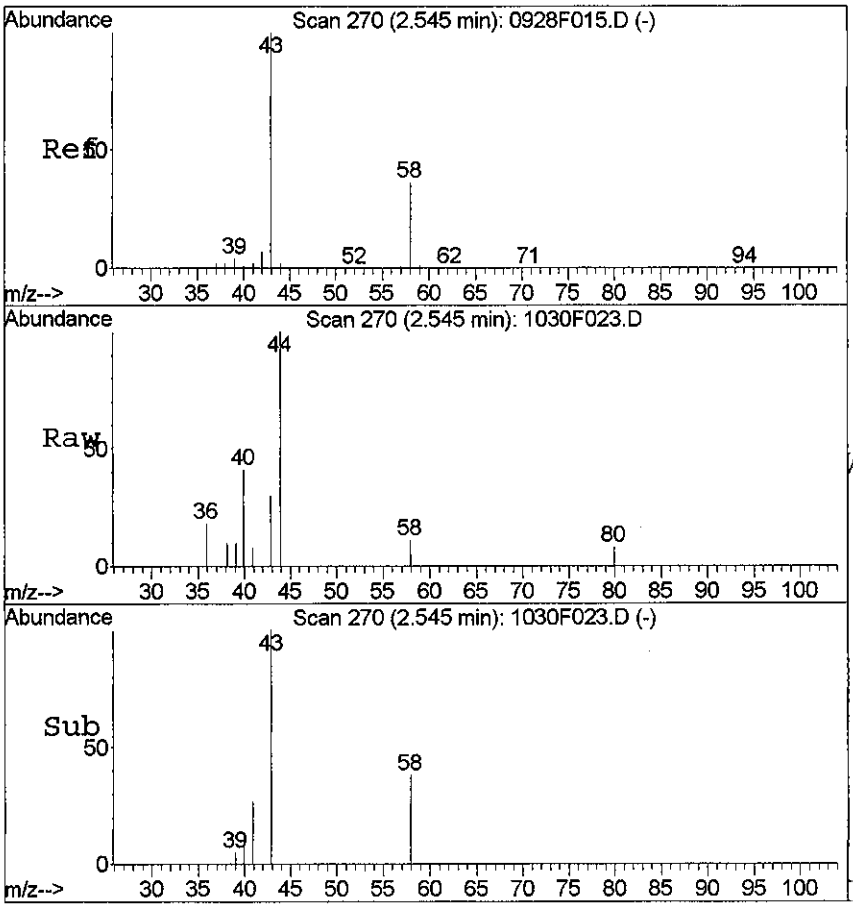


#3
Chloromethane
Concen: 0.07 PPB
RT: 1.35 min Scan# 42
Delta R.T. -0.00 min
Lab File: 1030F023.D
Acq: 30 Oct 2015 21:52

Tgt Ion: 50 Resp: 1501

Ion	Ratio	Lower	Upper
50	100		
52	38.5	3.5	63.5
49	12.7	0.0	39.3

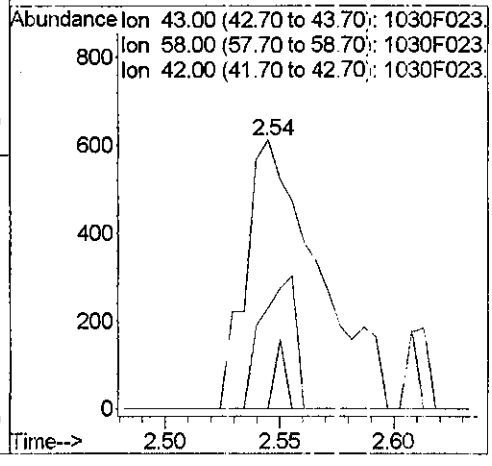


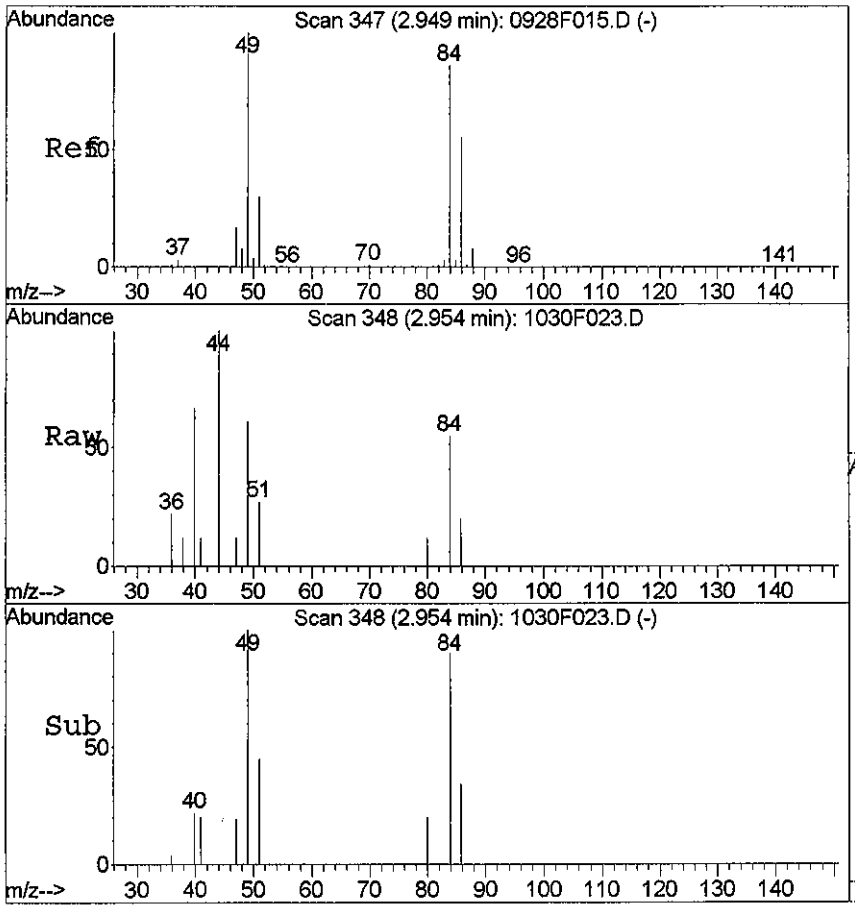


#14
Acetone
Concen: 0.57 PPB
RT: 2.54 min Scan# 270
Delta R.T. -0.00 min
Lab File: 1030F023.D
Acq: 30 Oct 2015 21:52

Tgt Ion: 43 Resp: 1351

Ion	Ratio	Lower	Upper
43	100		
58	37.6	5.9	65.9
42	0.0	0.0	36.7

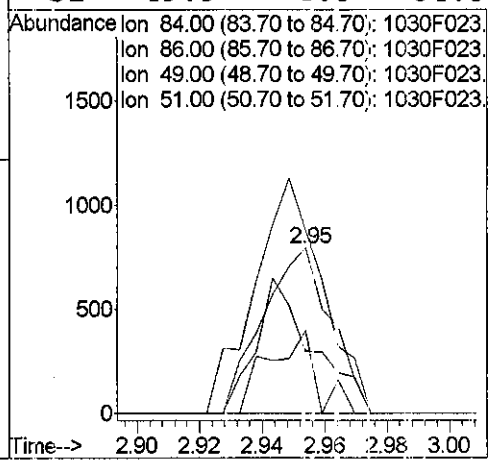


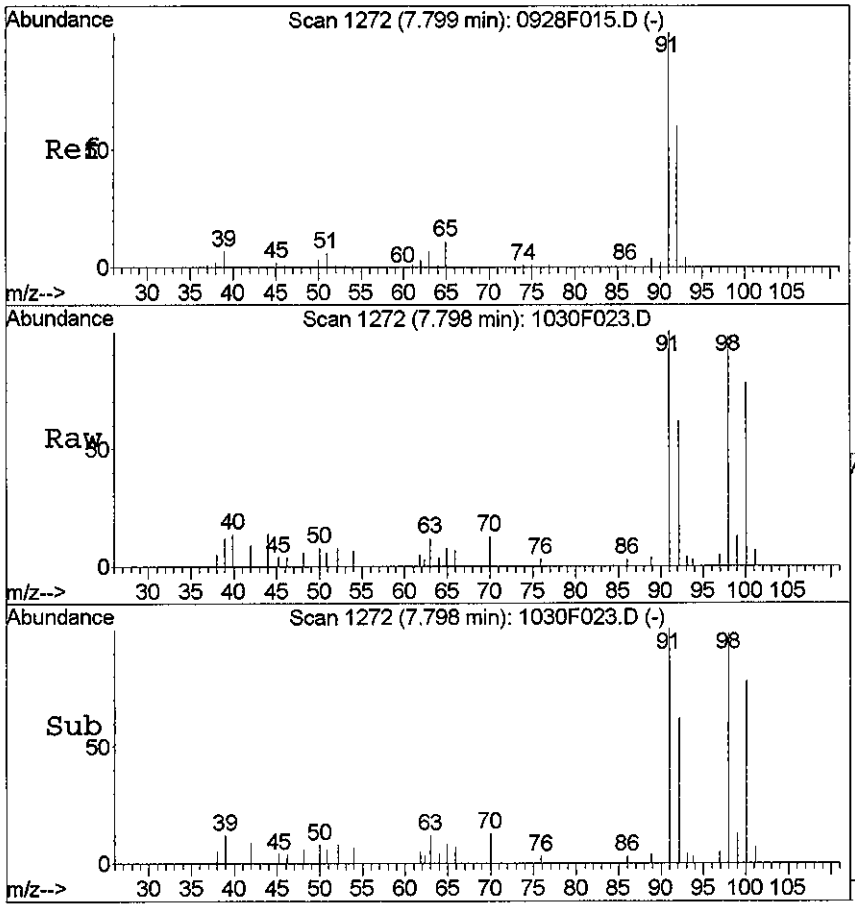


#21
Methylene Chloride
Concen: 0.06 PPB
RT: 2.95 min Scan# 348
Delta R.T. 0.01 min
Lab File: 1030F023.D
Acq: 30 Oct 2015 21:52

Tgt Ion: 84 Resp: 1190

Ion	Ratio	Lower	Upper
84	100		
86	37.5	34.2	94.2
49	111.0	85.9	145.9
51	49.9	4.3	64.3

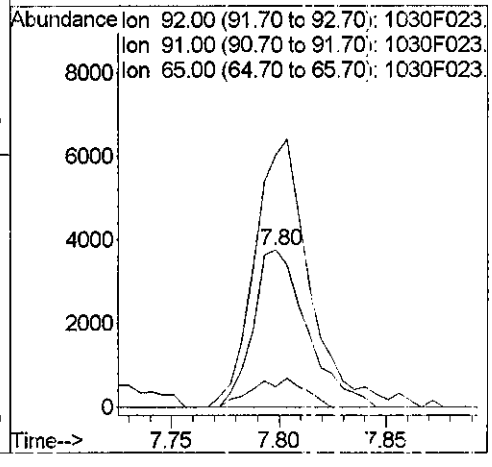


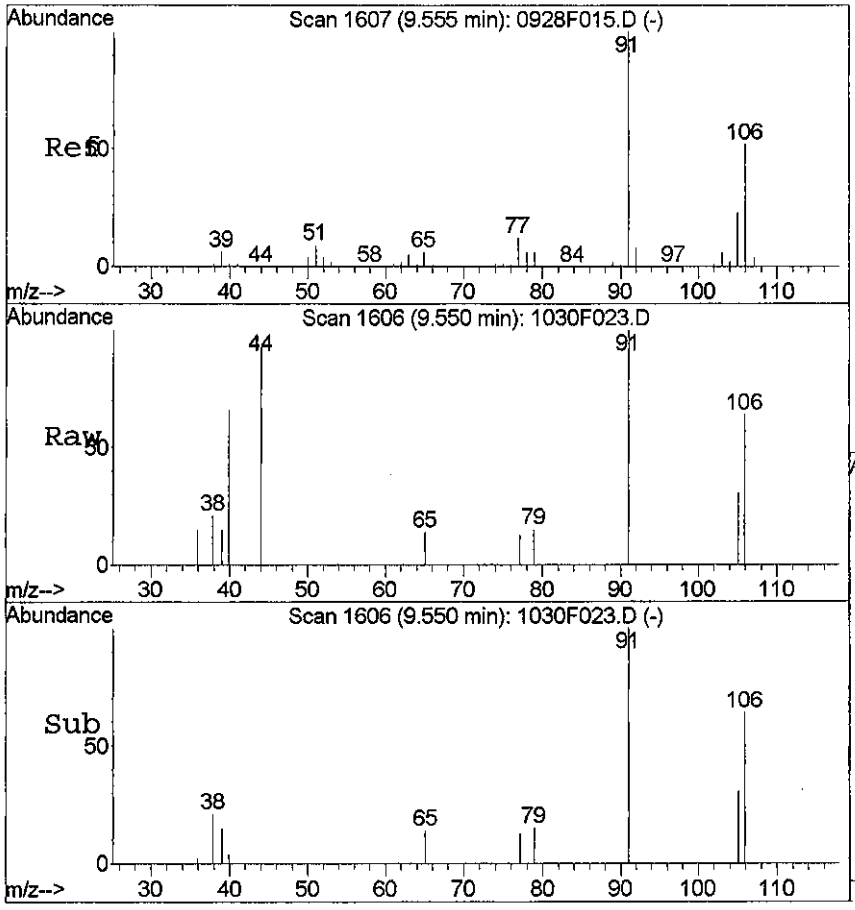


#64
Toluene
Concen: 0.14 PPB
RT: 7.80 min Scan# 1272
Delta R.T. -0.00 min
Lab File: 1030F023.D
Acq: 30 Oct 2015 21:52

Tgt Ion: 92 Resp: 6537

Ion	Ratio	Lower	Upper
92	100		
91	160.7	137.9	197.9
65	13.1	0.0	47.8

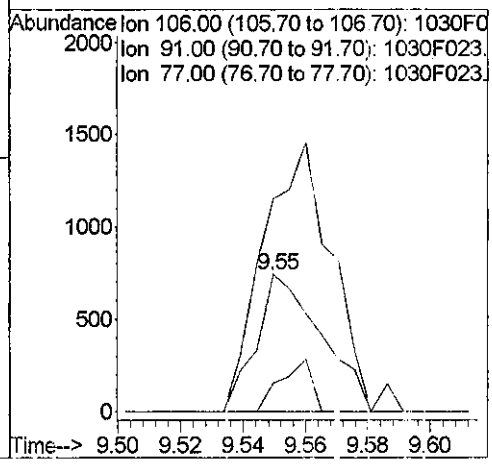




#79
m,p-Xylenes
Concen: 0.04 PPB
RT: 9.55 min Scan# 1606
Delta R.T. -0.01 min
Lab File: 1030F023.D
Acq: 30 Oct 2015 21:52

Tgt Ion:106 Resp: 1075

Ion	Ratio	Lower	Upper
106	100		
91	155.3	164.1	224.1#
77	20.8	0.0	53.8



Exception Report

Data File: J:\MS18\DATA\103015\1030F010.D
Lab ID: K1512095-014
RunType: SMPL
Matrix: WATER

Date Acquired: 10/30/2015 17:10
Date Quantitated: 10/30/2015 20:12
Batch ID: KWG1510604
Analysis Method: 8260C
ListJoinID: LJ1423

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
Preparation Holding Time	NA	NA	NA	x	
Pre-Preparation Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA	x	
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA	x	
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA	x	
Continuing Calibration Minimum RF	NA	NA	NA	x	
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Method Blank	NA	NA	NA	x	
MB Surrogate Recovery	NA	NA	NA	x	
Lab Control Spike	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Primary Review: 10/30/15

Secondary Review:

Quantitation Report

Data File:	J:\MS18\DATA\103015\1030F010.D			**Instrument:**	GC-MS 18
Acqu Date:	10/30/2015 17:10	**Quant Date:**	10/30/2015 20:12	**Vial:**	9
Run Type:	SMPL			**Dilution:**	1.0
Lab ID:	K1512095-014			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**	V	**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**	10/23/2015	**Receive Date:**	10/24/2015

Analysis Lot:	KWG1510604	**Prep Lot:**	KWG1510605	**Report Group:**	K1512095
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1479835	**Prep Date:**	10/30/2015		

Quant Method:	J:\MS18\METHODS\092815MS18_8	**Calibration ID:**	CAL14315
Title:	Volatile Organic Compounds	**Report List ID:**	LJ1423
Tune Ref:	J:\MS18\DATA\103015\1030F002.D	**Method ID:**	MJ119
MB Ref:	J:\MS18\DATA\103015\1030F008.D	**Quant based on Report List**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.89	0.00	96	655242	10.00	OK
2	Chlorobenzene-d5	9.30	0.00	82	259340	10.00	OK
3	1,4-Dichlorobenzene-d4	11.72	0.00	152	233442	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.06	0.00	0.00	113	133562	9.09	91	73-122	OK	
1	Toluene-d8	7.73	0.00	0.00	98	641004	9.70	97	65-144	OK	
2	4-Bromofluorobenzene	10.55	0.01	0.00	95	221326	8.86	89	68-117	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Tetrachloride				117	0		0.096	U	

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\103015\1030F010.D Vial: 9
Acq On : 30 Oct 2015 17:10 Operator: YX/KR
Sample : K1512095-014 TB 100915 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 20:06:00 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration
DataAcq Meth : 8260

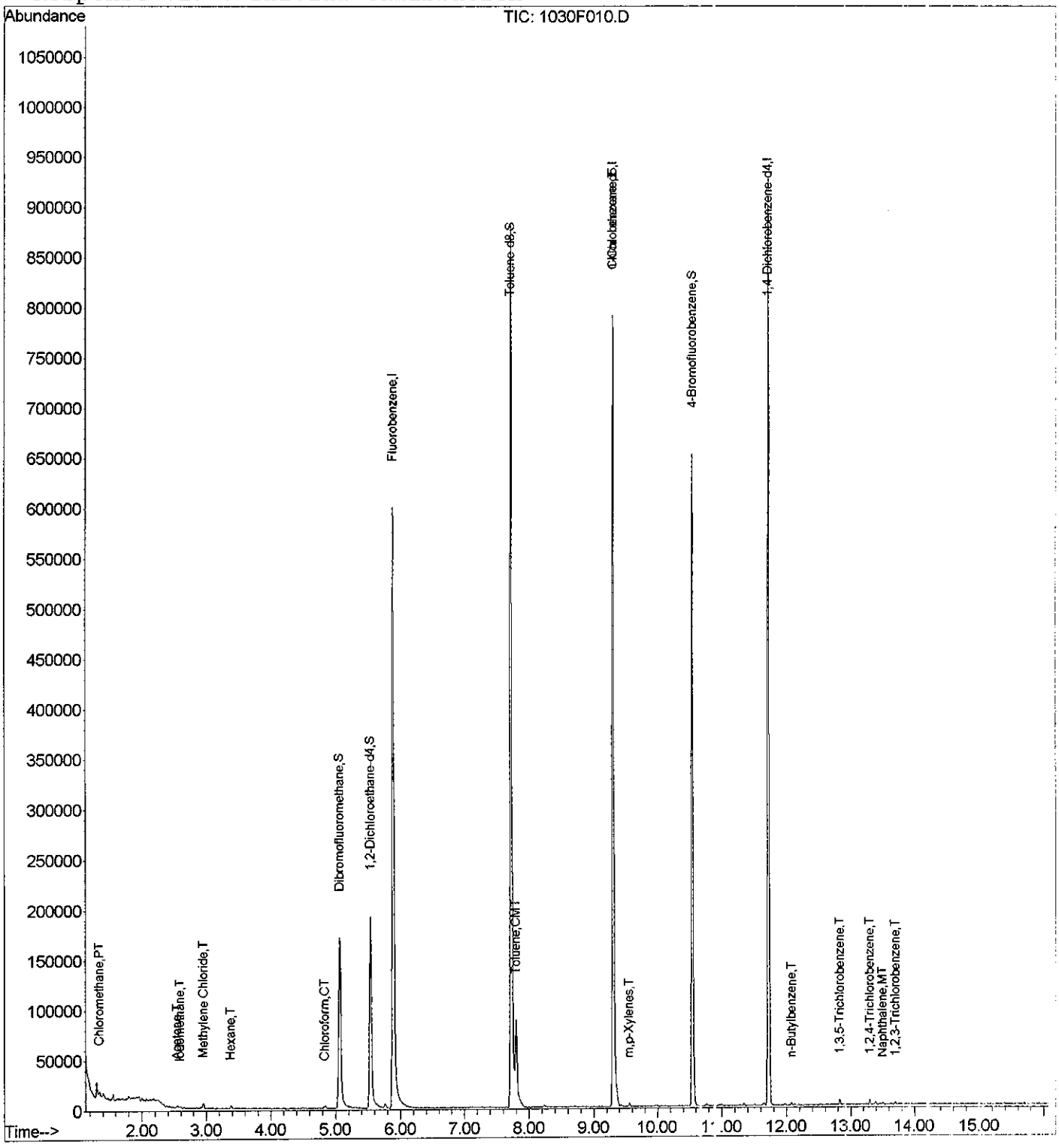
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.89	96	655242	10.00	PPB	0.00
65) Chlorobenzene-d5	9.30	82	259340	10.00	PPB	0.00
86) 1,4-Dichlorobenzene-d4	11.72	152	233442	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.06	113	133562	9.09	PPB	0.00
Spiked Amount 10.000			Recovery =	90.90%		
48) 1,2-Dichloroethane-d4	5.53	65	151344	9.38	PPB	0.00
Spiked Amount 10.000			Recovery =	93.80%		
63) Toluene-d8	7.73	98	641004	9.70	PPB	0.00
Spiked Amount 10.000			Recovery =	97.00%		
85) 4-Bromofluorobenzene	10.55	95	221326	8.86	PPB	0.00
Spiked Amount 10.000			Recovery =	88.60%		
Target Compounds						Qvalue
3) Chloromethane	1.35	50	2442	0.11	PPB	86
14) Acetone	2.54	43	2904	1.13	PPB	76
15) Iodomethane	2.59	142	982	0.05	PPB	84
21) Methylene Chloride	2.95	84	2371	0.12	PPB	90
26) Hexane	3.38	57	1250	0.09	PPB	83
40) Chloroform	4.83	83	2459	0.08	PPB	83
64) Toluene	7.80	92	32093	0.66	PPB	99
75) 1-Chlorohexane	9.30	91	1260	0.06	PPB	74
79) m,p-Xylenes	9.55	106	1105	0.03	PPB	89
101) n-Butylbenzene	12.07	91	1543	0.03	PPB	86
104) 1,3,5-Trichlorobenzene	12.83	180	1552	0.06	PPB	85
105) 1,2,4-Trichlorobenzene	13.30	180	1237	0.06	PPB	84
107) Naphthalene	13.50	128	1341	0.03	PPB	72
108) 1,2,3-Trichlorobenzene	13.70	180	777	0.04	PPB	97

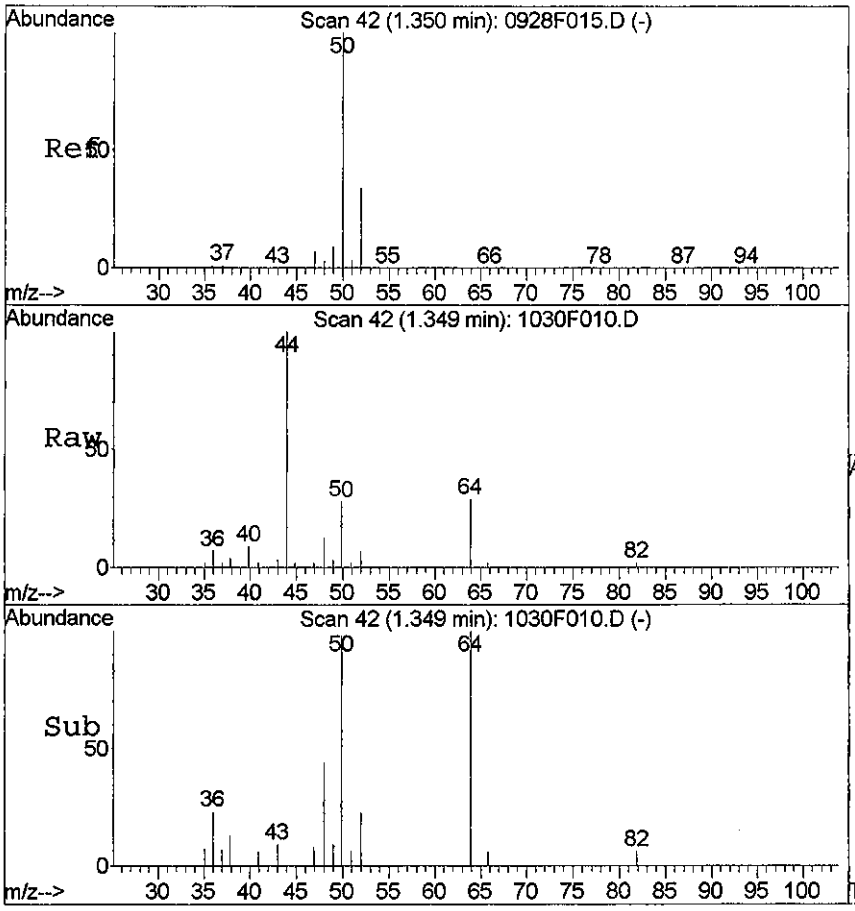
(#) = qualifier out of range (m) = manual integration
1030F010.D 092815MS18_8260.M Fri Oct 30 20:22:21 2015 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\103015\1030F010.D Vial: 9
Acq On : 30 Oct 2015 17:10 Operator: YX/KR
Sample : K1512095-014 TB 100915 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 20:12 2015 Quant Results File: 092815MS18_8

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration

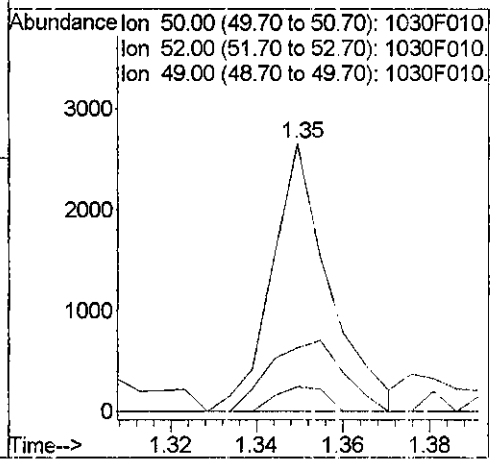


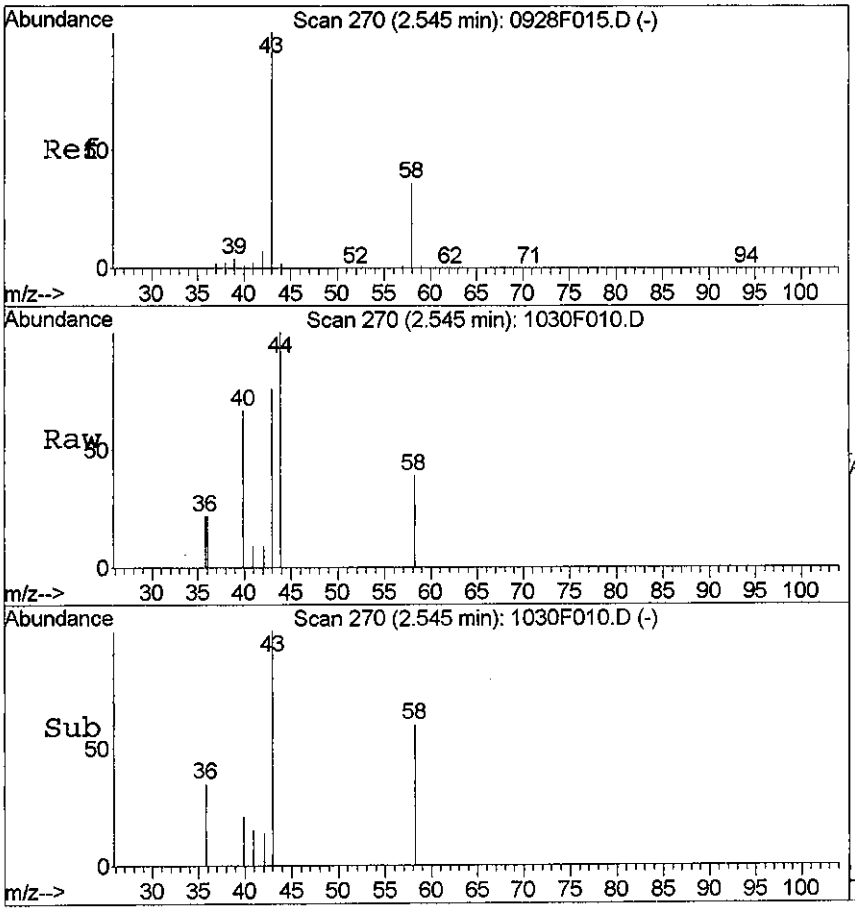


#3
Chloromethane
Concen: 0.11 PPB
RT: 1.35 min Scan# 42
Delta R.T. -0.00 min
Lab File: 1030F010.D
Acq: 30 Oct 2015 17:10

Tgt Ion: 50 Resp: 2442

Ion	Ratio	Lower	Upper
50	100		
52	23.7	3.5	63.5
49	9.1	0.0	39.3

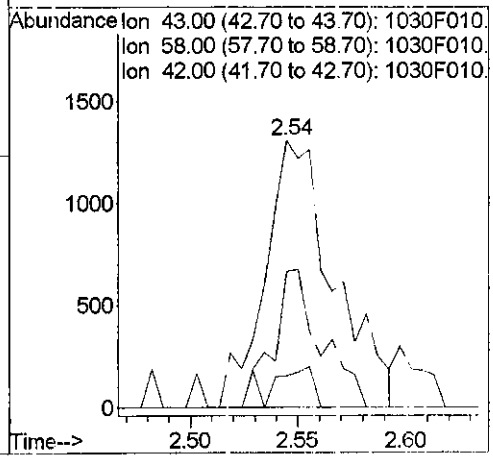


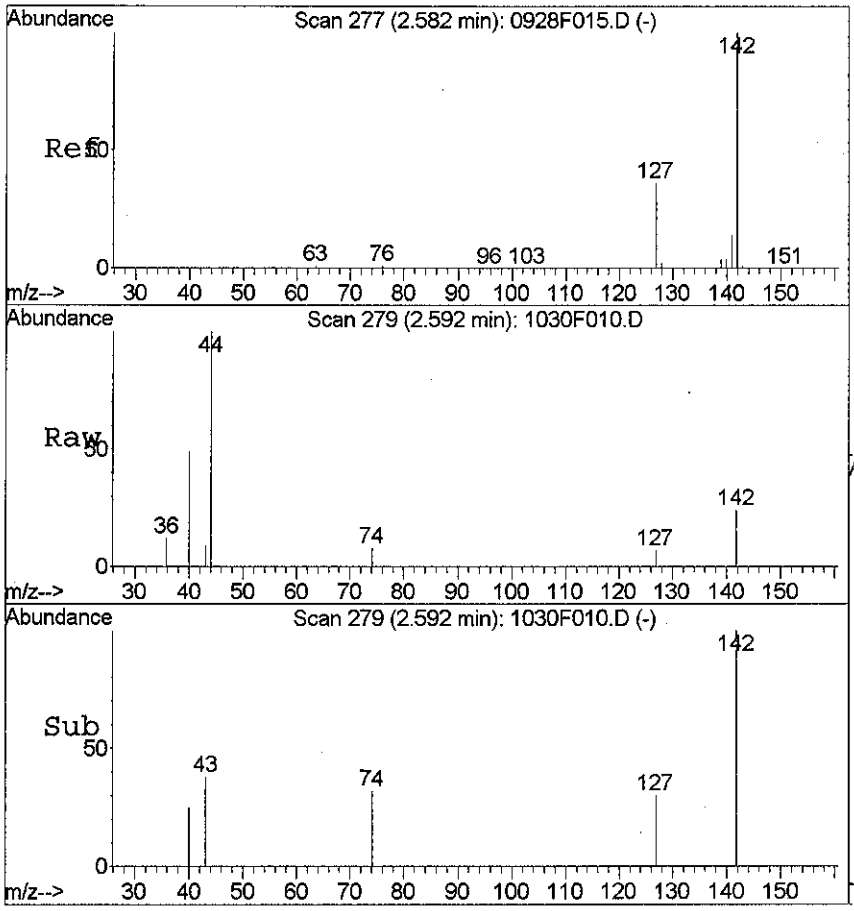


#14
Acetone
Concen: 1.13 PPB
RT: 2.54 min Scan# 270
Delta R.T. -0.00 min
Lab File: 1030F010.D
Acq: 30 Oct 2015 17:10

Tgt Ion: 43 Resp: 2904

Ion	Ratio	Lower	Upper
43	100		
58	50.9	5.9	65.9
42	11.9	0.0	36.7

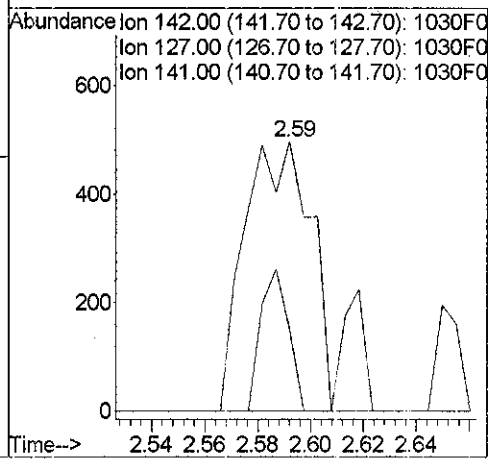


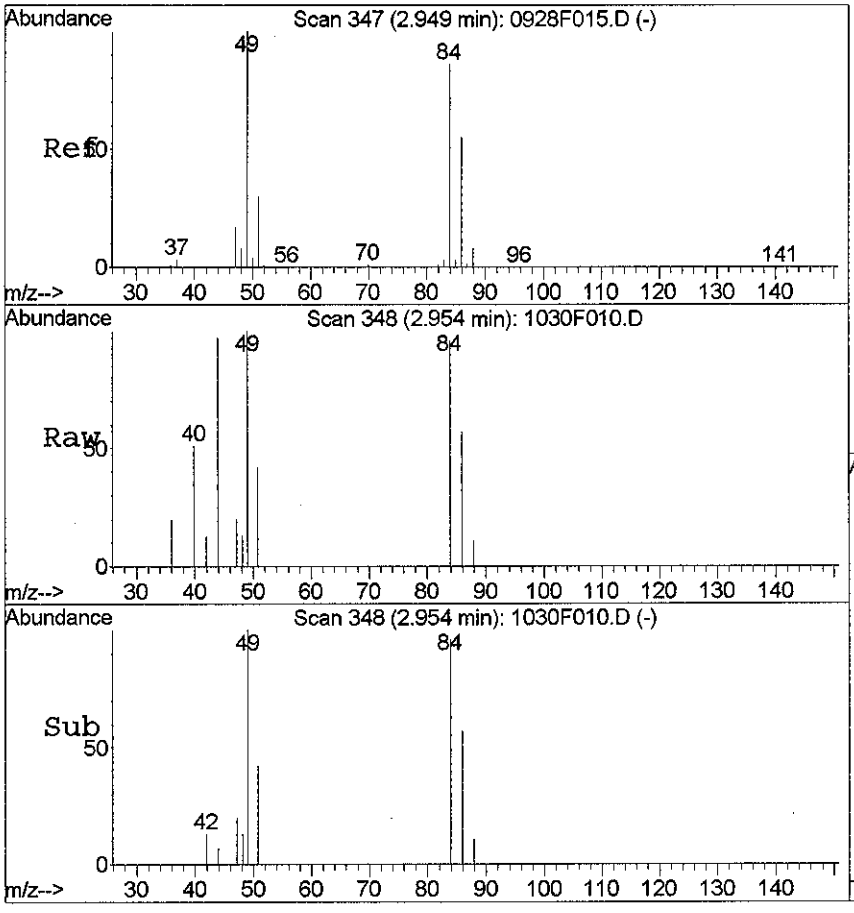


#15
Iodomethane
Concen: 0.05 PPB
RT: 2.59 min Scan# 279
Delta R.T. 0.01 min
Lab File: 1030F010.D
Acq: 30 Oct 2015 17:10

Tgt Ion:142 Resp: 982

Ion	Ratio	Lower	Upper
142	100		
127	30.2	5.6	65.6
141	0.0	0.0	43.6

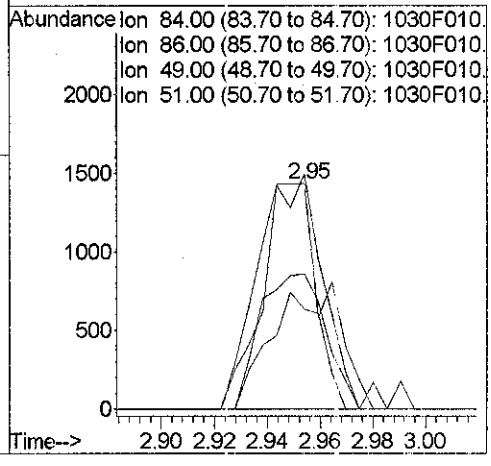


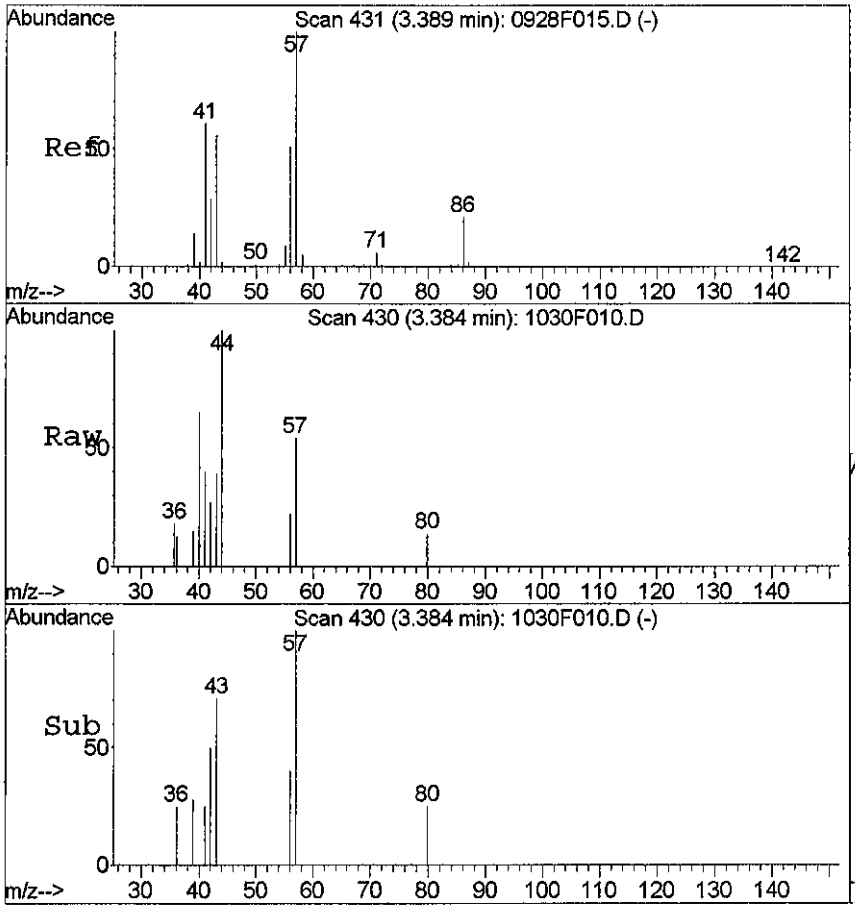


#21
Methylene Chloride
Concen: 0.12 PPB
RT: 2.95 min Scan# 348
Delta R.T. 0.01 min
Lab File: 1030F010.D
Acq: 30 Oct 2015 17:10

Tgt Ion: 84 Resp: 2371

Ion	Ratio	Lower	Upper
84	100		
86	59.9	34.2	94.2
49	104.4	85.9	145.9
51	44.1	4.3	64.3

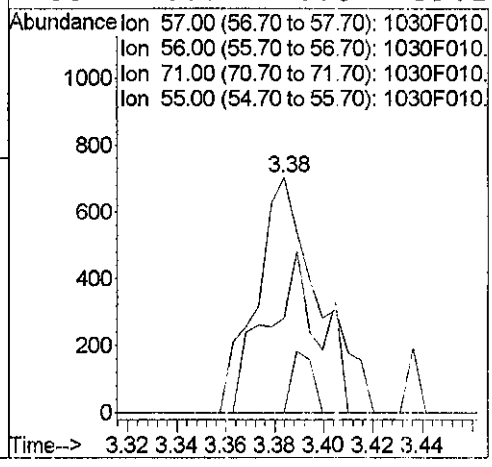


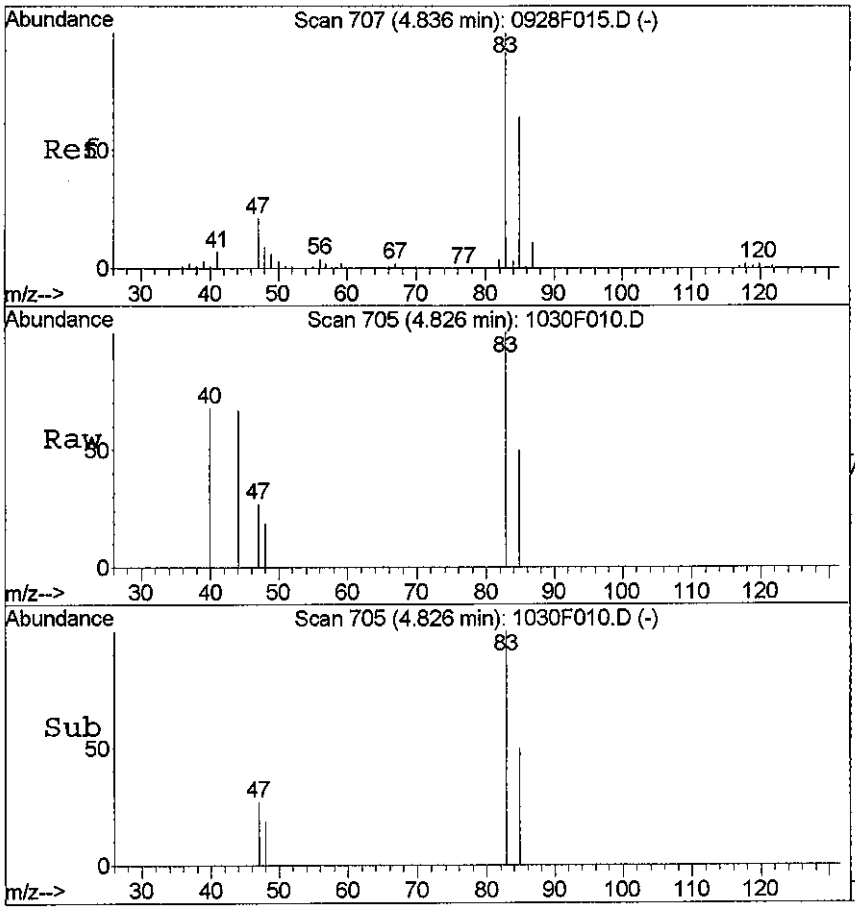


#26
Hexane
Concen: 0.09 PPB
RT: 3.38 min Scan# 430
Delta R.T. -0.01 min
Lab File: 1030F010.D
Acq: 30 Oct 2015 17:10

Tgt Ion: 57 Resp: 1250

Ion	Ratio	Lower	Upper
57	100		
56	40.2	21.3	81.3
71	0.0	0.0	36.0
55	0.0	0.0	39.1

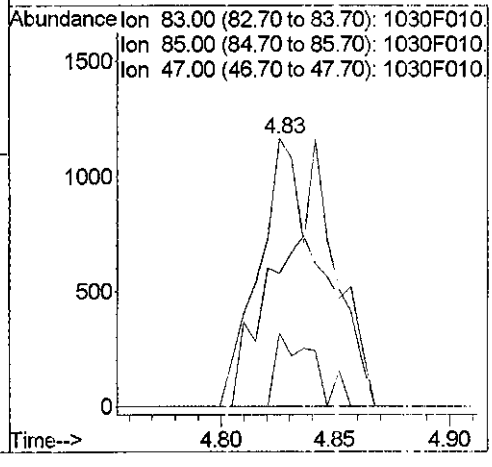


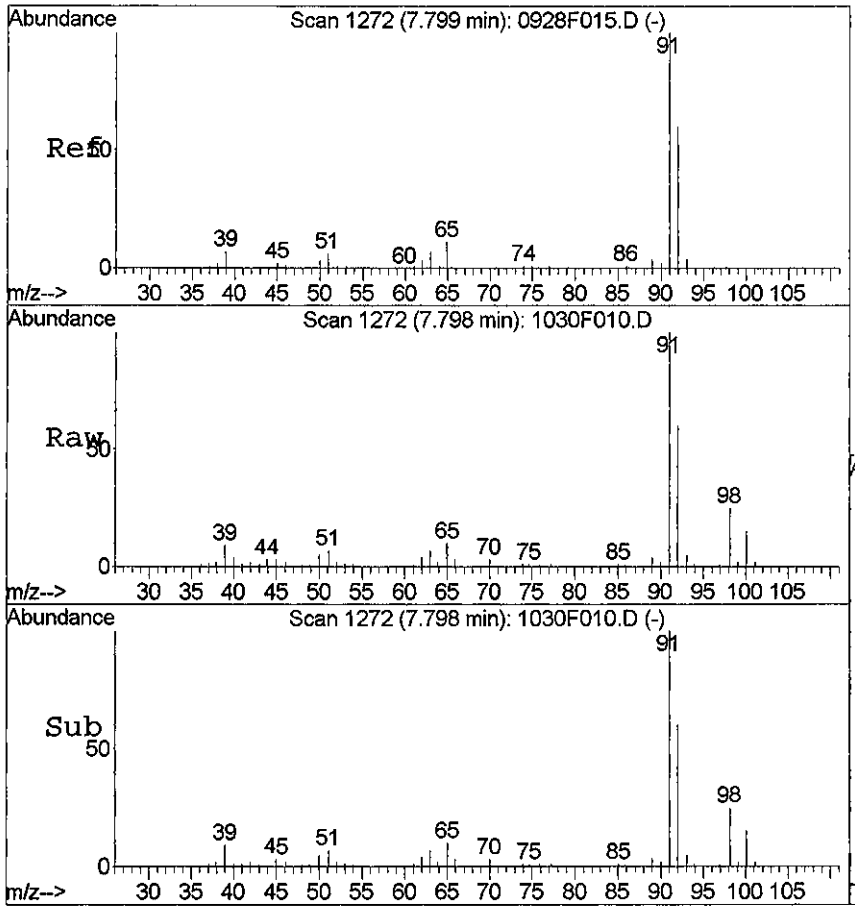


#40
Chloroform
Concen: 0.08 PPB
RT: 4.83 min Scan# 705
Delta R.T. -0.01 min
Lab File: 1030F010.D
Acq: 30 Oct 2015 17:10

Tgt Ion: 83 Resp: 2459

Ion	Ratio	Lower	Upper
83	100		
85	49.8	34.3	94.3
47	27.3	0.0	50.8

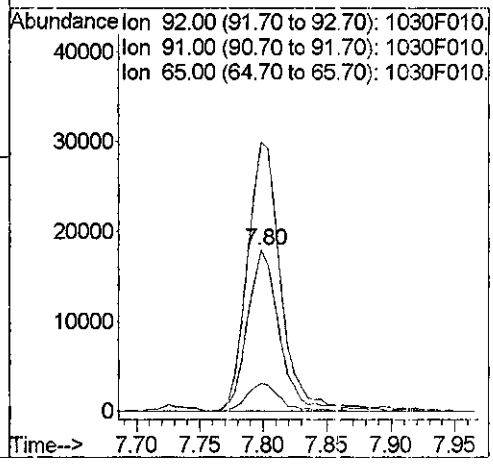


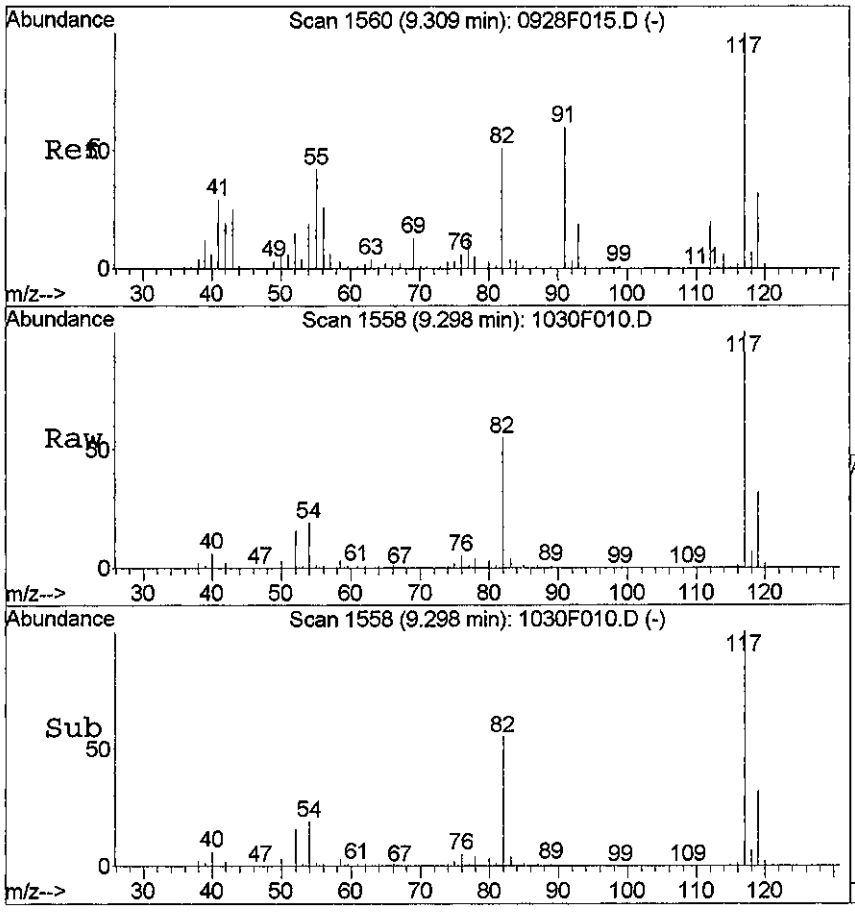


#64
Toluene
Concen: 0.66 PPB
RT: 7.80 min Scan# 1272
Delta R.T. -0.00 min
Lab File: 1030F010.D
Acq: 30 Oct 2015 17:10

Tgt Ion: 92 Resp: 32093

Ion	Ratio	Lower	Upper
92	100		
91	166.7	137.9	197.9
65	17.3	0.0	47.8

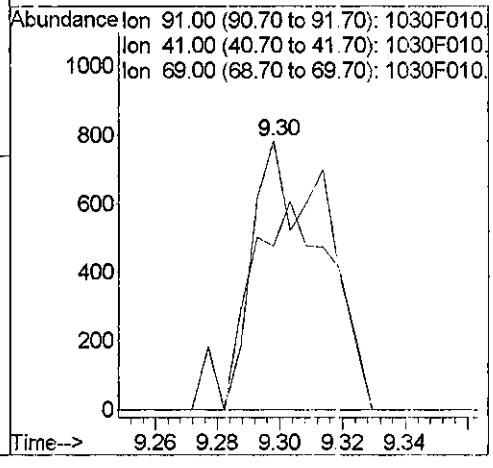


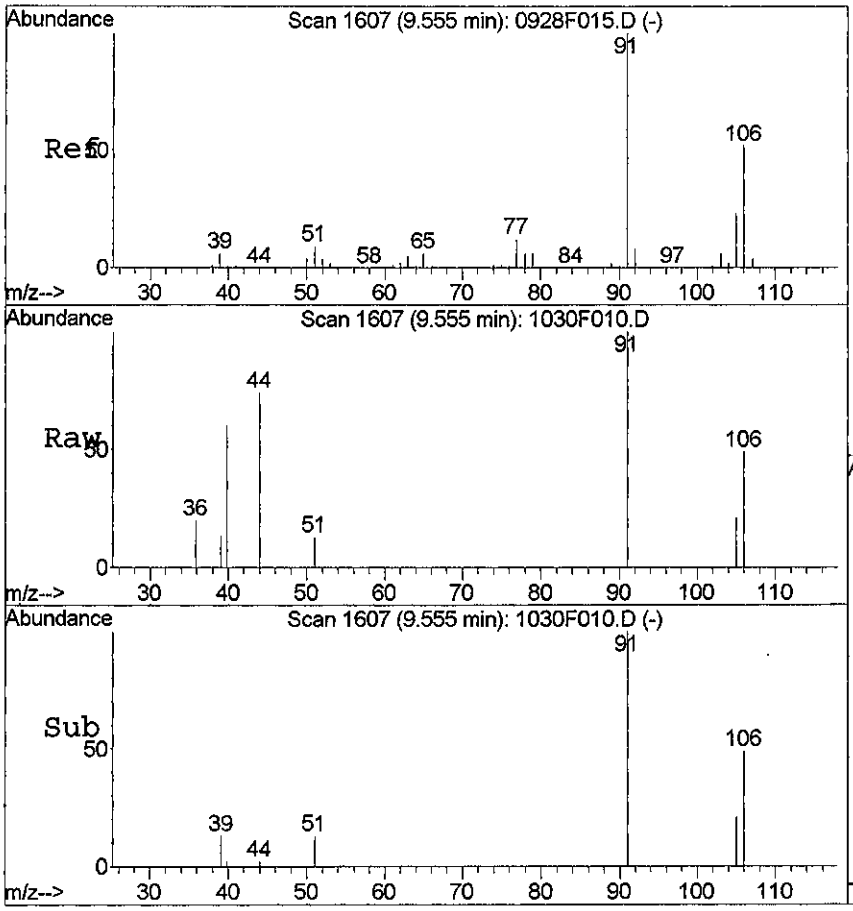


#75
1-Chlorohexane
Concen: 0.06 PPB
RT: 9.30 min Scan# 1558
Delta R.T. -0.01 min
Lab File: 1030F010.D
Acq: 30 Oct 2015 17:10

Tgt Ion: 91 Resp: 1260

Ion	Ratio	Lower	Upper
91	100		
41	60.8	18.4	78.4
69	0.0	0.0	51.1

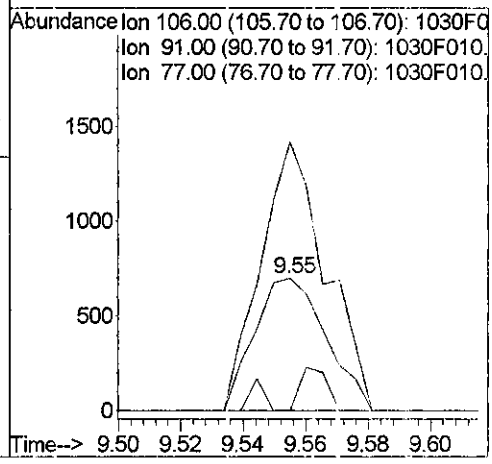


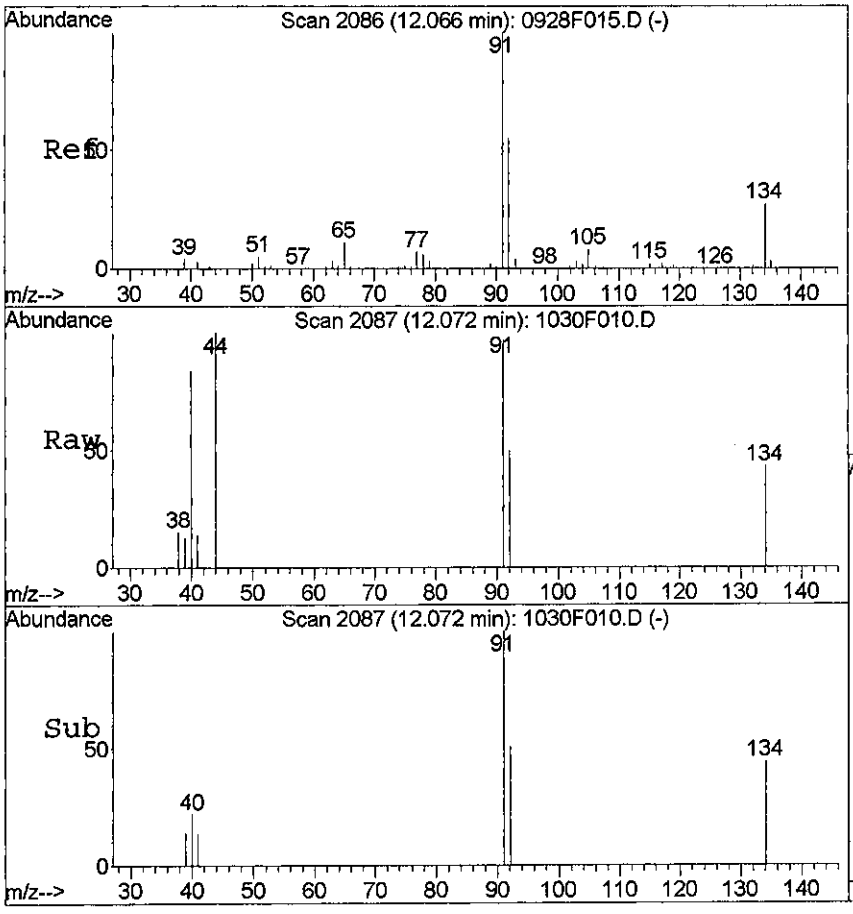


#79
m,p-Xylenes
Concen: 0.03 PPB
RT: 9.55 min Scan# 1607
Delta R.T. -0.00 min
Lab File: 1030F010.D
Acq: 30 Oct 2015 17:10

Tgt Ion:106 Resp: 1105

Ion	Ratio	Lower	Upper
106	100		
91	203.3	164.1	224.1
77	0.0	0.0	53.8

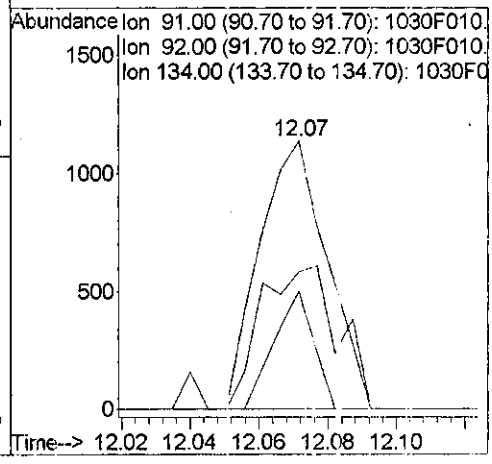


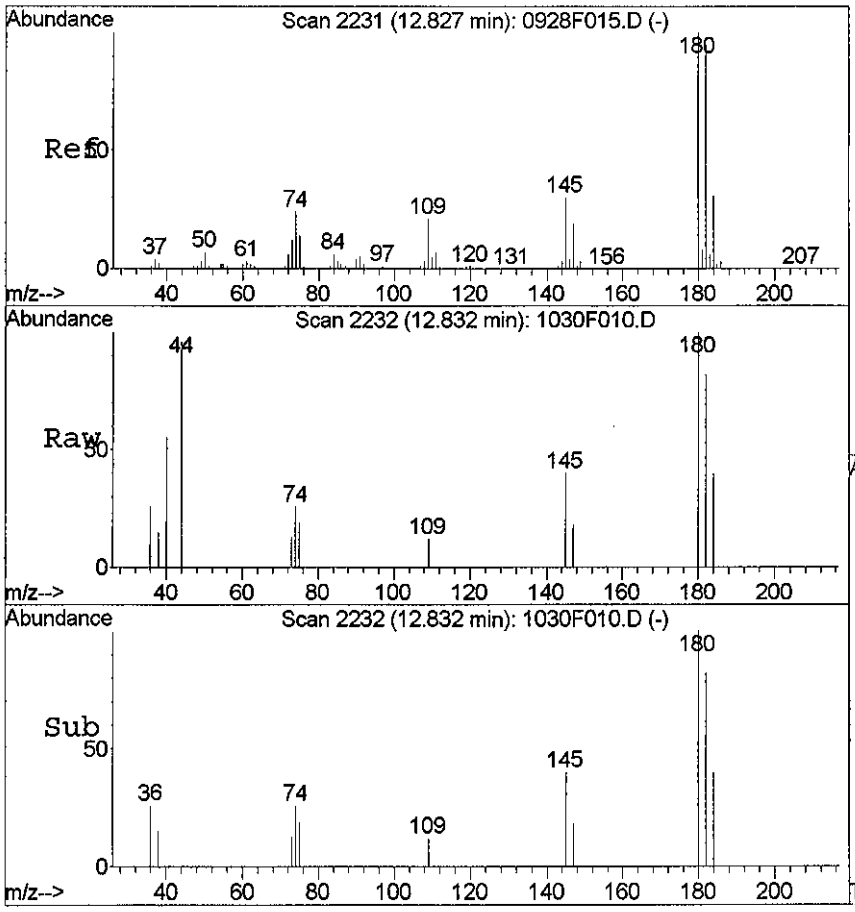


#101
n-Butylbenzene
Concen: 0.03 PPB
RT: 12.07 min Scan# 2087
Delta R.T. 0.01 min
Lab File: 1030F010.D
Acq: 30 Oct 2015 17:10

Tgt Ion: 91 Resp: 1543

Ion	Ratio	Lower	Upper
91	100		
92	51.2	24.6	84.6
134	44.0	0.0	57.3

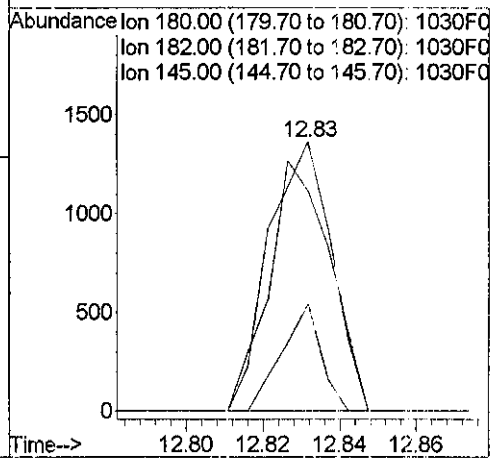


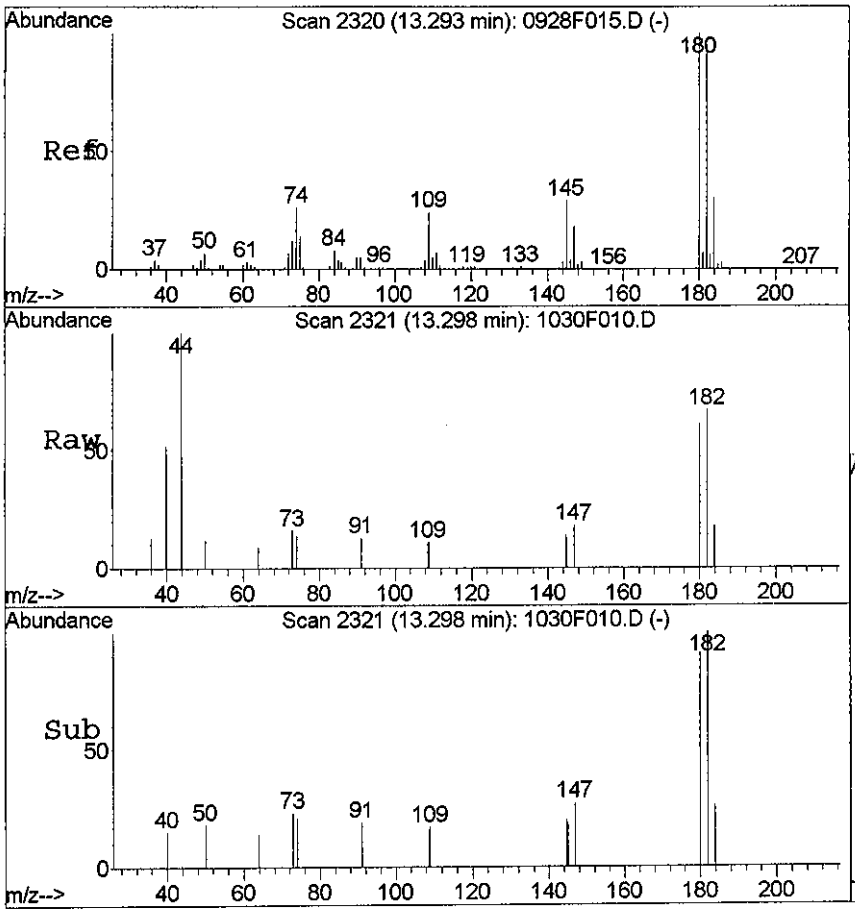


#104
1,3,5-Trichlorobenzene
Concen: 0.06 PPB
RT: 12.83 min Scan# 2232
Delta R.T. 0.01 min
Lab File: 1030F010.D
Acq: 30 Oct 2015 17:10

Tgt Ion:180 Resp: 1552

Ion	Ratio	Lower	Upper
180	100		
182	81.9	65.7	125.7
145	39.8	0.0	59.6

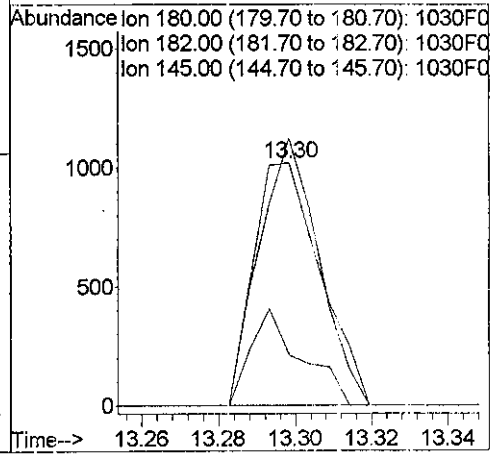


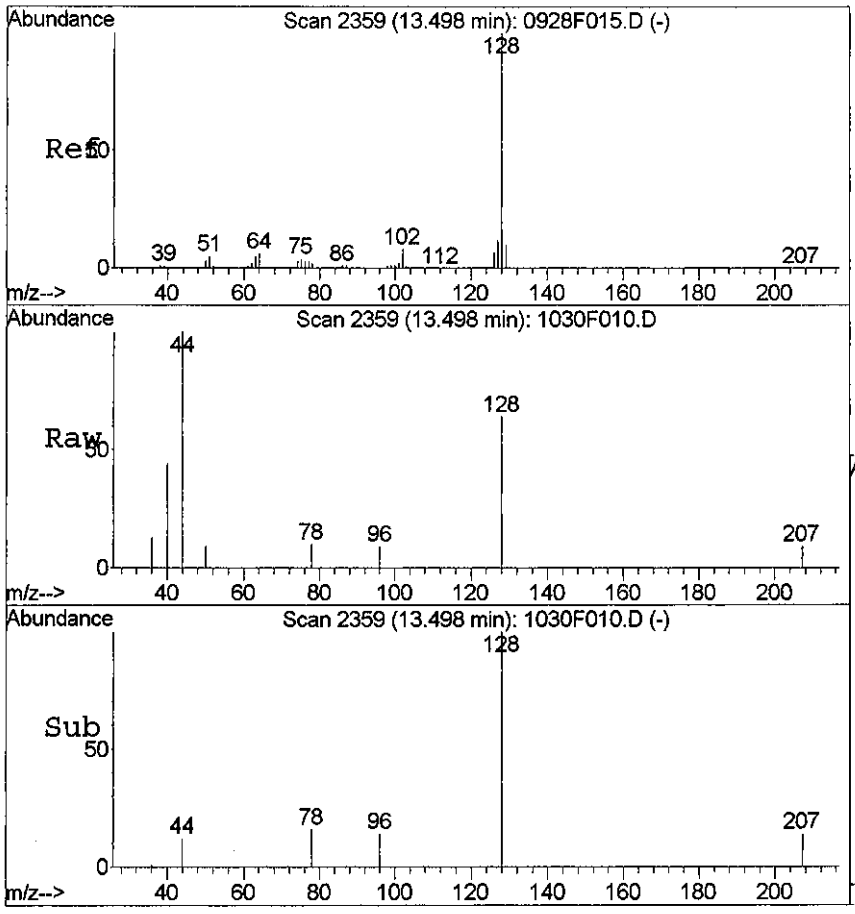


#105
1,2,4-Trichlorobenzene
Concen: 0.06 PPB
RT: 13.30 min Scan# 2321
Delta R.T. 0.01 min
Lab File: 1030F010.D
Acq: 30 Oct 2015 17:10

Tgt Ion:180 Resp: 1237

Ion	Ratio	Lower	Upper
180	100		
182	110.2	64.9	124.9
145	20.8	0.0	59.1

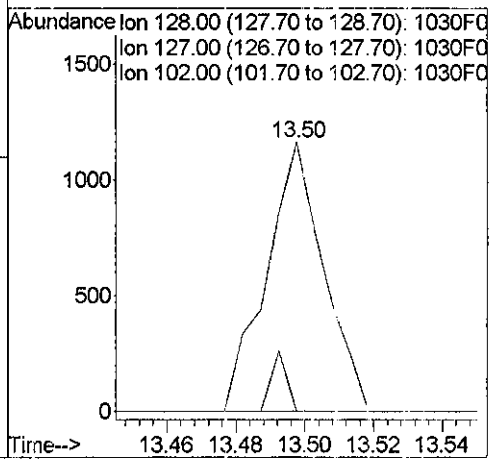


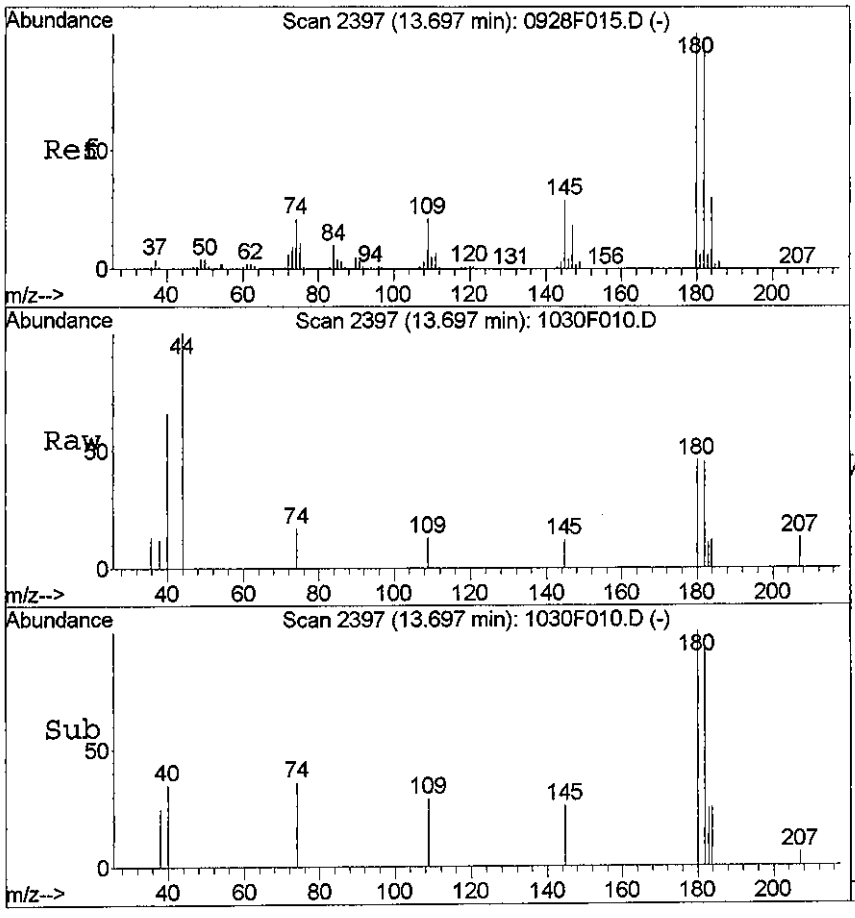


#107
Naphthalene
Concen: 0.03 PPB
RT: 13.50 min Scan# 2359
Delta R.T. -0.00 min
Lab File: 1030F010.D
Acq: 30 Oct 2015 17:10

Tgt Ion:128 Resp: 1341

Ion	Ratio	Lower	Upper
128	100		
127	0.0	0.0	42.1
102	0.0	0.0	38.0

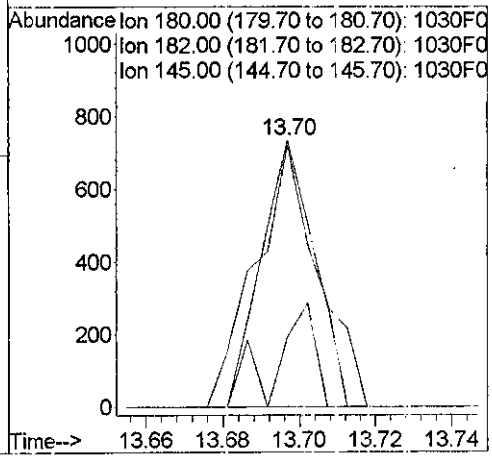




#108
1,2,3-Trichlorobenzene
Concen: 0.04 PPB
RT: 13.70 min Scan# 2397
Delta R.T. -0.00 min
Lab File: 1030F010.D
Acq: 30 Oct 2015 17:10

Tgt Ion:180 Resp: 777

Ion	Ratio	Lower	Upper
180	100		
182	98.1	65.6	125.6
145	26.3	0.0	59.1



Exception Report

Data File: J:\MS18\DATA\103015\1030F008.D
Lab ID: KWG1510605-4
RunType: MB
Matrix: WATER

Date Acquired: 10/30/2015 16:27
Date Quantitated: 10/30/2015 20:09
Batch ID: KWG1510604
Analysis Method: 8260C
MethodJoinID: MJ119

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA		x
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA		x
Continuing Calibration Minimum RF	NA	NA	NA		x
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	2-Propanol	0.0069	0.01	NA	NT
	tert-Butyl Alcohol	0.0090	0.01	NA	
	Isobutyl Alcohol	0.0044	0.01	NA	
	1,4-Dioxane	0.0018	0.01	NA	
Second Source ICAL Verification	Acrolein	-41.7	NA	30	
	Isobutyl Alcohol	133.7	NA	30	
Continuing Calibration Recovery	Chloromethane	41.5	NA	20	Sample < MRL OK
	Bromomethane	-34.8	NA	20	CCV OK
	Carbon Disulfide	-36.7	NA	20	"
	2-Propanol	-22.8	NA	20	NT
	Methyl Acetate	-30.8	NA	20	
	tert-Butyl Alcohol	-35.4	NA	20	
	tert-Butyl Formate	-53.6	NA	20	

Primary Review: 10/30/15

Secondary Review: 11/3/15

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
	cis-1,4-Dichloro-2-butene	-29.2	NA	20	LT
	Naphthalene	-25.3	NA	20	CC VOC
Continuing Calibration Minimum RF	2-Propanol	0.0053	0.01	NA	LT
	tert-Butyl Alcohol	0.0058	0.01	NA	|
	Isobutyl Alcohol	0.0039	0.01	NA	|
	1,4-Dioxane	0.0016	0.01	NA	|

Primary Review: [illegible] 10/30/15

Secondary Review: [illegible]

Quantitation Report

Data File:	J:\MS18\DATA\103015\1030F008.D			**Instrument:**	GC-MS 18
Acqu Date:	10/30/2015 16:27	**Quant Date:**	10/30/2015 20:09	**Vial:**	7
Run Type:	MB			**Dilution:**	1.0
Lab ID:	KWG1510605-4			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**		**Receive Date:**	10/30/2015

Analysis Lot:	KWG1510604	**Prep Lot:**	KWG1510605	**Report Group:**	
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
		Prep Date:	10/30/2015		
Prep Ref:	1479834				

Quant Method:	J:\MS18\METHODS\092815MS18_8	**Calibration ID:**	CAL14315
Title:			
Tune Ref:	J:\MS18\DATA\103015\1030F002.D	**Method ID:**	MJ119
MB Ref:		**Quant based on Method**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.89	0.00	96	650557	10.00	OK
2	Chlorobenzene-d5	9.30	0.00	82	256811	10.00	OK
3	1,4-Dichlorobenzene-d4	11.72	0.00	152	238305	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.06	0.00	0.00	113	132661	9.09	91	73-122	OK	
1	1,2-Dichloroethane-d4	5.54	0.01	0.00	65	150087	9.37	94	59-127	OK	
1	Toluene-d8	7.73	0.00	0.00	98	642300	9.79	98	65-144	OK	
2	4-Bromofluorobenzene	10.55	0.01	0.00	95	223188	9.02	90	68-117	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane				85	0		0.13	U	
1	Chloromethane	1.35		0.00	50	3273	0.1500	0.150	J	
1	Vinyl Chloride				62	0		0.075	U	
1	1,3-Butadiene				54	0		0.50	U	
1	Bromomethane				96	0		0.16	U	
1	Chloroethane				64	0		0.16	U	
1	Dichlorofluoromethane (CFC 21				67	0		0.065	U	
1	Trichlorofluoromethane				101	0		0.12	U	
1	Ethyl Ether				59	0		0.075	U	
1	Acrolein				56	0		1.2	U	
1	Trichlorotrifluoroethane				151	0		0.13	U	
1	1,1-Dichloroethene				96	0		0.080	U	
1	Acetone	2.56	0.02	0.00	43	2498	0.9800	3.3	U	
1	Iodomethane	2.58		0.00	142	1945	0.1000	0.12	U	

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS18\DATA\103015\1030F008.D		**Instrument:** GC-MS 18
Acqu Date:	10/30/2015 16:27	**Quant Date:** 10/30/2015 20:09	**Vial:** 7
Run Type:	MB		**Dilution:** 1.0
Lab ID:	KWG1510605-4		**Soln Conc. Units:** PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Disulfide				76	0d		0.069	U	
1	2-Propanol				45	0		17	U	
1	3-Chloro-1-propene				76	0d		0.094	U	
1	Methyl Acetate				43	0d		0.38	U	
1	Acetonitrile				40	0d		13	U	
1	Methylene Chloride	2.95		0.00	84	1469	0.0700	0.10	U	
1	tert-Butyl Alcohol				59	0		4.4	U	
1	Acrylonitrile				53	0		0.53	U	
1	Methyl tert-Butyl Ether				73	0		0.11	U	
1	trans-1,2-Dichloroethene				96	0		0.072	U	
1	n-Hexane	3.39	0.01	0.00	57	2673	0.1900	0.190	J	
1	Diisopropyl Ether				45	0		0.048	U	
1	1,1-Dichloroethane				63	0		0.077	U	
1	Vinyl Acetate				86	0		0.43	U	
1	Chloroprene				53	0		3.6	U	
1	tert-Butyl Ethyl Ether				59	0		0.048	U	
1	2,2-Dichloropropane				77	0		0.065	U	
1	cis-1,2-Dichloroethene				96	0		0.067	U	
1	2-Butanone (MEK)				72	0		1.9	U	
1	Propionitrile				54	0		1.1	U	
1	Ethyl Acetate				61	0		0.57	U	
1	Methacrylonitrile				67	0		0.35	U	
1	Bromochloromethane				128	0		0.16	U	
1	Tetrahydrofuran				71	0		5.0	U	
1	Chloroform	4.83		0.00	83	2818	0.1000	0.100	J	
1	tert-Butyl Formate				59	0		0.26	U	
1	1,1,1-Trichloroethane (TCA)				97	0		0.075	U	
1	Carbon Tetrachloride				117	0		0.096	U	
1	1,1-Dichloropropene				75	0		0.089	U	
1	Cyclohexane				56	0		0.36	U	
1	Isobutyl Alcohol				43	0d		6.9	U	
1	Benzene				78	0d		0.062	U	
1	1,2-Dichloroethane (EDC)				62	0		0.080	U	
1	tert-Amyl Methyl Ether				55	0d		0.12	U	
1	Trichloroethene (TCE)				95	0		0.10	U	
1	1,2-Dichloropropane				63	0		0.095	U	
1	Dibromomethane				93	0		0.15	U	
1	Methyl Methacrylate				69	0		0.13	U	
1	1,4-Dioxane				88	0		14	U	
1	Bromodichloromethane				83	0		0.091	U	
1	2-Nitropropane				41	0d		0.96	U	
1	Methylcyclohexane				83	0		0.33	U	

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS18\DATA\103015\1030F008.D		**Instrument:** GC-MS 18
Acqu Date:	10/30/2015 16:27	**Quant Date:** 10/30/2015 20:09	**Vial:** 7
Run Type:	MB		**Dilution:** 1.0
Lab ID:	KWG1510605-4		**Soln Conc. Units:** PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	2-Chloroethyl Vinyl Ether				63	0		0.16	U	
1	cis-1,3-Dichloropropene				75	0		0.18	U	
1	4-Methyl-2-pentanone (MIBK)				58	0d		2.6	U	
1	Toluene	7.80		0.00	92	2476	0.0500	0.054	U	
2	n-Octane				85	0		0.16	U	
2	trans-1,3-Dichloropropene				75	0		0.068	U	
2	Ethyl Methacrylate				69	0		0.15	U	
2	1,1,2-Trichloroethane				83	0		0.14	U	
2	Tetrachloroethene (PCE)				164	0		0.099	U	
2	2-Hexanone				57	0		2.7	U	
2	1,3-Dichloropropane				76	0		0.14	U	
2	Dibromochloromethane				129	0		0.14	U	
2	1,2-Dibromoethane (EDB)				107	0		0.10	U	
2	1-Chlorohexane				91	0d		0.058	U	
2	Chlorobenzene				112	0d		0.11	U	
2	Ethylbenzene	9.42		0.00	106	869	0.0300	0.050	U	
2	1,1,1,2-Tetrachloroethane				131	0		0.11	U	
2	m,p-Xylenes	9.55		0.00	106	1536	0.0500	0.13	U	
2	o-Xylene				106	0d		0.074	U	
2	Styrene				103	0		0.089	U	
2	Bromoform				173	0		0.16	U	
2	Isopropylbenzene				105	0d		0.051	U	
2	cis-1,4-Dichloro-2-butene				89	0		1.4	U	
3	1,1,2,2-Tetrachloroethane				83	0		0.16	U	
3	trans-1,4-Dichloro-2-butene				53	0		0.35	U	
3	Bromobenzene				156	0		0.12	U	
3	n-Propylbenzene	10.77		0.00	91	2925	0.0300	0.054	U	
3	1,2,3-Trichloropropane				110	0		0.20	U	
3	2-Chlorotoluene	10.87		0.00	91	1563	0.0300	0.10	U	
3	1,3,5-Trimethylbenzene	10.97	0.01	0.00	105	1733	0.0300	0.089	U	
3	4-Chlorotoluene	10.99		0.00	91	2127	0.0300	0.13	U	
3	tert-Butylbenzene				119	0d		0.059	U	
3	1,2,4-Trimethylbenzene	11.34		0.00	105	2197	0.0300	0.069	U	
3	sec-Butylbenzene	11.51	0.01	0.00	105	2026	0.0300	0.062	U	
3	4-Isopropyltoluene	11.66		0.00	119	1969	0.0300	0.060	U	
3	1,3-Dichlorobenzene	11.64		0.00	146	1967	0.0500	0.10	U	
3	1,4-Dichlorobenzene	11.75	0.01	0.00	146	2194	0.0500	0.12	U	
3	n-Butylbenzene	12.07		0.00	91	3184	0.0500	0.054	U	
3	1,2-Dichlorobenzene	12.12		0.00	146	1475	0.0400	0.12	U	
3	1,2-Dibromo-3-chloropropane				155	0		0.22	U	
3	1,3,5-Trichlorobenzene	12.83		0.00	180	2984	0.1200	0.120	J	
3	1,2,4-Trichlorobenzene	13.30		0.00	180	2686	0.1200	0.120	J	

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS18\DATA\103015\1030F008.D			**Instrument:**	GC-MS 18
Acqu Date:	10/30/2015 16:27	**Quant Date:**	10/30/2015 20:09	**Vial:**	7
Run Type:	MB			**Dilution:**	1.0
Lab ID:	KWG1510605-4			**Soln Conc. Units:**	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Hexachlorobutadiene	13.39		0.00	225	1365	0.1700	0.170	J	
3	Naphthalene	13.50		0.00	128	2790	0.0600	0.083	U	
3	1,2,3-Trichlorobenzene	13.69		0.00	180	1928	0.1100	0.110	J	
	Benzyl Chloride				0	0		1.0	U	NR
	Isopropyl Acetate				0	0		20	U	NR
	Cyclohexanone				0	0		1.0	U	NR
	2-Ethoxyethanol				0	0		1.0	U	NR
	Bis(2-chloroethyl) Ether				0	0		20	U	NR
	beta-Pinene				0	0		1.0	U	NR
	1,1,2-Trifluoroethane				0	0		1.0	U	NR
	2,2,4-Trimethylpentane				0	0		1.0	U	NR
	Bis(chloromethyl) Ether				0	0		1.0	U	NR
	Amyl Acetate				0	0		20	U	NR
	Bromoethane				0	0		1.0	U	NR
	Pentachloroethane				0	0		5.0	U	NR
	1,1-Dichloropropane				0	0		1.0	U	NR
	alpha-Pinene				0	0		1.0	U	NR
	1,1,1,2-Tetrafluoroethane				0	0		1.0	U	NR
	Nitrobenzene				0	0		20	U	NR

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\103015\1030F008.D Vial: 7
Acq On : 30 Oct 2015 16:27 Operator: YX/KR
Sample : MB Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 20:05:59 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration
DataAcq Meth : 8260

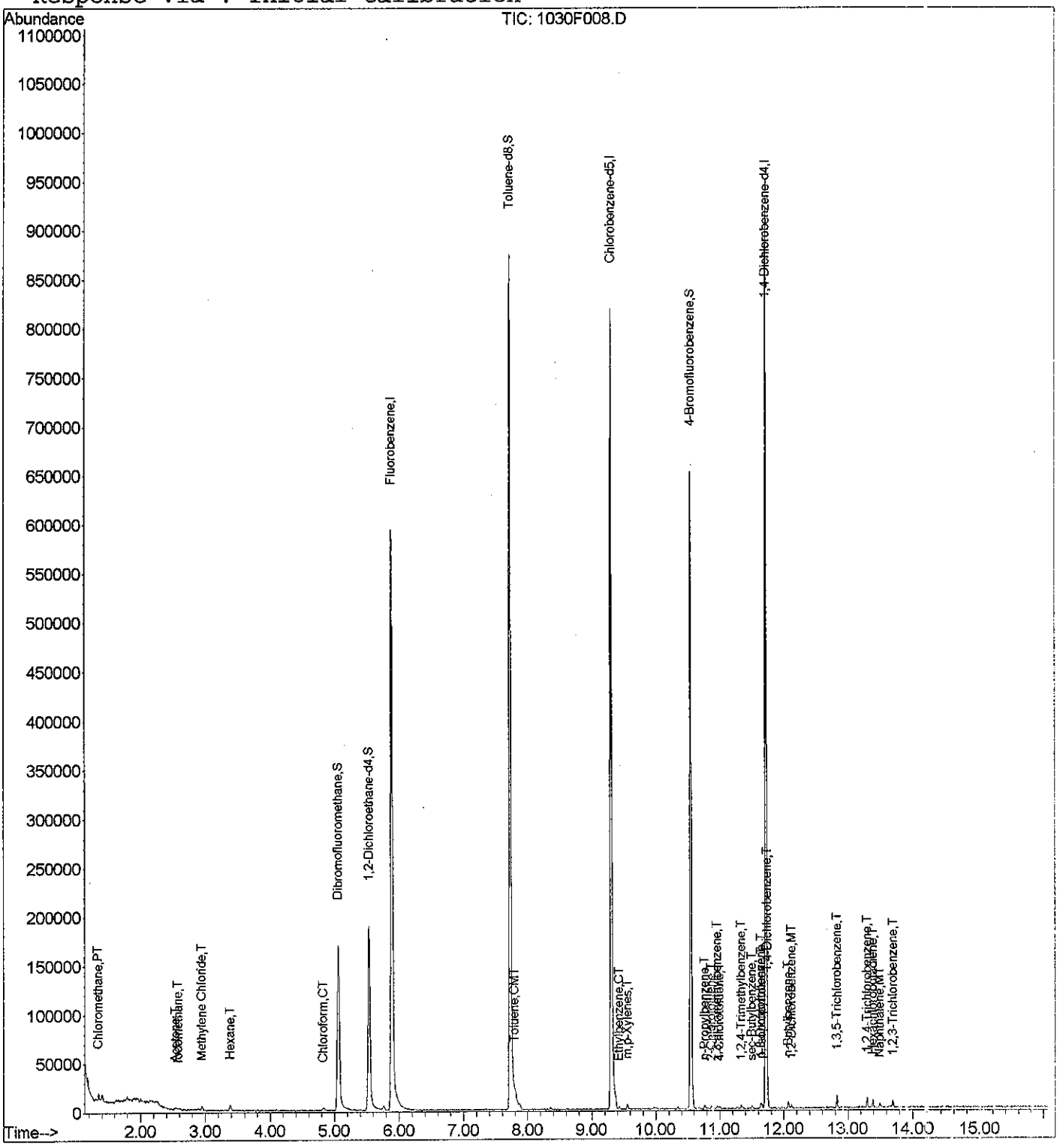
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	5.89	96	650557	10.00	PPB		0.00
65) Chlorobenzene-d5	9.30	82	256811	10.00	PPB		0.00
86) 1,4-Dichlorobenzene-d4	11.72	152	238305	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.06	113	132661	9.09	PPB		0.00
Spiked Amount 10.000			Recovery =	90.90%			
48) 1,2-Dichloroethane-d4	5.54	65	150087	9.37	PPB		0.00
Spiked Amount 10.000			Recovery =	93.70%			
63) Toluene-d8	7.73	98	642300	9.79	PPB		0.00
Spiked Amount 10.000			Recovery =	97.90%			
85) 4-Bromofluorobenzene	10.55	95	223188	9.02	PPB		0.00
Spiked Amount 10.000			Recovery =	90.20%			
Target Compounds							Qvalue
3) Chloromethane	1.35	50	3273	0.15	PPB		99
14) Acetone	2.56	43	2498	0.98	PPB		86
15) Iodomethane	2.58	142	1945	0.10	PPB		84
21) Methylene Chloride	2.95	84	1469	0.07	PPB		83
26) Hexane	3.39	57	2673	0.19	PPB		92
40) Chloroform	4.83	83	2818	0.10	PPB		93
64) Toluene	7.80	92	2476	0.05	PPB		90
77) Ethylbenzene	9.42	106	869	0.03	PPB	#	67
79) m,p-Xylenes	9.55	106	1536	0.05	PPB		96
90) n-Propylbenzene	10.77	91	2925	0.03	PPB		86
92) 2-Chlorotoluene	10.87	91	1563	0.03	PPB		90
93) 1,3,5-Trimethylbenzene	10.97	105	1733	0.03	PPB		82
94) 4-Chlorotoluene	10.99	91	2127	0.03	PPB		84
96) 1,2,4-Trimethylbenzene	11.34	105	2197	0.03	PPB		87
97) sec-Butylbenzene	11.51	105	2026	0.03	PPB		93
98) p-Isopropyltoluene	11.66	119	1969	0.03	PPB		85
99) 1,3-Dichlorobenzene	11.64	146	1967	0.05	PPB		91
100) 1,4-Dichlorobenzene	11.75	146	2194	0.05	PPB		91
101) n-Butylbenzene	12.07	91	3184	0.05	PPB		84
102) 1,2-Dichlorobenzene	12.12	146	1475	0.04	PPB		86
104) 1,3,5-Trichlorobenzene	12.83	180	2984	0.12	PPB		99
105) 1,2,4-Trichlorobenzene	13.30	180	2686	0.12	PPB		88
106) Hexachlorobutadiene	13.39	225	1365	0.17	PPB		87
107) Naphthalene	13.50	128	2790	0.06	PPB		96
108) 1,2,3-Trichlorobenzene	13.69	180	1928	0.11	PPB		79

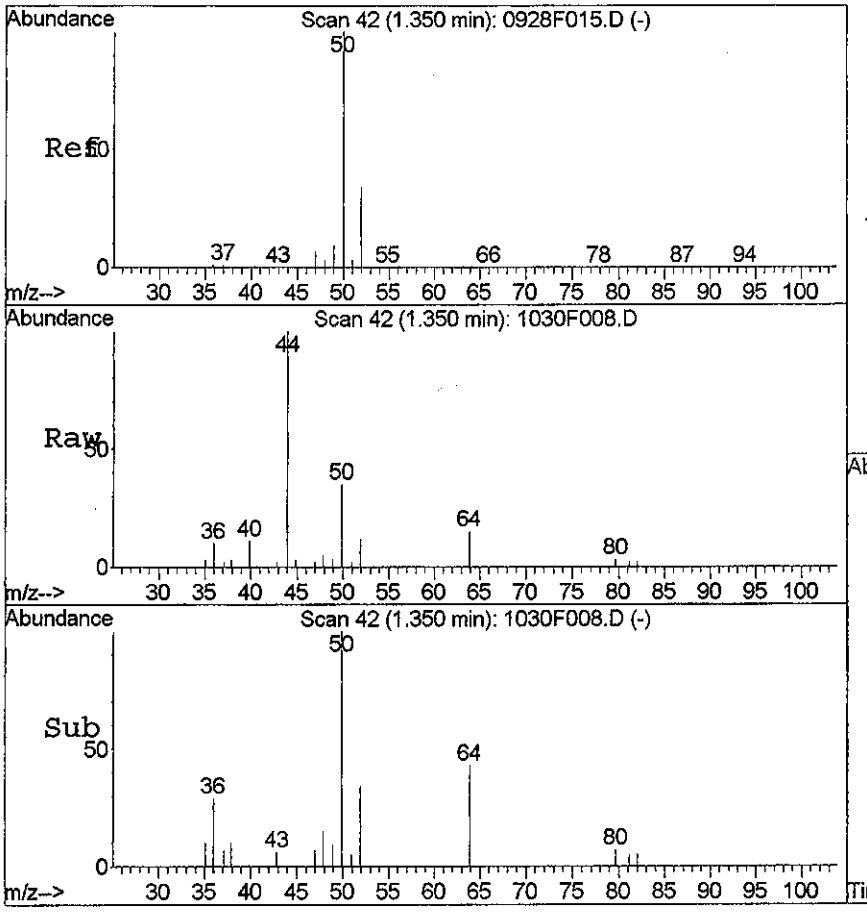
(#) = qualifier out of range (m) = manual integration
1030F008.D 092815MS18_8260.M Fri Oct 30 20:22:15 2015 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\103015\1030F008.D Vial: 7
Acq On : 30 Oct 2015 16:27 Operator: YX/KR
Sample : MB Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 20:09 2015 Quant Results File: 092815MS18_8

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration

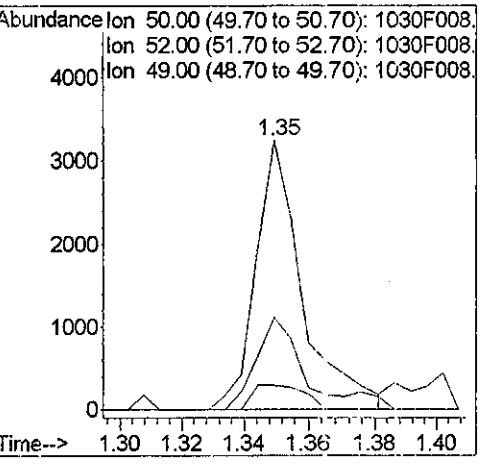


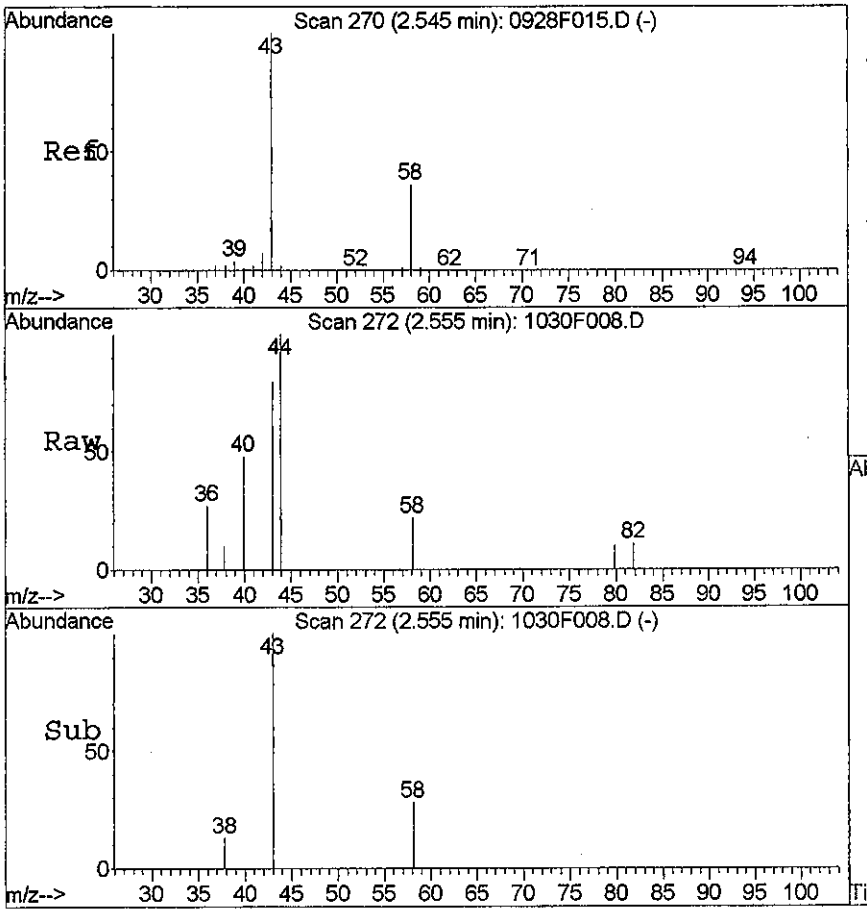


#3
Chloromethane
Concen: 0.15 PPB
RT: 1.35 min Scan# 42
Delta R.T. 0.00 min
Lab File: 1030F008.D
Acq: 30 Oct 2015 16:27

Tgt Ion: 50 Resp: 3273

Ion	Ratio	Lower	Upper
50	100		
52	34.4	3.5	63.5
49	9.1	0.0	39.3

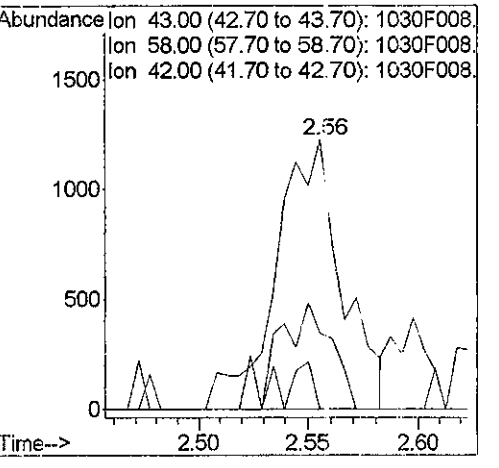


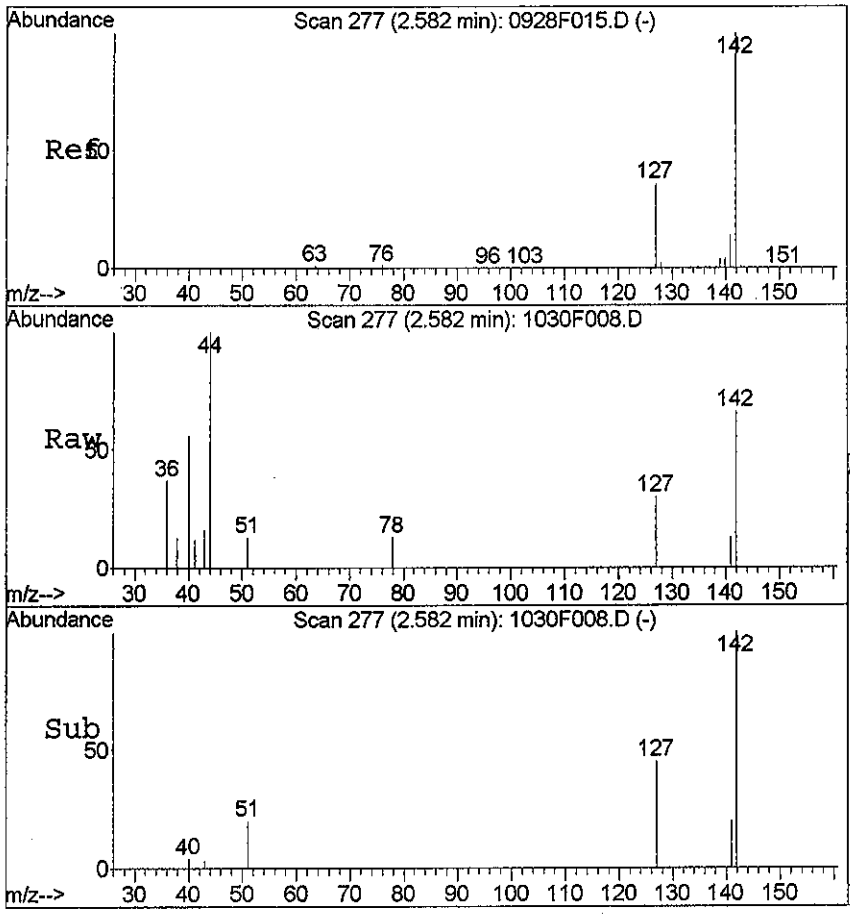


#14
Acetone
Concen: 0.98 PPB
RT: 2.56 min Scan# 272
Delta R.T. 0.01 min
Lab File: 1030F008.D
Acq: 30 Oct 2015 16:27

Tgt Ion: 43 Resp: 2498

Ion	Ratio	Lower	Upper
43	100		
58	28.1	5.9	65.9
42	0.0	0.0	36.7



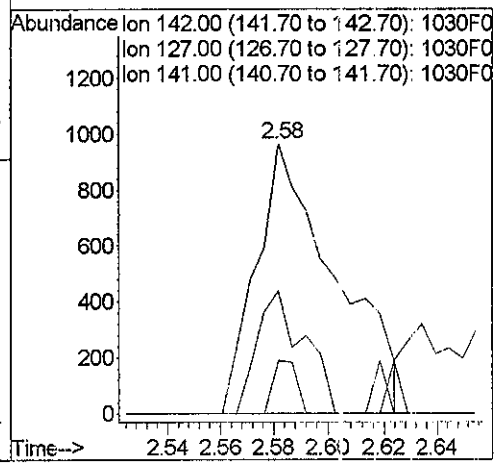


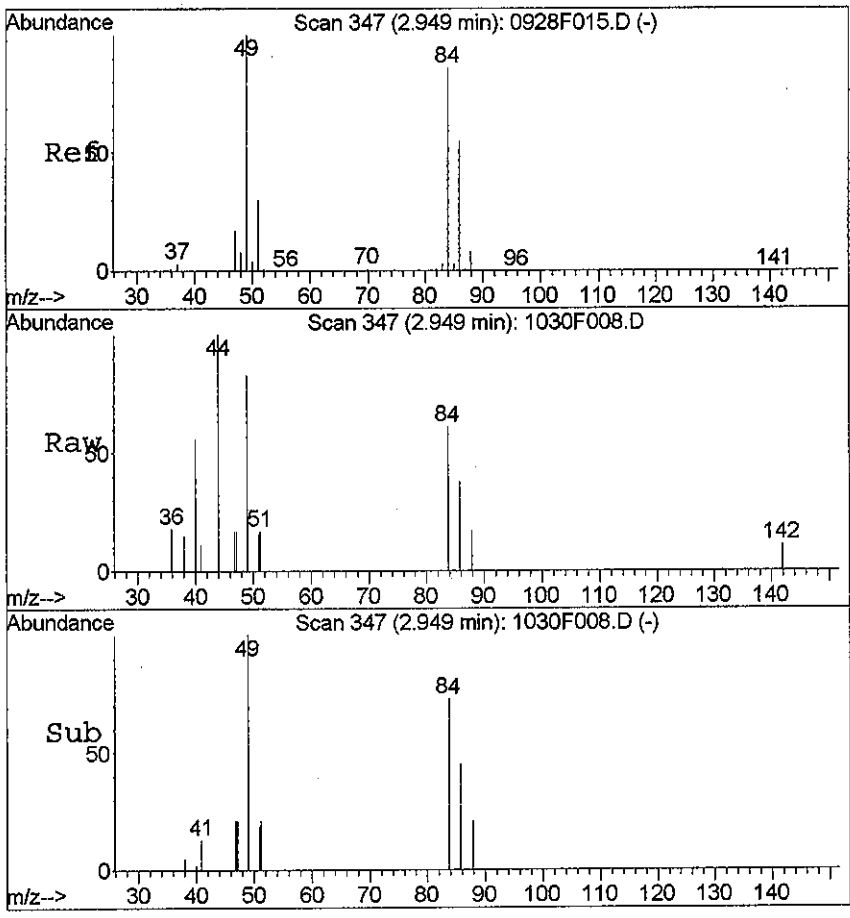
#15
Iodomethane
Concen: 0.10 PPB
RT: 2.58 min Scan# 277
Delta R.T. 0.00 min
Lab File: 1030F008.D
Acq: 30 Oct 2015 16:27

deleted for TICs MG 11/2/15

Tgt Ion:142 Resp: 1945

Ion	Ratio	Lower	Upper
142	100		
127	45.4	5.6	65.6
141	19.6	0.0	43.6

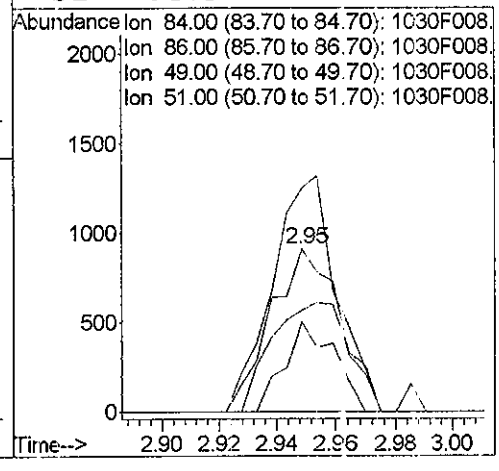


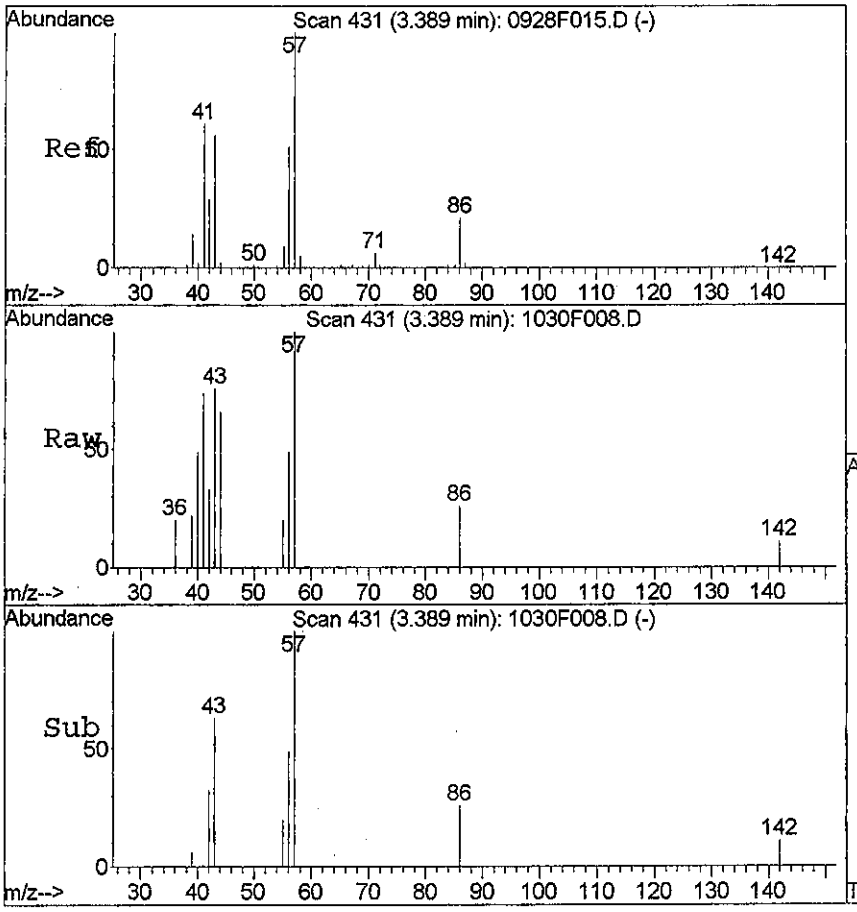


#21
Methylene Chloride
Concen: 0.07 PPB
RT: 2.95 min Scan# 347
Delta R.T. 0.00 min
Lab File: 1030F008.D
Acq: 30 Oct 2015 16:27

Tgt Ion: 84 Resp: 1469

Ion	Ratio	Lower	Upper
84	100		
86	62.2	34.2	94.2
49	136.8	85.9	145.9
51	54.9	4.3	64.3



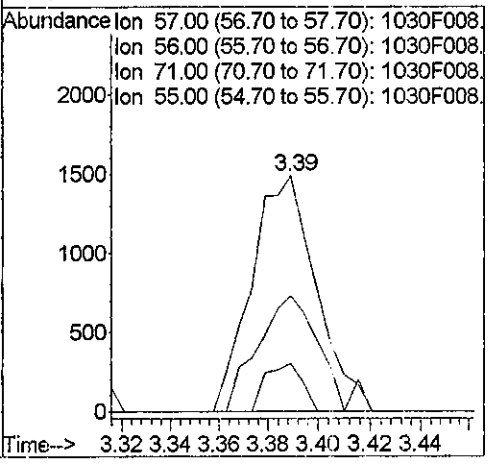


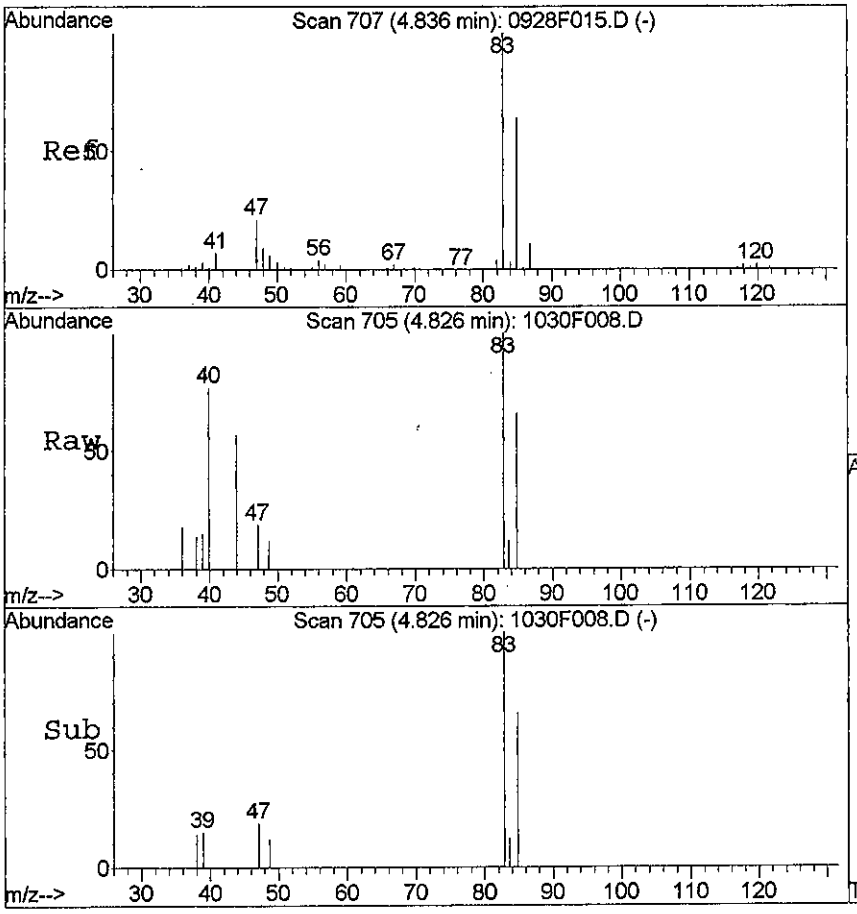
#26
Hexane
Concen: 0.19 PPB
RT: 3.39 min Scan# 431
Delta R.T. 0.00 min
Lab File: 1030F008.D
Acq: 30 Oct 2015 16:27

deleted for TICs MP 11/2/15

Tgt Ion: 57 Resp: 2673

Ion	Ratio	Lower	Upper
57	100		
56	49.1	21.3	81.3
71	0.0	0.0	36.0
55	20.4	0.0	39.1

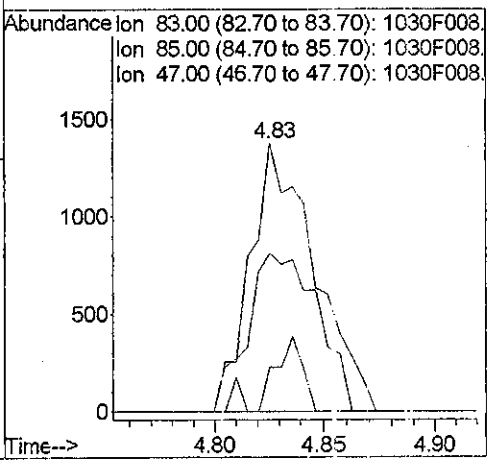


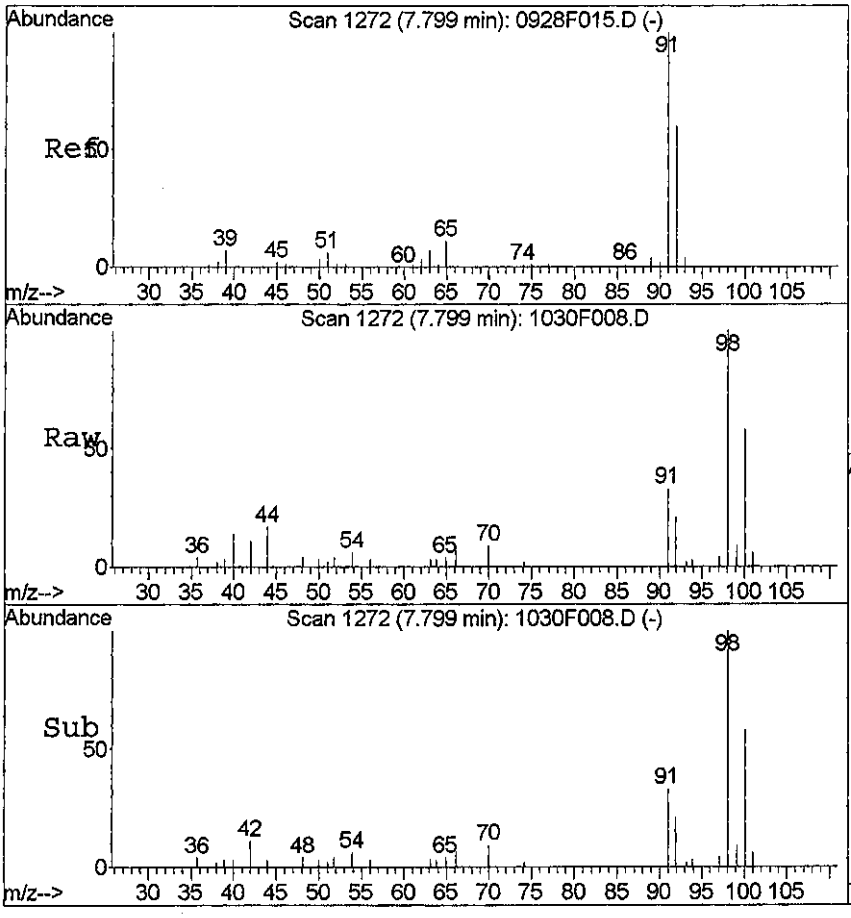


#40
Chloroform
Concen: 0.10 PPB
RT: 4.83 min Scan# 705
Delta R.T. -0.01 min
Lab File: 1030F008.D
Acq: 30 Oct 2015 16:27

Tgt Ion: 83 Resp: 2818

Ion	Ratio	Lower	Upper
83	100		
85	58.9	34.3	94.3
47	16.5	0.0	50.8

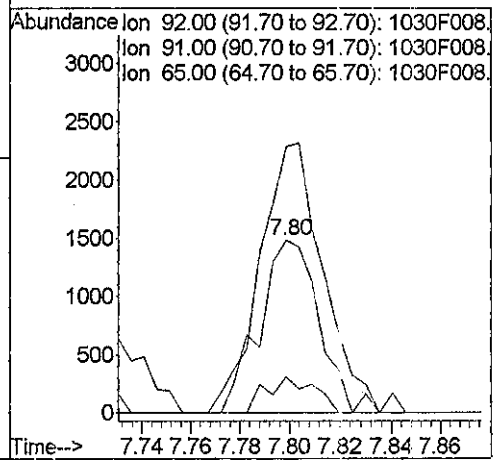


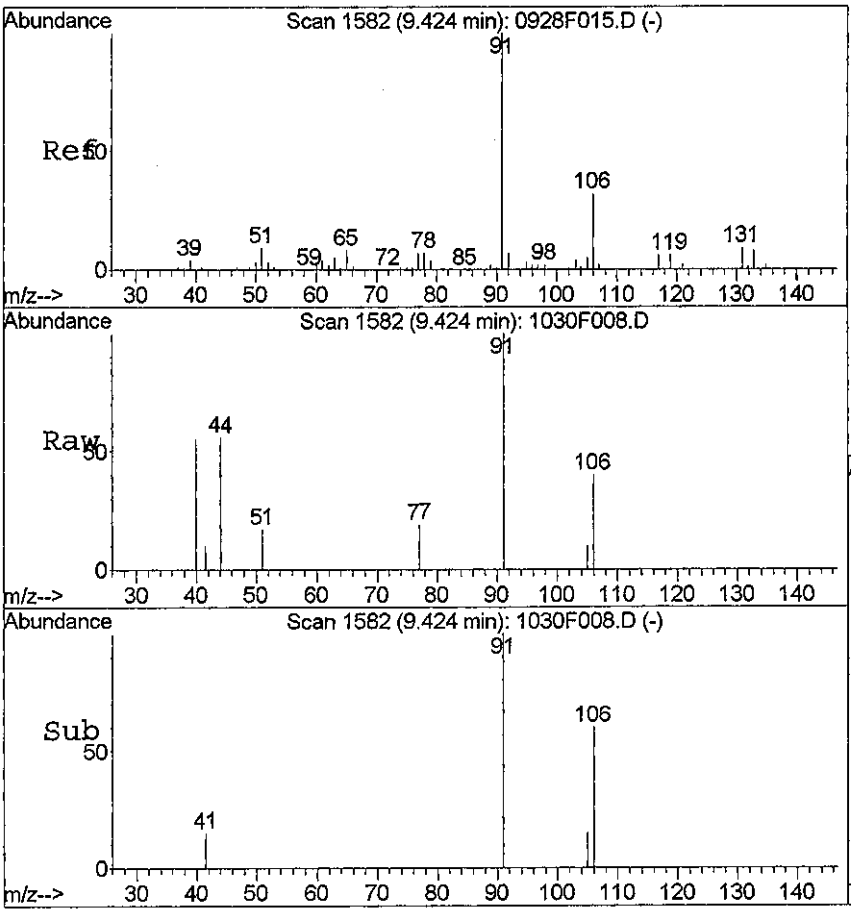


#64
Toluene
Concen: 0.05 PPB
RT: 7.80 min Scan# 1272
Delta R.T. 0.00 min
Lab File: 1030F008.D
Acq: 30 Oct 2015 16:27

Tgt Ion: 92 Resp: 2476

Ion	Ratio	Lower	Upper
92	100		
91	153.9	137.9	197.9
65	20.9	0.0	47.8

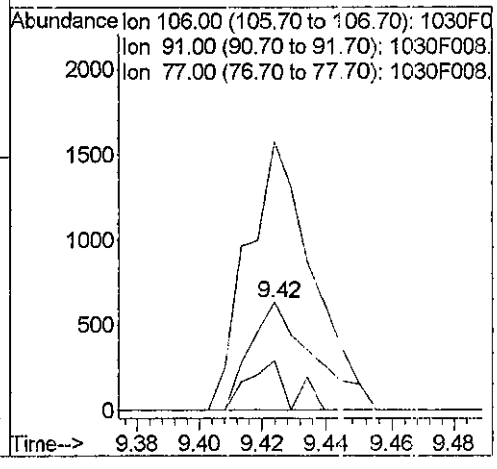


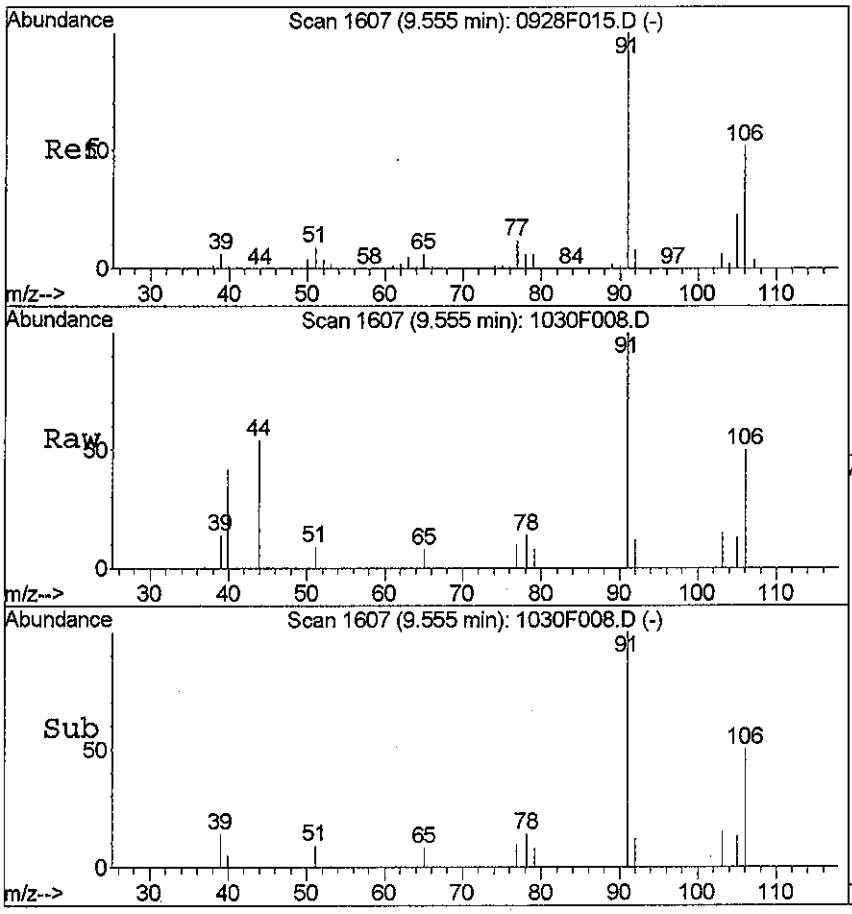


#77
Ethylbenzene
Concen: 0.03 PPB
RT: 9.42 min Scan# 1582
Delta R.T. 0.00 min
Lab File: 1030F008.D
Acq: 30 Oct 2015 16:27

Tgt Ion:106 Resp: 869

Ion	Ratio	Lower	Upper
106	100		
91	248.0	282.0	342.0#
77	45.9	0.0	54.7

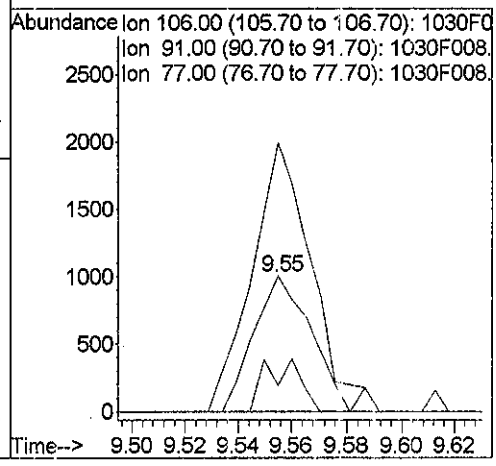


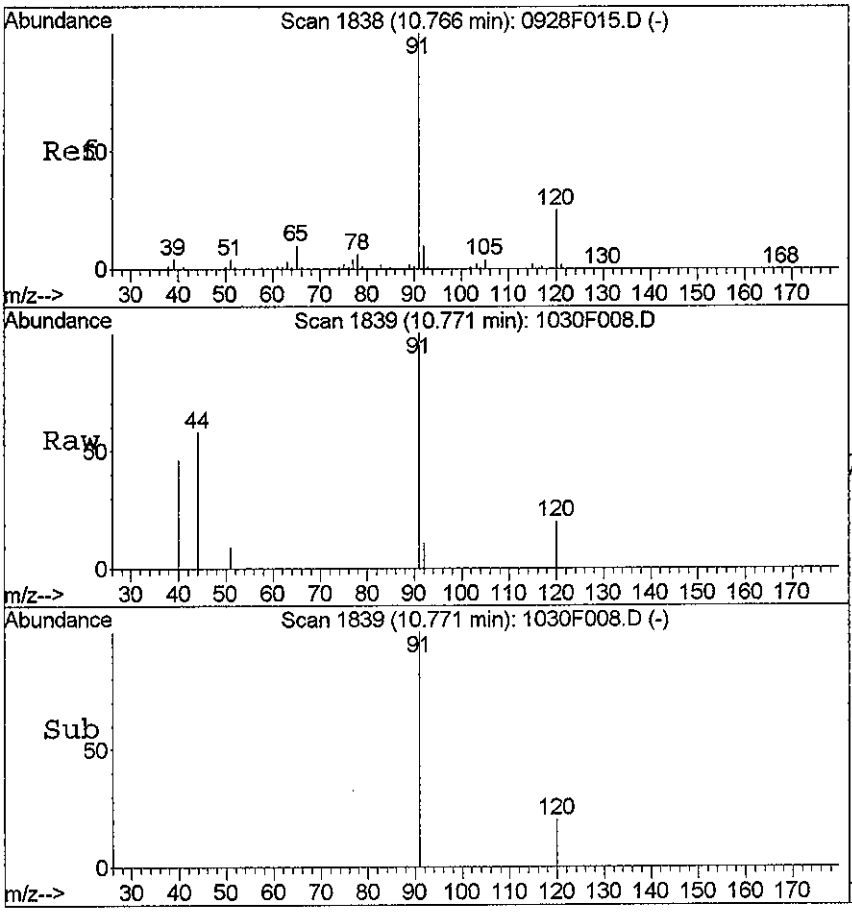


#79
m,p-Xylenes
Concen: 0.05 PPB
RT: 9.55 min Scan# 1607
Delta R.T. 0.00 min
Lab File: 1030F008.D
Acq: 30 Oct 2015 16:27

Tgt Ion:106 Resp: 1536

Ion	Ratio	Lower	Upper
106	100		
91	198.8	164.1	224.1
77	19.5	0.0	53.8

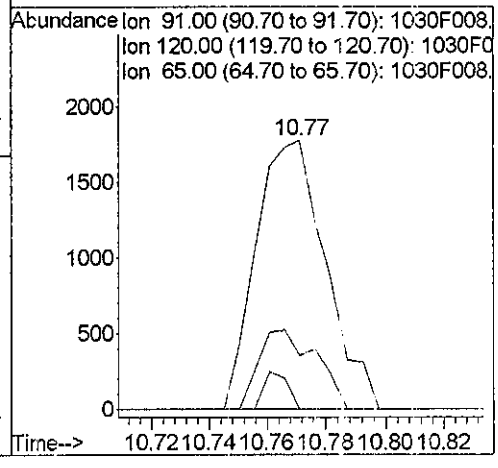


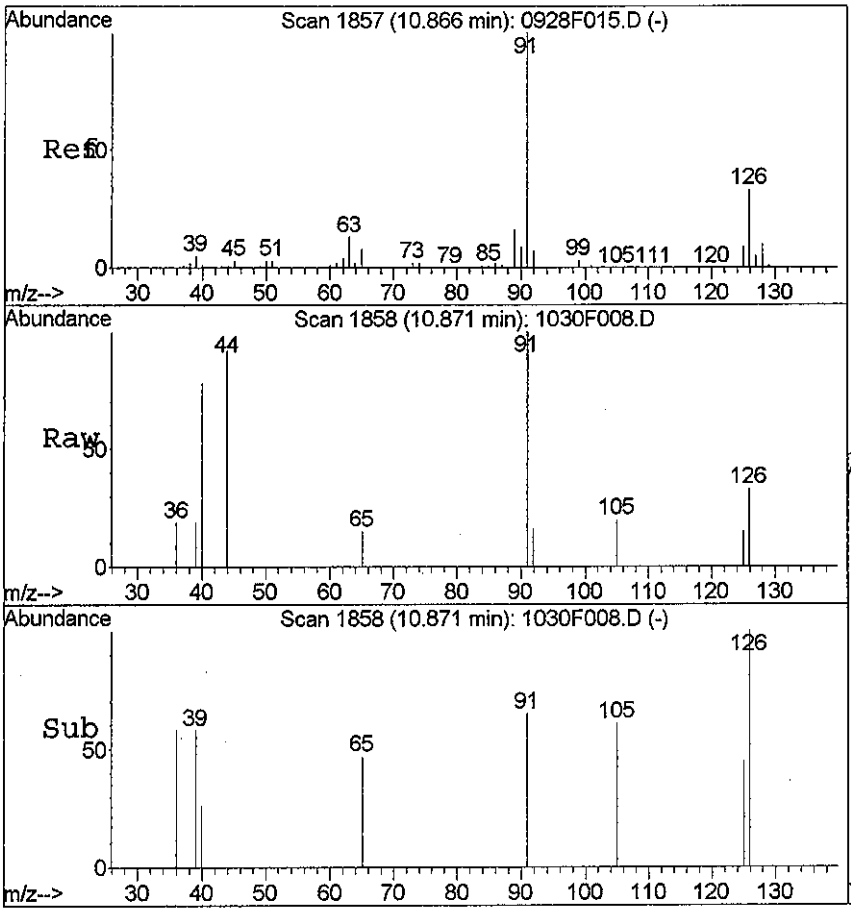


#90
n-Propylbenzene
Concen: 0.03 PPB
RT: 10.77 min Scan# 1839
Delta R.T. 0.01 min
Lab File: 1030F008.D
Acq: 30 Oct 2015 16:27

Tgt Ion: 91 Resp: 2925

Ion	Ratio	Lower	Upper
91	100		
120	20.0	0.0	54.8
65	0.0	0.0	39.6

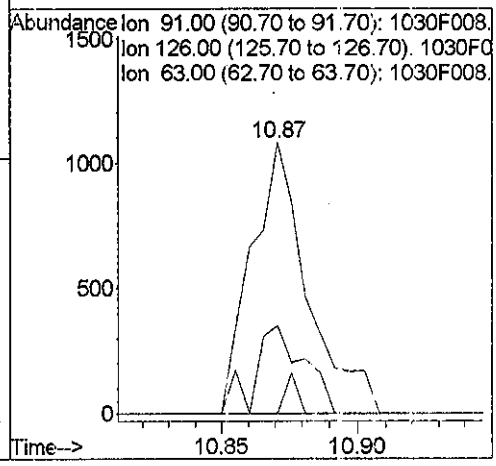


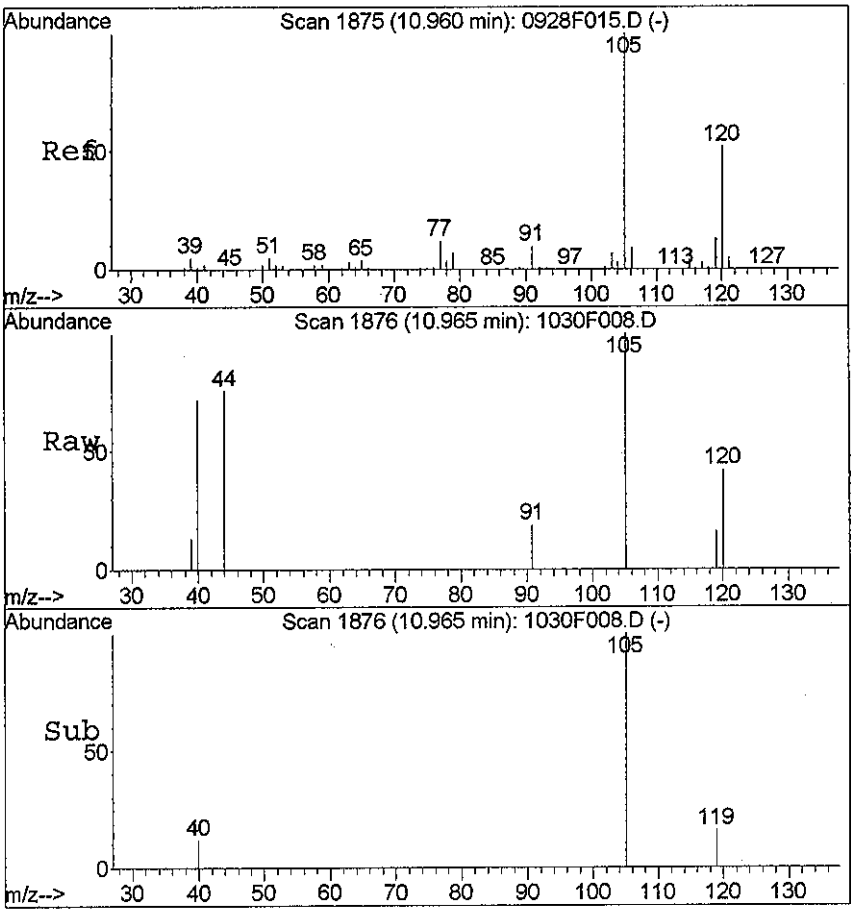


#92
2-Chlorotoluene
Concen: 0.03 PPB
RT: 10.87 min Scan# 1858
Delta R.T. 0.01 min
Lab File: 1030F008.D
Acq: 30 Oct 2015 16:27

Tgt Ion: 91 Resp: 1563

Ion	Ratio	Lower	Upper
91	100		
126	32.5	3.3	63.3
63	0.0	0.0	42.6

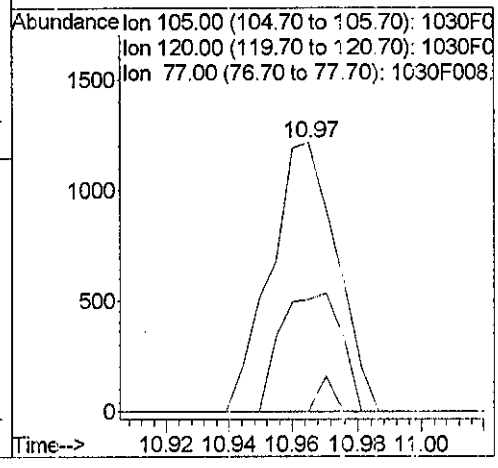


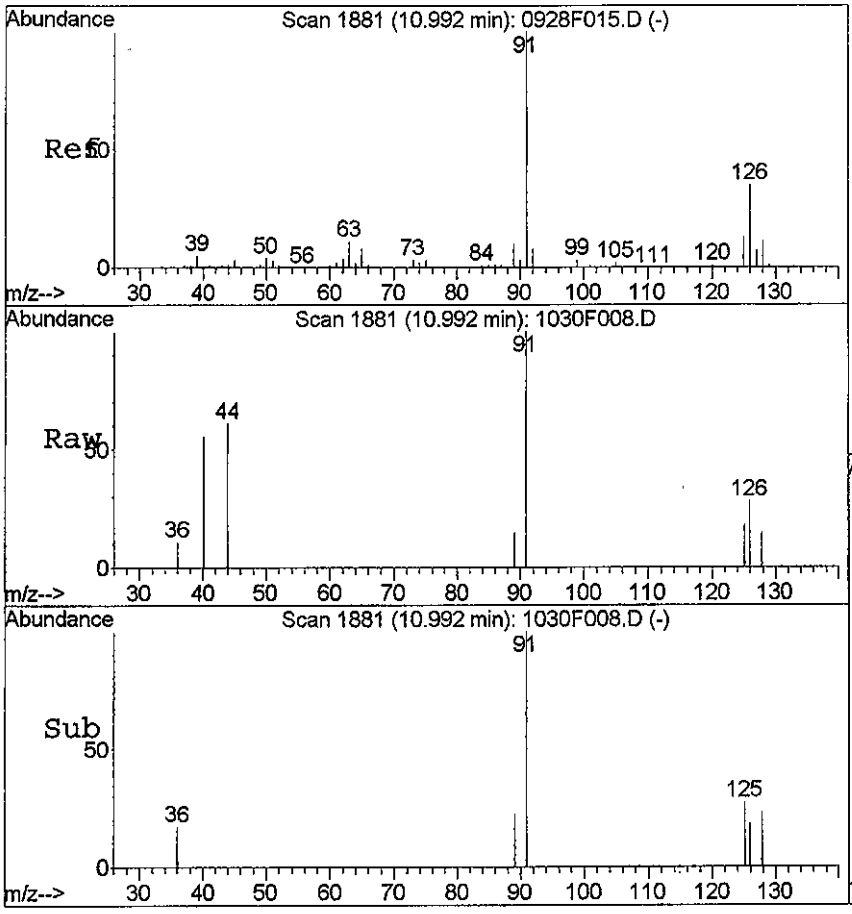


#93
1,3,5-Trimethylbenzene
Concen: 0.03 PPB
RT: 10.97 min Scan# 1876
Delta R.T. 0.01 min
Lab File: 1030F008.D
Acq: 30 Oct 2015 16:27

Tgt Ion:105 Resp: 1733

Ion	Ratio	Lower	Upper
105	100		
120	41.6	22.0	82.0
77	0.0	0.0	41.8

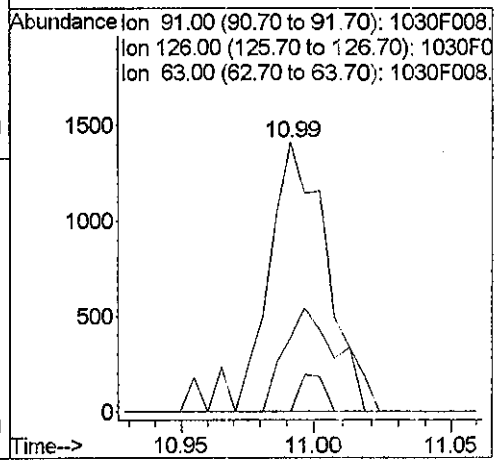


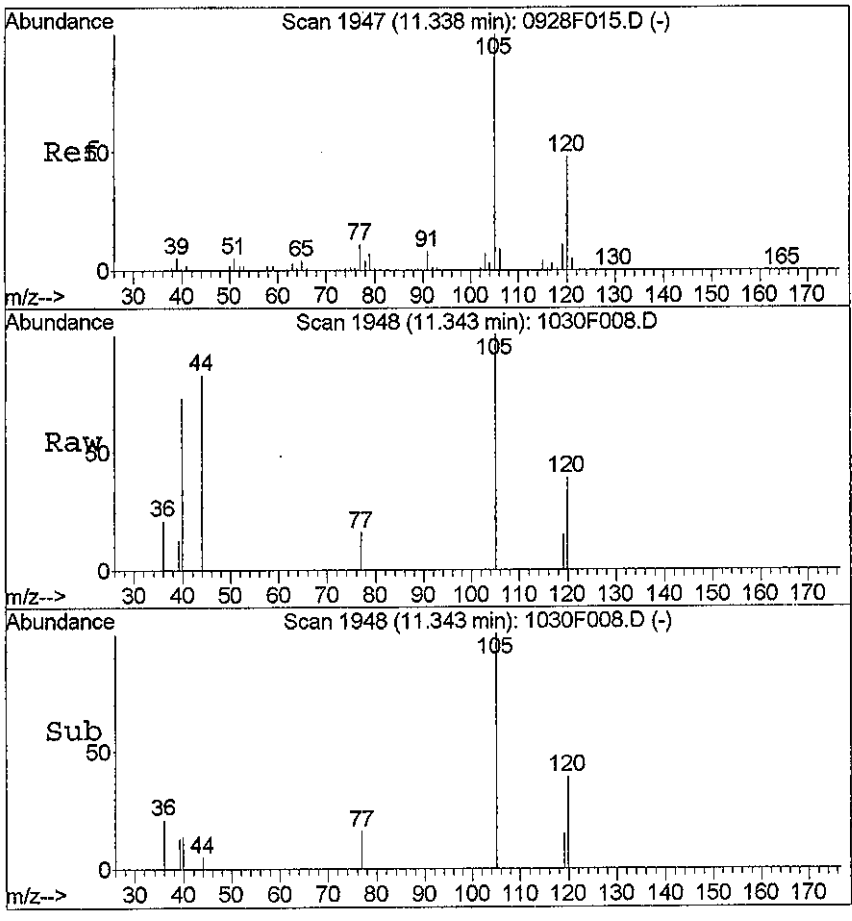


#94
4-Chlorotoluene
Concen: 0.03 PPB
RT: 10.99 min Scan# 1881
Delta R.T. 0.00 min
Lab File: 1030F008.D
Acq: 30 Oct 2015 16:27

Tgt Ion: 91 Resp: 2127

Ion	Ratio	Lower	Upper
91	100		
126	27.6	4.7	64.7
63	0.0	0.0	40.7

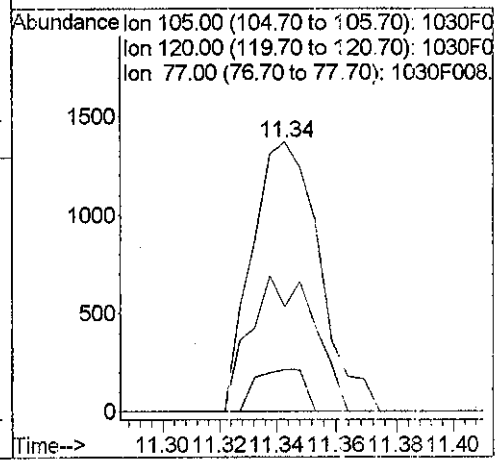


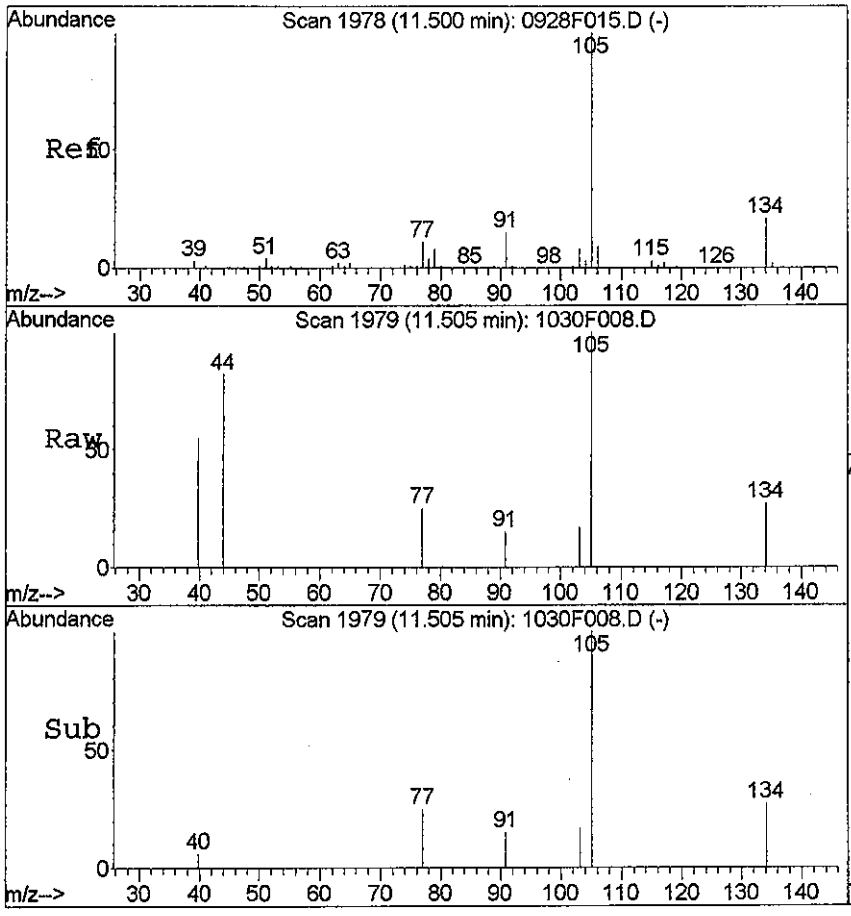


#96
1,2,4-Trimethylbenzene
Concen: 0.03 PPB
RT: 11.34 min Scan# 1948
Delta R.T. 0.01 min
Lab File: 1030F008.D
Acq: 30 Oct 2015 16:27

Tgt Ion:105 Resp: 2197

Ion	Ratio	Lower	Upper
105	100		
120	38.9	18.3	78.3
77	15.6	0.0	41.6

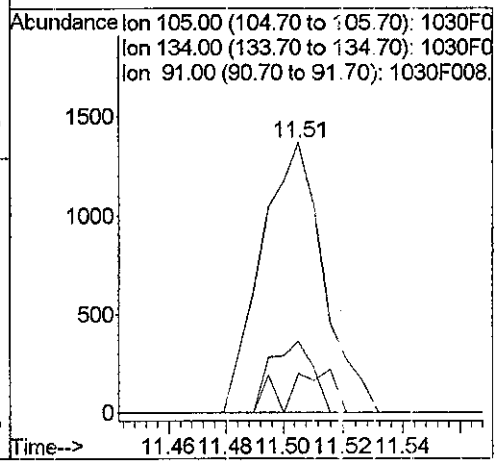


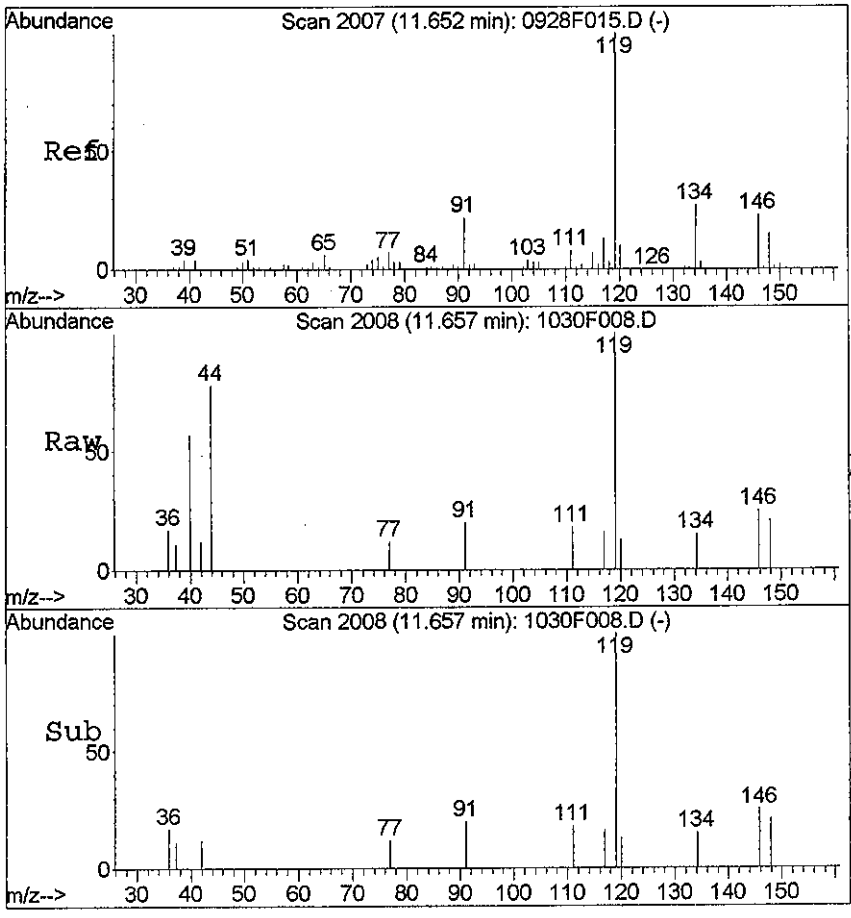


#97
sec-Butylbenzene
Concen: 0.03 PPB
RT: 11.51 min Scan# 1979
Delta R.T. 0.01 min
Lab File: 1030F008.D
Acq: 30 Oct 2015 16:27

Tgt Ion:105 Resp: 2026

Ion	Ratio	Lower	Upper
105	100		
134	26.6	0.0	51.2
91	14.6	0.0	44.7

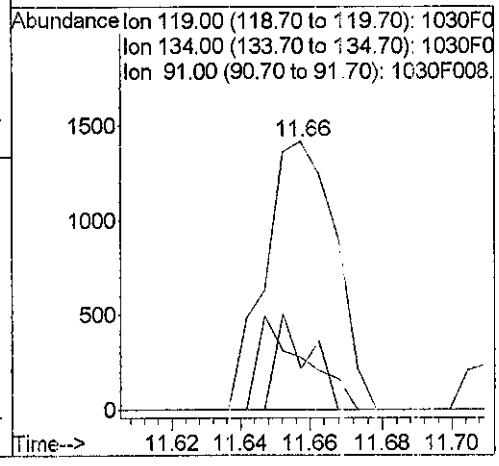


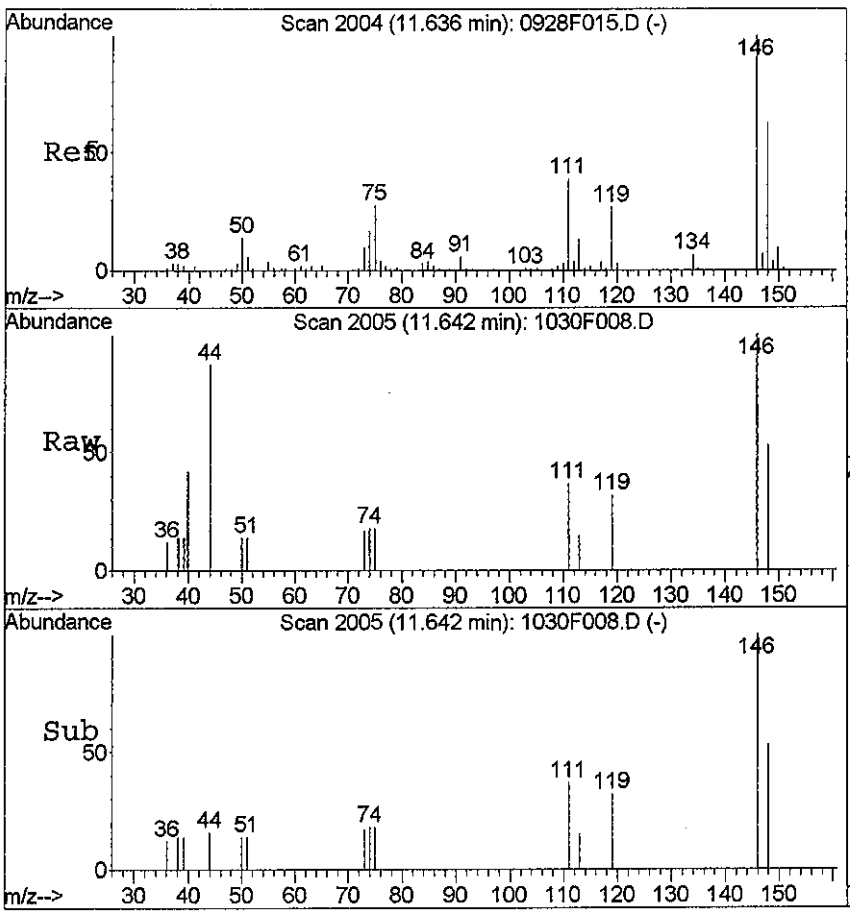


#98
p-Isopropyltoluene
Concen: 0.03 PPB
RT: 11.66 min Scan# 2008
Delta R.T. 0.01 min
Lab File: 1030F008.D
Acq: 30 Oct 2015 16:27

Tgt Ion:119 Resp: 1969

Ion	Ratio	Lower	Upper
119	100		
134	15.4	0.0	57.1
91	19.5	0.0	52.4

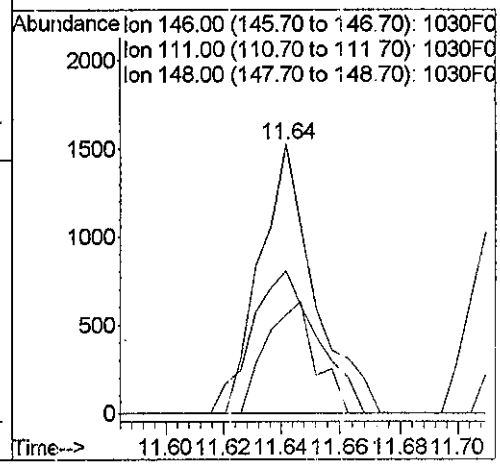


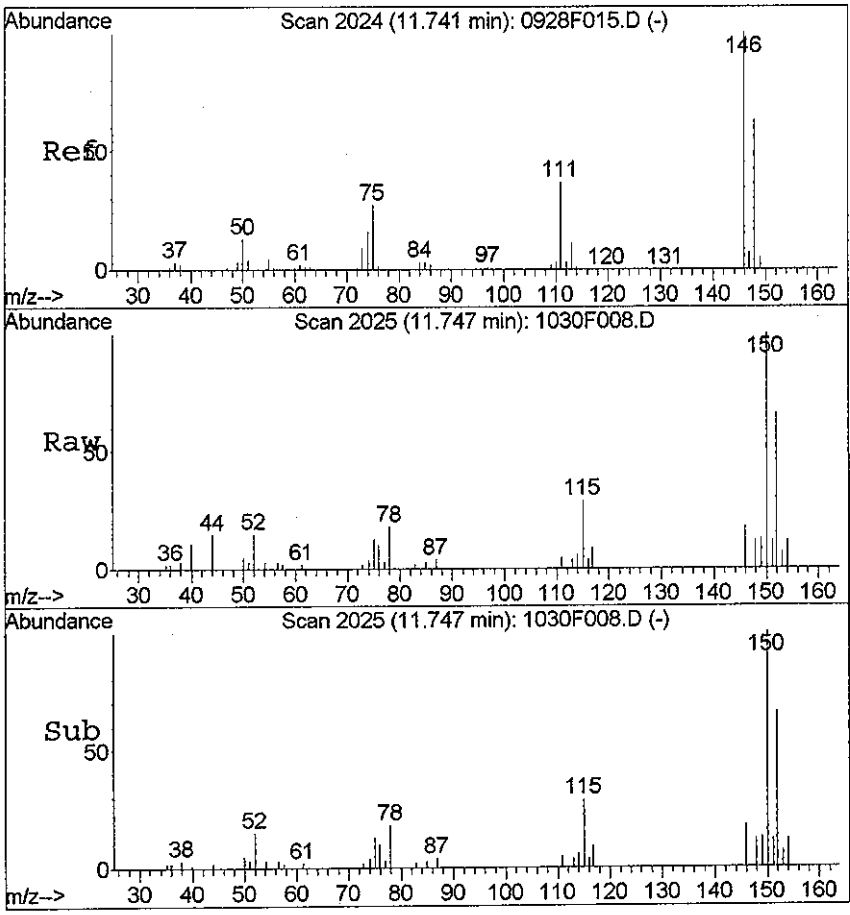


#99
1,3-Dichlorobenzene
Concen: 0.05 PPB
RT: 11.64 min Scan# 2005
Delta R.T. 0.01 min
Lab File: 1030F008.D
Acq: 30 Oct 2015 16:27

Tgt Ion:146 Resp: 1967

Ion	Ratio	Lower	Upper
146	100		
111	36.5	8.8	68.8
148	52.9	32.9	92.9

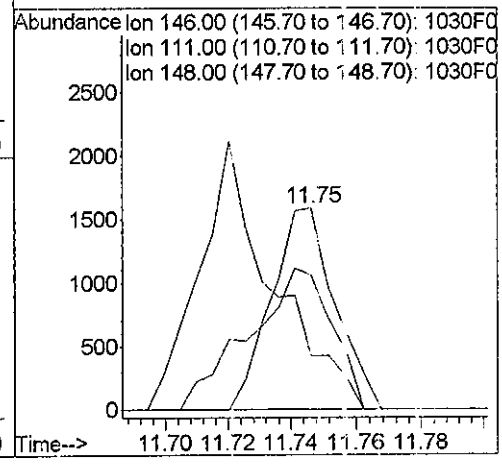


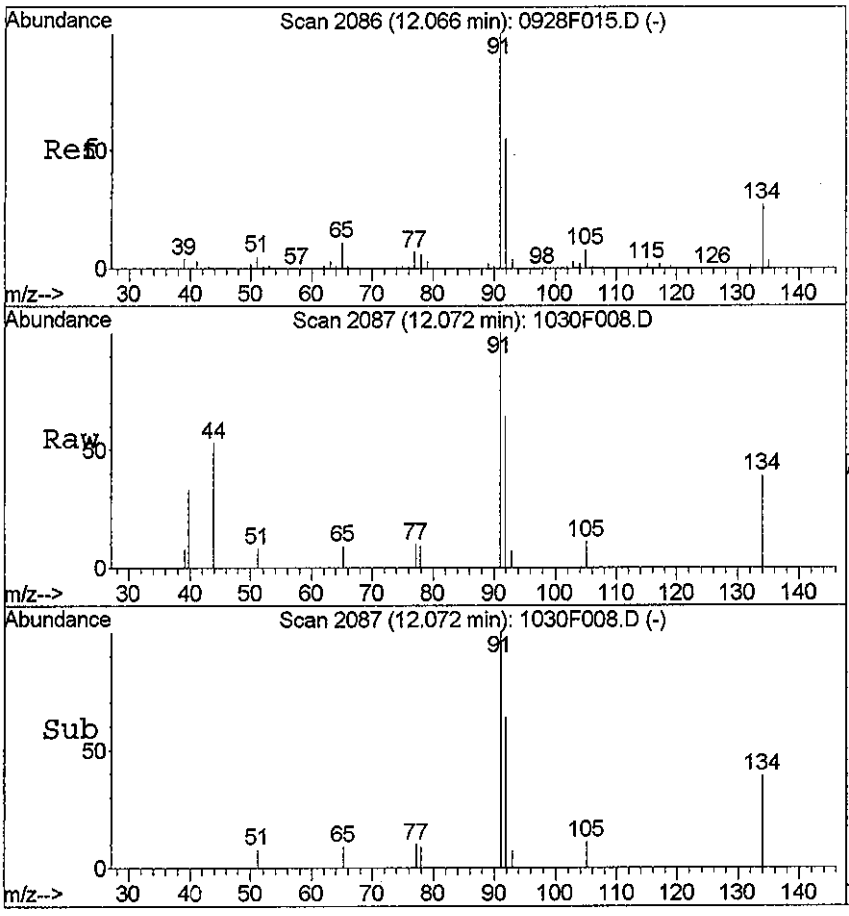


#100
1,4-Dichlorobenzene
Concen: 0.05 PPB
RT: 11.75 min Scan# 2025
Delta R.T. 0.01 min
Lab File: 1030F008.D
Acq: 30 Oct 2015 16:27

Tgt Ion:146 Resp: 2194

Ion	Ratio	Lower	Upper
146	100		
111	26.5	6.8	66.8
148	66.8	33.5	93.5

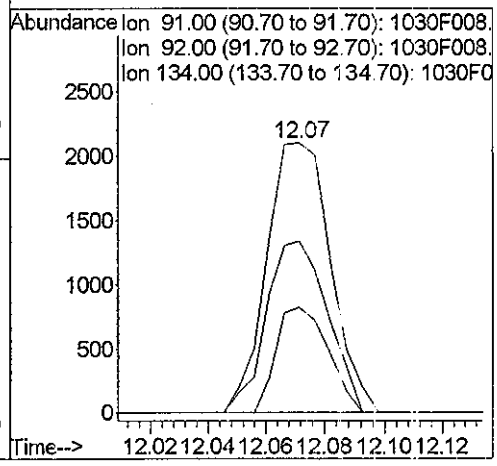


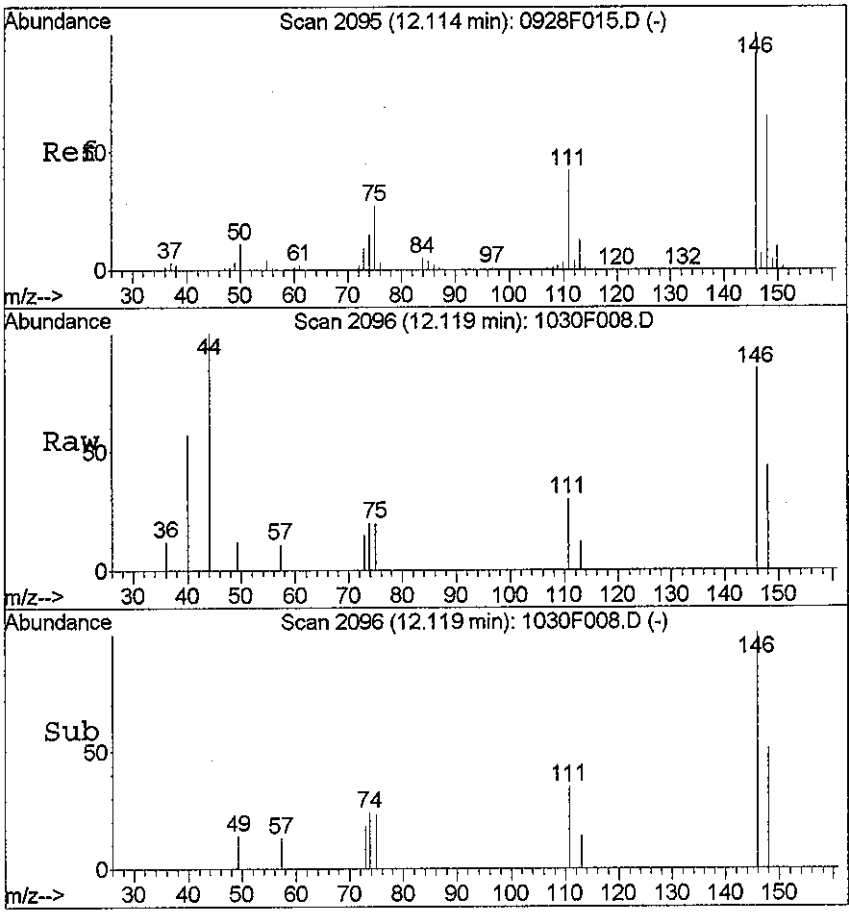


#101
n-Butylbenzene
Concen: 0.05 PPB
RT: 12.07 min Scan# 2087
Delta R.T. 0.01 min
Lab File: 1030F008.D
Acq: 30 Oct 2015 16:27

Tgt Ion: 91 Resp: 3184

Ion	Ratio	Lower	Upper
91	100		
92	63.7	24.6	84.6
134	39.3	0.0	57.3

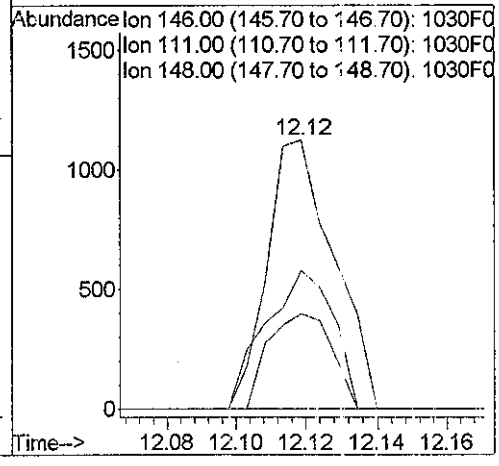


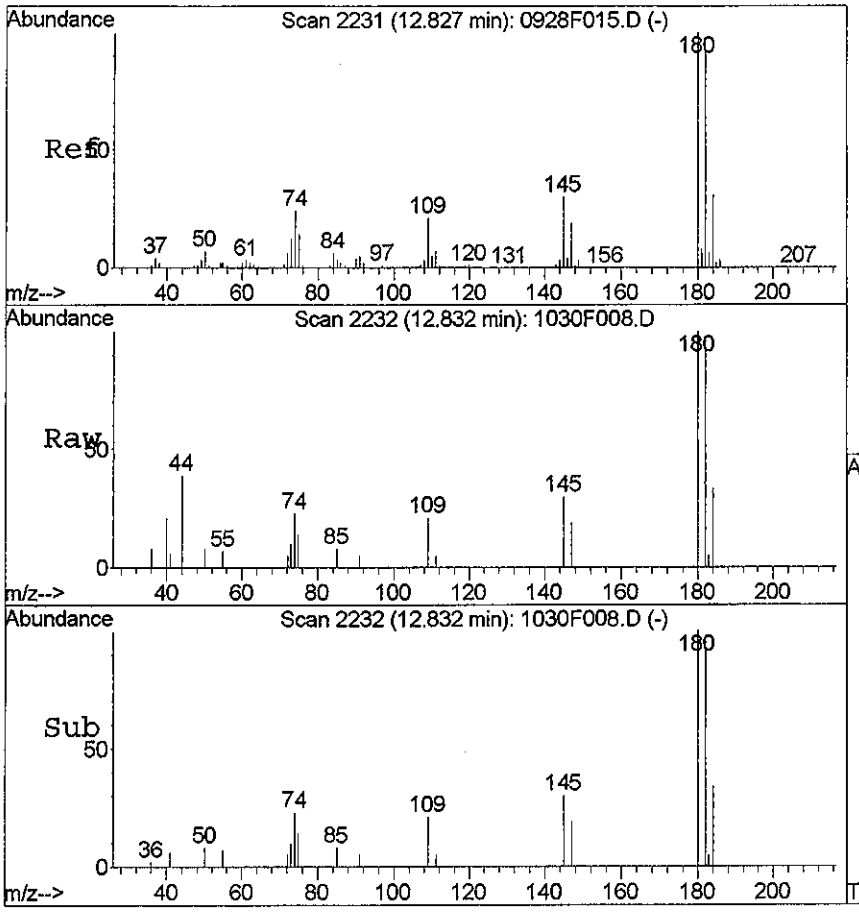


#102
1,2-Dichlorobenzene
Concen: 0.04 PPB
RT: 12.12 min Scan# 2096
Delta R.T. 0.01 min
Lab File: 1030F008.D
Acq: 30 Oct 2015 16:27

Tgt Ion:146 Resp: 1475

Ion	Ratio	Lower	Upper
146	100		
111	35.3	11.5	71.5
148	51.4	34.7	94.7

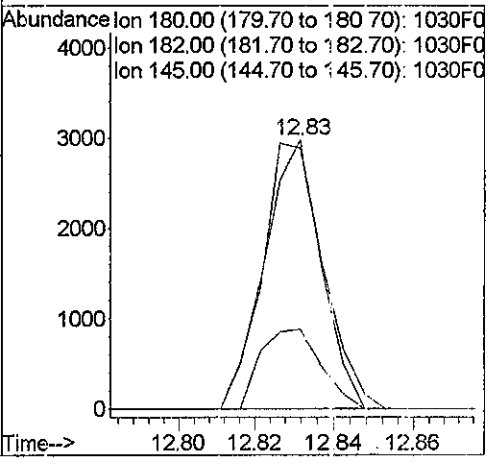


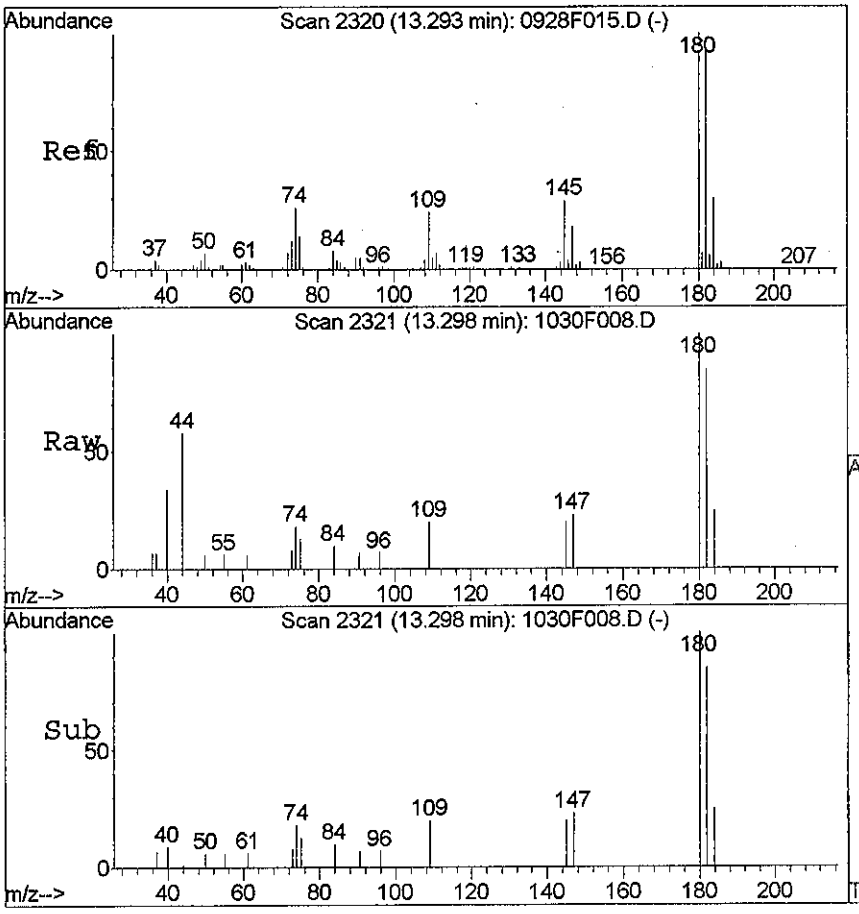


#104
1,3,5-Trichlorobenzene
Concen: 0.12 PPB deleted for TICs
RT: 12.83 min Scan# 2232
Delta R.T. 0.01 min
Lab File: 1030F008.D
Acq: 30 Oct 2015 16:27

Tgt Ion:180 Resp: 2984

Ion	Ratio	Lower	Upper
180	100		
182	97.0	65.7	125.7
145	29.7	0.0	59.6

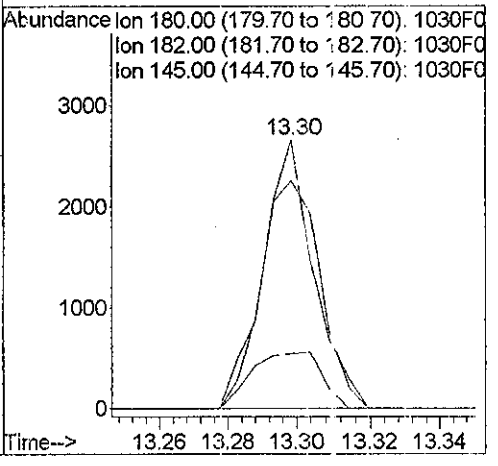


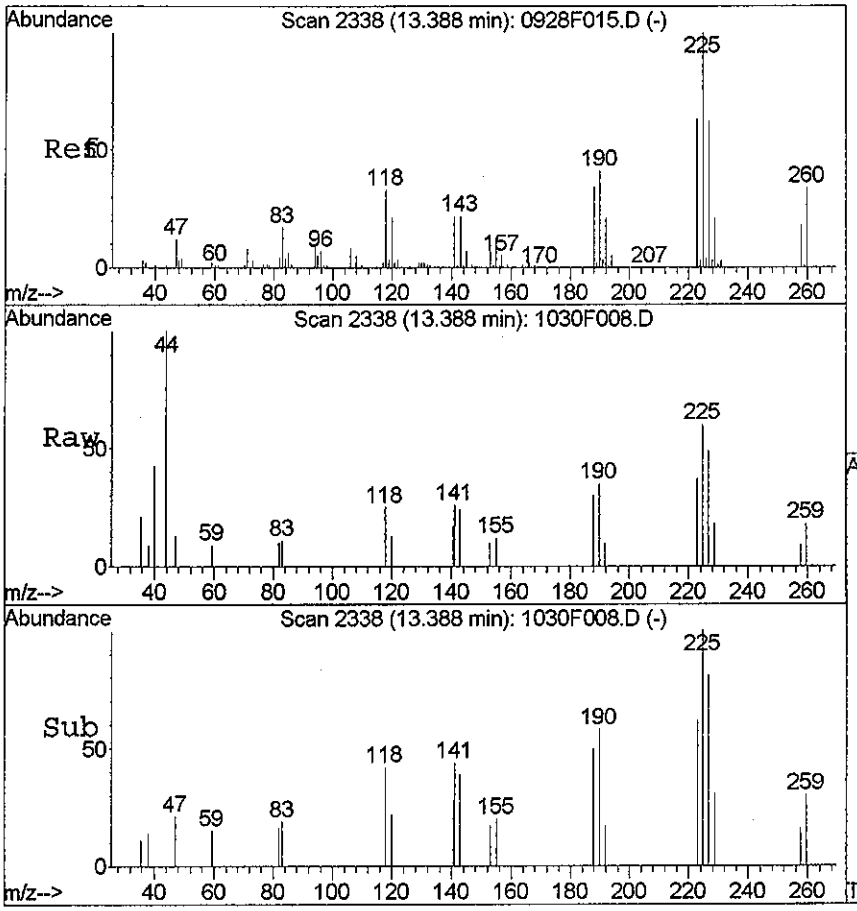


#105
1,2,4-Trichlorobenzene
Concen: 0.12 PPB
RT: 13.30 min Scan# 2321
Delta R.T. 0.01 min
Lab File: 1030F008.D
Acq: 30 Oct 2015 16:27

Tgt Ion:180 Resp: 2686

Ion	Ratio	Lower	Upper
180	100		
182	84.8	64.9	124.9
145	20.5	0.0	59.1

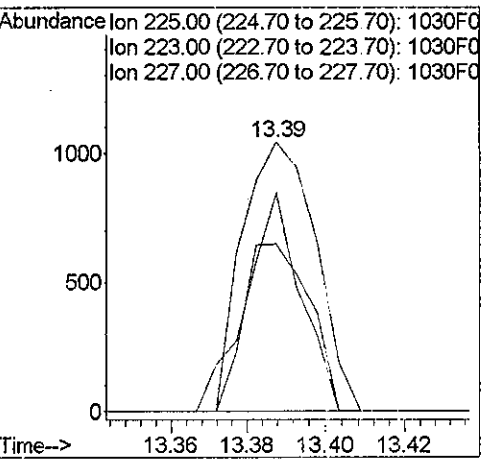


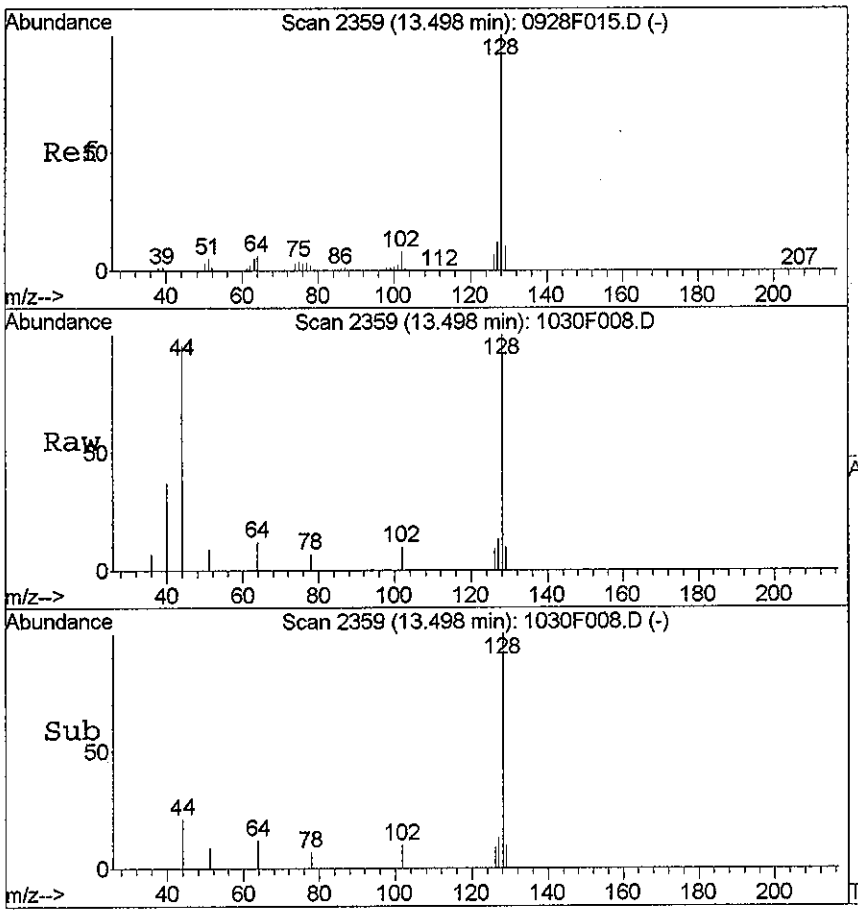


#106
Hexachlorobutadiene
Concen: 0.17 PPB
RT: 13.39 min Scan# 2338
Delta R.T. 0.00 min
Lab File: 1030F008.D
Acq: 30 Oct 2015 16:27

Tgt Ion:225 Resp: 1365

Ion	Ratio	Lower	Upper
225	100		
223	62.2	32.7	92.7
227	81.3	32.2	92.2

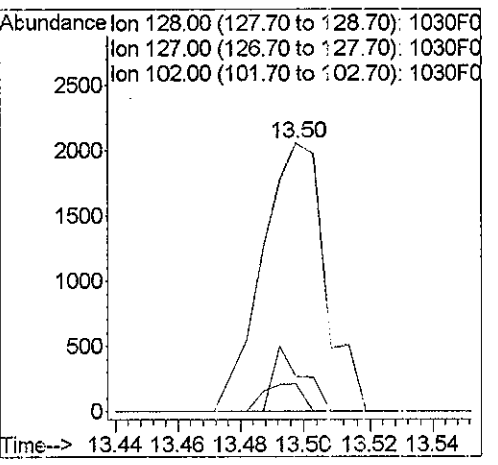


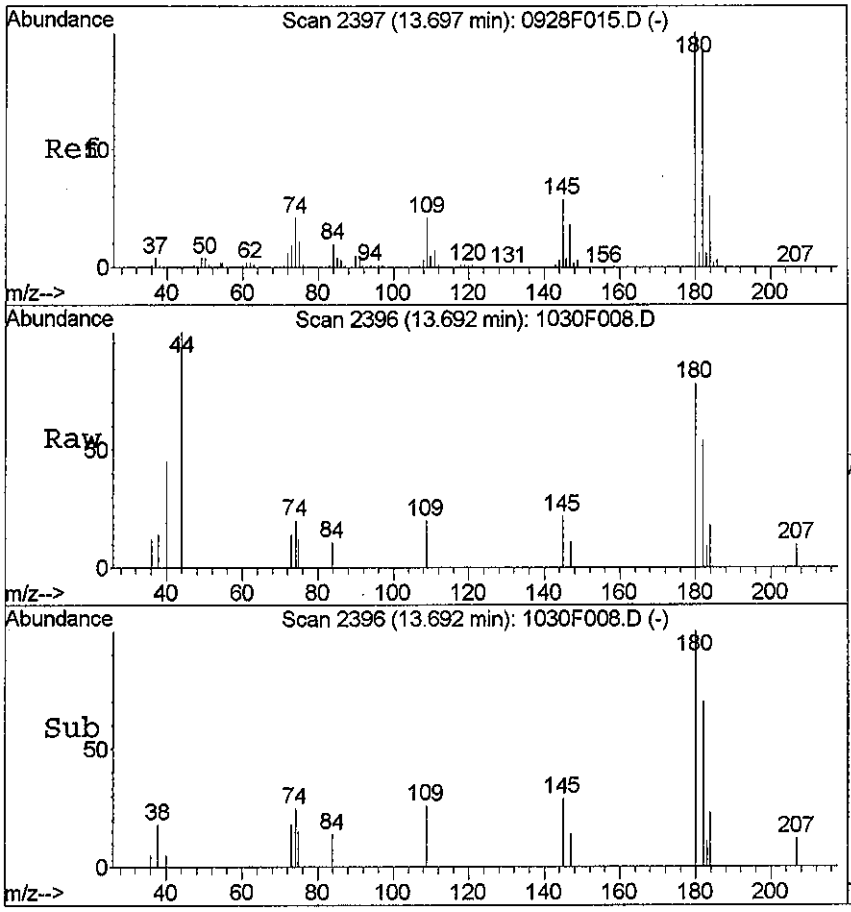


#107
Naphthalene
Concen: 0.06 PPB
RT: 13.50 min Scan# 2359
Delta R.T. 0.00 min
Lab File: 1030F008.D
Acq: 30 Oct 2015 16:27

Tgt Ion:128 Resp: 2790

Ion	Ratio	Lower	Upper
128	100		
127	13.0	0.0	42.1
102	10.3	0.0	38.0

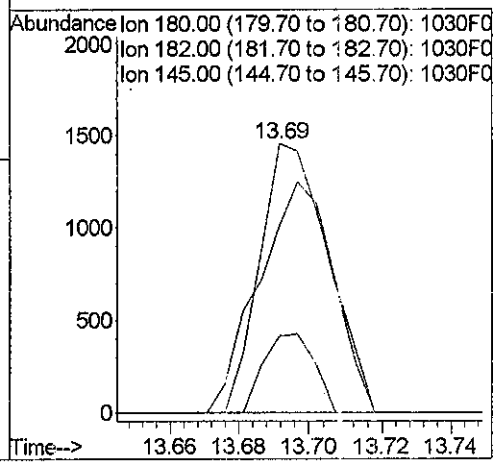




#108
1,2,3-Trichlorobenzene
Concen: 0.11 PPB
RT: 13.69 min Scan# 2396
Delta R.T. -0.01 min
Lab File: 1030F008.D
Acq: 30 Oct 2015 16:27

Tgt Ion:180 Resp: 1928

Ion	Ratio	Lower	Upper
180	100		
182	69.6	65.6	125.6
145	28.6	0.0	59.1



Exception Report

Data File: J:\MS18\DATA\103015\1030F005.D
Lab ID: KWG1510605-1 -- K1512095-004MS
RunType: MS
Matrix: WATER

Date Acquired: 10/30/2015 15:23
Date Quantitated: 10/30/2015 20:08
Batch ID: KWG1510604
Analysis Method: 8260C
MethodJoinID: MJ119

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA		x
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA		x
Continuing Calibration Minimum RF	NA	NA	NA		x
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	2-Propanol	0.0069	0.01	NA	NT
	tert-Butyl Alcohol	0.0090	0.01	NA	
	Isobutyl Alcohol	0.0044	0.01	NA	
	1,4-Dioxane	0.0018	0.01	NA	
Second Source ICAL Verification	Acrolein	-41.7	NA	30	
	Isobutyl Alcohol	133.7	NA	30	
Continuing Calibration Recovery	Chloromethane	41.5	NA	20	SMPLCMPLOK
	1,3-Butadiene	38.3	NA	20	NT
	Bromomethane	-34.8	NA	20	CCVOK
	Chloroethane	21.8	NA	20	NT
	Carbon Disulfide	-36.7	NA	20	CCVOK
	2-Propanol	-22.8	NA	20	NT
	Methyl Acetate	-30.8	NA	20	L

Primary Review: 10/30/2015

Secondary Review:

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
	tert-Butyl Alcohol	-35.4	NA	20	NJ
	tert-Butyl Formate	-53.6	NA	20	
	cis-1,4-Dichloro-2-butene	-29.2	NA	20	L
	Naphthalene	-25.3	NA	20	CCVOK
Continuing Calibration Minimum RF	2-Propanol	0.0053	0.01	NA	NJ
	tert-Butyl Alcohol	0.0058	0.01	NA	L
	Isobutyl Alcohol	0.0039	0.01	NA	
	1,4-Dioxane	0.0016	0.01	NA	L

Primary Review: [signature] 10/30/15

Secondary Review: [signature] 11/3/15

Quantitation Report

Data File:	J:\MS18\DATA\103015\1030F005.D			**Instrument:**	GC-MS 18
Acqu Date:	10/30/2015 15:23	**Quant Date:**	10/30/2015 20:08	**Vial:**	5
Run Type:	MS			**Dilution:**	1.0
Lab ID:	KWG1510605-1 – K1512095-004MS			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**		**Receive Date:**	10/30/2015

Analysis Lot:	KWG1510604	**Prep Lot:**	KWG1510605	**Report Group:**	
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
		Prep Date:	10/30/2015		
Prep Ref:	1479831				

Quant Method:	J:\MS18\METHODS\092815MS18_8			**Calibration ID:**	CAL14315
Title:					
Tune Ref:	J:\MS18\DATA\103015\1030F002.D			**Method ID:**	MJ119
MB Ref:	J:\MS18\DATA\103015\1030F008.D			**Quant based on Method**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.88	-0.01	96	697864	10.00	OK
2	Chlorobenzene-d5	9.30	0.00	82	279060	10.00	OK
3	1,4-Dichlorobenzene-d4	11.72	0.00	152	259734	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.06	0.00	0.00	113	152004	9.71	97	73-122	OK	
1	1,2-Dichloroethane-d4	5.53	0.00	0.00	65	152303	8.86	89	59-127	OK	
1	Toluene-d8	7.73	0.00	0.00	98	711937	10.11	101	65-144	OK	
2	4-Bromofluorobenzene	10.54	0.00	0.00	95	257546	9.58	96	68-117	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane	1.21		0.00	85	136654	7.66	7.66		
1	Chloromethane	1.35		0.00	50	275190	11.86	11.9		
1	Vinyl Chloride	1.43		0.00	62	230475	10.68	10.7		
1	1,3-Butadiene	1.45		0.00	54	13976	1.11	1.13		
1	Bromomethane	1.70		0.00	96	68739	5.21	5.23		
1	Chloroethane	1.77	-0.01	0.00	64	144493	12.57	12.6		
1	Dichlorofluoromethane (CFC 21	1.95		0.00	67	433464	14.44	14.4		
1	Trichlorofluoromethane	1.95	-0.01	0.00	101	235091	10.19	10.2		
1	Ethyl Ether	2.21		0.00	59	133223	10.60	10.6		
1	Acrolein	2.40		0.00	56	138637	60.02	60.0		
1	Trichlorotrifluoroethane	2.39		0.00	151	140559	12.16	12.2		
1	1,1-Dichloroethene	2.42		0.00	96	171141	10.88	10.9		
1	Acetone	2.54		0.00	43	128047	46.92	46.9		
1	Iodomethane	2.58		0.00	142	511891	24.46	24.5		

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
c: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS18\DATA\103015\1030F005.D		**Instrument:** GC-MS 18
Acqu Date:	10/30/2015 15:23	**Quant Date:** 10/30/2015 20:03	**Vial:** 5
Run Type:	MS		**Dilution:** 1.0
Lab ID:	KWG1510605-1 -- K1512095-004MS		**Soln Conc. Units:** PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Disulfide	2.61		0.00	76	1097786	19.30	19.3		
1	2-Propanol				45	0d		17	U	
1	3-Chloro-1-propene	2.79	-0.01	0.00	76	355709	37.64	37.6		
1	Methyl Acetate				43	0d		0.38	U	
1	Acetonitrile	2.89		0.00	40	256525	354.31	354		
1	Methylene Chloride	2.94	-0.01	0.00	84	197257	9.01	9.01		
1	tert-Butyl Alcohol	3.07		0.00	59	47109	74.76	74.8		
1	Acrylonitrile	3.28	-0.01	0.00	53	192451	43.03	43.0		
1	Methyl tert-Butyl Ether	3.16		0.00	73	343232	8.56	8.56		
1	trans-1,2-Dichloroethene	3.17		0.00	96	198543	10.62	10.6		
1	n-Hexane	3.38		0.00	57	740728	47.87	47.9		
1	Diisopropyl Ether	3.69		0.00	45	1269622	23.60	23.6		
1	1,1-Dichloroethane	3.69		0.00	63	332067	10.59	10.6		
1	Vinyl Acetate	3.75	-0.01	0.00	86	186831	69.47	69.5		
1	Chloroprene	3.75		0.00	53	1062931	39.13	39.1		
1	tert-Butyl Ethyl Ether	4.12		0.00	59	948177	21.16	21.2		
1	2,2-Dichloropropane	4.35	-0.01	0.00	77	165281	8.69	8.69		
1	cis-1,2-Dichloroethene	4.41		0.00	96	216197	10.10	10.1		
1	2-Butanone (MEK)	4.47		0.00	72	58208	44.21	44.2		
1	Propionitrile	4.66		0.00	54	53001	32.98	33.0		
1	Ethyl Acetate	4.51	0.01	0.00	61	55373	29.48	29.5		
1	Methacrylonitrile	4.79	-0.01	0.00	67	186259	33.14	33.1		
1	Bromochloromethane	4.73		0.00	128	90618	10.03	10.0		
1	Tetrahydrofuran				71	0d		5.0	U	
1	Chloroform	4.83		0.00	83	333670	10.71	10.7		
1	tert-Butyl Formate				59	0d		0.26	U	
1	1,1,1-Trichloroethane (TCA)	4.99	-0.01	0.00	97	224736	10.15	10.2		
1	Carbon Tetrachloride	5.16		0.00	117	272101	14.43	14.4		
1	1,1-Dichloropropene	5.22	-0.01	0.00	75	265984	11.27	11.3		
1	Cyclohexane				56	0d		0.36	U	
1	Isobutyl Alcohol	5.63		0.00	43	222840	728.68	729		
1	Benzene	5.49		0.00	78	846416	9.98	9.98		
1	1,2-Dichloroethane (EDC)	5.63		0.00	62	200485	9.29	9.29		
1	tert-Amyl Methyl Ether	5.63		0.00	55	356090	23.49	23.5		
1	Trichloroethene (TCE)	6.31	-0.01	0.00	95	189469	10.44	10.4		
1	1,2-Dichloropropane	6.65		0.00	63	190903	9.76	9.76		
1	Dibromomethane	6.79		0.00	93	90401	9.25	9.25		
1	Methyl Methacrylate	6.80	-0.01	0.00	69	311466	29.51	29.5		
1	1,4-Dioxane	6.81	-0.01	0.00	88	41562	322.36	322		
1	Bromodichloromethane	6.98		0.00	83	194069	10.13	10.1		
1	2-Nitropropane	7.34	-0.01	0.00	41	40162	26.44	26.4		
1	Methylcyclohexane				83	0d		0.33	U	

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS18\DATA\103015\1030F005.D			**Instrument:**	GC-MS 18
Acqu Date:	10/30/2015 15:23	**Quant Date:**	10/30/2015 20:08	**Vial:**	5
Run Type:	MS			**Dilution:**	1.0
Lab ID:	KWG1510605-1 -- K1512095-004MS			**Soln Conc. Units:**	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	2-Chloroethyl Vinyl Ether	7.37		0.00	63	5799	0.6200	0.620	J	
1	cis-1,3-Dichloropropene	7.50		0.00	75	236866	7.95	7.95		
1	4-Methyl-2-pentanone (MIBK)	7.69		0.00	58	208802	47.82	47.8		
1	Toluene	7.80		0.00	92	545752	10.46	10.5		
2	n-Octane	7.87		0.00	85	2134	0.3800	0.380	J	
2	trans-1,3-Dichloropropene	8.15		0.00	75	161742	7.32	7.32		
2	Ethyl Methacrylate	8.21		0.00	69	639469	30.82	30.8		
2	1,1,2-Trichloroethane	8.34		0.00	83	126239	9.50	9.50		
2	Tetrachloroethene (PCE)	8.35		0.00	164	159544	11.14	11.1		
2	2-Hexanone	8.61		0.00	57	56694	40.94	40.9		
2	1,3-Dichloropropane	8.52		0.00	76	270531	9.57	9.57		
2	Dibromochloromethane	8.72		0.00	129	123561	7.91	7.91		
2	1,2-Dibromoethane (EDB)	8.83	-0.01	0.00	107	132625	9.24	9.24		
2	1-Chlorohexane	9.31		0.00	91	263626	10.99	11.0		
2	Chlorobenzene	9.33		0.00	112	580305	9.79	9.79		
2	Ethylbenzene	9.42		0.00	106	308801	10.69	10.7		
2	1,1,1,2-Tetrachloroethane	9.43	-0.01	0.00	131	154247	8.35	8.35		
2	m,p-Xylenes	9.55		0.00	106	763604	21.41	21.4		
2	o-Xylene	9.97		0.00	106	364017	10.57	10.6		
2	Styrene	10.00		0.00	103	290259m	10.25	10.3		
2	Bromoform	10.21	0.01	0.00	173	55853	8.01	8.01		
2	Isopropylbenzene	10.34		0.00	105	890952	10.77	10.8		
2	cis-1,4-Dichloro-2-butene	10.51		0.00	89	45901	24.01	24.0		
3	1,1,2,2-Tetrachloroethane	10.75		0.00	83	153970	9.08	9.08		
3	trans-1,4-Dichloro-2-butene	10.81	-0.01	0.00	53	135947	33.47	33.5		
3	Bromobenzene	10.68		0.00	156	225109	9.91	9.91		
3	n-Propylbenzene	10.77		0.00	91	1056164	11.05	11.1		
3	1,2,3-Trichloropropane	10.79		0.00	110	44287	8.53	8.53		
3	2-Chlorotoluene	10.87		0.00	91	632022	10.43	10.4		
3	1,3,5-Trimethylbenzene	10.96		0.00	105	716977	10.77	10.8		
3	4-Chlorotoluene	10.99		0.00	91	740134	10.51	10.5		
3	tert-Butylbenzene	11.27		0.00	119	609296	10.51	10.5		
3	1,2,4-Trimethylbenzene	11.34		0.00	105	741935	9.81	9.81		
3	sec-Butylbenzene	11.50		0.00	105	887344	10.04	10.0		
3	4-Isopropyltoluene	11.66		0.00	119	739074	9.67	9.67		
3	1,3-Dichlorobenzene	11.64		0.00	146	420359	9.67	9.67		
3	1,4-Dichlorobenzene	11.74		0.00	146	429872	9.35	9.35		
3	n-Butylbenzene	12.07		0.00	91	618994	9.44	9.44		
3	1,2-Dichlorobenzene	12.12		0.00	146	390561	9.52	9.52		
3	1,2-Dibromo-3-chloropropane	12.73		0.00	155	13653	8.37	8.37		
3	1,3,5-Trichlorobenzene	12.83		0.00	180	259178	9.48	9.48		
3	1,2,4-Trichlorobenzene	13.30		0.00	180	201407	8.47	8.47		

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D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS18\DATA\103015\1030F005.D			**Instrument:**	GC-MS 18
Acqu Date:	10/30/2015 15:23	**Quant Date:**	10/30/2015 20:08	**Vial:**	5
Run Type:	MS			**Dilution:**	1.0
Lab ID:	KWG1510605-1 -- K1512095-004MS			**Soln Conc. Units:**	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Hexachlorobutadiene	13.39		0.00	225	83705	9.35	9.35		
3	Naphthalene	13.50		0.00	128	367428	6.74	6.74		
3	1,2,3-Trichlorobenzene	13.70	0.01	0.00	180	153064	7.85	7.85		
	Benzyl Chloride				0	0		1.0	U	NR
	Isopropyl Acetate				0	0		20	U	NR
	Cyclohexanone				0	0		1.0	U	NR
	2-Ethoxyethanol				0	0		1.0	U	NR
	Bis(2-chloroethyl) Ether				0	0		20	U	NR
	beta-Pinene				0	0		1.0	U	NR
	1,1,2-Trifluoroethane				0	0		1.0	U	NR
	2,2,4-Trimethylpentane				0	0		1.0	U	NR
	Bis(chloromethyl) Ether				0	0		1.0	U	NR
	Amyl Acetate				0	0		20	U	NR
	Bromoethane				0	0		1.0	U	NR
	Pentachloroethane				0	0		5.0	U	NR
	1,1-Dichloropropane				0	0		1.0	U	NR
	alpha-Pinene				0	0		1.0	U	NR
	1,1,1,2-Tetrafluoroethane				0	0		1.0	U	NR
	Nitrobenzene				0	0		20	U	NR

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\103015\1030F005.D Vial: 5
Acq On : 30 Oct 2015 15:23 Operator: YX/KR
Sample : MS K1512095-004 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 20:05:56 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration
DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.88	96	697864	10.00	PPB	0.00
65) Chlorobenzene-d5	9.30	82	279060	10.00	PPB	0.00
86) 1,4-Dichlorobenzene-d4	11.72	152	259734	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.06	113	152004	9.71	PPB	-0.01
Spiked Amount 10.000			Recovery =	97.10%		
48) 1,2-Dichloroethane-d4	5.53	65	152303	8.86	PPB	0.00
Spiked Amount 10.000			Recovery =	88.60%		
63) Toluene-d8	7.73	98	711937	10.11	PPB	0.00
Spiked Amount 10.000			Recovery =	101.10%		
85) 4-Bromofluorobenzene	10.54	95	257546	9.58	PPB	0.00
Spiked Amount 10.000			Recovery =	95.80%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.21	85	136654	7.66	PPB	99
3) Chloromethane	1.35	50	275190	11.86	PPB	99
4) Vinyl Chloride	1.43	62	230475	10.68	PPB	99
5) 1,3-Butadiene	1.45	54	13976	1.11	PPB	95
6) Bromomethane	1.70	96	68739	5.21	PPB	98
7) Chloroethane	1.77	64	144493	12.57	PPB	98
8) Dichlorofluoromethane	1.95	67	433464	14.44	PPB	98
9) Trichlorofluoromethane	1.95	101	235091	10.19	PPB	99
10) Ethyl Ether	2.21	59	133223	10.60	PPB	98
11) Acrolein	2.40	56	138637	60.02	PPB	98
12) Trichlorotrifluoroethane	2.39	151	140559	12.16	PPB	99
13) 1,1-Dichloroethene	2.42	96	171141	10.88	PPB	98
14) Acetone	2.54	43	128047	46.92	PPB	98
15) Iodomethane	2.58	142	511891	24.46	PPB	97
16) Carbon Disulfide	2.61	76	1097786	19.30	PPB	100
18) 3-Chloro-1-propene	2.79	76	355709	37.64	PPB	93
20) Acetonitrile	2.89	40	256525	354.31	PPB	90
21) Methylene Chloride	2.94	84	197257	9.01	PPB	98
22) tert-Butyl Alcohol	3.07	59	47109	74.76	PPB	97
23) Acrylonitrile	3.28	53	192451	43.03	PPB	98
24) Methyl tert-Butyl Ether	3.16	73	343232	8.56	PPB	97
25) trans-1,2-Dichloroethene	3.17	96	198543	10.62	PPB	95
26) Hexane	3.38	57	740728	47.87	PPB	98
27) Diisopropyl Ether	3.69	45	1269622	23.60	PPB	97
28) 1,1-Dichloroethane	3.69	63	332067	10.59	PPB	99
29) Vinyl Acetate	3.75	86	186831	69.47	PPB	96
30) Chloroprene	3.75	53	1062931	39.13	PPB	98

(#) = qualifier out of range (m) = manual integration
1030F005.D 092815MS18_8260.M Fri Oct 30 20:21:51 2015 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\103015\1030F005.D Vial: 5
Acq On : 30 Oct 2015 15:23 Operator: YX/KR
Sample : MS K1512095-004 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 20:05:56 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
31)	tert-Butyl Ethyl Ether	4.12	59	948177	21.16	PPB		99
32)	2,2-Dichloropropane	4.35	77	165281	8.69	PPB		95
33)	cis-1,2-Dichloroethene	4.41	96	216197	10.10	PPB		95
34)	2-Butanone	4.47	72	58208	44.21	PPB	#	80
35)	Propionitrile	4.66	54	53001	32.98	PPB		98
36)	Ethyl Acetate	4.51	61	55373	29.48	PPB		96
37)	Methacrylonitrile	4.79	67	186259	33.14	PPB		95
38)	Bromochloromethane	4.73	128	90618	10.03	PPB		95
40)	Chloroform	4.83	83	333670	10.71	PPB		98
42)	1,1,1-Trichloroethane	4.99	97	224736	10.15	PPB		99
44)	Carbon Tetrachloride	5.16	117	272101	14.43	PPB		99
45)	1,1-Dichloropropene	5.22	75	265984	11.27	PPB		98
47)	Isobutyl Alcohol	5.63	43	222840	728.68	PPB		82
49)	Benzene	5.49	78	846416	9.98	PPB		99
50)	1,2-Dichloroethane	5.63	62	200485	9.29	PPB		98
51)	tert-Amyl Methyl Ether	5.63	55	356090	23.49	PPB	#	73
52)	Trichloroethene	6.31	95	189469	10.44	PPB		98
53)	1,2-Dichloropropane	6.65	63	190903	9.76	PPB		98
54)	Dibromomethane	6.79	93	90401	9.25	PPB		97
55)	Methyl methacrylate	6.80	69	311466	29.51	PPB		95
56)	1,4-Dioxane	6.81	88	41562	322.36	PPB		84
57)	Bromodichloromethane	6.98	83	194069	10.13	PPB		97
58)	2-Nitropropane	7.34	41	40162	26.44	PPB		95
60)	2-Chloroethyl Vinyl Ether	7.37	63	5799	0.62	PPB		91
61)	cis-1,3-Dichloropropene	7.50	75	236866	7.95	PPB		100
62)	4-Methyl-2-pentanone (MIBK	7.69	58	208802	47.82	PPB		97
64)	Toluene	7.80	92	545752	10.46	PPB		99
66)	n-Octane	7.87	85	2134	0.38	PPB		82
67)	trans-1,3-Dichloropropene	8.15	75	161742	7.32	PPB		97
68)	Ethyl methacrylate	8.21	69	639469	30.82	PPB		94
69)	1,1,2-Trichloroethane	8.34	83	126239	9.50	PPB		99
70)	Tetrachloroethene	8.35	164	159544	11.14	PPB		97
71)	2-Hexanone	8.61	57	56694	40.94	PPB	#	88
72)	1,3-Dichloropropane	8.52	76	270531	9.57	PPB		98
73)	Dibromochloromethane	8.72	129	123561	7.91	PPB		98
74)	1,2-Dibromoethane (EDB)	8.83	107	132625	9.24	PPB		99
75)	1-Chlorohexane	9.31	91	263626	10.99	PPB		99
76)	Chlorobenzene	9.33	112	580305	9.79	PPB		99
77)	Ethylbenzene	9.42	106	308801	10.69	PPB		98
78)	1,1,1,2-Tetrachloroethane	9.43	131	154247	8.35	PPB		97
79)	m,p-Xylenes	9.55	106	763604	21.41	PPB		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\103015\1030F005.D Vial: 5
Acq On : 30 Oct 2015 15:23 Operator: YX/KR
Sample : MS K1512095-004 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 20:05:56 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
80)	o-Xylene	9.97	106	364017	10.57	PPB	99
81)	Styrene	10.00	103	290259m	10.25	PPB	
82)	Bromoform	10.21	173	55853	8.01	PPB	97
83)	Isopropylbenzene	10.34	105	890952	10.77	PPB	100
84)	cis-1,4-Dichloro-2-butene	10.51	89	45901	24.01	PPB	98
87)	1,1,2,2-Tetrachloroethane	10.75	83	153970	9.08	PPB	96
88)	trans-1,4-Dichloro-2-buten	10.81	53	135947	33.47	PPB	90
89)	Bromobenzene	10.68	156	225109	9.91	PPB	97
90)	n-Propylbenzene	10.77	91	1056164	11.05	PPB	98
91)	1,2,3-Trichloropropane	10.79	110	44287	8.53	PPB	92
92)	2-Chlorotoluene	10.87	91	632022	10.43	PPB	98
93)	1,3,5-Trimethylbenzene	10.96	105	716977	10.77	PPB	100
94)	4-Chlorotoluene	10.99	91	740134	10.51	PPB	99
95)	tert-Butylbenzene	11.27	119	609296	10.51	PPB	99
96)	1,2,4-Trimethylbenzene	11.34	105	741935	9.81	PPB	100
97)	sec-Butylbenzene	11.50	105	887344	10.04	PPB	99
98)	p-Isopropyltoluene	11.66	119	739074	9.67	PPB	98
99)	1,3-Dichlorobenzene	11.64	146	420359	9.67	PPB	99
100)	1,4-Dichlorobenzene	11.74	146	429872	9.35	PPB	99
101)	n-Butylbenzene	12.07	91	618994	9.44	PPB	99
102)	1,2-Dichlorobenzene	12.12	146	390561	9.52	PPB	97
103)	1,2-Dibromo-3-chloropropan	12.73	155	13653	8.37	PPB	98
104)	1,3,5-Trichlorobenzene	12.83	180	259178	9.48	PPB	100
105)	1,2,4-Trichlorobenzene	13.30	180	201407	8.47	PPB	97
106)	Hexachlorobutadiene	13.39	225	83705	9.35	PPB	96
107)	Naphthalene	13.50	128	367428	6.74	PPB	98
108)	1,2,3-Trichlorobenzene	13.70	180	153064	7.85	PPB	99

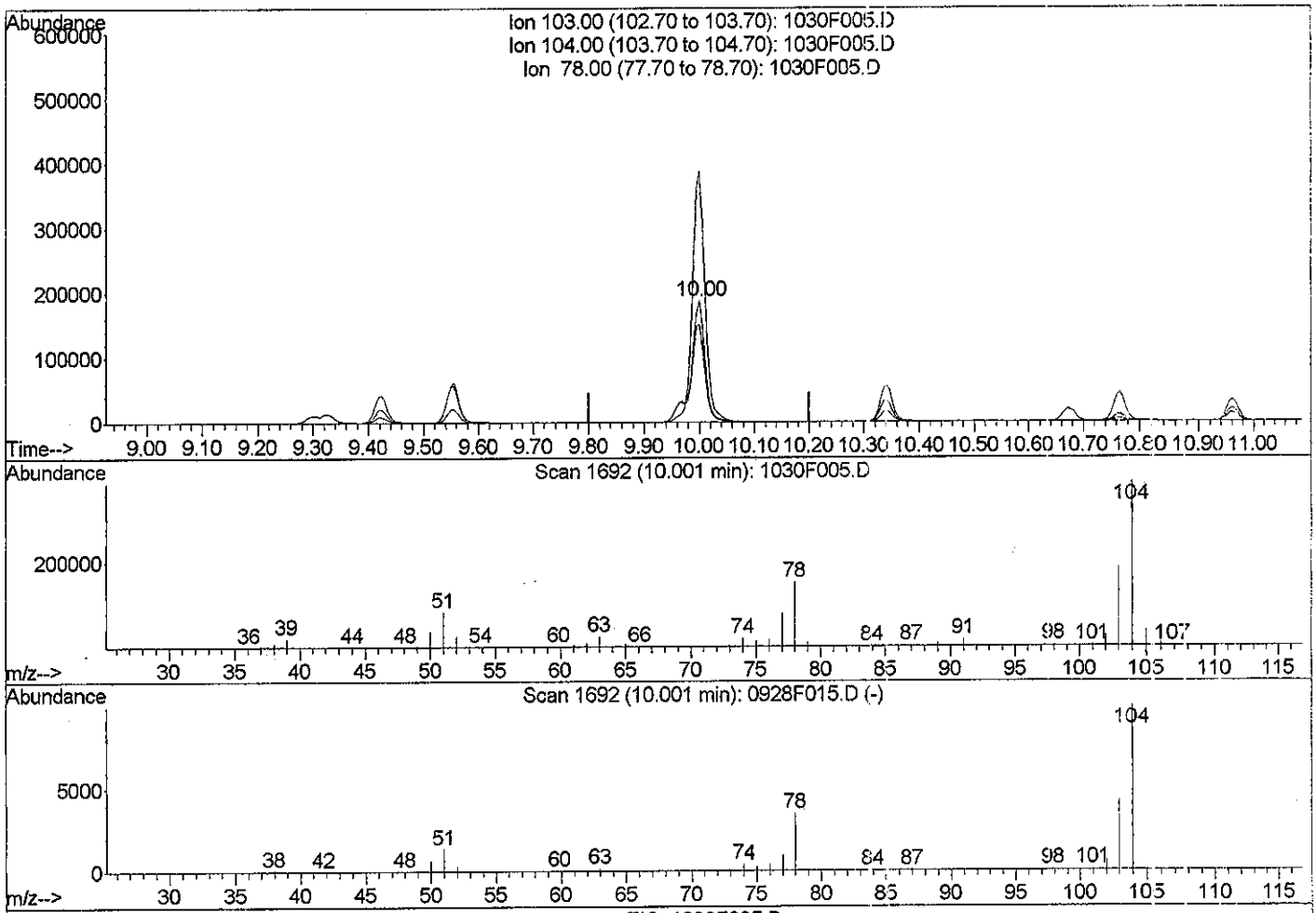
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data File : J:\MS18\DATA\103015\1030F005.D
Acq On : 30 Oct 2015 15:23
Sample : MS K1512095-004
Misc :
MS Integration Params: rteint.p
Quant Time: Oct 30 20:08 2015

Vial: 5
Operator: YX/KR
Inst : GC-MS 18
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Single Level Calibration



TIC: 1030F005.D

(81) Styrene (T)

10.00min 11.70PPB

response 331295

Ion	Exp%	Act%
103.00	100	100
104.00	211.40	207.60
78.00	83.70	80.92
0.00	0.00	0.00

Manual Integration:

Before

10/30/15

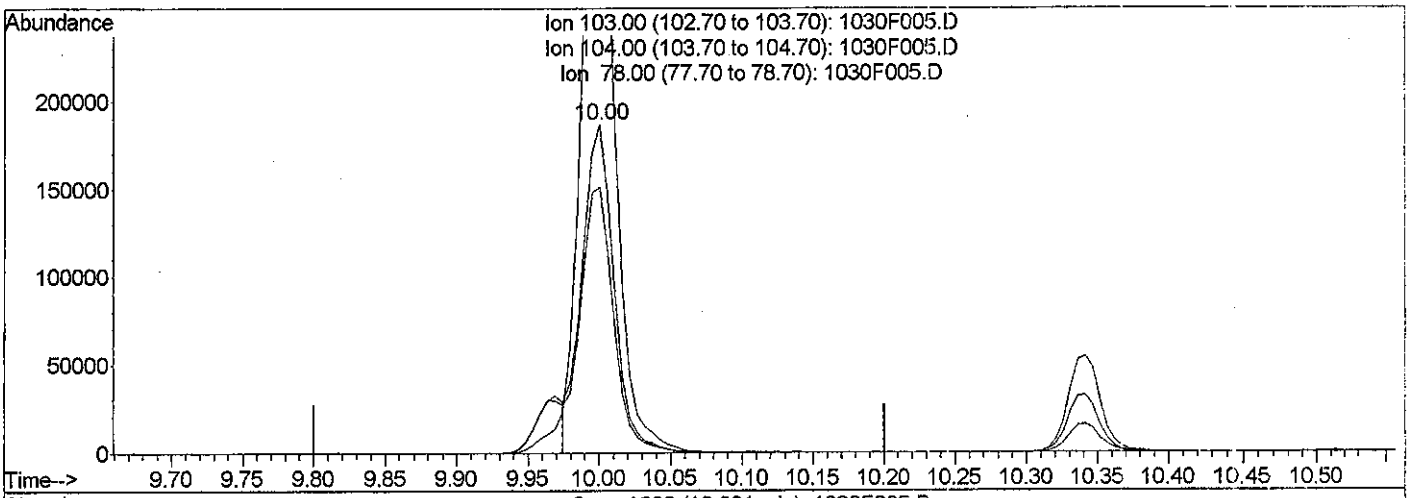
1030F005.D 092815MS18_8260.M Fri Oct 30 20:08:24 2015

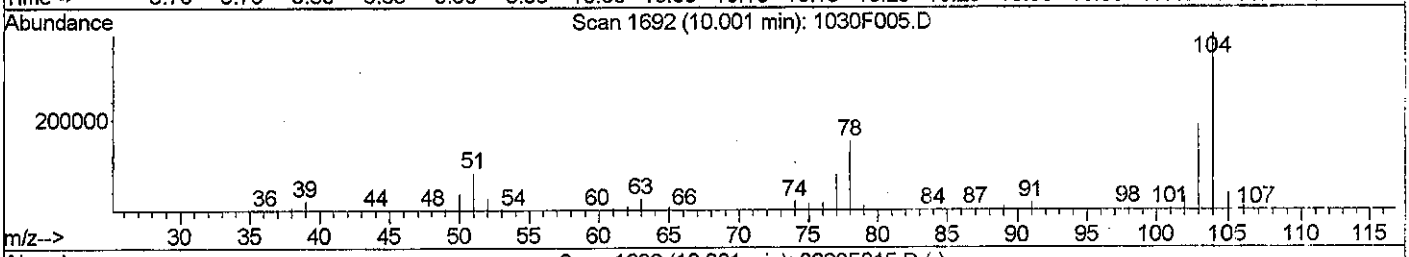
Quantitation Report (Qedit)

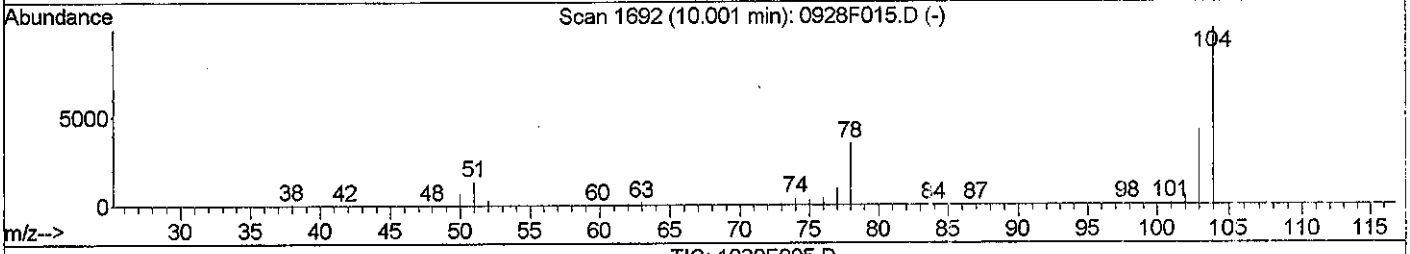
Data File : J:\MS18\DATA\103015\1030F005.D
Acq On : 30 Oct 2015 15:23
Sample : MS K1512095-004
Misc :
MS Integration Params: rteint.p
Quant Time: Oct 30 20:08 2015

Vial: 5
Operator: YX/KR
Inst : GC-MS 18
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Single Level Calibration







TIC: 1030F005.D

(81) Styrene (T)
10.00min 10.25PPB m
response 290259

Ion	Exp%	Act%
103.00	100	100
104.00	211.40	207.60
78.00	83.70	80.92
0.00	0.00	0.00

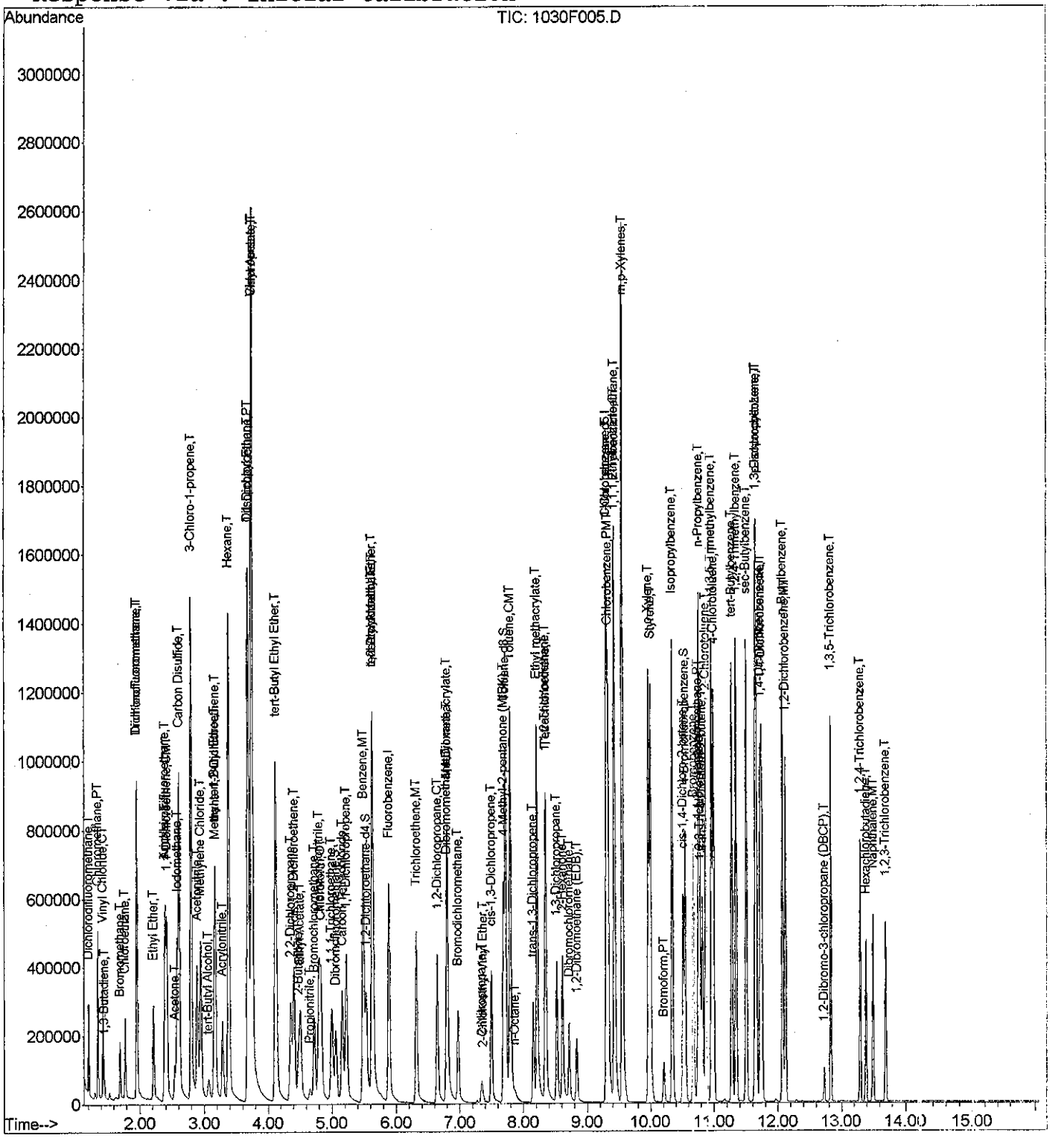
Manual Integration:
After
Shoulder
10/30/15

1030F005.D 092815MS18_8260.M Fri Oct 30 20:08:28 2015

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\103015\1030F005.D Vial: 5
Acq On : 30 Oct 2015 15:23 Operator: YX/KR
Sample : MS K1512095-004 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 20:08 2015 Quant Results File: 092815MS18_8

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration



Exception Report

Data File: J:\MS18\DATA\103015\1030F006.D
Lab ID: KWG1510605-2 -- K1512095-004DMS
RunType: DMS
Matrix: WATER

Date Acquired: 10/30/2015 15:44
Date Quantitated: 10/30/2015 20:08
Batch ID: KWG1510604
Analysis Method: 8260C
MethodJoinID: MJ119

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA		x
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA		x
Continuing Calibration Minimum RF	NA	NA	NA		x
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	2-Propanol	0.0069	0.01	NA	NT
	tert-Butyl Alcohol	0.0090	0.01	NA	
	Isobutyl Alcohol	0.0044	0.01	NA	
	1,4-Dioxane	0.0018	0.01	NA	
Second Source ICAL Verification	Acrolein	-41.7	NA	30	
	Isobutyl Alcohol	133.7	NA	30	I
Continuing Calibration Recovery	Chloromethane	41.5	NA	20	SampleNotOK
	1,3-Butadiene	38.3	NA	20	NT
	Bromomethane	-34.8	NA	20	CCVOK
	Chloroethane	21.8	NA	20	NT
	Carbon Disulfide	-36.7	NA	20	CCVOK
	2-Propanol	-22.8	NA	20	NT
	Methyl Acetate	-30.8	NA	20	I

Primary Review: VGO 10/30/15

Secondary Review: KMH

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
	tert-Butyl Alcohol	-35.4	NA	20	NT
	tert-Butyl Formate	-53.6	NA	20	"
	cis-1,4-Dichloro-2-butene	-29.2	NA	20	"
	Naphthalene	-25.3	NA	20	CCVOK
Continuing Calibration Minimum RF	2-Propanol	0.0053	0.01	NA	NT
	tert-Butyl Alcohol	0.0058	0.01	NA	"
	Isobutyl Alcohol	0.0039	0.01	NA	"
	1,4-Dioxane	0.0016	0.01	NA	"

Primary Review: [illegible] 10/30/2015

Secondary Review: [illegible]

Quantitation Report

Data File:	J:\MS18\DATA\103015\1030F006.D			**Instrument:**	GC-MS 18
Acqu Date:	10/30/2015 15:44	**Quant Date:**	10/30/2015 20:08	**Vial:**	5
Run Type:	DMS			**Dilution:**	1.0
Lab ID:	KWG1510605-2 -- K1512095-004DMS			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**		**Receive Date:**	10/30/2015

Analysis Lot:	KWG1510604	**Prep Lot:**	KWG1510605	**Report Group:**	
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
Prep Ref:	1479832	**Prep Date:**	10/30/2015		

Quant Method:	J:\MS18\METHODS\092815MS18_8	**Calibration ID:**	CAL14315
Title:			
Tune Ref:	J:\MS18\DATA\103015\1030F002.D	**Method ID:**	MJ119
MB Ref:	J:\MS18\DATA\103015\1030F008.D	**Quant based on Method**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.89	0.00	96	692330	10.00	OK
2	Chlorobenzene-d5	9.30	0.00	82	279570	10.00	OK
3	1,4-Dichlorobenzene-d4	11.72	0.00	152	260497	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.06	0.00	0.00	113	151415	9.75	98	73-122	OK	
1	1,2-Dichloroethane-d4	5.53	0.00	0.00	65	152407	8.94	89	59-127	OK	
1	Toluene-d8	7.73	0.00	0.00	98	710504	10.17	102	65-144	OK	
2	4-Bromofluorobenzene	10.54	0.00	0.00	95	258568	9.60	96	68-117	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane	1.20	-0.01	0.00	85	135040	7.63	7.63		
1	Chloromethane	1.35		0.00	50	273164	11.87	11.9		
1	Vinyl Chloride	1.43		0.00	62	236301	11.03	11.0		
1	1,3-Butadiene	1.45		0.00	54	12941	1.04	1.04		
1	Bromomethane	1.70		0.00	96	80368	6.14	6.14		
1	Chloroethane	1.77	-0.01	0.00	64	146018	12.80	12.8		
1	Dichlorofluoromethane (CFC 21	1.95		0.00	67	443146	14.89	14.9		
1	Trichlorofluoromethane	1.95	-0.01	0.00	101	236689	10.34	10.3		
1	Ethyl Ether	2.21		0.00	59	141642	11.36	11.4		
1	Acrolein	2.40		0.00	56	149720	65.34	65.3		
1	Trichlorotrifluoroethane	2.39		0.00	151	140668	12.27	12.3		
1	1,1-Dichloroethene	2.42		0.00	96	173839	11.14	11.1		
1	Acetone	2.54		0.00	43	138102	51.01	51.0		
1	Iodomethane	2.58		0.00	142	530052	25.53	25.5		

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N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS18\DATA\103015\1030F006.D		**Instrument:** GC-MS 18
Acqu Date:	10/30/2015 15:44	**Quant Date:** 10/30/2015 20:08	**Vial:** 5
Run Type:	DMS		**Dilution:** 1.0
Lab ID:	KWG1510605-2 -- K1512095-004DMS		**Soln Conc. Units:** PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Disulfide	2.61		0.00	76	1125846	19.95	20.0		
1	2-Propanol				45	0d		17	U	
1	3-Chloro-1-propene	2.80		0.00	76	373752	39.87	39.9		
1	Methyl Acetate				43	0d		0.38	U	
1	Acetonitrile	2.89		0.00	40	247930	345.17	345		
1	Methylene Chloride	2.95		0.00	84	205524	9.46	9.46		
1	tert-Butyl Alcohol	3.07		0.00	59	51639	82.61	82.6		
1	Acrylonitrile	3.29		0.00	53	207093	46.68	46.7		
1	Methyl tert-Butyl Ether	3.16		0.00	73	377430	9.49	9.49		
1	trans-1,2-Dichloroethene	3.17		0.00	96	203426	10.96	11.0		
1	n-Hexane	3.38		0.00	57	719769	46.88	46.9		
1	Diisopropyl Ether	3.69		0.00	45	1337262	25.05	25.1		
1	1,1-Dichloroethane	3.69		0.00	63	337262	10.84	10.8		
1	Vinyl Acetate	3.75	-0.01	0.00	86	207446	77.67	77.7		
1	Chloroprene	3.75		0.00	53	1073256	39.82	39.8		
1	tert-Butyl Ethyl Ether	4.12		0.00	59	1027815	23.12	23.1		
1	2,2-Dichloropropane	4.36		0.00	77	174926	9.25	9.25		
1	cis-1,2-Dichloroethene	4.41		0.00	96	219914	10.36	10.4		
1	2-Butanone (MEK)	4.47		0.00	72	65129	49.86	49.9		
1	Propionitrile	4.65	-0.01	0.00	54	57491	36.06	36.1		
1	Ethyl Acetate	4.51	0.01	0.00	61	65091	34.94	34.9		
1	Methacrylonitrile	4.80		0.00	67	205566	36.87	36.9		
1	Bromochloromethane	4.73		0.00	128	92196	10.28	10.3		
1	Tetrahydrofuran				71	0d		5.0	U	
1	Chloroform	4.83		0.00	83	340390	11.01	11.0		
1	tert-Butyl Formate				59	0d		0.26	U	
1	1,1,1-Trichloroethane (TCA)	5.00		0.00	97	226526	10.32	10.3		
1	Carbon Tetrachloride	5.16		0.00	117	277277	14.81	14.8		
1	1,1-Dichloropropene	5.23		0.00	75	275356	11.76	11.8		
1	Cyclohexane				56	0d		0.36	U	
1	Isobutyl Alcohol	5.63		0.00	43	233888	770.91	771		
1	Benzene	5.49		0.00	78	872446	10.37	10.4		
1	1,2-Dichloroethane (EDC)	5.63		0.00	62	218221	10.19	10.2		
1	tert-Amyl Methyl Ether	5.63		0.00	55	397985	26.46	26.5		
1	Trichloroethene (TCE)	6.32		0.00	95	201265	11.18	11.2		
1	1,2-Dichloropropane	6.65		0.00	63	202593	10.45	10.5		
1	Dibromomethane	6.79		0.00	93	96863	9.99	9.99		
1	Methyl Methacrylate	6.81		0.00	69	357817	34.01	34.0		
1	1,4-Dioxane	6.81	-0.01	0.00	88	45773	357.86	358		
1	Bromodichloromethane	6.98		0.00	83	204603	10.77	10.8		
1	2-Nitropropane	7.34	-0.01	0.00	41	43807	28.92	28.9		
1	Methylcyclohexane				83	0d		0.33	U	

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D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
e: check for co-elution

Data File:	J:\MS18\DATA\103015\1030F006.D		**Instrument:** GC-MS 18
Acqu Date:	10/30/2015 15:44	**Quant Date:** 10/30/2015 20:08	**Vial:** 5
Run Type:	DMS		**Dilution:** 1.0
Lab ID:	KWG1510605-2 -- K1512095-004DMS		**Soln Conc. Units:** PPB

Target Compounds **Final Conc. Units:** ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	2-Chloroethyl Vinyl Ether	7.51	0.14	0.02	63	1361	0.1500	0.16	U	
1	cis-1,3-Dichloropropene	7.50		0.00	75	255569	8.64	8.64		
1	4-Methyl-2-pentanone (MIBK)	7.69		0.00	58	231889	53.53	53.5		
1	Toluene	7.80		0.00	92	563075	10.88	10.9		
2	n-Octane	7.88	0.01	0.00	85	970	0.1700	0.170	J	
2	trans-1,3-Dichloropropene	8.16	0.01	0.00	75	178730	8.06	8.06		
2	Ethyl Methacrylate	8.21		0.00	69	726853	34.97	35.0		
2	1,1,2-Trichloroethane	8.34		0.00	83	137435	10.32	10.3		
2	Tetrachloroethene (PCE)	8.35		0.00	164	161080	11.23	11.2		
2	2-Hexanone	8.61		0.00	57	67511	48.66	48.7		
2	1,3-Dichloropropane	8.52		0.00	76	291893	10.31	10.3		
2	Dibromochloromethane	8.72		0.00	129	133091	8.49	8.49		
2	1,2-Dibromoethane (EDB)	8.84		0.00	107	145943	10.15	10.2		
2	1-Chlorohexane	9.31		0.00	91	268446	11.16	11.2		
2	Chlorobenzene	9.33		0.00	112	598527	10.08	10.1		
2	Ethylbenzene	9.42		0.00	106	320964	11.09	11.1		
2	1,1,1,2-Tetrachloroethane	9.43	-0.01	0.00	131	161264	8.72	8.72		
2	m,p-Xylenes	9.55		0.00	106	787925	22.05	22.1		
2	o-Xylene	9.97		0.00	106	378828	10.98	11.0		
2	Styrene	10.00		0.00	103	304558m	10.74	10.7		
2	Bromoform	10.21	0.01	0.00	173	63592	9.04	9.04		
2	Isopropylbenzene	10.34		0.00	105	920393	11.11	11.1		
2	cis-1,4-Dichloro-2-butene	10.51		0.00	89	54434	28.22	28.2		
3	1,1,2,2-Tetrachloroethane	10.75		0.00	83	178091	10.47	10.5		
3	trans-1,4-Dichloro-2-butene	10.82		0.00	53	154947	38.04	38.0		
3	Bromobenzene	10.68		0.00	156	237558	10.43	10.4		
3	n-Propylbenzene	10.77		0.00	91	1089142	11.37	11.4		
3	1,2,3-Trichloropropane	10.79		0.00	110	50444	9.68	9.68		
3	2-Chlorotoluene	10.87		0.00	91	663921	10.92	10.9		
3	1,3,5-Trimethylbenzene	10.96		0.00	105	739665	11.08	11.1		
3	4-Chlorotoluene	10.99		0.00	91	772476	10.94	10.9		
3	tert-Butylbenzene	11.27		0.00	119	626770	10.78	10.8		
3	1,2,4-Trimethylbenzene	11.34		0.00	105	767600	10.12	10.1		
3	sec-Butylbenzene	11.50		0.00	105	906752	10.23	10.2		
3	4-Isopropyltoluene	11.66		0.00	119	767022	10.00	10.0		
3	1,3-Dichlorobenzene	11.64		0.00	146	438710	10.06	10.1		
3	1,4-Dichlorobenzene	11.74		0.00	146	454616	9.86	9.86		
3	n-Butylbenzene	12.07		0.00	91	638476	9.71	9.71		
3	1,2-Dichlorobenzene	12.11	-0.01	0.00	146	414763	10.08	10.1		
3	1,2-Dibromo-3-chloropropane	12.73		0.00	155	15671	9.50	9.50		
3	1,3,5-Trichlorobenzene	12.83		0.00	180	268605	9.80	9.80		
3	1,2,4-Trichlorobenzene	13.29	-0.01	0.00	180	216319	9.07	9.07		

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS18\DATA\103015\1030F006.D			**Instrument:**	GC-MS 18
Acqu Date:	10/30/2015 15:44	**Quant Date:**	10/30/2015 20:08	**Vial:**	5
Run Type:	DMS			**Dilution:**	1.0
Lab ID:	KWG1510605-2 -- K1512095-004DMS			**Soln Conc. Units:**	PPB

Target Compounds **Final Conc. Units:** ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Hexachlorobutadiene	13.39		0.00	225	87010	9.69	9.69		
3	Naphthalene	13.50		0.00	128	424766	7.77	7.77		
3	1,2,3-Trichlorobenzene	13.69		0.00	180	172016	8.80	8.80		
	Benzyl Chloride				0	0		1.0	U	NR
	Isopropyl Acetate				0	0		20	U	NR
	Cyclohexanone				0	0		1.0	U	NR
	2-Ethoxyethanol				0	0		1.0	U	NR
	Bis(2-chloroethyl) Ether				0	0		20	U	NR
	beta-Pinene				0	0		1.0	U	NR
	1,1,2-Trifluoroethane				0	0		1.0	U	NR
	2,2,4-Trimethylpentane				0	0		1.0	U	NR
	Bis(chloromethyl) Ether				0	0		1.0	U	NR
	Amyl Acetate				0	0		20	U	NR
	Bromoethane				0	0		1.0	U	NR
	Pentachloroethane				0	0		5.0	U	NR
	1,1-Dichloropropane				0	0		1.0	U	NR
	alpha-Pinene				0	0		1.0	U	NR
	1,1,1,2-Tetrafluoroethane				0	0		1.0	U	NR
	Nitrobenzene				0	0		20	U	NR

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\103015\1030F006.D Vial: 5
Acq On : 30 Oct 2015 15:44 Operator: YX/KR
Sample : DMS K1512095-004 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 20:05:57 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration
DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.89	96	692330	10.00	PPB	0.00
65) Chlorobenzene-d5	9.30	82	279570	10.00	PPB	0.00
86) 1,4-Dichlorobenzene-d4	11.72	152	260497	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.06	113	151415	9.75	PPB	0.00
Spiked Amount 10.000			Recovery =	97.50%		
48) 1,2-Dichloroethane-d4	5.53	65	152407	8.94	PPB	0.00
Spiked Amount 10.000			Recovery =	89.40%		
63) Toluene-d8	7.73	98	710504	10.17	PPB	0.00
Spiked Amount 10.000			Recovery =	101.70%		
85) 4-Bromofluorobenzene	10.54	95	258568	9.60	PPB	0.00
Spiked Amount 10.000			Recovery =	96.00%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.20	85	135040	7.63	PPB	99
3) Chloromethane	1.35	50	273164	11.87	PPB	99
4) Vinyl Chloride	1.43	62	236301	11.03	PPB	97
5) 1,3-Butadiene	1.45	54	12941	1.04	PPB	93
6) Bromomethane	1.70	96	80368	6.14	PPB	99
7) Chloroethane	1.77	64	146018	12.80	PPB	100
8) Dichlorofluoromethane	1.95	67	443146	14.89	PPB	99
9) Trichlorofluoromethane	1.95	101	236689	10.34	PPB	99
10) Ethyl Ether	2.21	59	141642	11.36	PPB	97
11) Acrolein	2.40	56	149720	65.34	PPB	98
12) Trichlorotrifluoroethane	2.39	151	140668	12.27	PPB	99
13) 1,1-Dichloroethene	2.42	96	173839	11.14	PPB	93
14) Acetone	2.54	43	138102	51.01	PPB	98
15) Iodomethane	2.58	142	530052	25.53	PPB	99
16) Carbon Disulfide	2.61	76	1125846	19.95	PPB	100
18) 3-Chloro-1-propene	2.80	76	373752	39.87	PPB	97
20) Acetonitrile	2.89	40	247930	345.17	PPB	97
21) Methylene Chloride	2.95	84	205524	9.46	PPB	99
22) tert-Butyl Alcohol	3.07	59	51639	82.61	PPB	96
23) Acrylonitrile	3.29	53	207093	46.68	PPB	99
24) Methyl tert-Butyl Ether	3.16	73	377430	9.49	PPB	99
25) trans-1,2-Dichloroethene	3.17	96	203426	10.96	PPB	98
26) Hexane	3.38	57	719769	46.88	PPB	99
27) Diisopropyl Ether	3.69	45	1337262	25.05	PPB	97
28) 1,1-Dichloroethane	3.69	63	337262	10.84	PPB	98
29) Vinyl Acetate	3.75	86	207446	77.67	PPB	92
30) Chloroprene	3.75	53	1073256	39.82	PPB	100

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\103015\1030F006.D Vial: 5
Acq On : 30 Oct 2015 15:44 Operator: YX/KR
Sample : DMS K1512095-004 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 20:05:57 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
31)	tert-Butyl Ethyl Ether	4.12	59	1027815	23.12	PPB		99
32)	2,2-Dichloropropane	4.36	77	174926	9.25	PPB		98
33)	cis-1,2-Dichloroethene	4.41	96	219914	10.36	PPB		97
34)	2-Butanone	4.47	72	65129	49.86	PPB	#	84
35)	Propionitrile	4.65	54	57491	36.06	PPB		97
36)	Ethyl Acetate	4.51	61	65091	34.94	PPB		97
37)	Methacrylonitrile	4.80	67	205566	36.87	PPB		93
38)	Bromochloromethane	4.73	128	92196	10.28	PPB		85
40)	Chloroform	4.83	83	340390	11.01	PPB		99
42)	1,1,1-Trichloroethane	5.00	97	226526	10.32	PPB		99
44)	Carbon Tetrachloride	5.16	117	277277	14.81	PPB		98
45)	1,1-Dichloropropene	5.23	75	275356	11.76	PPB		100
47)	Isobutyl Alcohol	5.63	43	233388	770.91	PPB		84
49)	Benzene	5.49	78	872446	10.37	PPB		99
50)	1,2-Dichloroethane	5.63	62	218221	10.19	PPB		99
51)	tert-Amyl Methyl Ether	5.63	55	397985	26.46	PPB	#	75
52)	Trichloroethene	6.32	95	201265	11.18	PPB		99
53)	1,2-Dichloropropane	6.65	63	202593	10.45	PPB		98
54)	Dibromomethane	6.79	93	96363	9.99	PPB		97
55)	Methyl methacrylate	6.81	69	357817	34.01	PPB		96
56)	1,4-Dioxane	6.81	88	45773	357.86	PPB		80
57)	Bromodichloromethane	6.98	83	204603	10.77	PPB		97
58)	2-Nitropropane	7.34	41	43807	28.92	PPB		94
60)	2-Chloroethyl Vinyl Ether	7.51	63	1361	0.15	PPB	#	45
61)	cis-1,3-Dichloropropene	7.50	75	255569	8.64	PPB		98
62)	4-Methyl-2-pentanone (MIBK	7.69	58	231889	53.53	PPB		93
64)	Toluene	7.80	92	563075	10.88	PPB		97
66)	n-Octane	7.88	85	970	0.17	PPB		90
67)	trans-1,3-Dichloropropene	8.16	75	178730	8.06	PPB		96
68)	Ethyl methacrylate	8.21	69	726853	34.97	PPB		95
69)	1,1,2-Trichloroethane	8.34	83	137435	10.32	PPB		98
70)	Tetrachloroethene	8.35	164	161080	11.23	PPB		94
71)	2-Hexanone	8.61	57	67511	48.66	PPB	#	86
72)	1,3-Dichloropropane	8.52	76	291893	10.31	PPB		98
73)	Dibromochloromethane	8.72	129	133091	8.49	PPB		100
74)	1,2-Dibromoethane (EDB)	8.84	107	145943	10.15	PPB		99
75)	1-Chlorohexane	9.31	91	268446	11.16	PPB		97
76)	Chlorobenzene	9.33	112	598527	10.08	PPB		100
77)	Ethylbenzene	9.42	106	320964	11.09	PPB		98
78)	1,1,1,2-Tetrachloroethane	9.43	131	161264	8.72	PPB		95
79)	m,p-Xylenes	9.55	106	787925	22.05	PPB		99

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS18\DATA\103015\1030F006.D Vial: 5
Acq On : 30 Oct 2015 15:44 Operator: YX/KR
Sample : DMS K1512095-004 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 20:05:57 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
80)	o-Xylene	9.97	106	378828	10.98	PPB	99
81)	Styrene	10.00	103	304558m	10.74	PPB	
82)	Bromoform	10.21	173	63592	9.04	PPB	97
83)	Isopropylbenzene	10.34	105	920393	11.11	PPB	99
84)	cis-1,4-Dichloro-2-butene	10.51	89	54434	28.22	PPB	93
87)	1,1,2,2-Tetrachloroethane	10.75	83	178091	10.47	PPB	99
88)	trans-1,4-Dichloro-2-buten	10.82	53	154947	38.04	PPB	97
89)	Bromobenzene	10.68	156	237558	10.43	PPB	94
90)	n-Propylbenzene	10.77	91	1089142	11.37	PPB	98
91)	1,2,3-Trichloropropane	10.79	110	50444	9.68	PPB	95
92)	2-Chlorotoluene	10.87	91	663921	10.92	PPB	99
93)	1,3,5-Trimethylbenzene	10.96	105	739665	11.08	PPB	99
94)	4-Chlorotoluene	10.99	91	772476	10.94	PPB	98
95)	tert-Butylbenzene	11.27	119	626770	10.78	PPB	98
96)	1,2,4-Trimethylbenzene	11.34	105	767600	10.12	PPB	99
97)	sec-Butylbenzene	11.50	105	906752	10.23	PPB	99
98)	p-Isopropyltoluene	11.66	119	767022	10.00	PPB	98
99)	1,3-Dichlorobenzene	11.64	146	438710	10.06	PPB	97
100)	1,4-Dichlorobenzene	11.74	146	454616	9.86	PPB	99
101)	n-Butylbenzene	12.07	91	638476	9.71	PPB	98
102)	1,2-Dichlorobenzene	12.11	146	414763	10.08	PPB	98
103)	1,2-Dibromo-3-chloropropan	12.73	155	15671	9.50	PPB	92
104)	1,3,5-Trichlorobenzene	12.83	180	268605	9.80	PPB	98
105)	1,2,4-Trichlorobenzene	13.29	180	216319	9.07	PPB	100
106)	Hexachlorobutadiene	13.39	225	87010	9.69	PPB	97
107)	Naphthalene	13.50	128	424766	7.77	PPB	99
108)	1,2,3-Trichlorobenzene	13.69	180	172016	8.80	PPB	97

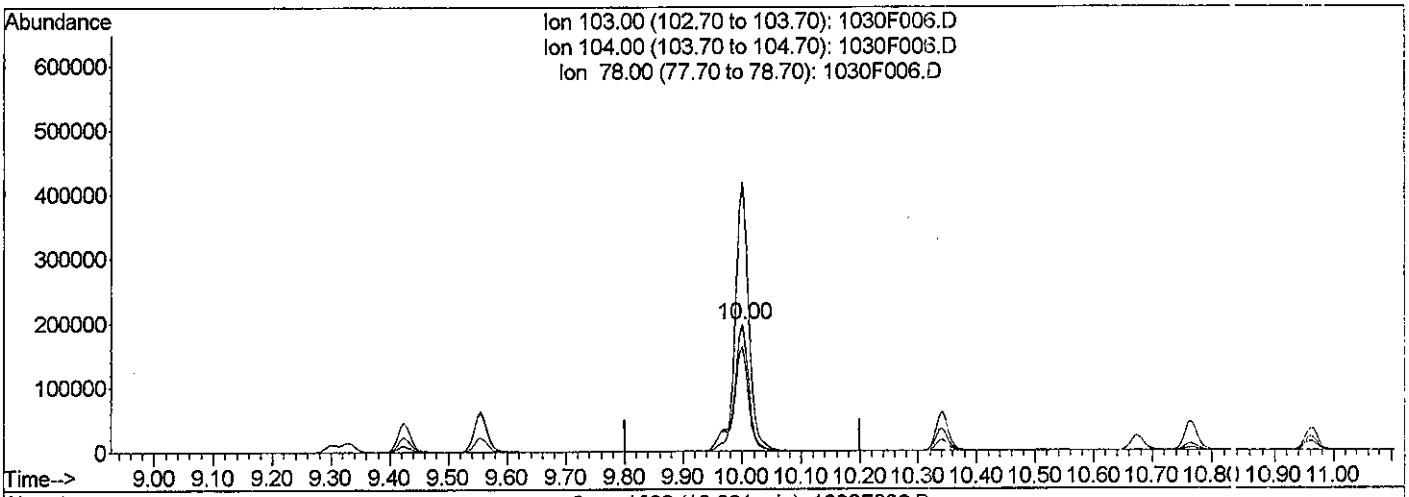
(#) = qualifier out of range (m) = manual integration

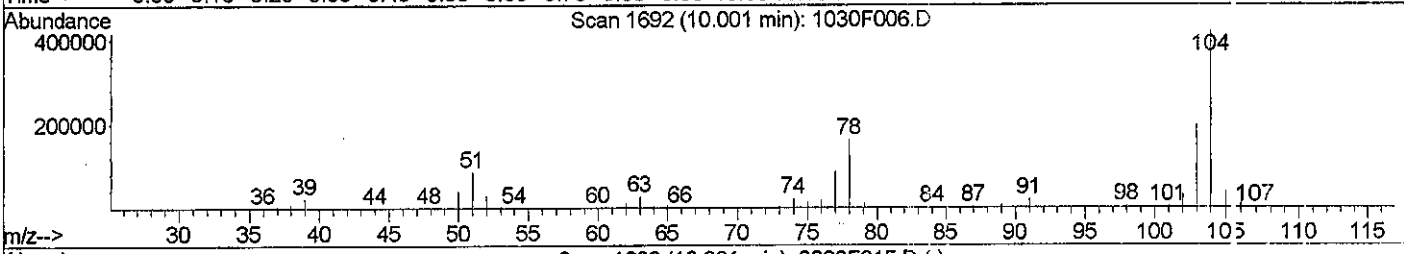
Quantitation Report (Qedit)

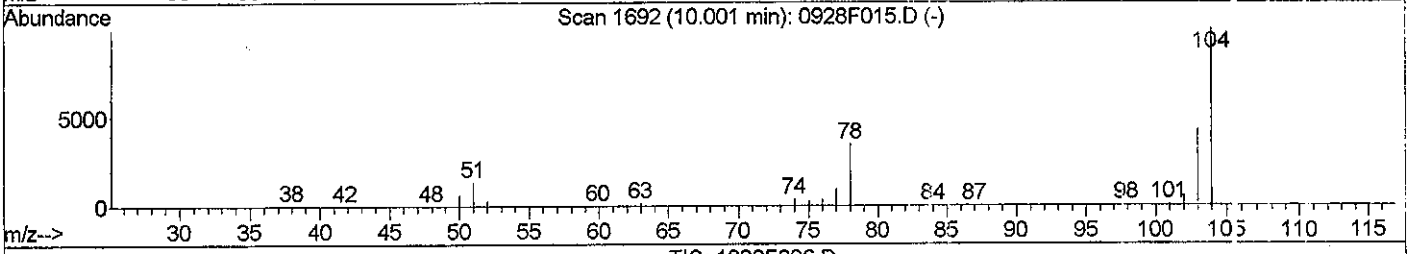
Data File : J:\MS18\DATA\103015\1030F006.D
Acq On : 30 Oct 2015 15:44
Sample : DMS K1512095-004
Misc :
MS Integration Params: rteint.p
Quant Time: Oct 30 20:08 2015

Vial: 5
Operator: YX/KR
Inst : GC-MS 18
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Single Level Calibration







TIC: 1030F006.D

(81) Styrene (T)

10.00min 12.21PPB

response 346272

Ion	Exp%	Act%
103.00	100	100
104.00	211.40	212.37
78.00	83.70	82.21
0.00	0.00	0.00

Manual Integration:

Before

10/30/15

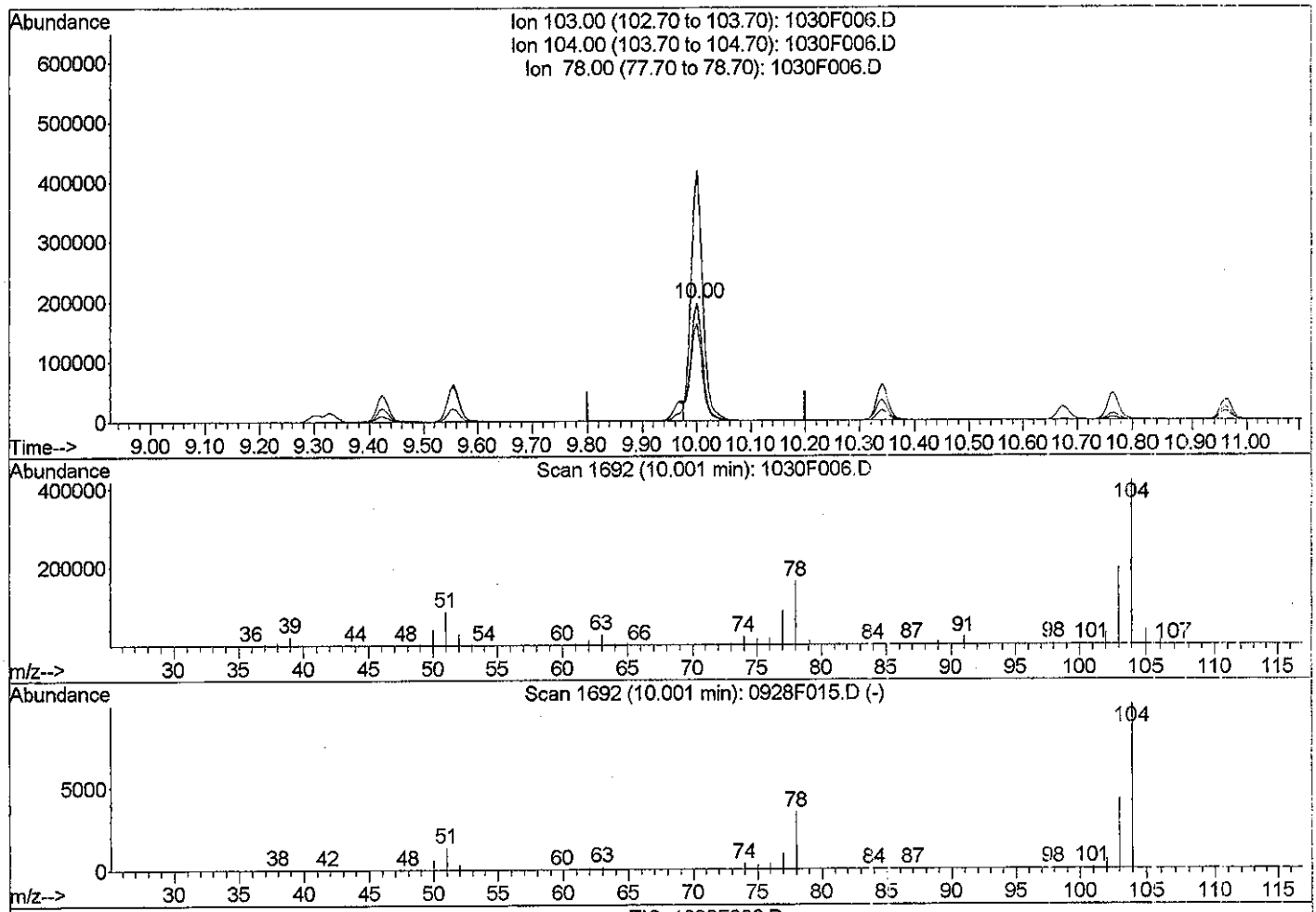
1030F006.D 092815MS18_8260.M Fri Oct 30 20:08:55 2015

Quantitation Report (Qedit)

Data File : J:\MS18\DATA\103015\1030F006.D
Acq On : 30 Oct 2015 15:44
Sample : DMS K1512095-004
Misc :
MS Integration Params: rteint.p
Quant Time: Oct 30 20:08 2015

Vial: 5
Operator: YX/KR
Inst : GC-MS 18
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Single Level Calibration



TIC: 1030F006.D

(81) Styrene (T)

10.00min 10.74PPB m

response 304558

Ion	Exp%	Act%
103.00	100	100
104.00	211.40	212.37
78.00	83.70	82.21
0.00	0.00	0.00

Manual Integration:

After

Shoulder

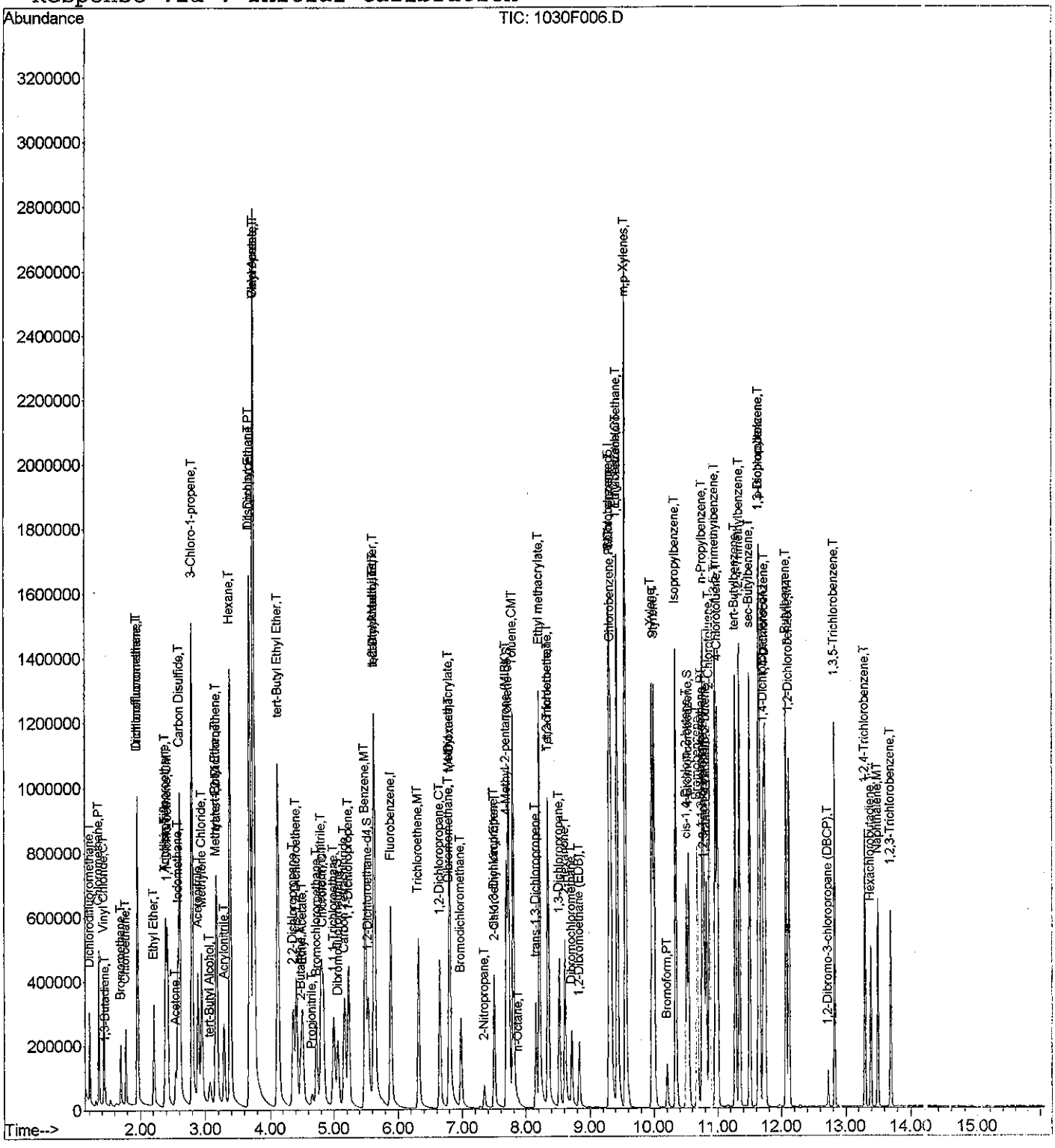
10/30/15

1030F006.D 092815MS18_8260.M Fri Oct 30 20:09:00 2015

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\103015\1030F006.D Vial: 5
Acq On : 30 Oct 2015 15:44 Operator: YX/KR
Sample : DMS K1512095-004 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 20:08 2015 Quant Results File: C92815MS18_8

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration



Exception Report

Data File: J:\MS18\DATA\103015\1030F004.D
Lab ID: KWG1510605-3
RunType: LCS
Matrix: WATER

Date Acquired: 10/30/2015 14:52
Date Quantitated: 10/30/2015 20:07
Batch ID: KWG1510604
Analysis Method: 8260C
MethodJoinID: MJ119

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Window	NA	NA	NA	x	
Analytical Holding Time	NA	NA	NA	x	
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA		x
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Calibration Verification Pass/Fail	NA	NA	NA	x	
Continuing Calibration Recovery	NA	NA	NA		x
Continuing Calibration Minimum RF	NA	NA	NA		x
Continuing Calibration SPCC/CCC	NA	NA	NA	x	
Internal Standards	NA	NA	NA	x	
Surrogates	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Relative Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Std MRL Unsupported by ICAL	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	
Overdiluted Analysis	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	2-Propanol	0.0069	0.01	NA	NT
	tert-Butyl Alcohol	0.0090	0.01	NA	
	Isobutyl Alcohol	0.0044	0.01	NA	
	1,4-Dioxane	0.0018	0.01	NA	
Second Source ICAL Verification	Acrolein	-41.7	NA	30	
	Isobutyl Alcohol	133.7	NA	30	I
Continuing Calibration Recovery	Chloromethane	41.5	NA	20	SAMPLE<MRLOK
	1,3-Butadiene	38.3	NA	20	NT
	Bromomethane	-34.8	NA	20	CCVOK
	Chloroethane	21.8	NA	20	NT
	Carbon Disulfide	-36.7	NA	20	CCV OK
	2-Propanol	-22.8	NA	20	NT
	Methyl Acetate	-30.8	NA	20	I

Primary Review: 10/30/15

Secondary Review: 11/3/15

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
	tert-Butyl Alcohol	-35.4	NA	20	AT
	tert-Butyl Formate	-53.6	NA	20	"
	cis-1,4-Dichloro-2-butene	-29.2	NA	20	"
	Naphthalene	-25.3	NA	20	CCUA
Continuing Calibration Minimum RF	2-Propanol	0.0053	0.01	NA	AT
	tert-Butyl Alcohol	0.0058	0.01	NA	"
	Isobutyl Alcohol	0.0039	0.01	NA	"
	1,4-Dioxane	0.0016	0.01	NA	"

Primary Review: [illegible] 10/30/15

Secondary Review: [illegible]

Quantitation Report

Data File:	J:\MS18\DATA\103015\1030F004.D			**Instrument:**	GC-MS 18
Acqu Date:	10/30/2015 14:52	**Quant Date:**	10/30/2015 20:07	**Vial:**	4
Run Type:	LCS			**Dilution:**	1.0
Lab ID:	KWG1510605-3			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260C VOC FP	**Collect Date:**		**Receive Date:**	10/30/2015

Analysis Lot:	KWG1510604	**Prep Lot:**	KWG1510605	**Report Group:**	
Analysis Method:	8260C	**Prep Method:**	EPA 5030B		
		Prep Date:	10/30/2015		
Prep Ref:	1479833				

Quant Method:	J:\MS18\METHODS\092815MS18_8	**Calibration ID:**	CAL14315
Title:			
Tune Ref:	J:\MS18\DATA\103015\1030F002.D	**Method ID:**	MJ119
MB Ref:	J:\MS18\DATA\103015\1030F008.D	**Quant based on Method**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.89	0.00	96	698123	10.00	OK
2	Chlorobenzene-d5	9.30	0.00	82	279958	10.00	OK
3	1,4-Dichlorobenzene-d4	11.72	0.00	152	261247	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits		Rpt?
1	Dibromofluoromethane	5.06	0.00	0.00	113	152403	9.73	97	73-122	OK	
1	1,2-Dichloroethane-d4	5.53	0.00	0.00	65	152720	8.88	89	59-127	OK	
1	Toluene-d8	7.73	0.00	0.00	98	719985	10.22	102	65-144	OK	
2	4-Bromofluorobenzene	10.54	0.00	0.00	95	259501	9.62	96	68-117	OK	

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane	1.21		0.00	85	125495	7.04	7.04		
1	Chloromethane	1.35		0.00	50	263692	11.37	11.4		
1	Vinyl Chloride	1.43		0.00	62	217973	10.09	10.1		
1	1,3-Butadiene	1.45		0.00	54	10072	0.8000	0.800		
1	Bromomethane	1.70		0.00	96	64971	4.92	4.92		
1	Chloroethane	1.77	-0.01	0.00	64	139475	12.13	12.1		
1	Dichlorofluoromethane (CFC 21	1.95		0.00	67	338803	11.29	11.3		
1	Trichlorofluoromethane	1.95	-0.01	0.00	101	215115	9.32	9.32		
1	Ethyl Ether	2.21		0.00	59	136476	10.85	10.9		
1	Acrolein	2.40		0.00	56	125298	54.23	54.2		
1	Trichlorotrifluoroethane	2.39		0.00	151	125705	10.89	10.9		
1	1,1-Dichloroethene	2.42		0.00	96	159664	10.15	10.2		
1	Acetone	2.54		0.00	43	136962	50.17	50.2		
1	Iodomethane	2.58		0.00	142	478813	22.87	22.9		

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J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS18\DATA\103015\1030F004.D			**Instrument:**	GC-MS 18
Acqu Date:	10/30/2015 14:52	**Quant Date:**	10/30/2015 20:07	**Vial:**	4
Run Type:	LCS			**Dilution:**	1.0
Lab ID:	KWG1510605-3			**Soln Conc. Units:**	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Disulfide	2.61		0.00	76	1013973	17.82	17.8		
1	2-Propanol				45	0d		17	U	
1	3-Chloro-1-propene	2.80		0.00	76	307629	32.54	32.5		
1	Methyl Acetate				43	0d		0.38	U	
1	Acetonitrile	2.89		0.00	40	217469	300.25	300		
1	Methylene Chloride	2.95		0.00	84	198762	9.07	9.07		
1	tert-Butyl Alcohol	3.07		0.00	59	41905	66.48	66.5		
1	Acrylonitrile	3.29		0.00	53	179467	40.12	40.1		
1	Methyl tert-Butyl Ether	3.16		0.00	73	348042	8.68	8.68		
1	trans-1,2-Dichloroethene	3.17		0.00	96	187742	10.04	10.0		
1	n-Hexane	3.38		0.00	57	593683	38.35	38.4		
1	Diisopropyl Ether	3.69		0.00	45	1085881	20.18	20.2		
1	1,1-Dichloroethane	3.69		0.00	63	316525	10.09	10.1		
1	Vinyl Acetate	3.75	-0.01	0.00	86	167058	62.15	62.2		
1	Chloroprene	3.75		0.00	53	898938	33.08	33.1		
1	tert-Butyl Ethyl Ether	4.12		0.00	59	828504	18.48	18.5		
1	2,2-Dichloropropane	4.36		0.00	77	154018	8.10	8.10		
1	cis-1,2-Dichloroethene	4.41		0.00	96	205380	9.60	9.60		
1	2-Butanone (MEK)	4.47		0.00	72	61054	46.35	46.4		
1	Propionitrile	4.66		0.00	54	46661	29.02	29.0		
1	Ethyl Acetate	4.51	0.01	0.00	61	49747	26.48	26.5		
1	Methacrylonitrile	4.80		0.00	67	170434	30.31	30.3		
1	Bromochloromethane	4.72	-0.01	0.00	128	88021	9.74	9.74		
1	Tetrahydrofuran				71	0d		5.0	U	
1	Chloroform	4.83		0.00	83	315563	10.12	10.1		
1	tert-Butyl Formate				59	0d		0.26	U	
1	1,1,1-Trichloroethane (TCA)	5.00		0.00	97	207369	9.37	9.37		
1	Carbon Tetrachloride	5.16		0.00	117	169475	9.08	9.08		
1	1,1-Dichloropropene	5.22	-0.01	0.00	75	249126	10.55	10.6		
1	Cyclohexane				56	0d		0.36	U	
1	Isobutyl Alcohol	5.63		0.00	43	198302	648.20	648		
1	Benzene	5.49		0.00	78	807535	9.52	9.52		
1	1,2-Dichloroethane (EDC)	5.63		0.00	62	206096	9.55	9.55		
1	tert-Amyl Methyl Ether	5.63		0.00	55	320063	21.10	21.1		
1	Trichloroethene (TCE)	6.32		0.00	95	181668	10.01	10.0		
1	1,2-Dichloropropane	6.65		0.00	63	188386	9.63	9.63		
1	Dibromomethane	6.79		0.00	93	90155	9.22	9.22		
1	Methyl Methacrylate	6.81		0.00	69	286781	27.23	27.2		
1	1,4-Dioxane	6.81	-0.01	0.00	88	34490	267.41	267		
1	Bromodichloromethane	6.98		0.00	83	190895	9.96	9.96		
1	2-Nitropropane	7.35		0.00	41	37886	25.00	25.0		
1	Methylcyclohexane				83	0d		0.33	U	

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*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS18\DATA\103015\1030F004.D			**Instrument:**	GC-MS 18
Acqu Date:	10/30/2015 14:52	**Quant Date:**	10/30/2015 20:07	**Vial:**	4
Run Type:	LCS			**Dilution:**	1.0
Lab ID:	KWG1510605-3			**Soln Conc. Units:**	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	2-Chloroethyl Vinyl Ether	7.37		0.00	63	70027	7.47	7.47		
1	cis-1,3-Dichloropropene	7.50		0.00	75	240872	8.08	8.08		
1	4-Methyl-2-pentanone (MIBK)	7.69		0.00	58	211933	48.52	48.5		
1	Toluene	7.80		0.00	92	513811	9.85	9.85		
2	n-Octane	7.87		0.00	85	5006	0.8800	0.880	J	
2	trans-1,3-Dichloropropene	8.16	0.01	0.00	75	161941	7.30	7.30		
2	Ethyl Methacrylate	8.21		0.00	69	581837	27.95	28.0		
2	1,1,2-Trichloroethane	8.34		0.00	83	125771	9.43	9.43		
2	Tetrachloroethene (PCE)	8.35		0.00	164	145916	10.16	10.2		
2	2-Hexanone	8.61		0.00	57	60606	43.62	43.6		
2	1,3-Dichloropropane	8.52		0.00	76	269077	9.49	9.49		
2	Dibromochloromethane	8.72		0.00	129	122451	7.81	7.81		
2	1,2-Dibromoethane (EDB)	8.84		0.00	107	134745	9.36	9.36		
2	1-Chlorohexane	9.31		0.00	91	242033	10.07	10.1		
2	Chlorobenzene	9.33		0.00	112	564338	9.49	9.49		
2	Ethylbenzene	9.42		0.00	106	296310	10.22	10.2		
2	1,1,1,2-Tetrachloroethane	9.43	-0.01	0.00	131	150126	8.11	8.11		
2	m,p-Xylenes	9.55		0.00	106	732118	20.46	20.5		
2	o-Xylene	9.97		0.00	106	352845	10.21	10.2		
2	Styrene	10.00		0.00	103	282510m	9.95	9.95		
2	Bromoform	10.21	0.01	0.00	173	56733	8.10	8.10		
2	Isopropylbenzene	10.34		0.00	105	846657	10.20	10.2		
2	cis-1,4-Dichloro-2-butene	10.51		0.00	89	40540	21.24	21.2		
3	1,1,2,2-Tetrachloroethane	10.75		0.00	83	157294	9.22	9.22		
3	trans-1,4-Dichloro-2-butene	10.82		0.00	53	119425	29.24	29.2		
3	Bromobenzene	10.68		0.00	156	221758	9.70	9.70		
3	n-Propylbenzene	10.77		0.00	91	999892	10.40	10.4		
3	1,2,3-Trichloropropane	10.79		0.00	110	46029	8.81	8.81		
3	2-Chlorotoluene	10.87		0.00	91	612810	10.05	10.1		
3	1,3,5-Trimethylbenzene	10.96		0.00	105	691237	10.32	10.3		
3	4-Chlorotoluene	10.99		0.00	91	715592	10.11	10.1		
3	tert-Butylbenzene	11.27		0.00	119	575053	9.86	9.86		
3	1,2,4-Trimethylbenzene	11.34		0.00	105	719902	9.47	9.47		
3	sec-Butylbenzene	11.50		0.00	105	824342	9.27	9.27		
3	4-Isopropyltoluene	11.65	-0.01	0.00	119	688883	8.96	8.96		
3	1,3-Dichlorobenzene	11.64		0.00	146	409832	9.37	9.37		
3	1,4-Dichlorobenzene	11.74		0.00	146	425725	9.21	9.21		
3	n-Butylbenzene	12.07		0.00	91	575040	8.72	8.72		
3	1,2-Dichlorobenzene	12.11	-0.01	0.00	146	384984	9.33	9.33		
3	1,2-Dibromo-3-chloropropane	12.73		0.00	155	13597	8.29	8.29		
3	1,3,5-Trichlorobenzene	12.83		0.00	180	249266	9.07	9.07		
3	1,2,4-Trichlorobenzene	13.29	-0.01	0.00	180	195958	8.19	8.19		

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m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

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?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS18\DATA\103015\1030F004.D			**Instrument:**	GC-MS 18
Acqu Date:	10/30/2015 14:52	**Quant Date:**	10/30/2015 20:07	**Vial:**	4
Run Type:	LCS			**Dilution:**	1.0
Lab ID:	KWG1510605-3			**Soln Conc. Units:**	PPB

Target Compounds **Final Conc. Units:** ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Hexachlorobutadiene	13.39		0.00	225	74742	8.30	8.30		
3	Naphthalene	13.49	-0.01	0.00	128	378120	6.89	6.89		
3	1,2,3-Trichlorobenzene	13.69		0.00	180	153655	7.84	7.84		
	Benzyl Chloride				0	0		1.0	U	NR
	Isopropyl Acetate				0	0		20	U	NR
	Cyclohexanone				0	0		1.0	U	NR
	2-Ethoxyethanol				0	0		1.0	U	NR
	Bis(2-chloroethyl) Ether				0	0		20	U	NR
	beta-Pinene				0	0		1.0	U	NR
	1,1,2-Trifluoroethane				0	0		1.0	U	NR
	2,2,4-Trimethylpentane				0	0		1.0	U	NR
	Bis(chloromethyl) Ether				0	0		1.0	U	NR
	Amyl Acetate				0	0		20	U	NR
	Bromoethane				0	0		1.0	U	NR
	Pentachloroethane				0	0		5.0	U	NR
	1,1-Dichloropropane				0	0		1.0	U	NR
	alpha-Pinene				0	0		1.0	U	NR
	1,1,1,2-Tetrafluoroethane				0	0		1.0	U	NR
	Nitrobenzene				0	0		20	U	NR

Prep Amount:	10 ml	**Dilution:**	1.0
Prep Final Vol:	10 ml	**Unit Factor:**	1

Final Concentration = ((Soln Conc x Prep Final Vol x Dilution) / Prep Amount) x Unit Factor

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D: Result from dilution
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Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\103015\1030F004.D Vial: 4
Acq On : 30 Oct 2015 14:52 Operator: YX/KR
Sample : LCS Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 15:09:18 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration
DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	5.89	96	698123	10.00	PPB		0.00
65) Chlorobenzene-d5	9.30	82	279958	10.00	PPB		0.00
86) 1,4-Dichlorobenzene-d4	11.72	152	261247	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.06	113	152403	9.73	PPB		0.00
Spiked Amount 10.000			Recovery = 97.30%				
48) 1,2-Dichloroethane-d4	5.53	65	152720	8.88	PPB		0.00
Spiked Amount 10.000			Recovery = 88.80%				
63) Toluene-d8	7.73	98	719985	10.22	PPB		0.00
Spiked Amount 10.000			Recovery = 102.20%				
85) 4-Bromofluorobenzene	10.54	95	259501	9.62	PPB		0.00
Spiked Amount 10.000			Recovery = 96.20%				
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.21	85	125495	7.04	PPB		99
3) Chloromethane	1.35	50	263692	11.37	PPB		98
4) Vinyl Chloride	1.43	62	217973	10.09	PPB		99
5) 1,3-Butadiene	1.45	54	10072	0.80	PPB		97
6) Bromomethane	1.70	96	64971	4.92	PPB		99
7) Chloroethane	1.77	64	139475	12.13	PPB		99
8) Dichlorofluoromethane	1.95	67	338803	11.29	PPB		99
9) Trichlorofluoromethane	1.95	101	215115	9.32	PPB		98
10) Ethyl Ether	2.21	59	136476	10.85	PPB		95
11) Acrolein	2.40	56	125298	54.23	PPB		94
12) Trichlorotrifluoroethane	2.39	151	125705	10.89	PPB		94
13) 1,1-Dichloroethene	2.42	96	159664	10.15	PPB		91
14) Acetone	2.54	43	136962	50.17	PPB		100
15) Iodomethane	2.58	142	478813	22.87	PPB		98
16) Carbon Disulfide	2.61	76	1013973	17.82	PPB		100
18) 3-Chloro-1-propene	2.80	76	307629	32.54	PPB		99
20) Acetonitrile	2.89	40	217469	300.25	PPB		93
21) Methylene Chloride	2.95	84	198762	9.07	PPB		97
22) tert-Butyl Alcohol	3.07	59	41905	66.48	PPB		96
23) Acrylonitrile	3.29	53	179467	40.12	PPB		99
24) Methyl tert-Butyl Ether	3.16	73	348042	8.68	PPB		99
25) trans-1,2-Dichloroethene	3.17	96	187742	10.04	PPB		100
26) Hexane	3.38	57	593683	38.35	PPB		99
27) Diisopropyl Ether	3.69	45	1085881	20.18	PPB		97
28) 1,1-Dichloroethane	3.69	63	316525	10.09	PPB		98
29) Vinyl Acetate	3.75	86	167058	62.15	PPB	#	92
30) Chloroprene	3.75	53	898938	33.08	PPB		99

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\103015\1030F004.D Vial: 4
Acq On : 30 Oct 2015 14:52 Operator: YX/KR
Sample : LCS Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 15:09:18 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
31)	tert-Butyl Ethyl Ether	4.12	59	828504	18.48	PPB		99
32)	2,2-Dichloropropane	4.36	77	154018	8.10	PPB		98
33)	cis-1,2-Dichloroethene	4.41	96	205380	9.60	PPB		96
34)	2-Butanone	4.47	72	61054	46.35	PPB		88
35)	Propionitrile	4.66	54	46661	29.02	PPB		96
36)	Ethyl Acetate	4.51	61	49747	26.48	PPB		90
37)	Methacrylonitrile	4.80	67	170434	30.31	PPB		93
38)	Bromochloromethane	4.72	128	88021	9.74	PPB		93
40)	Chloroform	4.83	83	315563	10.12	PPB		98
42)	1,1,1-Trichloroethane	5.00	97	207369	9.37	PPB		99
44)	Carbon Tetrachloride	5.16	117	169475	9.08	PPB		100
45)	1,1-Dichloropropene	5.22	75	249126	10.55	PPB		99
47)	Isobutyl Alcohol	5.63	43	198302	648.20	PPB		83
49)	Benzene	5.49	78	807535	9.52	PPB		99
50)	1,2-Dichloroethane	5.63	62	206096	9.55	PPB		97
51)	tert-Amyl Methyl Ether	5.63	55	320063	21.10	PPB	#	70
52)	Trichloroethene	6.32	95	181668	10.01	PPB		99
53)	1,2-Dichloropropane	6.65	63	188386	9.63	PPB		98
54)	Dibromomethane	6.79	93	90155	9.22	PPB		97
55)	Methyl methacrylate	6.81	69	286781	27.23	PPB		95
56)	1,4-Dioxane	6.81	88	34490	267.41	PPB		80
57)	Bromodichloromethane	6.98	83	190895	9.96	PPB		98
58)	2-Nitropropane	7.35	41	37886	25.00	PPB		96
60)	2-Chloroethyl Vinyl Ether	7.37	63	70027	7.47	PPB		98
61)	cis-1,3-Dichloropropene	7.50	75	240872	8.08	PPB		100
62)	4-Methyl-2-pentanone (MIBK	7.69	58	211933	48.52	PPB		92
64)	Toluene	7.80	92	513811	9.85	PPB		99
66)	n-Octane	7.87	85	5006	0.88	PPB		95
67)	trans-1,3-Dichloropropene	8.16	75	161941	7.30	PPB		97
68)	Ethyl methacrylate	8.21	69	581837	27.95	PPB		95
69)	1,1,2-Trichloroethane	8.34	83	125771	9.43	PPB		99
70)	Tetrachloroethene	8.35	164	145916	10.16	PPB		99
71)	2-Hexanone	8.61	57	60606	43.62	PPB	#	85
72)	1,3-Dichloropropane	8.52	76	269077	9.49	PPB		97
73)	Dibromochloromethane	8.72	129	122451	7.81	PPB		99
74)	1,2-Dibromoethane (EDB)	8.84	107	134745	9.36	PPB		95
75)	1-Chlorohexane	9.31	91	242033	10.07	PPB		96
76)	Chlorobenzene	9.33	112	564338	9.49	PPB		99
77)	Ethylbenzene	9.42	106	296310	10.22	PPB		99
78)	1,1,1,2-Tetrachloroethane	9.43	131	150126	8.11	PPB		99
79)	m,p-Xylenes	9.55	106	732118	20.46	PPB		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\103015\1030F004.D Vial: 4
Acq On : 30 Oct 2015 14:52 Operator: YX/KR
Sample : LCS Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 15:09:18 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
80)	o-Xylene	9.97	106	352845	10.21	PPB	99
81)	Styrene	10.00	103	282510m	9.95	PPB	
82)	Bromoform	10.21	173	56733	8.10	PPB	98
83)	Isopropylbenzene	10.34	105	846657	10.20	PPB	99
84)	cis-1,4-Dichloro-2-butene	10.51	89	40540	21.24	PPB	91
87)	1,1,2,2-Tetrachloroethane	10.75	83	157294	9.22	PPB	99
88)	trans-1,4-Dichloro-2-buten	10.82	53	119425	29.24	PPB	87
89)	Bromobenzene	10.68	156	221758	9.70	PPB	95
90)	n-Propylbenzene	10.77	91	999892	10.40	PPB	98
91)	1,2,3-Trichloropropane	10.79	110	46029	8.81	PPB	92
92)	2-Chlorotoluene	10.87	91	612810	10.05	PPB	99
93)	1,3,5-Trimethylbenzene	10.96	105	691237	10.32	PPB	97
94)	4-Chlorotoluene	10.99	91	715592	10.11	PPB	98
95)	tert-Butylbenzene	11.27	119	575053	9.86	PPB	99
96)	1,2,4-Trimethylbenzene	11.34	105	719902	9.47	PPB	100
97)	sec-Butylbenzene	11.50	105	824342	9.27	PPB	100
98)	p-Isopropyltoluene	11.65	119	688883	8.96	PPB	99
99)	1,3-Dichlorobenzene	11.64	146	409832	9.37	PPB	98
100)	1,4-Dichlorobenzene	11.74	146	425725	9.21	PPB	98
101)	n-Butylbenzene	12.07	91	575040	8.72	PPB	98
102)	1,2-Dichlorobenzene	12.11	146	384984	9.33	PPB	99
103)	1,2-Dibromo-3-chloropropan	12.73	155	13597	8.29	PPB	85
104)	1,3,5-Trichlorobenzene	12.83	180	249266	9.07	PPB	98
105)	1,2,4-Trichlorobenzene	13.29	180	195958	8.19	PPB	98
106)	Hexachlorobutadiene	13.39	225	74742	8.30	PPB	97
107)	Naphthalene	13.49	128	378120	6.89	PPB	98
108)	1,2,3-Trichlorobenzene	13.69	180	153655	7.84	PPB	98

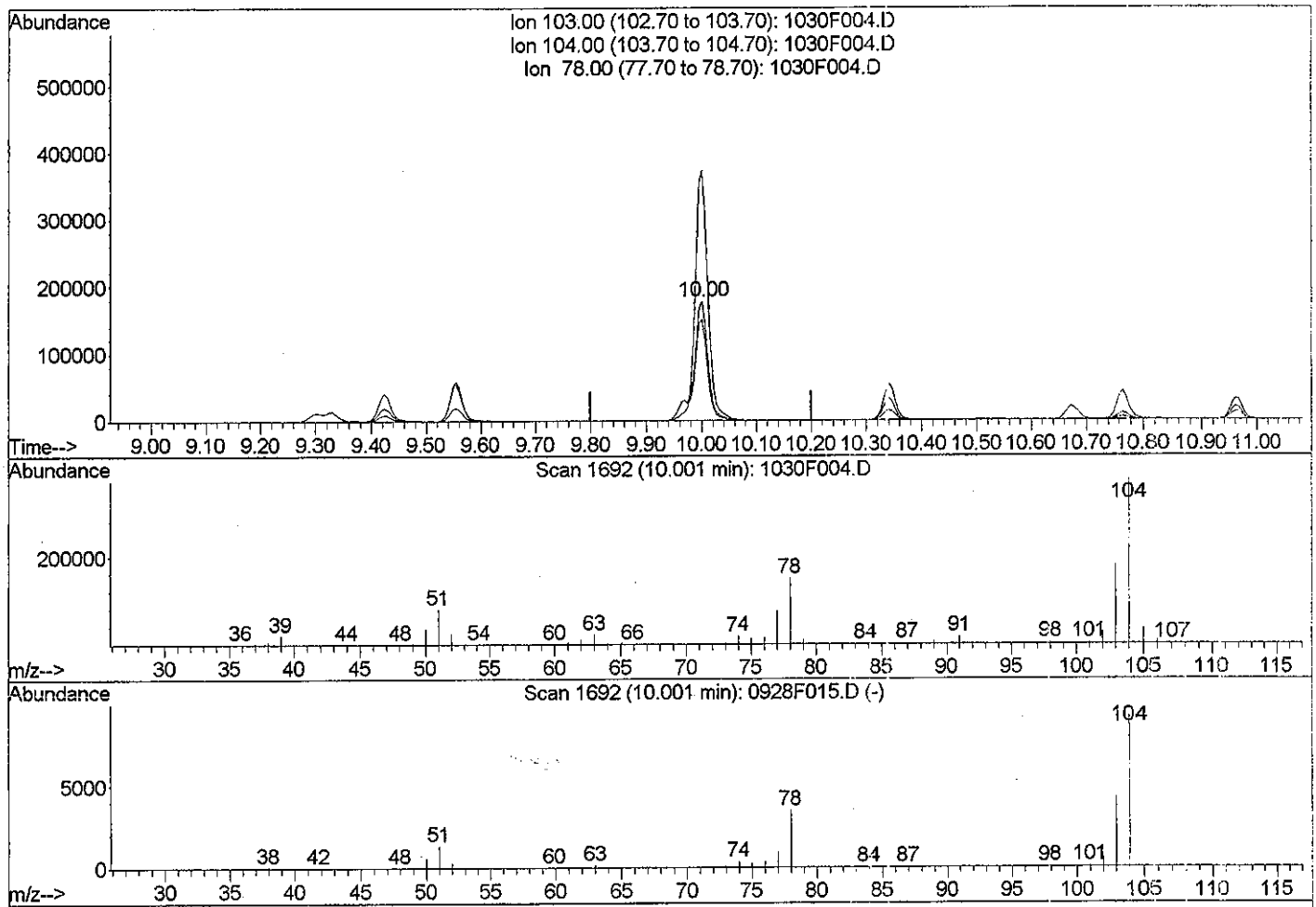
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data File : J:\MS18\DATA\103015\1030F004.D
Acq On : 30 Oct 2015 14:52
Sample : LCS
Misc :
MS Integration Params: rteint.p
Quant Time: Oct 30 20:07 2015

Vial: 4
Operator: YX/KR
Inst : GC-MS 18
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Single Level Calibration



TIC: 1030F004.D

(81) Styrene (T)

10.00min 11.26PPB

response 319893

Ion	Exp%	Act%
103.00	100	100
104.00	211.40	210.00
78.00	83.70	84.64
0.00	0.00	0.00

Manual Integration:

Before

10/30/15

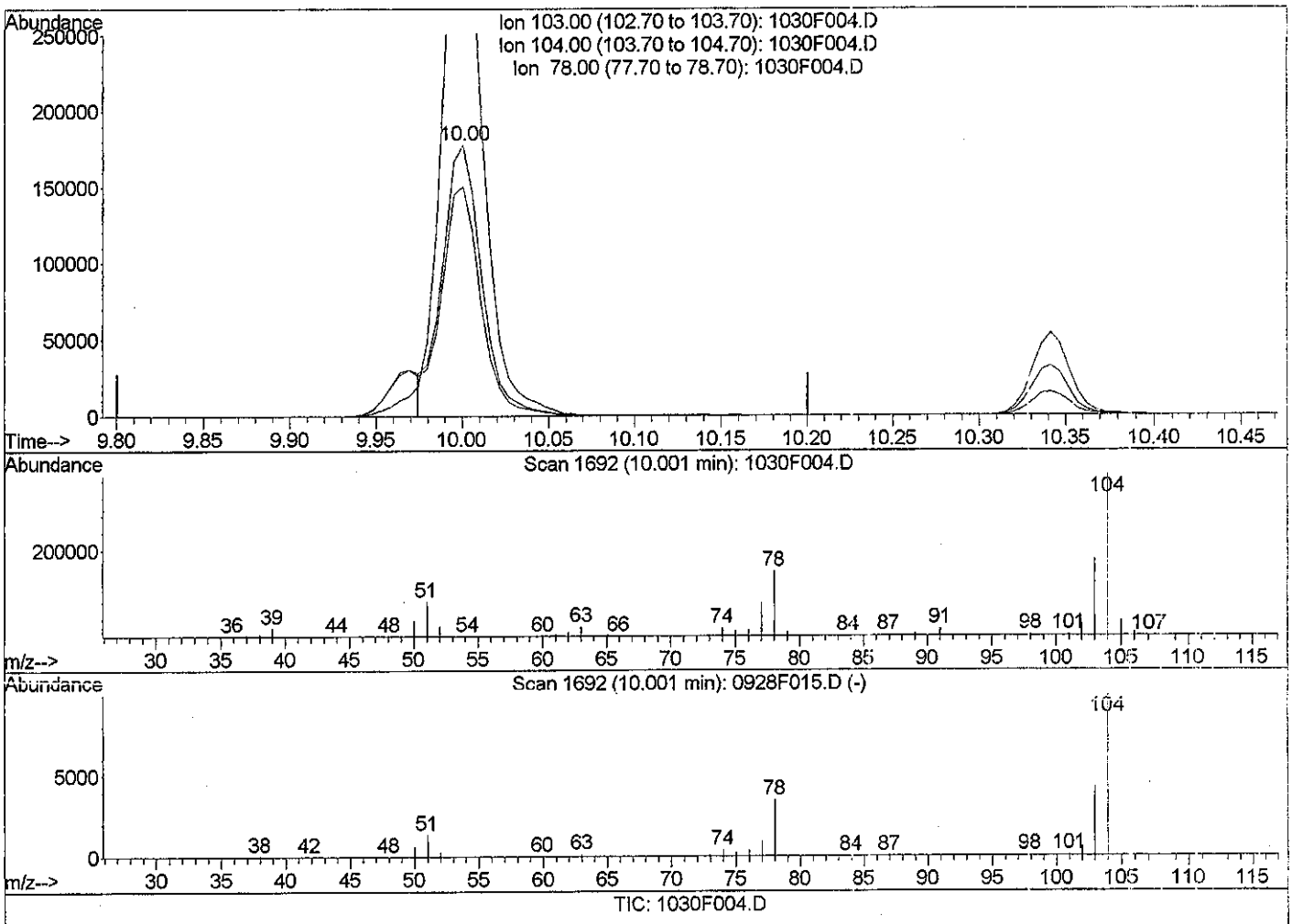
1030F004.D 092815MS18_8260.M Fri Oct 30 20:07:48 2015

Quantitation Report (Qedit)

Data File : J:\MS18\DATA\103015\1030F004.D
Acq On : 30 Oct 2015 14:52
Sample : LCS
Misc :
MS Integration Params: rteint.p
Quant Time: Oct 30 20:07 2015

Vial: 4
Operator: YX/KR
Inst : GC-MS 18
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Single Level Calibration



TIC: 1030F004.D

(81) Styrene (T)

10.00min 9.95PPB m

response 282510

Ion	Exp%	Act%
103.00	100	100
104.00	211.40	210.00
78.00	83.70	84.64
0.00	0.00	0.00

Manual Integration:

After

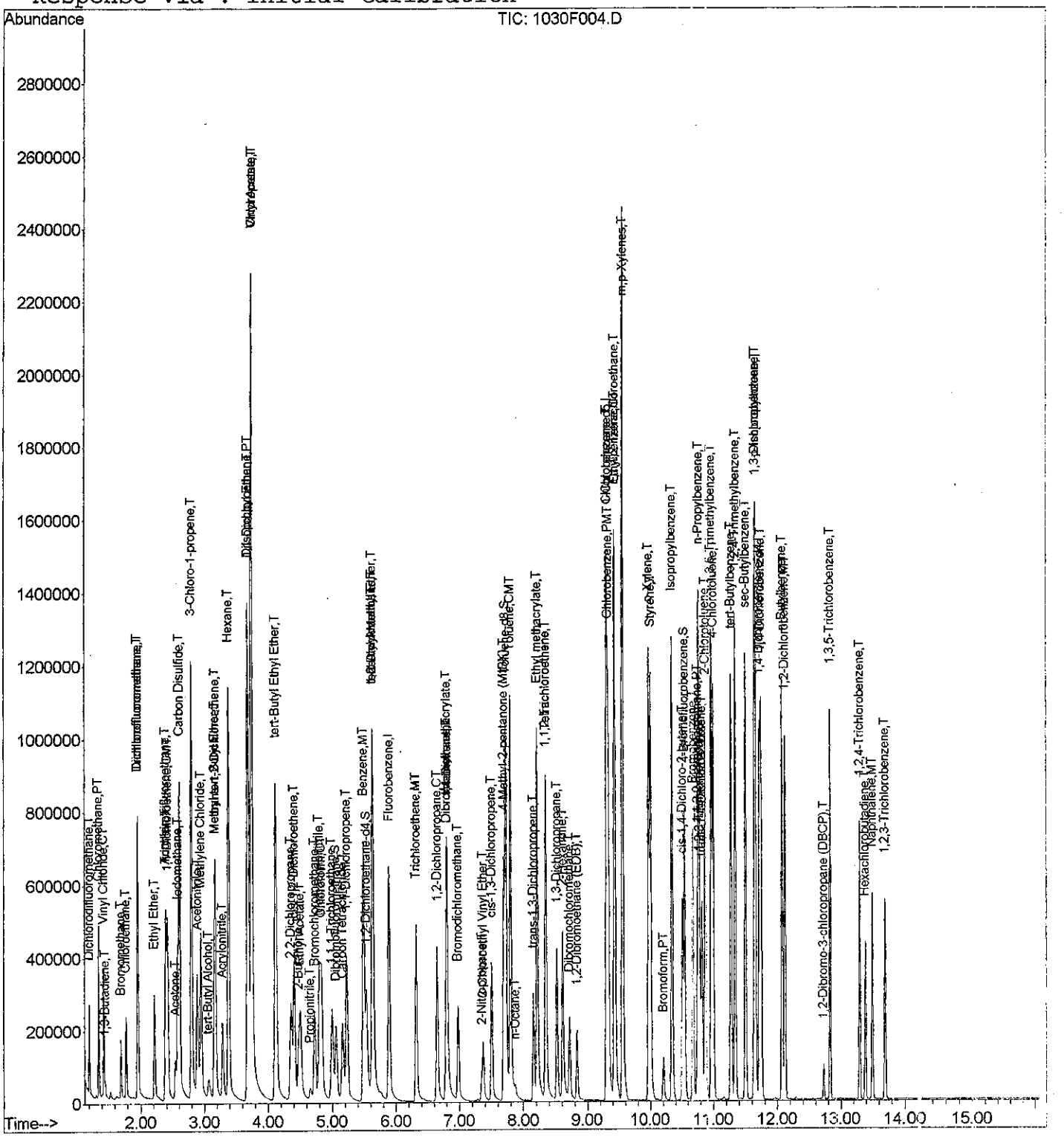
Shoulder

10/30/15

1030F004.D 092815MS18_8260.M Fri Oct 30 20:07:57 2015

Data File : J:\MS18\DATA\103015\1030F004.D Vial: 4
Acq On : 30 Oct 2015 14:52 Operator: YX/KR
Sample : LCS Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 20:07 2015 Quant Results File: 092815MS18_8

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration



469839

Date: 10/30/15

By: VX

IS/SS Std. ID: 8DV0A-84A 11/21

CCV Std ID: 8DV0A-59E 11/28 95A 11/5

MS/DMS/LCS/ICV Std ID: 8DV0A-90C 11/4 86E 10/30

8DV0A-87A 10/30 -83D 12/21 88A 11/2

BFB Std. ID: 8DV0A-78D 11/9

ALS Environmental
Injection Log
MS18 - Agilent 5973

Tune File: BFB_L

New Tune: NO

ICAL Date: 9/28/15 L4/3/15

Second RV: VA 11/13/15

LIMS ID: KWS1510604/605

	Sample Name	File Name	Method	Dilution	pH<2	Comments
1	BFB	1030F002	8260	4.4 uL → 44mL		
2	CCV	03		5 uL → 50mL		
3	LCS	04		7.5/15/15/10 uL → 50mL		
4	LCS K1512095-04	05		6.4/4.4/4.4/4.4/2.8 uL → 44mL	✓	
5	DMS ⊥	06		⊥	✓	
6	LB	07				
7	MB	08				
8	K1512083-005 TB	09			✓	TB100915
9	K1512095-014 TB	10			✓	TB100915
10	-004	11			✓	
11	-001	12			✓	
12	-002	13			✓	
13	-003	14			✓	
14	-005	15			✓	
15	-006	16			✓	
16	-007	17			✓	
17	-008	18			✓	
18	-009	19			✓	
19	-010	20			✓	
20	-011	21			✓	
21	-012	22			✓	
22	⊥ -013	23			✓	
23	K1512089-001	24			✓	
24	-002	25			✓	
25	-003	26			✓	
26	⊥ -004	27			✓	
27	LB	28				
	PET ML 10/14/15 100X ⊥	29		500uL → 50mL ⊥		Chloromethane > LRL ⊥
		30				

R:\VOA\Injection Logs\INJLOG_MS18_Rev1

Exception Report

Data File: J:\MS18\DATA\103015\1030F002.D
Lab ID: KWG1510604-1
RunType: TUNE
Matrix: WATER

Date Acquired: 10/30/2015 13:57
Date Quantitated:
Batch ID: KWG1510604
Analysis Method: BFB
ListJoinID: LJ774

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
Tune Ion Ratio	NA	NA	NA	x	

Primary Review: 10/30/15

Secondary Review:

Printed: 10/30/2015 20:36:16
u:\Stealth\Crystal.rpt\except2.rpt

Quantitation Report

Data File:	J:\MS18\DATA\103015\1030F002.D	**Instrument:**	GC-MS 18
Acqu Date:	10/30/2015 13:57 **Quant Date:**	**Vial:**	2
Run Type:	TUNE	**Dilution:**	1.0
Lab ID:	KWG1510604-1	**Soln Conc. Units:**	

Bottle ID:		**Tier:**	**Matrix:** WATER
Prod Code:	8260B	**Collect Date:**	**Receive Date:** 10/30/2015

Analysis Lot:	KWG1510604	**Prep Lot:**	**Report Group:**
Analysis Method:	BFB	**Prep Method:**	
Prep Ref:		**Prep Date:**	

Quant Method:	J:\MS18\METHODS\092815MS18_8	**Calibration ID:**	CAL14315
Title:	GC/MS Tuning Evaluation	**Report List ID:**	LJ774
Tune Ref:		**Method ID:**	MJ159
MB Ref:		**Quant based on Report List**	

Tune Results

Target Mass	Relative to Mass	Lower Limit%	Upper Limit%	Relative Abundance %	Raw Abundance	Result Pass/Fail
50	95	15	40	16.4	12700	Pass
75	95	30	60	44.6	34464	Pass
95	95	100	100	100.0	77274	Pass
96	95	5	9	7.0	5416	Pass
173	174	0	2	0.7	418	Pass
174	95	50	120	79.5	61464	Pass
175	174	5	9	7.3	4495	Pass
176	174	95	101	97.1	59709	Pass
177	176	5	9	7.0	4180	Pass

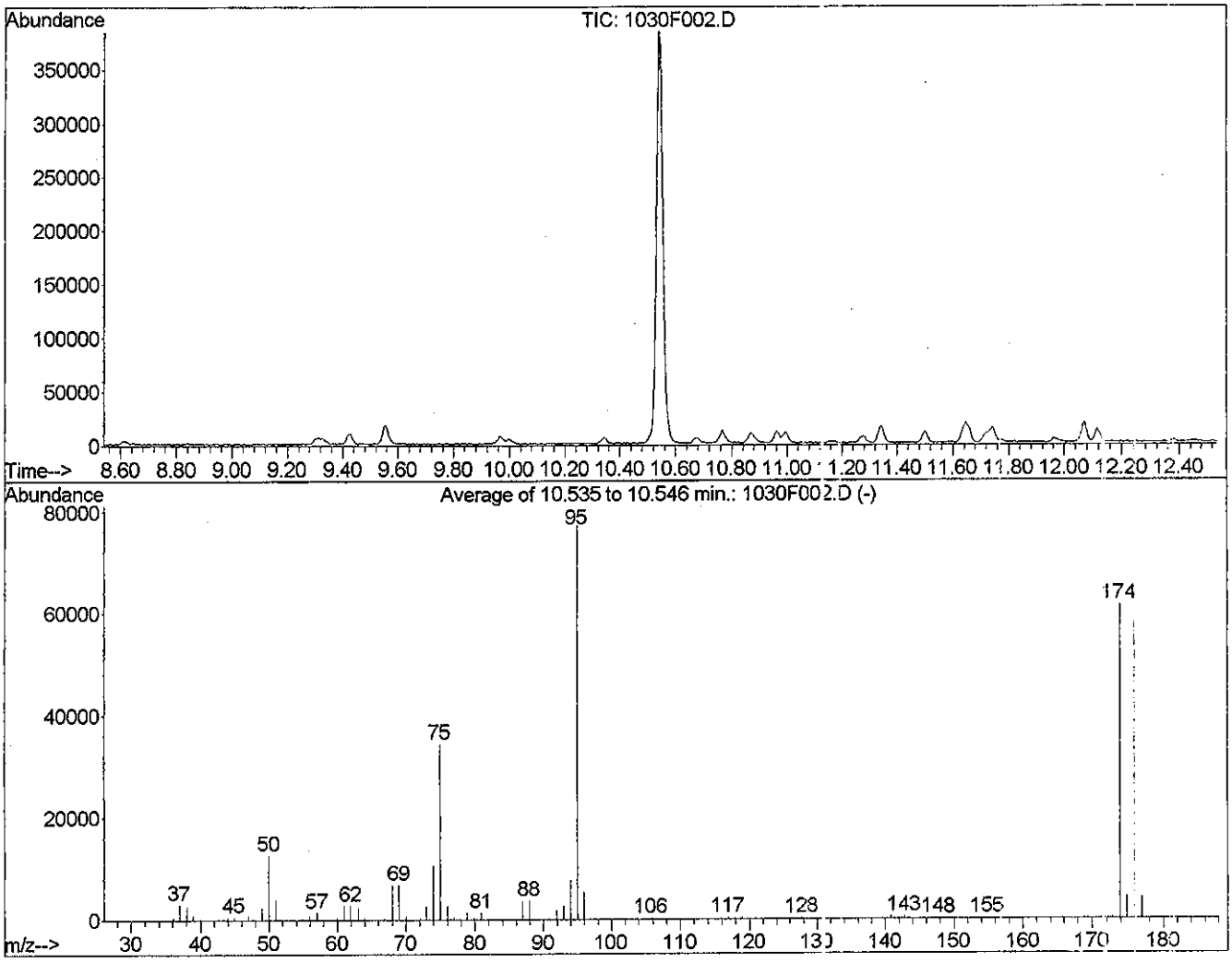
U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File : J:\MS18\DATA\103015\1030F002.D
Acq On : 30 Oct 2015 13:57
Sample : BFB
Misc :
MS Integration Params: rteint.p
Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B

Vial: 2
Operator: YX/KR
Inst : GC-MS 18
Multiplr: 1.00



AutoFind: Scans 1794, 1795, 1796; Background Corrected with Scan 1786

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.4	12700	PASS
75	95	30	60	44.6	34464	PASS
95	95	100	100	100.0	77274	PASS
96	95	5	9	7.0	5416	PASS
173	174	0.00	2	0.7	418	PASS
174	95	50	120	79.5	61464	PASS
175	174	5	9	7.3	4495	PASS
176	174	95	101	97.1	59709	PASS
177	176	5	9	7.0	4180	PASS

1030F002.D 092815MS18_8260.M Fri Oct 30 20:06:54 2015

Exception Report

Data File: J:\MS18\DATA\103015\1030F003.D
Lab ID: KWG1510604-2
RunType: CCV
Matrix: WATER

Date Acquired: 10/30/2015 14:24
Date Quantitated: 10/30/2015 20:07
Batch ID: KWG1510604
Analysis Method: 8260C
MethodJoinID: MJ119

Sample Exceptions

Exception Categories	Result	Low Limit	High Limit	Pass	Fail
ICAL Pass/Fail	NA	NA	NA	x	
ICAL Analyte Recovery	NA	NA	NA	x	
Initial Calibration Minimum RF	NA	NA	NA		x
Initial Calibration SPCC/CCC	NA	NA	NA	x	
Second Source ICAL Verification	NA	NA	NA		x
Internal Standards	NA	NA	NA	x	
Analyte Co-elution	NA	NA	NA	x	
Retention Time	NA	NA	NA	x	
Below Lowest ICAL Level	NA	NA	NA	x	
Above Highest ICAL Level	NA	NA	NA	x	
Enviroquant/Stealth Calibration Check	NA	NA	NA	x	

Analyte Exceptions

Exception Categories	Analyte Name	Result	Low Limit	High Limit	Corrective Action
Initial Calibration Minimum RF	2-Propanol	0.0069	0.01	NA	NT
	tert-Butyl Alcohol	0.0090	0.01	NA	
	Isobutyl Alcohol	0.0044	0.01	NA	
	1,4-Dioxane	0.0018	0.01	NA	
Second Source ICAL Verification	Acrolein	-41.7	NA	30	
	Isobutyl Alcohol	133.7	NA	30	

Primary Review: 10/30/15

Secondary Review: 11/3/15

Quantitation Report

Data File:	J:\MS18\DATA\103015\1030F003.D			**Instrument:**	GC-MS 18
Acqu Date:	10/30/2015 14:24	**Quant Date:**	10/30/2015 20:07	**Vial:**	3
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG1510604-2			**Soln Conc. Units:**	PPB

Bottle ID:		**Tier:**		**Matrix:**	WATER
Prod Code:	8260B	**Collect Date:**		**Receive Date:**	10/30/2015

Analysis Lot:	KWG1510604	**Prep Lot:**		**Report Group:**	
Analysis Method:	8260C	**Prep Method:**			
Prep Ref:		**Prep Date:**			

Quant Method:	J:\MS18\METHODS\092815MS18_8			**Calibration ID:**	CAL14315
Title:					
Tune Ref:	J:\MS18\DATA\103015\1030F002.D			**Method ID:**	MJ119
MB Ref:				**Quant based on Method**	

Internal Standard Compounds

IS Ref	Parameter Name	RT	RT Dev	Quant Mass	Response	Solution Conc	Area Criteria
1	Fluorobenzene	5.89	0.00	96	708341	10.00	OK
2	Chlorobenzene-d5	9.30	0.00	82	281827	10.00	OK
3	1,4-Dichlorobenzene-d4	11.72	0.00	152	255753	10.00	OK

Surrogate Compounds

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	Quant Mass	Response	Solution Conc	%Rec	%Rec Limits	Rpt?
1	Dibromofluoromethane	5.06			113	153698	9.67		73-122	NA
1	1,2-Dichloroethane-d4	5.53			65	151637	8.69		59-127	NA
1	Toluene-d8	7.73			98	731036	10.23		65-144	NA
2	4-Bromofluorobenzene	10.54			95	263426	9.71		68-117	NA

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Dichlorodifluoromethane	1.21			85	195008	10.78			
1	Chloromethane	1.35			50	333065	14.15			
1	Vinyl Chloride	1.43			62	243836	11.13			
1	1,3-Butadiene	1.45			54	176707	13.83			
1	Bromomethane	1.70			96	87380	6.52			
1	Chloroethane	1.78			64	142089	12.18			
1	Dichlorofluoromethane (CFC 21)	1.95			67	312679	10.27			
1	Trichlorofluoromethane	1.96			101	261523	11.16			
1	Ethyl Ether	2.21			59	136311	10.68			
1	Acrolein	2.40			56	434147	185.19			
1	Trichlorotrifluoroethane	2.39			151	112269	9.61			
1	1,1-Dichloroethene	2.42			96	170937	10.71			
1	Acetone	2.54			43	525833	189.84			
1	Iodomethane	2.58			142	961691	45.27			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS18\DATA\103015\1030F003.D			**Instrument:**	GC-MS 18
Acqu Date:	10/30/2015 14:24	**Quant Date:**	10/30/2015 20:07	**Vial:**	3
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG1510604-2			**Soln Conc. Units:**	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	Carbon Disulfide	2.61			76	365209	6.33			
1	2-Propanol	2.67			45	189067	385.93			
1	3-Chloro-1-propene	2.80			76	84400	8.80			
1	Methyl Acetate	2.83			43	94739	6.92			
1	Acetonitrile	2.89			40	295632	402.28			
1	Methylene Chloride	2.95			84	214247	9.64			
1	tert-Butyl Alcohol	3.07			59	20666	32.31			
1	Acrylonitrile	3.29			53	179235	39.49			
1	Methyl tert-Butyl Ether	3.16			73	698943	17.18			
1	trans-1,2-Dichloroethene	3.17			96	202308	10.66			
1	n-Hexane	3.38			57	153732	9.79			
1	Diisopropyl Ether	3.69			45	583597	10.69			
1	1,1-Dichloroethane	3.69			63	321698	10.11			
1	Vinyl Acetate	3.76			86	57195	21.08			
1	Chloroprene	3.75			53	1245186	45.16			
1	tert-Butyl Ethyl Ether	4.12			59	421247	9.26			
1	2,2-Dichloropropane	4.36			77	154834	8.03			
1	cis-1,2-Dichloroethene	4.41			96	228479	10.52			
1	2-Butanone (MEK)	4.47			72	259877	194.46			
1	Propionitrile	4.66			54	64678	39.65			
1	Ethyl Acetate	4.50			61	37275	19.55			
1	Methacrylonitrile	4.80			67	227940	39.95			
1	Bromochloromethane	4.73			128	96930	10.57			
1	Tetrahydrofuran	4.75			71	10914	8.66		N	
1	Chloroform	4.83			83	325446	10.29			
1	tert-Butyl Formate	4.86			59	22333	4.64			
1	1,1,1-Trichloroethane (TCA)	5.00			97	222960	9.93			
1	Carbon Tetrachloride	5.16			117	174813	9.23			
1	1,1-Dichloropropene	5.23			75	254708	10.63			
1	Cyclohexane	4.96			56	297341	10.66			
1	Isobutyl Alcohol	5.63			43	110136	354.81			
1	Benzene	5.49			78	864670	10.05			
1	1,2-Dichloroethane (EDC)	5.63			62	219193	10.01			
1	tert-Amyl Methyl Ether	5.63			55	171580	11.15			
1	Trichloroethene (TCE)	6.32			95	190826	10.36			
1	1,2-Dichloropropane	6.65			63	203361	10.25			
1	Dibromomethane	6.79			93	99492	10.03			
1	Methyl Methacrylate	6.81			69	90102	8.60			
1	1,4-Dioxane	6.82			88	45265	345.89			
1	Bromodichloromethane	6.98			83	200558	10.32			
1	2-Nitropropane	7.35			41	71132	44.53			
1	Methylcyclohexane	6.44			83	271740	10.38			

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D: Result from dilution
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?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS18\DATA\103015\1030F003.D			**Instrument:**	GC-MS 18
Acqu Date:	10/30/2015 14:24	**Quant Date:**	10/30/2015 20:07	**Vial:**	3
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG1510604-2			**Soln Conc. Units:**	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
1	2-Chloroethyl Vinyl Ether	7.37			63	80078	8.41			
1	cis-1,3-Dichloropropene	7.50			75	261959	8.66			
1	4-Methyl-2-pentanone (MIBK)	7.69			58	923254	208.33			
1	Toluene	7.80			92	559532	10.57			
2	n-Octane	7.87			85	64329	11.15			
2	trans-1,3-Dichloropropene	8.15			75	180097	8.06			
2	Ethyl Methacrylate	8.21			69	170292	8.13			
2	1,1,2-Trichloroethane	8.34			83	137675	10.26			
2	Tetrachloroethene (PCE)	8.35			164	151389	10.47			
2	2-Hexanone	8.61			57	281573	201.33			
2	1,3-Dichloropropane	8.52			76	290848	10.19			
2	Dibromochloromethane	8.72			129	141061	8.93			
2	1,2-Dibromoethane (EDB)	8.84			107	145470	10.04			
2	1-Chlorohexane	9.31			91	230575	9.53			
2	Chlorobenzene	9.33			112	602991	10.07			
2	Ethylbenzene	9.42			106	312461	10.71			
2	1,1,1,2-Tetrachloroethane	9.44			131	165316	8.87			
2	m,p-Xylenes	9.55			106	781536	21.70			
2	o-Xylene	9.97			106	371134	10.67			
2	Styrene	10.00			103	308115m	10.78			
2	Bromoform	10.20			173	62560	8.83			
2	Isopropylbenzene	10.34			105	889669	10.65			
2	cis-1,4-Dichloro-2-butene	10.51			89	55071	28.32			
3	1,1,2,2-Tetrachloroethane	10.75			83	170823	10.23			
3	trans-1,4-Dichloro-2-butene	10.82			53	38851	9.72			
3	Bromobenzene	10.68			156	238363	10.66			
3	n-Propylbenzene	10.77			91	1068413	11.36			
3	1,2,3-Trichloropropane	10.79			110	50312	9.84			
3	2-Chlorotoluene	10.87			91	657527	11.02			
3	1,3,5-Trimethylbenzene	10.96			105	732882	11.18			
3	4-Chlorotoluene	10.99			91	770106	11.11			
3	tert-Butylbenzene	11.27			119	605880	10.61			
3	1,2,4-Trimethylbenzene	11.34			105	752225	10.11			
3	sec-Butylbenzene	11.50			105	856852	9.84			
3	4-Isopropyltoluene	11.66			119	706741	9.39			
3	1,3-Dichlorobenzene	11.64			146	440581	10.29			
3	1,4-Dichlorobenzene	11.74			146	451556	9.98			
3	n-Butylbenzene	12.07			91	604373	9.36			
3	1,2-Dichlorobenzene	12.12			146	411190	10.18			
3	1,2-Dibromo-3-chloropropane	12.73			155	14521	9.00			
3	1,3,5-Trichlorobenzene	12.83			180	252970	9.40			
3	1,2,4-Trichlorobenzene	13.30			180	205621	8.78			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Data File:	J:\MS18\DATA\103015\1030F003.D			**Instrument:**	GC-MS 18
Acqu Date:	10/30/2015 14:24	**Quant Date:**	10/30/2015 20:07	**Vial:**	3
Run Type:	CCV			**Dilution:**	1.0
Lab ID:	KWG1510604-2			**Soln Conc. Units:**	PPB

Target Compounds

Final Conc. Units: ug/L

IS Ref	Parameter Name	RT	RT Dev	RRT Dev	QuantMass	Response	Solution Conc	Final Conc	Q	Rpt?
3	Hexachlorobutadiene	13.39			225	72892	8.27			
3	Naphthalene	13.50			128	401042	7.47			
3	1,2,3-Trichlorobenzene	13.69			180	160111	8.34			

U: Undetected at or above MDL
J: Analyte detected above MDL, but below MRL
B: Hit above MRL also found in Method Blank
E: Analyte concentration above high point of ICAL
N: Presumptive evidence of compound

D: Result from dilution
m: Manual integration performed
d: Compound manually deleted
NR: Analyte not reported from this analysis

*: Result fails acceptance criteria
#: Acceptance criteria not applicable
?: Insufficient information to determine acceptance
e: Result >= MRL, but MRL less than low point of ICAL
c: check for co-elution

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\103015\1030F003.D Vial: 3
Acq On : 30 Oct 2015 14:24 Operator: YX/KR
Sample : CCV Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 15:11:23 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration
DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.89	96	703341	10.00	PPB	0.00
65) Chlorobenzene-d5	9.30	82	281827	10.00	PPB	0.00
86) 1,4-Dichlorobenzene-d4	11.72	152	255753	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.06	113	153698	9.67	PPB	0.00
Spiked Amount 10.000			Recovery =	96.70%		
48) 1,2-Dichloroethane-d4	5.53	65	151637	8.69	PPB	0.00
Spiked Amount 10.000			Recovery =	86.90%		
63) Toluene-d8	7.73	98	731036	10.23	PPB	0.00
Spiked Amount 10.000			Recovery =	102.30%		
85) 4-Bromofluorobenzene	10.54	95	263426	9.71	PPB	0.00
Spiked Amount 10.000			Recovery =	97.10%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.21	85	195008	10.78	PPB	99
3) Chloromethane	1.35	50	333065	14.15	PPB	99
4) Vinyl Chloride	1.43	62	243836	11.13	PPB	98
5) 1,3-Butadiene	1.45	54	176707	13.83	PPB	97
6) Bromomethane	1.70	96	87380	6.52	PPB	98
7) Chloroethane	1.78	64	142089	12.18	PPB	100
8) Dichlorofluoromethane	1.95	67	312679	10.27	PPB	99
9) Trichlorofluoromethane	1.96	101	261523	11.16	PPB	98
10) Ethyl Ether	2.21	59	136311	10.68	PPB	97
11) Acrolein	2.40	56	434147	185.19	PPB	98
12) Trichlorotrifluoroethane	2.39	151	112269	9.61	PPB	97
13) 1,1-Dichloroethene	2.42	96	170937	10.71	PPB	91
14) Acetone	2.54	43	525833	189.84	PPB	99
15) Iodomethane	2.58	142	961691	45.27	PPB	99
16) Carbon Disulfide	2.61	76	365209	6.33	PPB	99
17) 2-Propanol (Isopropyl Alco	2.67	45	189067	385.93	PPB	99
18) 3-Chloro-1-propene	2.80	76	84400	8.80	PPB	90
19) Methyl Acetate	2.83	43	94739	6.92	PPB	98
20) Acetonitrile	2.89	40	295632	402.28	PPB	100
21) Methylene Chloride	2.95	84	214247	9.64	PPB	98
22) tert-Butyl Alcohol	3.07	59	20666	32.31	PPB	90
23) Acrylonitrile	3.29	53	179235	39.49	PPB	99
24) Methyl tert-Butyl Ether	3.16	73	693943	17.18	PPB	98
25) trans-1,2-Dichloroethene	3.17	96	202308	10.66	PPB	98
26) Hexane	3.38	57	153732	9.79	PPB	96
27) Diisopropyl Ether	3.69	45	583597	10.69	PPB	100
28) 1,1-Dichloroethane	3.69	63	321698	10.11	PPB	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\103015\1030F003.D Vial: 3
Acq On : 30 Oct 2015 14:24 Operator: YX/KR
Sample : CCV Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 15:11:23 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29)	Vinyl Acetate	3.76	86	57195	21.08	PPB		97
30)	Chloroprene	3.75	53	1245186	45.16	PPB		99
31)	tert-Butyl Ethyl Ether	4.12	59	421247	9.26	PPB		99
32)	2,2-Dichloropropane	4.36	77	154834	8.03	PPB		98
33)	cis-1,2-Dichloroethene	4.41	96	223479	10.52	PPB		99
34)	2-Butanone	4.47	72	259877	194.46	PPB		96
35)	Propionitrile	4.66	54	64678	39.65	PPB		99
36)	Ethyl Acetate	4.50	61	37275	19.55	PPB		89
37)	Methacrylonitrile	4.80	67	227940	39.95	PPB		99
38)	Bromochloromethane	4.73	128	96930	10.57	PPB		92
39)	Tetrahydrofuran	4.75	71	10914	8.66	PPB		81
40)	Chloroform	4.83	83	325446	10.29	PPB		98
41)	tert-Butyl Formate	4.86	59	22333	4.64	PPB		96
42)	1,1,1-Trichloroethane	5.00	97	222960	9.93	PPB		96
44)	Carbon Tetrachloride	5.16	117	174813	9.23	PPB		97
45)	1,1-Dichloropropene	5.23	75	254708	10.63	PPB		99
46)	Cyclohexane	4.96	56	297341	10.66	PPB		96
47)	Isobutyl Alcohol	5.63	43	110136	354.81	PPB		86
49)	Benzene	5.49	78	864670	10.05	PPB		98
50)	1,2-Dichloroethane	5.63	62	219193	10.01	PPB		98
51)	tert-Amyl Methyl Ether	5.63	55	171580	11.15	PPB	#	65
52)	Trichloroethene	6.32	95	190826	10.36	PPB		98
53)	1,2-Dichloropropane	6.65	63	203361	10.25	PPB		94
54)	Dibromomethane	6.79	93	99492	10.03	PPB		96
55)	Methyl methacrylate	6.81	69	90102	8.60	PPB		96
56)	1,4-Dioxane	6.82	88	45265	345.89	PPB		88
57)	Bromodichloromethane	6.98	83	200558	10.32	PPB		99
58)	2-Nitropropane	7.35	41	71132	44.53	PPB		97
59)	Methyl Cyclohexane	6.44	83	271740	10.38	PPB		97
60)	2-Chloroethyl Vinyl Ether	7.37	63	80078	8.41	PPB		95
61)	cis-1,3-Dichloropropene	7.50	75	261959	8.66	PPB		99
62)	4-Methyl-2-pentanone (MIBK	7.69	58	923254	208.33	PPB		95
64)	Toluene	7.80	92	559532	10.57	PPB		100
66)	n-Octane	7.87	85	64329	11.15	PPB		94
67)	trans-1,3-Dichloropropene	8.15	75	180097	8.06	PPB		97
68)	Ethyl methacrylate	8.21	69	170292	8.13	PPB		96
69)	1,1,2-Trichloroethane	8.34	83	137675	10.26	PPB		99
70)	Tetrachloroethene	8.35	164	151389	10.47	PPB		97
71)	2-Hexanone	8.61	57	281573	201.33	PPB	#	89
72)	1,3-Dichloropropane	8.52	76	290848	10.19	PPB		98
73)	Dibromochloromethane	8.72	129	141061	8.93	PPB		98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\103015\1030F003.D Vial: 3
Acq On : 30 Oct 2015 14:24 Operator: YX/KR
Sample : CCV Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 15:11:23 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
74)	1,2-Dibromoethane (EDB)	8.84	107	145470	10.04	PPB	97
75)	1-Chlorohexane	9.31	91	230575	9.53	PPB	98
76)	Chlorobenzene	9.33	112	602991	10.07	PPB	99
77)	Ethylbenzene	9.42	106	312461	10.71	PPB	98
78)	1,1,1,2-Tetrachloroethane	9.44	131	165316	8.87	PPB	96
79)	m,p-Xylenes	9.55	106	781536	21.70	PPB	100
80)	o-Xylene	9.97	106	371134	10.67	PPB	100
81)	Styrene	10.00	103	308115m	10.78	PPB	
82)	Bromoform	10.20	173	62560	8.83	PPB	99
83)	Isopropylbenzene	10.34	105	889669	10.65	PPB	100
84)	cis-1,4-Dichloro-2-butene	10.51	89	55071	28.32	PPB	98
87)	1,1,2,2-Tetrachloroethane	10.75	83	170823	10.23	PPB	97
88)	trans-1,4-Dichloro-2-buten	10.82	53	38851	9.72	PPB	72
89)	Bromobenzene	10.68	156	238363	10.66	PPB	98
90)	n-Propylbenzene	10.77	91	1068413	11.36	PPB	97
91)	1,2,3-Trichloropropane	10.79	110	50312	9.84	PPB	87
92)	2-Chlorotoluene	10.87	91	657527	11.02	PPB	99
93)	1,3,5-Trimethylbenzene	10.96	105	732882	11.18	PPB	100
94)	4-Chlorotoluene	10.99	91	770106	11.11	PPB	99
95)	tert-Butylbenzene	11.27	119	605880	10.61	PPB	98
96)	1,2,4-Trimethylbenzene	11.34	105	752225	10.11	PPB	100
97)	sec-Butylbenzene	11.50	105	856852	9.84	PPB	99
98)	p-Isopropyltoluene	11.66	119	706741	9.39	PPB	98
99)	1,3-Dichlorobenzene	11.64	146	440581	10.29	PPB	98
100)	1,4-Dichlorobenzene	11.74	146	451556	9.98	PPB	99
101)	n-Butylbenzene	12.07	91	604373	9.36	PPB	99
102)	1,2-Dichlorobenzene	12.12	146	411190	10.18	PPB	98
103)	1,2-Dibromo-3-chloropropan	12.73	155	14521	9.00	PPB	97
104)	1,3,5-Trichlorobenzene	12.83	180	252970	9.40	PPB	100
105)	1,2,4-Trichlorobenzene	13.30	180	205621	8.78	PPB	98
106)	Hexachlorobutadiene	13.39	225	72892	8.27	PPB	96
107)	Naphthalene	13.50	128	401042	7.47	PPB	98
108)	1,2,3-Trichlorobenzene	13.69	180	160111	8.34	PPB	97

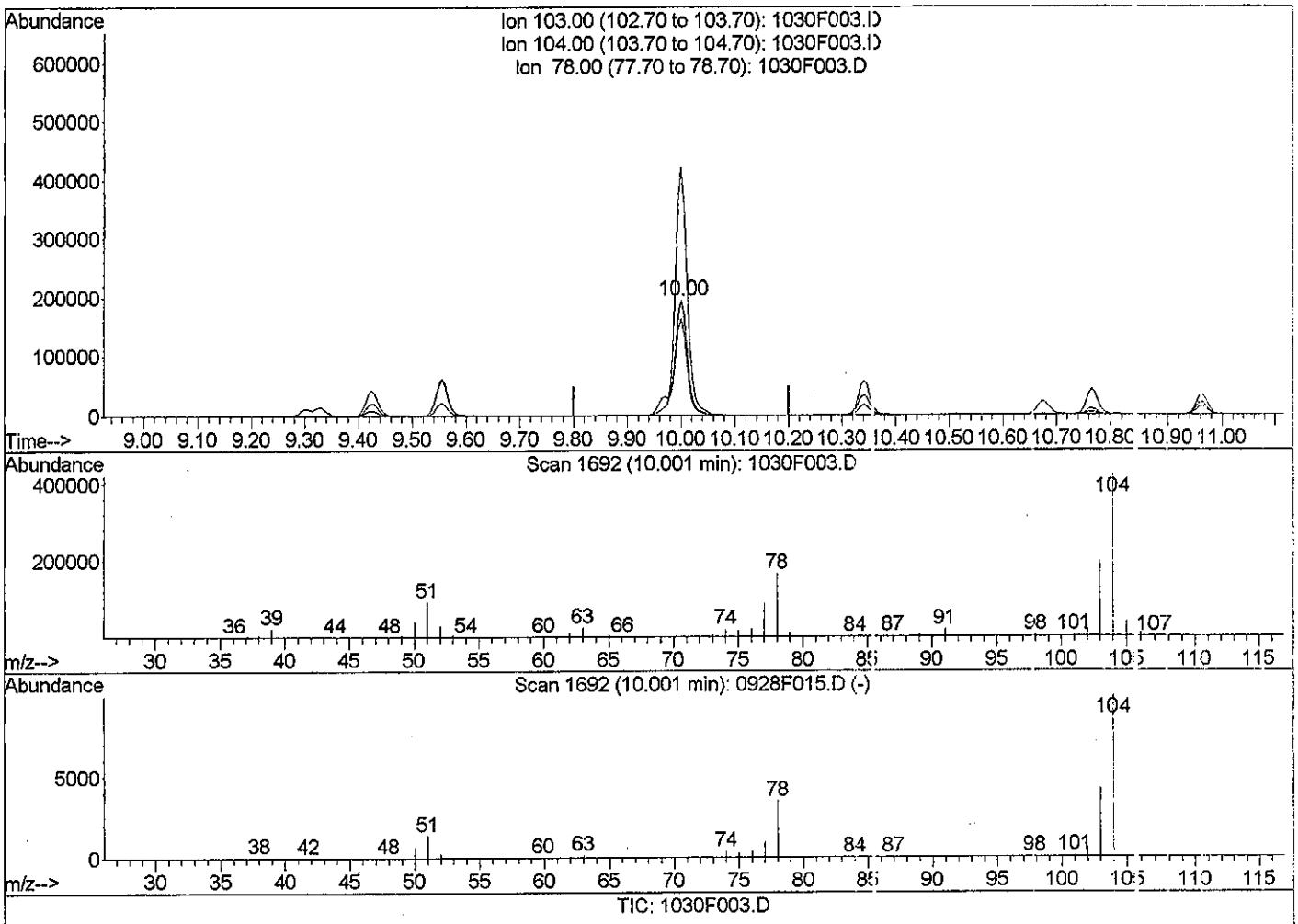
(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data File : J:\MS18\DATA\103015\1030F003.D
Acq On : 30 Oct 2015 14:24
Sample : CCV
Misc :
MS Integration Params: rteint.p
Quant Time: Oct 30 15:11 2015

Vial: 3
Operator: YX/KR
Inst : GC-MS 18
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Single Level Calibration



TIC: 1030F003.D

(81) Styrene (T)

10.00min 12.12PPB

response 346601

Ion	Exp%	Act%
103.00	100	100
104.00	211.40	215.84
78.00	83.70	84.20
0.00	0.00	0.00

Manua Integration:

Before

10/30/15

11/3/15

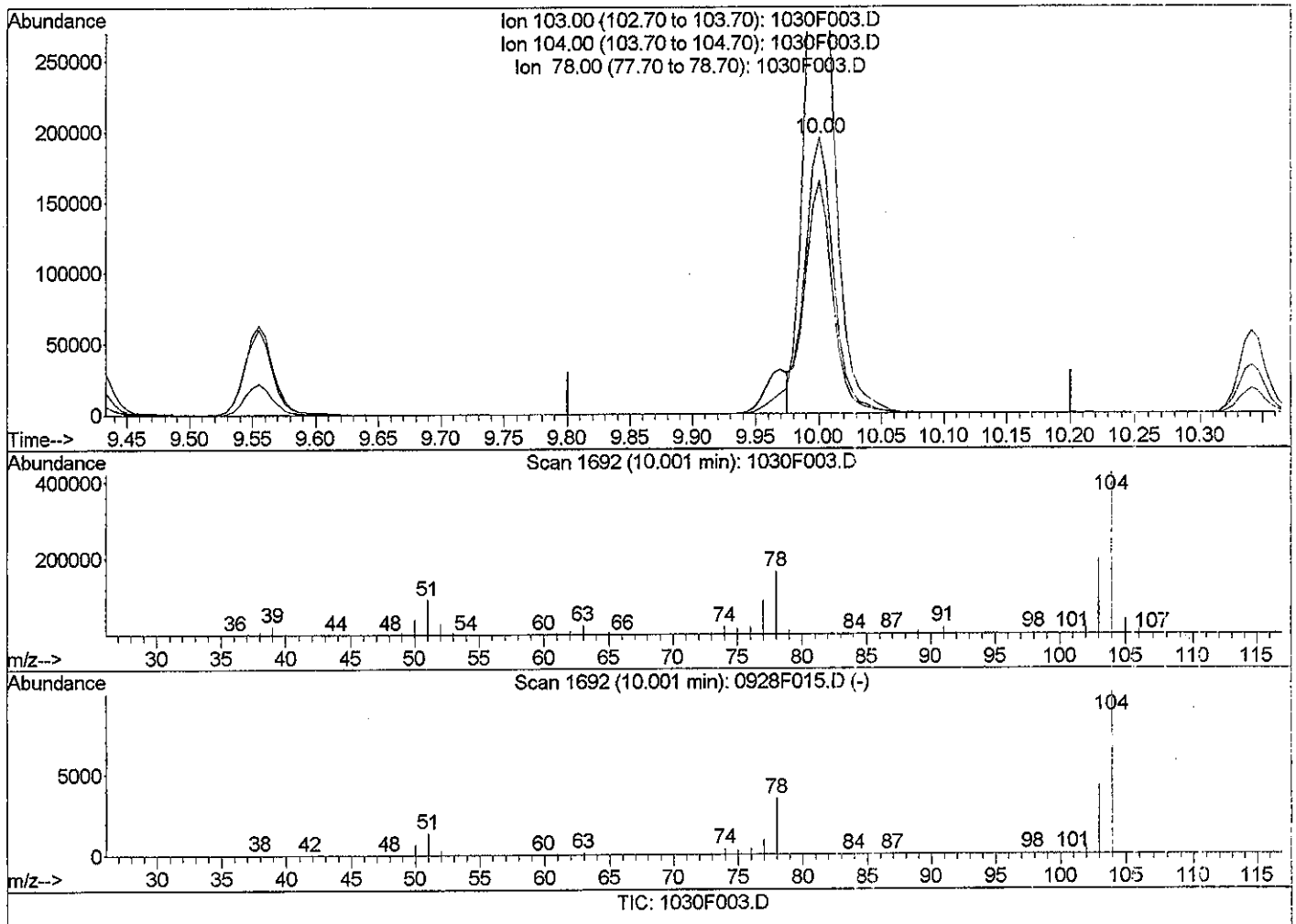
1030F003.D 092815MS18_8260.M Fri Oct 30 20:07:04 2015

Quantitation Report (Qedit)

Data File : J:\MS18\DATA\103015\1030F003.D
Acq On : 30 Oct 2015 14:24
Sample : CCV
Misc :
MS Integration Params: rteint.p
Quant Time: Oct 30 20:07 2015

Vial: 3
Operator: YX/KR
Inst : GC-MS 18
Multiplr: 1.00
Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Single Level Calibration



TIC: 1030F003.D

(81) Styrene (T)

10.00min 10.78PPB m

response 308115

Ion	Exp%	Act%
103.00	100	100
104.00	211.40	215.84
78.00	83.70	84.20
0.00	0.00	0.00

Manual Integration:

After

Shoulder

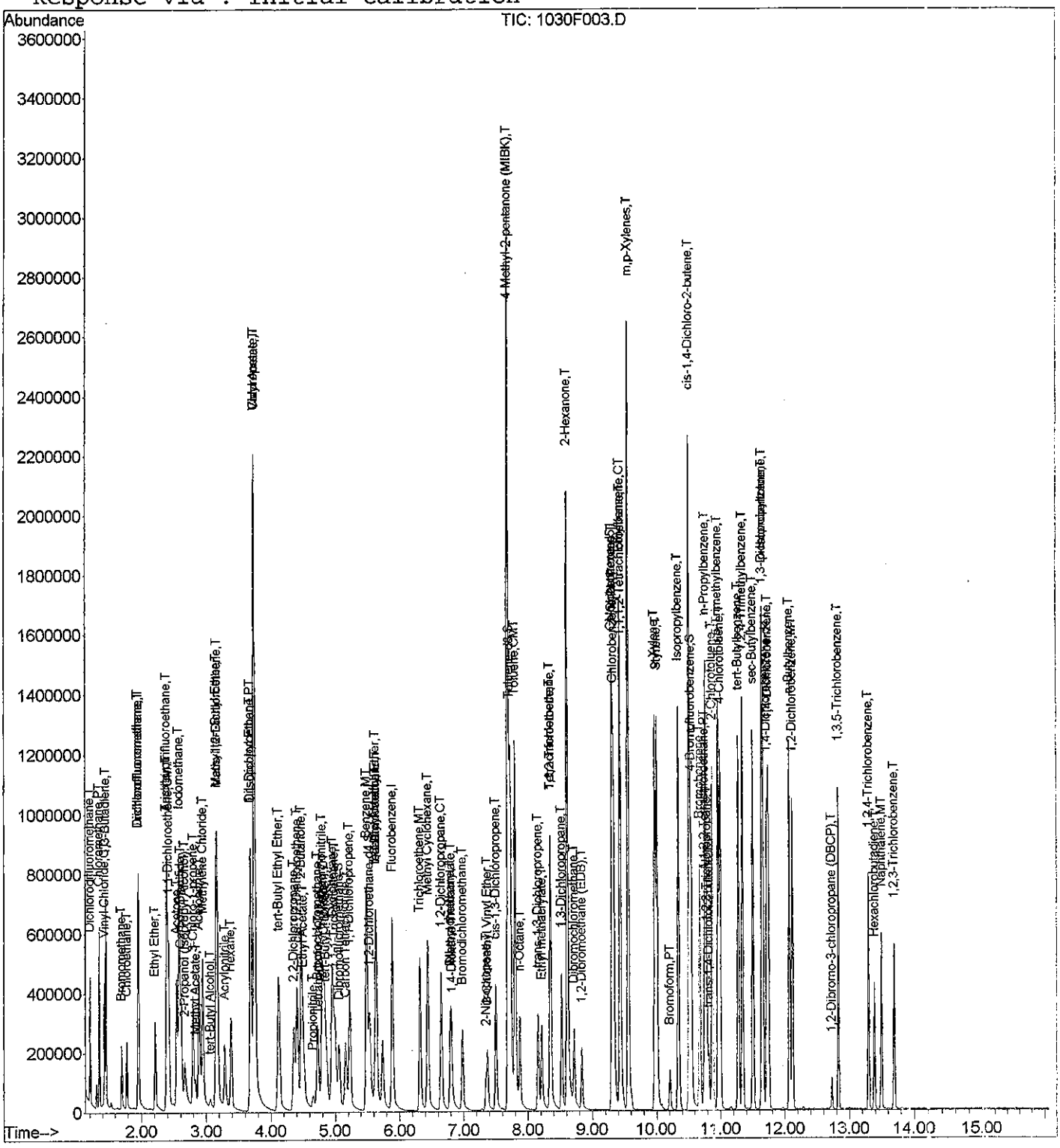
10/30/15

1030F003.D 092815MS18_8260.M Fri Oct 30 20:07:10 2015

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\103015\1030F003.D Vial: 3
Acq On : 30 Oct 2015 14:24 Operator: YX/KR
Sample : CCV Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Oct 30 20:07 2015 Quant Results File: C92815MS18_8

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration



Date: 9/28/15

ALS Environmental
Injection Log
MS18 - Agilent 5973

Tune File: BFB.u

By: VX

New Tune: YES

IS/SS Std. ID: IS: 8000A-59D 105

CCV Std ID:

ICAL Date: 9/28/15 9/3/15

MS/DMS/LCS/ICV Std ID:

Second RV:

BFB Std. ID: 8000A-24C 1012

LIMS ID:

	Sample Name	File Name	Method	Dilution	pH<2	Comments
1	BFB	0928F007	8260	4.4ml → 44mL		
2	MB 1B	08				
3	8260 ICAL 0.1	09				
4	0.2	10				
5	0.5	11				
6	1	12				
7	2	13				
8	5	14				
9	10	15				
10	20	16				
11	40	17				
12	60	18				
13	80	19				
14	1B	20-23				
15	8260 ICV	24				VR Gas low
16	BFB	0929F002		4.4ml → 44mL		
17	ICV Mix 6+Freon 21	03		10.5ml → 50mL		Mix 6 8000A-63S 1016 Gas low
18	ICV	04				8260 ICV 8000A-64F 1016 VR Gas l
19	ICV	05				8000A-52A 9/30 VR Gas low
20	ICV	06				8000A-65A 1016 ok
21						
22						
23						
24						
25						
26						
27						

R:\VOA\Injection Logs\INJLOG_MS18_Rev1

INTIAL CALIBRATION CURVE

Date 9/28/15 Analysis: 8260

Prepared By TR Instrument:

Matrix: Water

Stock Solution #1 ____ Analytes: Surrogate Init. Concentration: 100ppm 8UUOA-59A 10/15/15

Stock Solution #2 ____ Analytes: Low 8260 Init. Concentration: 5/10/20/100/200ppm 8UUOA-61C 10/15/15

Stock Solution #3 ____ Analytes: 8260 Init. Concentration: 50/100/200/1000/2000ppm 8UUOA-61B 10/15/15

Stock Solution #4 ____ Analytes: Low Ketones Init. Concentration: 200ppm 8UUOA-59F 10/15/15

Stock Solution #5 ____ Analytes: Ketones Init. Concentration: 2000ppm 8UUOA-59E 11/28/15

Aliquot of Stock Solution #1 (µL)	Final Conc. of #1 (µg/L)	Aliquot of Stock Solution #2 (µL)	Final Conc. of #2 (µg/L)	Aliquot of Stock Solution #3 (µL)	Final Conc. of #3 (µg/L)	Aliquot of Stock Solution #4 (µL)	Final Conc. of #4 (µg/L)	Aliquot of Stock Solution #5 (µL)	Final Conc. of #5 (µg/L)	Final Volume (mL)
		1	0.1			1	4			50
		2	0.2			2	8			50
		5.0	0.5			5	20			50
2.0	4	10	1			10	40			50
3.0	6			2.0	2			2	80	50
4.0	8			5.0	5			2.5	100	50
5.0	10			10	10			5.0	200	50
6	12			20	20			10	400	50
7	14			40	40			20	800	50
8	16			60	60			40	1600	50
10	20			80	80			50	2000	50

8260 ICV: 10uL of 50/250ppm Accustd ICV (8UUOA-57A 9/30) + 5.0uL of 1000ppm Acrolein (8UUOA-51D 11/23) +

5uL of 100ppm Dichlorofluoromethane (8UUOA-49C 9/28) + 5uL of 200ppm n-Octane/TBF/Tetrahydrafuran (8UUOA-63D 10/15/15)

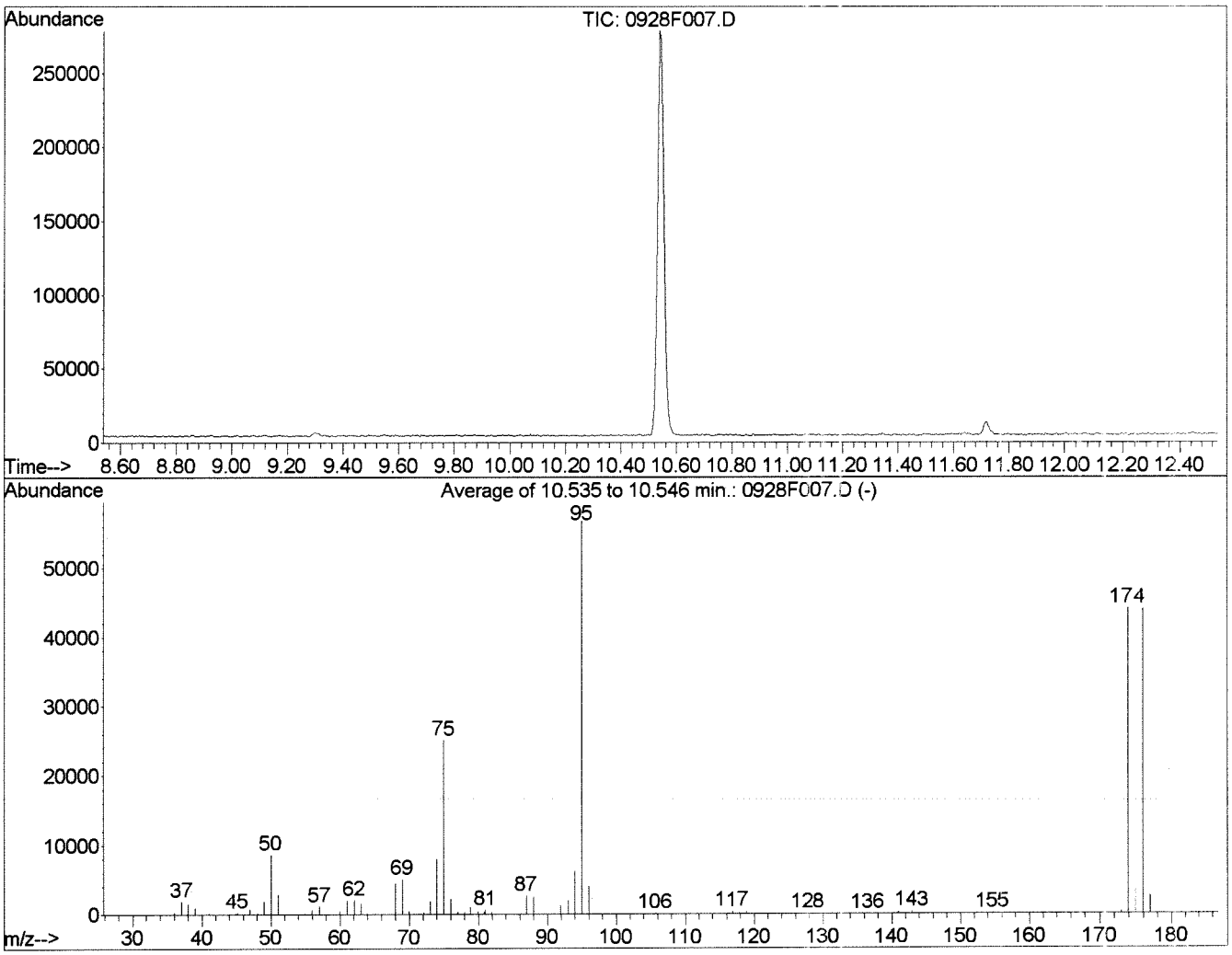
5uL of 100ppm Oxygenates (8UUOA-49D 9/28) + 7.5uL of Appendix ICV mix(8UUOA-55C 10/1) + 25uL of 1000ppm 2-Propanol(8UUOA-62S 11/28)

5uL of 100ppm CLP ICV (8UUOA-54B 10/1) + 1,3-Butadiene 100ppm 5uL 8UUOA-63A 10/14/15

10/16/15

BFB

Data File : J:\MS18\DATA\092815\0928F007.D Vial: 5
Acq On : 28 Sep 2015 1:53 pm Operator: YX
Sample : BFB Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B



AutoFind: Scans 1794, 1795, 1796; Background Corrected with Scan 1786

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.2	8632	PASS
75	95	30	60	44.2	25117	PASS
95	95	100	100	100.0	56808	PASS
96	95	5	9	7.1	4054	PASS
173	174	0.00	2	0.7	310	PASS
174	95	50	120	77.7	44149	PASS
175	174	5	9	7.7	3417	PASS
176	174	95	101	99.8	44053	PASS
177	176	5	9	5.9	2582	PASS

0928F007.D 092815MS18_8260.M Wed Sep 30 09:56:29 2015

Data File : J:\MS18\DATA\092815\0928F008.D Vial: 6
Acq On : 28 Sep 2015 2:32 pm Operator: YX
Sample : IB Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 30 09:56:34 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration
DataAcq Meth : 8260

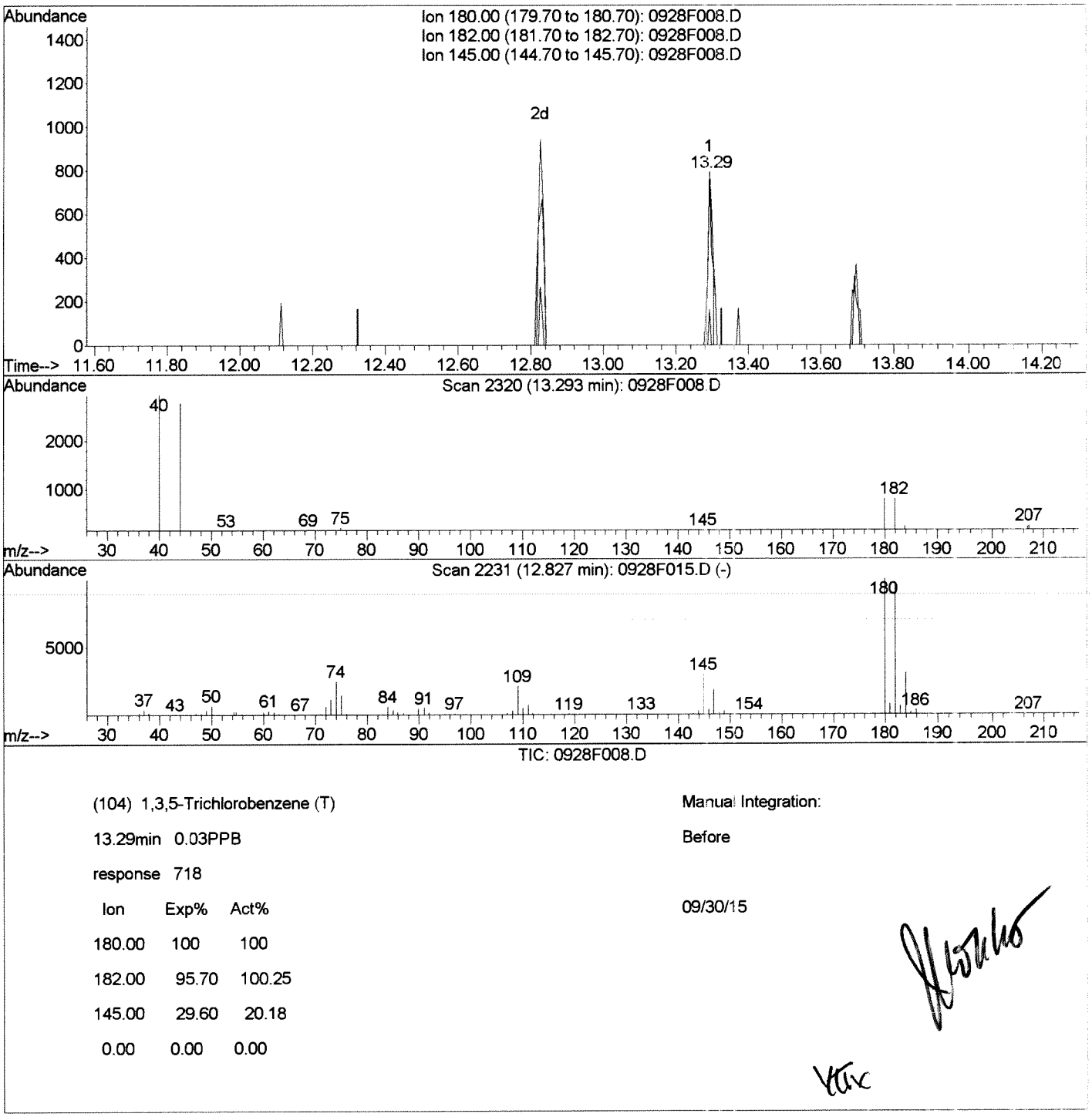
MF 9/30/15

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	5.89	96	558636	10.00	PPB		0.00
65) Chlorobenzene-d5	9.30	82	222331	10.00	PPB		0.00
86) 1,4-Dichlorobenzene-d4	11.72	152	203109	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	0.00	113	0	0.00	PPB		
Spiked Amount 10.000			Recovery =	0.00%			
48) 1,2-Dichloroethane-d4	0.00	65	0	0.00	PPB		
Spiked Amount 10.000			Recovery =	0.00%			
63) Toluene-d8	7.73	98	602	0.01	PPB		0.00
Spiked Amount 10.000			Recovery =	0.10%			
85) 4-Bromofluorobenzene	10.54	95	570	0.03	PPB		0.00
Spiked Amount 10.000			Recovery =	0.30%			
Target Compounds							Qvalue
3) Chloromethane	1.35	50	720	0.04	PPB		82
14) Acetone	2.55	43	1287	0.59	PPB	#	36
15) Iodomethane	2.59	142	1912	0.11	PPB		83
21) Methylene Chloride	2.94	84	3159	0.18	PPB		91
75) 1-Chlorohexane	9.30	91	928	0.05	PPB	#	50
104) 1,3,5-Trichlorobenzene	12.83	180	973m	0.05	PPB		
105) 1,2,4-Trichlorobenzene	13.29	180	793	0.04	PPB		92

(#) = qualifier out of range (m) = manual integration
0928F008.D 092815MS18_8260.M Wed Sep 30 09:57:30 2015 Page 1

Data File : J:\MS18\DATA\092815\0928F008.D Vial: 6
Acq On : 28 Sep 2015 2:32 pm Operator: YX
Sample : IB Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 30 9:57 2015 Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Multiple Level Calibration



TIC: 0928F008.D

(104) 1,3,5-Trichlorobenzene (T)

13.29min 0.03PPB

response 718

Ion	Exp%	Act%
180.00	100	100
182.00	95.70	100.25
145.00	29.60	20.18
0.00	0.00	0.00

Manual Integration:

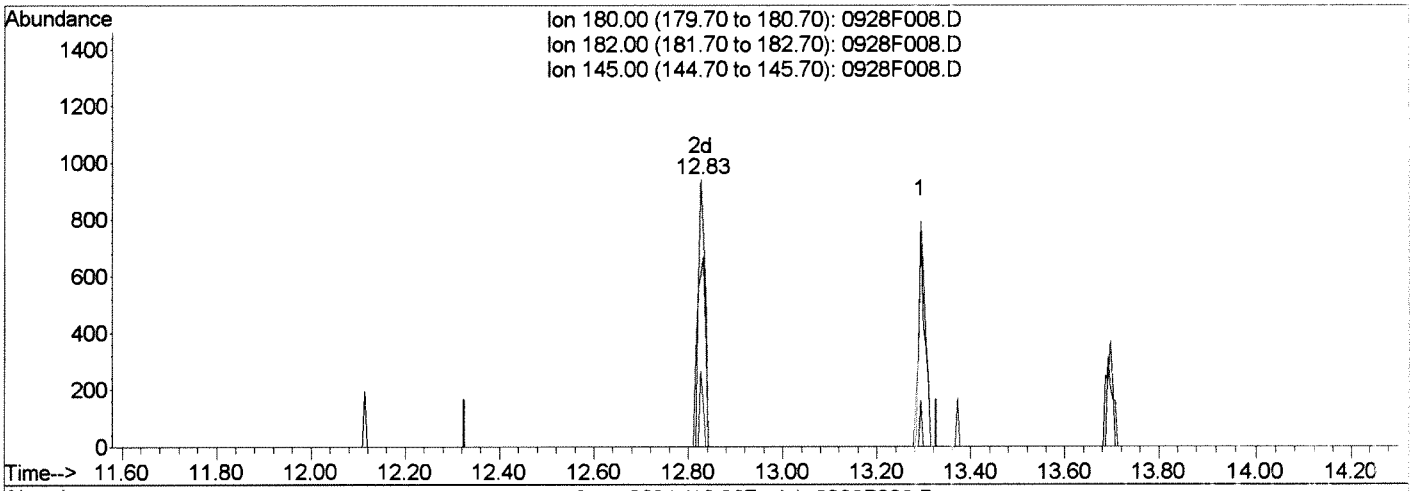
Before

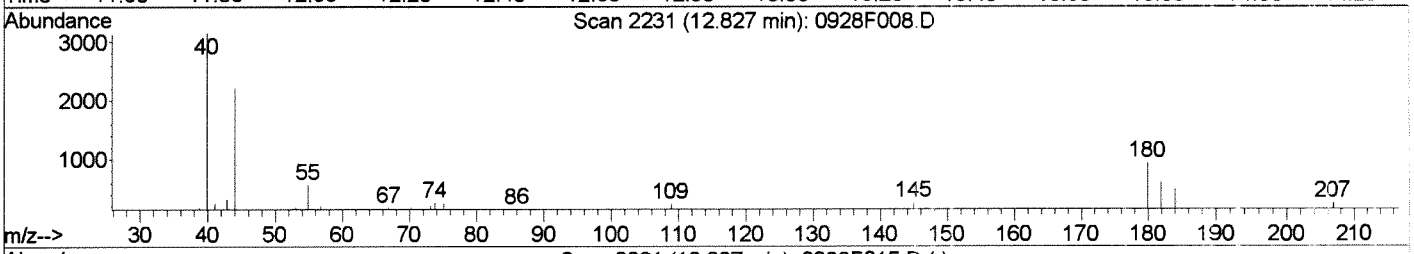
09/30/15

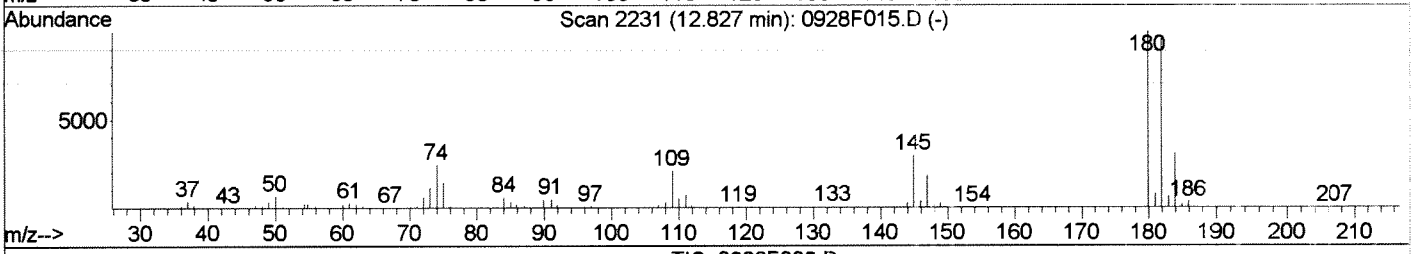
0928F008.D 092815MS18_8260.M Wed Sep 30 09:57:16 2015

Data File : J:\MS18\DATA\092815\0928F008.D Vial: 6
Acq On : 28 Sep 2015 2:32 pm Operator: YX
Sample : IB Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 30 9:57 2015 Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Multiple Level Calibration







TIC: 0928F008.D

(104) 1,3,5-Trichlorobenzene (T)
12.83min 0.05PPB m
response 973

Ion	Exp%	Act%
180.00	100	100
182.00	95.70	64.16#
145.00	29.60	28.21
0.00	0.00	0.00

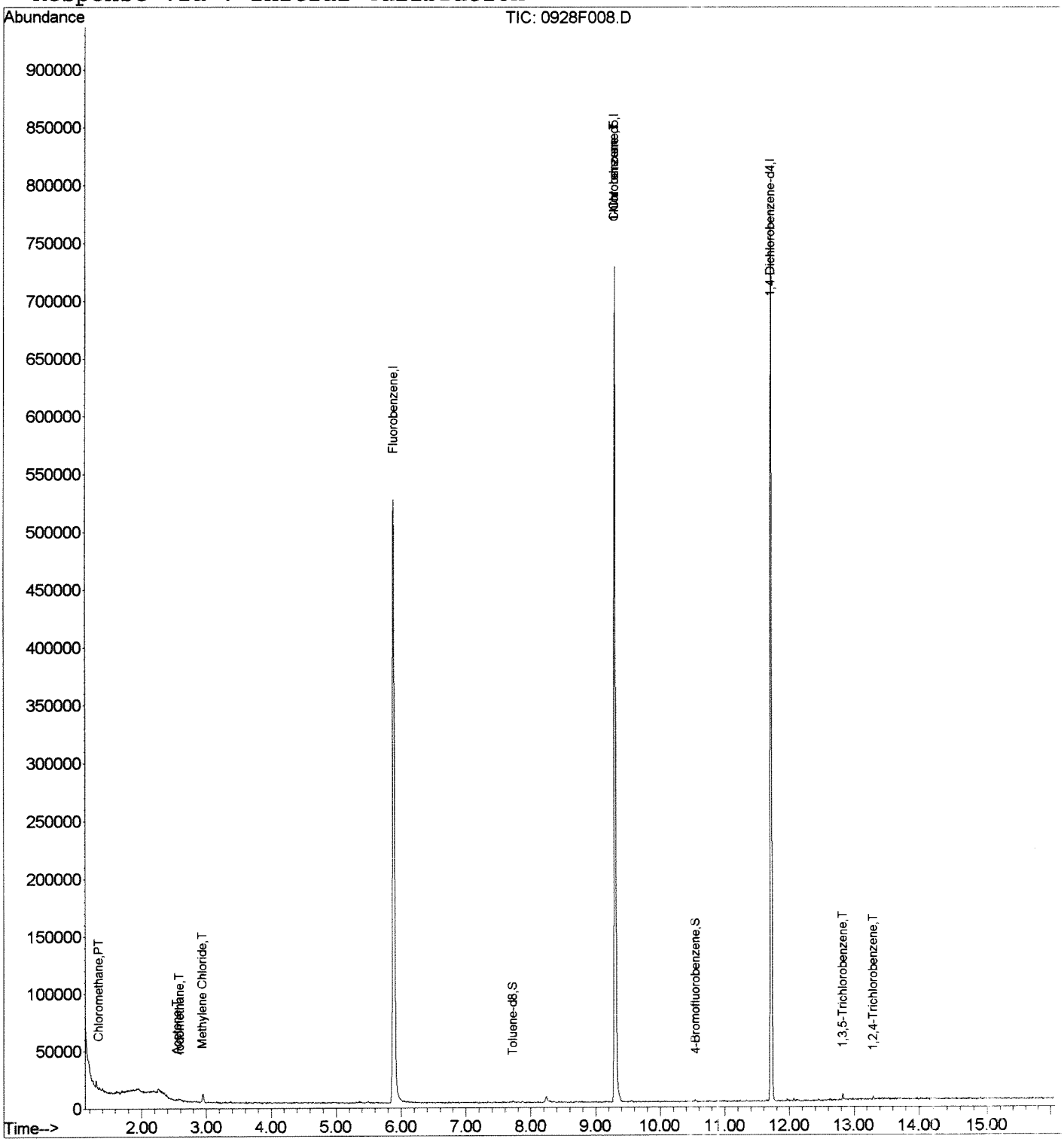
Manual Integration:
After
WRT
09/30/15

0928F008.D 092815MS18_8260.M Wed Sep 30 09:57:21 2015

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\092815\0928F008.D Vial: 6
Acq On : 28 Sep 2015 2:32 pm Operator: YX
Sample : IB Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 30 9:57 2015 Quant Results File: 092815MS18_8

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\092815\0928F009.D Vial: 7
Acq On : 28 Sep 2015 2:53 pm Operator: YX
Sample : 8260 ICAL 0.1 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 28 15:16:48 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Sep 17 16:12:16 2015
Response via : Initial Calibration
DataAcq Meth : 8260

9/29/15

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	5.89	96	562340	10.00	PPB		0.00
65) Chlorobenzene-d5	9.30	82	219336	10.00	PPB		0.00
86) 1,4-Dichlorobenzene-d4	11.71	152	206953	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	0.00	113	0	0.00	PPB		
Spiked Amount 10.000			Recovery =	0.00%			
48) 1,2-Dichloroethane-d4	0.00	65	0	0.00	PPB		
Spiked Amount 10.000			Recovery =	0.00%			
63) Toluene-d8	0.00	98	0d	0.00	PPB		
Spiked Amount 10.000			Recovery =	0.00%			
85) 4-Bromofluorobenzene	0.00	95	0d	0.00	PPB		
Spiked Amount 10.000			Recovery =	0.00%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.21	85	1310	0.09	PPB		87
4) Vinyl Chloride	1.43	62	1927	0.11	PPB		88
8) Dichlorofluoromethane	1.95	67	2555	0.11	PPB		93
9) Trichlorofluoromethane	1.96	101	1721	0.09	PPB		91
10) Ethyl Ether	2.22	59	1002	0.09	PPB		92
13) 1,1-Dichloroethene	2.43	96	1300	0.09	PPB		80
16) Carbon Disulfide	2.61	76	3117	0.07	PPB		66
24) Methyl tert-Butyl Ether	3.17	73	6722	0.19	PPB		92
25) trans-1,2-Dichloroethene	3.18	96	1474	0.09	PPB		83
27) Diisopropyl Ether	3.70	45	4256	0.09	PPB		91
28) 1,1-Dichloroethane	3.70	63	2701	0.10	PPB		96
31) tert-Butyl Ethyl Ether	4.13	59	3574	0.08	PPB		90
34) 2-Butanone	4.49	72	3516	3.40	PPB	#	70
40) Chloroform	4.83	83	2871	0.11	PPB		74
46) Cyclohexane	4.96	56	2052	0.09	PPB		82
49) Benzene	5.49	78	7910	0.12	PPB		95
50) 1,2-Dichloroethane	5.64	62	1766	0.10	PPB		84
52) Trichloroethene	6.32	95	1214	0.08	PPB	#	79
53) 1,2-Dichloropropane	6.66	63	1563	0.10	PPB		79
57) Bromodichloromethane	6.98	83	1356	0.08	PPB		89
59) Methyl Cyclohexane	6.44	83	1913	0.08	PPB		94
64) Toluene	7.80	92	4025	0.09	PPB		87
69) 1,1,2-Trichloroethane	8.34	83	1167	0.11	PPB		74
70) Tetrachloroethene	8.35	164	1125	0.10	PPB		84
72) 1,3-Dichloropropane	8.52	76	2291	0.10	PPB		60
74) 1,2-Dibromoethane (EDB)	8.83	107	1112	0.10	PPB		82
76) Chlorobenzene	9.32	112	4866	0.11	PPB		98

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS18\DATA\092815\0928F009.D Vial: 7
Acq On : 28 Sep 2015 2:53 pm Operator: YX
Sample : 8260 ICAL 0.1 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 28 15:16:48 2015 Quant Results File: 092815MS18_8260

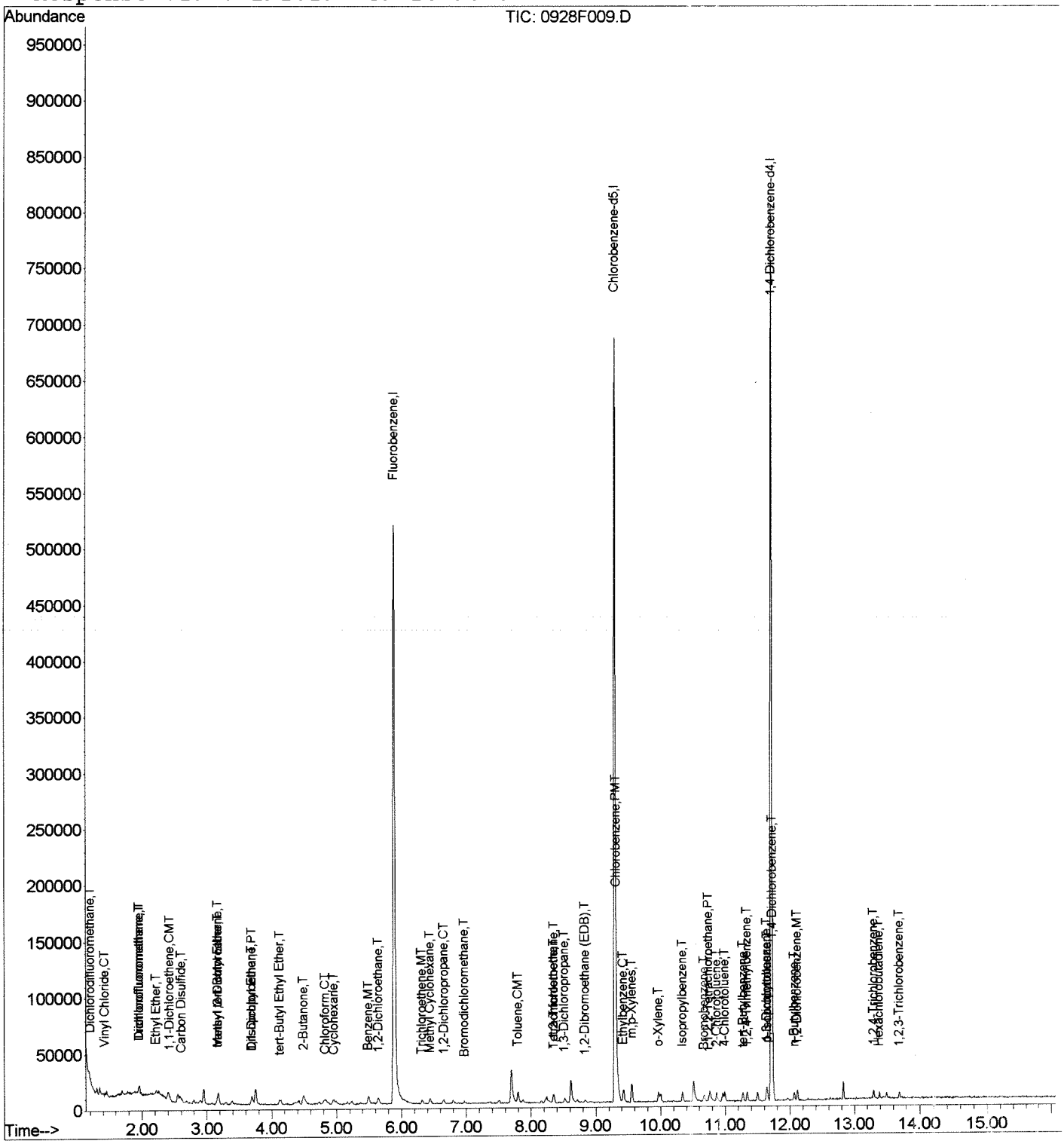
Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Thu Sep 17 16:12:16 2015
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
77)	Ethylbenzene	9.42	106	1975	0.08	PPB		90
79)	m,p-Xylenes	9.55	106	5040	0.17	PPB		90
80)	o-Xylene	9.96	106	2377	0.08	PPB		94
83)	Isopropylbenzene	10.34	105	5441	0.08	PPB		91
87)	1,1,2,2-Tetrachloroethane	10.74	83	1401	0.11	PPB		77
89)	Bromobenzene	10.67	156	1851	0.10	PPB	#	73
92)	2-Chlorotoluene	10.87	91	4533	0.09	PPB		92
94)	4-Chlorotoluene	10.99	91	5124	0.09	PPB		95
95)	tert-Butylbenzene	11.27	119	3803	0.08	PPB		96
96)	1,2,4-Trimethylbenzene	11.34	105	4727	0.08	PPB		97
98)	p-Isopropyltoluene	11.65	119	4338	0.08	PPB		97
99)	1,3-Dichlorobenzene	11.64	146	3910	0.12	PPB		97
100)	1,4-Dichlorobenzene	11.74	146	4606	0.13	PPB		98
101)	n-Butylbenzene	12.07	91	3821	0.08	PPB		86
102)	1,2-Dichlorobenzene	12.11	146	3306	0.10	PPB		91
105)	1,2,4-Trichlorobenzene	13.29	180	2074	0.11	PPB		92
106)	Hexachlorobutadiene	13.38	225	839	0.12	PPB		86
108)	1,2,3-Trichlorobenzene	13.69	180	1836	0.13	PPB	#	72

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS18\DATA\092815\0928F009.D Vial: 7
Acq On : 28 Sep 2015 2:53 pm Operator: YX
Sample : 8260 ICAL 0.1 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 29 18:56 2015 Quant Results File: 092815MS18_8

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 18:48:56 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\092815\0928F010.D Vial: 8
Acq On : 28 Sep 2015 3:15 pm Operator: YX
Sample : 8260 ICAL 0.2 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 28 15:40:00 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Mon Sep 28 15:38:45 2015
Response via : Initial Calibration
DataAcq Meth : 8260

MM 3/29/15

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.89	96	559032	10.00	PPB	0.00
65) Chlorobenzene-d5	9.30	82	218925	10.00	PPB	0.00
86) 1,4-Dichlorobenzene-d4	11.71	152	209829	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	0.00	113	0	0.00	PPB	
Spiked Amount 10.000			Recovery =	0.00%		
48) 1,2-Dichloroethane-d4	0.00	65	0	0.00	PPB	
Spiked Amount 10.000			Recovery =	0.00%		
63) Toluene-d8	0.00	98	0d	0.00	PPB	
Spiked Amount 10.000			Recovery =	0.00%		
85) 4-Bromofluorobenzene	0.00	95	0	0.00	PPB	
Spiked Amount 10.000			Recovery =	0.00%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.21	85	2951	0.21	PPB	97
3) Chloromethane	1.35	50	4455	0.23	PPB	98
4) Vinyl Chloride	1.43	62	3349	0.19	PPB	97
5) 1,3-Butadiene	1.45	54	2278	0.18	PPB	84
6) Bromomethane	1.70	96	2520	0.26	PPB	97
7) Chloroethane	1.78	64	2126	0.22	PPB	95
8) Dichlorofluoromethane	1.95	67	5126	0.22	PPB	95
9) Trichlorofluoromethane	1.96	101	4113	0.21	PPB	98
10) Ethyl Ether	2.22	59	2077	0.20	PPB	92
11) Acrolein	2.40	56	6984	6.24	PPB	90
12) Trichlorotrifluoroethane	2.39	151	1974	0.20	PPB	80
13) 1,1-Dichloroethene	2.42	96	2328	0.17	PPB	84
14) Acetone	2.55	43	18560	8.74	PPB	96
16) Carbon Disulfide	2.61	76	6368	0.15	PPB	89
24) Methyl tert-Butyl Ether	3.16	73	12034	0.34	PPB	92
25) trans-1,2-Dichloroethene	3.18	96	2787	0.18	PPB	96
26) Hexane	3.38	57	2723	0.19	PPB	93
27) Diisopropyl Ether	3.70	45	8528	0.18	PPB	87
28) 1,1-Dichloroethane	3.70	63	5068	0.19	PPB	91
31) tert-Butyl Ethyl Ether	4.12	59	6553	0.16	PPB	91
32) 2,2-Dichloropropane	4.36	77	2659	0.14	PPB	92
33) cis-1,2-Dichloroethene	4.41	96	3214	0.19	PPB	82
34) 2-Butanone	4.48	72	7654	7.54	PPB	88
38) Bromochloromethane	4.72	128	1513	0.21	PPB	87
40) Chloroform	4.83	83	4882	0.19	PPB	88
42) 1,1,1-Trichloroethane	5.00	97	3270	0.16	PPB	77
44) Carbon Tetrachloride	5.16	117	2519	0.16	PPB	91

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS18\DATA\092815\0928F010.D Vial: 8
Acq On : 28 Sep 2015 3:15 pm Operator: YX
Sample : 8260 ICAL 0.2 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 28 15:40:00 2015 Quant Results File: 092815MS18_8260

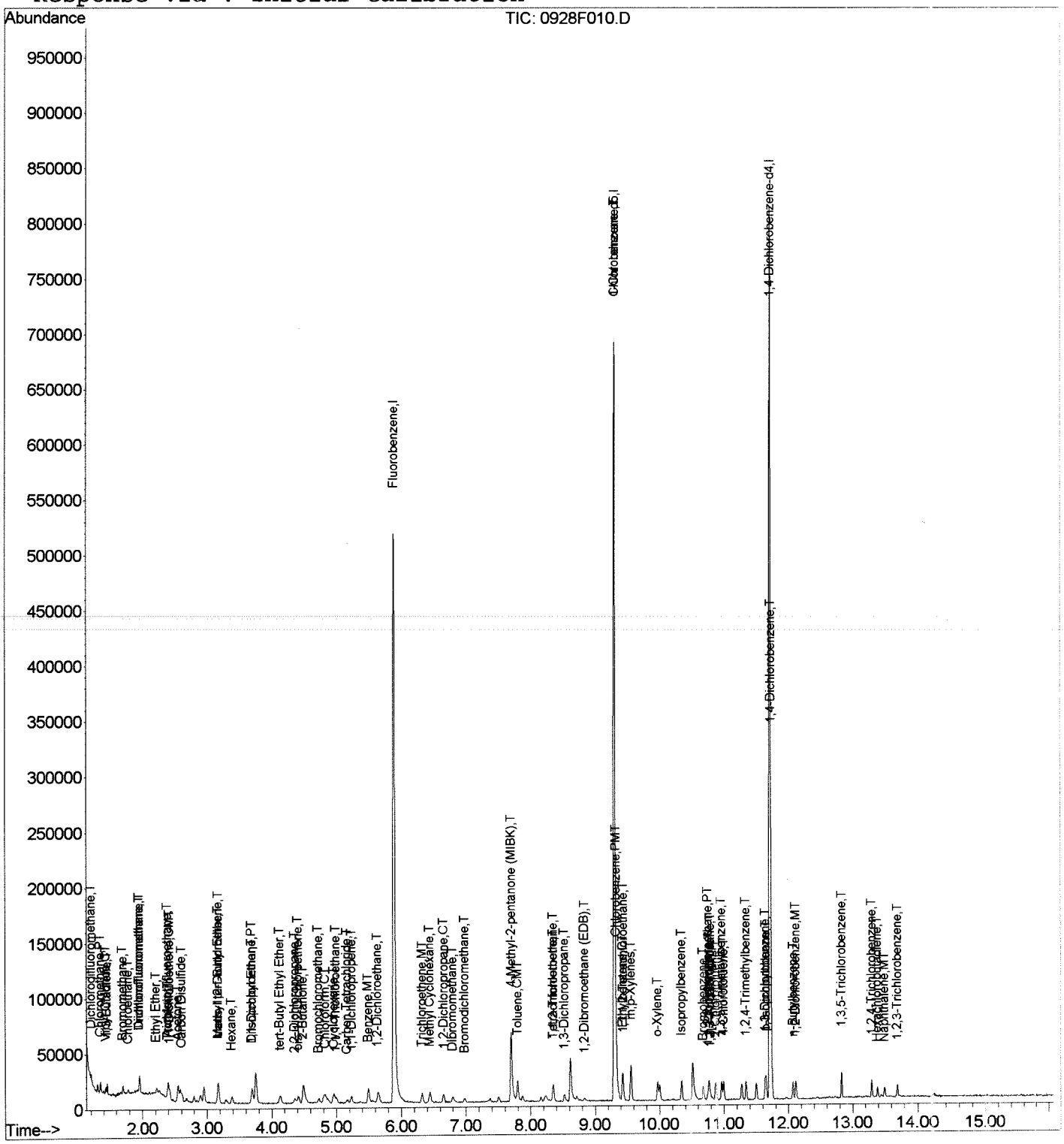
Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Mon Sep 28 15:38:45 2015
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
45)	1,1-Dichloropropene	5.23	75	3693	0.18	PPB		92
46)	Cyclohexane	4.96	56	4832	0.20	PPB		95
49)	Benzene	5.49	78	13874	0.20	PPB		98
50)	1,2-Dichloroethane	5.63	62	3447	0.19	PPB		96
52)	Trichloroethene	6.33	95	3212	0.22	PPB		93
53)	1,2-Dichloropropane	6.66	63	3221	0.20	PPB		95
54)	Dibromomethane	6.79	93	1399	0.18	PPB	#	71
57)	Bromodichloromethane	6.98	83	2556	0.15	PPB		79
59)	Methyl Cyclohexane	6.45	83	4092	0.18	PPB		86
62)	4-Methyl-2-pentanone (MIBK	7.70	58	20315	5.87	PPB		97
64)	Toluene	7.80	92	7794	0.19	PPB		97
69)	1,1,2-Trichloroethane	8.35	83	1892	0.18	PPB		75
70)	Tetrachloroethene	8.35	164	2312	0.20	PPB		86
72)	1,3-Dichloropropane	8.53	76	4304	0.20	PPB		94
74)	1,2-Dibromoethane (EDB)	8.84	107	1999	0.18	PPB		93
75)	1-Chlorohexane	9.31	91	3818	0.19	PPB		86
76)	Chlorobenzene	9.33	112	9724	0.21	PPB		94
77)	Ethylbenzene	9.42	106	4291	0.19	PPB		95
78)	1,1,1,2-Tetrachloroethane	9.44	131	2048	0.15	PPB		95
79)	m,p-Xylenes	9.55	106	9907	0.34	PPB		98
80)	o-Xylene	9.97	106	4626	0.16	PPB		95
83)	Isopropylbenzene	10.34	105	11484	0.17	PPB		94
87)	1,1,2,2-Tetrachloroethane	10.74	83	2547	0.19	PPB		96
89)	Bromobenzene	10.68	156	3564	0.19	PPB		98
90)	n-Propylbenzene	10.77	91	12637	0.16	PPB		94
91)	1,2,3-Trichloropropane	10.79	110	972	0.24	PPB	#	24
92)	2-Chlorotoluene	10.87	91	8667	0.17	PPB		87
93)	1,3,5-Trimethylbenzene	10.96	105	8665	0.16	PPB		94
94)	4-Chlorotoluene	10.99	91	9628	0.17	PPB		98
96)	1,2,4-Trimethylbenzene	11.34	105	8007	0.14	PPB		97
98)	p-Isopropyltoluene	11.66	119	7770	0.14	PPB		97
99)	1,3-Dichlorobenzene	11.64	146	6405	0.18	PPB		91
100)	1,4-Dichlorobenzene	11.74	146	7463	0.20	PPB		93
101)	n-Butylbenzene	12.07	91	7550	0.16	PPB		94
102)	1,2-Dichlorobenzene	12.12	146	6376	0.20	PPB		97
104)	1,3,5-Trichlorobenzene	12.83	180	4441	0.20	PPB		93
105)	1,2,4-Trichlorobenzene	13.29	180	3885	0.21	PPB	#	75
106)	Hexachlorobutadiene	13.38	225	1583	0.22	PPB		88
107)	Naphthalene	13.50	128	5290	0.15	PPB		96
108)	1,2,3-Trichlorobenzene	13.69	180	2882	0.20	PPB		84

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS18\DATA\092815\0928F010.D Vial: 8
Acq On : 28 Sep 2015 3:15 pm Operator: YX
Sample : 8260 ICAL 0.2 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 29 16:08 2015 Quant Results File: 092815MS18_8

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 16:05:05 2015
Response via : Initial Calibration



Data File : J:\MS18\DATA\092815\0928F011.D Vial: 9
Acq On : 28 Sep 2015 3:36 pm Operator: YX
Sample : 8260 ICAL 0.5 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 28 16:14:23 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Mon Sep 28 15:49:40 2015
Response via : Initial Calibration
DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	5.89	96	551872	10.00	PPB		0.00
65) Chlorobenzene-d5	9.30	82	222855	10.00	PPB		0.00
86) 1,4-Dichlorobenzene-d4	11.72	152	214605	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	0.00	113	0	0.00	PPB		
Spiked Amount 10.000			Recovery =	0.00%			
48) 1,2-Dichloroethane-d4	0.00	65	0	0.00	PPB		
Spiked Amount 10.000			Recovery =	0.00%			
63) Toluene-d8	0.00	98	0d	0.00	PPB		
Spiked Amount 10.000			Recovery =	0.00%			
85) 4-Bromofluorobenzene	0.00	95	0d	0.00	PPB		
Spiked Amount 10.000			Recovery =	0.00%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.21	85	5074	0.36	PPB		96
3) Chloromethane	1.35	50	9388m	0.49	PPB		
4) Vinyl Chloride	1.43	62	7281	0.42	PPB		97
5) 1,3-Butadiene	1.45	54	4204	0.35	PPB		97
6) Bromomethane	1.70	96	6228	0.66	PPB		96
7) Chloroethane	1.78	64	4877	0.51	PPB		96
8) Dichlorofluoromethane	1.95	67	11784	0.50	PPB		98
9) Trichlorofluoromethane	1.95	101	7934	0.41	PPB		95
10) Ethyl Ether	2.22	59	5135	0.50	PPB		98
11) Acrolein	2.40	56	17325	14.85	PPB		98
12) Trichlorotrifluoroethane	2.39	151	3687	0.39	PPB		88
13) 1,1-Dichloroethene	2.42	96	5652	0.44	PPB		91
14) Acetone	2.55	43	42547	20.22	PPB		98
16) Carbon Disulfide	2.61	76	14010	0.34	PPB		97
17) 2-Propanol (Isopropyl Alco	2.67	45	8330	19.02	PPB		91
18) 3-Chloro-1-propene	2.79	76	3181	0.39	PPB	#	79
19) Methyl Acetate	2.83	43	4356	0.46	PPB		90
20) Acetonitrile	2.90	40	11352	20.57	PPB		83
21) Methylene Chloride	2.95	84	11065m	0.67	PPB		
23) Acrylonitrile	3.29	53	6845	1.99	PPB		82
24) Methyl tert-Butyl Ether	3.16	73	30189	0.87	PPB		97
25) trans-1,2-Dichloroethene	3.17	96	6619	0.45	PPB		95
26) Hexane	3.39	57	4914	0.36	PPB		92
27) Diisopropyl Ether	3.70	45	20832	0.45	PPB		95
28) 1,1-Dichloroethane	3.69	63	12005	0.47	PPB		96
29) Vinyl Acetate	3.75	86	1714	0.78	PPB	#	27
30) Chloroprene	3.76	53	34116	1.45	PPB		99

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS18\DATA\092815\0928F011.D Vial: 9
Acq On : 28 Sep 2015 3:36 pm Operator: YX
Sample : 8260 ICAL 0.5 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 28 16:14:23 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Mon Sep 28 15:49:40 2015
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
31)	tert-Butyl Ethyl Ether	4.13	59	15781	0.39	PPB		93
32)	2,2-Dichloropropane	4.36	77	5776	0.31	PPB		96
33)	cis-1,2-Dichloroethene	4.41	96	8213	0.49	PPB		89
34)	2-Butanone	4.49	72	19877	19.92	PPB		90
35)	Propionitrile	4.66	54	2363	1.86	PPB		85
37)	Methacrylonitrile	4.80	67	7952	1.79	PPB		90
38)	Bromochloromethane	4.73	128	3830	0.54	PPB	#	81
40)	Chloroform	4.84	83	12087	0.48	PPB		95
41)	tert-Butyl Formate	4.87	59	1274	0.18	PPB		93
42)	1,1,1-Trichloroethane	4.99	97	6924	0.35	PPB		93
44)	Carbon Tetrachloride	5.16	117	5000	0.32	PPB		94
45)	1,1-Dichloropropene	5.22	75	7725	0.39	PPB		92
46)	Cyclohexane	4.96	56	8585	0.37	PPB		93
49)	Benzene	5.49	78	31932	0.48	PPB		99
50)	1,2-Dichloroethane	5.64	62	8066	0.46	PPB		97
51)	tert-Amyl Methyl Ether	5.65	55	6498	0.67	PPB	#	31
52)	Trichloroethene	6.32	95	6585	0.45	PPB		90
53)	1,2-Dichloropropane	6.65	63	7070	0.45	PPB		92
54)	Dibromomethane	6.79	93	3711	0.48	PPB		94
55)	Methyl methacrylate	6.81	69	2928	0.37	PPB		74
57)	Bromodichloromethane	6.98	83	6458	0.39	PPB		100
58)	2-Nitropropane	7.35	41	2404	1.21	PPB		90
59)	Methyl Cyclohexane	6.45	83	7776	0.36	PPB		89
60)	2-Chloroethyl Vinyl Ether	7.37	63	2431	0.31	PPB		81
61)	cis-1,3-Dichloropropene	7.50	75	7038	0.30	PPB		95
62)	4-Methyl-2-pentanone (MIBK	7.69	58	57527	17.17	PPB		97
64)	Toluene	7.80	92	18630	0.46	PPB		97
66)	n-Octane	7.87	85	2159	0.45	PPB		85
67)	trans-1,3-Dichloropropene	8.16	75	5000	0.27	PPB		91
68)	Ethyl methacrylate	8.21	69	4446	0.30	PPB		92
69)	1,1,2-Trichloroethane	8.34	83	5151	0.50	PPB		95
70)	Tetrachloroethene	8.35	164	4749	0.41	PPB		96
71)	2-Hexanone	8.62	57	16212	15.42	PPB		98
72)	1,3-Dichloropropane	8.52	76	10921	0.49	PPB		89
73)	Dibromochloromethane	8.72	129	4085	0.29	PPB		97
74)	1,2-Dibromoethane (EDB)	8.84	107	5227	0.46	PPB		74
75)	1-Chlorohexane	9.31	91	7369	0.37	PPB		77
76)	Chlorobenzene	9.33	112	22901	0.49	PPB		96
77)	Ethylbenzene	9.42	106	10006	0.43	PPB		89
78)	1,1,1,2-Tetrachloroethane	9.43	131	4822	0.35	PPB		93
79)	m,p-Xylenes	9.56	106	24397	0.84	PPB		92

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS18\DATA\092815\0928F011.D Vial: 9
Acq On : 28 Sep 2015 3:36 pm Operator: YX
Sample : 8260 ICAL 0.5 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 28 16:14:23 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Mon Sep 28 15:49:40 2015
Response via : Initial Calibration
DataAcq Meth : 8260

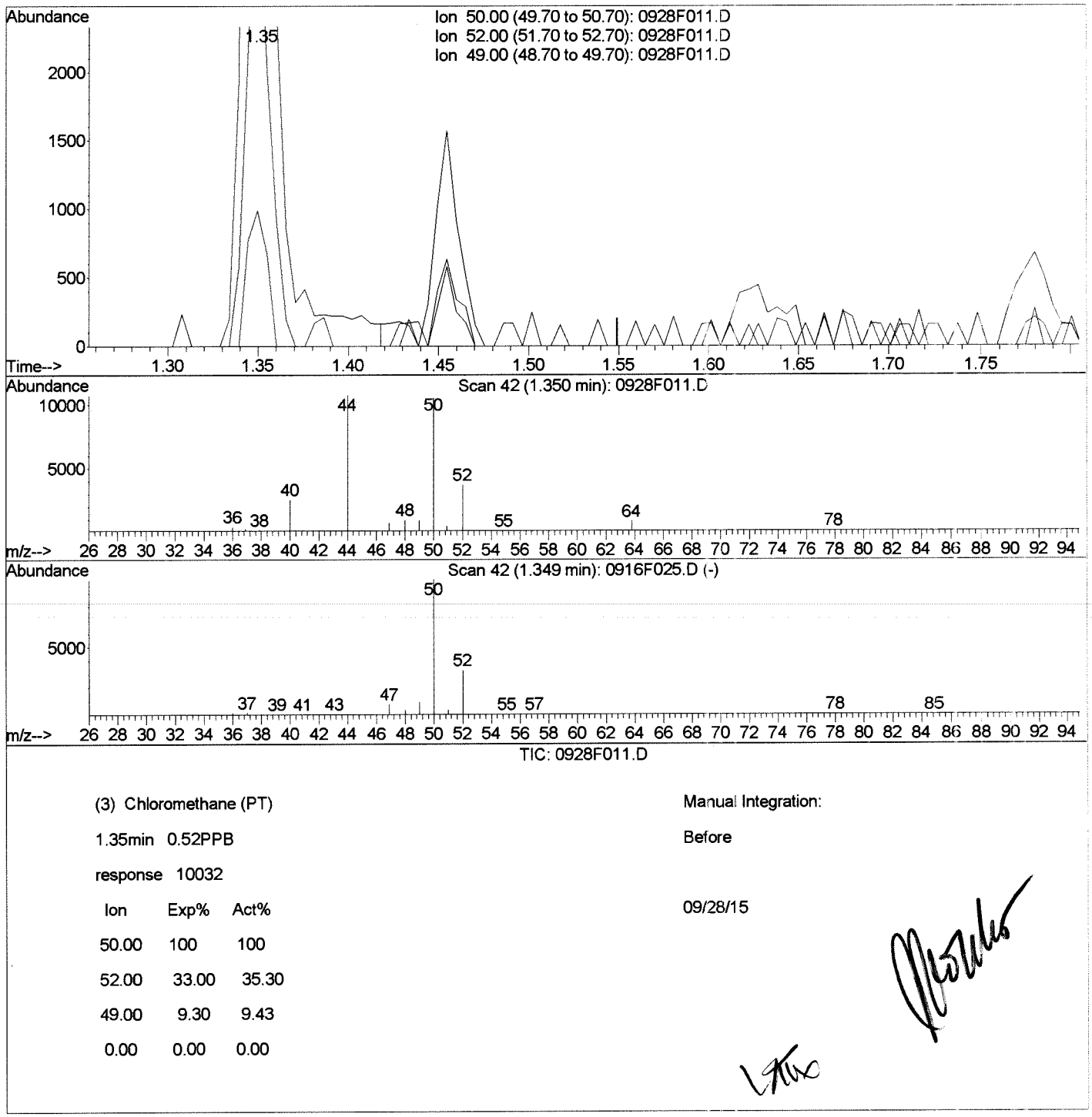
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
80)	o-Xylene	9.96	106	11716	0.42	PPB		88
81)	Styrene	10.00	103	8514m	0.37	PPB		
82)	Bromoform	10.21	173	1725	0.21	PPB		92
83)	Isopropylbenzene	10.34	105	25769	0.38	PPB		97
87)	1,1,2,2-Tetrachloroethane	10.75	83	6620	0.49	PPB		90
88)	trans-1,4-Dichloro-2-buten	10.82	53	1515	0.42	PPB	#	57
89)	Bromobenzene	10.68	156	8638	0.46	PPB		99
90)	n-Propylbenzene	10.77	91	31268	0.40	PPB		96
91)	1,2,3-Trichloropropane	10.79	110	1952	0.47	PPB		95
92)	2-Chlorotoluene	10.87	91	22806	0.45	PPB		99
93)	1,3,5-Trimethylbenzene	10.96	105	21336	0.39	PPB		91
94)	4-Chlorotoluene	10.99	91	26040	0.45	PPB		97
95)	tert-Butylbenzene	11.27	119	18283	0.38	PPB		89
96)	1,2,4-Trimethylbenzene	11.34	105	20845	0.37	PPB		97
97)	sec-Butylbenzene	11.50	105	24502	0.37	PPB		99
98)	p-Isopropyltoluene	11.66	119	18688	0.34	PPB		96
99)	1,3-Dichlorobenzene	11.64	146	17423	0.49	PPB		92
100)	1,4-Dichlorobenzene	11.74	146	18312	0.49	PPB		95
101)	n-Butylbenzene	12.07	91	16867	0.35	PPB		96
102)	1,2-Dichlorobenzene	12.11	146	16529	0.50	PPB		92
103)	1,2-Dibromo-3-chloropropan	12.73	155	493m	0.31	PPB		
104)	1,3,5-Trichlorobenzene	12.83	180	10148	0.44	PPB		96
105)	1,2,4-Trichlorobenzene	13.30	180	8924	0.47	PPB		94
106)	Hexachlorobutadiene	13.39	225	3135	0.43	PPB		91
107)	Naphthalene	13.50	128	13845	0.39	PPB		95
108)	1,2,3-Trichlorobenzene	13.70	180	7724	0.52	PPB		95

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data File : J:\MS18\DATA\092815\0928F011.D Vial: 9
Acq On : 28 Sep 2015 3:36 pm Operator: YX
Sample : 8260 ICAL 0.5 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 28 16:14 2015 Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Mon Sep 28 15:49:40 2015
Response via : Multiple Level Calibration



TIC: 0928F011.D

(3) Chloromethane (PT)

1.35min 0.52PPB

response 10032

Ion	Exp%	Act%
50.00	100	100
52.00	33.00	35.30
49.00	9.30	9.43
0.00	0.00	0.00

Manual Integration:

Before

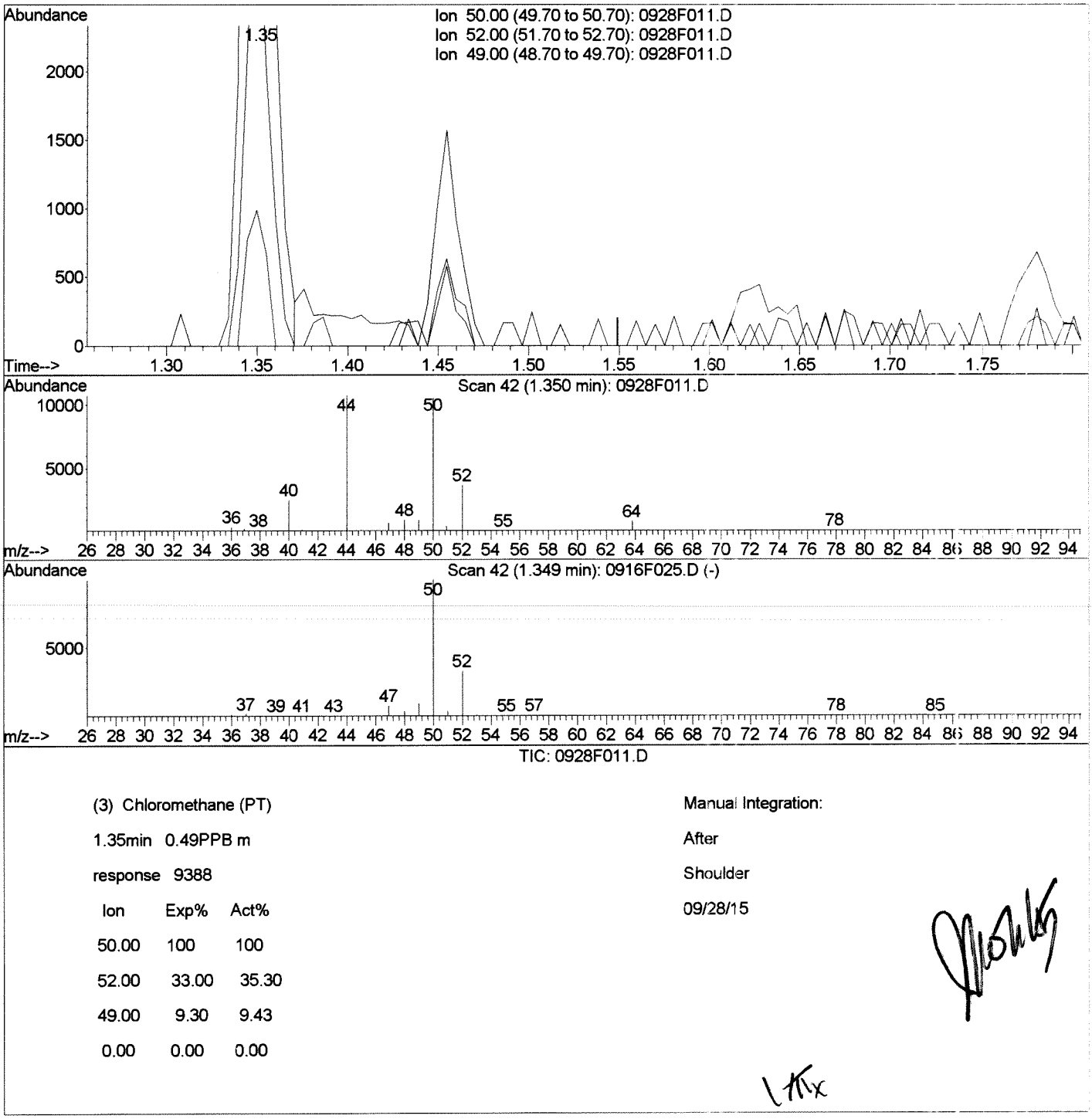
09/28/15

0928F011.D 092815MS18_8260.M Mon Sep 28 16:14:39 2015

Quantitation Report (Qedit)

Data File : J:\MS18\DATA\092815\0928F011.D Vial: 9
Acq On : 28 Sep 2015 3:36 pm Operator: YX
Sample : 8260 ICAL 0.5 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 28 16:14 2015 Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Mon Sep 28 15:49:40 2015
Response via : Multiple Level Calibration



TIC: 0928F011.D

(3) Chloromethane (PT)

1.35min 0.49PPB m

response 9388

Ion	Exp%	Act%
50.00	100	100
52.00	33.00	35.30
49.00	9.30	9.43
0.00	0.00	0.00

Manual Integration:

After

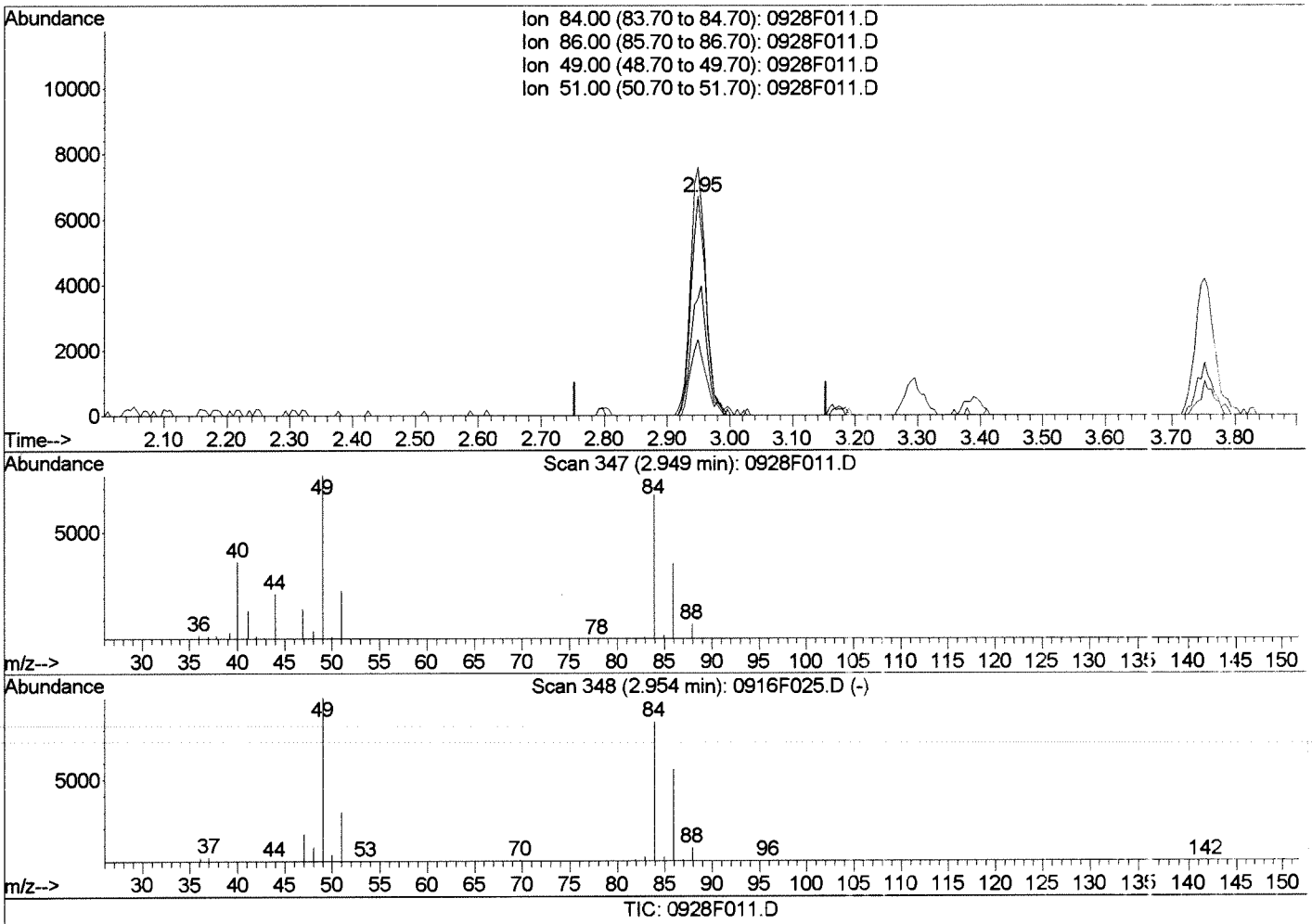
Shoulder

09/28/15

0928F011.D 092815MS18_8260.M Mon Sep 28 16:14:43 2015

Data File : J:\MS18\DATA\092815\0928F011.D Vial: 9
Acq On : 28 Sep 2015 3:36 pm Operator: YX
Sample : 8260 ICAL 0.5 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 29 12:34 2015 Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 12:33:53 2015
Response via : Single Level Calibration



TIC: 0928F011.D

(21) Methylene Chloride (T)

2.95min 0.67PPB m

response 11065

Ion	Exp%	Act%
84.00	100	100
86.00	65.90	53.23
49.00	117.40	113.35
51.00	35.10	34.69

Manual Integration:

After

Accidentally deleted, reintegrated

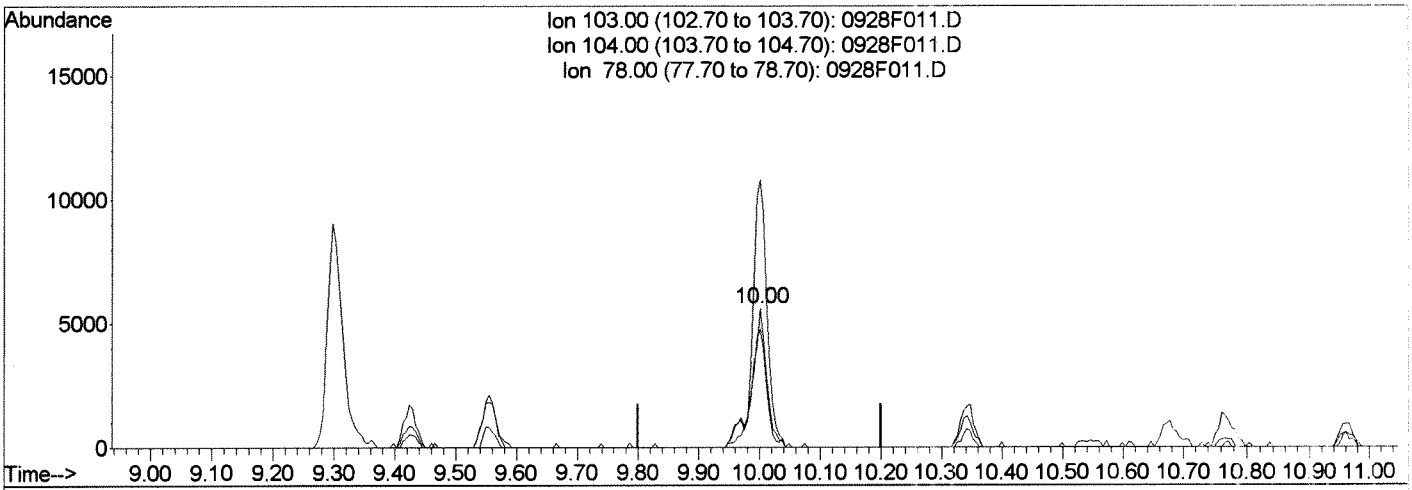
09/29/15

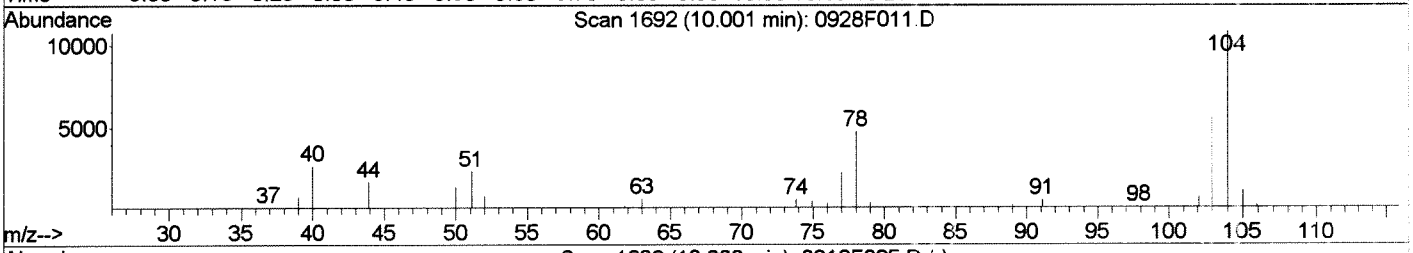
0928F011.D 092815MS18_8260.M Tue Sep 29 12:34:09 2015

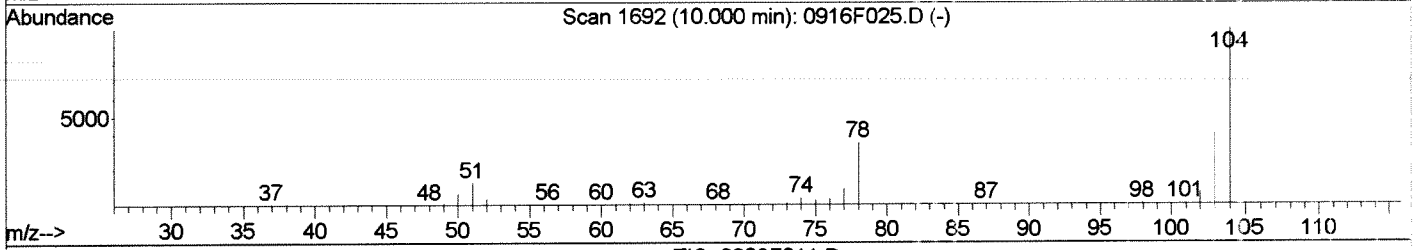
Quantitation Report (Qedit)

Data File : J:\MS18\DATA\092815\0928F011.D Vial: 9
Acq On : 28 Sep 2015 3:36 pm Operator: YX
Sample : 8260 ICAL 0.5 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 28 16:17 2015 Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Mon Sep 28 15:49:40 2015
Response via : Single Level Calibration







TIC: 0928F011.D

(81) Styrene (T)

10.00min 0.42PPB

response 9815

Ion	Exp%	Act%
103.00	100	100
104.00	216.80	193.04
78.00	88.00	85.03
0.00	0.00	0.00

Manual Integration:

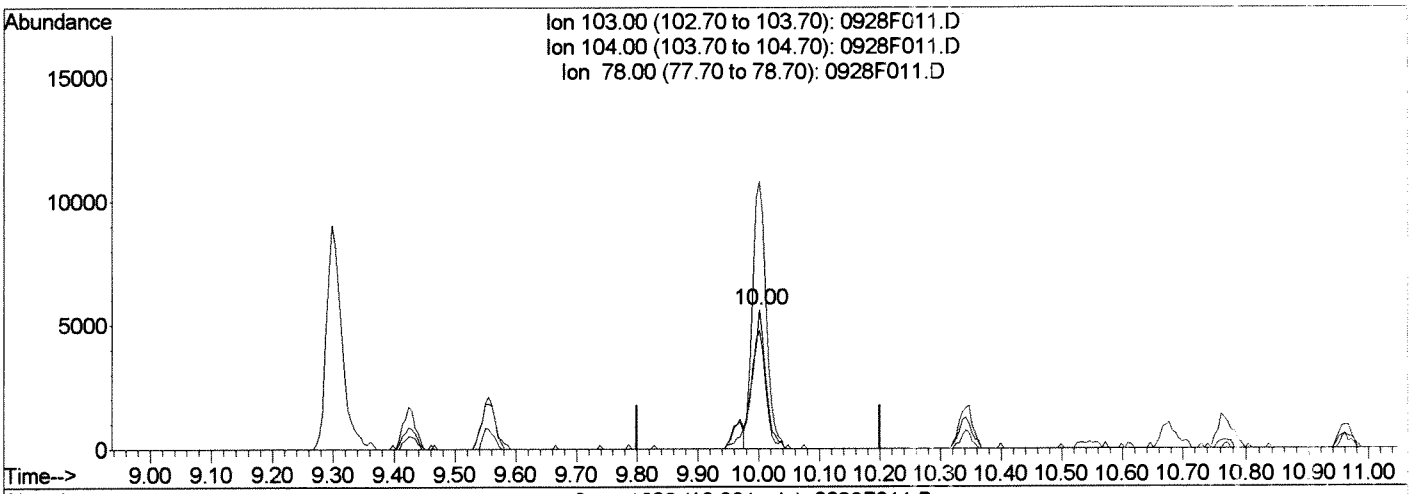
Before

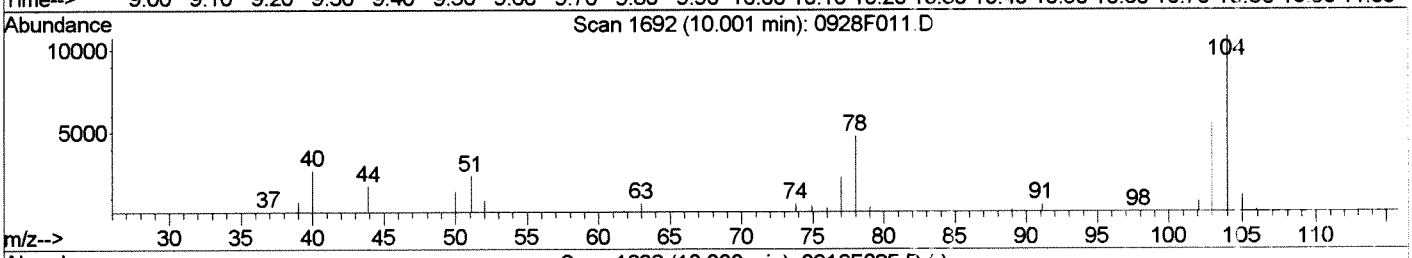
09/28/15

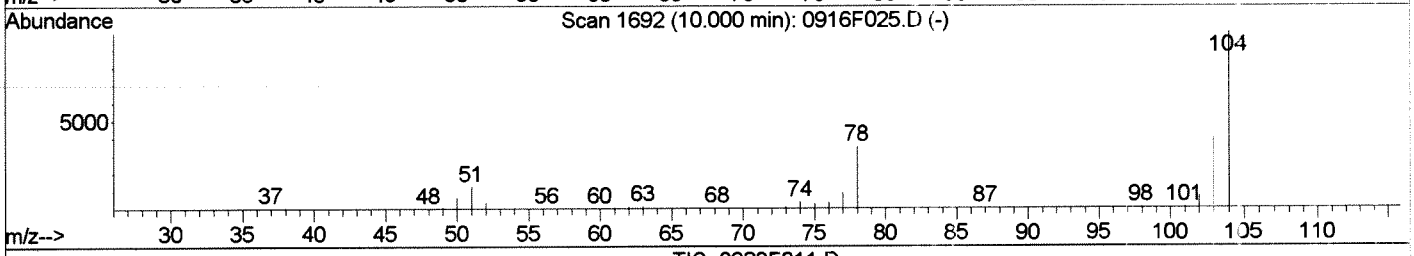
0928F011.D 092815MS18_8260.M Mon Sep 28 16:17:47 2015

Data File : J:\MS18\DATA\092815\0928F011.D Vial: 9
Acq On : 28 Sep 2015 3:36 pm Operator: YX
Sample : 8260 ICAL 0.5 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 28 16:17 2015 Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Mon Sep 28 15:49:40 2015
Response via : Single Level Calibration







TIC: 0928F011.D

(81) Styrene (T)

10.00min 0.37PPB m

response 8514

Ion	Exp%	Act%
103.00	100	100
104.00	216.80	193.04
78.00	88.00	85.03
0.00	0.00	0.00

Manual Integration:

After

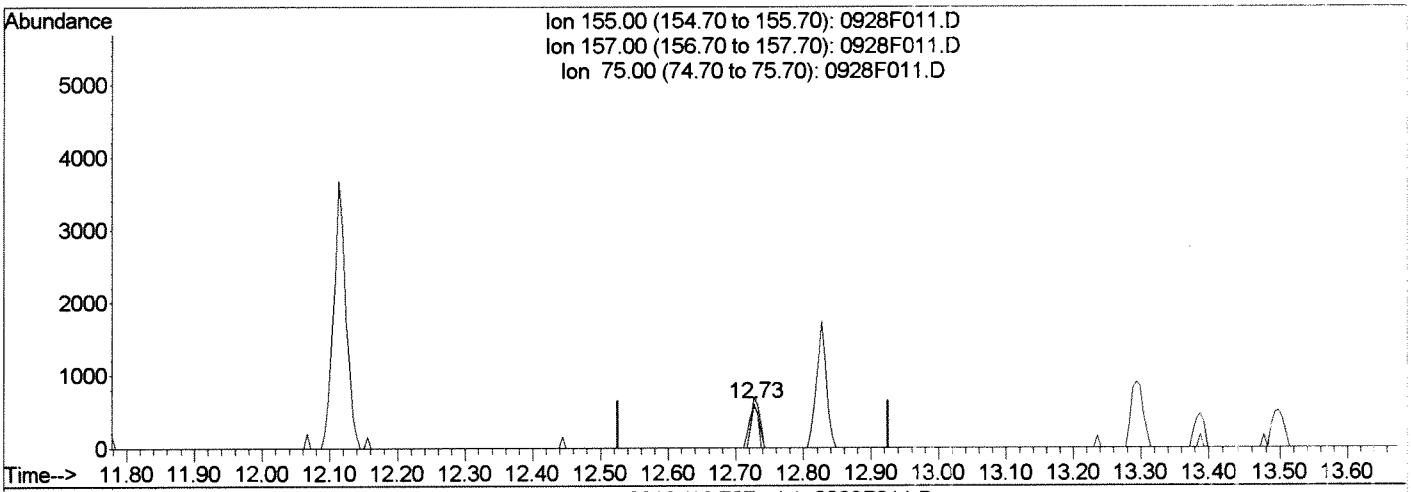
Shoulder

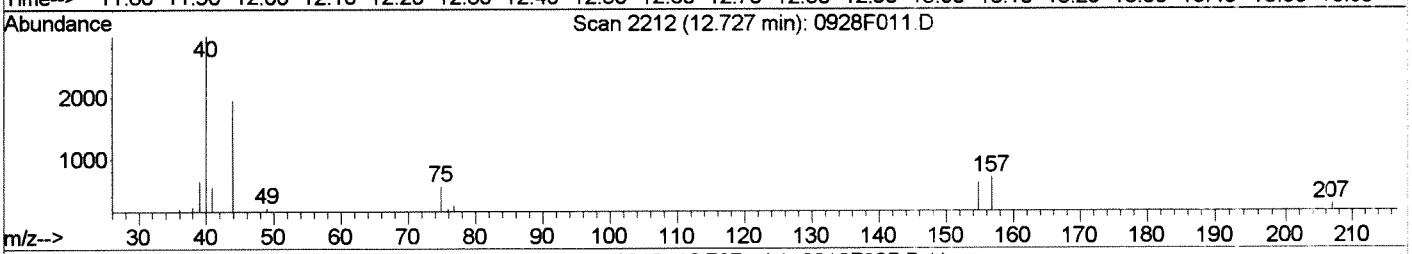
09/28/15

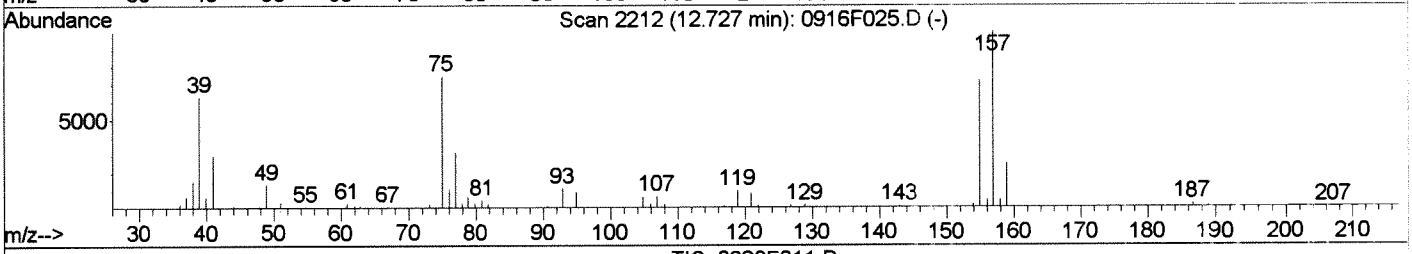
0928F011.D 092815MS18_8260.M Mon Sep 28 16:17:55 2015

Data File : J:\MS18\DATA\092815\0928F011.D Vial: 9
Acq On : 28 Sep 2015 3:36 pm Operator: YX
Sample : 8260 ICAL 0.5 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 28 16:18 2015 Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Mon Sep 28 15:49:40 2015
Response via : Single Level Calibration







TIC: 0928F011.D

(103) 1,2-Dibromo-3-chloropropane (DBCP) (T)

12.73min 0.31PPB m

response 493

Ion	Exp%	Act%
155.00	100	100
157.00	138.20	115.21
75.00	104.50	92.56
0.00	0.00	0.00

Manual Integration:

After

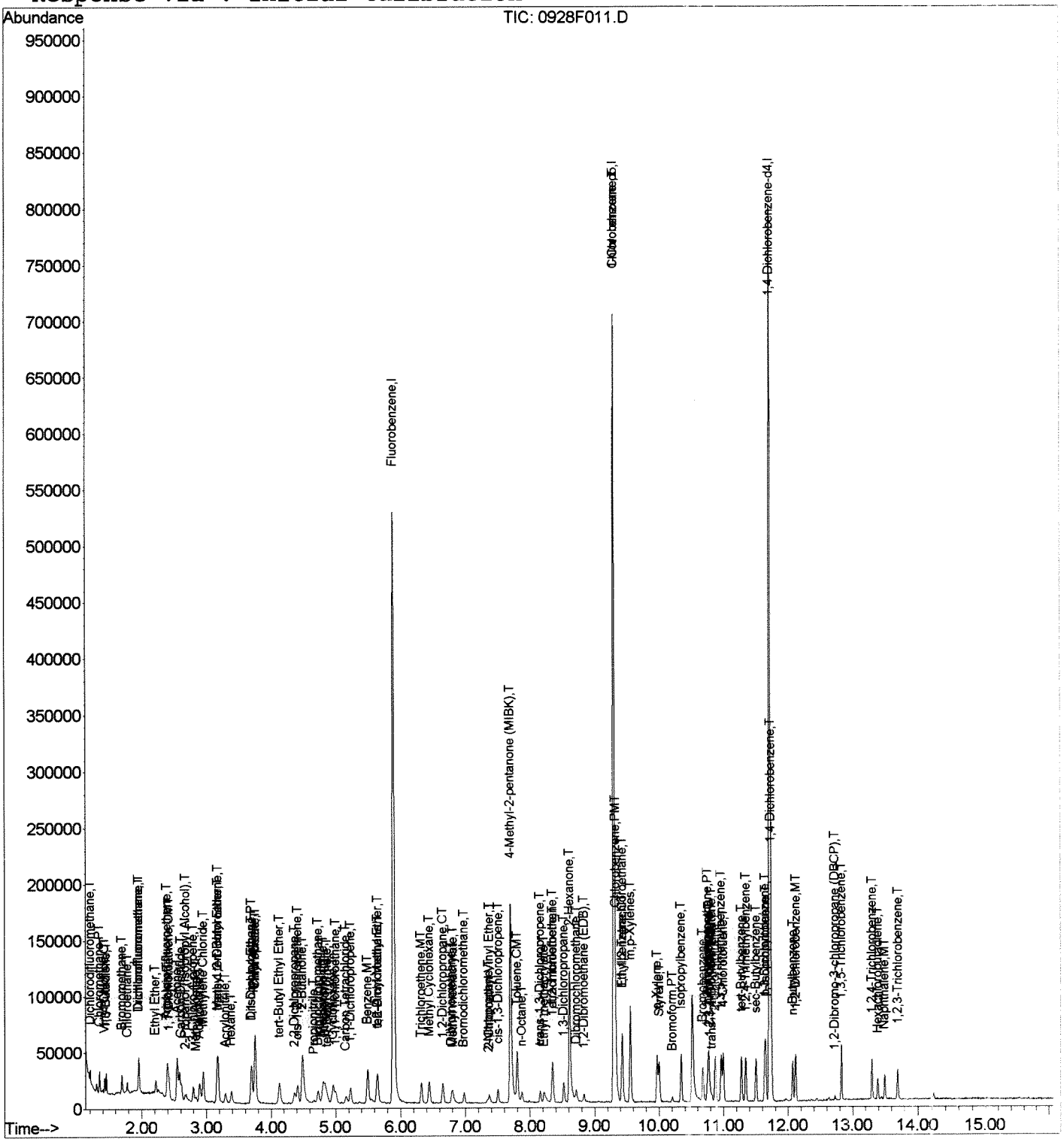
Missed peak

09/28/15

0928F011.D 092815MS18_8260.M Mon Sep 28 16:18:43 2015

Data File : J:\MS18\DATA\092815\0928F011.D Vial: 9
Acq On : 28 Sep 2015 3:36 pm Operator: YX
Sample : 8260 ICAL 0.5 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 29 12:34 2015 Quant Results File: 092815MS18_8

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 16:05:05 2015
Response via : Initial Calibration



Data File : J:\MS18\DATA\092815\0928F012.D Vial: 10
Acq On : 28 Sep 2015 3:59 pm Operator: YX
Sample : 8260 ICAL 1 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 28 16:21:46 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Mon Sep 28 16:20:16 2015
Response via : Initial Calibration
DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.89	96	554985	10.00	PPB	0.00
65) Chlorobenzene-d5	9.30	82	222343	10.00	PPB	0.00
86) 1,4-Dichlorobenzene-d4	11.72	152	215490	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.06	113	45088	3.56	PPB	0.00
Spiked Amount 10.000			Recovery =	35.60%		
48) 1,2-Dichloroethane-d4	5.54	65	54541	3.90	PPB	0.00
Spiked Amount 10.000			Recovery =	39.00%		
63) Toluene-d8	7.73	98	209809	3.83	PPB	0.00
Spiked Amount 10.000			Recovery =	38.30%		
85) 4-Bromofluorobenzene	10.54	95	79621	3.75	PPB	0.00
Spiked Amount 10.000			Recovery =	37.50%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.21	85	11702	0.83	PPB	91
3) Chloromethane	1.35	50	18569	0.96	PPB	99
4) Vinyl Chloride	1.43	62	16027	0.92	PPB	97
5) 1,3-Butadiene	1.45	54	9417	0.80	PPB	97
6) Bromomethane	1.70	96	11631	1.18	PPB	99
7) Chloroethane	1.78	64	9374	0.99	PPB	95
8) Dichlorofluoromethane	1.95	67	23566	0.99	PPB	99
9) Trichlorofluoromethane	1.96	101	17681	0.91	PPB	92
10) Ethyl Ether	2.22	59	10124	0.97	PPB	96
11) Acrolein	2.40	56	35486	28.71	PPB	94
12) Trichlorotrifluoroethane	2.39	151	8627	0.91	PPB	100
13) 1,1-Dichloroethene	2.42	96	12258	0.95	PPB	93
14) Acetone	2.55	43	89949	42.45	PPB	99
15) Iodomethane	2.58	142	45572	3.41	PPB	97
16) Carbon Disulfide	2.61	76	30422	0.74	PPB	95
17) 2-Propanol (Isopropyl Alco	2.67	45	17643	41.43	PPB	90
18) 3-Chloro-1-propene	2.80	76	6577	0.81	PPB	87
19) Methyl Acetate	2.84	43	10165	1.06	PPB	91
20) Acetonitrile	2.89	40	22695	40.42	PPB	99
21) Methylene Chloride	2.95	84	19060	1.11	PPB	98
22) tert-Butyl Alcohol	3.08	59	2540	4.00	PPB	76
23) Acrylonitrile	3.29	53	14041	4.06	PPB	96
24) Methyl tert-Butyl Ether	3.16	73	59674	1.73	PPB	98
25) trans-1,2-Dichloroethene	3.18	96	14261	0.96	PPB	98
26) Hexane	3.39	57	11402	0.82	PPB	94
27) Diisopropyl Ether	3.70	45	39561	0.86	PPB	95
28) 1,1-Dichloroethane	3.69	63	24102	0.94	PPB	97

(#) = qualifier out of range (m) = manual integration
0928F012.D 092815MS18_8260.M Tue Sep 29 16:08:58 2015 Page 1

Data File : J:\MS18\DATA\092815\0928F012.D Vial: 10
Acq On : 28 Sep 2015 3:59 pm Operator: YX
Sample : 8260 ICAL 1 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 28 16:21:46 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Mon Sep 28 16:20:16 2015
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29)	Vinyl Acetate	3.75	86	2979	1.34	PPB	#	87
30)	Chloroprene	3.75	53	76207	3.29	PPB		99
31)	tert-Butyl Ethyl Ether	4.13	59	32111	0.80	PPB		96
32)	2,2-Dichloropropane	4.36	77	11896	0.67	PPB		99
33)	cis-1,2-Dichloroethene	4.41	96	16982	1.00	PPB		82
34)	2-Butanone	4.48	72	38364	38.00	PPB		99
35)	Propionitrile	4.66	54	4561	3.59	PPB		89
36)	Ethyl Acetate	4.51	61	2937	2.05	PPB	#	69
37)	Methacrylonitrile	4.80	67	16695	3.76	PPB		90
38)	Bromochloromethane	4.73	128	7414	1.04	PPB	#	72
39)	Tetrahydrofuran	4.75	71	969	0.97	PPB	#	15
40)	Chloroform	4.84	83	23219	0.92	PPB		94
41)	tert-Butyl Formate	4.86	59	2848	0.42	PPB		88
42)	1,1,1-Trichloroethane	5.00	97	15748	0.81	PPB		89
44)	Carbon Tetrachloride	5.16	117	11315	0.73	PPB		98
45)	1,1-Dichloropropene	5.23	75	17249	0.89	PPB		94
46)	Cyclohexane	4.96	56	19772	0.87	PPB		96
47)	Isobutyl Alcohol	5.65	43	8533	28.60	PPB		67
49)	Benzene	5.49	78	64086	0.96	PPB		98
50)	1,2-Dichloroethane	5.64	62	17289	0.99	PPB		92
51)	tert-Amyl Methyl Ether	5.64	55	13453	1.33	PPB	#	25
52)	Trichloroethene	6.32	95	14005	0.96	PPB		99
53)	1,2-Dichloropropane	6.65	63	14796	0.94	PPB		92
54)	Dibromomethane	6.79	93	7450	0.96	PPB		89
55)	Methyl methacrylate	6.81	69	6081	0.78	PPB		87
56)	1,4-Dioxane	6.83	88	3448	36.43	PPB		92
57)	Bromodichloromethane	6.98	83	13343	0.82	PPB		91
58)	2-Nitropropane	7.34	41	4328	2.24	PPB	#	74
59)	Methyl Cyclohexane	6.44	83	18455	0.87	PPB		94
60)	2-Chloroethyl Vinyl Ether	7.37	63	5369	0.71	PPB		95
61)	cis-1,3-Dichloropropene	7.50	75	14996	0.65	PPB		94
62)	4-Methyl-2-pentanone (MIBK	7.69	58	129967	38.90	PPB		92
64)	Toluene	7.80	92	40320	0.99	PPB		93
66)	n-Octane	7.88	85	4634	0.98	PPB		88
67)	trans-1,3-Dichloropropene	8.16	75	10627	0.59	PPB		98
68)	Ethyl methacrylate	8.22	69	9589	0.66	PPB		92
69)	1,1,2-Trichloroethane	8.34	83	9878	0.95	PPB		98
70)	Tetrachloroethene	8.35	164	11349	0.99	PPB		88
71)	2-Hexanone	8.62	57	38189	37.05	PPB		95
72)	1,3-Dichloropropane	8.52	76	21143	0.95	PPB		95
73)	Dibromochloromethane	8.72	129	8239	0.58	PPB		85

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS18\DATA\092815\0928F012.D Vial: 10
Acq On : 28 Sep 2015 3:59 pm Operator: YX
Sample : 8260 ICAL 1 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 28 16:21:46 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Mon Sep 28 16:20:16 2015
Response via : Initial Calibration
DataAcq Meth : 8260

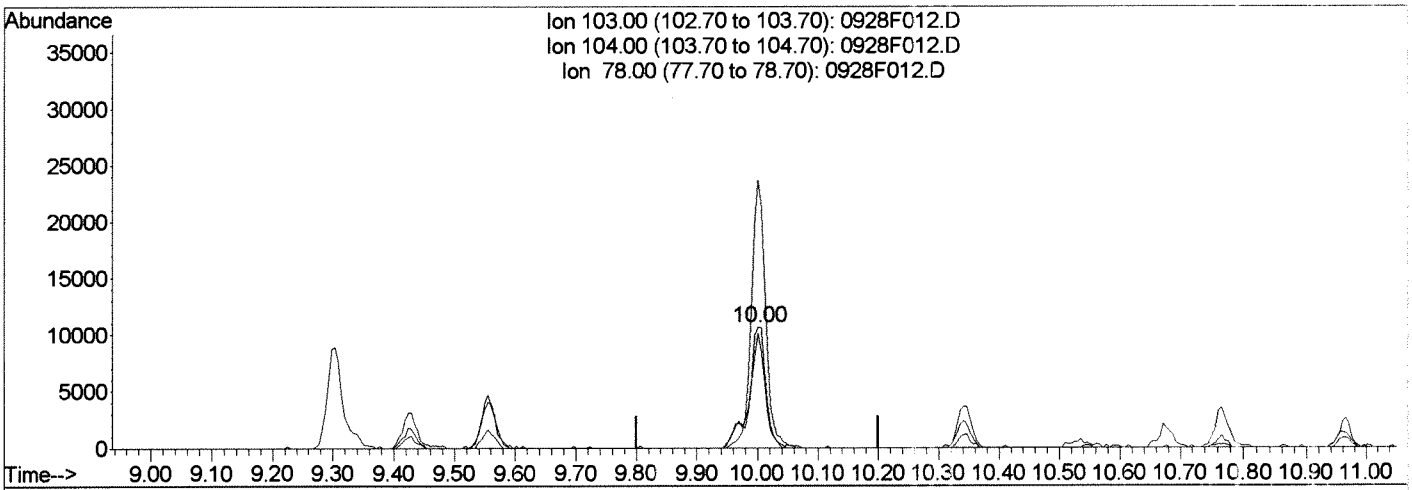
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
74)	1,2-Dibromoethane (EDB)	8.84	107	10623	0.93	PPB		99
75)	1-Chlorohexane	9.31	91	15749	0.81	PPB		94
76)	Chlorobenzene	9.33	112	46045	0.99	PPB		96
77)	Ethylbenzene	9.42	106	21325	0.92	PPB		92
78)	1,1,1,2-Tetrachloroethane	9.44	131	10079	0.75	PPB		93
79)	m,p-Xylenes	9.55	106	51595	1.81	PPB		99
80)	o-Xylene	9.97	106	24595	0.88	PPB		90
81)	Styrene	10.00	103	18358m	0.80	PPB		
82)	Bromoform	10.21	173	3828	0.48	PPB		94
83)	Isopropylbenzene	10.34	105	58516	0.87	PPB		97
84)	cis-1,4-Dichloro-2-butene	10.51	89	2978	1.81	PPB	#	75
87)	1,1,2,2-Tetrachloroethane	10.74	83	13380	0.98	PPB		97
88)	trans-1,4-Dichloro-2-buten	10.82	53	3074m	0.87	PPB		
89)	Bromobenzene	10.68	156	18483	0.98	PPB		100
90)	n-Propylbenzene	10.77	91	73638	0.94	PPB		95
91)	1,2,3-Trichloropropane	10.79	110	4223	1.01	PPB		90
92)	2-Chlorotoluene	10.87	91	48582	0.97	PPB		98
93)	1,3,5-Trimethylbenzene	10.96	105	47740	0.87	PPB		98
94)	4-Chlorotoluene	11.00	91	57449	0.99	PPB		98
95)	tert-Butylbenzene	11.27	119	41612	0.88	PPB		97
96)	1,2,4-Trimethylbenzene	11.34	105	49198	0.88	PPB		97
97)	sec-Butylbenzene	11.50	105	58290	0.89	PPB		97
98)	p-Isopropyltoluene	11.66	119	45178	0.83	PPB		99
99)	1,3-Dichlorobenzene	11.64	146	34411	0.97	PPB		98
100)	1,4-Dichlorobenzene	11.74	146	36828	0.98	PPB		95
101)	n-Butylbenzene	12.07	91	39375	0.84	PPB		99
102)	1,2-Dichlorobenzene	12.12	146	32912	0.98	PPB		94
103)	1,2-Dibromo-3-chloropropan	12.73	155	1069	0.67	PPB		92
104)	1,3,5-Trichlorobenzene	12.83	180	21366	0.94	PPB		98
105)	1,2,4-Trichlorobenzene	13.30	180	17811	0.93	PPB		98
106)	Hexachlorobutadiene	13.39	225	7082	0.97	PPB		92
107)	Naphthalene	13.50	128	28767	0.81	PPB		96
108)	1,2,3-Trichlorobenzene	13.70	180	14740	0.98	PPB		95

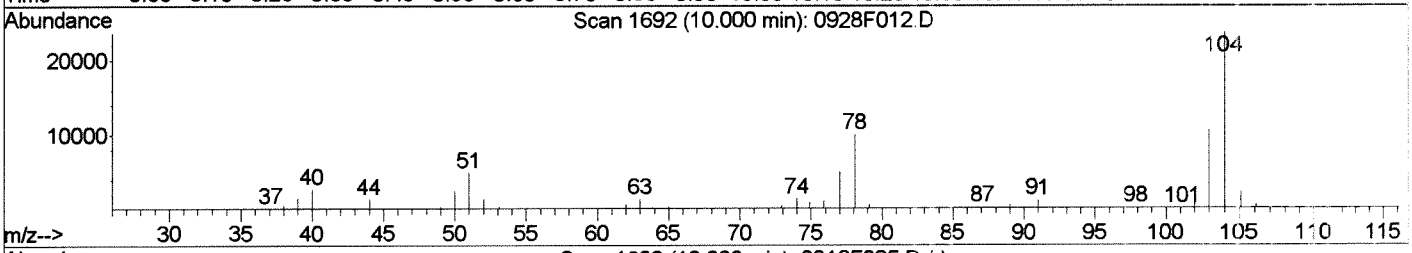
(#) = qualifier out of range (m) = manual integration

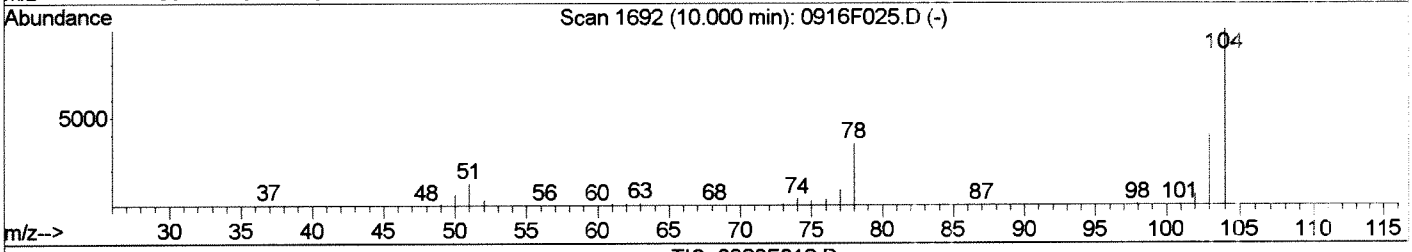
Quantitation Report (Qedit)

Data File : J:\MS18\DATA\092815\0928F012.D Vial: 10
Acq On : 28 Sep 2015 3:59 pm Operator: YX
Sample : 8260 ICAL 1 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 28 16:21 2015 Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Mon Sep 28 16:20:16 2015
Response via : Single Level Calibration







TIC: 0928F012.D

(81) Styrene (T)

10.00min 0.92PPB

response 21012

Ion	Exp%	Act%
103.00	100	100
104.00	216.80	222.79
78.00	88.00	94.71
0.00	0.00	0.00

Manual Integration:

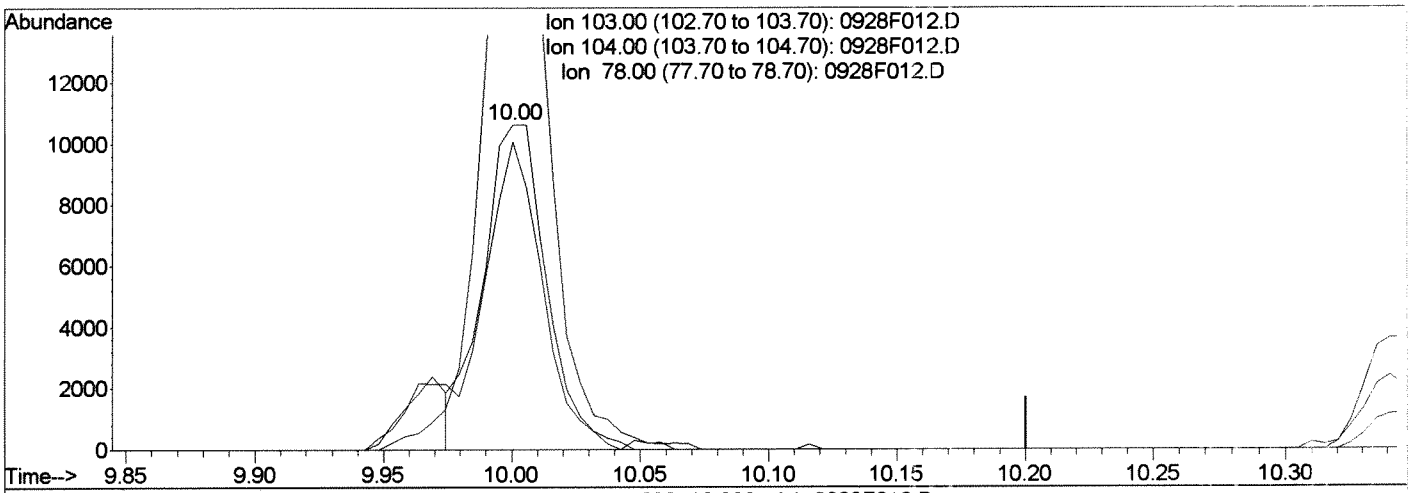
Before

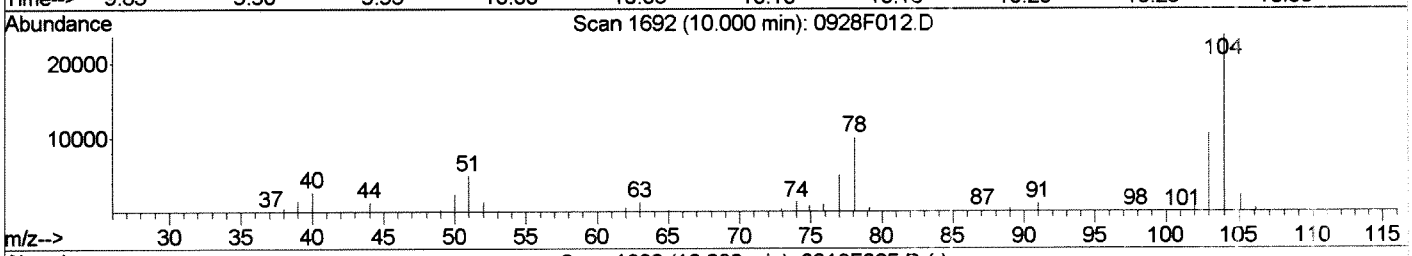
09/28/15

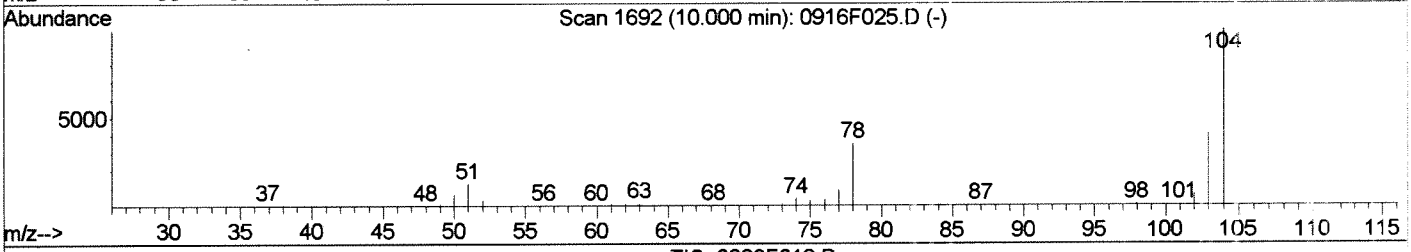
0928F012.D 092815MS18_8260.M Mon Sep 28 16:23:14 2015

Data File : J:\MS18\DATA\092815\0928F012.D Vial: 10
Acq On : 28 Sep 2015 3:59 pm Operator: YX
Sample : 8260 ICAL 1 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 28 16:23 2015 Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Mon Sep 28 16:20:16 2015
Response via : Single Level Calibration







TIC: 0928F012.D

(81) Styrene (T)

10.00min 0.80PPB m

response 18358

Ion	Exp%	Act%
103.00	100	100
104.00	216.80	222.79
78.00	88.00	94.71
0.00	0.00	0.00

Manual Integration:

After

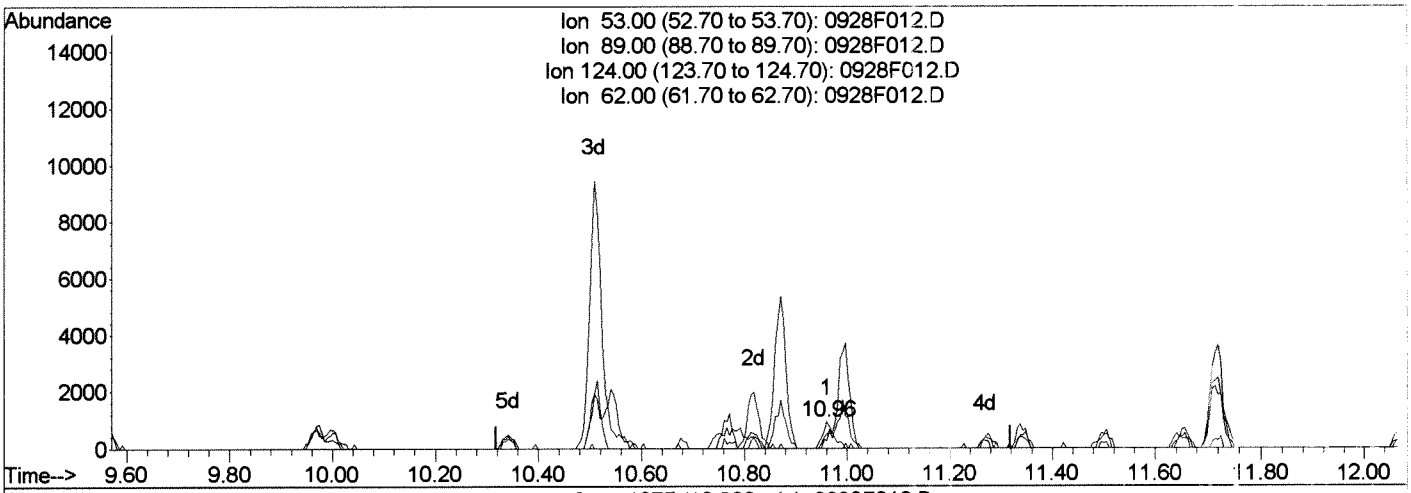
Shoulder

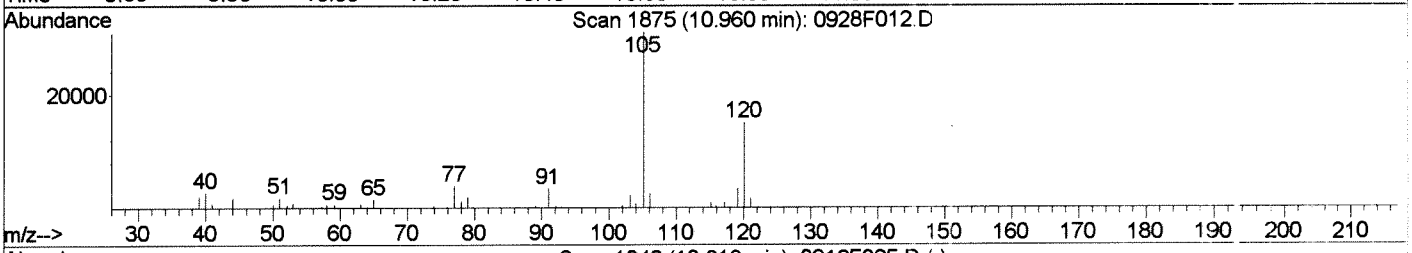
09/28/15

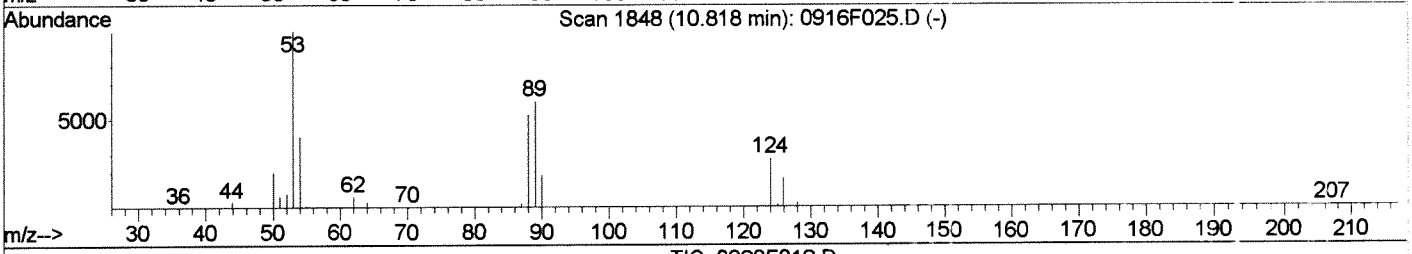
0928F012.D 092815MS18_8260.M Mon Sep 28 16:23:21 2015

Data File : J:\MS18\DATA\092815\0928F012.D Vial: 10
Acq On : 28 Sep 2015 3:59 pm Operator: YX
Sample : 8260 ICAL 1 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 28 16:23 2015 Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Mon Sep 28 16:20:16 2015
Response via : Single Level Calibration







TIC: 0928F012.D

(88) trans-1,4-Dichloro-2-butene (T)

10.96min 0.39PPB

response 1363

Ion	Exp%	Act%
53.00	100	100
89.00	66.00	53.59
124.00	27.10	0.00
62.00	34.40	28.01

Manual Integration:

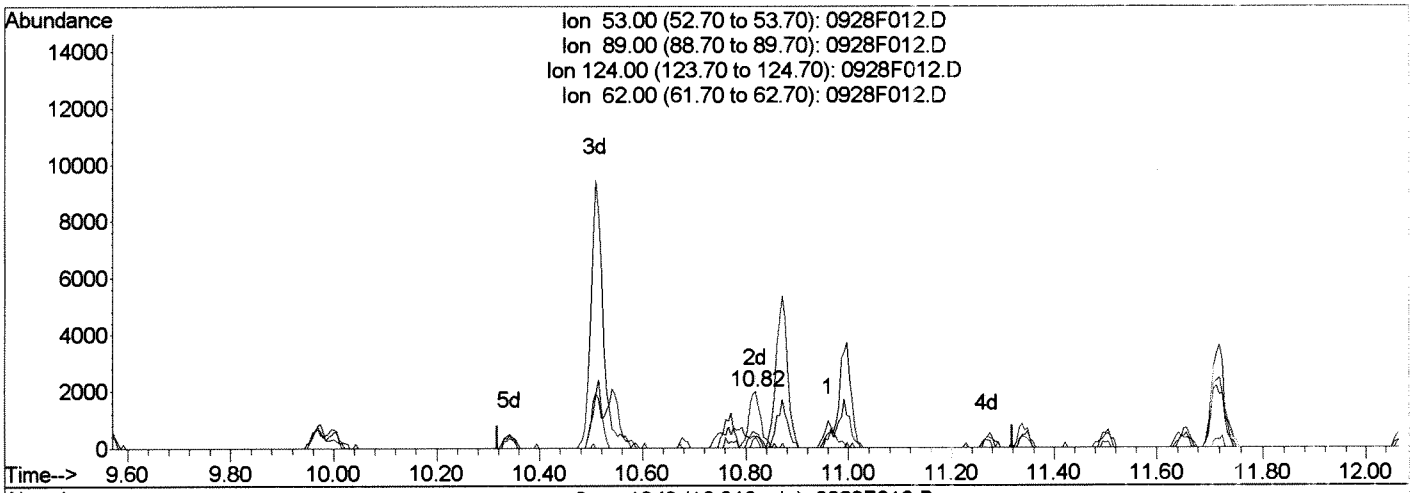
Before

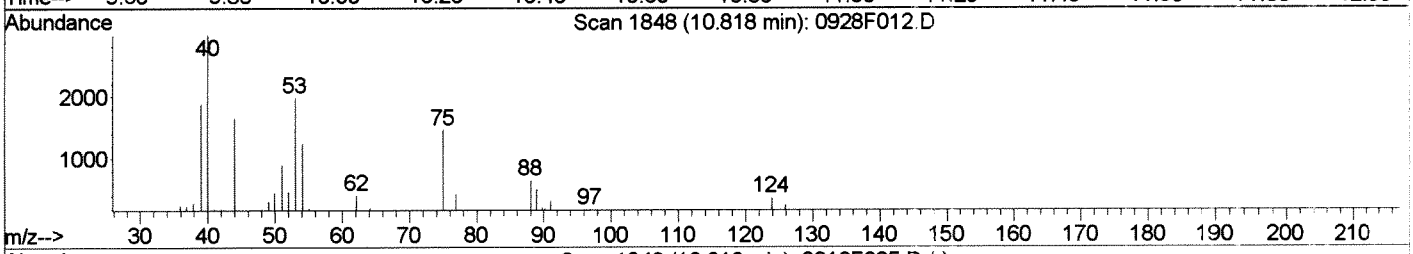
09/28/15

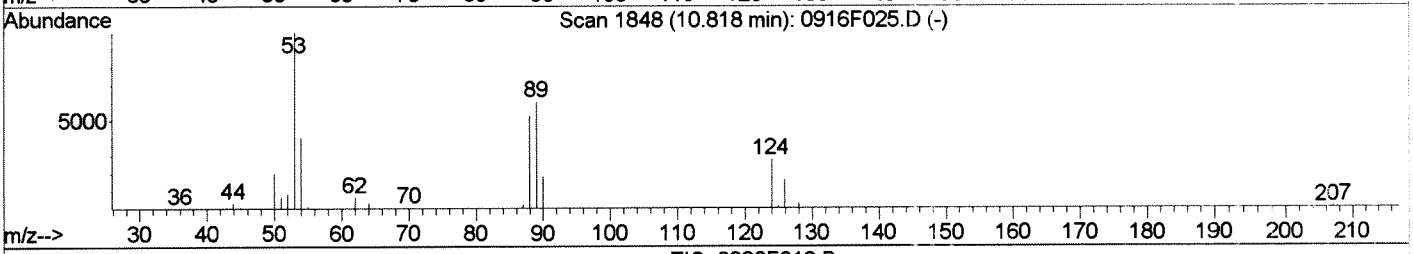
0928F012.D 092815MS18_8260.M Mon Sep 28 16:23:29 2015

Data File : J:\MS18\DATA\092815\0928F012.D Vial: 10
Acq On : 28 Sep 2015 3:59 pm Operator: YX
Sample : 8260 ICAL 1 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 28 16:23 2015 Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Mon Sep 28 16:20:16 2015
Response via : Single Level Calibration







TIC: 0928F012.D

(88) trans-1,4-Dichloro-2-butene (T)

10.82min 0.87PPB m

response 3074

Ion	Exp%	Act%
53.00	100	100
89.00	66.00	25.71#
124.00	27.10	18.98
62.00	34.40	21.00

Manual Integration:

After

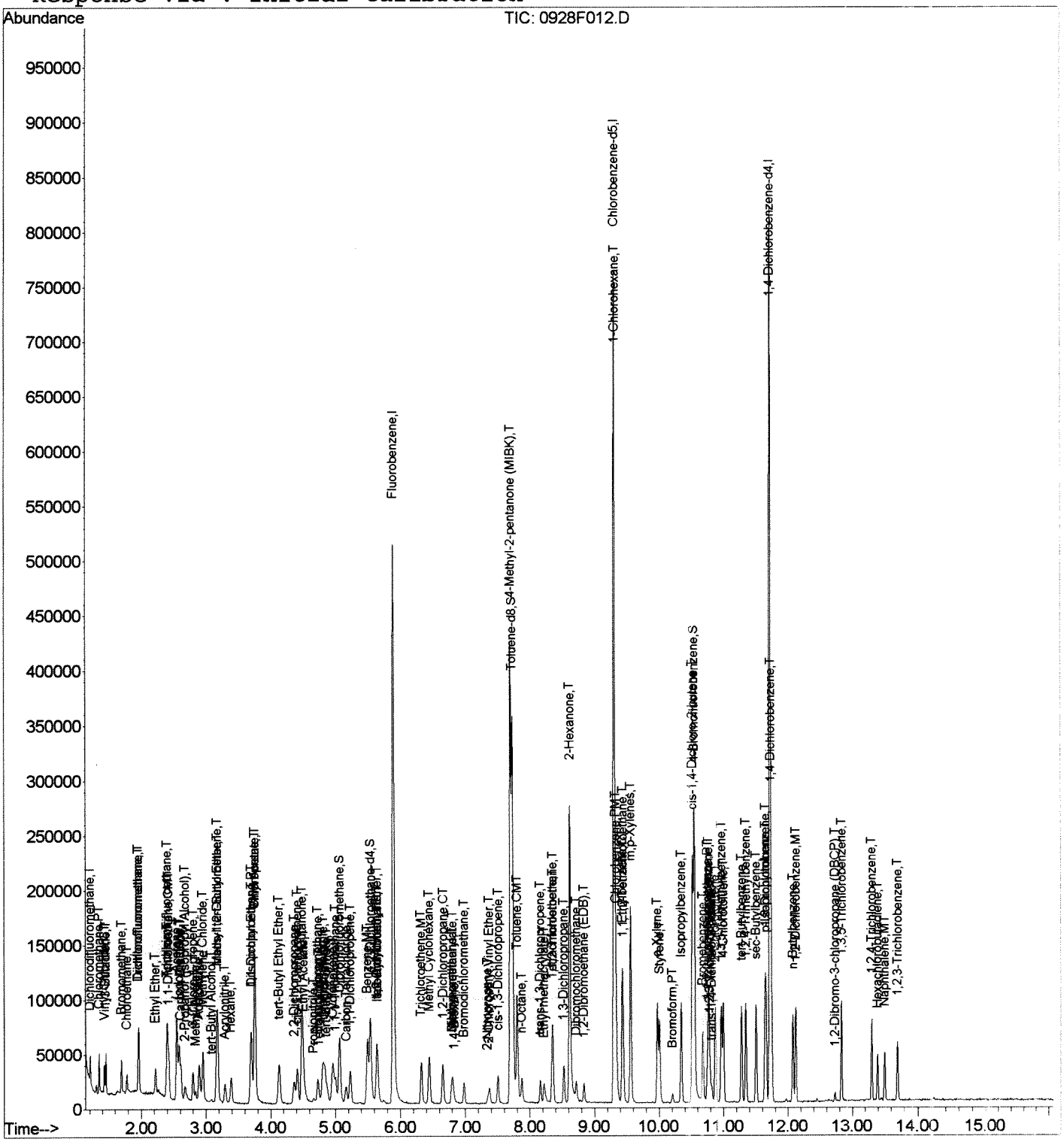
WRT

09/28/15

0928F012.D 092815MS18_8260.M Mon Sep 28 16:23:35 2015

Data File : J:\MS18\DATA\092815\0928F012.D Vial: 10
Acq On : 28 Sep 2015 3:59 pm Operator: YX
Sample : 8260 ICAL 1 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 28 16:23 2015 Quant Results File: 092815MS18_8

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 16:05:05 2015
Response via : Initial Calibration



Data File : J:\MS18\DATA\092815\0928F013.D Vial: 11
Acq On : 28 Sep 2015 4:22 pm Operator: YX
Sample : 8260 ICAL 2 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 28 16:46:47 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Mon Sep 28 16:23:54 2015
Response via : Initial Calibration
DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.90	96	569530	10.00	PPB	0.00
65) Chlorobenzene-d5	9.30	82	226390	10.00	PPB	0.00
86) 1,4-Dichlorobenzene-d4	11.72	152	222770	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.07	113	75669	5.87	PPB	0.00
Spiked Amount 10.000			Recovery =	58.70%		
48) 1,2-Dichloroethane-d4	5.54	65	85747	5.99	PPB	0.00
Spiked Amount 10.000			Recovery =	59.90%		
63) Toluene-d8	7.73	98	351321	6.28	PPB	0.00
Spiked Amount 10.000			Recovery =	62.80%		
85) 4-Bromofluorobenzene	10.54	95	132832	6.19	PPB	0.00
Spiked Amount 10.000			Recovery =	61.90%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.21	85	34389	2.34	PPB	95
3) Chloromethane	1.35	50	42472	2.15	PPB	96
4) Vinyl Chloride	1.43	62	36434	2.02	PPB	99
5) 1,3-Butadiene	1.45	54	21104	1.76	PPB	98
6) Bromomethane	1.70	96	22566	2.19	PPB	100
7) Chloroethane	1.78	64	19574	2.00	PPB	97
8) Dichlorofluoromethane	1.95	67	49723	2.03	PPB	97
9) Trichlorofluoromethane	1.96	101	39254	1.97	PPB	97
10) Ethyl Ether	2.22	59	19889	1.87	PPB	95
11) Acrolein	2.40	56	70549	53.25	PPB	94
12) Trichlorotrifluoroethane	2.39	151	19589	2.02	PPB	92
13) 1,1-Dichloroethene	2.42	96	25215	1.90	PPB	96
14) Acetone	2.55	43	178241	81.19	PPB	98
15) Iodomethane	2.58	142	94761	6.87	PPB	98
16) Carbon Disulfide	2.61	76	69653	1.65	PPB	100
17) 2-Propanol (Isopropyl Alco	2.68	45	32190	75.14	PPB	97
18) 3-Chloro-1-propene	2.80	76	13476	1.64	PPB	91
19) Methyl Acetate	2.84	43	21197	2.13	PPB	98
20) Acetonitrile	2.89	40	43118	74.09	PPB	92
21) Methylene Chloride	2.95	84	36097	2.05	PPB	96
22) tert-Butyl Alcohol	3.07	59	4574	7.10	PPB	94
23) Acrylonitrile	3.29	53	27653	7.77	PPB	96
24) Methyl tert-Butyl Ether	3.16	73	119520	3.42	PPB	98
25) trans-1,2-Dichloroethene	3.18	96	31155	2.03	PPB	95
26) Hexane	3.39	57	26485	1.86	PPB	92
27) Diisopropyl Ether	3.69	45	78886	1.69	PPB	98
28) 1,1-Dichloroethane	3.69	63	49319	1.87	PPB	99

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS18\DATA\092815\0928F013.D Vial: 11
Acq On : 28 Sep 2015 4:22 pm Operator: YX
Sample : 8260 ICAL 2 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 28 16:46:47 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Mon Sep 28 16:23:54 2015
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29)	Vinyl Acetate	3.76	86	7032	3.09	PPB	#	52
30)	Chloroprene	3.75	53	174034	7.41	PPB		99
31)	tert-Butyl Ethyl Ether	4.13	59	68032	1.69	PPB		96
32)	2,2-Dichloropropane	4.36	77	26596	1.51	PPB		91
33)	cis-1,2-Dichloroethene	4.41	96	32942	1.88	PPB		87
34)	2-Butanone	4.48	72	84226	81.37	PPB	#	86
35)	Propionitrile	4.66	54	9921	7.66	PPB		83
36)	Ethyl Acetate	4.52	61	5186	3.46	PPB		86
37)	Methacrylonitrile	4.80	67	33246	7.32	PPB		90
38)	Bromochloromethane	4.73	128	15091	2.06	PPB		89
39)	Tetrahydrofuran	4.76	71	1886	1.85	PPB		83
40)	Chloroform	4.84	83	48599	1.89	PPB		97
41)	tert-Butyl Formate	4.86	59	5423	0.83	PPB		94
42)	1,1,1-Trichloroethane	5.00	97	33232	1.69	PPB		96
44)	Carbon Tetrachloride	5.17	117	26100	1.68	PPB		96
45)	1,1-Dichloropropene	5.23	75	38723	1.95	PPB		97
46)	Cyclohexane	4.95	56	47376	2.04	PPB		88
47)	Isobutyl Alcohol	5.64	43	16712	56.18	PPB		73
49)	Benzene	5.49	78	132703	1.94	PPB		97
50)	1,2-Dichloroethane	5.64	62	35225	1.97	PPB		97
51)	tert-Amyl Methyl Ether	5.64	55	25866	2.41	PPB	#	33
52)	Trichloroethene	6.32	95	29689	1.98	PPB		95
53)	1,2-Dichloropropane	6.65	63	30091	1.87	PPB		97
54)	Dibromomethane	6.79	93	15033	1.89	PPB		94
55)	Methyl methacrylate	6.81	69	11701	1.49	PPB		92
56)	1,4-Dioxane	6.83	88	7105	71.05	PPB		83
57)	Bromodichloromethane	6.98	83	27400	1.65	PPB		98
58)	2-Nitropropane	7.35	41	8757	4.64	PPB		93
59)	Methyl Cyclohexane	6.45	83	41822	1.93	PPB		95
60)	2-Chloroethyl Vinyl Ether	7.37	63	10501	1.38	PPB		96
61)	cis-1,3-Dichloropropene	7.50	75	33512	1.45	PPB		97
62)	4-Methyl-2-pentanone (MIBK	7.69	58	282450	82.76	PPB		92
64)	Toluene	7.80	92	86375	2.05	PPB		97
66)	n-Octane	7.88	85	10238	2.12	PPB		94
67)	trans-1,3-Dichloropropene	8.16	75	22539	1.27	PPB		96
68)	Ethyl methacrylate	8.22	69	21486	1.50	PPB		93
69)	1,1,2-Trichloroethane	8.34	83	20759	1.97	PPB		98
70)	Tetrachloroethene	8.35	164	24004	2.05	PPB		88
71)	2-Hexanone	8.61	57	85639	82.41	PPB		92
72)	1,3-Dichloropropane	8.53	76	44062	1.95	PPB		97
73)	Dibromochloromethane	8.72	129	17902	1.24	PPB		96

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS18\DATA\092815\0928F013.D Vial: 11
Acq On : 28 Sep 2015 4:22 pm Operator: YX
Sample : 8260 ICAL 2 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 28 16:46:47 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Mon Sep 28 16:23:54 2015
Response via : Initial Calibration
DataAcq Meth : 8260

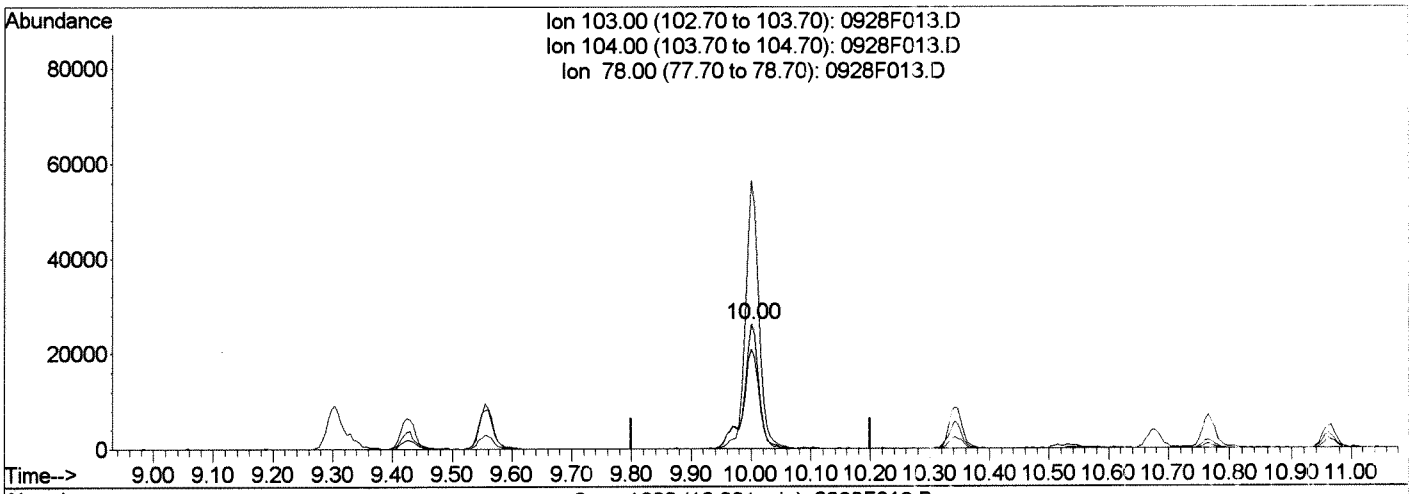
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
74)	1,2-Dibromoethane (EDB)	8.84	107	21923	1.90	PPB		96
75)	1-Chlorohexane	9.31	91	33282	1.70	PPB		91
76)	Chlorobenzene	9.33	112	95605	2.01	PPB		98
77)	Ethylbenzene	9.42	106	46414	1.98	PPB		94
78)	1,1,1,2-Tetrachloroethane	9.44	131	22058	1.64	PPB		92
79)	m,p-Xylenes	9.56	106	114180	3.95	PPB		97
80)	o-Xylene	9.97	106	53939	1.92	PPB		99
81)	Styrene	10.00	103	40827m	1.78	PPB		
82)	Bromoform	10.21	173	8409	1.03	PPB		94
83)	Isopropylbenzene	10.34	105	132033	1.95	PPB		97
84)	cis-1,4-Dichloro-2-butene	10.51	89	6534	4.06	PPB	#	82
87)	1,1,2,2-Tetrachloroethane	10.75	83	26787	1.89	PPB		97
88)	trans-1,4-Dichloro-2-buten	10.82	53	6197m	1.71	PPB		
89)	Bromobenzene	10.68	156	37222	1.91	PPB		91
90)	n-Propylbenzene	10.77	91	165163	2.04	PPB		98
91)	1,2,3-Trichloropropane	10.79	110	8659	2.00	PPB		89
92)	2-Chlorotoluene	10.87	91	102425	1.99	PPB		99
93)	1,3,5-Trimethylbenzene	10.96	105	108781	1.94	PPB		98
94)	4-Chlorotoluene	10.99	91	120654	2.01	PPB		100
95)	tert-Butylbenzene	11.27	119	94315	1.94	PPB		99
96)	1,2,4-Trimethylbenzene	11.34	105	110059	1.93	PPB		93
97)	sec-Butylbenzene	11.50	105	131918	1.96	PPB		99
98)	p-Isopropyltoluene	11.66	119	106684	1.92	PPB		97
99)	1,3-Dichlorobenzene	11.64	146	72473	1.97	PPB		99
100)	1,4-Dichlorobenzene	11.74	146	74057	1.90	PPB		98
101)	n-Butylbenzene	12.07	91	89068	1.85	PPB		97
102)	1,2-Dichlorobenzene	12.12	146	68801	1.99	PPB		98
103)	1,2-Dibromo-3-chloropropan	12.73	155	2162	1.32	PPB		83
104)	1,3,5-Trichlorobenzene	12.83	180	44738	1.90	PPB		98
105)	1,2,4-Trichlorobenzene	13.30	180	36880	1.86	PPB		98
106)	Hexachlorobutadiene	13.39	225	13249	1.75	PPB		94
107)	Naphthalene	13.50	128	60193	1.65	PPB		99
108)	1,2,3-Trichlorobenzene	13.70	180	30070	1.92	PPB		99

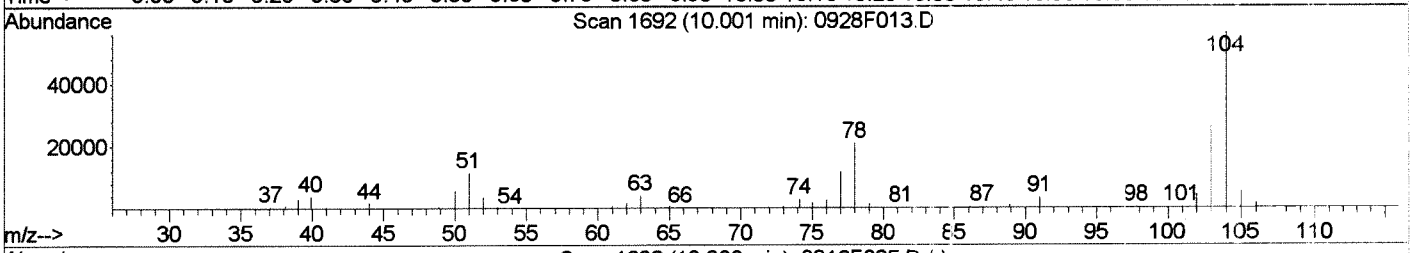
(#) = qualifier out of range (m) = manual integration

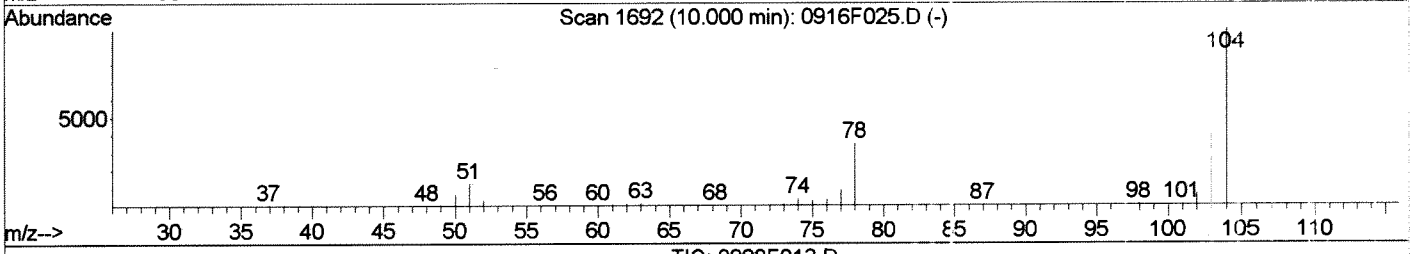
Quantitation Report (Qedit)

Data File : J:\MS18\DATA\092815\0928F013.D Vial: 11
Acq On : 28 Sep 2015 4:22 pm Operator: YX
Sample : 8260 ICAL 2 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 28 16:46 2015 Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Mon Sep 28 16:23:54 2015
Response via : Single Level Calibration







TIC: 0928F013.D

(81) Styrene (T)

10.00min 2.01PPB

response 46255

Ion	Exp%	Act%
103.00	100	100
104.00	216.80	215.59
78.00	88.00	79.61
0.00	0.00	0.00

Manua Integration:

Before

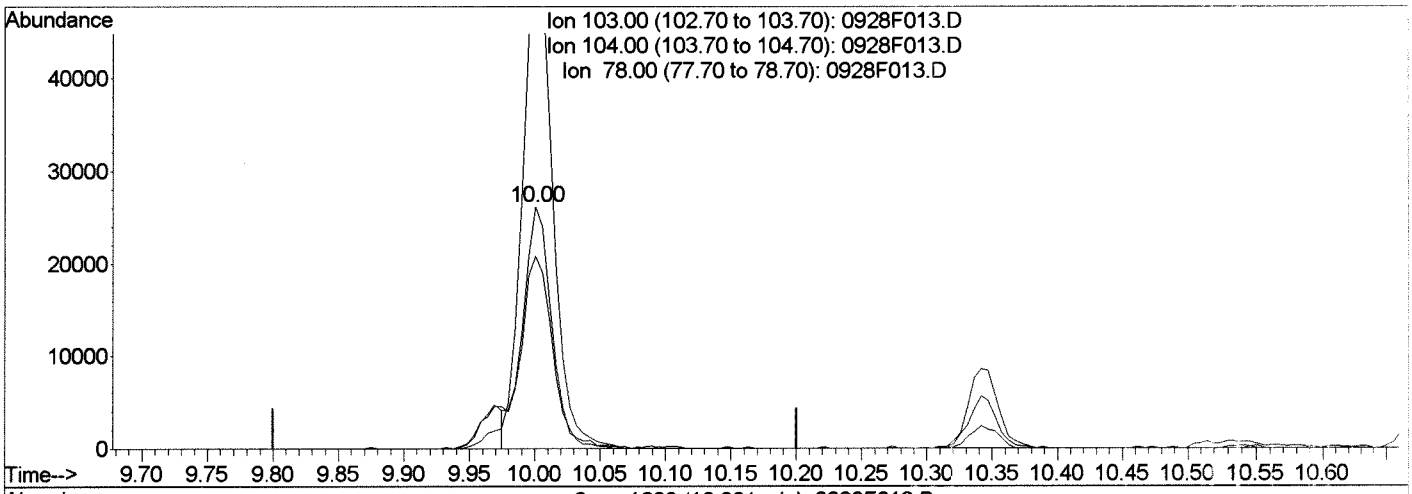
09/28/15

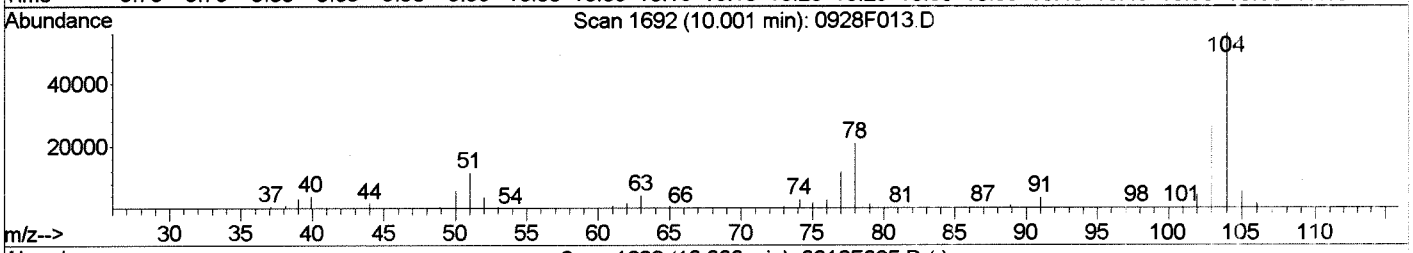
0928F013.D 092815MS18_8260.M Mon Sep 28 16:47:21 2015

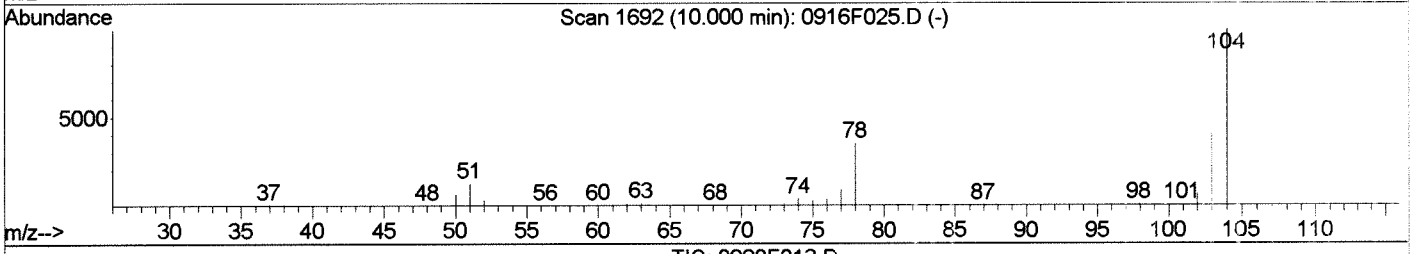
Quantitation Report (Qedit)

Data File : J:\MS18\DATA\092815\0928F013.D Vial: 11
Acq On : 28 Sep 2015 4:22 pm Operator: YX
Sample : 8260 ICAL 2 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 28 16:47 2015 Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Mon Sep 28 16:23:54 2015
Response via : Single Level Calibration







TIC: 0928F013.D

(81) Styrene (T)

10.00min 1.78PPB m

response 40827

Ion	Exp%	Act%
103.00	100	100
104.00	216.80	215.59
78.00	88.00	79.61
0.00	0.00	0.00

Manual Integration:

After

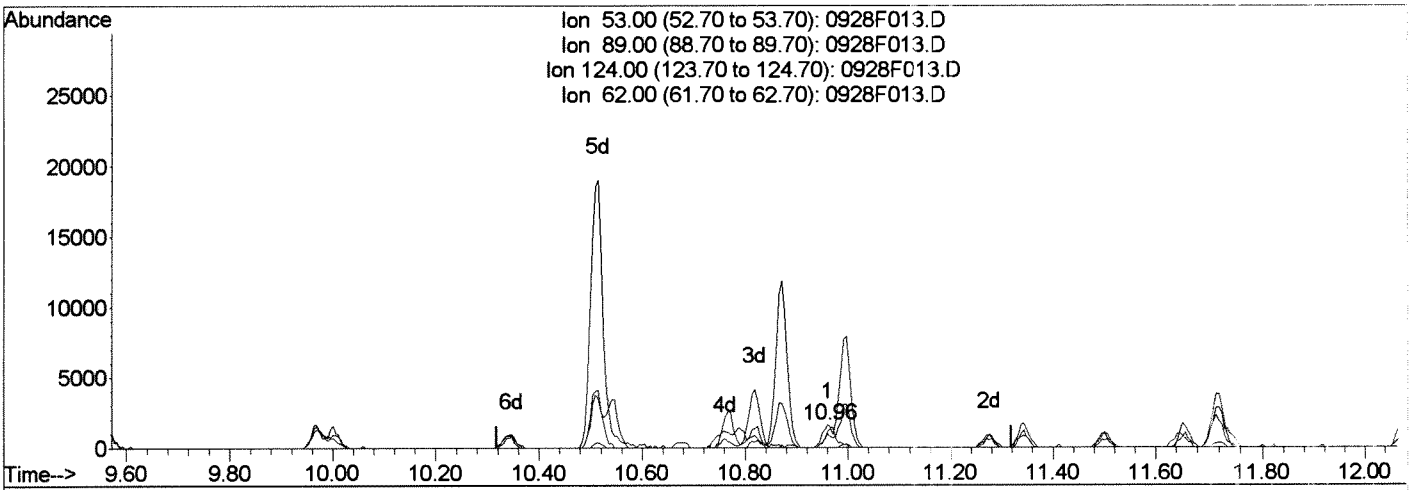
Shoulder

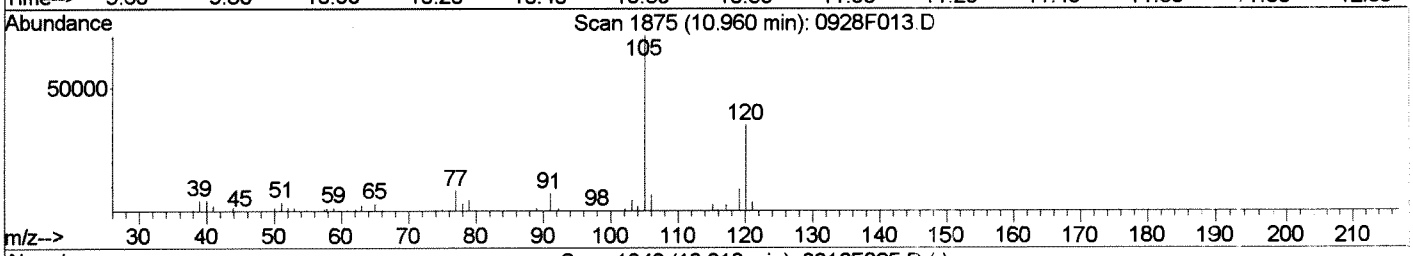
09/28/15

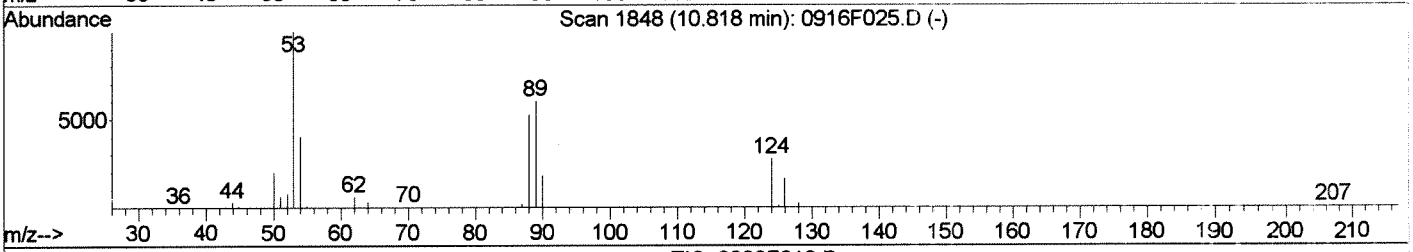
0928F013.D 092815MS18_8260.M Mon Sep 28 16:47:35 2015

Data File : J:\MS18\DATA\092815\0928F013.D Vial: 11
Acq On : 28 Sep 2015 4:22 pm Operator: YX
Sample : 8260 ICAL 2 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 28 16:47 2015 Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Mon Sep 28 16:23:54 2015
Response via : Single Level Calibration







TIC: 0928F013.D

(88) trans-1,4-Dichloro-2-butene (T)

10.96min 0.81PPB

response 2927

Ion	Exp%	Act%
53.00	100	100
89.00	66.00	70.19
124.00	27.10	0.00
62.00	34.40	59.93

Manual Integration:

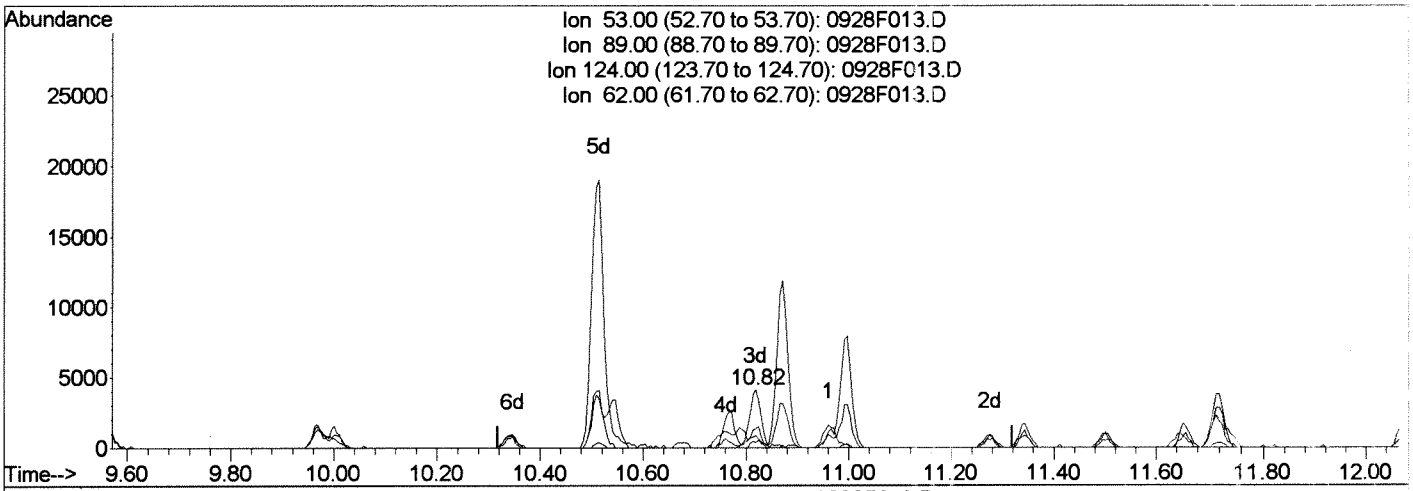
Before

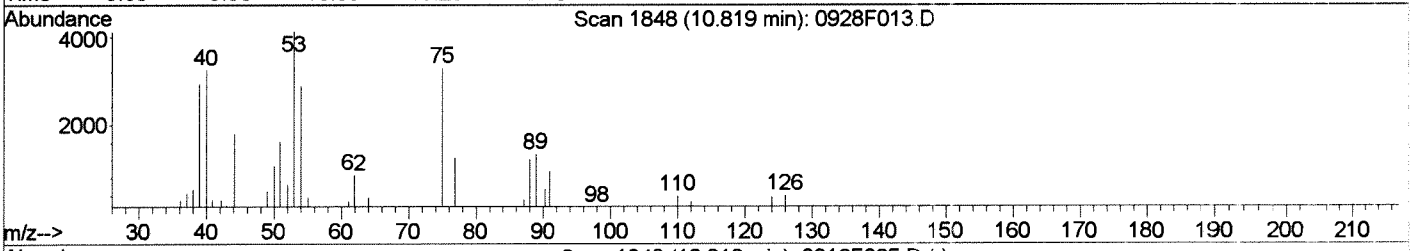
09/28/15

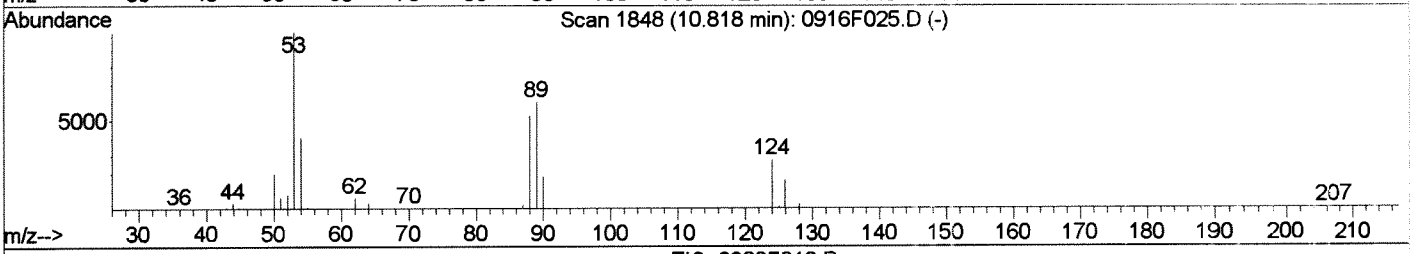
0928F013.D 092815MS18_8260.M Mon Sep 28 16:47:44 2015

Data File : J:\MS18\DATA\092815\0928F013.D Vial: 11
Acq On : 28 Sep 2015 4:22 pm Operator: YX
Sample : 8260 ICAL 2 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 28 16:47 2015 Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Mon Sep 28 16:23:54 2015
Response via : Single Level Calibration







TIC: 0928F013.D

(88) trans-1,4-Dichloro-2-butene (T)

10.82min 1.71PPB m

response 6197

Ion	Exp%	Act%
53.00	100	100
89.00	66.00	32.46#
124.00	27.10	9.07
62.00	34.40	21.09

Manual Integration:

After

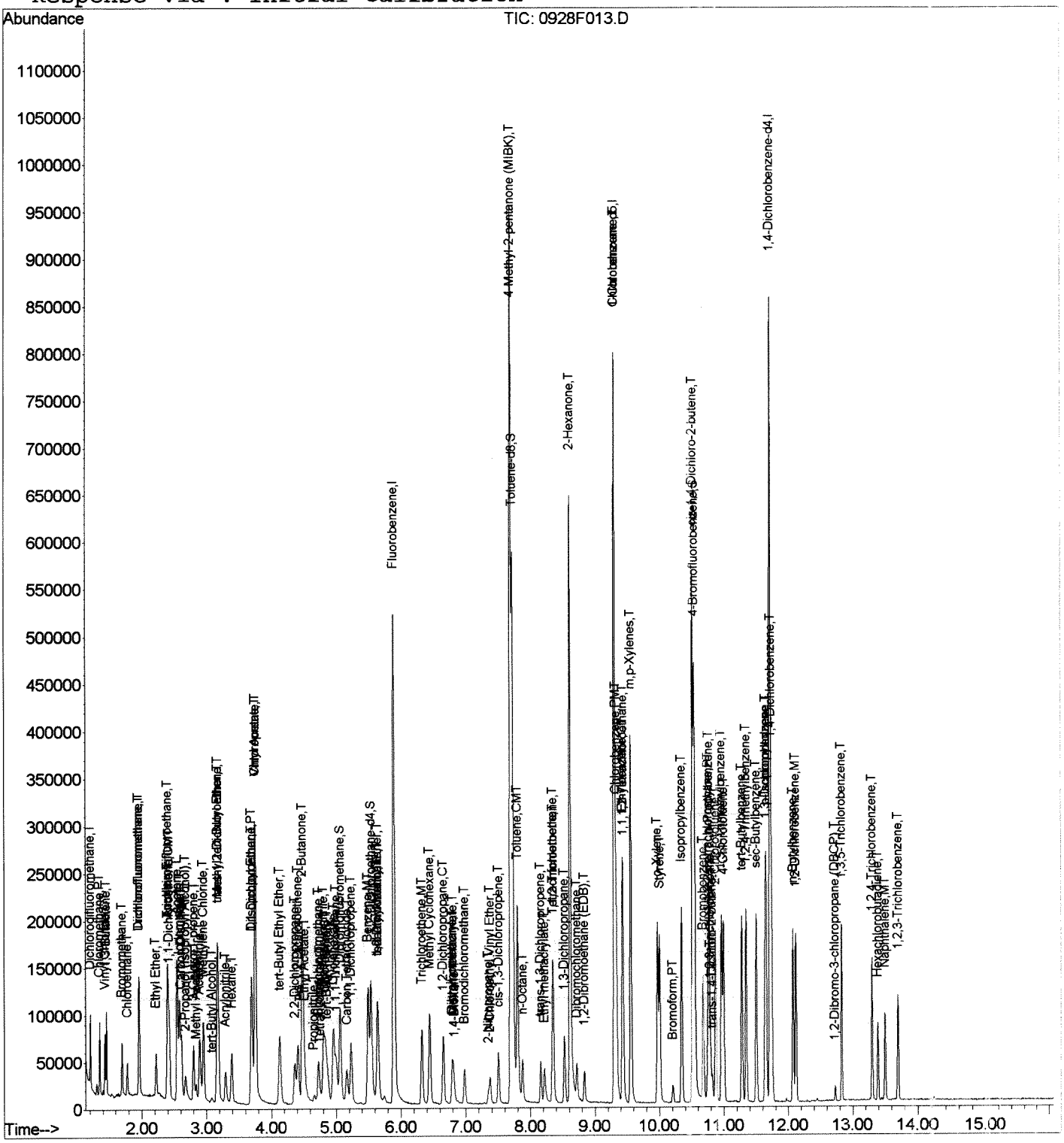
WRT

09/28/15

0928F013.D 092815MS18_8260.M Mon Sep 28 16:47:59 2015

Data File : J:\MS18\DATA\092815\0928F013.D Vial: 11
Acq On : 28 Sep 2015 4:22 pm Operator: YX
Sample : 8260 ICAL 2 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 28 16:47 2015 Quant Results File: 092815MS18_8

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 16:05:05 2015
Response via : Initial Calibration



Data File : J:\MS18\DATA\092815\0928F014.D Vial: 12
Acq On : 28 Sep 2015 4:44 pm Operator: YX
Sample : 8260 ICAL 5 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 28 17:01:01 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Mon Sep 28 16:59:08 2015
Response via : Initial Calibration
DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.89	96	572523	10.00	PPB	0.00
65) Chlorobenzene-d5	9.30	82	227491	10.00	PPB	0.00
86) 1,4-Dichlorobenzene-d4	11.72	152	223710	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.06	113	96198	6.49	PPB	0.00
Spiked Amount 10.000			Recovery =	64.90%		
48) 1,2-Dichloroethane-d4	5.53	65	108537	6.73	PPB	0.00
Spiked Amount 10.000			Recovery =	67.30%		
63) Toluene-d8	7.73	98	426600	6.53	PPB	0.00
Spiked Amount 10.000			Recovery =	65.30%		
85) 4-Bromofluorobenzene	10.54	95	170306	6.88	PPB	0.00
Spiked Amount 10.000			Recovery =	68.80%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.21	85	77137	5.27	PPB	98
3) Chloromethane	1.35	50	92764	4.66	PPB	99
4) Vinyl Chloride	1.43	62	90779	5.08	PPB	99
5) 1,3-Butadiene	1.45	54	51054	4.49	PPB	99
6) Bromomethane	1.70	96	52206	4.95	PPB	97
7) Chloroethane	1.78	64	47726	4.93	PPB	98
8) Dichlorofluoromethane	1.95	67	122980	5.02	PPB	99
9) Trichlorofluoromethane	1.96	101	92313	4.73	PPB	95
10) Ethyl Ether	2.21	59	51701	4.91	PPB	97
11) Acrolein	2.40	56	194382	134.38	PPB	96
12) Trichlorotrifluoroethane	2.39	151	45746	4.79	PPB	94
13) 1,1-Dichloroethene	2.42	96	66052	5.06	PPB	92
14) Acetone	2.54	43	226693	103.83	PPB	99
15) Iodomethane	2.58	142	268420	19.74	PPB	99
16) Carbon Disulfide	2.61	76	183076	4.31	PPB	99
17) 2-Propanol (Isopropyl Alco	2.67	45	96378	234.94	PPB	99
18) 3-Chloro-1-propene	2.80	76	38360	4.82	PPB	91
19) Methyl Acetate	2.83	43	48779	4.94	PPB	99
20) Acetonitrile	2.89	40	126413	219.20	PPB	98
21) Methylene Chloride	2.95	84	87448	4.98	PPB	96
22) tert-Butyl Alcohol	3.07	59	12557	20.74	PPB	88
23) Acrylonitrile	3.29	53	74289	21.05	PPB	99
24) Methyl tert-Butyl Ether	3.16	73	318436	9.32	PPB	97
25) trans-1,2-Dichloroethene	3.18	96	77821	5.07	PPB	97
26) Hexane	3.39	57	61296	4.35	PPB	95
27) Diisopropyl Ether	3.69	45	217036	4.76	PPB	97
28) 1,1-Dichloroethane	3.69	63	128024	4.89	PPB	99

(#) = qualifier out of range (m) = manual integration
0928F014.D 092815MS18_8260.M Tue Sep 29 16:09:03 2015 Page 1

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\092815\0928F014.D Vial: 12
Acq On : 28 Sep 2015 4:44 pm Operator: YX
Sample : 8260 ICAL 5 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 28 17:01:01 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Mon Sep 28 16:59:08 2015
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29)	Vinyl Acetate	3.76	86	19772	8.72	PPB		93
30)	Chloroprene	3.75	53	449632	19.59	PPB		99
31)	tert-Butyl Ethyl Ether	4.13	59	178260	4.56	PPB		99
32)	2,2-Dichloropropane	4.36	77	66253	3.93	PPB		96
33)	cis-1,2-Dichloroethene	4.41	96	87146	4.98	PPB		93
34)	2-Butanone	4.47	72	113300	109.70	PPB	#	83
35)	Propionitrile	4.66	54	26049	20.44	PPB		95
36)	Ethyl Acetate	4.51	61	14186	9.74	PPB		89
37)	Methacrylonitrile	4.80	67	93402	20.84	PPB		88
38)	Bromochloromethane	4.73	128	39581	5.38	PPB		95
39)	Tetrahydrofuran	4.75	71	4810	4.76	PPB		92
40)	Chloroform	4.83	83	126969	4.95	PPB		97
41)	tert-Butyl Formate	4.86	59	14687	2.54	PPB		95
42)	1,1,1-Trichloroethane	5.00	97	85982	4.49	PPB		97
44)	Carbon Tetrachloride	5.16	117	67013	4.45	PPB		96
45)	1,1-Dichloropropene	5.23	75	94588	4.80	PPB		100
46)	Cyclohexane	4.96	56	106509	4.64	PPB		95
47)	Isobutyl Alcohol	5.64	43	48379	174.58	PPB		83
49)	Benzene	5.49	78	343326	4.99	PPB		98
50)	1,2-Dichloroethane	5.64	62	89112	5.02	PPB		98
51)	tert-Amyl Methyl Ether	5.64	55	64597	5.81	PPB	#	38
52)	Trichloroethene	6.32	95	73723	4.93	PPB		96
53)	1,2-Dichloropropane	6.65	63	78718	4.90	PPB		98
54)	Dibromomethane	6.79	93	40125	5.08	PPB		100
55)	Methyl methacrylate	6.81	69	35237	4.66	PPB		90
56)	1,4-Dioxane	6.82	88	20040	201.99	PPB		89
57)	Bromodichloromethane	6.98	83	74394	4.56	PPB		98
58)	2-Nitropropane	7.35	41	25801	15.08	PPB		93
59)	Methyl Cyclohexane	6.44	83	104360	4.90	PPB		97
60)	2-Chloroethyl Vinyl Ether	7.37	63	31187	4.34	PPB		96
61)	cis-1,3-Dichloropropene	7.50	75	98278	4.39	PPB		96
62)	4-Methyl-2-pentanone (MIBK	7.69	58	380114	112.44	PPB		93
64)	Toluene	7.80	92	217277	5.14	PPB		98
66)	n-Octane	7.88	85	21302	4.39	PPB		94
67)	trans-1,3-Dichloropropene	8.15	75	70362	4.13	PPB		96
68)	Ethyl methacrylate	8.21	69	64473	4.66	PPB		94
69)	1,1,2-Trichloroethane	8.34	83	54920	5.17	PPB		97
70)	Tetrachloroethene	8.35	164	57979	4.94	PPB		97
71)	2-Hexanone	8.61	57	117306	114.36	PPB		99
72)	1,3-Dichloropropane	8.52	76	118428	5.24	PPB		97
73)	Dibromochloromethane	8.72	129	52664	3.64	PPB		100

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS18\DATA\092815\0928F014.D Vial: 12
Acq On : 28 Sep 2015 4:44 pm Operator: YX
Sample : 8260 ICAL 5 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 28 17:01:01 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Mon Sep 28 16:59:08 2015
Response via : Initial Calibration
DataAcq Meth : 8260

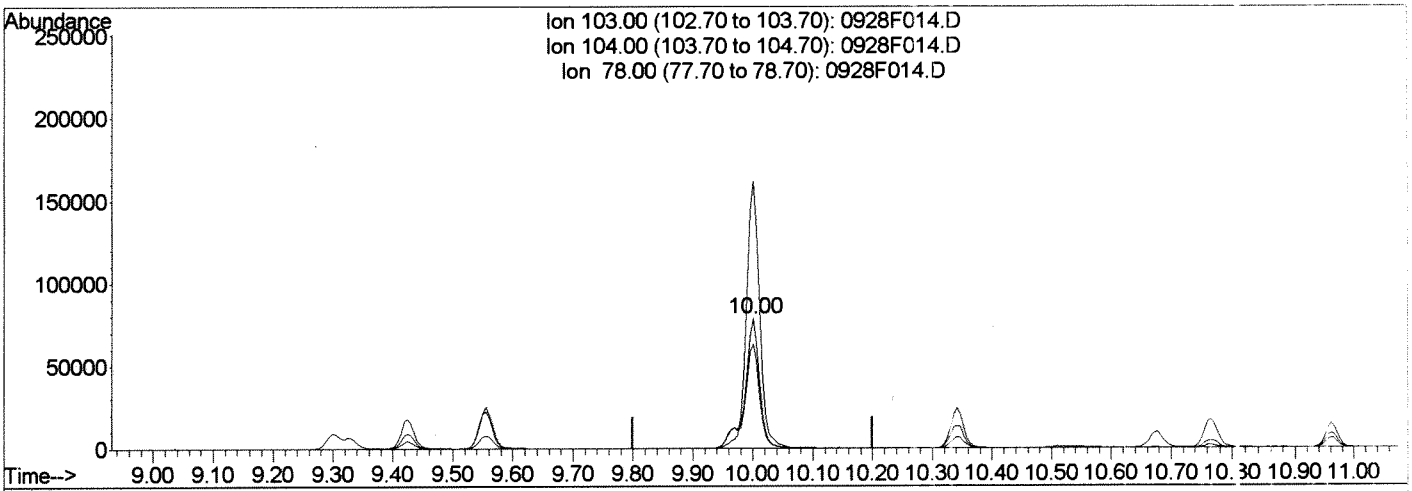
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
74)	1,2-Dibromoethane (EDB)	8.84	107	58499	5.07	PPB	97
75)	1-Chlorohexane	9.31	91	86693	4.51	PPB	94
76)	Chlorobenzene	9.33	112	242740	5.08	PPB	99
77)	Ethylbenzene	9.42	106	121066	5.16	PPB	95
78)	1,1,1,2-Tetrachloroethane	9.43	131	62711	4.75	PPB	98
79)	m,p-Xylenes	9.55	106	303650	10.49	PPB	99
80)	o-Xylene	9.97	106	145521	5.20	PPB	98
81)	Styrene	10.00	103	117645m	5.06	PPB	
82)	Bromoform	10.21	173	24932	3.04	PPB	94
83)	Isopropylbenzene	10.34	105	354928	5.27	PPB	98
84)	cis-1,4-Dichloro-2-butene	10.51	89	23292	14.42	PPB	96
87)	1,1,2,2-Tetrachloroethane	10.75	83	72731	5.14	PPB	98
88)	trans-1,4-Dichloro-2-buten	10.81	53	17257m	4.84	PPB	
89)	Bromobenzene	10.68	156	97775	5.01	PPB	96
90)	n-Propylbenzene	10.77	91	428669	5.28	PPB	99
91)	1,2,3-Trichloropropane	10.79	110	22763	5.25	PPB	99
92)	2-Chlorotoluene	10.87	91	273274	5.29	PPB	98
93)	1,3,5-Trimethylbenzene	10.96	105	299623	5.34	PPB	99
94)	4-Chlorotoluene	10.99	91	319871	5.32	PPB	98
95)	tert-Butylbenzene	11.27	119	250277	5.19	PPB	100
96)	1,2,4-Trimethylbenzene	11.34	105	305798	5.37	PPB	99
97)	sec-Butylbenzene	11.50	105	356512	5.34	PPB	98
98)	p-Isopropyltoluene	11.66	119	291136	5.28	PPB	98
99)	1,3-Dichlorobenzene	11.64	146	187121	5.05	PPB	99
100)	1,4-Dichlorobenzene	11.74	146	194370	4.97	PPB	96
101)	n-Butylbenzene	12.07	91	250223	5.23	PPB	98
102)	1,2-Dichlorobenzene	12.12	146	178730	5.15	PPB	98
103)	1,2-Dibromo-3-chloropropan	12.73	155	6592	4.01	PPB	89
104)	1,3,5-Trichlorobenzene	12.83	180	114812	4.84	PPB	96
105)	1,2,4-Trichlorobenzene	13.30	180	98184	4.95	PPB	97
106)	Hexachlorobutadiene	13.39	225	35540	4.74	PPB	98
107)	Naphthalene	13.50	128	186861	5.22	PPB	99
108)	1,2,3-Trichlorobenzene	13.70	180	79518	5.04	PPB	99

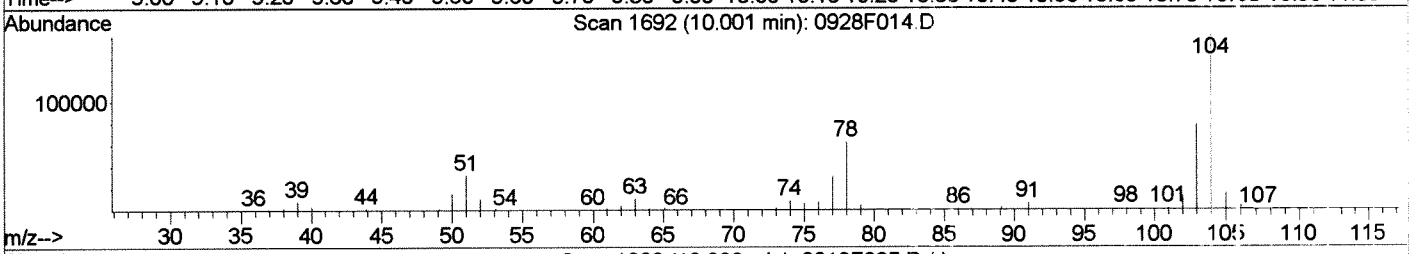
(#) = qualifier out of range (m) = manual integration

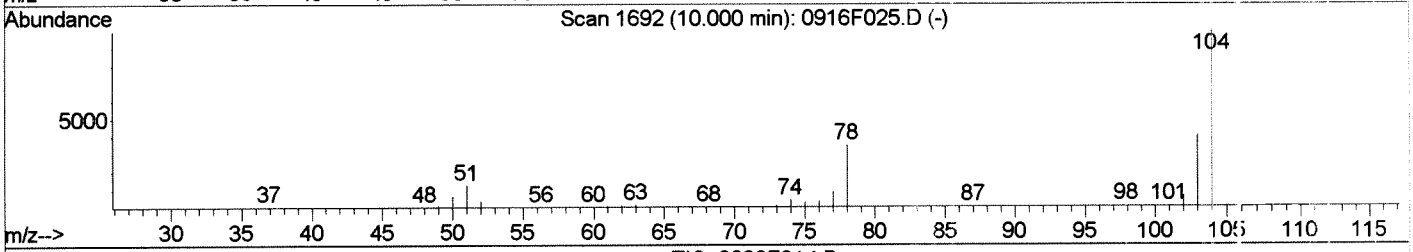
Quantitation Report (Qedit)

Data File : J:\MS18\DATA\092815\0928F014.D Vial: 12
Acq On : 28 Sep 2015 4:44 pm Operator: YX
Sample : 8260 ICAL 5 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 28 17:01 2015 Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Mon Sep 28 16:59:08 2015
Response via : Single Level Calibration







TIC: 0928F014.D

(81) Styrene (T)

10.00min 5.74PPB

response 133340

Ion	Exp%	Act%
103.00	100	100
104.00	216.80	205.73
78.00	88.00	80.04
0.00	0.00	0.00

Manual Integration:

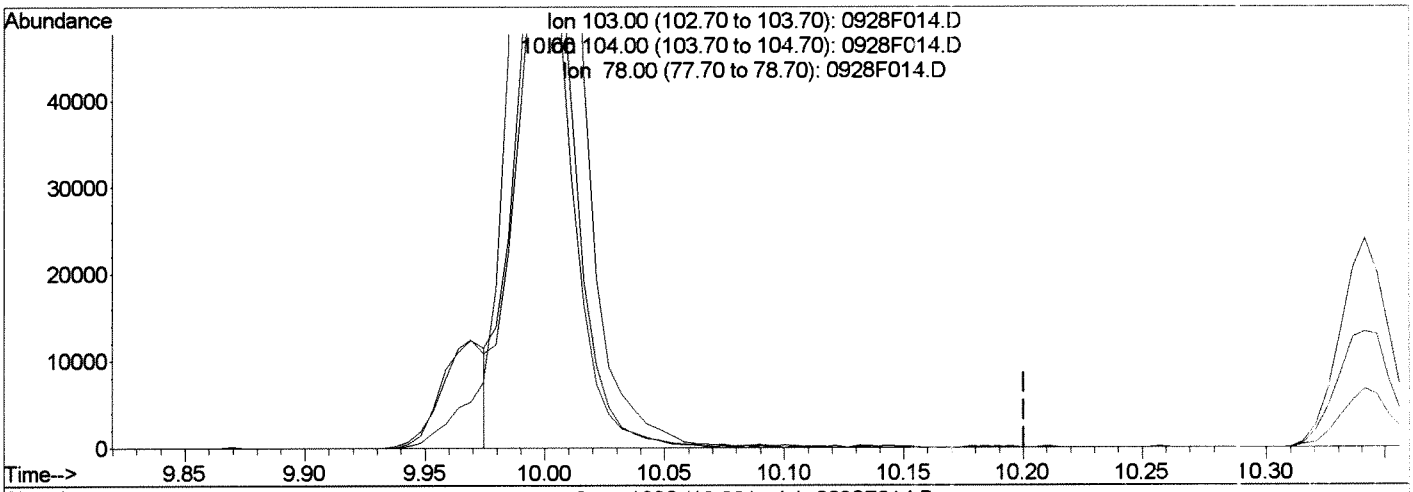
Before

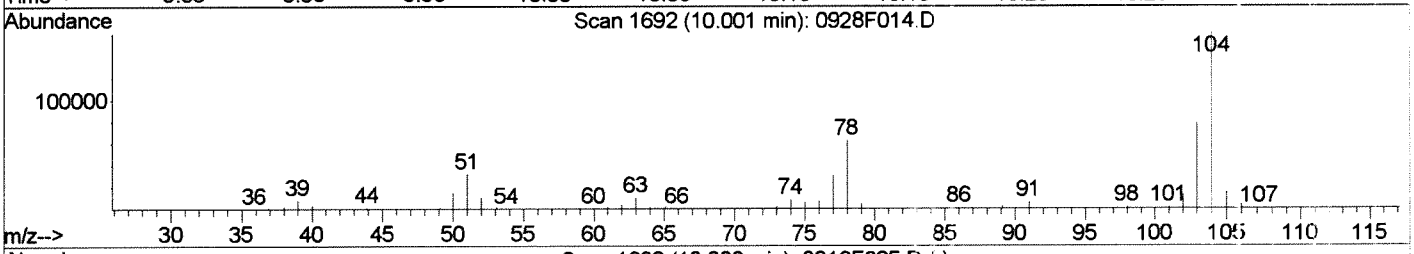
09/28/15

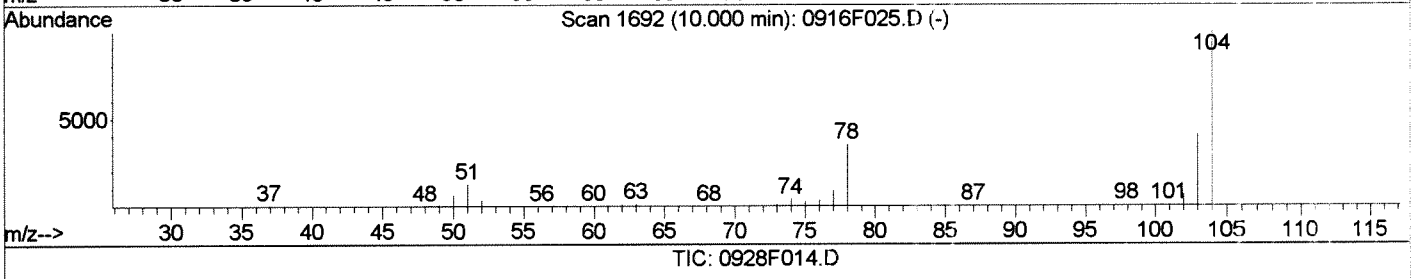
0928F014.D 092815MS18_8260.M Mon Sep 28 17:01:53 2015

Data File : J:\MS18\DATA\092815\0928F014.D Vial: 12
Acq On : 28 Sep 2015 4:44 pm Operator: YX
Sample : 8260 ICAL 5 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 28 17:01 2015 Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Mon Sep 28 16:59:08 2015
Response via : Single Level Calibration







TIC: 0928F014.D

(81) Styrene (T)

10.00min 5.06PPB m

response 117645

Ion	Exp%	Act%
103.00	100	100
104.00	216.80	205.73
78.00	88.00	80.04
0.00	0.00	0.00

Manual Integration:

After

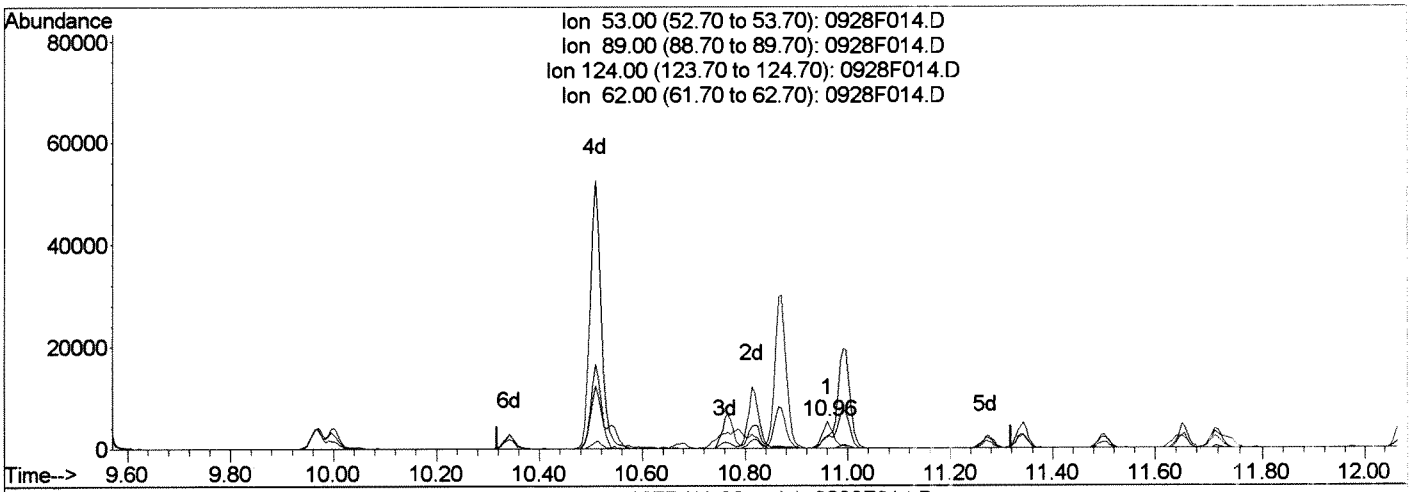
Shoulder

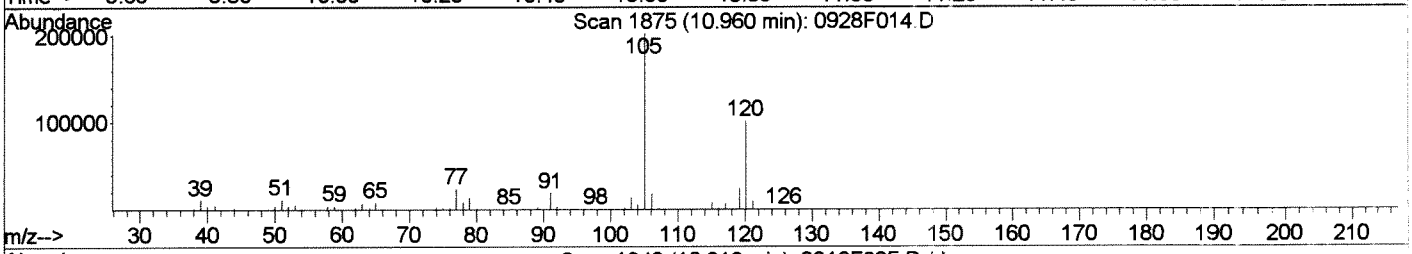
09/28/15

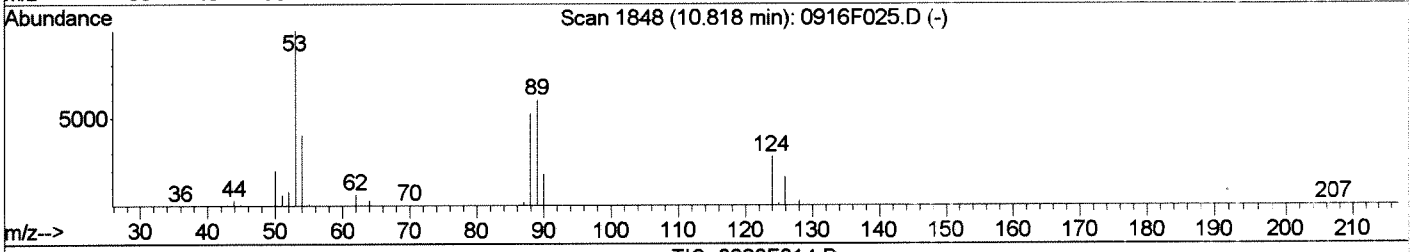
0928F014.D 092815MS18_8260.M Mon Sep 28 17:01:58 2015

Data File : J:\MS18\DATA\092815\0928F014.D Vial: 12
Acq On : 28 Sep 2015 4:44 pm Operator: YX
Sample : 8260 ICAL 5 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 28 17:01 2015 Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Mon Sep 28 16:59:08 2015
Response via : Single Level Calibration







TIC: 0928F014.D

(88) trans-1,4-Dichloro-2-butene (T)

10.96min 2.29PPB

response 8160

Ion	Exp%	Act%
53.00	100	100
89.00	66.00	41.12
124.00	27.10	0.00
62.00	34.40	47.28

Manual Integration:

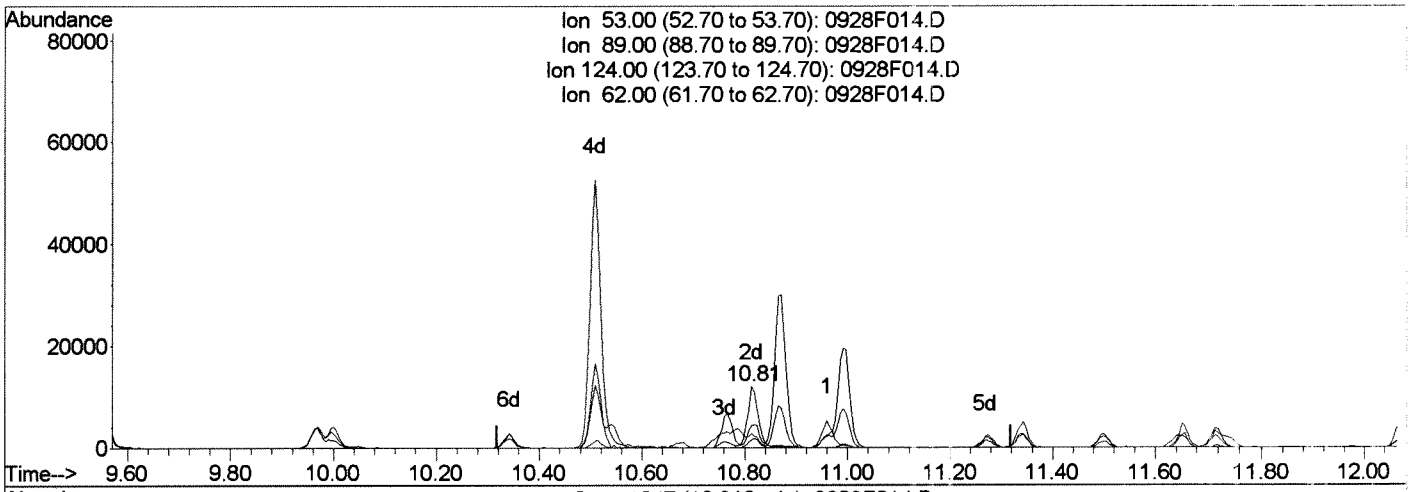
Before

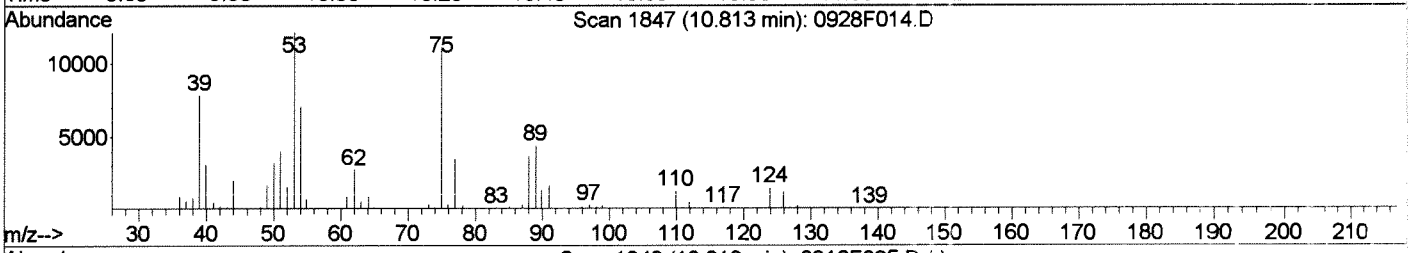
09/28/15

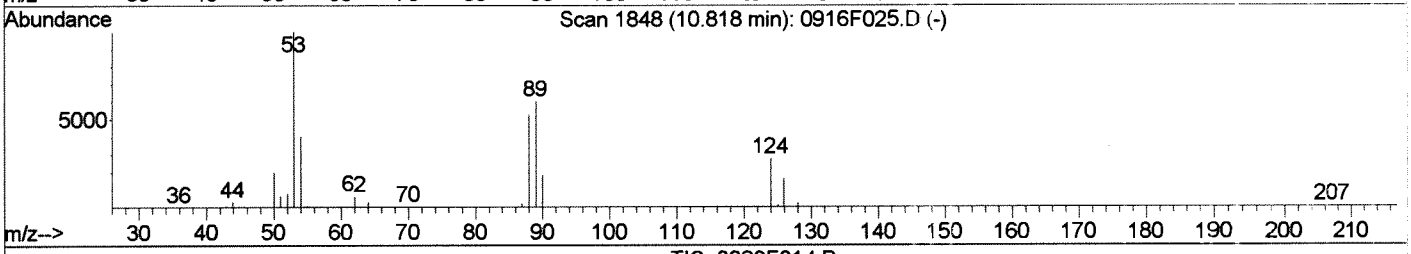
0928F014.D 092815MS18_8260.M Mon Sep 28 17:02:09 2015

Data File : J:\MS18\DATA\092815\0928F014.D Vial: 12
Acq On : 28 Sep 2015 4:44 pm Operator: YX
Sample : 8260 ICAL 5 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 28 17:02 2015 Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Mon Sep 28 16:59:08 2015
Response via : Single Level Calibration







TIC: 0928F014.D

(88) trans-1,4-Dichloro-2-butene (T)

10.81min 4.84PPB m

response 17257

Ion	Exp%	Act%
53.00	100	100
89.00	66.00	36.14
124.00	27.10	12.57
62.00	34.40	22.76

Manual Integration:

After

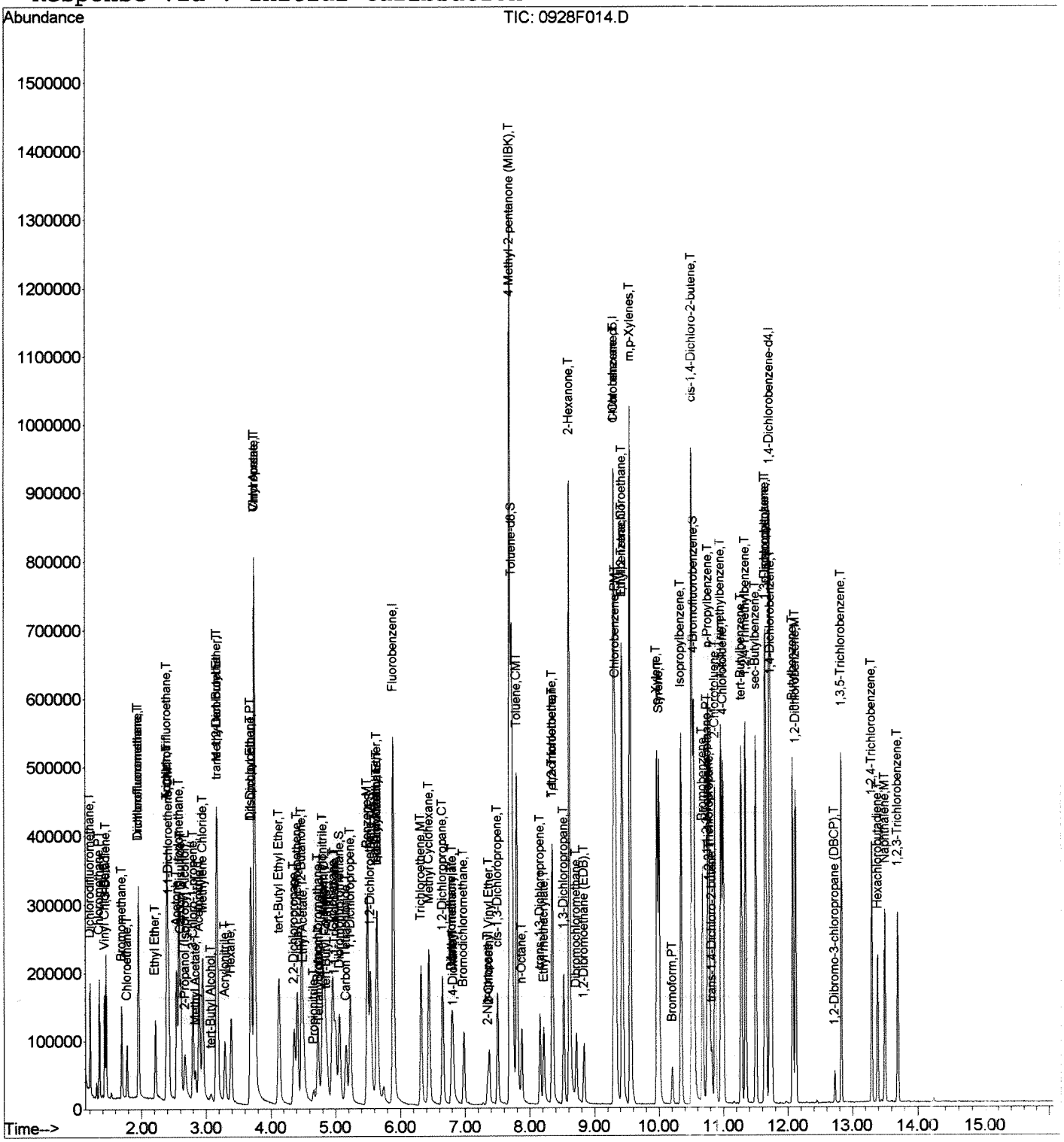
WRT

09/28/15

0928F014.D 092815MS18_8260.M Mon Sep 28 17:02:21 2015

Data File : J:\MS18\DATA\092815\0928F014.D Vial: 12
Acq On : 28 Sep 2015 4:44 pm Operator: YX
Sample : 8260 ICAL 5 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 28 17:02 2015 Quant Results File: 092815MS18_8

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 16:05:05 2015
Response via : Initial Calibration



Data File : J:\MS18\DATA\092815\0928F015.D Vial: 13
Acq On : 28 Sep 2015 5:05 pm Operator: YX
Sample : 8260 ICAL 10 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 28 17:22:56 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Mon Sep 28 17:10:06 2015
Response via : Initial Calibration
DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.89	96	584700	10.00	PPB	0.00
65) Chlorobenzene-d5	9.30	82	235345	10.00	PPB	0.00
86) 1,4-Dichlorobenzene-d4	11.72	152	226620	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.07	113	131285	9.89	PPB	0.00
Spiked Amount 10.000			Recovery =	98.90%		
48) 1,2-Dichloroethane-d4	5.54	65	143659	9.87	PPB	0.00
Spiked Amount 10.000			Recovery =	98.70%		
63) Toluene-d8	7.73	98	577646	9.88	PPB	0.00
Spiked Amount 10.000			Recovery =	98.80%		
85) 4-Bromofluorobenzene	10.54	95	224866	8.80	PPB	0.00
Spiked Amount 10.000			Recovery =	88.00%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.21	85	149676	10.04	PPB	99
3) Chloromethane	1.35	50	184445	9.12	PPB	99
4) Vinyl Chloride	1.43	62	175841	9.65	PPB	98
5) 1,3-Butadiene	1.45	54	99207	8.73	PPB	99
6) Bromomethane	1.70	96	100619	9.22	PPB	98
7) Chloroethane	1.78	64	92948	9.49	PPB	99
8) Dichlorofluoromethane	1.95	67	247548	9.89	PPB	98
9) Trichlorofluoromethane	1.96	101	180897	9.17	PPB	97
10) Ethyl Ether	2.22	59	107169	10.01	PPB	99
11) Acrolein	2.40	56	394234	253.43	PPB	95
12) Trichlorotrifluoroethane	2.39	151	88340	9.12	PPB	94
13) 1,1-Dichloroethene	2.42	96	126403	9.49	PPB	94
14) Acetone	2.54	43	440137	196.58	PPB	99
15) Iodomethane	2.58	142	639051	45.84	PPB	100
16) Carbon Disulfide	2.61	76	384478	8.86	PPB	100
17) 2-Propanol (Isopropyl Alco	2.67	45	196645	474.29	PPB	98
18) 3-Chloro-1-propene	2.80	76	78349	9.74	PPB	95
19) Methyl Acetate	2.83	43	100283	9.92	PPB	97
20) Acetonitrile	2.89	40	233368	389.30	PPB	95
21) Methylene Chloride	2.95	84	177783	9.89	PPB	98
22) tert-Butyl Alcohol	3.08	59	24934	41.59	PPB	98
23) Acrylonitrile	3.29	53	150504	41.36	PPB	99
24) Methyl tert-Butyl Ether	3.16	73	689248	20.01	PPB	98
25) trans-1,2-Dichloroethene	3.18	96	160096	10.23	PPB	96
26) Hexane	3.39	57	119018	8.31	PPB	97
27) Diisopropyl Ether	3.69	45	465760	10.12	PPB	97
28) 1,1-Dichloroethane	3.70	63	261471	9.82	PPB	98

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS18\DATA\092815\0928F015.D Vial: 13
Acq On : 28 Sep 2015 5:05 pm Operator: YX
Sample : 8260 ICAL 10 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 28 17:22:56 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Mon Sep 28 17:10:06 2015
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29)	Vinyl Acetate	3.76	86	41406	17.84	PPB		100
30)	Chloroprene	3.75	53	918150	39.53	PPB		98
31)	tert-Butyl Ethyl Ether	4.12	59	386611	9.85	PPB		98
32)	2,2-Dichloropropane	4.36	77	140676	8.46	PPB		98
33)	cis-1,2-Dichloroethene	4.41	96	182946	10.25	PPB		95
34)	2-Butanone	4.48	72	228134	214.66	PPB		92
35)	Propionitrile	4.66	54	54526	41.89	PPB		96
36)	Ethyl Acetate	4.51	61	29071	19.80	PPB		98
37)	Methacrylonitrile	4.80	67	194808	42.48	PPB		93
38)	Bromochloromethane	4.73	128	80438	10.66	PPB		94
39)	Tetrahydrofuran	4.75	71	10573	10.37	PPB		84
40)	Chloroform	4.84	83	262097	10.01	PPB		99
41)	tert-Butyl Formate	4.87	59	31415	5.75	PPB		97
42)	1,1,1-Trichloroethane	5.00	97	180936	9.42	PPB		96
44)	Carbon Tetrachloride	5.17	117	139528	9.24	PPB		99
45)	1,1-Dichloropropene	5.23	75	190264	9.52	PPB		98
46)	Cyclohexane	4.96	56	218065	9.41	PPB		95
47)	Isobutyl Alcohol	5.64	43	100642	364.90	PPB		84
49)	Benzene	5.49	78	706297	10.04	PPB		98
50)	1,2-Dichloroethane	5.64	62	184509	10.20	PPB		98
51)	tert-Amyl Methyl Ether	5.64	55	130748	11.22	PPB	#	55
52)	Trichloroethene	6.32	95	150749	9.89	PPB		97
53)	1,2-Dichloropropane	6.66	63	166704	10.20	PPB		96
54)	Dibromomethane	6.79	93	86003	10.67	PPB		98
55)	Methyl methacrylate	6.81	69	79303	10.40	PPB		91
56)	1,4-Dioxane	6.82	88	42436	417.43	PPB		93
57)	Bromodichloromethane	6.98	83	168351	10.23	PPB		98
58)	2-Nitropropane	7.35	41	60301	36.47	PPB		97
59)	Methyl Cyclohexane	6.44	83	208557	9.65	PPB		95
60)	2-Chloroethyl Vinyl Ether	7.37	63	71751	10.04	PPB		96
61)	cis-1,3-Dichloropropene	7.50	75	225384	10.10	PPB		98
62)	4-Methyl-2-pentanone (MIBK	7.69	58	798345	231.14	PPB		94
64)	Toluene	7.80	92	445821	10.31	PPB		99
66)	n-Octane	7.87	85	44784	8.95	PPB		93
67)	trans-1,3-Dichloropropene	8.16	75	166627	9.71	PPB		96
68)	Ethyl methacrylate	8.21	69	150043	10.65	PPB		93
69)	1,1,2-Trichloroethane	8.34	83	115957	10.51	PPB		98
70)	Tetrachloroethene	8.35	164	118383	9.77	PPB		96
71)	2-Hexanone	8.61	57	251975	237.43	PPB		92
72)	1,3-Dichloropropane	8.52	76	249435	10.61	PPB		97
73)	Dibromochloromethane	8.72	129	120921	8.08	PPB		100

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS18\DATA\092815\0928F015.D Vial: 13
Acq On : 28 Sep 2015 5:05 pm Operator: YX
Sample : 8260 ICAL 10 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 28 17:22:56 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Mon Sep 28 17:10:06 2015
Response via : Initial Calibration
DataAcq Meth : 8260

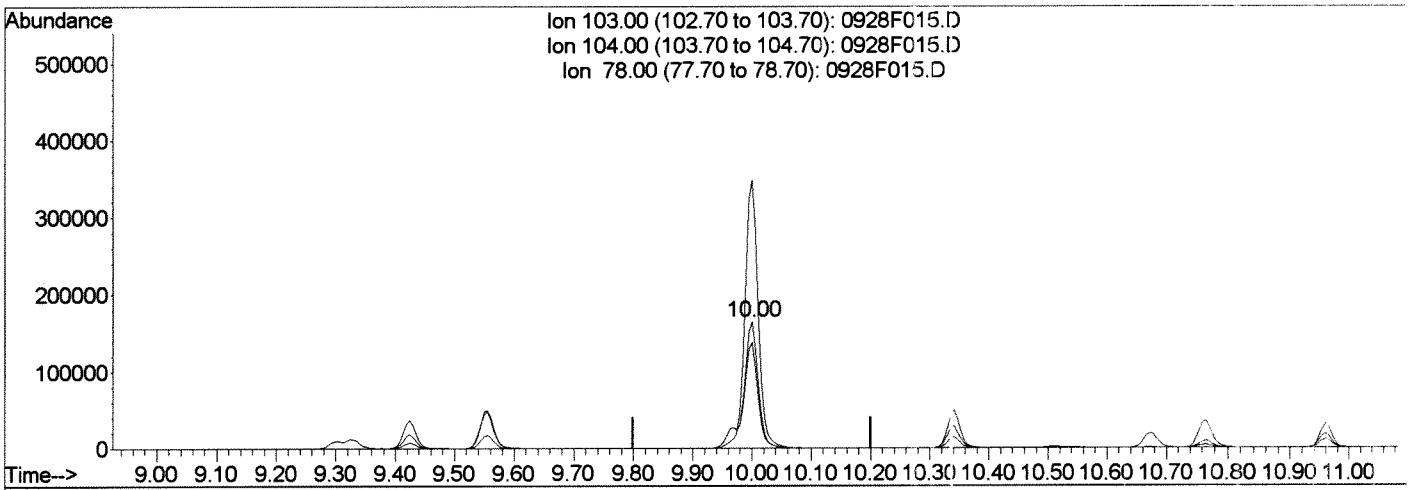
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
74)	1,2-Dibromoethane (EDB)	8.84	107	127827	10.71	PPB	96
75)	1-Chlorohexane	9.31	91	179179	9.10	PPB	96
76)	Chlorobenzene	9.33	112	502962	10.13	PPB	99
77)	Ethylbenzene	9.42	106	253197	10.43	PPB	98
78)	1,1,1,2-Tetrachloroethane	9.43	131	139696	10.31	PPB	98
79)	m,p-Xylenes	9.55	106	640417	21.36	PPB	98
80)	o-Xylene	9.97	106	313322	10.84	PPB	99
81)	Styrene	10.00	103	253995m	10.55	PPB	
82)	Bromoform	10.21	173	56597	6.68	PPB	96
83)	Isopropylbenzene	10.34	105	740348	10.64	PPB	99
84)	cis-1,4-Dichloro-2-butene	10.51	89	60100	37.76	PPB	97
87)	1,1,2,2-Tetrachloroethane	10.75	83	156064	10.86	PPB	99
88)	trans-1,4-Dichloro-2-buten	10.81	53	35790m	9.95	PPB	
89)	Bromobenzene	10.67	156	207063	10.48	PPB	98
90)	n-Propylbenzene	10.77	91	879268	10.68	PPB	99
91)	1,2,3-Trichloropropane	10.79	110	45619	10.35	PPB	89
92)	2-Chlorotoluene	10.87	91	565024	10.75	PPB	98
93)	1,3,5-Trimethylbenzene	10.96	105	628238	11.06	PPB	98
94)	4-Chlorotoluene	10.99	91	658536	10.78	PPB	96
95)	tert-Butylbenzene	11.27	119	524953	10.77	PPB	99
96)	1,2,4-Trimethylbenzene	11.34	105	649419	11.26	PPB	98
97)	sec-Butylbenzene	11.50	105	734569	10.86	PPB	100
98)	p-Isopropyltoluene	11.65	119	617709	11.07	PPB	99
99)	1,3-Dichlorobenzene	11.64	146	389885	10.36	PPB	100
100)	1,4-Dichlorobenzene	11.74	146	399024	10.03	PPB	97
101)	n-Butylbenzene	12.07	91	526686	10.90	PPB	99
102)	1,2-Dichlorobenzene	12.11	146	371591	10.54	PPB	98
103)	1,2-Dibromo-3-chloropropan	12.73	155	14416	8.53	PPB	93
104)	1,3,5-Trichlorobenzene	12.83	180	243622	10.12	PPB	98
105)	1,2,4-Trichlorobenzene	13.29	180	210768	10.47	PPB	99
106)	Hexachlorobutadiene	13.39	225	74796	9.83	PPB	99
107)	Naphthalene	13.50	128	425233	11.74	PPB	99
108)	1,2,3-Trichlorobenzene	13.70	180	170459	10.58	PPB	98

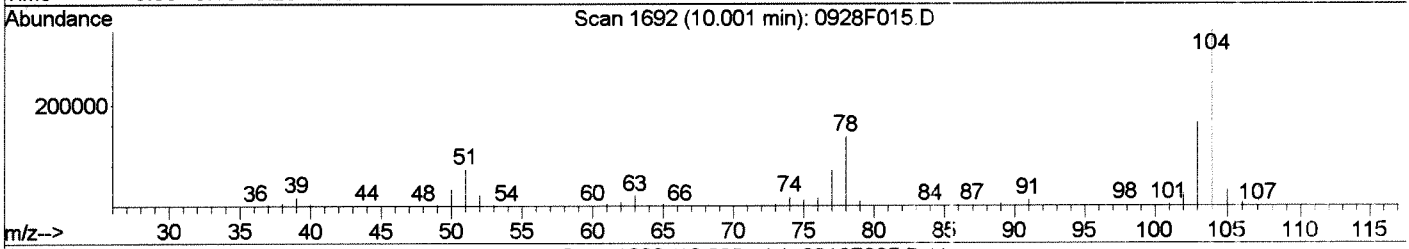
(#) = qualifier out of range (m) = manual integration

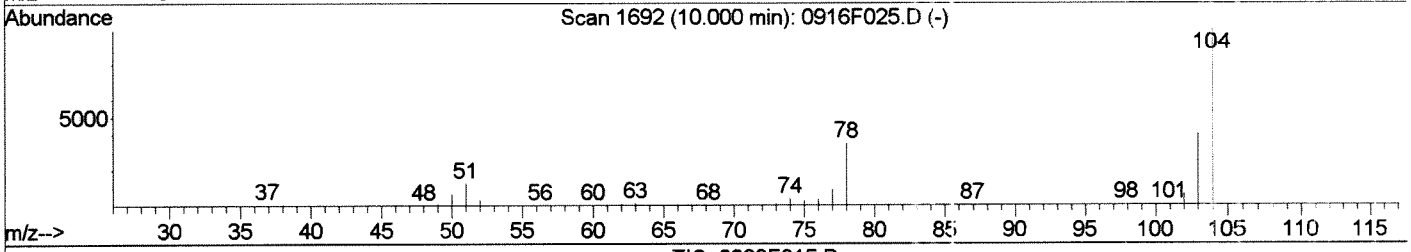
Quantitation Report (Qedit)

Data File : J:\MS18\DATA\092815\0928F015.D Vial: 13
Acq On : 28 Sep 2015 5:05 pm Operator: YX
Sample : 8260 ICAL 10 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 28 17:22 2015 Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Mon Sep 28 17:10:06 2015
Response via : Single Level Calibration







TIC: 0928F015.D

(81) Styrene (T)

10.00min 12.00PPB

response 289062

Ion	Exp%	Act%
103.00	100	100
104.00	216.80	211.41
78.00	88.00	83.74
0.00	0.00	0.00

Manua Integration:

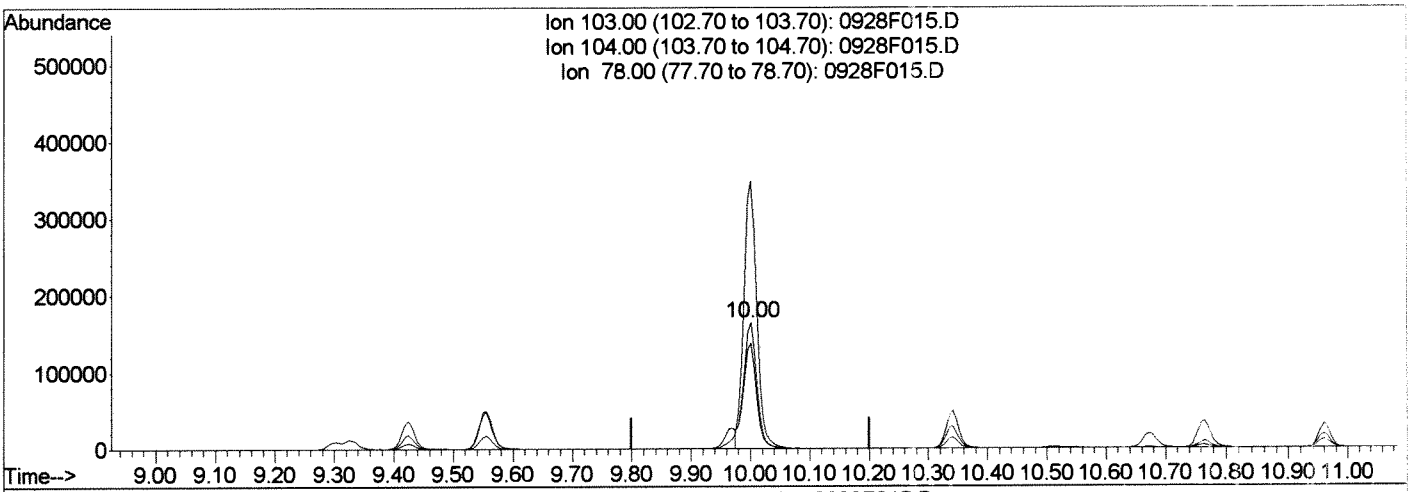
Before

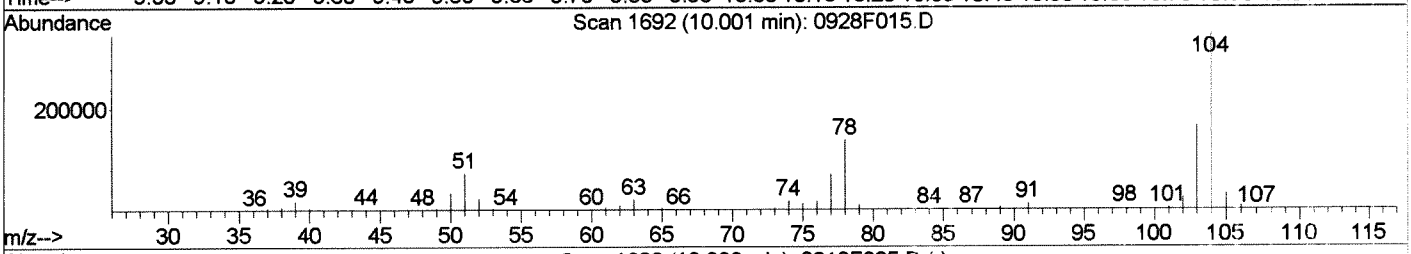
09/28/15

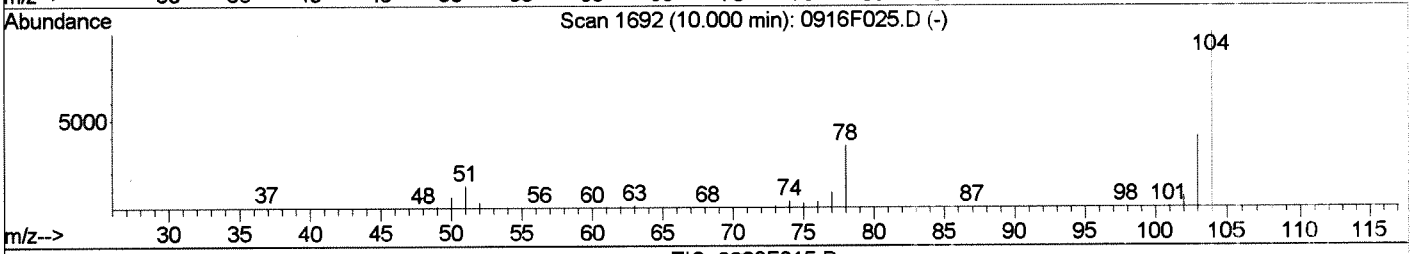
0928F015.D 092815MS18_8260.M Mon Sep 28 17:23:39 2015

Data File : J:\MS18\DATA\092815\0928F015.D Vial: 13
Acq On : 28 Sep 2015 5:05 pm Operator: YX
Sample : 8260 ICAL 10 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 28 17:23 2015 Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Mon Sep 28 17:10:06 2015
Response via : Single Level Calibration







TIC: 0928F015.D

(81) Styrene (T)

10.00min 10.55PPB m

response 253995

Ion	Exp%	Act%
103.00	100	100
104.00	216.80	211.41
78.00	88.00	83.74
0.00	0.00	0.00

Manual Integration:

After

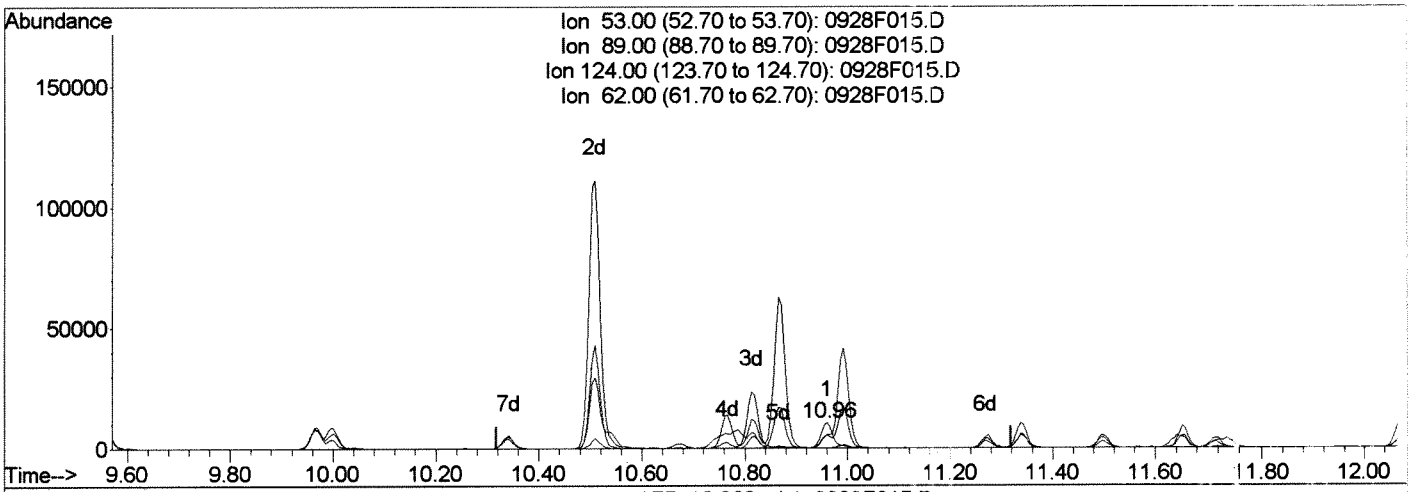
Shoulder

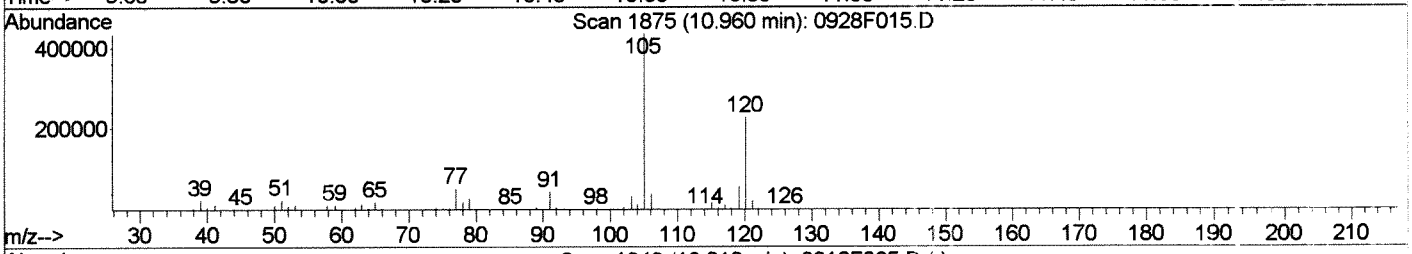
09/28/15

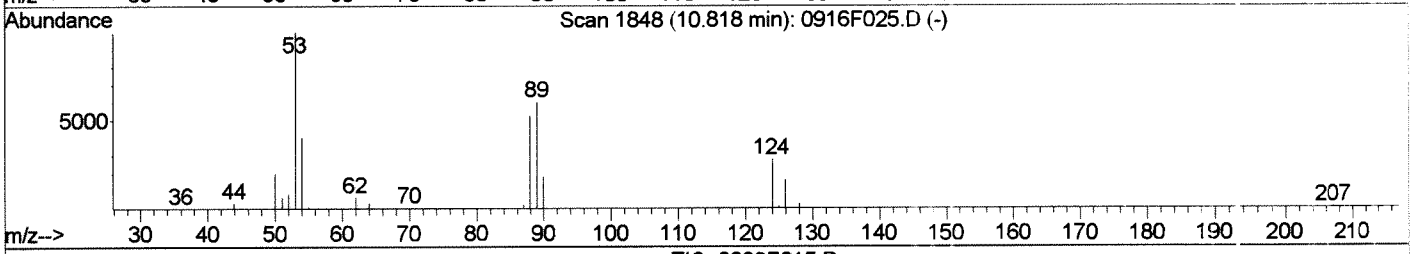
0928F015.D 092815MS18_8260.M Mon Sep 28 17:23:46 2015

Data File : J:\MS18\DATA\092815\0928F015.D Vial: 13
Acq On : 28 Sep 2015 5:05 pm Operator: YX
Sample : 8260 ICAL 10 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 28 17:23 2015 Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Mon Sep 28 17:24:16 2015
Response via : Single Level Calibration







TIC: 0928F015.D

(88) trans-1,4-Dichloro-2-butene (T)

10.96min 4.83PPB

response 17376

Ion	Exp%	Act%
53.00	100	100
89.00	66.00	52.17
124.00	27.10	0.00
62.00	34.40	50.73

Manual Integration:

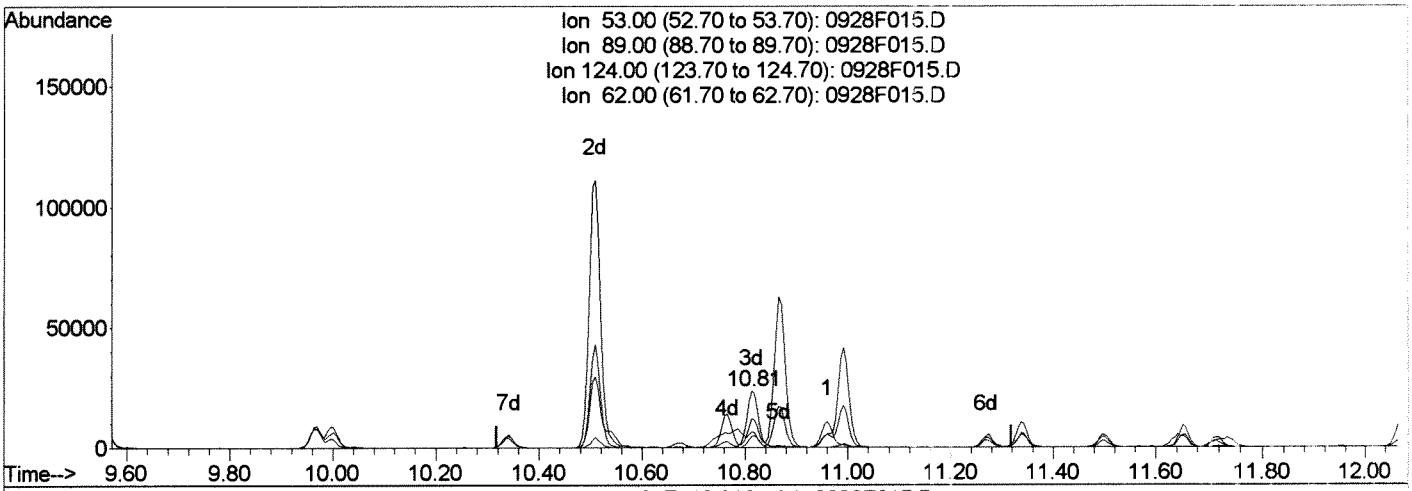
Before

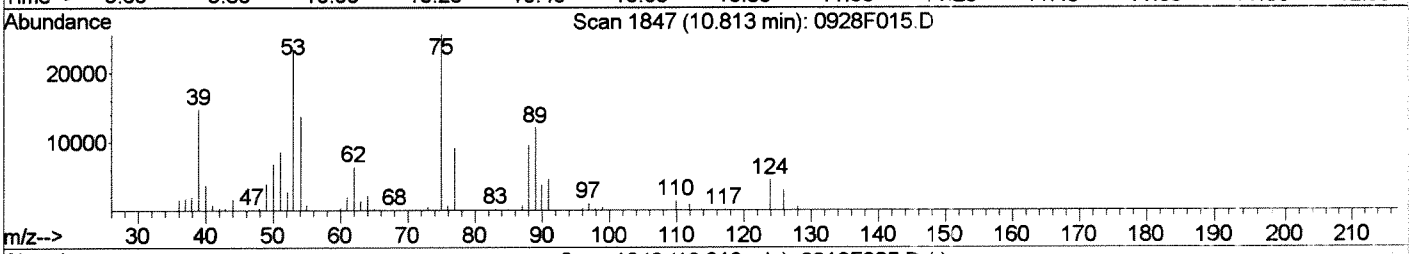
09/28/15

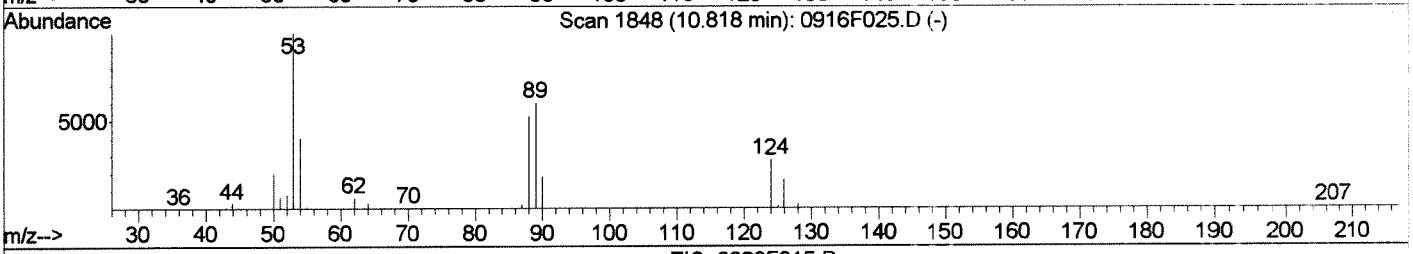
0928F015.D 092815MS18_8260.M Mon Sep 28 17:26:19 2015

Data File : J:\MS18\DATA\092815\0928F015.D Vial: 13
Acq On : 28 Sep 2015 5:05 pm Operator: YX
Sample : 8260 ICAL 10 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 28 17:26 2015 Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Mon Sep 28 17:24:16 2015
Response via : Single Level Calibration







TIC: 0928F015.D

(88) trans-1,4-Dichloro-2-butene (T)

10.81min 9.95PPB m

response 35790

Ion	Exp%	Act%
53.00	100	100
89.00	66.00	51.51
124.00	27.10	19.47
62.00	34.40	27.36

Manual Integration:

After

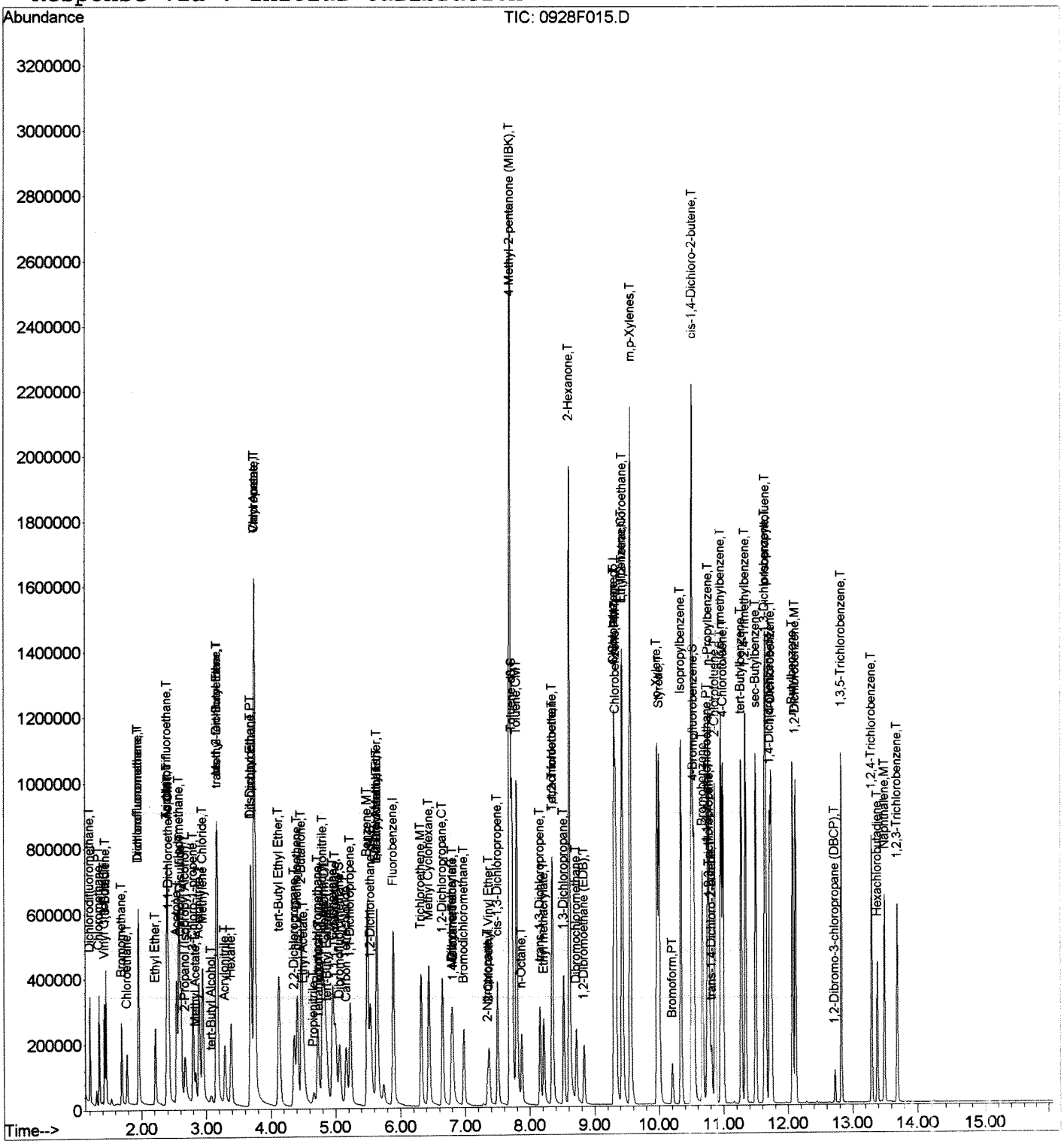
WRT

09/28/15

0928F015.D 092815MS18_8260.M Mon Sep 28 17:26:26 2015

Data File : J:\MS18\DATA\092815\0928F015.D Vial: 13
Acq On : 28 Sep 2015 5:05 pm Operator: YX
Sample : 8260 ICAL 10 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 28 17:26 2015 Quant Results File: 092815MS18_8

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 16:05:05 2015
Response via : Initial Calibration



Data File : J:\MS18\DATA\092815\0928F016.D Vial: 14
Acq On : 28 Sep 2015 5:26 pm Operator: YX
Sample : 8260 ICAL 20 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 29 09:34:04 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Mon Sep 28 17:31:52 2015
Response via : Initial Calibration
DataAcq Meth : 8260

VTSR 9/29/15

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.89	96	586955	10.00	PPB	0.00
65) Chlorobenzene-d5	9.30	82	239933	10.00	PPB	0.00
86) 1,4-Dichlorobenzene-d4	11.71	152	232596	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.06	113	160286	12.14	PPB	0.00
Spiked Amount 10.000			Recovery =	121.40%		
48) 1,2-Dichloroethane-d4	5.53	65	174168	11.89	PPB	0.00
Spiked Amount 10.000			Recovery =	118.90%		
63) Toluene-d8	7.72	98	721378	12.40	PPB	0.00
Spiked Amount 10.000			Recovery =	124.00%		
85) 4-Bromofluorobenzene	10.54	95	277676	12.11	PPB	0.00
Spiked Amount 10.000			Recovery =	121.10%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.21	85	302781	20.24	PPB	99
3) Chloromethane	1.35	50	374597	18.56	PPB	100
4) Vinyl Chloride	1.43	62	366993	20.08	PPB	100
5) 1,3-Butadiene	1.45	54	206261	18.07	PPB	99
6) Bromomethane	1.70	96	190704	17.33	PPB	97
7) Chloroethane	1.78	64	189925	19.28	PPB	99
8) Dichlorofluoromethane	1.95	67	506650	20.06	PPB	99
9) Trichlorofluoromethane	1.96	101	377465	19.11	PPB	97
10) Ethyl Ether	2.21	59	213372	19.74	PPB	98
11) Acrolein	2.40	56	831251	527.79	PPB	98
12) Trichlorotrifluoroethane	2.39	151	187914	19.37	PPB	93
13) 1,1-Dichloroethene	2.42	96	269310	20.17	PPB	95
14) Acetone	2.54	43	923438	406.23	PPB	97
15) Iodomethane	2.58	142	1415275	98.41	PPB	100
16) Carbon Disulfide	2.61	76	868309	19.96	PPB	99
17) 2-Propanol (Isopropyl Alco	2.67	45	434102	1045.02	PPB	99
18) 3-Chloro-1-propene	2.80	76	167261	20.80	PPB	94
19) Methyl Acetate	2.83	43	209575	20.39	PPB	97
20) Acetonitrile	2.89	40	508908	843.00	PPB	98
21) Methylene Chloride	2.95	84	344846	18.97	PPB	99
22) tert-Butyl Alcohol	3.07	59	52522	87.89	PPB	98
23) Acrylonitrile	3.29	53	306578	83.09	PPB	98
24) Methyl tert-Butyl Ether	3.16	73	1389769	40.09	PPB	99
25) trans-1,2-Dichloroethene	3.18	96	329402	20.92	PPB	97
26) Hexane	3.39	57	251393	17.75	PPB	97
27) Diisopropyl Ether	3.69	45	955537	20.64	PPB	97
28) 1,1-Dichloroethane	3.69	63	535231	19.99	PPB	97

(#) = qualifier out of range (m) = manual integration
0928F016.D 092815MS18_8260.M Tue Sep 29 16:09:08 2015 Page 1

Data File : J:\MS18\DATA\092815\0928F016.D Vial: 14
Acq On : 28 Sep 2015 5:26 pm Operator: YX
Sample : 8260 ICAL 20 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 29 09:34:04 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Mon Sep 28 17:31:52 2015
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29)	Vinyl Acetate	3.76	86	88038	37.24	PPB	#	89
30)	Chloroprene	3.75	53	1933176	83.05	PPB		98
31)	tert-Butyl Ethyl Ether	4.12	59	801439	20.37	PPB		98
32)	2,2-Dichloropropane	4.36	77	317541	19.42	PPB		99
33)	cis-1,2-Dichloroethene	4.41	96	375149	20.91	PPB		96
34)	2-Butanone	4.47	72	480885	444.45	PPB		89
35)	Propionitrile	4.66	54	115326	87.22	PPB		99
36)	Ethyl Acetate	4.51	61	65304	44.19	PPB		98
37)	Methacrylonitrile	4.80	67	400419	85.91	PPB		93
38)	Bromochloromethane	4.73	128	163455	21.47	PPB		97
39)	Tetrahydrofuran	4.75	71	20917	20.21	PPB		95
40)	Chloroform	4.84	83	529326	20.07	PPB		98
41)	tert-Butyl Formate	4.86	59	68286	12.74	PPB		95
42)	1,1,1-Trichloroethane	5.00	97	397784	20.77	PPB		98
44)	Carbon Tetrachloride	5.17	117	307001	20.39	PPB		99
45)	1,1-Dichloropropene	5.23	75	406853	20.35	PPB		98
46)	Cyclohexane	4.96	56	468737	20.18	PPB		98
47)	Isobutyl Alcohol	5.64	43	220057	792.56	PPB		91
49)	Benzene	5.49	78	1438435	20.31	PPB		98
50)	1,2-Dichloroethane	5.64	62	368824	20.15	PPB		98
51)	tert-Amyl Methyl Ether	5.64	55	250552	20.91	PPB	#	62
52)	Trichloroethene	6.32	95	313535	20.51	PPB		96
53)	1,2-Dichloropropane	6.65	63	340053	20.66	PPB		99
54)	Dibromomethane	6.79	93	173766	21.27	PPB		95
55)	Methyl methacrylate	6.81	69	171321	22.16	PPB		93
56)	1,4-Dioxane	6.82	88	94243	915.33	PPB		100
57)	Bromodichloromethane	6.98	83	358779	21.79	PPB		98
58)	2-Nitropropane	7.35	41	149287	91.57	PPB		97
59)	Methyl Cyclohexane	6.45	83	443556	20.48	PPB		98
60)	2-Chloroethyl Vinyl Ether	7.37	63	156520	21.61	PPB		99
61)	cis-1,3-Dichloropropene	7.50	75	499599	22.46	PPB		95
62)	4-Methyl-2-pentanone (MIBK	7.69	58	1648396	467.78	PPB		93
64)	Toluene	7.80	92	924208	21.24	PPB		98
66)	n-Octane	7.88	85	91208	18.12	PPB		92
67)	trans-1,3-Dichloropropene	8.15	75	376997	21.81	PPB		97
68)	Ethyl methacrylate	8.21	69	335449	23.24	PPB		94
69)	1,1,2-Trichloroethane	8.34	83	235699	20.85	PPB		99
70)	Tetrachloroethene	8.35	164	249622	20.25	PPB		98
71)	2-Hexanone	8.61	57	518763	472.49	PPB		91
72)	1,3-Dichloropropane	8.52	76	502919	20.87	PPB		98
73)	Dibromochloromethane	8.72	129	265923	17.44	PPB		99

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS18\DATA\092815\0928F016.D Vial: 14
Acq On : 28 Sep 2015 5:26 pm Operator: YX
Sample : 8260 ICAL 20 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 29 09:34:04 2015 Quant Results File: 092815MS18_8260

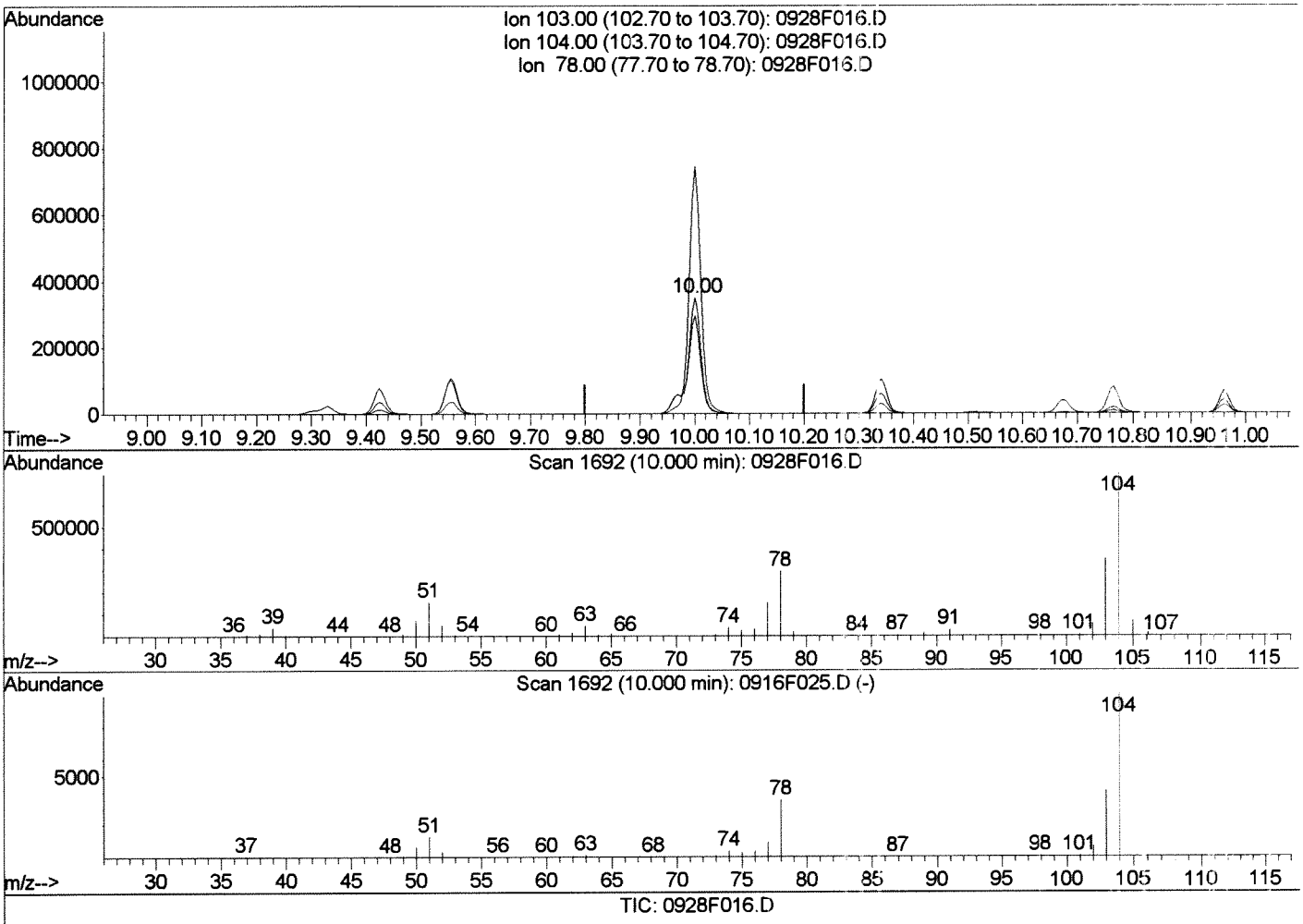
Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Mon Sep 28 17:31:52 2015
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
74)	1,2-Dibromoethane (EDB)	8.84	107	263449	21.54	PPB	94
75)	1-Chlorohexane	9.31	91	399175	20.03	PPB	100
76)	Chlorobenzene	9.33	112	1024473	20.20	PPB	98
77)	Ethylbenzene	9.42	106	533985	21.58	PPB	98
78)	1,1,1,2-Tetrachloroethane	9.43	131	302034	21.96	PPB	98
79)	m,p-Xylenes	9.55	106	1332986	43.59	PPB	98
80)	o-Xylene	9.97	106	653448	22.14	PPB	98
81)	Styrene	10.00	103	535696m	22.12	PPB	
82)	Bromoform	10.20	173	131500	15.24	PPB	98
83)	Isopropylbenzene	10.34	105	1573099	22.20	PPB	99
84)	cis-1,4-Dichloro-2-butene	10.51	89	147642	76.06	PPB	99
87)	1,1,2,2-Tetrachloroethane	10.74	83	321481	21.57	PPB	100
88)	trans-1,4-Dichloro-2-buten	10.82	53	76009m	20.53	PPB	
89)	Bromobenzene	10.68	156	421509	20.72	PPB	98
90)	n-Propylbenzene	10.77	91	1863489	22.12	PPB	99
91)	1,2,3-Trichloropropane	10.79	110	92502	20.21	PPB	92
92)	2-Chlorotoluene	10.87	91	1155533	21.37	PPB	97
93)	1,3,5-Trimethylbenzene	10.96	105	1332054	22.86	PPB	98
94)	4-Chlorotoluene	10.99	91	1355125	21.57	PPB	98
95)	tert-Butylbenzene	11.27	119	1110363	22.19	PPB	99
96)	1,2,4-Trimethylbenzene	11.34	105	1365425	23.05	PPB	98
97)	sec-Butylbenzene	11.50	105	1558944	22.45	PPB	100
98)	p-Isopropyltoluene	11.65	119	1323877	23.16	PPB	99
99)	1,3-Dichlorobenzene	11.64	146	790441	20.39	PPB	100
100)	1,4-Dichlorobenzene	11.74	146	809259	19.76	PPB	99
101)	n-Butylbenzene	12.07	91	1130541	22.84	PPB	97
102)	1,2-Dichlorobenzene	12.11	146	751756	20.65	PPB	98
103)	1,2-Dibromo-3-chloropropan	12.73	155	33056	18.42	PPB	93
104)	1,3,5-Trichlorobenzene	12.83	180	508400	20.54	PPB	99
105)	1,2,4-Trichlorobenzene	13.29	180	438615	21.09	PPB	99
106)	Hexachlorobutadiene	13.39	225	157332	20.04	PPB	97
107)	Naphthalene	13.49	128	937687	24.90	PPB	100
108)	1,2,3-Trichlorobenzene	13.69	180	355858	21.25	PPB	98

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS18\DATA\092815\0928F016.D Vial: 14
Acq On : 28 Sep 2015 5:26 pm Operator: YX
Sample : 8260 ICAL 20 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 29 9:34 2015 Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Mon Sep 28 17:31:52 2015
Response via : Single Level Calibration



TIC: 0928F016.D

(81) Styrene (T)

10.00min 25.04PPB

response 606521

Ion	Exp%	Act%
103.00	100	100
104.00	216.80	212.72
78.00	88.00	84.50
0.00	0.00	0.00

Manual Integration:

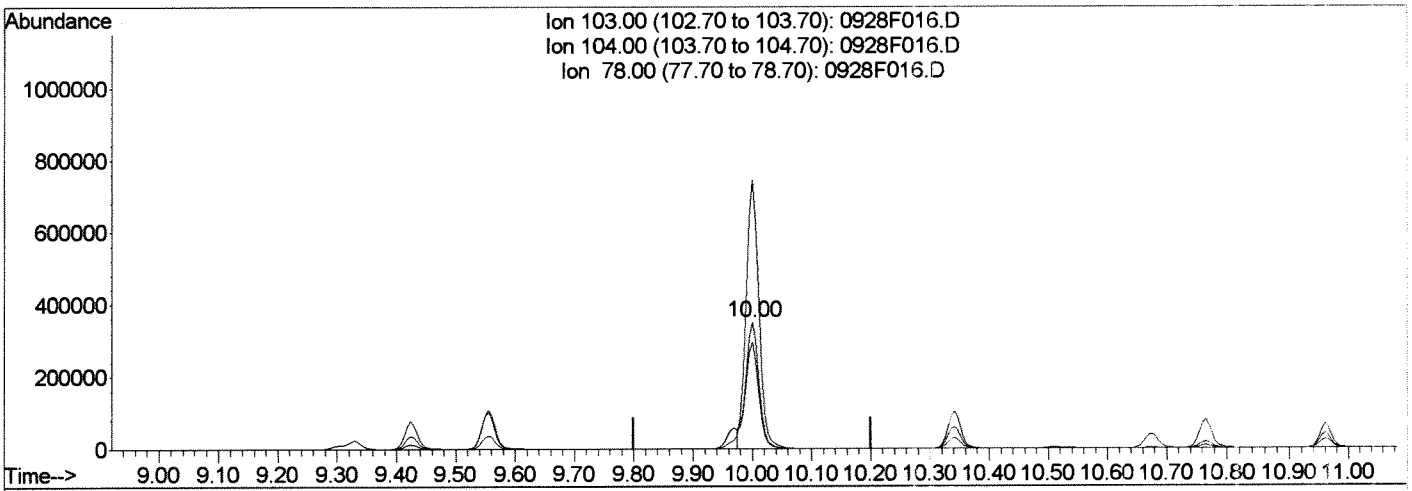
Before

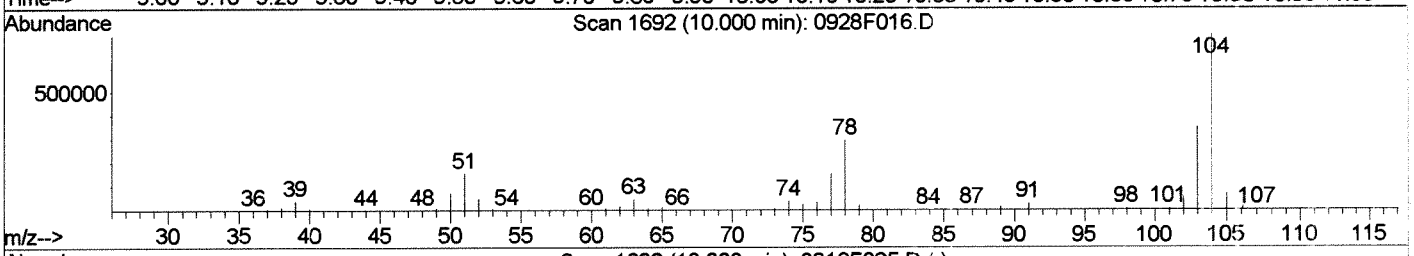
09/29/15

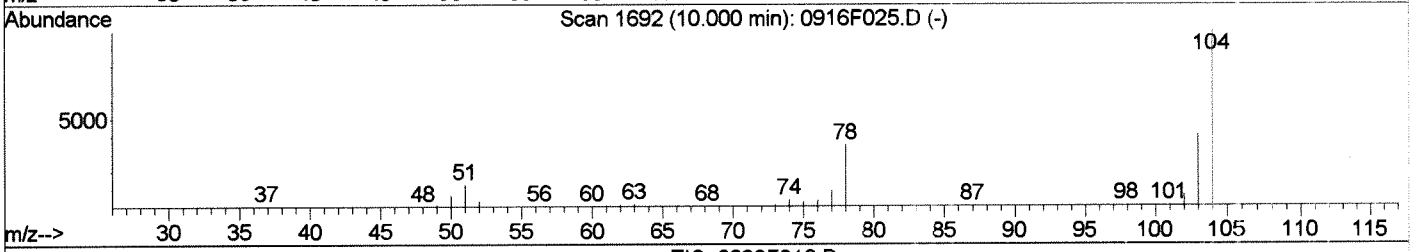
0928F016.D 092815MS18_8260.M Tue Sep 29 09:35:02 2015

Data File : J:\MS18\DATA\092815\0928F016.D Vial: 14
Acq On : 28 Sep 2015 5:26 pm Operator: YX
Sample : 8260 ICAL 20 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 29 9:35 2015 Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Mon Sep 28 17:31:52 2015
Response via : Single Level Calibration







TIC: 0928F016.D

(81) Styrene (T)
10.00min 22.12PPB m
response 535696

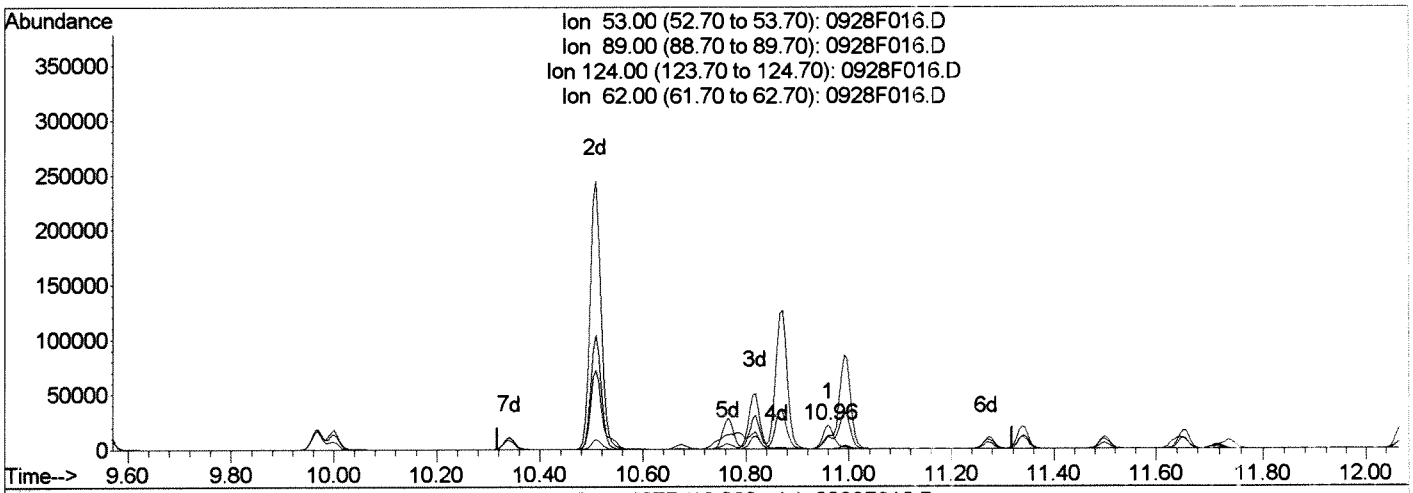
Ion	Exp%	Act%
103.00	100	100
104.00	216.80	212.72
78.00	88.00	84.50
0.00	0.00	0.00

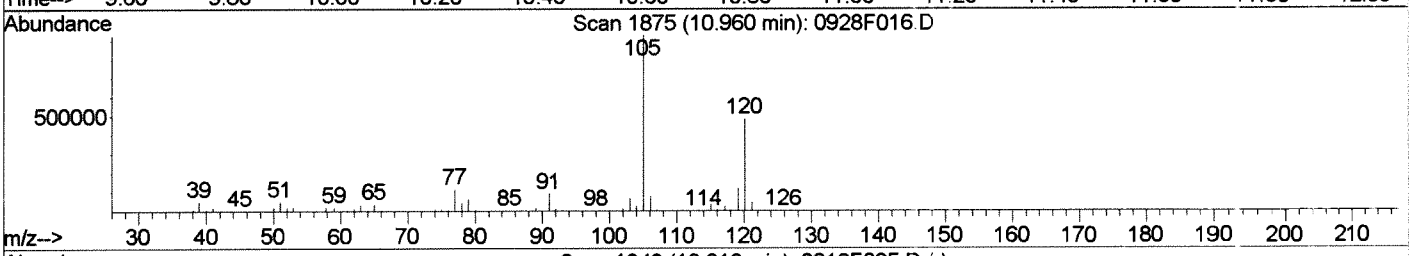
Manual Integration:
After
Shoulder
09/29/15

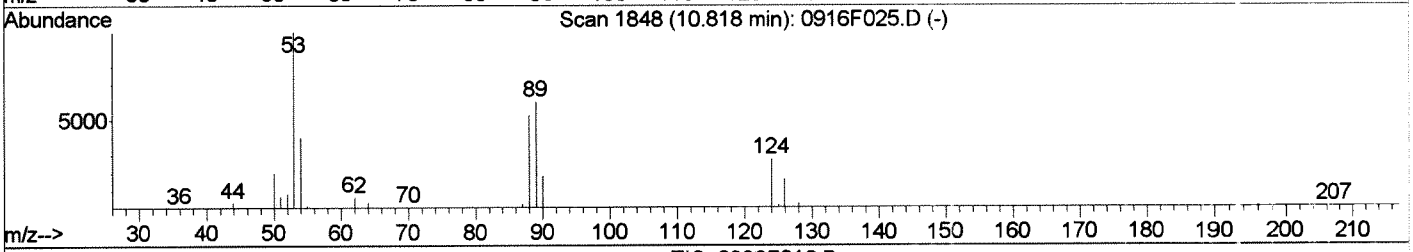
0928F016.D 092815MS18_8260.M Tue Sep 29 09:35:08 2015

Data File : J:\MS18\DATA\092815\0928F016.D Vial: 14
Acq On : 28 Sep 2015 5:26 pm Operator: YX
Sample : 8260 ICAL 20 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 29 9:35 2015 Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Mon Sep 28 17:31:52 2015
Response via : Single Level Calibration







TIC: 0928F016.D

(88) trans-1,4-Dichloro-2-butene (T)

10.96min 9.34PPB

response 34575

Ion	Exp%	Act%
53.00	100	100
89.00	66.00	55.62
124.00	27.10	0.00
62.00	34.40	53.46

Manual Integration:

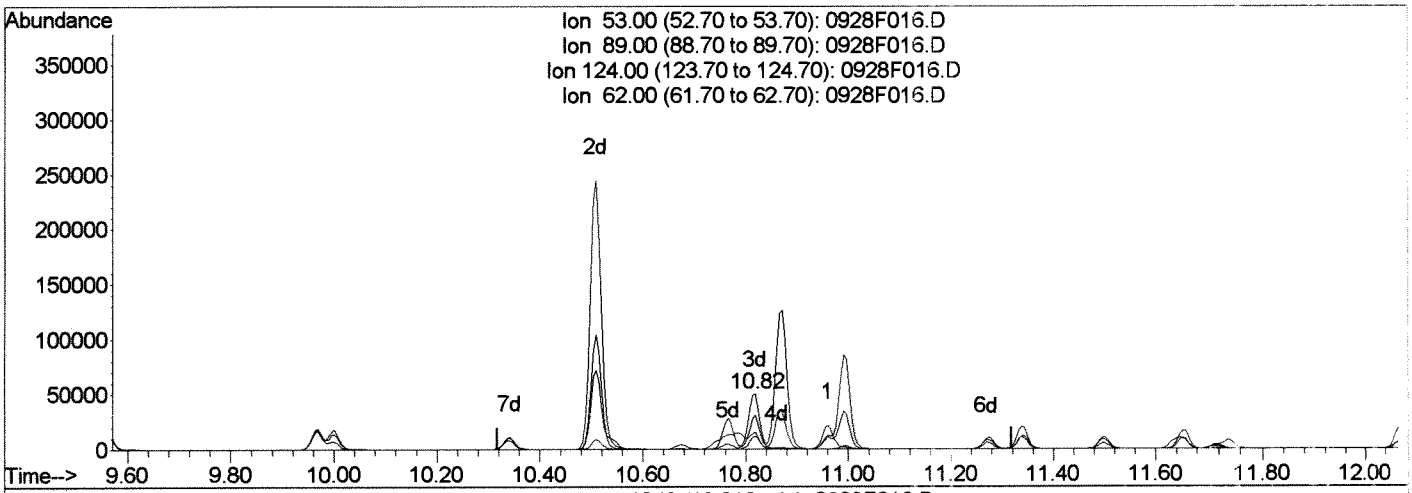
Before

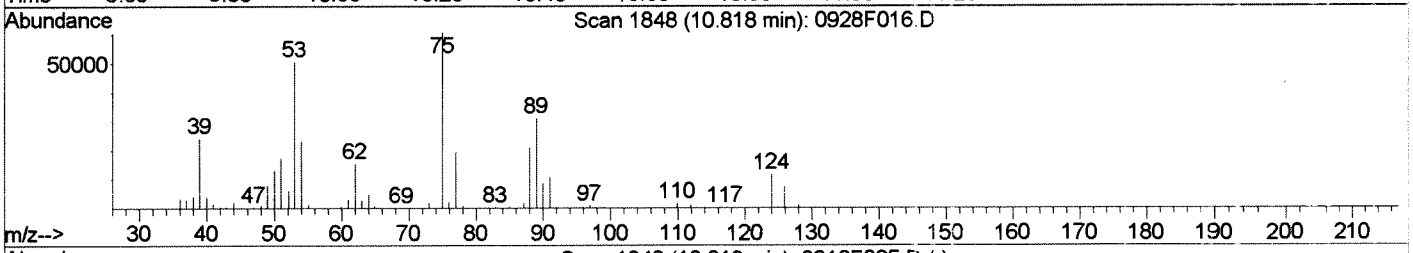
09/29/15

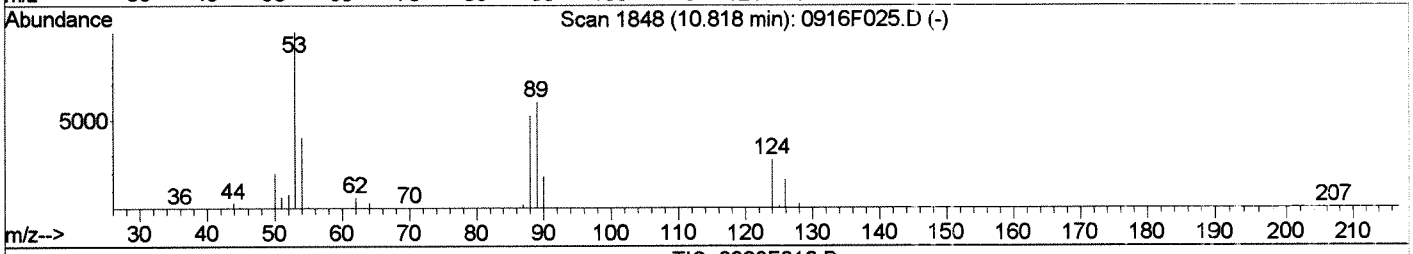
0928F016.D 092815MS18_8260.M Tue Sep 29 09:35:14 2015

Data File : J:\MS18\DATA\092815\0928F016.D Vial: 14
Acq On : 28 Sep 2015 5:26 pm Operator: YX
Sample : 8260 ICAL 20 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 29 9:35 2015 Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Mon Sep 28 17:31:52 2015
Response via : Single Level Calibration







TIC: 0928F016.D

(88) trans-1,4-Dichloro-2-butene (T)

10.82min 20.53PPB m

response 76009

Ion	Exp%	Act%
53.00	100	100
89.00	66.00	61.32
124.00	27.10	23.21
62.00	34.40	30.60

Manual Integration:

After

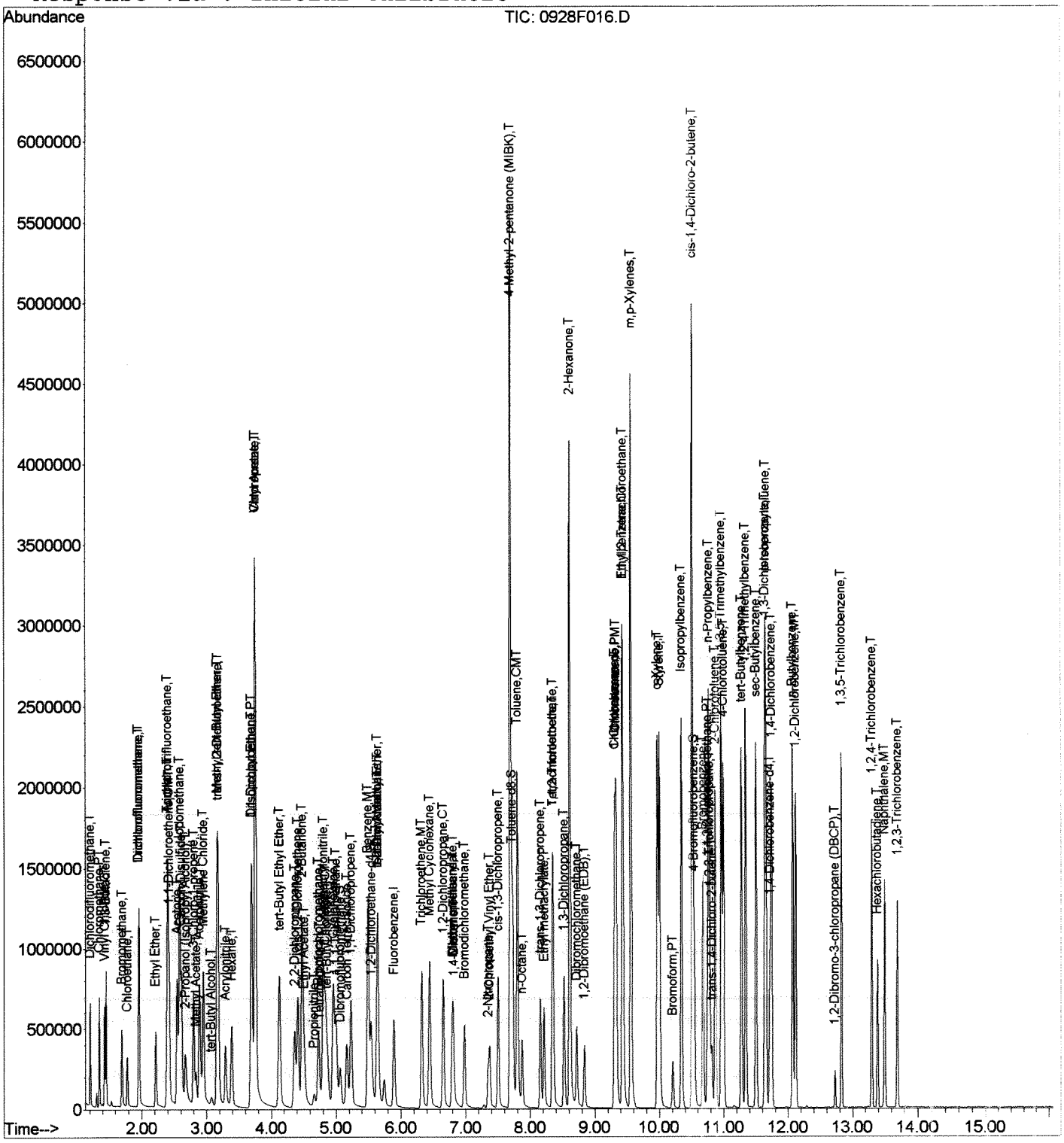
WRT

09/29/15

0928F016.D 092815MS18_8260.M Tue Sep 29 09:35:20 2015

Data File : J:\MS18\DATA\092815\0928F016.D Vial: 14
Acq On : 28 Sep 2015 5:26 pm Operator: YX
Sample : 8260 ICAL 20 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 29 9:35 2015 Quant Results File: 092815MS18_8

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 16:05:05 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\092815\0928F017.D Vial: 15
Acq On : 28 Sep 2015 5:48 pm Operator: YX
Sample : 8260 ICAL 40 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 29 09:37:04 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 09:36:58 2015
Response via : Initial Calibration
DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.90	96	587743	10.00	PPB	0.00
65) Chlorobenzene-d5	9.30	82	242262	10.00	PPB	0.00
86) 1,4-Dichlorobenzene-d4	11.72	152	235756	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.06	113	198940	15.07	PPB	0.00
Spiked Amount 10.000			Recovery =	150.70%		
48) 1,2-Dichloroethane-d4	5.54	65	207204	14.14	PPB	0.00
Spiked Amount 10.000			Recovery =	141.40%		
63) Toluene-d8	7.73	98	890304	15.22	PPB	0.00
Spiked Amount 10.000			Recovery =	152.20%		
85) 4-Bromofluorobenzene	10.54	95	340895	14.71	PPB	0.00
Spiked Amount 10.000			Recovery =	147.10%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.21	85	663953	44.55	PPB	98
3) Chloromethane	1.35	50	722643	35.68	PPB	100
4) Vinyl Chloride	1.43	62	755446	41.39	PPB	99
5) 1,3-Butadiene	1.45	54	450119	40.37	PPB	100
6) Bromomethane	1.70	96	393325	35.39	PPB	98
7) Chloroethane	1.77	64	376678	38.34	PPB	99
8) Dichlorofluoromethane	1.95	67	997112	39.34	PPB	99
9) Trichlorofluoromethane	1.95	101	828033	42.32	PPB	96
10) Ethyl Ether	2.21	59	424000	39.26	PPB	100
11) Acrolein	2.40	56	1618305	972.75	PPB	98
12) Trichlorotrifluoroethane	2.39	151	411331	42.71	PPB	94
13) 1,1-Dichloroethene	2.42	96	555314	41.71	PPB	93
14) Acetone	2.55	43	1800502	788.00	PPB	98
15) Iodomethane	2.58	142	2866981	195.96	PPB	99
16) Carbon Disulfide	2.61	76	1895608	43.47	PPB	100
17) 2-Propanol (Isopropyl Alco	2.67	45	890309	2156.58	PPB	99
18) 3-Chloro-1-propene	2.80	76	351274	43.81	PPB	91
19) Methyl Acetate	2.83	43	412287	39.93	PPB	97
20) Acetonitrile	2.89	40	1018208	1677.67	PPB	98
21) Methylene Chloride	2.95	84	691662	37.87	PPB	98
22) tert-Butyl Alcohol	3.07	59	106440	183.26	PPB	99
23) Acrylonitrile	3.29	53	613984	165.06	PPB	99
24) Methyl tert-Butyl Ether	3.16	73	2834233	82.21	PPB	99
25) trans-1,2-Dichloroethene	3.18	96	660927	41.84	PPB	95
26) Hexane	3.39	57	567065	41.21	PPB	97
27) Diisopropyl Ether	3.69	45	1935242	41.93	PPB	98
28) 1,1-Dichloroethane	3.69	63	1076227	40.21	PPB	97

(#) = qualifier out of range (m) = manual integration
0928F017.D 092815MS18_8260.M Tue Sep 29 16:09:11 2015 Page 1

Data File : J:\MS18\DATA\092815\0928F017.D Vial: 15
Acq On : 28 Sep 2015 5:48 pm Operator: YX
Sample : 8260 ICAL 40 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 29 09:37:04 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 09:36:58 2015
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29)	Vinyl Acetate	3.76	86	178487	74.09	PPB	#	79
30)	Chloroprene	3.75	53	4031655	174.04	PPB		96
31)	tert-Butyl Ethyl Ether	4.12	59	1645074	42.19	PPB		98
32)	2,2-Dichloropropane	4.36	77	707078	44.30	PPB		99
33)	cis-1,2-Dichloroethene	4.41	96	749396	41.55	PPB		95
34)	2-Butanone	4.47	72	932719	853.46	PPB		88
35)	Propionitrile	4.66	54	226857	169.54	PPB		98
36)	Ethyl Acetate	4.51	61	138276	91.75	PPB		97
37)	Methacrylonitrile	4.80	67	796658	169.55	PPB		91
38)	Bromochloromethane	4.73	128	286516	37.42	PPB		98
39)	Tetrahydrofuran	4.75	71	43413	41.75	PPB		97
40)	Chloroform	4.84	83	1062897	40.22	PPB		99
41)	tert-Butyl Formate	4.86	59	150154	30.56	PPB		95
42)	1,1,1-Trichloroethane	5.00	97	851712	44.87	PPB		100
44)	Carbon Tetrachloride	5.17	117	684404	46.07	PPB		99
45)	1,1-Dichloropropene	5.23	75	874868	43.85	PPB		99
46)	Cyclohexane	4.96	56	1020867	44.13	PPB		98
47)	Isobutyl Alcohol	5.63	43	441664	1618.02	PPB		94
49)	Benzene	5.49	78	2852724	40.04	PPB		98
50)	1,2-Dichloroethane	5.64	62	735951	40.13	PPB		98
51)	tert-Amyl Methyl Ether	5.64	55	481740	39.29	PPB	#	73
52)	Trichloroethene	6.32	95	640964	41.88	PPB		95
53)	1,2-Dichloropropane	6.65	63	693333	42.05	PPB		98
54)	Dibromomethane	6.79	93	344421	41.87	PPB		98
55)	Methyl methacrylate	6.81	69	357339	46.08	PPB		94
56)	1,4-Dioxane	6.81	88	182653	1740.72	PPB		95
57)	Bromodichloromethane	6.98	83	759022	46.29	PPB		98
58)	2-Nitropropane	7.35	41	347436	223.61	PPB		99
59)	Methyl Cyclohexane	6.44	83	989726	45.88	PPB		97
60)	2-Chloroethyl Vinyl Ether	7.37	63	324054	45.15	PPB		98
61)	cis-1,3-Dichloropropene	7.50	75	1053946	47.63	PPB		96
62)	4-Methyl-2-pentanone (MIBK	7.69	58	3191582	896.90	PPB		92
64)	Toluene	7.80	92	1845350	42.15	PPB		100
66)	n-Octane	7.88	85	204061	40.87	PPB		96
67)	trans-1,3-Dichloropropene	8.16	75	816244	47.59	PPB		96
68)	Ethyl methacrylate	8.21	69	696811	47.82	PPB		93
69)	1,1,2-Trichloroethane	8.34	83	463671	40.41	PPB		98
70)	Tetrachloroethene	8.35	164	513126	41.25	PPB		99
71)	2-Hexanone	8.61	57	1019469	915.64	PPB	#	89
72)	1,3-Dichloropropane	8.52	76	988735	40.45	PPB		98
73)	Dibromochloromethane	8.72	129	566438	36.85	PPB		100

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS18\DATA\092815\0928F017.D Vial: 15
Acq On : 28 Sep 2015 5:48 pm Operator: YX
Sample : 8260 ICAL 40 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 29 09:37:04 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 09:36:58 2015
Response via : Initial Calibration
DataAcq Meth : 8260

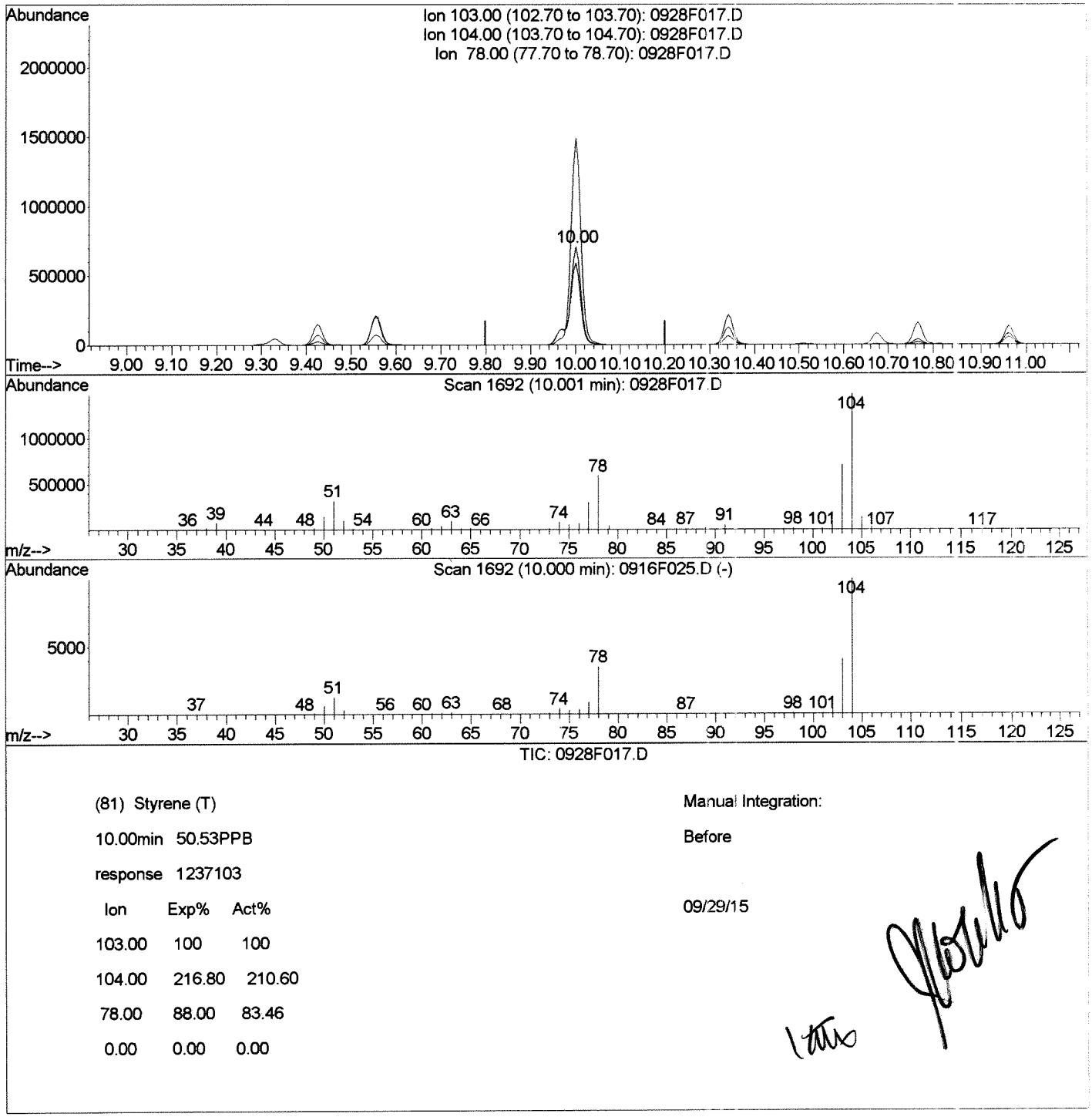
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
74)	1,2-Dibromoethane (EDB)	8.84	107	528449	42.65	PPB	99
75)	1-Chlorohexane	9.31	91	878050	43.95	PPB	99
76)	Chlorobenzene	9.33	112	2036893	39.64	PPB	99
77)	Ethylbenzene	9.42	106	1082715	43.26	PPB	98
78)	1,1,1,2-Tetrachloroethane	9.44	131	628737	45.58	PPB	98
79)	m,p-Xylenes	9.55	106	2709627	87.57	PPB	98
80)	o-Xylene	9.97	106	1320571	44.24	PPB	99
81)	Styrene	10.00	103	1094385m	44.70	PPB	
82)	Bromoform	10.21	173	296924	34.19	PPB	98
83)	Isopropylbenzene	10.34	105	3246920	45.38	PPB	99
84)	cis-1,4-Dichloro-2-butene	10.51	89	331855	145.38	PPB	97
87)	1,1,2,2-Tetrachloroethane	10.75	83	635369	41.64	PPB	99
88)	trans-1,4-Dichloro-2-buten	10.82	53	156547	41.78	PPB	83
89)	Bromobenzene	10.68	156	842555	40.74	PPB	98
90)	n-Propylbenzene	10.77	91	3792335	44.24	PPB	100
91)	1,2,3-Trichloropropane	10.79	110	185474	39.65	PPB	96
92)	2-Chlorotoluene	10.87	91	2319042	42.14	PPB	99
93)	1,3,5-Trimethylbenzene	10.96	105	2708745	45.67	PPB	98
94)	4-Chlorotoluene	10.99	91	2717932	42.47	PPB	98
95)	tert-Butylbenzene	11.27	119	2319435	45.63	PPB	99
96)	1,2,4-Trimethylbenzene	11.34	105	2769257	45.89	PPB	98
97)	sec-Butylbenzene	11.50	105	3273463	46.39	PPB	100
98)	p-Isopropyltoluene	11.66	119	2780446	47.83	PPB	98
99)	1,3-Dichlorobenzene	11.64	146	1597374	40.46	PPB	99
100)	1,4-Dichlorobenzene	11.74	146	1632298	39.12	PPB	98
101)	n-Butylbenzene	12.07	91	2378698	47.30	PPB	99
102)	1,2-Dichlorobenzene	12.11	146	1510911	40.69	PPB	98
103)	1,2-Dibromo-3-chloropropan	12.73	155	71892	36.95	PPB	95
104)	1,3,5-Trichlorobenzene	12.83	180	1043033	41.26	PPB	99
105)	1,2,4-Trichlorobenzene	13.30	180	911339	42.84	PPB	99
106)	Hexachlorobutadiene	13.39	225	341354	42.64	PPB	99
107)	Naphthalene	13.50	128	1945625	50.30	PPB	100
108)	1,2,3-Trichlorobenzene	13.70	180	734839	42.67	PPB	98

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Qedit)

Data File : J:\MS18\DATA\092815\0928F017.D Vial: 15
Acq On : 28 Sep 2015 5:48 pm Operator: YX
Sample : 8260 ICAL 40 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 29 9:37 2015 Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 09:36:58 2015
Response via : Single Level Calibration



TIC: 0928F017.D

(81) Styrene (T)

10.00min 50.53PPB

response 1237103

Ion	Exp%	Act%
103.00	100	100
104.00	216.80	210.60
78.00	88.00	83.46
0.00	0.00	0.00

Manual Integration:

Before

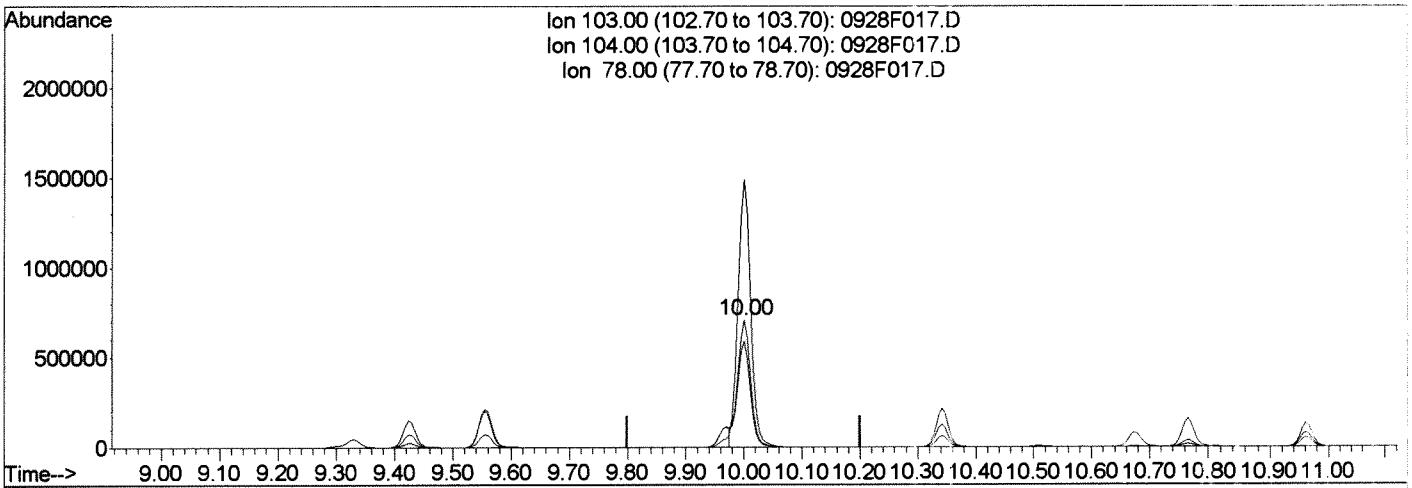
09/29/15

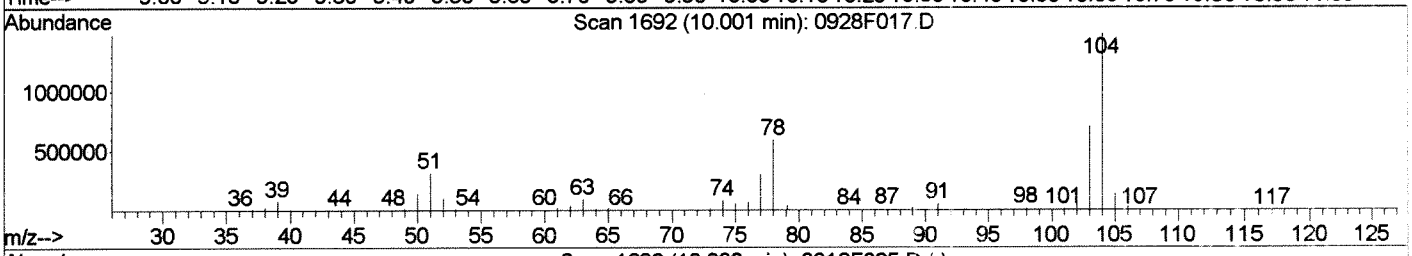
0928F017.D 092815MS18_8260.M Tue Sep 29 09:37:39 2015

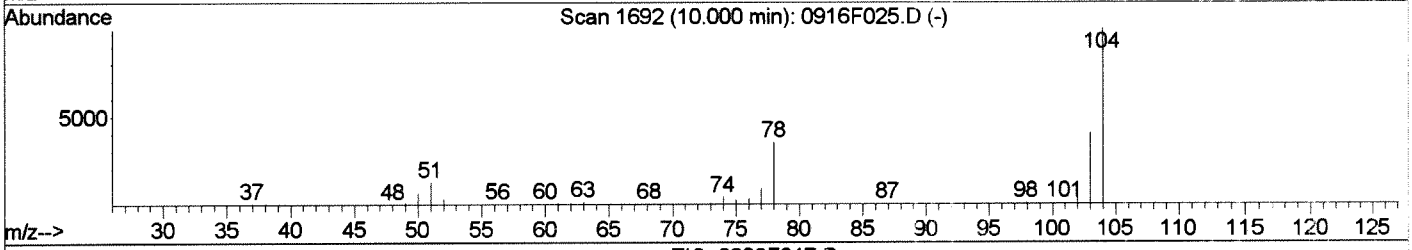
Quantitation Report (Qedit)

Data File : J:\MS18\DATA\092815\0928F017.D Vial: 15
Acq On : 28 Sep 2015 5:48 pm Operator: YX
Sample : 8260 ICAL 40 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 29 9:37 2015 Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 09:36:58 2015
Response via : Single Level Calibration







TIC: 0928F017.D

(81) Styrene (T)

10.00min 44.70PPB m

response 1094385

Ion	Exp%	Act%
103.00	100	100
104.00	216.80	210.60
78.00	88.00	83.46
0.00	0.00	0.00

Manual Integration:

After

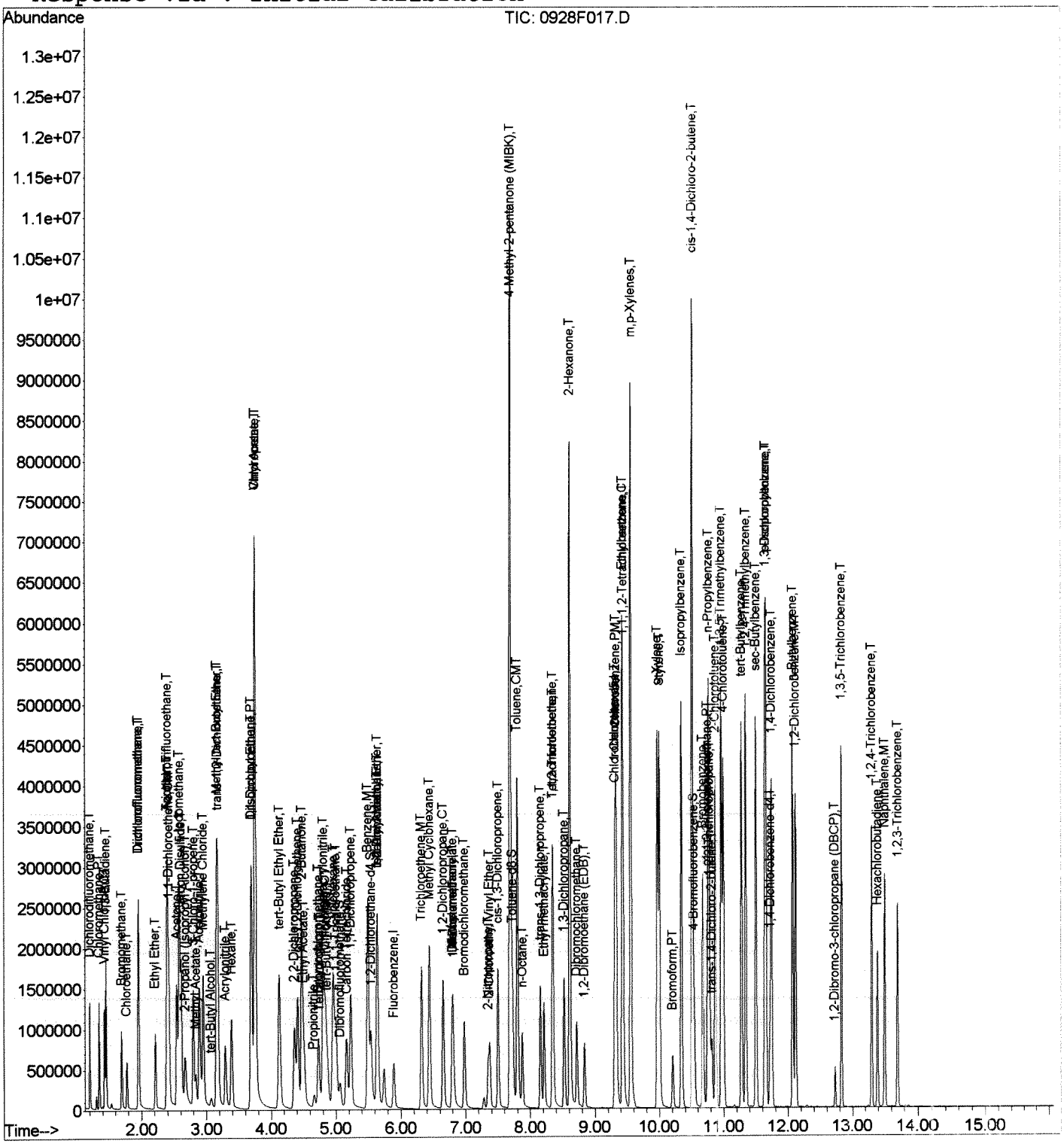
Shoulder

09/29/15

0928F017.D 092815MS18_8260.M Tue Sep 29 09:37:47 2015

Data File : J:\MS18\DATA\092815\0928F017.D Vial: 15
Acq On : 28 Sep 2015 5:48 pm Operator: YX
Sample : 8260 ICAL 40 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 29 9:37 2015 Quant Results File: 092815MS18_8

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 16:05:05 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\092815\0928F018.D Vial: 16
Acq On : 28 Sep 2015 6:10 pm Operator: YX
Sample : 8260 ICAL 60 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 29 09:38:14 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 09:38:08 2015
Response via : Initial Calibration
DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.90	96	603550	10.00	PPB	0.00
65) Chlorobenzene-d5	9.30	82	246550	10.00	PPB	0.00
86) 1,4-Dichlorobenzene-d4	11.72	152	244174	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.06	113	220345	16.23	PPB	0.00
Spiked Amount 10.000			Recovery =	162.30%		
48) 1,2-Dichloroethane-d4	5.54	65	234646	15.67	PPB	0.00
Spiked Amount 10.000			Recovery =	156.70%		
63) Toluene-d8	7.73	98	976721	16.16	PPB	0.00
Spiked Amount 10.000			Recovery =	161.60%		
85) 4-Bromofluorobenzene	10.55	95	387285	16.39	PPB	0.00
Spiked Amount 10.000			Recovery =	163.90%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.21	85	999072	65.28	PPB	99
3) Chloromethane	1.35	50	1095924	52.65	PPB	100
4) Vinyl Chloride	1.43	62	1151523	61.68	PPB	99
5) 1,3-Butadiene	1.45	54	678223	60.50	PPB	100
6) Bromomethane	1.70	96	626728	54.69	PPB	99
7) Chloroethane	1.77	64	539097	53.60	PPB	99
8) Dichlorofluoromethane	1.95	67	1495452	57.55	PPB	99
9) Trichlorofluoromethane	1.95	101	1269038	63.54	PPB	95
10) Ethyl Ether	2.21	59	631961	57.42	PPB	99
11) Acrolein	2.40	56	2498648	1385.25	PPB	98
12) Trichlorotrifluoroethane	2.39	151	647648	65.75	PPB	95
13) 1,1-Dichloroethene	2.42	96	856610	63.02	PPB	94
14) Acetone	2.54	43	3726218	1582.45	PPB	97
15) Iodomethane	2.58	142	4380201	287.31	PPB	100
16) Carbon Disulfide	2.61	76	2927293	64.84	PPB	99
17) 2-Propanol (Isopropyl Alco	2.67	45	1428961	3402.98	PPB	100
18) 3-Chloro-1-propene	2.80	76	555685	67.95	PPB	89
19) Methyl Acetate	2.83	43	725989	68.71	PPB	97
20) Acetonitrile	2.89	40	1529760	2435.86	PPB	99
21) Methylene Chloride	2.95	84	1028631	54.59	PPB	97
22) tert-Butyl Alcohol	3.07	59	178510	310.52	PPB	99
23) Acrylonitrile	3.29	53	964199	251.35	PPB	100
24) Methyl tert-Butyl Ether	3.16	73	4472130	127.58	PPB	99
25) trans-1,2-Dichloroethene	3.18	96	1009069	62.32	PPB	94
26) Hexane	3.39	57	866896	62.22	PPB	98
27) Diisopropyl Ether	3.69	45	2939284	62.41	PPB	96
28) 1,1-Dichloroethane	3.69	63	1625232	59.42	PPB	97

(#) = qualifier out of range (m) = manual integration
0928F018.D 092815MS18_8260.M Tue Sep 29 16:09:13 2015 Page 1

Data File : J:\MS18\DATA\092815\0928F018.D Vial: 16
Acq On : 28 Sep 2015 6:10 pm Operator: YX
Sample : 8260 ICAL 60 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 29 09:38:14 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 09:38:08 2015
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29)	Vinyl Acetate	3.76	86	290123	116.87	PPB	#	79
30)	Chloroprene	3.75	53	6120082	259.00	PPB		95
31)	tert-Butyl Ethyl Ether	4.12	59	2582012	65.35	PPB		97
32)	2,2-Dichloropropane	4.36	77	1128512	70.51	PPB		99
33)	cis-1,2-Dichloroethene	4.41	96	1139486	61.57	PPB		96
34)	2-Butanone	4.47	72	2007275m	1782.94	PPB		
35)	Propionitrile	4.66	54	352742	256.15	PPB		97
36)	Ethyl Acetate	4.51	61	211721	134.27	PPB		97
37)	Methacrylonitrile	4.80	67	1243191	257.52	PPB		92
38)	Bromochloromethane	4.73	128	405150	51.67	PPB		98
39)	Tetrahydrofuran	4.75	71	67877	63.33	PPB		98
40)	Chloroform	4.84	83	1611728	59.55	PPB		99
41)	tert-Butyl Formate	4.86	59	258459	57.47	PPB		95
42)	1,1,1-Trichloroethane	5.00	97	1329980	68.92	PPB		98
44)	Carbon Tetrachloride	5.17	117	1075457	71.38	PPB		99
45)	1,1-Dichloropropene	5.23	75	1348443	65.98	PPB		98
46)	Cyclohexane	4.96	56	1560678	65.90	PPB		99
47)	Isobutyl Alcohol	5.64	43	697245	2549.46	PPB		98
49)	Benzene	5.49	78	4342383	59.35	PPB		98
50)	1,2-Dichloroethane	5.64	62	1120580	59.72	PPB		98
51)	tert-Amyl Methyl Ether	5.64	55	708342	55.38	PPB	#	82
52)	Trichloroethene	6.32	95	993942	63.40	PPB		97
53)	1,2-Dichloropropane	6.65	63	1057034	62.50	PPB		97
54)	Dibromomethane	6.79	93	535160	63.45	PPB		94
55)	Methyl methacrylate	6.81	69	580315	73.15	PPB		94
56)	1,4-Dioxane	6.81	88	300152	2766.51	PPB		98
57)	Bromodichloromethane	6.98	83	1189918	71.16	PPB		99
58)	2-Nitropropane	7.35	41	606057	400.69	PPB		98
59)	Methyl Cyclohexane	6.45	83	1533442	69.32	PPB		97
60)	2-Chloroethyl Vinyl Ether	7.37	63	519179	71.52	PPB		99
61)	cis-1,3-Dichloropropene	7.50	75	1652750	73.37	PPB		95
62)	4-Methyl-2-pentanone (MIBK	7.69	58	6615135	1806.34	PPB		87
64)	Toluene	7.80	92	2819362	62.68	PPB		100
66)	n-Octane	7.88	85	323391	63.98	PPB		96
67)	trans-1,3-Dichloropropene	8.15	75	1317421	76.77	PPB		97
68)	Ethyl methacrylate	8.21	69	1129553	76.57	PPB		93
69)	1,1,2-Trichloroethane	8.34	83	727418	62.32	PPB		97
70)	Tetrachloroethene	8.35	164	795912	63.00	PPB		99
71)	2-Hexanone	8.61	57	2174091	1918.27	PPB	#	85
72)	1,3-Dichloropropane	8.52	76	1534502	61.71	PPB		98
73)	Dibromochloromethane	8.72	129	905708	58.57	PPB		98

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS18\DATA\092815\0928F018.D Vial: 16
Acq On : 28 Sep 2015 6:10 pm Operator: YX
Sample : 8260 ICAL 60 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 29 09:38:14 2015 Quant Results File: 092815MS18_8260

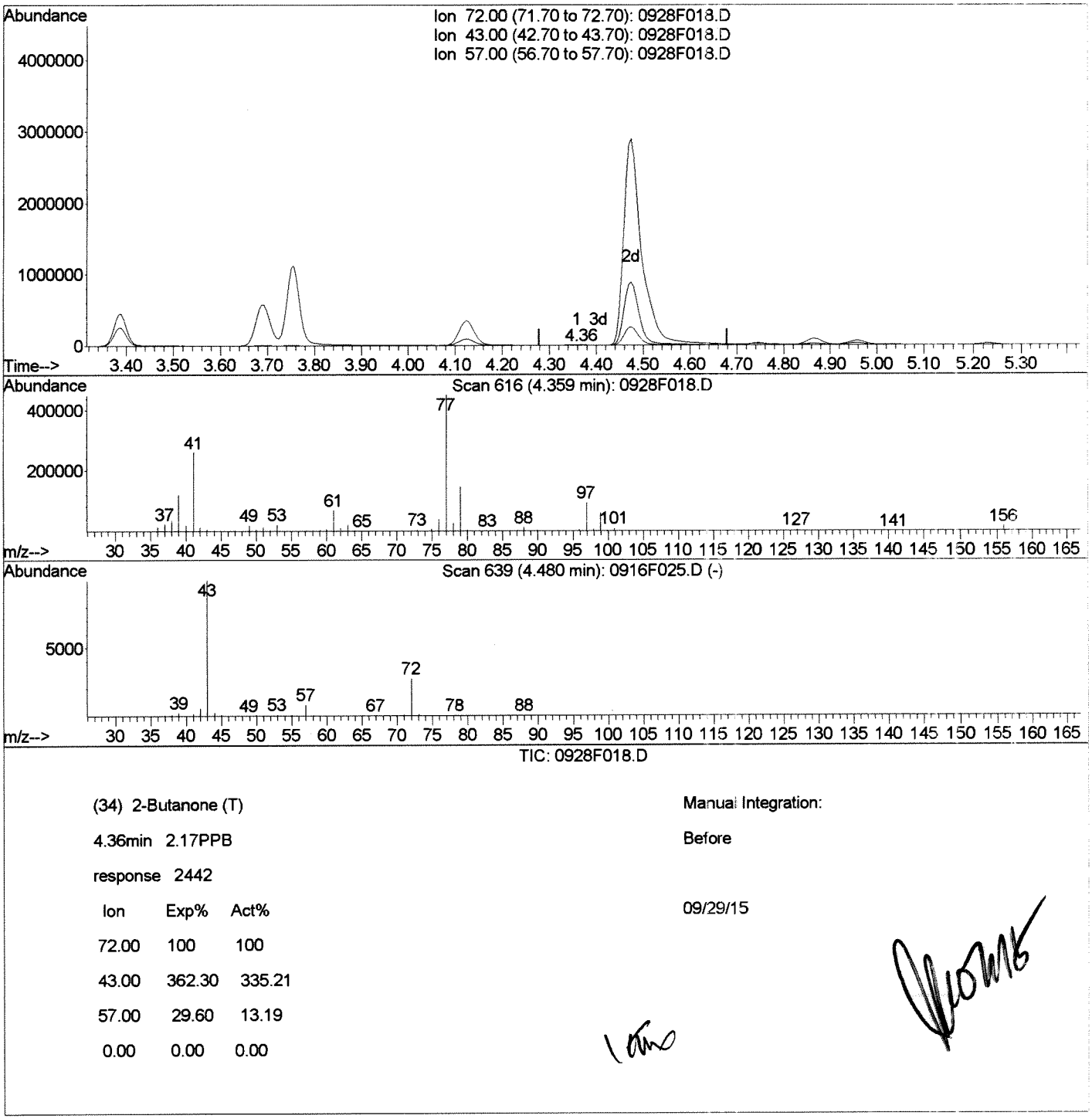
Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 09:38:08 2015
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
74)	1,2-Dibromoethane (EDB)	8.84	107	831451	65.98	PPB	98
75)	1-Chlorohexane	9.31	91	1386232	68.42	PPB	95
76)	Chlorobenzene	9.33	112	3135024	59.99	PPB	99
77)	Ethylbenzene	9.43	106	1678261	65.96	PPB	98
78)	1,1,1,2-Tetrachloroethane	9.44	131	991864	71.26	PPB	99
79)	m,p-Xylenes	9.55	106	4151129	131.90	PPB	97
80)	o-Xylene	9.97	106	2057556	67.81	PPB	99
81)	Styrene	10.00	103	1701336m	68.31	PPB	
82)	Bromoform	10.20	173	500124	57.64	PPB	98
83)	Isopropylbenzene	10.34	105	5008279	68.82	PPB	100
84)	cis-1,4-Dichloro-2-butene	10.51	89	553659	231.43	PPB	94
87)	1,1,2,2-Tetrachloroethane	10.74	83	1006301	63.66	PPB	99
88)	trans-1,4-Dichloro-2-buten	10.82	53	251990	65.70	PPB	89
89)	Bromobenzene	10.68	156	1319634	61.74	PPB	98
90)	n-Propylbenzene	10.77	91	5858191	66.05	PPB	100
91)	1,2,3-Trichloropropane	10.79	110	293617	60.66	PPB	98
92)	2-Chlorotoluene	10.87	91	3570291	62.67	PPB	99
93)	1,3,5-Trimethylbenzene	10.97	105	4210759	68.57	PPB	97
94)	4-Chlorotoluene	11.00	91	4187832	63.25	PPB	95
95)	tert-Butylbenzene	11.27	119	3608037	68.56	PPB	98
96)	1,2,4-Trimethylbenzene	11.34	105	4281724	68.57	PPB	99
97)	sec-Butylbenzene	11.50	105	5102920	69.78	PPB	100
98)	p-Isopropyltoluene	11.66	119	4306729	71.56	PPB	99
99)	1,3-Dichlorobenzene	11.64	146	2474481	60.56	PPB	99
100)	1,4-Dichlorobenzene	11.74	146	2519767	58.34	PPB	98
101)	n-Butylbenzene	12.07	91	3698767	70.96	PPB	98
102)	1,2-Dichlorobenzene	12.12	146	2352878	61.20	PPB	99
103)	1,2-Dibromo-3-chloropropan	12.73	155	127416	58.88	PPB	89
104)	1,3,5-Trichlorobenzene	12.83	180	1634304	62.29	PPB	99
105)	1,2,4-Trichlorobenzene	13.30	180	1430280	64.61	PPB	99
106)	Hexachlorobutadiene	13.39	225	542758	65.17	PPB	100
107)	Naphthalene	13.50	128	3133350	77.77	PPB	99
108)	1,2,3-Trichlorobenzene	13.70	180	1175823	65.44	PPB	99

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS18\DATA\092815\0928F018.D Vial: 16
Acq On : 28 Sep 2015 6:10 pm Operator: YX
Sample : 8260 ICAL 60 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 29 9:38 2015 Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 09:38:08 2015
Response via : Multiple Level Calibration



TIC: 0928F018.D

(34) 2-Butanone (T)

4.36min 2.17PPB

response 2442

Ion	Exp%	Act%
72.00	100	100
43.00	362.30	335.21
57.00	29.60	13.19
0.00	0.00	0.00

Manual Integration:

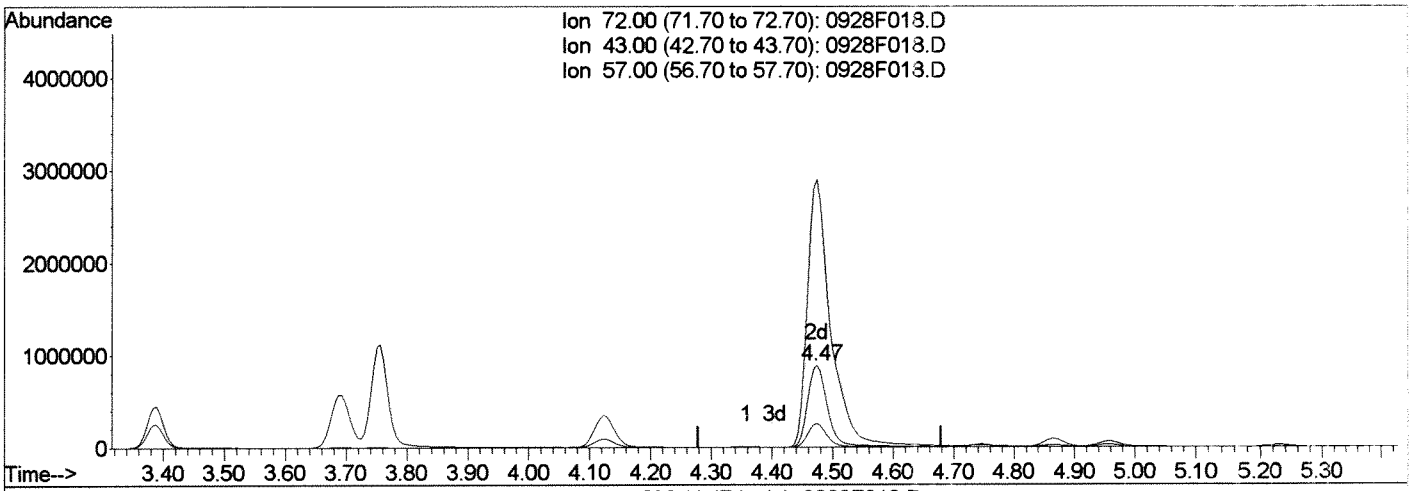
Before

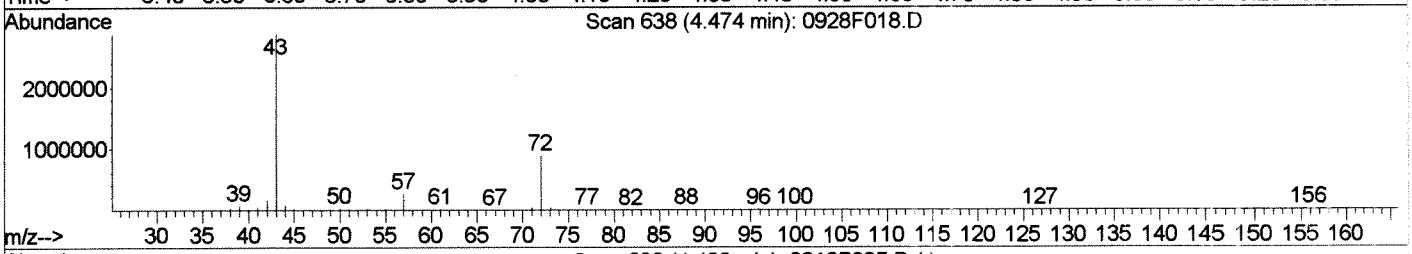
09/29/15

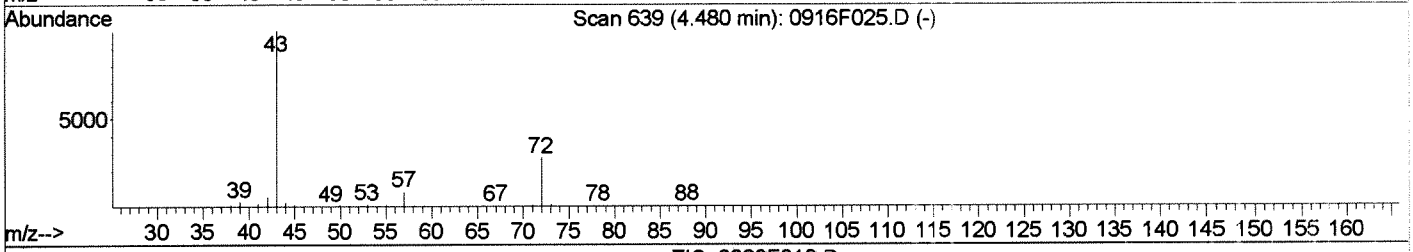
0928F018.D 092815MS18_8260.M Tue Sep 29 09:38:37 2015

Data File : J:\MS18\DATA\092815\0928F018.D Vial: 16
Acq On : 28 Sep 2015 6:10 pm Operator: YX
Sample : 8260 ICAL 60 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 29 9:38 2015 Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 09:38:08 2015
Response via : Multiple Level Calibration







TIC: 0928F018.D

(34) 2-Butanone (T)

4.47min 1782.94PPB m

response 2007275

Ion	Exp%	Act%
72.00	100	100
43.00	362.30	327.26#
57.00	29.60	28.85
0.00	0.00	0.00

Manual Integration:

After

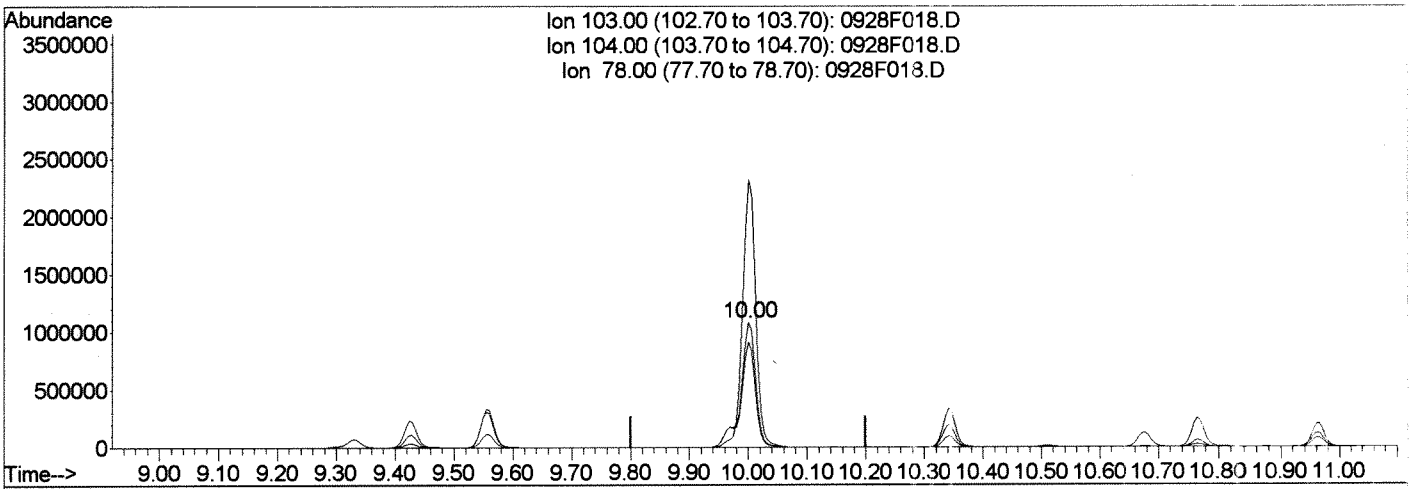
WRT

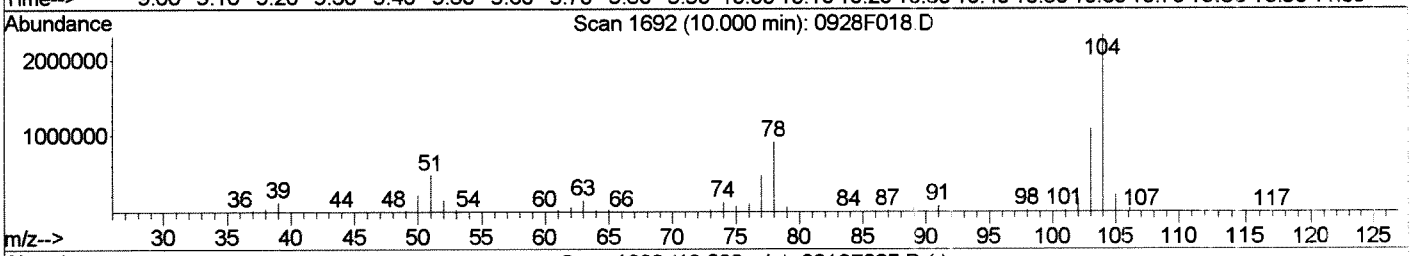
09/29/15

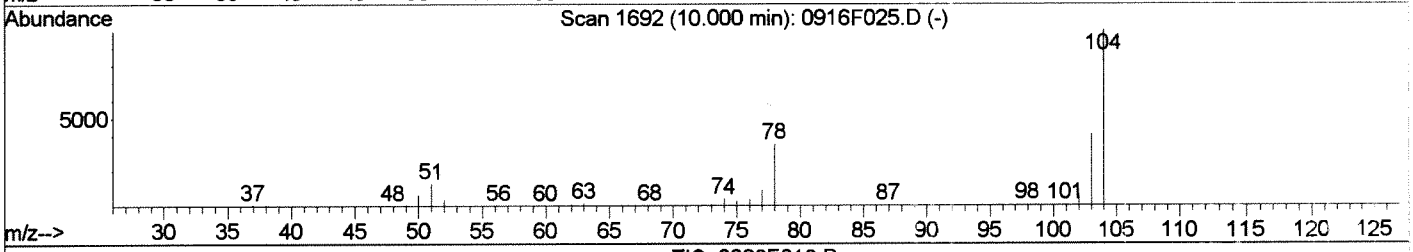
0928F018.D 092815MS18_8260.M Tue Sep 29 09:38:42 2015

Data File : J:\MS18\DATA\092815\0928F018.D Vial: 16
Acq On : 28 Sep 2015 6:10 pm Operator: YX
Sample : 8260 ICAL 60 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 29 9:38 2015 Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 09:38:08 2015
Response via : Single Level Calibration







TIC: 0928F018.D

(81) Styrene (T)

10.00min 76.75PPB

response 1911454

Ion	Exp%	Act%
103.00	100	100
104.00	216.80	214.28
78.00	88.00	84.52
0.00	0.00	0.00

Manual Integration:

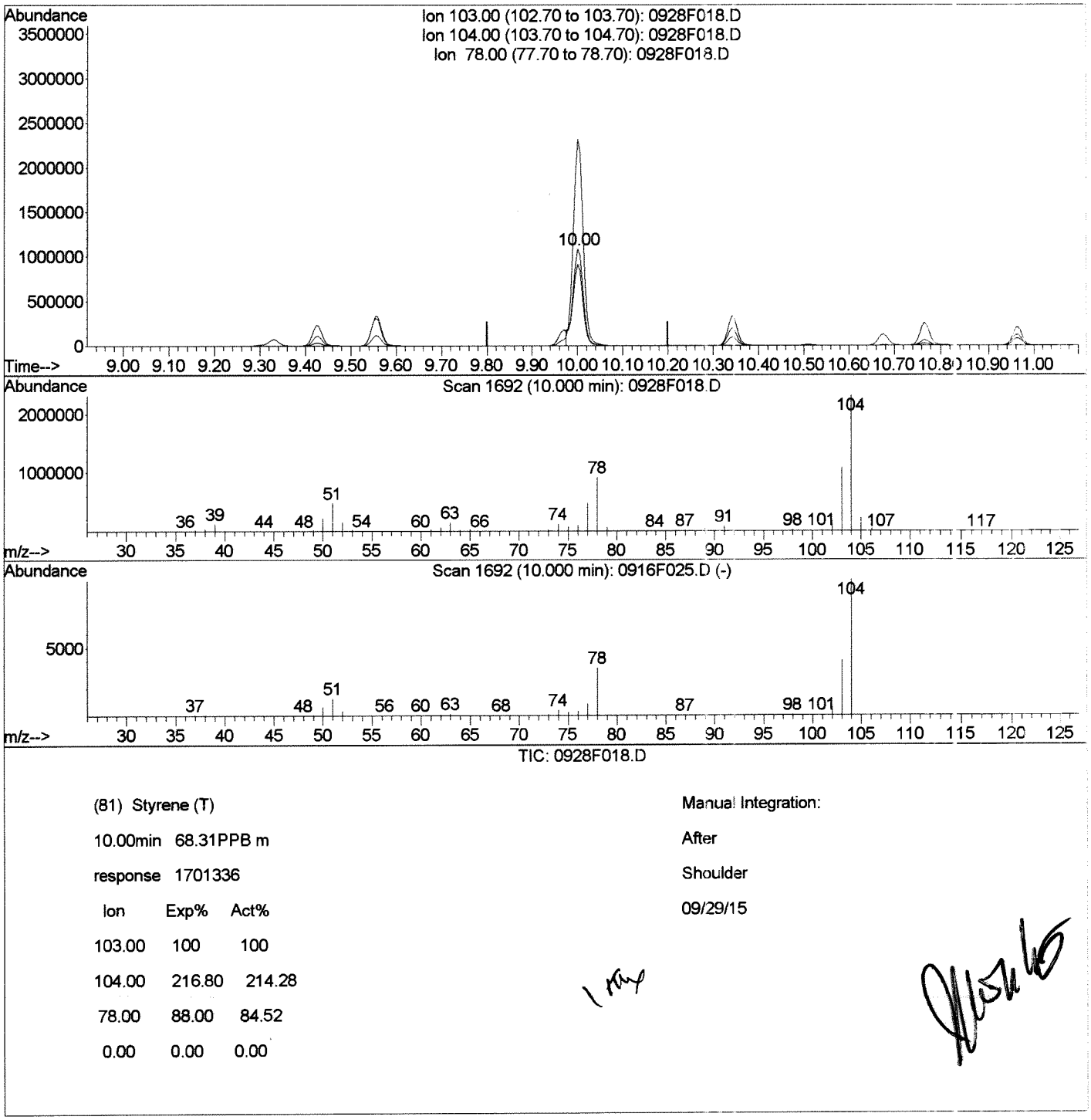
Before

09/29/15

0928F018.D 092815MS18_8260.M Tue Sep 29 09:39:02 2015

Data File : J:\MS18\DATA\092815\0928F018.D Vial: 16
Acq On : 28 Sep 2015 6:10 pm Operator: YX
Sample : 8260 ICAL 60 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 29 9:39 2015 Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 09:38:08 2015
Response via : Single Level Calibration



TIC: 0928F018.D

(81) Styrene (T)

10.00min 68.31PPB m

response 1701336

Ion	Exp%	Act%
103.00	100	100
104.00	216.80	214.28
78.00	88.00	84.52
0.00	0.00	0.00

Manual Integration:

After

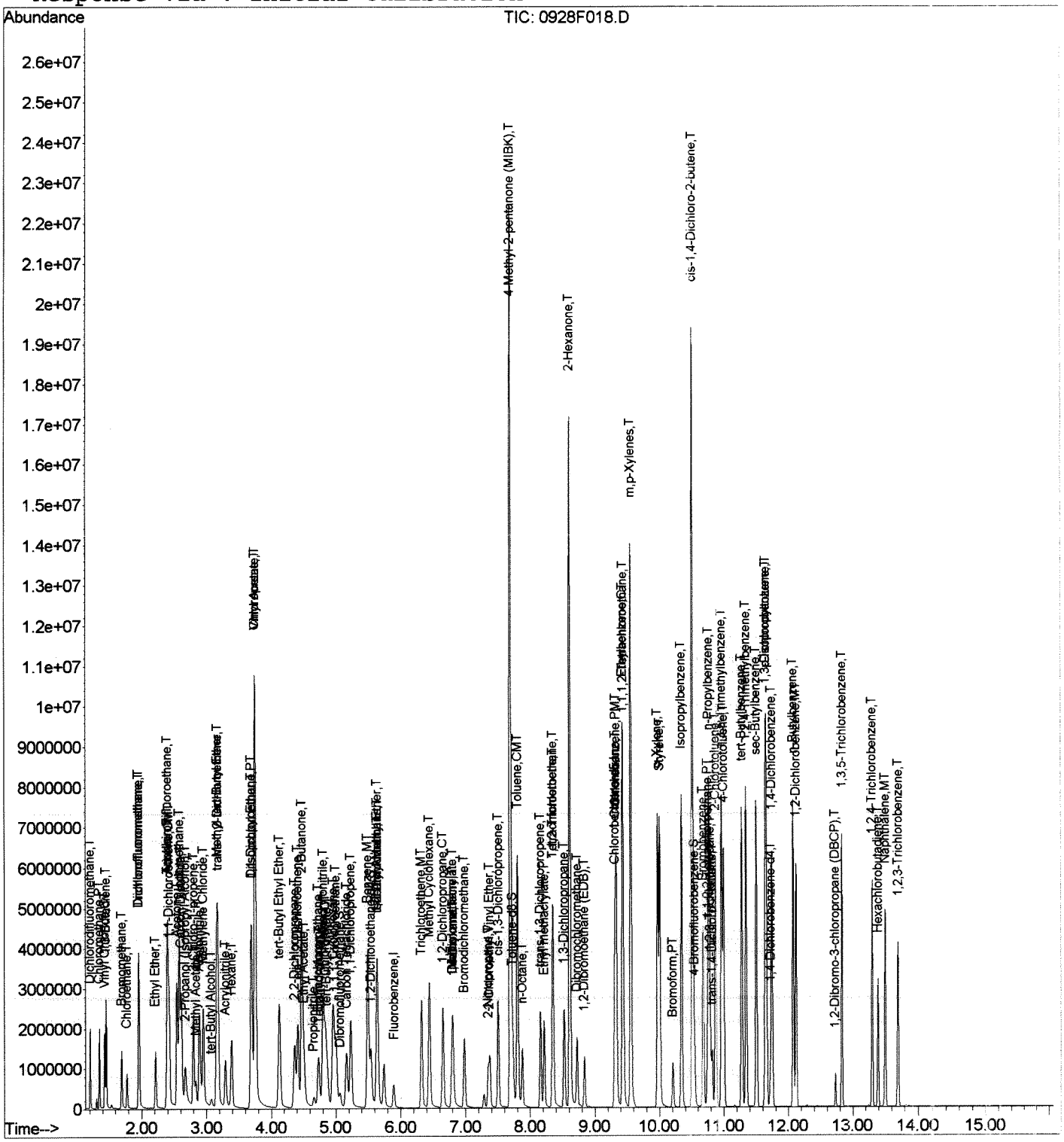
Shoulder

09/29/15

0928F018.D 092815MS18_8260.M Tue Sep 29 09:39:10 2015

Data File : J:\MS18\DATA\092815\0928F018.D Vial: 16
Acq On : 28 Sep 2015 6:10 pm Operator: YX
Sample : 8260 ICAL 60 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 29 9:39 2015 Quant Results File: 092815MS18_8

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 16:05:05 2015
Response via : Initial Calibration



Data File : J:\MS18\DATA\092815\0928F019.D Vial: 17
Acq On : 28 Sep 2015 6:33 pm Operator: YX
Sample : 8260 ICAL 80 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 29 09:39:31 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 09:39:26 2015
Response via : Initial Calibration
DataAcq Meth : 8260

TTM 9/29/15

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.89	96	616271	10.00	PPB	0.00
65) Chlorobenzene-d5	9.30	82	256297	10.00	PPB	0.00
86) 1,4-Dichlorobenzene-d4	11.72	152	250144	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.06	113	293690	21.25	PPB	0.00
Spiked Amount 10.000			Recovery =	212.50%		
48) 1,2-Dichloroethane-d4	5.54	65	306351	20.12	PPB	0.00
Spiked Amount 10.000			Recovery =	201.20%		
63) Toluene-d8	7.73	98	1305901	21.12	PPB	0.00
Spiked Amount 10.000			Recovery =	211.20%		
85) 4-Bromofluorobenzene	10.55	95	507030	20.59	PPB	0.00
Spiked Amount 10.000			Recovery =	205.90%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.21	85	1356566	86.79	PPB	99
3) Chloromethane	1.35	50	1522105	71.64	PPB	99
4) Vinyl Chloride	1.43	62	1570018	82.54	PPB	99
5) 1,3-Butadiene	1.45	54	935058	83.33	PPB	100
6) Bromomethane	1.69	96	864940	73.88	PPB	99
7) Chloroethane	1.77	64	706871	69.24	PPB	99
8) Dichlorofluoromethane	1.95	67	2007945	75.77	PPB	100
9) Trichlorofluoromethane	1.95	101	1761452	86.74	PPB	96
10) Ethyl Ether	2.21	59	855979	76.67	PPB	99
11) Acrolein	2.40	56	3295128	1696.67	PPB	98
12) Trichlorotrifluoroethane	2.39	151	893299	88.88	PPB	96
13) 1,1-Dichloroethene	2.42	96	1201259	86.83	PPB	97
14) Acetone	2.54	43	4672160	1940.83	PPB	97
15) Iodomethane	2.58	142	5875409	372.93	PPB	99
16) Carbon Disulfide	2.61	76	4086184	86.80	PPB	99
17) 2-Propanol (Isopropyl Alco	2.67	45	1941381	4543.99	PPB	99
18) 3-Chloro-1-propene	2.80	76	755227	90.57	PPB	87
19) Methyl Acetate	2.83	43	857787	78.40	PPB	97
20) Acetonitrile	2.89	40	2002924	3126.41	PPB	98
21) Methylene Chloride	2.95	84	1386744	71.87	PPB	96
22) tert-Butyl Alcohol	3.07	59	243674	426.24	PPB	98
23) Acrylonitrile	3.29	53	1270304	322.46	PPB	99
24) Methyl tert-Butyl Ether	3.16	73	6068667	170.53	PPB	100
25) trans-1,2-Dichloroethene	3.18	96	1379846	83.62	PPB	94
26) Hexane	3.39	57	1210118	86.36	PPB	98
27) Diisopropyl Ether	3.69	45	3928507	82.16	PPB	97
28) 1,1-Dichloroethane	3.69	63	2212951	79.65	PPB	97

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS18\DATA\092815\0928F019.D Vial: 17
Acq On : 28 Sep 2015 6:33 pm Operator: YX
Sample : 8260 ICAL 80 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 29 09:39:31 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 09:39:26 2015
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29)	Vinyl Acetate	3.76	86	379872	146.70	PPB	#	77
30)	Chloroprene	3.75	53	8300010	345.86	PPB		94
31)	tert-Butyl Ethyl Ether	4.12	59	3528541	88.34	PPB		98
32)	2,2-Dichloropropane	4.36	77	1585782	98.94	PPB		99
33)	cis-1,2-Dichloroethene	4.41	96	1554243	82.33	PPB		95
34)	2-Butanone	4.47	72	2539693	2196.94	PPB	#	82
35)	Propionitrile	4.66	54	482004	341.64	PPB		98
36)	Ethyl Acetate	4.51	61	295581	181.17	PPB		98
37)	Methacrylonitrile	4.80	67	1655761	334.42	PPB		92
38)	Bromochloromethane	4.73	128	522216	65.33	PPB		94
39)	Tetrahydrofuran	4.74	71	91113	83.07	PPB		93
40)	Chloroform	4.84	83	2181932	79.15	PPB		98
42)	1,1,1-Trichloroethane	5.00	97	1845319	94.28	PPB		98
44)	Carbon Tetrachloride	5.17	117	1503760	98.70	PPB		99
45)	1,1-Dichloropropene	5.23	75	1845530	88.50	PPB		98
46)	Cyclohexane	4.96	56	2187256	90.65	PPB		97
47)	Isobutyl Alcohol	5.63	43	950699	3461.75	PPB		96
49)	Benzene	5.49	78	5899118	78.92	PPB		98
50)	1,2-Dichloroethane	5.64	62	1494832	78.22	PPB		99
51)	tert-Amyl Methyl Ether	5.64	55	922964	69.70	PPB		91
52)	Trichloroethene	6.32	95	1357754	84.87	PPB		96
53)	1,2-Dichloropropane	6.65	63	1439141	83.34	PPB		97
54)	Dibromomethane	6.79	93	715960	83.01	PPB		94
55)	Methyl methacrylate	6.81	69	777850	95.58	PPB		94
56)	1,4-Dioxane	6.81	88	410438	3651.76	PPB		98
57)	Bromodichloromethane	6.98	83	1624101	95.59	PPB		99
59)	Methyl Cyclohexane	6.44	83	2146153	95.00	PPB		97
60)	2-Chloroethyl Vinyl Ether	7.37	63	697598	94.88	PPB		99
61)	cis-1,3-Dichloropropene	7.50	75	2266230	98.92	PPB		95
62)	4-Methyl-2-pentanone (MIBK	7.69	58	8174790	2177.63	PPB	#	76
64)	Toluene	7.80	92	3827827	83.28	PPB		100
66)	n-Octane	7.88	85	437434	83.27	PPB		95
67)	trans-1,3-Dichloropropene	8.15	75	1825734	103.21	PPB		96
68)	Ethyl methacrylate	8.21	69	1524893	98.79	PPB		94
69)	1,1,2-Trichloroethane	8.34	83	969942	79.57	PPB		98
70)	Tetrachloroethene	8.35	164	1096843	83.56	PPB		98
71)	2-Hexanone	8.61	57	2724538	2300.82	PPB	#	82
72)	1,3-Dichloropropane	8.52	76	2053495	79.18	PPB		98
73)	Dibromochloromethane	8.72	129	1249684	78.66	PPB		99
74)	1,2-Dibromoethane (EDB)	8.84	107	1124142	85.47	PPB		96
75)	1-Chlorohexane	9.31	91	1923084	91.30	PPB		95

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS18\DATA\092815\0928F019.D Vial: 17
Acq On : 28 Sep 2015 6:33 pm Operator: YX
Sample : 8260 ICAL 80 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 29 09:39:31 2015 Quant Results File: 092815MS18_8260

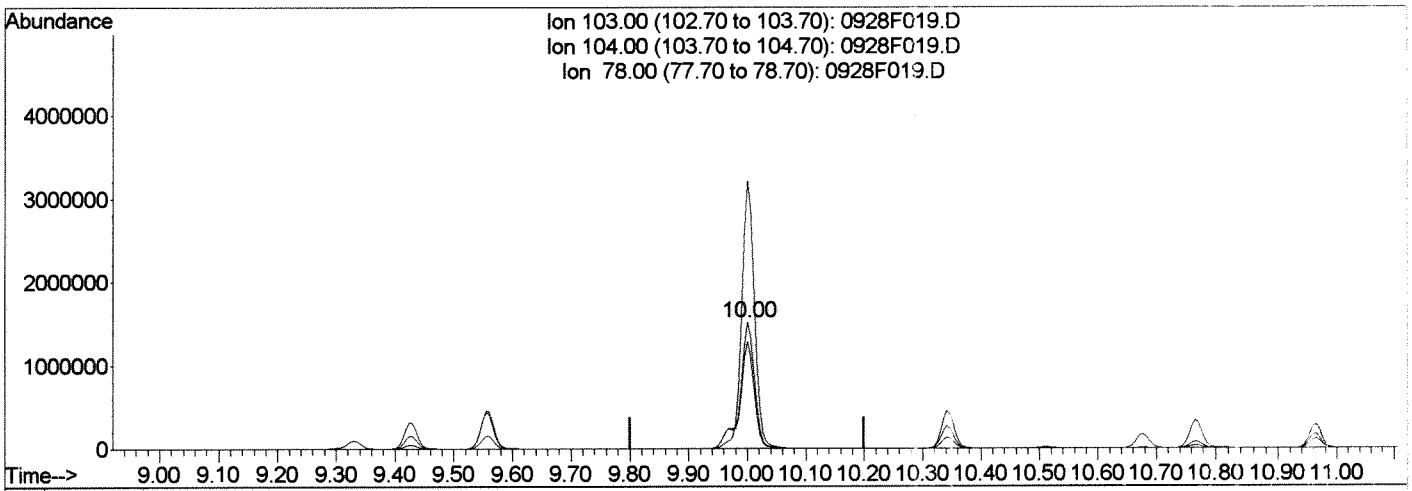
Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 09:39:26 2015
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
76)	Chlorobenzene	9.33	112	4230635	77.70	PPB	99
77)	Ethylbenzene	9.43	106	2295287	86.63	PPB	99
78)	1,1,1,2-Tetrachloroethane	9.44	131	1360255	94.33	PPB	98
79)	m,p-Xylenes	9.55	106	5646401	172.40	PPB	97
80)	o-Xylene	9.97	106	2786207	88.14	PPB	100
81)	Styrene	10.00	103	2318103m	89.22	PPB	
82)	Bromoform	10.20	173	699546	79.01	PPB	98
83)	Isopropylbenzene	10.34	105	6892532	90.98	PPB	99
87)	1,1,2,2-Tetrachloroethane	10.74	83	1343657	82.53	PPB	100
88)	trans-1,4-Dichloro-2-buten	10.82	53	341680	87.14	PPB	90
89)	Bromobenzene	10.68	156	1783759	81.48	PPB	98
90)	n-Propylbenzene	10.77	91	7997786	88.06	PPB	99
91)	1,2,3-Trichloropropane	10.79	110	390208	78.26	PPB	97
92)	2-Chlorotoluene	10.87	91	4846467	83.05	PPB	100
93)	1,3,5-Trimethylbenzene	10.97	105	5735378	91.16	PPB	97
94)	4-Chlorotoluene	11.00	91	5653926	83.36	PPB	95
95)	tert-Butylbenzene	11.27	119	4946597	91.71	PPB	99
96)	1,2,4-Trimethylbenzene	11.34	105	5798012	90.58	PPB	99
97)	sec-Butylbenzene	11.50	105	6961862	92.79	PPB	100
98)	p-Isopropyltoluene	11.66	119	5914313	95.88	PPB	99
99)	1,3-Dichlorobenzene	11.64	146	3349345	80.00	PPB	99
100)	1,4-Dichlorobenzene	11.74	146	3399066	76.80	PPB	99
101)	n-Butylbenzene	12.07	91	5071090	94.86	PPB	98
102)	1,2-Dichlorobenzene	12.12	146	3172240	80.37	PPB	98
104)	1,3,5-Trichlorobenzene	12.83	180	2213269	82.08	PPB	99
105)	1,2,4-Trichlorobenzene	13.30	180	1934346	84.81	PPB	100
106)	Hexachlorobutadiene	13.39	225	743258	86.73	PPB	99
107)	Naphthalene	13.50	128	4197618	100.59	PPB	99
108)	1,2,3-Trichlorobenzene	13.70	180	1586466	85.27	PPB	99

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS18\DATA\092815\0928F019.D Vial: 17
Acq On : 28 Sep 2015 6:33 pm Operator: YX
Sample : 8260 ICAL 80 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 29 9:39 2015 Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 09:39:26 2015
Response via : Single Level Calibration



TIC: 0928F019.D

(81) Styrene (T)

10.00min 100.06PPB

response 2599915

Ion	Exp%	Act%
103.00	100	100
104.00	216.80	212.09
78.00	88.00	84.54
0.00	0.00	0.00

Manual Integration:

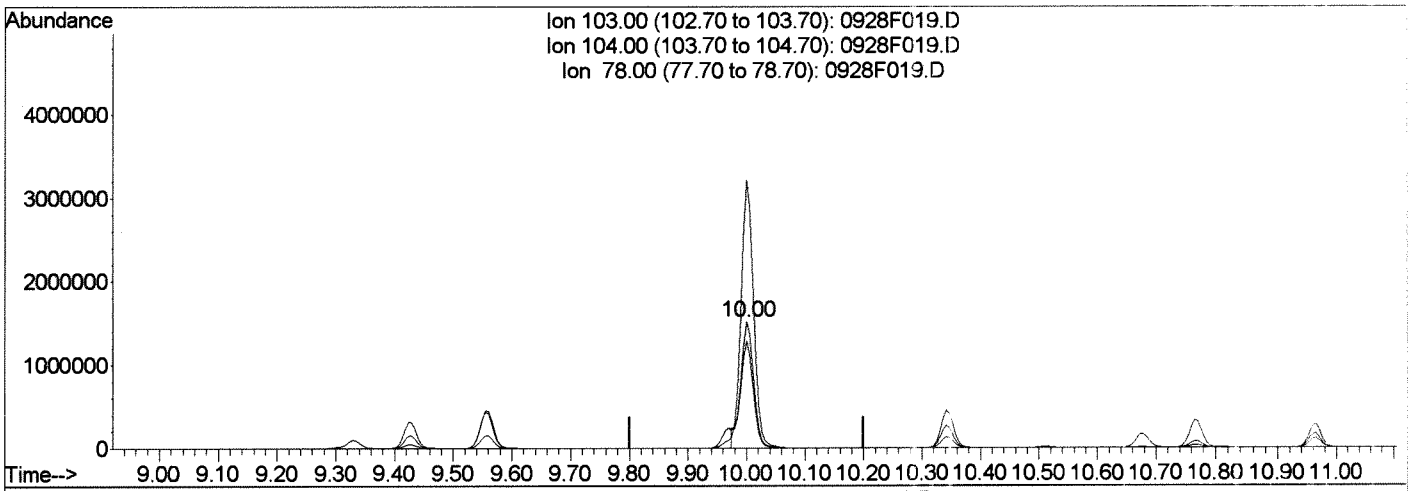
Before

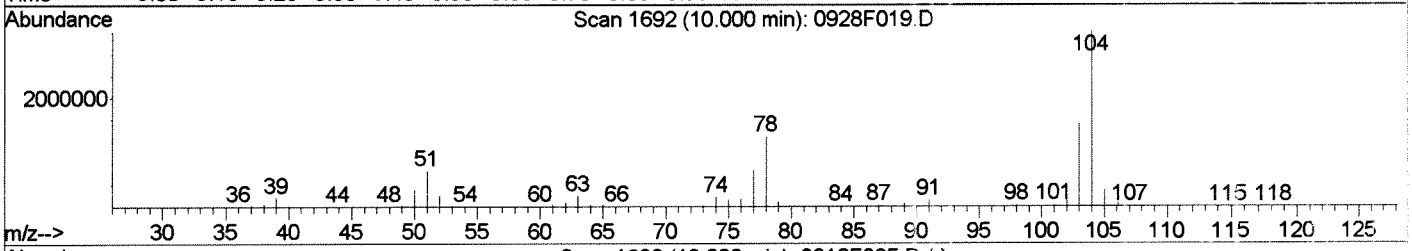
09/29/15

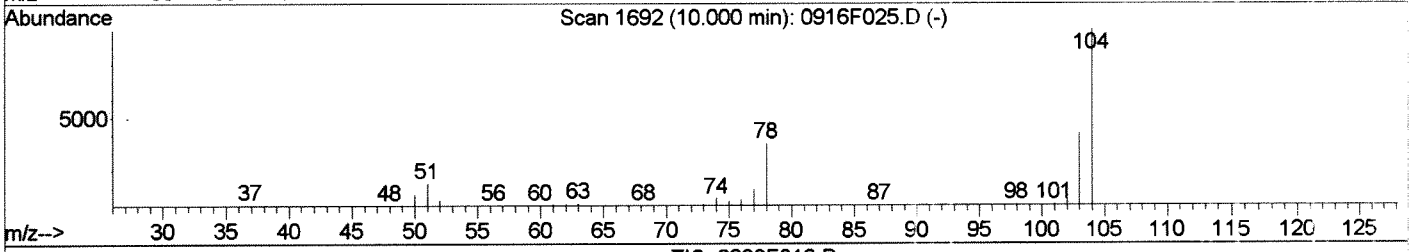
0928F019.D 092815MS18_8260.M Tue Sep 29 09:40:05 2015

Data File : J:\MS18\DATA\092815\0928F019.D Vial: 17
Acq On : 28 Sep 2015 6:33 pm Operator: YX
Sample : 8260 ICAL 80 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 29 9:40 2015 Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 09:39:26 2015
Response via : Single Level Calibration







TIC: 0928F019.D

(81) Styrene (T)

10.00min 89.22PPB m

response 2318103

Ion	Exp%	Act%
103.00	100	100
104.00	216.80	212.09
78.00	88.00	84.54
0.00	0.00	0.00

Manual Integration:

After

Shoulder

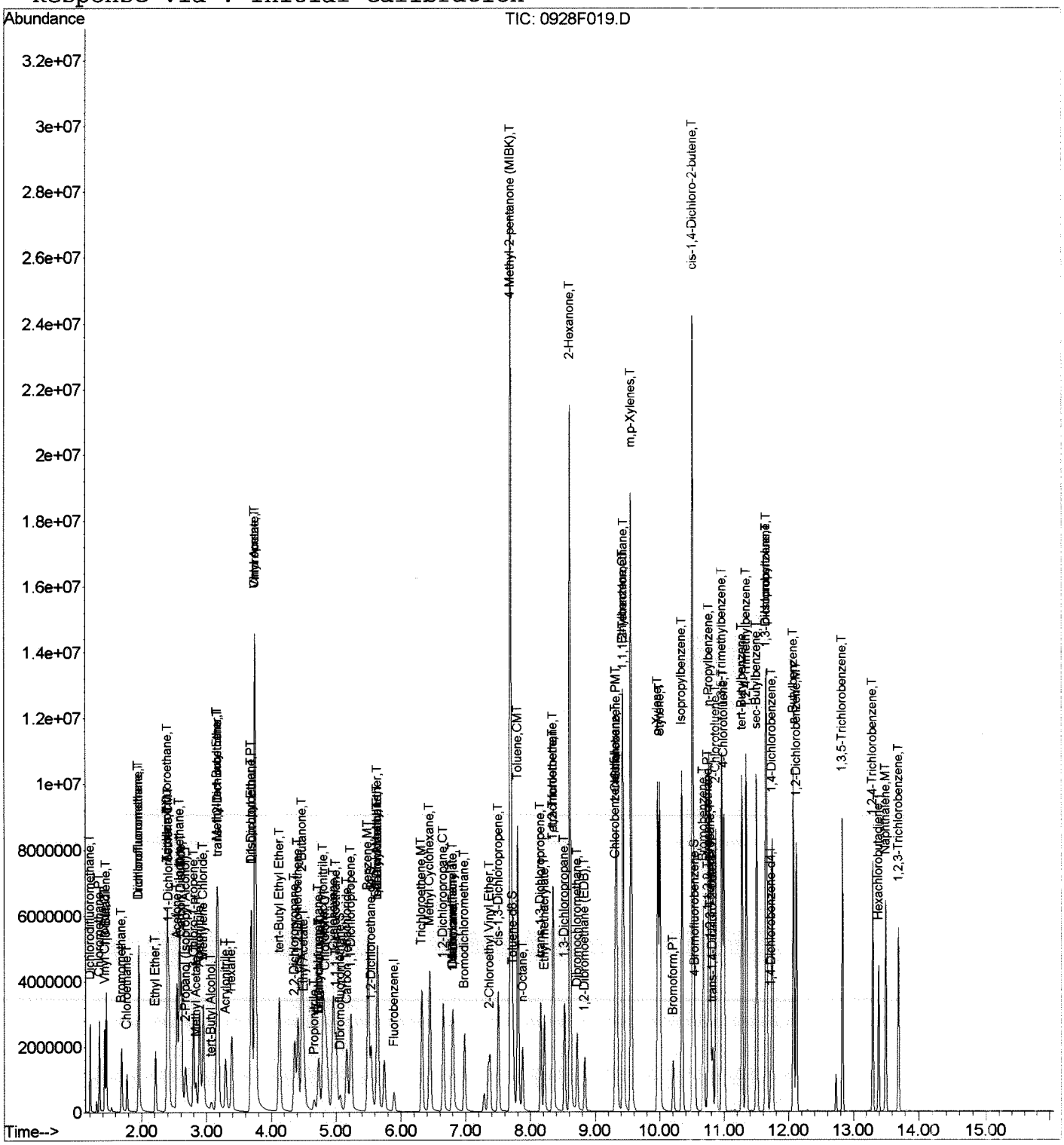
09/29/15

0928F019.D 092815MS18_8260.M Tue Sep 29 09:40:12 2015

Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\092815\0928F019.D Vial: 17
Acq On : 28 Sep 2015 6:33 pm Operator: YX
Sample : 8260 ICAL 80 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 29 18:04 2015 Quant Results File: 092815MS18_8

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 18:03:15 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : J:\MS18\DATA\092815\0928F020.D Vial: 18
Acq On : 28 Sep 2015 6:56 pm Operator: YX
Sample : IB Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 30 09:58:07 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration
DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	5.89	96	601620	10.00	PPB		0.00
65) Chlorobenzene-d5	9.30	82	240621	10.00	PPB		0.00
86) 1,4-Dichlorobenzene-d4	11.72	152	234496	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	0.00	113	0	0.00	PPB		
Spiked Amount 10.000			Recovery =	0.00%			
48) 1,2-Dichloroethane-d4	0.00	65	0	0.00	PPB		
Spiked Amount 10.000			Recovery =	0.00%			
63) Toluene-d8	7.73	98	2514	0.04	PPB		0.00
Spiked Amount 10.000			Recovery =	0.40%			
85) 4-Bromofluorobenzene	10.54	95	2759	0.12	PPB		0.00
Spiked Amount 10.000			Recovery =	1.20%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.21	85	2238	0.15	PPB		93
3) Chloromethane	1.35	50	4774	0.24	PPB		94
4) Vinyl Chloride	1.43	62	959	0.05	PPB		61
5) 1,3-Butadiene	1.45	54	1279	0.12	PPB	#	69
6) Bromomethane	1.70	96	2821	0.25	PPB		89
7) Chloroethane	1.77	64	862	0.09	PPB		92
8) Dichlorofluoromethane	1.95	67	1399	0.05	PPB		82
9) Trichlorofluoromethane	1.96	101	2015	0.10	PPB		72
10) Ethyl Ether	2.22	59	511	0.05	PPB	#	64
11) Acrolein	2.40	56	7698	3.87	PPB		92
12) Trichlorotrifluoroethane	2.40	151	2217	0.23	PPB	#	68
13) 1,1-Dichloroethene	2.42	96	1284	0.09	PPB		83
14) Acetone	2.54	43	20293	8.63	PPB		100
15) Iodomethane	2.58	142	16864	0.93	PPB		98
16) Carbon Disulfide	2.61	76	5685	0.12	PPB		90
17) 2-Propanol (Isopropyl Alco	2.68	45	13569	32.61	PPB		90
18) 3-Chloro-1-propene	2.61	76	5685	0.70	PPB	#	1
19) Methyl Acetate	2.84	43	2587	0.22	PPB		89
20) Acetonitrile	2.90	40	13814	22.13	PPB		89
21) Methylene Chloride	2.95	84	2880	0.15	PPB		90
22) tert-Butyl Alcohol	3.08	59	1559	2.87	PPB		75
23) Acrylonitrile	3.29	53	3834	0.99	PPB		94
24) Methyl tert-Butyl Ether	3.17	73	3449	0.10	PPB		95
25) trans-1,2-Dichloroethene	3.17	96	2187	0.14	PPB		84
26) Hexane	3.38	57	9899	0.74	PPB		95
27) Diisopropyl Ether	3.69	45	1850	0.04	PPB		84
28) 1,1-Dichloroethane	3.69	63	986	0.04	PPB	#	50

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS18\DATA\092815\0928F020.D Vial: 18
Acq On : 28 Sep 2015 6:56 pm Operator: YX
Sample : IB Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 30 09:58:07 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
30)	Chloroprene	3.75	53	6405	0.27	PPB		95
31)	tert-Butyl Ethyl Ether	4.12	59	1608	0.04	PPB		85
33)	cis-1,2-Dichloroethene	4.41	96	1663	0.09	PPB		86
34)	2-Butanone	4.48	72	7626	6.72	PPB	#	69
35)	Propionitrile	4.67	54	1985	1.43	PPB		52
36)	Ethyl Acetate	4.41	61	1844	1.14	PPB	#	36
37)	Methacrylonitrile	4.80	67	2834	0.58	PPB	#	76
38)	Bromochloromethane	4.74	128	584	0.07	PPB	#	45
40)	Chloroform	4.83	83	2498	0.09	PPB		98
42)	1,1,1-Trichloroethane	5.00	97	623	0.03	PPB	#	58
44)	Carbon Tetrachloride	5.17	117	740	0.05	PPB		71
45)	1,1-Dichloropropene	5.23	75	3093	0.15	PPB		91
46)	Cyclohexane	4.96	56	3127	0.13	PPB		86
47)	Isobutyl Alcohol	5.64	43	2307	8.75	PPB		58
49)	Benzene	5.50	78	4816	0.07	PPB		91
50)	1,2-Dichloroethane	5.64	62	1499	0.08	PPB		72
51)	tert-Amyl Methyl Ether	5.63	55	1024	0.08	PPB	#	47
52)	Trichloroethene	6.32	95	2414	0.15	PPB		87
53)	1,2-Dichloropropane	6.64	63	834	0.05	PPB		73
55)	Methyl methacrylate	6.80	69	1138	0.13	PPB		81
56)	1,4-Dioxane	6.83	88	3171	28.53	PPB		83
57)	Bromodichloromethane	6.97	83	1209	0.07	PPB		69
58)	2-Nitropropane	7.35	41	1496	1.20	PPB	#	55
59)	Methyl Cyclohexane	6.44	83	6646	0.30	PPB		93
60)	2-Chloroethyl Vinyl Ether	7.37	63	825	0.10	PPB		96
61)	cis-1,3-Dichloropropene	7.50	75	1804	0.07	PPB		80
62)	4-Methyl-2-pentanone (MIBK	7.69	58	14504	3.85	PPB		98
64)	Toluene	7.80	92	4863	0.11	PPB		86
66)	n-Octane	7.87	85	9899	2.02	PPB		93
67)	trans-1,3-Dichloropropene	8.16	75	2162	0.11	PPB		90
68)	Ethyl methacrylate	8.22	69	1835	0.10	PPB		90
69)	1,1,2-Trichloroethane	8.35	83	1247	0.11	PPB		81
70)	Tetrachloroethene	8.35	164	4603	0.37	PPB		97
71)	2-Hexanone	8.61	57	6780	5.68	PPB	#	90
72)	1,3-Dichloropropane	8.52	76	2165	0.09	PPB		81
73)	Dibromochloromethane	8.71	129	855	0.06	PPB		85
74)	1,2-Dibromoethane (EDB)	8.84	107	1898	0.15	PPB		70
75)	1-Chlorohexane	9.31	91	7298	0.36	PPB		94
76)	Chlorobenzene	9.33	112	10270	0.20	PPB		90
77)	Ethylbenzene	9.42	106	4145	0.17	PPB		88
78)	1,1,1,2-Tetrachloroethane	9.43	131	894	0.06	PPB		86

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS18\DATA\092815\0928F020.D Vial: 18
Acq On : 28 Sep 2015 6:56 pm Operator: YX
Sample : IB Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 30 09:58:07 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration
DataAcq Meth : 8260

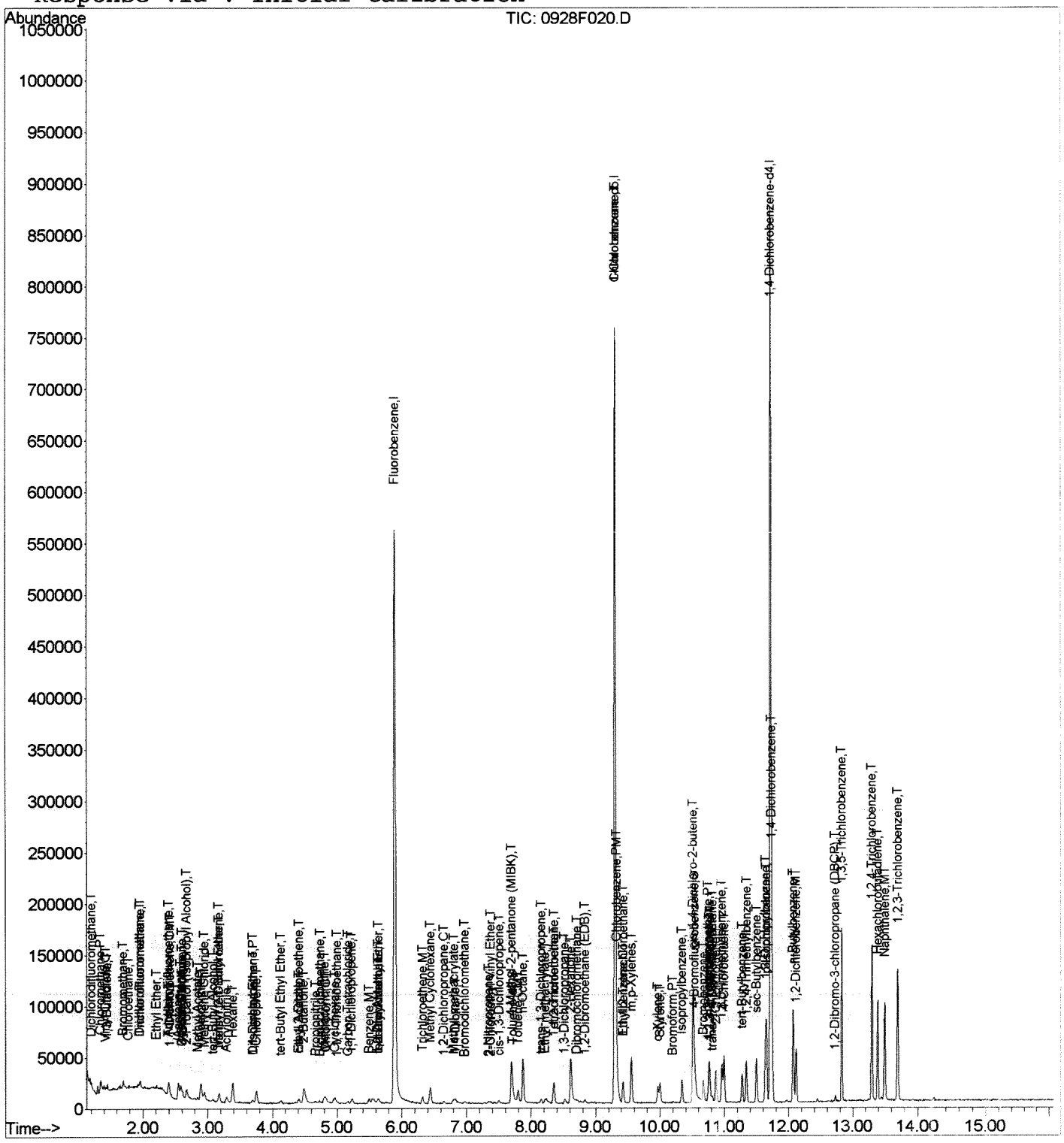
	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
79)	m,p-Xylenes	9.55	106	13609	0.44	PPB		92
80)	o-Xylene	9.97	106	4701	0.16	PPB	#	75
81)	Styrene	10.00	103	5194	0.21	PPB		96
82)	Bromoform	10.21	173	685	0.12	PPB		77
83)	Isopropylbenzene	10.34	105	14943	0.21	PPB		94
84)	cis-1,4-Dichloro-2-butene	10.50	89	944	0.60	PPB	#	63
87)	1,1,2,2-Tetrachloroethane	10.75	83	3142	0.21	PPB		94
88)	trans-1,4-Dichloro-2-buten	10.81	53	1282	0.35	PPB		81
89)	Bromobenzene	10.68	156	5554	0.27	PPB		90
90)	n-Propylbenzene	10.77	91	29061	0.34	PPB		98
91)	1,2,3-Trichloropropane	10.79	110	902	0.19	PPB	#	63
92)	2-Chlorotoluene	10.87	91	18341	0.34	PPB		95
93)	1,3,5-Trimethylbenzene	10.96	105	19277	0.32	PPB		97
94)	4-Chlorotoluene	10.99	91	27649	0.44	PPB		96
95)	tert-Butylbenzene	11.27	119	13111	0.25	PPB		97
96)	1,2,4-Trimethylbenzene	11.34	105	22445	0.33	PPB		97
97)	sec-Butylbenzene	11.50	105	29680	0.37	PPB		99
98)	p-Isopropyltoluene	11.65	119	30735	0.45	PPB		97
99)	1,3-Dichlorobenzene	11.64	146	24005	0.61	PPB		95
100)	1,4-Dichlorobenzene	11.74	146	27445	0.66	PPB		96
101)	n-Butylbenzene	12.07	91	46742	0.79	PPB		99
102)	1,2-Dichlorobenzene	12.11	146	19666	0.53	PPB		97
103)	1,2-Dibromo-3-chloropropan	12.73	155	797	0.57	PPB		93
104)	1,3,5-Trichlorobenzene	12.83	180	37548	1.52	PPB		98
105)	1,2,4-Trichlorobenzene	13.30	180	40775	1.90	PPB		98
106)	Hexachlorobutadiene	13.39	225	17426	2.16	PPB		94
107)	Naphthalene	13.50	128	64268	1.31	PPB		96
108)	1,2,3-Trichlorobenzene	13.70	180	37798	2.15	PPB		96

(#) = qualifier out of range (m) = manual integration

Quantitation Report (Not Reviewed)

Data File : J:\MS18\DATA\092815\0928F020.D Vial: 18
Acq On : 28 Sep 2015 6:56 pm Operator: YX
Sample : IB Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 30 9:58 2015 Quant Results File: 092815MS18_8

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed) 10/03/2015

Data File : J:\MS18\DATA\092815\0928F021.D Vial: 18
Acq On : 28 Sep 2015 7:17 pm Operator: YX
Sample : IB Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 30 09:58:09 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration
DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	5.89	96	591975	10.00	PPB		0.00
65) Chlorobenzene-d5	9.30	82	231797	10.00	PPB		0.00
86) 1,4-Dichlorobenzene-d4	11.71	152	224636	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	0.00	113	0	0.00	PPB		
Spiked Amount 10.000			Recovery =	0.00%			
48) 1,2-Dichloroethane-d4	0.00	65	0	0.00	PPB		
Spiked Amount 10.000			Recovery =	0.00%			
63) Toluene-d8	7.73	98	1008	0.02	PPB		0.00
Spiked Amount 10.000			Recovery =	0.20%			
85) 4-Bromofluorobenzene	10.54	95	1125	0.05	PPB		0.00
Spiked Amount 10.000			Recovery =	0.50%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.21	85	893	0.06	PPB		82
3) Chloromethane	1.35	50	2461	0.13	PPB		98
5) 1,3-Butadiene	1.45	54	612	0.06	PPB	#	77
6) Bromomethane	1.70	96	1526	0.14	PPB	#	84
8) Dichlorofluoromethane	1.96	67	531	0.02	PPB		82
9) Trichlorofluoromethane	1.96	101	692	0.04	PPB		71
11) Acrolein	2.41	56	1619	0.83	PPB		83
12) Trichlorotrifluoroethane	2.39	151	804	0.08	PPB	#	72
14) Acetone	2.56	43	5541	2.39	PPB		94
15) Iodomethane	2.59	142	9742	0.55	PPB		93
16) Carbon Disulfide	2.61	76	2455	0.05	PPB		97
17) 2-Propanol (Isopropyl Alco	2.68	45	2498	6.10	PPB		87
18) 3-Chloro-1-propene	2.61	76	2455	0.31	PPB	#	1
19) Methyl Acetate	2.84	43	1414	0.12	PPB		59
20) Acetonitrile	2.90	40	2485	4.05	PPB	#	57
21) Methylene Chloride	2.95	84	2239	0.12	PPB		82
23) Acrylonitrile	3.29	53	1052	0.28	PPB		68
24) Methyl tert-Butyl Ether	3.17	73	996	0.03	PPB		60
25) trans-1,2-Dichloroethene	3.17	96	791	0.05	PPB	#	68
26) Hexane	3.38	57	3684	0.28	PPB		84
27) Diisopropyl Ether	3.69	45	601	0.01	PPB	#	50
30) Chloroprene	3.76	53	2184	0.09	PPB		86
34) 2-Butanone	4.50	72	1329	1.19	PPB	#	51
36) Ethyl Acetate	4.42	61	746	0.47	PPB	#	20
37) Methacrylonitrile	4.80	67	866	0.18	PPB	#	61
40) Chloroform	4.84	83	1414	0.05	PPB		83
45) 1,1-Dichloropropene	5.24	75	1232	0.06	PPB	#	69

(#) = qualifier out of range (m) = manual integration
0928F021.D 092815MS18_8260.M Wed Sep 30 09:58:10 2015 Page 1

Data File : J:\MS18\DATA\092815\0928F021.D Vial: 18
Acq On : 28 Sep 2015 7:17 pm Operator: YX
Sample : IB Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 30 09:58:09 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
46)	Cyclohexane	4.95	56	1061	0.05	PPB		72
49)	Benzene	5.49	78	1281	0.02	PPB		76
50)	1,2-Dichloroethane	5.63	62	545	0.03	PPB	#	47
52)	Trichloroethene	6.33	95	956	0.06	PPB		89
55)	Methyl methacrylate	6.45	69	599	0.07	PPB	#	61
58)	2-Nitropropane	7.69	41	1751	1.43	PPB	#	23
59)	Methyl Cyclohexane	6.44	83	2021	0.09	PPB		95
61)	cis-1,3-Dichloropropene	7.50	75	533	0.02	PPB	#	49
62)	4-Methyl-2-pentanone (MIBK	7.70	58	2158	0.58	PPB		86
64)	Toluene	7.80	92	1451	0.03	PPB		87
66)	n-Octane	7.88	85	3149	0.67	PPB		95
67)	trans-1,3-Dichloropropene	8.15	75	516	0.03	PPB		95
70)	Tetrachloroethene	8.35	164	1736	0.15	PPB		89
71)	2-Hexanone	8.61	57	949	0.83	PPB	#	64
72)	1,3-Dichloropropane	8.52	76	548	0.02	PPB		63
75)	1-Chlorohexane	9.31	91	2849	0.15	PPB	#	61
76)	Chlorobenzene	9.33	112	3687	0.07	PPB		84
77)	Ethylbenzene	9.42	106	1379	0.06	PPB		92
79)	m,p-Xylenes	9.56	106	4489	0.15	PPB	#	72
80)	o-Xylene	9.97	106	1650	0.06	PPB	#	63
81)	Styrene	10.00	103	1623	0.07	PPB		82
83)	Isopropylbenzene	10.34	105	4268	0.06	PPB		86
84)	cis-1,4-Dichloro-2-butene	10.87	89	811	0.53	PPB	#	1
87)	1,1,2,2-Tetrachloroethane	10.74	83	595	0.04	PPB		82
88)	trans-1,4-Dichloro-2-buten	10.50	53	1184	0.34	PPB	#	52
89)	Bromobenzene	10.68	156	1856	0.09	PPB	#	71
90)	n-Propylbenzene	10.76	91	8879	0.11	PPB		97
92)	2-Chlorotoluene	10.87	91	5960	0.11	PPB		99
93)	1,3,5-Trimethylbenzene	10.97	105	5301	0.09	PPB		95
94)	4-Chlorotoluene	10.99	91	9162	0.15	PPB		93
95)	tert-Butylbenzene	11.27	119	3557	0.07	PPB		96
96)	1,2,4-Trimethylbenzene	11.34	105	7007	0.11	PPB		88
97)	sec-Butylbenzene	11.50	105	8036	0.11	PPB		98
98)	p-Isopropyltoluene	11.65	119	8858	0.13	PPB		91
99)	1,3-Dichlorobenzene	11.64	146	8528	0.23	PPB		98
100)	1,4-Dichlorobenzene	11.74	146	9768	0.25	PPB		93
101)	n-Butylbenzene	12.07	91	14909	0.26	PPB		91
102)	1,2-Dichlorobenzene	12.12	146	6554	0.18	PPB		91
104)	1,3,5-Trichlorobenzene	12.83	180	13683	0.58	PPB		89
105)	1,2,4-Trichlorobenzene	13.29	180	13690	0.67	PPB		98
106)	Hexachlorobutadiene	13.39	225	5635	0.73	PPB		94

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS18\DATA\092815\0928F021.D Vial: 18
Acq On : 28 Sep 2015 7:17 pm Operator: YX
Sample : IB Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 30 09:58:09 2015 Quant Results File: 092815MS18_8260

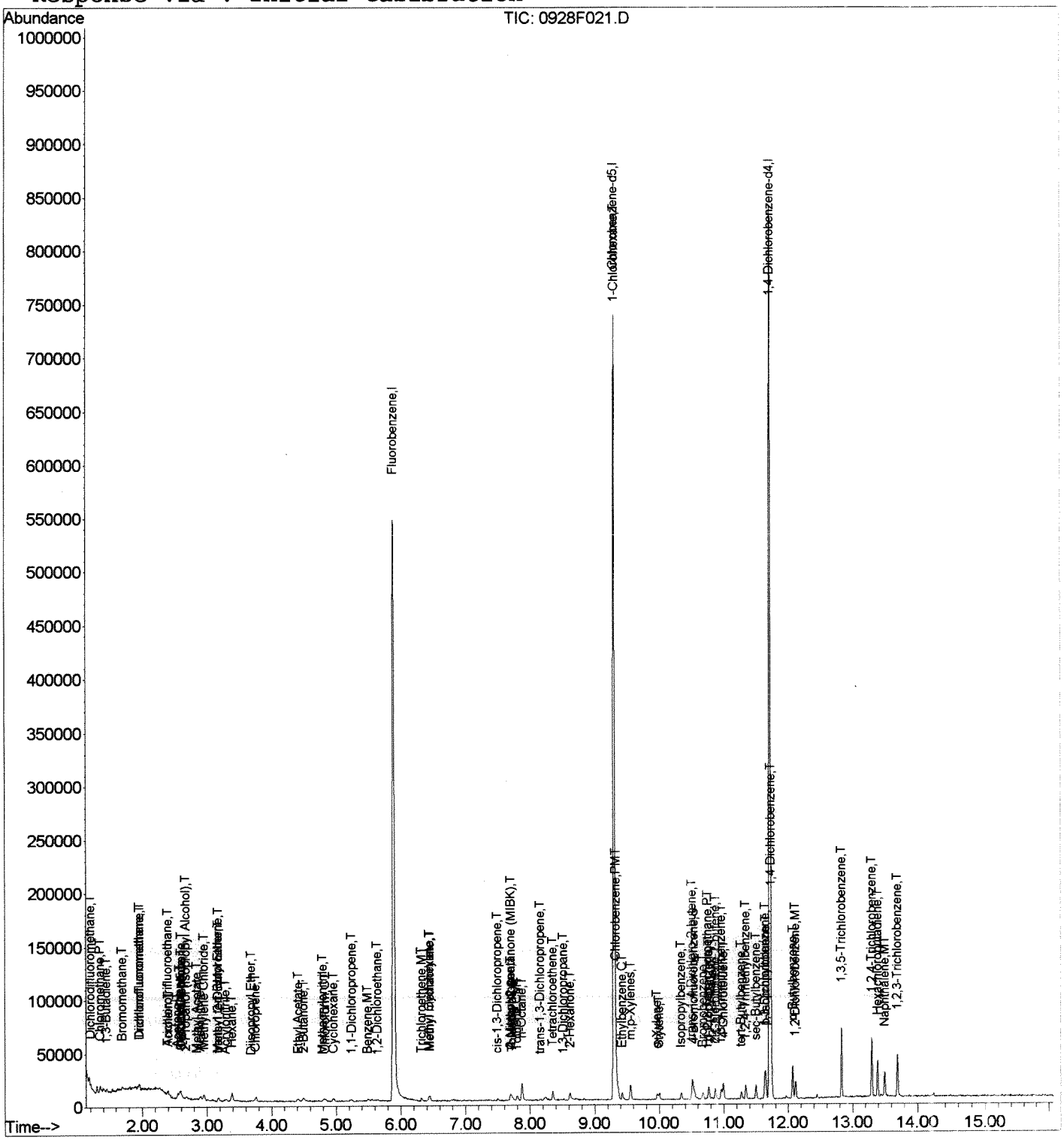
Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
107)	Naphthalene	13.50	128	15670	0.33	PPB	98
108)	1,2,3-Trichlorobenzene	13.69	180	11009	0.65	PPB	97

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS18\DATA\092815\0928F021.D Vial: 18
Acq On : 28 Sep 2015 7:17 pm Operator: YX
Sample : IB Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 30 9:58 2015 Quant Results File: 092815MS18_8

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed) 10/09/2015

Data File : J:\MS18\DATA\092815\0928F022.D Vial: 19
Acq On : 28 Sep 2015 7:38 pm Operator: YX
Sample : IB Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 30 09:58:11 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration
DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	5.90	96	578004	10.00	PPB		0.00
65) Chlorobenzene-d5	9.30	82	233002	10.00	PPB		0.00
86) 1,4-Dichlorobenzene-d4	11.72	152	221533	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	0.00	113	0	0.00	PPB		
Spiked Amount 10.000			Recovery =	0.00%			
48) 1,2-Dichloroethane-d4	0.00	65	0	0.00	PPB		
Spiked Amount 10.000			Recovery =	0.00%			
63) Toluene-d8	7.73	98	769	0.01	PPB		0.00
Spiked Amount 10.000			Recovery =	0.10%			
85) 4-Bromofluorobenzene	10.54	95	754	0.03	PPB		0.00
Spiked Amount 10.000			Recovery =	0.30%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.21	85	524	0.04	PPB		91
3) Chloromethane	1.35	50	2086	0.11	PPB		91
6) Bromomethane	1.70	96	932	0.09	PPB		91
11) Acrolein	2.40	56	635	0.33	PPB	#	47
14) Acetone	2.56	43	4518	2.00	PPB		97
15) Iodomethane	2.59	142	5716	0.33	PPB		93
16) Carbon Disulfide	2.61	76	1682	0.04	PPB		79
17) 2-Propanol (Isopropyl Alco	2.68	45	1161	2.90	PPB		75
18) 3-Chloro-1-propene	2.61	76	1682	0.21	PPB	#	1
19) Methyl Acetate	2.84	43	1179	0.10	PPB		59
20) Acetonitrile	2.90	40	1170	1.95	PPB	#	54
21) Methylene Chloride	2.95	84	1781	0.10	PPB		93
23) Acrylonitrile	3.76	53	1483	0.40	PPB	#	61
25) trans-1,2-Dichloroethene	3.18	96	633	0.04	PPB	#	52
26) Hexane	3.39	57	2299	0.18	PPB		90
30) Chloroprene	3.76	53	1533	0.07	PPB		77
34) 2-Butanone	4.49	72	552	0.51	PPB	#	63
36) Ethyl Acetate	4.40	61	502	0.32	PPB	#	20
40) Chloroform	4.83	83	1488	0.06	PPB		78
45) 1,1-Dichloropropene	5.25	75	682	0.03	PPB	#	41
46) Cyclohexane	4.95	56	683	0.03	PPB	#	74
47) Isobutyl Alcohol	5.56	43	583	2.30	PPB	#	6
49) Benzene	5.49	78	1532	0.02	PPB		72
51) tert-Amyl Methyl Ether	5.89	55	508	0.04	PPB	#	1
52) Trichloroethene	6.33	95	568	0.04	PPB		82
58) 2-Nitropropane	7.70	41	613	0.51	PPB	#	23
59) Methyl Cyclohexane	6.45	83	1398	0.07	PPB		85

(#) = qualifier out of range (m) = manual integration
0928F022.D 092815MS18_8260.M Wed Sep 30 09:58:12 2015 Page 1

Data File : J:\MS18\DATA\092815\0928F022.D Vial: 19
Acq On : 28 Sep 2015 7:38 pm Operator: YX
Sample : IB Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 30 09:58:11 2015 Quant Results File: 092815MS18_8260

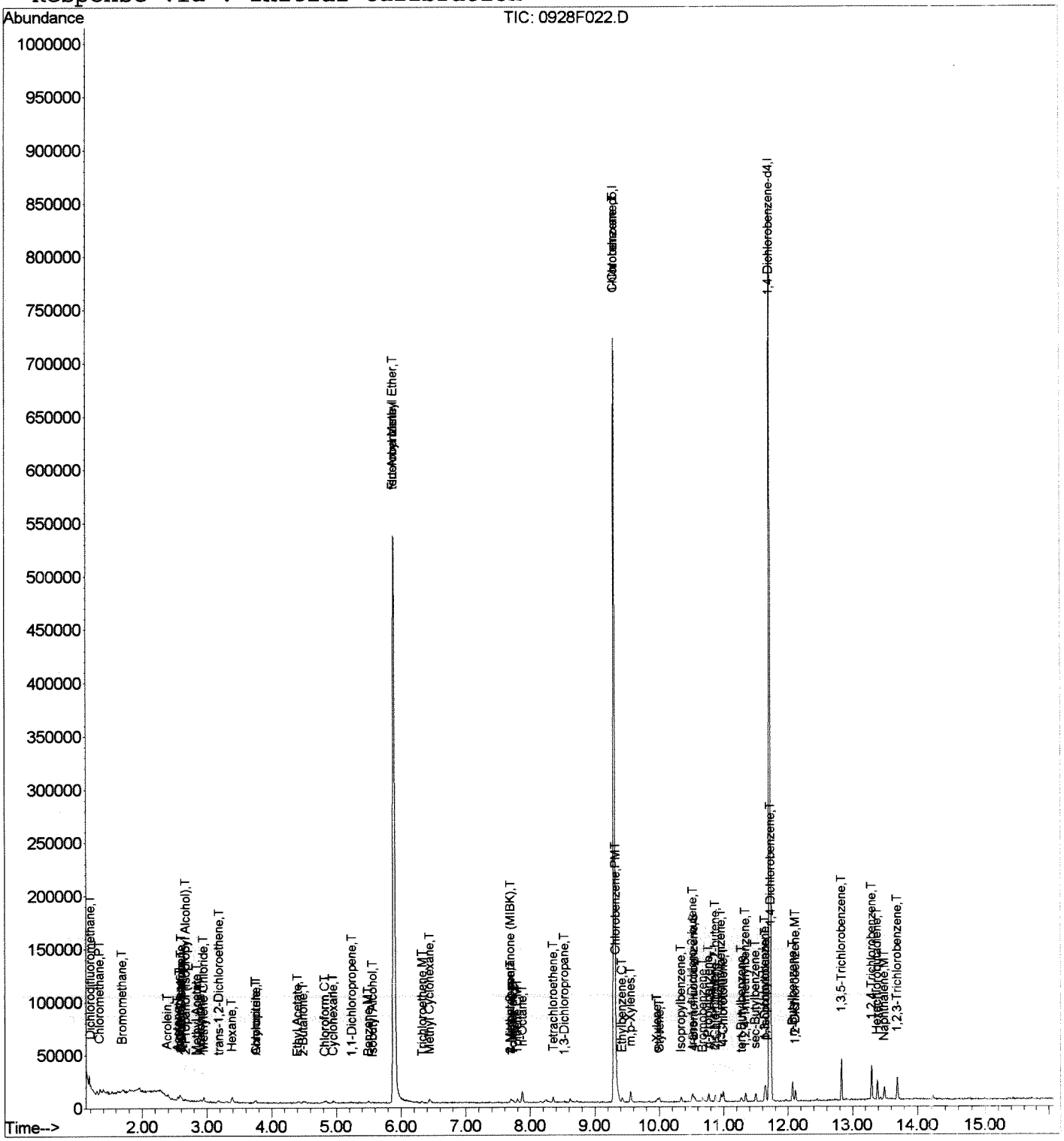
Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
62)	4-Methyl-2-pentanone (MIBK	7.70	58	947	0.26	PPB	#	76
64)	Toluene	7.80	92	1314	0.03	PPB		91
66)	n-Octane	7.88	85	2122	0.45	PPB		93
70)	Tetrachloroethene	8.35	164	1135	0.09	PPB		86
72)	1,3-Dichloropropane	8.53	76	503	0.02	PPB	#	51
75)	1-Chlorohexane	9.31	91	2306	0.12	PPB		78
76)	Chlorobenzene	9.33	112	2201	0.04	PPB		70
77)	Ethylbenzene	9.42	106	1105	0.05	PPB	#	57
79)	m,p-Xylenes	9.56	106	2814	0.09	PPB		85
80)	o-Xylene	9.97	106	840	0.03	PPB		93
81)	Styrene	10.00	103	708	0.03	PPB	#	59
83)	Isopropylbenzene	10.34	105	3205	0.05	PPB		95
84)	cis-1,4-Dichloro-2-butene	10.87	89	678	0.44	PPB	#	1
88)	trans-1,4-Dichloro-2-buten	10.51	53	554	0.16	PPB	#	38
89)	Bromobenzene	10.68	156	975	0.05	PPB		80
90)	n-Propylbenzene	10.77	91	5659	0.07	PPB		94
92)	2-Chlorotoluene	10.87	91	3631	0.07	PPB		96
93)	1,3,5-Trimethylbenzene	10.97	105	3807	0.07	PPB		91
94)	4-Chlorotoluene	10.99	91	5955	0.10	PPB		96
95)	tert-Butylbenzene	11.27	119	2281	0.05	PPB		93
96)	1,2,4-Trimethylbenzene	11.34	105	4472	0.07	PPB		94
97)	sec-Butylbenzene	11.50	105	5515	0.07	PPB		90
98)	p-Isopropyltoluene	11.65	119	5278	0.08	PPB		88
99)	1,3-Dichlorobenzene	11.64	146	5303	0.14	PPB		95
100)	1,4-Dichlorobenzene	11.74	146	6194	0.16	PPB		97
101)	n-Butylbenzene	12.07	91	9424	0.17	PPB		91
102)	1,2-Dichlorobenzene	12.11	146	3906	0.11	PPB		94
104)	1,3,5-Trichlorobenzene	12.83	180	8402	0.36	PPB		92
105)	1,2,4-Trichlorobenzene	13.29	180	7810	0.38	PPB		89
106)	Hexachlorobutadiene	13.39	225	2844	0.37	PPB		99
107)	Naphthalene	13.49	128	7778	0.17	PPB		100
108)	1,2,3-Trichlorobenzene	13.69	180	5899	0.35	PPB		95

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS18\DATA\092815\0928F022.D Vial: 19
Acq On : 28 Sep 2015 7:38 pm Operator: YX
Sample : IB Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 30 9:58 2015 Quant Results File: 092815MS18_8

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed) 11/13/2015

Data File : J:\MS18\DATA\092815\0928F023.D Vial: 19
Acq On : 28 Sep 2015 8:00 pm Operator: YX
Sample : IB Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 30 09:58:12 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration
DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	5.90	96	583919	10.00	PPB		0.00
65) Chlorobenzene-d5	9.30	82	230625	10.00	PPB		0.00
86) 1,4-Dichlorobenzene-d4	11.72	152	218637	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	0.00	113	0	0.00	PPB		
Spiked Amount 10.000			Recovery =	0.00%			
48) 1,2-Dichloroethane-d4	0.00	65	0	0.00	PPB		
Spiked Amount 10.000			Recovery =	0.00%			
63) Toluene-d8	7.73	98	688	0.01	PPB		0.00
Spiked Amount 10.000			Recovery =	0.10%			
85) 4-Bromofluorobenzene	0.00	95	0	0.00	PPB		
Spiked Amount 10.000			Recovery =	0.00%			
Target Compounds							Qvalue
3) Chloromethane	1.35	50	1616	0.08	PPB		94
6) Bromomethane	1.70	96	786	0.07	PPB		75
7) Chloroethane	1.78	64	580	0.06	PPB	#	47
11) Acrolein	2.40	56	572	0.30	PPB		82
14) Acetone	2.55	43	4020	1.76	PPB		95
15) Iodomethane	2.59	142	4857	0.28	PPB		94
16) Carbon Disulfide	2.61	76	1074	0.02	PPB		79
18) 3-Chloro-1-propene	2.61	76	1074	0.14	PPB	#	1
19) Methyl Acetate	2.83	43	1052	0.09	PPB		59
20) Acetonitrile	2.91	40	1387	2.29	PPB	#	1
21) Methylene Chloride	2.95	84	1873	0.10	PPB		80
23) Acrylonitrile	3.75	53	724	0.19	PPB		83
26) Hexane	3.39	57	1624	0.13	PPB		75
30) Chloroprene	3.75	53	868	0.04	PPB		82
40) Chloroform	4.83	83	1040	0.04	PPB		81
49) Benzene	5.48	78	1228	0.02	PPB		72
59) Methyl Cyclohexane	6.45	83	965	0.04	PPB		79
62) 4-Methyl-2-pentanone (MIBK	7.70	58	575	0.16	PPB	#	47
64) Toluene	7.80	92	1127	0.03	PPB	#	71
66) n-Octane	7.88	85	1486	0.32	PPB		82
70) Tetrachloroethene	8.35	164	861	0.07	PPB		82
75) 1-Chlorohexane	9.30	91	1729	0.09	PPB		85
76) Chlorobenzene	9.33	112	1492	0.03	PPB		77
79) m,p-Xylenes	9.56	106	1904	0.06	PPB	#	79
80) o-Xylene	9.97	106	684	0.02	PPB	#	36
81) Styrene	10.00	103	715	0.03	PPB	#	63
83) Isopropylbenzene	10.35	105	1720	0.03	PPB		93

(#) = qualifier out of range (m) = manual integration
0928F023.D 092815MS18_8260.M Wed Sep 30 09:58:13 2015 Page 1

Data File : J:\MS18\DATA\092815\0928F023.D Vial: 19
Acq On : 28 Sep 2015 8:00 pm Operator: YX
Sample : IB Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 30 09:58:12 2015 Quant Results File: 092815MS18_8260

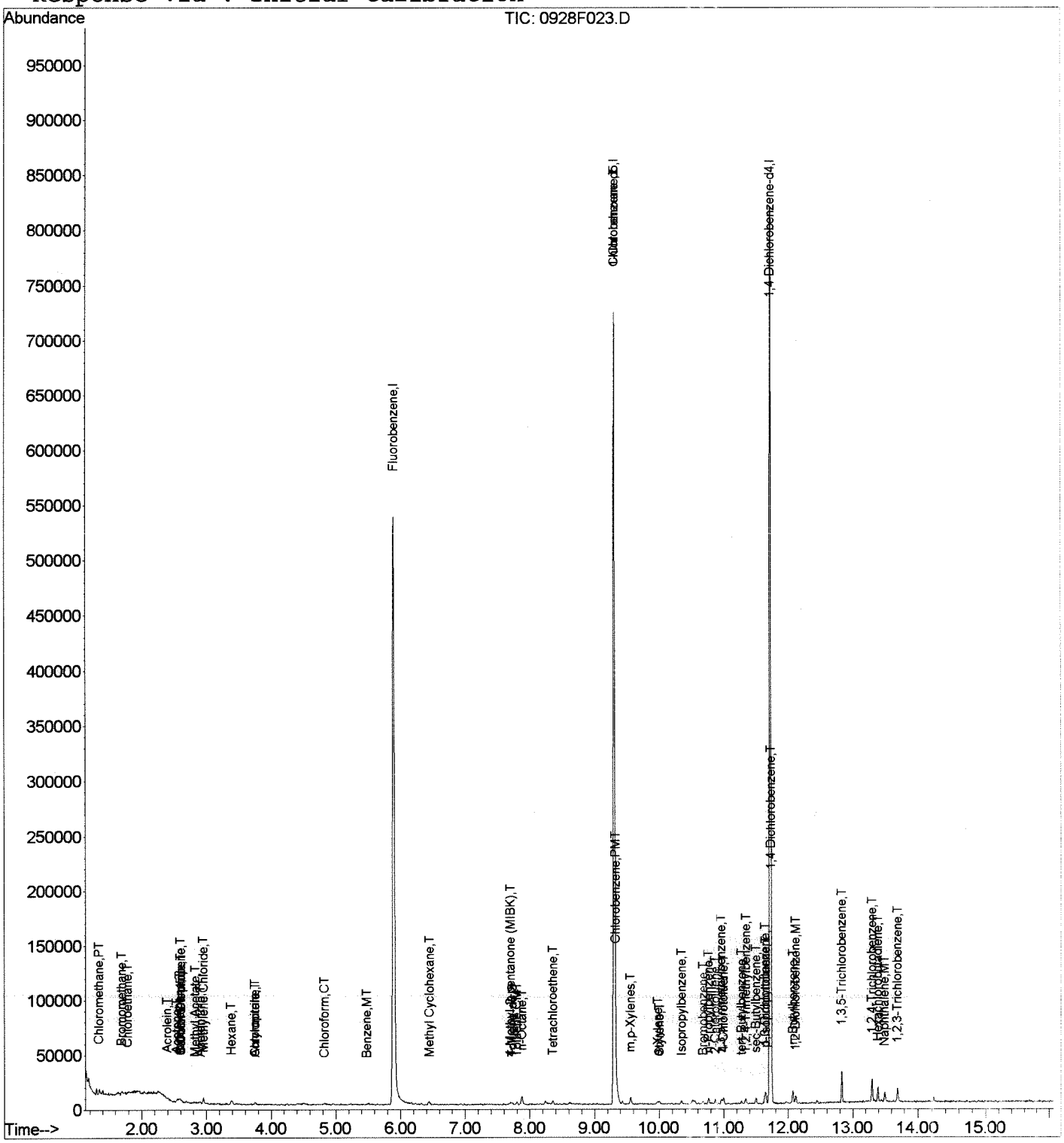
Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
89)	Bromobenzene	10.68	156	748	0.04	PPB	96
90)	n-Propylbenzene	10.77	91	3842	0.05	PPB	90
92)	2-Chlorotoluene	10.87	91	2747	0.05	PPB	88
93)	1,3,5-Trimethylbenzene	10.96	105	2357	0.04	PPB	82
94)	4-Chlorotoluene	11.00	91	3818	0.06	PPB	91
95)	tert-Butylbenzene	11.27	119	1167	0.02	PPB	98
96)	1,2,4-Trimethylbenzene	11.34	105	2609	0.04	PPB	78
97)	sec-Butylbenzene	11.50	105	3168	0.04	PPB	86
98)	p-Isopropyltoluene	11.65	119	3529	0.05	PPB	96
99)	1,3-Dichlorobenzene	11.64	146	3410	0.09	PPB	91
100)	1,4-Dichlorobenzene	11.74	146	4106	0.11	PPB	94
101)	n-Butylbenzene	12.07	91	6073	0.11	PPB	94
102)	1,2-Dichlorobenzene	12.11	146	2340	0.07	PPB	86
104)	1,3,5-Trichlorobenzene	12.83	180	5929	0.26	PPB	91
105)	1,2,4-Trichlorobenzene	13.30	180	5153	0.26	PPB	94
106)	Hexachlorobutadiene	13.39	225	1913	0.25	PPB	93
107)	Naphthalene	13.49	128	4794	0.10	PPB	99
108)	1,2,3-Trichlorobenzene	13.70	180	3768	0.23	PPB	89

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS18\DATA\092815\0928F023.D Vial: 19
Acq On : 28 Sep 2015 8:00 pm Operator: YX
Sample : IB Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 30 9:58 2015 Quant Results File: 092815MS18_8

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\092815\0928F024.D Vial: 20
Acq On : 28 Sep 2015 8:22 pm Operator: YX
Sample : 8260 ICV Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 29 13:56:52 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 12:59:25 2015
Response via : Initial Calibration
DataAcq Meth : 8260

NF YKO 9/30/15

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.89	96	585446	10.00	PPB	0.00
65) Chlorobenzene-d5	9.30	82	235848	10.00	PPB	0.00
86) 1,4-Dichlorobenzene-d4	11.72	152	228865	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.06	113	136440	10.39	PPB	0.00
Spiked Amount 10.000			Recovery	=	103.90%	
48) 1,2-Dichloroethane-d4	5.54	65	149069	10.34	PPB	0.00
Spiked Amount 10.000			Recovery	=	103.40%	
63) Toluene-d8	7.73	98	614075	10.40	PPB	0.00
Spiked Amount 10.000			Recovery	=	104.00%	
85) 4-Bromofluorobenzene	10.54	95	234791	10.34	PPB	0.00
Spiked Amount 10.000			Recovery	=	103.40%	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.21	85	112532	7.52	PPB	99
3) Chloromethane	1.35	50	156311	8.03	PPB	98
4) Vinyl Chloride	1.43	62	168913	9.33	PPB	99
5) 1,3-Butadiene	1.45	54	102772	9.74	PPB	99
6) Bromomethane	1.70	96	85298	7.70	PPB	94
7) Chloroethane	1.77	64	98322	10.19	PPB	98
8) Dichlorofluoromethane	1.95	67	183413	7.29	PPB	100
9) Trichlorofluoromethane	1.95	101	162591	8.40	PPB	98
10) Ethyl Ether	2.21	59	102288	9.70	PPB	97
11) Acrolein	2.40	56	107155	55.30	PPB	97
12) Trichlorotrifluoroethane	2.39	151	98399	10.23	PPB	98
13) 1,1-Dichloroethene	2.42	96	125815	9.54	PPB	98
14) Acetone	2.55	43	108155	47.24	PPB	99
15) Iodomethane	2.58	142	465408	26.51	PPB	99
16) Carbon Disulfide	2.61	76	812724	17.03	PPB	100
17) 2-Propanol (Isopropyl Alco	2.67	45	208538	515.04	PPB	99
18) 3-Chloro-1-propene	2.80	76	188504	23.78	PPB	97
19) Methyl Acetate	2.83	43	124939	11.09	PPB	97
20) Acetonitrile	2.89	40	181210	298.34	PPB	96
21) Methylene Chloride	2.95	84	165091	8.99	PPB	97
22) tert-Butyl Alcohol	3.07	59	50074	94.73	PPB	97
23) Acrylonitrile	3.29	53	151180	40.30	PPB	97
24) Methyl tert-Butyl Ether	3.16	73	329020	9.78	PPB	99
25) trans-1,2-Dichloroethene	3.18	96	153318	9.77	PPB	100
26) Hexane	3.39	57	348485	26.84	PPB	100
27) Diisopropyl Ether	3.69	45	783657	17.36	PPB	98
28) 1,1-Dichloroethane	3.69	63	262678	9.99	PPB	99

(#) = qualifier out of range (m) = manual integration
0928F024.D 092815MS18_8260.M Wed Sep 30 09:57:49 2015 Page 1

Data File : J:\MS18\DATA\092815\0928F024.D Vial: 20
Acq On : 28 Sep 2015 8:22 pm Operator: YX
Sample : 8260 ICV Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 29 13:56:52 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 12:59:25 2015
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29)	Vinyl Acetate	3.76	86	108831	53.50	PPB	#	90
30)	Chloroprene	3.75	53	576648	25.30	PPB		99
31)	tert-Butyl Ethyl Ether	4.12	59	699358	18.60	PPB		97
32)	2,2-Dichloropropane	4.36	77	145663	9.12	PPB		99
33)	cis-1,2-Dichloroethene	4.41	96	173894	9.69	PPB		98
34)	2-Butanone	4.48	72	51356	46.50	PPB		88
35)	Propionitrile	4.66	54	42241	31.33	PPB		98
36)	Ethyl Acetate	4.51	61	39081	24.80	PPB		97
37)	Methacrylonitrile	4.80	67	144445	30.63	PPB		93
38)	Bromochloromethane	4.73	128	74913	9.88	PPB		90
39)	Tetrahydrofuran	4.75	71	22634	21.72	PPB		82
40)	Chloroform	4.83	83	260629	9.97	PPB		99
41)	tert-Butyl Formate	4.86	59	53143	14.07	PPB		96
42)	1,1,1-Trichloroethane	5.00	97	176652	9.51	PPB		99
44)	Carbon Tetrachloride	5.17	117	142549	9.11	PPB		99
45)	1,1-Dichloropropene	5.23	75	197389	9.93	PPB		99
46)	Cyclohexane	4.96	56	190208	8.25	PPB		94
47)	Isobutyl Alcohol	5.64	43	176769	689.02	PPB		95
49)	Benzene	5.49	78	670087	9.42	PPB		99
50)	1,2-Dichloroethane	5.64	62	176242	9.73	PPB		98
51)	tert-Amyl Methyl Ether	5.64	55	235100	18.48	PPB		99
52)	Trichloroethene	6.32	95	151839	9.98	PPB		96
53)	1,2-Dichloropropane	6.66	63	155788	9.50	PPB		97
54)	Dibromomethane	6.79	93	78756	9.60	PPB		98
55)	Methyl methacrylate	6.81	69	245702	27.80	PPB		95
56)	1,4-Dioxane	6.82	88	34643	320.29	PPB		91
57)	Bromodichloromethane	6.98	83	165600	10.31	PPB		100
58)	2-Nitropropane	7.35	41	32440	22.14	PPB		95
59)	Methyl Cyclohexane	6.45	83	176784	8.17	PPB		96
60)	2-Chloroethyl Vinyl Ether	7.37	63	70377	8.94	PPB		95
61)	cis-1,3-Dichloropropene	7.50	75	214805	8.59	PPB		97
62)	4-Methyl-2-pentanone (MIBK	7.69	58	186326	50.87	PPB		99
64)	Toluene	7.80	92	434149	9.92	PPB		97
66)	n-Octane	7.88	85	83474	17.22	PPB		98
67)	trans-1,3-Dichloropropene	8.15	75	159389	8.51	PPB		99
68)	Ethyl methacrylate	8.21	69	502823	28.67	PPB		97
69)	1,1,2-Trichloroethane	8.34	83	112364	10.00	PPB		97
70)	Tetrachloroethene	8.35	164	122456	10.12	PPB		94
71)	2-Hexanone	8.61	57	55305	47.25	PPB		99
72)	1,3-Dichloropropane	8.52	76	238161	9.97	PPB		99
73)	Dibromochloromethane	8.72	129	111656	8.45	PPB		99

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS18\DATA\092815\0928F024.D Vial: 20
Acq On : 28 Sep 2015 8:22 pm Operator: YX
Sample : 8260 ICV Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 29 13:56:52 2015 Quant Results File: 092815MS18_8260

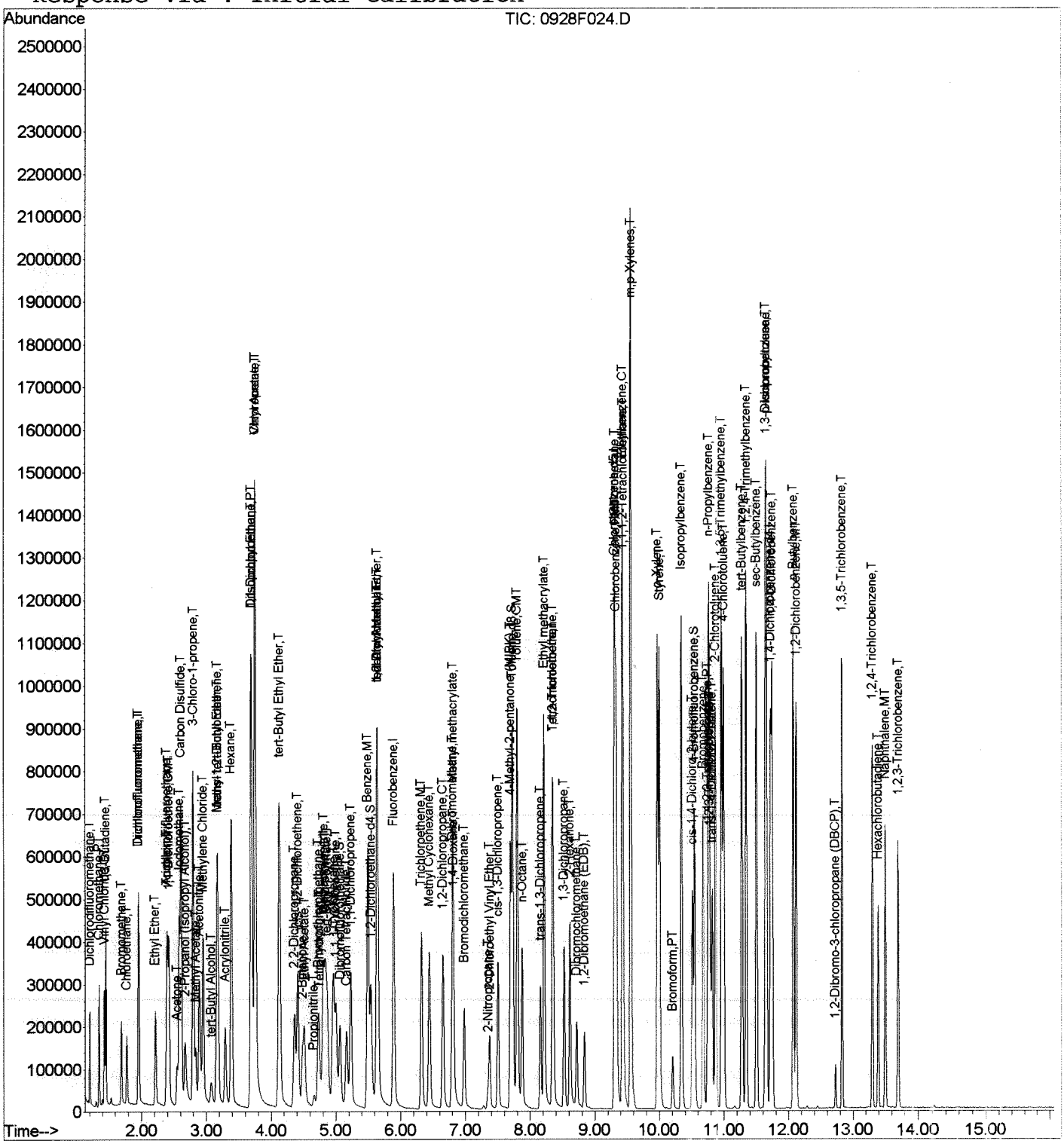
Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 12:59:25 2015
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
74)	1,2-Dibromoethane (EDB)	8.84	107	121633	10.03	PPB	99
75)	1-Chlorohexane	9.31	91	196968	10.29	PPB	97
76)	Chlorobenzene	9.33	112	493545	9.85	PPB	99
77)	Ethylbenzene	9.42	106	255092	10.45	PPB	97
78)	1,1,1,2-Tetrachloroethane	9.44	131	133812	8.58	PPB	99
79)	m,p-Xylenes	9.55	106	628882	20.86	PPB	100
80)	o-Xylene	9.97	106	317695	10.92	PPB	99
81)	Styrene	10.00	103	252777m	10.56	PPB	
82)	Bromoform	10.21	173	56460	8.62	PPB	96
83)	Isopropylbenzene	10.34	105	745064	10.66	PPB	99
84)	cis-1,4-Dichloro-2-butene	10.51	89	41939	25.88	PPB	94
87)	1,1,2,2-Tetrachloroethane	10.75	83	150054	10.04	PPB	99
88)	trans-1,4-Dichloro-2-buten	10.82	53	107002	29.90	PPB	99
89)	Bromobenzene	10.68	156	201043	10.04	PPB	97
90)	n-Propylbenzene	10.77	91	888029	10.67	PPB	99
91)	1,2,3-Trichloropropane	10.79	110	45755	10.00	PPB	97
92)	2-Chlorotoluene	10.87	91	556485	10.42	PPB	98
93)	1,3,5-Trimethylbenzene	10.96	105	632501	10.78	PPB	99
94)	4-Chlorotoluene	10.99	91	652836	10.52	PPB	98
95)	tert-Butylbenzene	11.27	119	532677	10.76	PPB	99
96)	1,2,4-Trimethylbenzene	11.34	105	667402	10.02	PPB	100
97)	sec-Butylbenzene	11.50	105	766746	10.93	PPB	100
98)	p-Isopropyltoluene	11.66	119	657781	9.76	PPB	98
99)	1,3-Dichlorobenzene	11.64	146	388885	10.15	PPB	99
100)	1,4-Dichlorobenzene	11.74	146	400155	9.88	PPB	99
101)	n-Butylbenzene	12.07	91	548285	9.49	PPB	98
102)	1,2-Dichlorobenzene	12.12	146	372138	10.29	PPB	95
103)	1,2-Dibromo-3-chloropropan	12.73	155	15202	10.42	PPB	89
104)	1,3,5-Trichlorobenzene	12.83	180	250619	10.41	PPB	98
105)	1,2,4-Trichlorobenzene	13.30	180	214853	10.25	PPB	99
106)	Hexachlorobutadiene	13.39	225	78850	10.00	PPB	99
107)	Naphthalene	13.50	128	428543	8.92	PPB	98
108)	1,2,3-Trichlorobenzene	13.70	180	178306	10.38	PPB	97

(#) = qualifier out of range (m) = manual integration

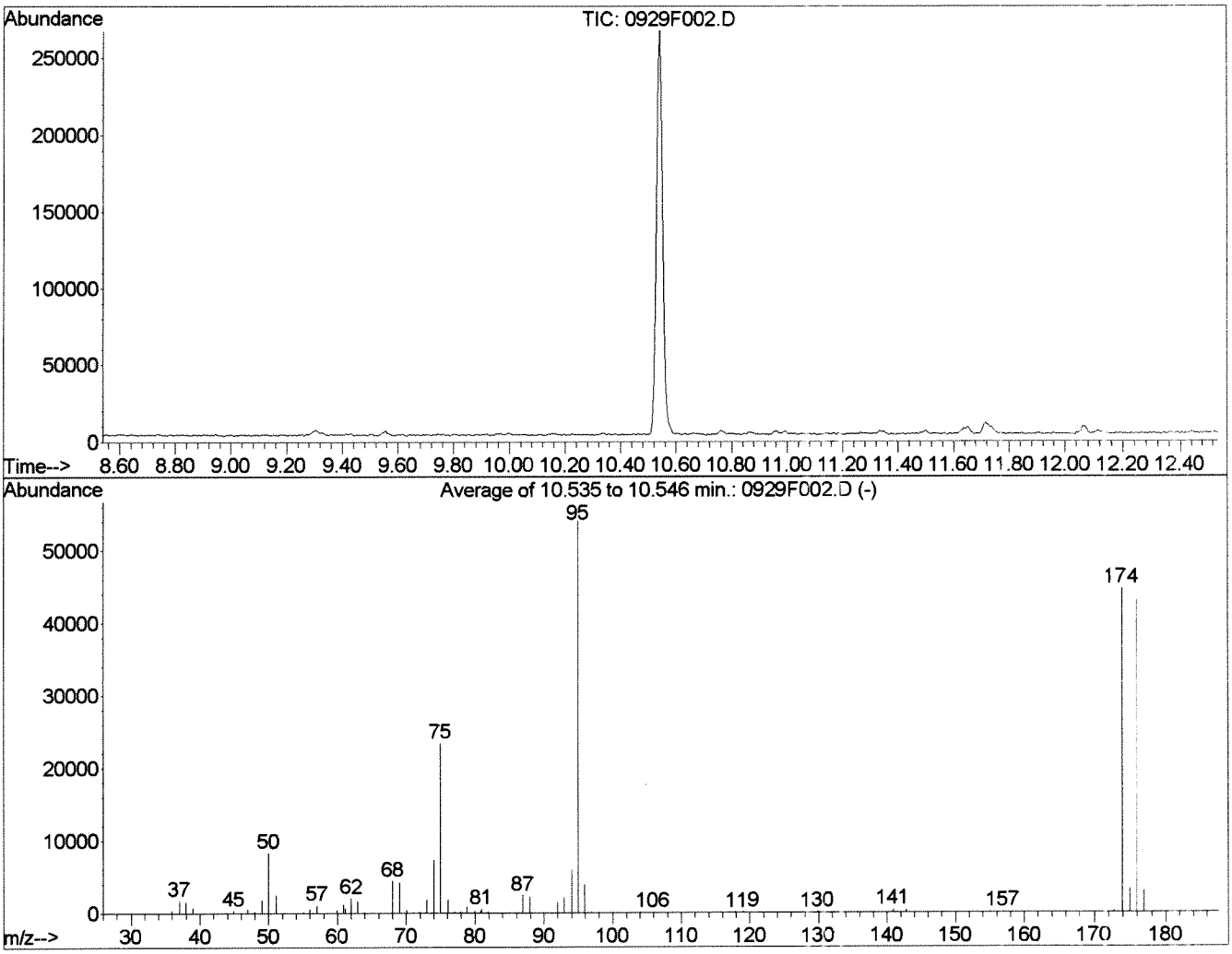
Data File : J:\MS18\DATA\092815\0928F024.D Vial: 20
Acq On : 28 Sep 2015 8:22 pm Operator: YX
Sample : 8260 ICV Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 29 13:57 2015 Quant Results File: 092815MS18_8

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration



BFB

Data File : J:\MS18\DATA\092915\0929F002.D Vial: 2
Acq On : 29 Sep 2015 11:44 am Operator: YX
Sample : BFB Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B



AutoFind: Scans 1794, 1795, 1796; Background Corrected with Scan 1786

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.4	8345	PASS
75	95	30	60	43.3	23426	PASS
95	95	100	100	100.0	54114	PASS
96	95	5	9	7.3	3935	PASS
173	174	0.00	2	0.6	259	PASS
174	95	50	120	82.7	44752	PASS
175	174	5	9	7.2	3207	PASS
176	174	95	101	96.4	43154	PASS
177	176	5	9	6.8	2914	PASS

0929F002.D 092815MS18_8260.M Wed Sep 30 09:56:13 2015

9/30/15

Data File : J:\MS18\DATA\092915\0929F003.D Vial: 3
Acq On : 29 Sep 2015 12:28 pm Operator: YX
Sample : ICV MIX6+FREON21 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 29 13:01:07 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 12:59:25 2015
Response via : Initial Calibration
DataAcq Meth : 8260

NR 10/6/9/30/15

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) Fluorobenzene	5.88	96	561354	10.00	PPB		0.00
65) Chlorobenzene-d5	9.30	82	221028	10.00	PPB		0.00
86) 1,4-Dichlorobenzene-d4	11.72	152	207899	10.00	PPB		0.00
System Monitoring Compounds							
43) Dibromofluoromethane	5.06	113	129826	10.31	PPB		-0.01
Spiked Amount 10.000			Recovery =	103.10%			
48) 1,2-Dichloroethane-d4	5.53	65	148379	10.73	PPB		-0.01
Spiked Amount 10.000			Recovery =	107.30%			
63) Toluene-d8	7.73	98	567142	10.02	PPB		0.00
Spiked Amount 10.000			Recovery =	100.20%			
85) 4-Bromofluorobenzene	10.54	95	211077	9.92	PPB		0.00
Spiked Amount 10.000			Recovery =	99.20%			
Target Compounds							Qvalue
2) Dichlorodifluoromethane	1.21	85	160879	11.22	PPB		99
3) Chloromethane	1.35	50	178240	9.55	PPB		99
4) Vinyl Chloride	1.43	62	193735	11.16	PPB		99
6) Bromomethane	1.70	96	50603	4.77	PPB	—	99
7) Chloroethane	1.77	64	111652	12.07	PPB		99
8) Dichlorofluoromethane	1.95	67	256459	10.62	PPB		99
9) Trichlorofluoromethane	1.95	101	181766	9.79	PPB		99
10) Ethyl Ether	1.77	59	675	0.07	PPB	#	22
14) Acetone	2.55	43	2543	1.16	PPB		92
15) Iodomethane	2.58	142	79611	4.73	PPB		99
16) Carbon Disulfide	2.61	76	662	0.01	PPB		61
17) 2-Propanol (Isopropyl Alco	2.67	45	612	1.58	PPB		87
18) 3-Chloro-1-propene	2.61	76	662	0.09	PPB	#	1
19) Methyl Acetate	2.83	43	946	0.09	PPB		59
20) Acetonitrile	2.86	40	522	0.90	PPB	#	1
21) Methylene Chloride	2.94	84	4268	0.24	PPB		87
26) Hexane	3.38	57	786	0.06	PPB		58
40) Chloroform	4.83	83	3170	0.13	PPB		84
49) Benzene	5.48	78	1085	0.02	PPB		48
58) 2-Nitropropane	7.71	41	1316	0.96	PPB	#	30
62) 4-Methyl-2-pentanone (MIBK	7.73	58	4111	1.17	PPB	#	1
64) Toluene	7.79	92	934	0.02	PPB		97
66) n-Octane	7.87	85	897	0.20	PPB		94
75) 1-Chlorohexane	9.30	91	1396	0.08	PPB		61
76) Chlorobenzene	9.32	112	1030	0.02	PPB		92
79) m,p-Xylenes	9.55	106	1699	0.06	PPB		89
80) o-Xylene	9.96	106	562	0.02	PPB	#	50

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS18\DATA\092915\0929F003.D Vial: 3
Acq On : 29 Sep 2015 12:28 pm Operator: YX
Sample : ICV MIX6+FREON21 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 29 13:01:07 2015 Quant Results File: 092815MS18_8260

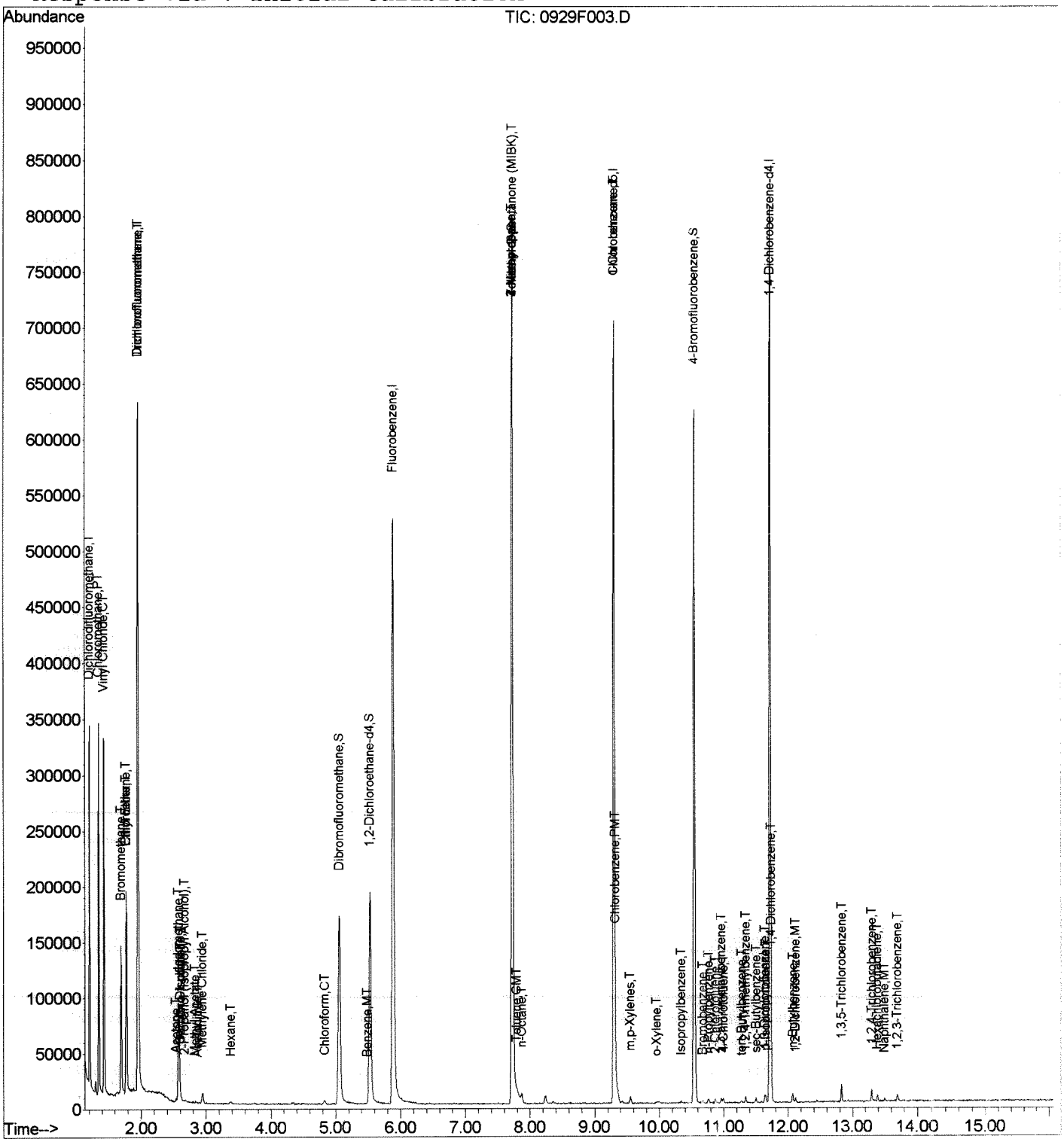
Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 12:59:25 2015
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
83)	Isopropylbenzene	10.34	105	1271	0.02	PPB		95
89)	Bromobenzene	10.68	156	547	0.03	PPB	#	57
90)	n-Propylbenzene	10.77	91	3032	0.04	PPB		81
92)	2-Chlorotoluene	10.87	91	1931	0.04	PPB		88
93)	1,3,5-Trimethylbenzene	10.95	105	2159	0.04	PPB		73
94)	4-Chlorotoluene	10.99	91	2689	0.05	PPB		81
95)	tert-Butylbenzene	11.27	119	770	0.02	PPB		70
96)	1,2,4-Trimethylbenzene	11.34	105	2786	0.05	PPB		93
97)	sec-Butylbenzene	11.50	105	2490	0.04	PPB		97
98)	p-Isopropyltoluene	11.65	119	2670	0.04	PPB		92
99)	1,3-Dichlorobenzene	11.64	146	2402	0.07	PPB		95
100)	1,4-Dichlorobenzene	11.74	146	2440	0.07	PPB		84
101)	n-Butylbenzene	12.07	91	4427	0.08	PPB		87
102)	1,2-Dichlorobenzene	12.11	146	1591	0.05	PPB		70
104)	1,3,5-Trichlorobenzene	12.83	180	3439	0.16	PPB		95
105)	1,2,4-Trichlorobenzene	13.29	180	3138	0.16	PPB		94
106)	Hexachlorobutadiene	13.39	225	971	0.14	PPB		92
107)	Naphthalene	13.50	128	1604	0.04	PPB		74
108)	1,2,3-Trichlorobenzene	13.70	180	1770	0.11	PPB		84

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS18\DATA\092915\0929F003.D Vial: 3
Acq On : 29 Sep 2015 12:28 pm Operator: YX
Sample : ICV MIX6+FREON21 Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 29 13:01 2015 Quant Results File: 092815MS18_8

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : J:\MS18\DATA\092915\0929F004.D Vial: 4
Acq On : 29 Sep 2015 1:57 pm Operator: YX
Sample : ICV Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 30 09:52:52 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration
DataAcq Meth : 8260

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.88	96	592709	10.00	PPB	0.00
65) Chlorobenzene-d5	9.30	82	236917	10.00	PPB	0.00
86) 1,4-Dichlorobenzene-d4	11.71	152	228753	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.05	113	146967	11.05	PPB	-0.02
Spiked Amount 10.000			Recovery =	110.50%		
48) 1,2-Dichloroethane-d4	5.53	65	155261	10.64	PPB	-0.01
Spiked Amount 10.000			Recovery =	106.40%		
63) Toluene-d8	7.72	98	664399	11.11	PPB	0.00
Spiked Amount 10.000			Recovery =	111.10%		
85) 4-Bromofluorobenzene	10.54	95	264561	11.59	PPB	0.00
Spiked Amount 10.000			Recovery =	115.90%		
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.21	85	180104	11.89	PPB	99
3) Chloromethane	1.35	50	215713	10.95	PPB	99
4) Vinyl Chloride	1.43	62	215665	11.76	PPB	98
5) 1,3-Butadiene	1.45	54	147269	13.78	PPB	98
6) Bromomethane	1.69	96	125116	11.16	PPB	99
7) Chloroethane	1.77	64	116794	11.96	PPB	99
8) Dichlorofluoromethane	1.95	67	267988	10.51	PPB	99
9) Trichlorofluoromethane	1.95	101	198646	10.13	PPB	100
10) Ethyl Ether	2.21	59	110420	10.34	PPB	97
11) Acrolein	2.39	56	113276	57.74	PPB	96
12) Trichlorotrifluoroethane	2.39	151	117770	12.00	PPB	98
13) 1,1-Dichloroethene	2.42	96	158438	11.86	PPB	98
14) Acetone	2.54	43	109082	47.06	PPB	99
15) Iodomethane	2.58	142	445809	25.08	PPB	98
16) Carbon Disulfide	2.61	76	1024775	21.22	PPB	100
17) 2-Propanol (Isopropyl Alco	2.67	45	199810	487.43	PPB	97
18) 3-Chloro-1-propene	2.79	76	246991	30.78	PPB	94
19) Methyl Acetate	2.83	43	125861	11.03	PPB	97
20) Acetonitrile	2.89	40	176832	287.57	PPB	91
21) Methylene Chloride	2.94	84	195186	10.49	PPB	96
22) tert-Butyl Alcohol	3.06	59	48258	90.17	PPB	98
23) Acrylonitrile	3.28	53	147093	38.73	PPB	99
24) Methyl tert-Butyl Ether	3.15	73	335901	9.87	PPB	99
25) trans-1,2-Dichloroethene	3.17	96	179711	11.31	PPB	100
26) Hexane	3.38	57	487432	37.09	PPB	99
27) Diisopropyl Ether	3.68	45	859734	18.81	PPB	100
28) 1,1-Dichloroethane	3.69	63	302995	11.38	PPB	99

(#) = qualifier out of range (m) = manual integration
0929F004.D 092815MS18_8260.M Wed Sep 30 09:54:08 2015 Page 1

Data File : J:\MS18\DATA\092915\0929F004.D Vial: 4
Acq On : 29 Sep 2015 1:57 pm Operator: YX
Sample : ICV Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 30 09:52:52 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
29)	Vinyl Acetate	3.75	86	129699	56.87	PPB	94
30)	Chloroprene	3.75	53	717699	31.11	PPB	98
31)	tert-Butyl Ethyl Ether	4.12	59	754279	19.82	PPB	99
32)	2,2-Dichloropropane	4.35	77	187368	11.51	PPB	99
33)	cis-1,2-Dichloroethene	4.40	96	201490	11.09	PPB	99
34)	2-Butanone	4.47	72	52051	46.55	PPB	89
35)	Propionitrile	4.66	54	39205	28.72	PPB	97
36)	Ethyl Acetate	4.50	61	37058	23.23	PPB	97
37)	Methacrylonitrile	4.79	67	137491	28.80	PPB	92
38)	Bromochloromethane	4.72	128	85109	11.09	PPB	98
39)	Tetrahydrofuran	4.74	71	20638	19.56	PPB	89
40)	Chloroform	4.83	83	298846	11.29	PPB	99
41)	tert-Butyl Formate	4.85	59	64124	15.92	PPB	94
42)	1,1,1-Trichloroethane	4.99	97	212884	11.33	PPB	98
44)	Carbon Tetrachloride	5.16	117	175437	11.03	PPB	99
45)	1,1-Dichloropropene	5.22	75	240018	11.97	PPB	99
46)	Cyclohexane	4.95	56	263571	11.29	PPB	95
47)	Isobutyl Alcohol	5.63	43	176964	681.33	PPB	95
49)	Benzene	5.49	78	770921	10.70	PPB	99
50)	1,2-Dichloroethane	5.63	62	195808	10.68	PPB	99
51)	tert-Amyl Methyl Ether	5.63	55	236722	18.38	PPB	96
52)	Trichloroethene	6.31	95	175568	11.39	PPB	97
53)	1,2-Dichloropropane	6.64	63	179142	10.79	PPB	97
54)	Dibromomethane	6.79	93	86566	10.43	PPB	96
55)	Methyl methacrylate	6.80	69	227168	25.45	PPB	96
56)	1,4-Dioxane	6.81	88	33022	301.56	PPB	83
57)	Bromodichloromethane	6.98	83	191840	11.79	PPB	98
58)	2-Nitropropane	7.34	41	35010	27.10	PPB	93
59)	Methyl Cyclohexane	6.44	83	251663	11.49	PPB	97
60)	2-Chloroethyl Vinyl Ether	7.36	63	74125	9.30	PPB	96
61)	cis-1,3-Dichloropropene	7.49	75	248374	9.80	PPB	98
62)	4-Methyl-2-pentanone (MIBK	7.69	58	177088	47.75	PPB	98
64)	Toluene	7.79	92	496704	11.21	PPB	99
66)	n-Octane	7.87	85	113475	23.17	PPB	95
67)	trans-1,3-Dichloropropene	8.15	75	182967	9.71	PPB	97
68)	Ethyl methacrylate	8.21	69	472195	26.81	PPB	96
69)	1,1,2-Trichloroethane	8.34	83	122810	10.88	PPB	97
70)	Tetrachloroethene	8.35	164	146251	12.03	PPB	97
71)	2-Hexanone	8.61	57	52636	44.77	PPB	97
72)	1,3-Dichloropropane	8.52	76	257431	10.73	PPB	97
73)	Dibromochloromethane	8.71	129	127422	9.58	PPB	99

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS18\DATA\092915\0929F004.D Vial: 4
Acq On : 29 Sep 2015 1:57 pm Operator: YX
Sample : ICV Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 30 09:52:52 2015 Quant Results File: 092815MS18_8260

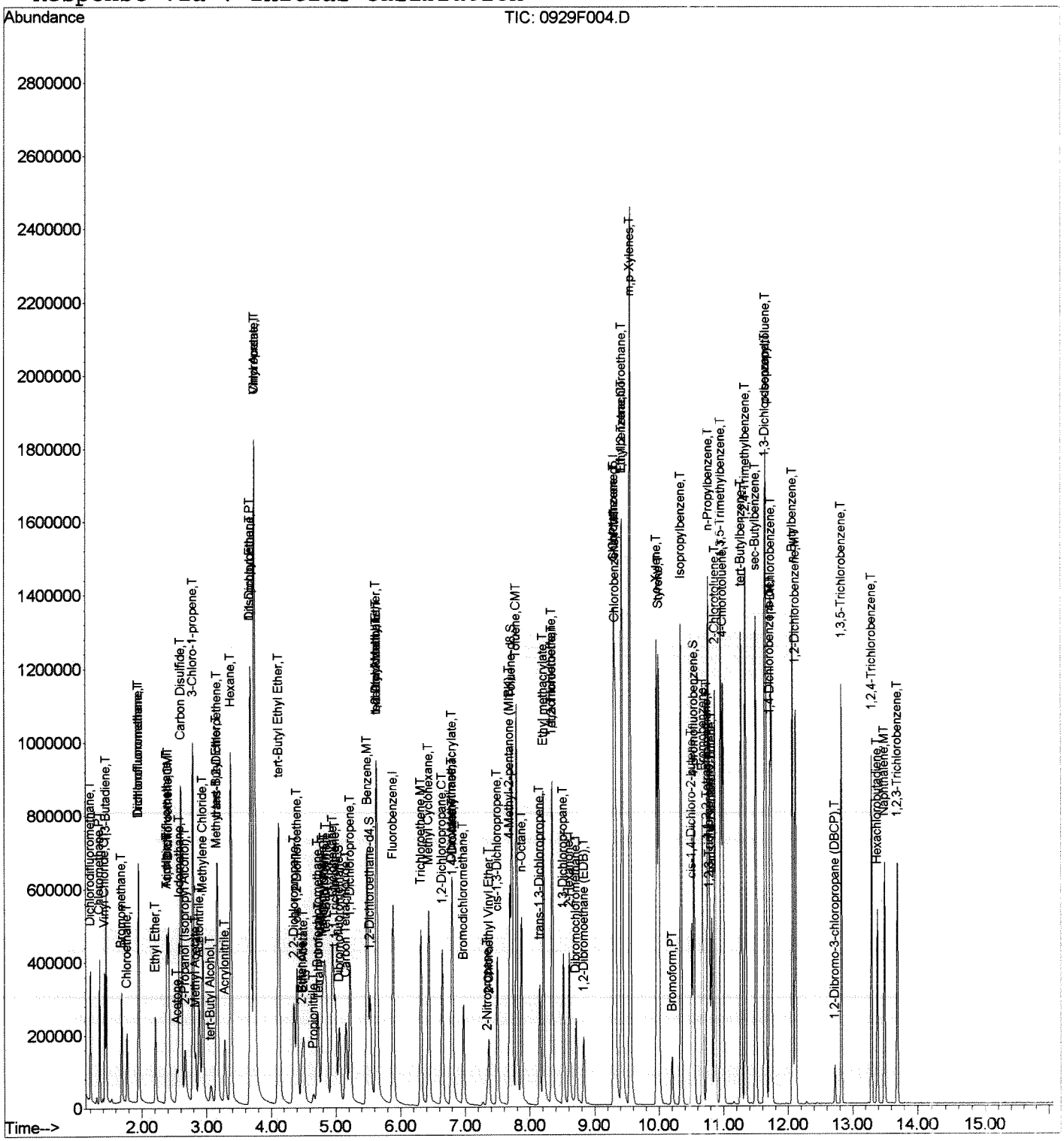
Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
74)	1,2-Dibromoethane (EDB)	8.83	107	129103	10.60	PPB	97
75)	1-Chlorohexane	9.31	91	228346	11.20	PPB	98
76)	Chlorobenzene	9.32	112	564029	11.21	PPB	99
77)	Ethylbenzene	9.42	106	295319	12.04	PPB	98
78)	1,1,1,2-Tetrachloroethane	9.43	131	158355	10.10	PPB	99
79)	m,p-Xylenes	9.55	106	732859	24.20	PPB	98
80)	o-Xylene	9.96	106	359882	12.31	PPB	99
81)	Styrene	10.00	103	326367	13.58	PPB	100
82)	Bromoform	10.20	173	61921	10.30	PPB	99
83)	Isopropylbenzene	10.34	105	872419	12.42	PPB	99
84)	cis-1,4-Dichloro-2-butene	10.51	89	43083	26.44	PPB	98
87)	1,1,2,2-Tetrachloroethane	10.74	83	156821	10.50	PPB	99
88)	trans-1,4-Dichloro-2-buten	10.81	53	105381	29.46	PPB	98
89)	Bromobenzene	10.67	156	228632	11.43	PPB	99
90)	n-Propylbenzene	10.76	91	1044494	12.41	PPB	98
91)	1,2,3-Trichloropropane	10.79	110	45920	10.04	PPB	98
92)	2-Chlorotoluene	10.87	91	642275	12.03	PPB	98
93)	1,3,5-Trimethylbenzene	10.96	105	734336	12.52	PPB	99
94)	4-Chlorotoluene	10.99	91	750633	12.11	PPB	99
95)	tert-Butylbenzene	11.27	119	620751	12.16	PPB	98
96)	1,2,4-Trimethylbenzene	11.34	105	763329	11.47	PPB	99
97)	sec-Butylbenzene	11.49	105	901528	11.57	PPB	99
98)	p-Isopropyltoluene	11.65	119	776671	11.54	PPB	98
99)	1,3-Dichlorobenzene	11.64	146	439066	11.47	PPB	99
100)	1,4-Dichlorobenzene	11.74	146	457188	11.29	PPB	99
101)	n-Butylbenzene	12.07	91	650710	11.27	PPB	99
102)	1,2-Dichlorobenzene	12.11	146	413991	11.46	PPB	98
103)	1,2-Dibromo-3-chloropropan	12.73	155	14607	10.04	PPB	97
104)	1,3,5-Trichlorobenzene	12.83	180	273867	11.38	PPB	98
105)	1,2,4-Trichlorobenzene	13.29	180	232386	11.09	PPB	99
106)	Hexachlorobutadiene	13.38	225	90037	11.42	PPB	99
107)	Naphthalene	13.49	128	429137	8.94	PPB	99
108)	1,2,3-Trichlorobenzene	13.69	180	184482	10.75	PPB	98

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS18\DATA\092915\0929F004.D Vial: 4
Acq On : 29 Sep 2015 1:57 pm Operator: YX
Sample : ICV Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 30 9:52 2015 Quant Results File: 092815MS18_8

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data File : J:\MS18\DATA\092915\0929F005.D Vial: 5
Acq On : 29 Sep 2015 2:39 pm Operator: YX
Sample : ICV Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 29 15:13:11 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 14:59:26 2015
Response via : Initial Calibration
DataAcq Meth : 8260

MR 10/6/15 9/30/15

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.88	96	575780	10.00	PPB	0.00
65) Chlorobenzene-d5	9.30	82	233887	10.00	PPB	0.00
86) 1,4-Dichlorobenzene-d4	11.72	152	227813	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.06	113	142978	11.07	PPB	-0.01
Spiked Amount 10.000			Recovery = 110.70%			
48) 1,2-Dichloroethane-d4	5.53	65	151210	10.67	PPB	-0.01
Spiked Amount 10.000			Recovery = 106.70%			
63) Toluene-d8	7.72	98	651419	11.22	PPB	0.00
Spiked Amount 10.000			Recovery = 112.20%			
85) 4-Bromofluorobenzene	10.54	95	245505	10.90	PPB	0.00
Spiked Amount 10.000			Recovery = 109.00%			
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.20	85	109385	7.44	PPB	99
3) Chloromethane	1.35	50	174779	9.13	PPB	98
4) Vinyl Chloride	1.43	62	168084	9.44	PPB	97
5) 1,3-Butadiene	1.45	54	119612	11.52	PPB	98
6) Bromomethane	1.69	96	108385	9.95	PPB	98
7) Chloroethane	1.77	64	101108	10.66	PPB	98
8) Dichlorofluoromethane	1.95	67	260662	10.53	PPB	98
9) Trichlorofluoromethane	1.95	101	167624	8.80	PPB	97
10) Ethyl Ether	2.21	59	96382	9.29	PPB	100
11) Acrolein	2.39	56	112587	59.08	PPB	95
12) Trichlorotrifluoroethane	2.39	151	99395	10.50	PPB	98
13) 1,1-Dichloroethene	2.42	96	125523	9.67	PPB	97
14) Acetone	2.54	43	98788	43.88	PPB	100
15) Iodomethane	2.58	142	448824	25.99	PPB	99
16) Carbon Disulfide	2.60	76	834584	17.79	PPB	100
17) 2-Propanol (Isopropyl Alco	2.66	45	201222	505.31	PPB	95
18) 3-Chloro-1-propene	2.79	76	225425	28.91	PPB	96
19) Methyl Acetate	2.83	43	120463	10.87	PPB	99
20) Acetonitrile	2.89	40	179010	299.67	PPB	96
21) Methylene Chloride	2.94	84	163819	9.07	PPB	98
22) tert-Butyl Alcohol	3.06	59	50948	98.00	PPB	98
23) Acrylonitrile	3.28	53	143312	38.84	PPB	98
24) Methyl tert-Butyl Ether	3.15	73	307508	9.30	PPB	98
25) trans-1,2-Dichloroethene	3.17	96	150979	9.79	PPB	97
26) Hexane	3.38	57	428625	33.57	PPB	100
27) Diisopropyl Ether	3.68	45	899336	20.26	PPB	98
28) 1,1-Dichloroethane	3.69	63	256271	9.91	PPB	99

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS18\DATA\092915\0929F005.D Vial: 5
Acq On : 29 Sep 2015 2:39 pm Operator: YX
Sample : ICV Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 29 15:13:11 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 14:59:26 2015
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29)	Vinyl Acetate	3.75	86	121842	60.90	PPB	#	92
30)	Chloroprene	3.75	53	623576	27.82	PPB		98
31)	tert-Butyl Ethyl Ether	4.11	59	764139	20.66	PPB		97
32)	2,2-Dichloropropane	4.35	77	156984	9.97	PPB		97
33)	cis-1,2-Dichloroethene	4.40	96	171007	9.69	PPB		98
34)	2-Butanone	4.47	72	47385	43.62	PPB	#	80
35)	Propionitrile	4.65	54	40016	30.18	PPB		98
36)	Ethyl Acetate	4.51	61	34377	22.19	PPB		96
37)	Methacrylonitrile	4.79	67	134581	29.02	PPB		93
38)	Bromochloromethane	4.72	128	71695	9.62	PPB		97
39)	Tetrahydrofuran	4.75	71	20249	19.76	PPB		89
40)	Chloroform	4.83	83	255492	9.94	PPB		99
41)	tert-Butyl Formate	4.86	59	62447	16.44	PPB		97
42)	1,1,1-Trichloroethane	4.99	97	177234	9.71	PPB		96
44)	Carbon Tetrachloride	5.16	117	142684	9.27	PPB		98
45)	1,1-Dichloropropene	5.22	75	197604	10.11	PPB		99
46)	Cyclohexane	4.95	56	253753	11.19	PPB		93
47)	Isobutyl Alcohol	5.63	43	185100	733.60	PPB		94
49)	Benzene	5.49	78	657661	9.40	PPB		98
50)	1,2-Dichloroethane	5.63	62	170274	9.56	PPB		97
51)	tert-Amyl Methyl Ether	5.63	55	237803	19.01	PPB		96
52)	Trichloroethene	6.31	95	151169	10.10	PPB		97
53)	1,2-Dichloropropane	6.65	63	154216	9.56	PPB		96
54)	Dibromomethane	6.78	93	75617	9.38	PPB		95
55)	Methyl methacrylate	6.80	69	220422	25.43	PPB		97
56)	1,4-Dioxane	6.81	88	34253	322.00	PPB		98
57)	Bromodichloromethane	6.98	83	165200	10.45	PPB		100
58)	2-Nitropropane	7.34	41	31388	22.13	PPB		93
59)	Methyl Cyclohexane	6.44	83	245362	11.53	PPB		98
60)	2-Chloroethyl Vinyl Ether	7.37	63	63971	8.27	PPB		96
61)	cis-1,3-Dichloropropene	7.49	75	214322	8.71	PPB		99
62)	4-Methyl-2-pentanone (MIBK	7.69	58	165121	45.84	PPB		98
64)	Toluene	7.79	92	427767	9.94	PPB		98
66)	n-Octane	7.87	85	125785	26.16	PPB		96
67)	trans-1,3-Dichloropropene	8.15	75	157890	8.50	PPB		98
68)	Ethyl methacrylate	8.21	69	459714	26.44	PPB		97
69)	1,1,2-Trichloroethane	8.34	83	106903	9.60	PPB		97
70)	Tetrachloroethene	8.35	164	124080	10.34	PPB		96
71)	2-Hexanone	8.61	57	47400	40.84	PPB	#	89
72)	1,3-Dichloropropane	8.52	76	229694	9.70	PPB		99
73)	Dibromochloromethane	8.72	129	109546	8.36	PPB		99

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS18\DATA\092915\0929F005.D Vial: 5
Acq On : 29 Sep 2015 2:39 pm Operator: YX
Sample : ICV Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 29 15:13:11 2015 Quant Results File: 092815MS18_8260

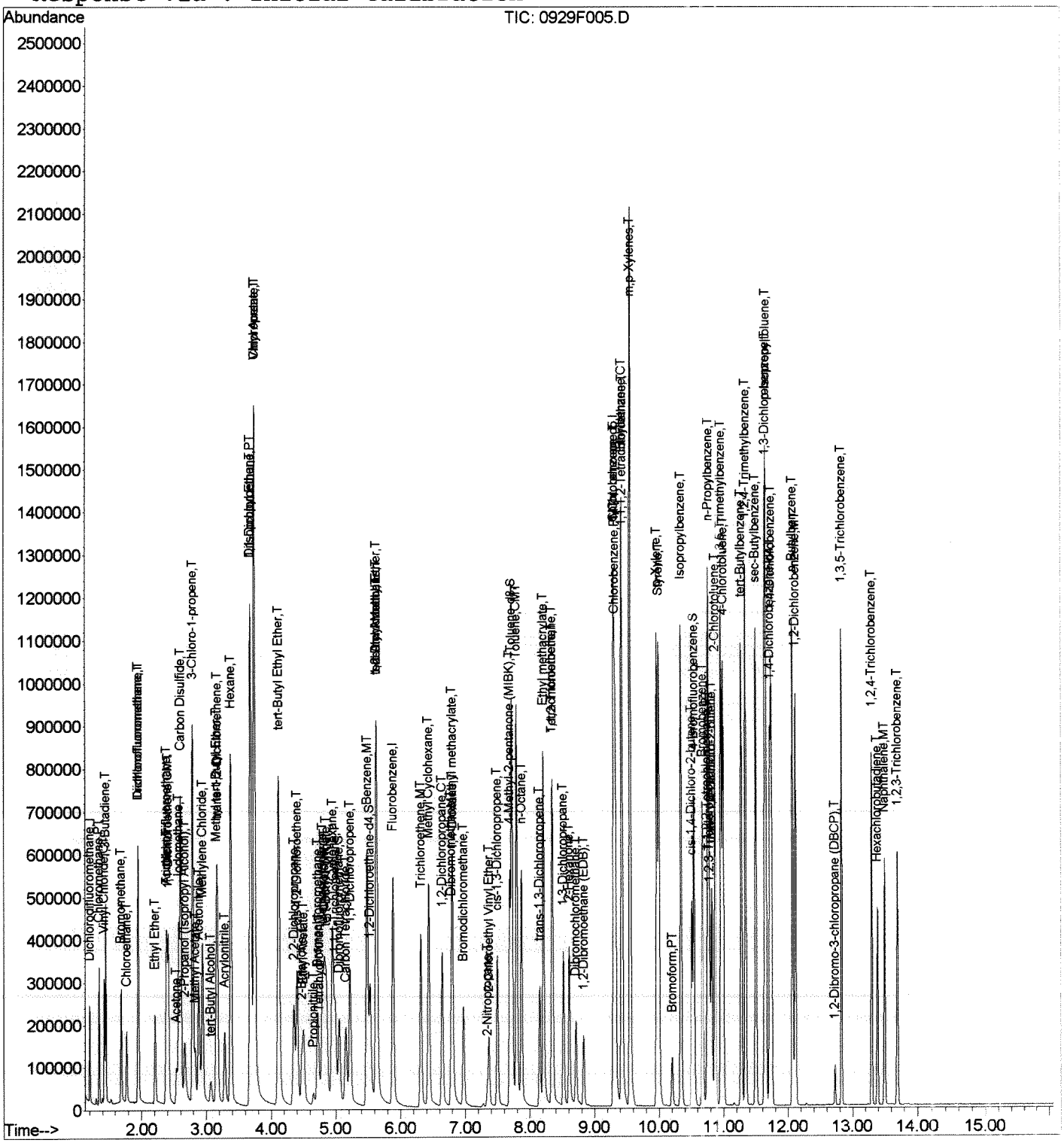
Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 14:59:26 2015
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
74)	1,2-Dibromoethane (EDB)	8.83	107	112848	9.38	PPB	98
75)	1-Chlorohexane	9.31	91	204532	10.78	PPB	96
76)	Chlorobenzene	9.32	112	491111	9.88	PPB	99
77)	Ethylbenzene	9.42	106	252231	10.42	PPB	97
78)	1,1,1,2-Tetrachloroethane	9.43	131	133790	8.65	PPB	99
79)	m,p-Xylenes	9.55	106	630388	21.09	PPB	98
80)	o-Xylene	9.96	106	311593	10.80	PPB	99
81)	Styrene	10.00	103	283423	11.94	PPB	99
82)	Bromoform	10.21	173	53212	8.20	PPB	91
83)	Isopropylbenzene	10.34	105	749368	10.81	PPB	99
84)	cis-1,4-Dichloro-2-butene	10.50	89	41132	25.61	PPB	99
87)	1,1,2,2-Tetrachloroethane	10.74	83	139138	9.35	PPB	98
88)	trans-1,4-Dichloro-2-buten	10.81	53	105207	29.53	PPB	92
89)	Bromobenzene	10.67	156	200069	10.04	PPB	99
90)	n-Propylbenzene	10.76	91	897795	10.84	PPB	97
91)	1,2,3-Trichloropropane	10.79	110	41163	9.04	PPB	92
92)	2-Chlorotoluene	10.87	91	555793	10.45	PPB	97
93)	1,3,5-Trimethylbenzene	10.96	105	637279	10.91	PPB	98
94)	4-Chlorotoluene	10.99	91	657917	10.65	PPB	100
95)	tert-Butylbenzene	11.27	119	532261	10.80	PPB	99
96)	1,2,4-Trimethylbenzene	11.34	105	668107	10.08	PPB	99
97)	sec-Butylbenzene	11.50	105	771671	11.05	PPB	100
98)	p-Isopropyltoluene	11.65	119	670606	10.00	PPB	98
99)	1,3-Dichlorobenzene	11.64	146	389522	10.22	PPB	99
100)	1,4-Dichlorobenzene	11.74	146	401990	9.97	PPB	99
101)	n-Butylbenzene	12.07	91	558853	9.72	PPB	98
102)	1,2-Dichlorobenzene	12.11	146	367423	10.21	PPB	98
103)	1,2-Dibromo-3-chloropropan	12.73	155	13088	9.10	PPB	97
104)	1,3,5-Trichlorobenzene	12.83	180	249305	10.40	PPB	98
105)	1,2,4-Trichlorobenzene	13.29	180	211002	10.11	PPB	100
106)	Hexachlorobutadiene	13.39	225	79865	10.17	PPB	98
107)	Naphthalene	13.50	128	386586	8.08	PPB	99
108)	1,2,3-Trichlorobenzene	13.69	180	168462	9.85	PPB	100

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS18\DATA\092915\0929F005.D Vial: 5
Acq On : 29 Sep 2015 2:39 pm Operator: YX
Sample : ICV Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 29 15:13 2015 Quant Results File: 092815MS18_8

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data File : J:\MS18\DATA\092915\0929F006.D Vial: 6
Acq On : 29 Sep 2015 3:24 pm Operator: YX
Sample : ICV Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 30 08:54:15 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration
DataAcq Meth : 8260

VTSO 9/30/15

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Fluorobenzene	5.88	96	587583	10.00	PPB	0.00
65) Chlorobenzene-d5	9.30	82	236692	10.00	PPB	0.00
86) 1,4-Dichlorobenzene-d4	11.71	152	229004	10.00	PPB	0.00
System Monitoring Compounds						
43) Dibromofluoromethane	5.06	113	137877	10.46	PPB	-0.01
Spiked Amount 10.000			Recovery	=	104.60%	
48) 1,2-Dichloroethane-d4	5.53	65	146312	10.11	PPB	-0.01
Spiked Amount 10.000			Recovery	=	101.10%	
63) Toluene-d8	7.72	98	622404	10.50	PPB	0.00
Spiked Amount 10.000			Recovery	=	105.00%	
85) 4-Bromofluorobenzene	10.54	95	232127	10.18	PPB	0.00
Spiked Amount 10.000			Recovery	=	101.80%	
Target Compounds						Qvalue
2) Dichlorodifluoromethane	1.21	85	150905	10.05	PPB	98
3) Chloromethane	1.35	50	193569	9.91	PPB	98
4) Vinyl Chloride	1.43	62	198296	10.91	PPB	97
5) 1,3-Butadiene	1.45	54	137273	12.96	PPB	99
6) Bromomethane	1.69	96	107299	9.65	PPB	99
7) Chloroethane	1.77	64	110431	11.41	PPB	97
8) Dichlorofluoromethane	1.95	67	266223	10.54	PPB	98
9) Trichlorofluoromethane	1.95	101	193347	9.95	PPB	99
10) Ethyl Ether	2.21	59	102293	9.67	PPB	98
11) Acrolein	2.39	56	113341	58.28	PPB	98
12) Trichlorotrifluoroethane	2.39	151	116430	11.97	PPB	99
13) 1,1-Dichloroethene	2.42	96	142460	10.76	PPB	94
14) Acetone	2.54	43	104448	45.46	PPB	98
15) Iodomethane	2.58	142	488992	27.75	PPB	100
16) Carbon Disulfide	2.61	76	966991	20.19	PPB	100
17) 2-Propanol (Isopropyl Alco	2.67	45	194671	479.04	PPB	98
18) 3-Chloro-1-propene	2.79	76	231929	29.15	PPB	95
19) Methyl Acetate	2.83	43	124769	11.03	PPB	97
20) Acetonitrile	2.89	40	181699	298.06	PPB	95
21) Methylene Chloride	2.94	84	176370	9.57	PPB	98
22) tert-Butyl Alcohol	3.07	59	49035	92.42	PPB	92
23) Acrylonitrile	3.28	53	143516	38.11	PPB	98
24) Methyl tert-Butyl Ether	3.16	73	323738	9.59	PPB	99
25) trans-1,2-Dichloroethene	3.17	96	167996	10.67	PPB	98
26) Hexane	3.38	57	453744	34.82	PPB	99
27) Diisopropyl Ether	3.68	45	918737	20.28	PPB	99
28) 1,1-Dichloroethane	3.69	63	302014	11.44	PPB	97

(#) = qualifier out of range (m) = manual integration
0929F006.D 092815MS18_8260.M Wed Sep 30 09:00:40 2015 Page 1

Data File : J:\MS18\DATA\092915\0929F006.D Vial: 6
Acq On : 29 Sep 2015 3:24 pm Operator: YX
Sample : ICV Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 30 08:54:15 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration
DataAcq Meth : 8260

	Compound	R.T.	QIon	Response	Conc	Unit		Qvalue
29)	Vinyl Acetate	3.75	86	126666	56.03	PPB	#	85
30)	Chloroprene	3.75	53	653480	28.57	PPB		98
31)	tert-Butyl Ethyl Ether	4.12	59	788564	20.90	PPB		99
32)	2,2-Dichloropropane	4.35	77	179650	11.14	PPB		96
33)	cis-1,2-Dichloroethene	4.41	96	186267	10.34	PPB		98
34)	2-Butanone	4.47	72	49833	44.95	PPB		92
35)	Propionitrile	4.66	54	39224	28.99	PPB		95
36)	Ethyl Acetate	4.51	61	38159	24.13	PPB		95
37)	Methacrylonitrile	4.79	67	137177	28.99	PPB		92
38)	Bromochloromethane	4.72	128	79758	10.48	PPB		98
39)	Tetrahydrofuran	4.75	71	20305	19.41	PPB		89
40)	Chloroform	4.83	83	276485	10.54	PPB		99
41)	tert-Butyl Formate	4.86	59	62476	15.65	PPB		99
42)	1,1,1-Trichloroethane	4.99	97	204873	10.99	PPB		95
44)	Carbon Tetrachloride	5.16	117	166237	10.56	PPB		98
45)	1,1-Dichloropropene	5.22	75	225679	11.36	PPB		99
46)	Cyclohexane	4.95	56	266114	11.50	PPB		96
47)	Isobutyl Alcohol	5.63	43	180542	701.17	PPB		95
49)	Benzene	5.49	78	734145	10.28	PPB		98
50)	1,2-Dichloroethane	5.63	62	182496	10.04	PPB		97
51)	tert-Amyl Methyl Ether	5.63	55	239666	18.77	PPB		95
52)	Trichloroethene	6.31	95	166338	10.89	PPB		98
53)	1,2-Dichloropropane	6.64	63	168042	10.21	PPB		98
54)	Dibromomethane	6.78	93	82734	10.05	PPB		97
55)	Methyl methacrylate	6.80	69	225989	25.54	PPB		97
56)	1,4-Dioxane	6.81	88	33493	308.53	PPB		85
57)	Bromodichloromethane	6.97	83	175397	10.88	PPB		99
58)	2-Nitropropane	7.34	41	32641	25.56	PPB		99
59)	Methyl Cyclohexane	6.44	83	257879	11.87	PPB		97
60)	2-Chloroethyl Vinyl Ether	7.37	63	70188	8.89	PPB		97
61)	cis-1,3-Dichloropropene	7.49	75	228409	9.10	PPB		97
62)	4-Methyl-2-pentanone (MIBK	7.69	58	174894	47.57	PPB		99
64)	Toluene	7.79	92	471898	10.75	PPB		99
66)	n-Octane	7.87	85	123676	25.24	PPB		96
67)	trans-1,3-Dichloropropene	8.15	75	171838	9.14	PPB		99
68)	Ethyl methacrylate	8.21	69	466379	26.50	PPB		98
69)	1,1,2-Trichloroethane	8.34	83	114036	10.12	PPB		97
70)	Tetrachloroethene	8.35	164	141590	11.66	PPB		97
71)	2-Hexanone	8.61	57	49211	41.90	PPB	#	87
72)	1,3-Dichloropropane	8.52	76	244113	10.18	PPB		97
73)	Dibromochloromethane	8.71	129	117833	8.88	PPB		100

(#) = qualifier out of range (m) = manual integration

Data File : J:\MS18\DATA\092915\0929F006.D Vial: 6
Acq On : 29 Sep 2015 3:24 pm Operator: YX
Sample : ICV Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 30 08:54:15 2015 Quant Results File: 092815MS18_8260

Quant Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration
DataAcq Meth : 8260

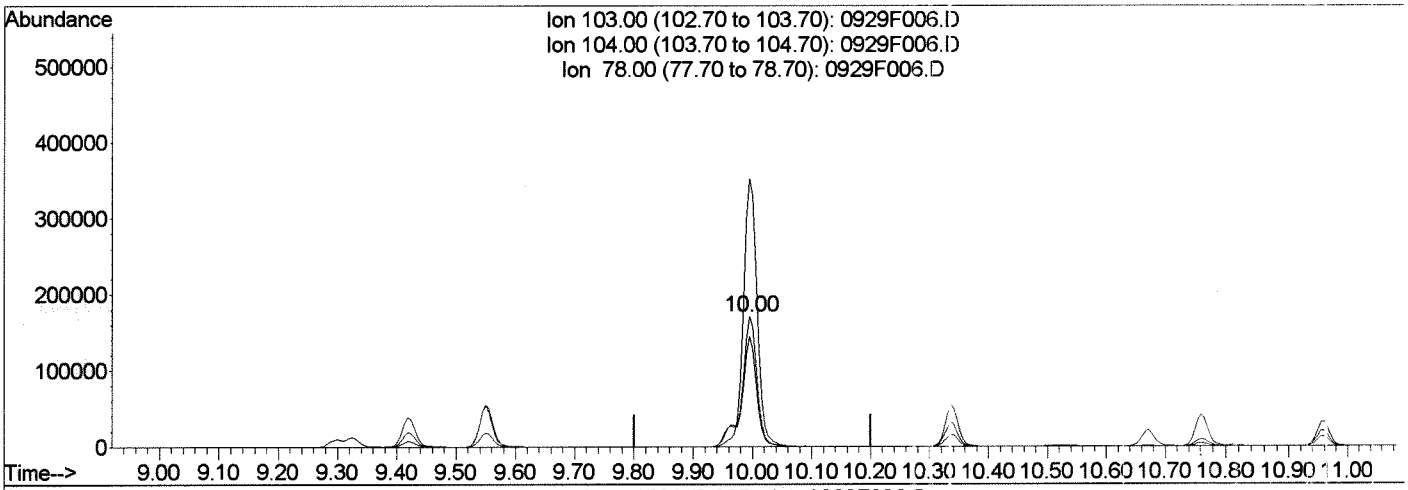
	Compound	R.T.	QIon	Response	Conc	Unit	Qvalue
74)	1,2-Dibromoethane (EDB)	8.83	107	122622	10.07	PPB	98
75)	1-Chlorohexane	9.31	91	231034	11.34	PPB	95
76)	Chlorobenzene	9.32	112	527354	10.49	PPB	98
77)	Ethylbenzene	9.42	106	283448	11.57	PPB	96
78)	1,1,1,2-Tetrachloroethane	9.43	131	144059	9.20	PPB	96
79)	m,p-Xylenes	9.55	106	695291	22.98	PPB	99
80)	o-Xylene	9.96	106	340150	11.65	PPB	96
81)	Styrene	10.00	103	262749m	10.94	PPB	
82)	Bromoform	10.20	173	57037	9.54	PPB	98
83)	Isopropylbenzene	10.34	105	836176	11.92	PPB	99
84)	cis-1,4-Dichloro-2-butene	10.50	89	42994	26.41	PPB	98
87)	1,1,2,2-Tetrachloroethane	10.74	83	147729	9.88	PPB	97
88)	trans-1,4-Dichloro-2-buten	10.81	53	101838	28.44	PPB	92
89)	Bromobenzene	10.67	156	213112	10.64	PPB	99
90)	n-Propylbenzene	10.76	91	1001310	11.89	PPB	99
91)	1,2,3-Trichloropropane	10.79	110	43422	9.48	PPB	91
92)	2-Chlorotoluene	10.87	91	603472	11.29	PPB	98
93)	1,3,5-Trimethylbenzene	10.96	105	698129	11.89	PPB	100
94)	4-Chlorotoluene	10.99	91	710561	11.45	PPB	99
95)	tert-Butylbenzene	11.27	119	598232	11.70	PPB	99
96)	1,2,4-Trimethylbenzene	11.34	105	727689	10.92	PPB	99
97)	sec-Butylbenzene	11.49	105	867187	11.12	PPB	99
98)	p-Isopropyltoluene	11.65	119	736301	10.92	PPB	99
99)	1,3-Dichlorobenzene	11.64	146	418726	10.92	PPB	98
100)	1,4-Dichlorobenzene	11.74	146	427165	10.54	PPB	99
101)	n-Butylbenzene	12.07	91	627876	10.86	PPB	99
102)	1,2-Dichlorobenzene	12.11	146	389667	10.77	PPB	98
103)	1,2-Dibromo-3-chloropropan	12.73	155	13933	9.60	PPB	94
104)	1,3,5-Trichlorobenzene	12.83	180	265949	11.04	PPB	97
105)	1,2,4-Trichlorobenzene	13.29	180	225491	10.75	PPB	99
106)	Hexachlorobutadiene	13.38	225	88606	11.23	PPB	99
107)	Naphthalene	13.49	128	415428	8.64	PPB	99
108)	1,2,3-Trichlorobenzene	13.69	180	178544	10.39	PPB	98

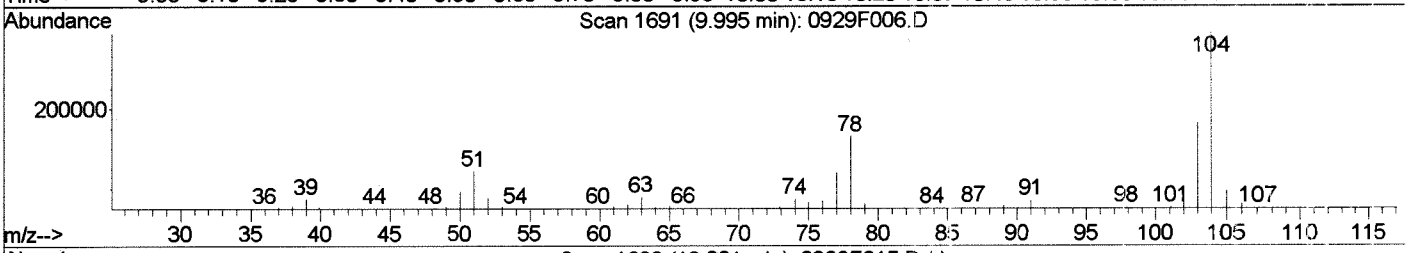
(#) = qualifier out of range (m) = manual integration

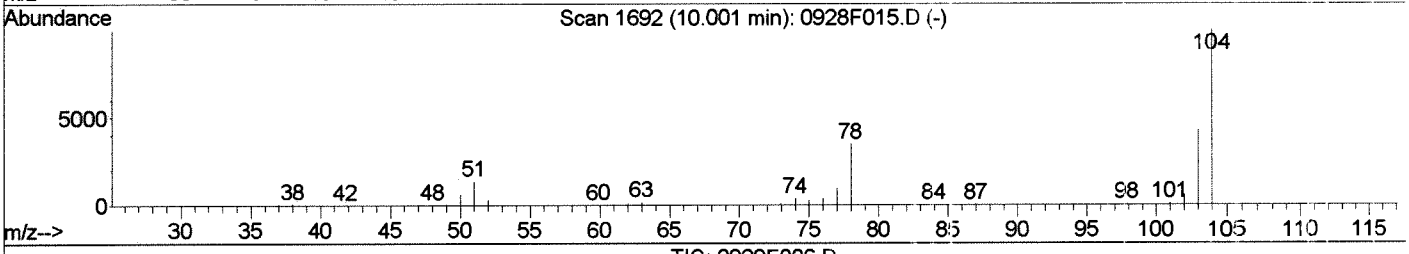
Quantitation Report (Qedit)

Data File : J:\MS18\DATA\092915\0929F006.D Vial: 6
Acq On : 29 Sep 2015 3:24 pm Operator: YX
Sample : ICV Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 30 8:54 2015 Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Single Level Calibration







TIC: 0929F006.D

(81) Styrene (T)

10.00min 12.69PPB

response 304809

Ion	Exp%	Act%
103.00	100	100
104.00	211.40	206.10
78.00	83.70	84.66
0.00	0.00	0.00

Manual Integration:

Before

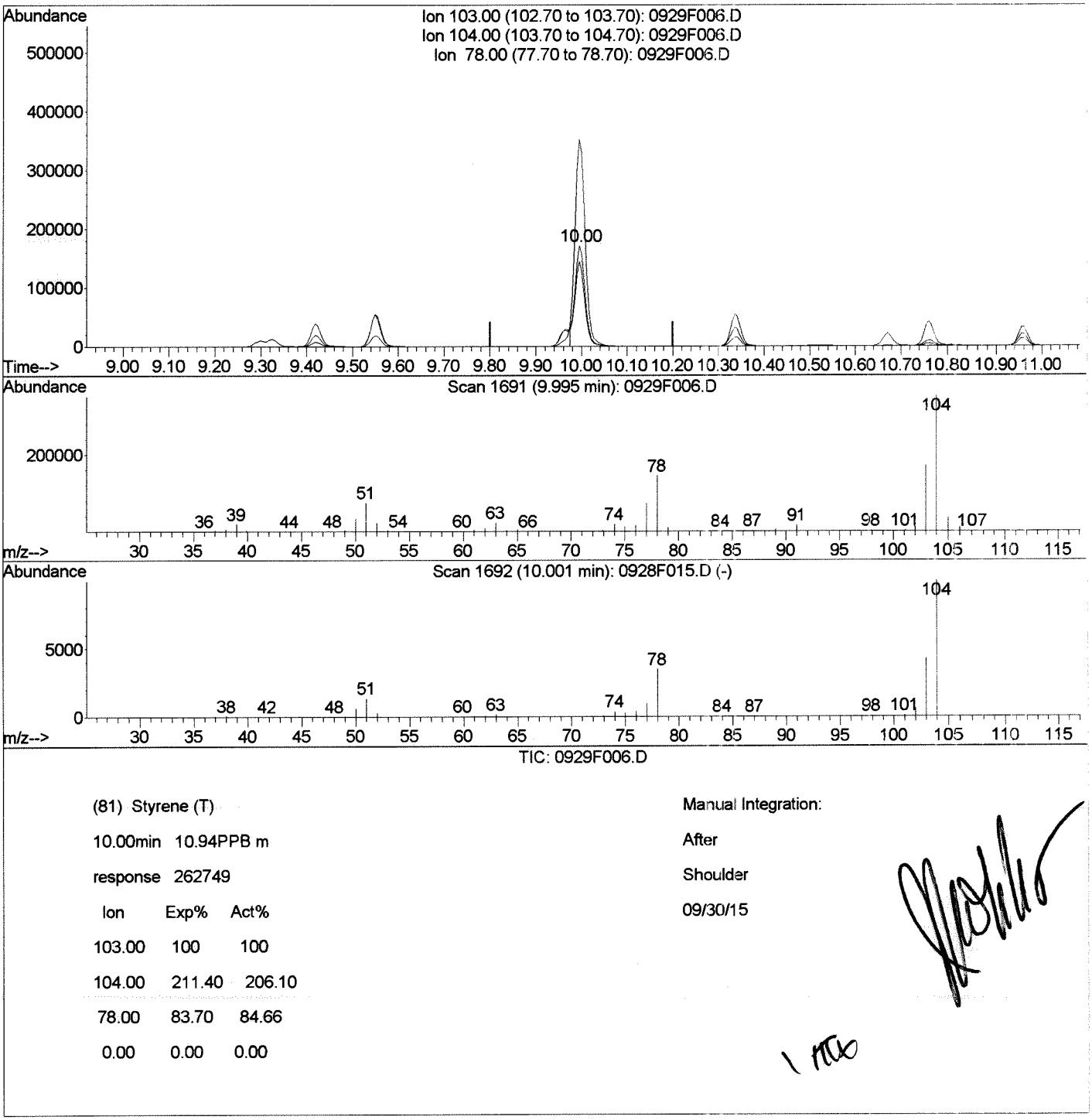
09/30/15

0929F006.D 092815MS18_8260.M Wed Sep 30 08:54:24 2015

Quantitation Report (Qedit)

Data File : J:\MS18\DATA\092915\0929F006.D Vial: 6
Acq On : 29 Sep 2015 3:24 pm Operator: YX
Sample : ICV Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 30 8:54 2015 Quant Results File: temp.res

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Single Level Calibration



TIC: 0929F006.D

(81) Styrene (T)

10.00min 10.94PPB m

response 262749

Ion	Exp%	Act%
103.00	100	100
104.00	211.40	206.10
78.00	83.70	84.66
0.00	0.00	0.00

Manual Integration:

After

Shoulder

09/30/15

0929F006.D 092815MS18_8260.M Wed Sep 30 08:54:31 2015

Data File : J:\MS18\DATA\092915\0929F006.D Vial: 6
Acq On : 29 Sep 2015 3:24 pm Operator: YX
Sample : ICV Inst : GC-MS 18
Misc : Multiplr: 1.00
MS Integration Params: rteint.p
Quant Time: Sep 30 8:54 2015 Quant Results File: 092815MS18_8

Method : J:\MS18\METHODS\092815MS18_8260.M (RTE Integrator)
Title : VOA MS18 EPA Method 8260B
Last Update : Tue Sep 29 19:08:38 2015
Response via : Initial Calibration